Cultures at a Crossroads

An Administrative History of Pipe Spring National Monument

Kathleen L. McKoy



NO. 15 2000 CULTURAL RESOURCES SELECTIONS
Intermountain Region
National Park Service



Cultures at a Crossroads

An Administrative History of Pipe Spring National Monument

Kathleen L. McKoy

U.S. Department of the Interior National Park Service Intermountain Region Denver, Colorado 2000

Foreword

As part of the National Park Service mission to protect and interpret its resources, it is important to make valuable, historical information readily available. Therefore, I am pleased to present this volume in our occasional series of publications on the Intermountain Region's past.

This study, prepared by National Park Service Historian Kathleen L. McKoy, provides a comprehensive history of Pipe Spring National Monument's administration, from its creation in 1923 to 1990. It is concerned with the people and events that played a role in the establishment of the monument as well as its subsequent administration. The study will aid both current and future monument managers in protecting the monument and interpreting it to the public.

Karen P. Wade Regional Director

Kan G. Wade

Intermountain Region

Mission: As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under the U.S. Administration.

NPS-D-18.

Preface

Purpose

This administrative history is primarily intended to provide monument managers with a better understanding of the complex issues underlying both the creation and subsequent administration of Pipe Spring National Monument. The study will also provide support staff working in the areas of resource management, interpretation, and maintenance with useful and accurate information to assist them in understanding how past events and decisions have impacted their areas of responsibility. The assumption underlying all administrative histories of National Park Service units is that through examining the problems their predecessors faced and the courses they followed, officials at all levels can be better informed about current issues and thus bring greater awareness to future management decisions.

The need for this study was identified in mid-November 1994 during an on-site meeting between members of the Rocky Mountain Region's cultural resources management team, led by Historical Architect Rodd Wheaton, and staff of Pipe Spring National Monument and Zion National Park. Superintendent John W. Hiscock had supervised the monument for only six months when the team responded to his request for technical assistance. Hiscock asked those assembled at this meeting to consider the question, what were the monument's most pressing cultural resource management needs and what would it take to address those needs? An ethnographic study of Zion National Park and Pipe Spring National Monument was already in progress. It was agreed at the time that, after a resource management plan, the next two most critical studies needed were a cultural landscape assessment and an administrative history. It was acknowledged that oral histories were also an important "mother lode" of information that had only partly been mined by past monument historians and few of those interviews had ever been transcribed.

Format and Organization

In researching and writing this study, I endeavored to gather and present information that would not only fulfill the requirements of an administrative history but that would also be useful to the monument in future studies, particularly those identified at the 1994 meeting. For example, this history documents the monument's efforts over the years to create a historic house museum, which may be useful to a future historic furnishings report; a chronology of past restoration and rehabilitation work on the monument's historic buildings will be equally essential to a historic structures report. (The drawback to such an approach, of course, is that in trying to create such an "all-purpose" document, far more detail is included than the average reader cares to wade through!) In the same vein, a coordinated approach was taken by monument management both in the timing and requests for funding and in the undertaking of a number of needed studies, contemporaneous with the administrative history project. All of the monument's documents were searched and assessed for pertinence; those

determined of historical value were organized and archived. Thirteen oral history interviews (conducted by monument staff between 1973 and 1989) were transcribed in 1996; another 14 interviews were conducted in 1996 and 1997, eight of which were with members of the Kaibab Paiute Tribe. All of these interviews provided much useful information. Moreover, data collected in 1997 to inventory and evaluate the monument's cultural landscape was also used and expanded on in the administrative history. This "layering" of projects was highly effective, both from a standpoint of funding and in increasing the amount of historical data which could be gathered.

While there was initial discussion about writing the monument's history using a thematic framework (having separate issue chapters on interpretation, tribal relations, and water matters, for example), it soon became apparent that a chronological format was a more appropriate and useful way to tell the Pipe Spring story. This is primarily due to the continually overlapping nature and complexity of monument issues. Beginning with Part IV, each chapter has an introductory section; most provide a historical context for the time period along with descriptions of changes in officials from the Washington, D.C., to the local levels. Most introductions offer a quick "snap shot" of the years covered in the chapter, highlighting the most significant events.

No existing historical or ethnographic studies adequately provided a background for the types of research questions being asked in this study. While a small number of articles and booklets have been published about Pipe Spring's early history, my research revealed that a significant amount of error and contradiction existed in these secondary sources. Realizing that some of what I presented in Part I would not be in keeping with some other histories in use at the monument, I took great care to endnote source material. Not all questions about the site's early history have been definitively settled. Additional research into 19th century documents may yield more answers, but was far outside the scope of this administrative history.

One thing became apparent as soon as I delved deeply into the history of the monument, and that is that one could not comprehend its history or appreciate the complexity of controversial matters – particularly about water - without at least a general understanding of the history of the two neighboring communities: the Kaibab Indian Reservation and the Mormon settlement of Moccasin. While it was beyond the scope of this study to chronicle a complete history of either of those communities, references to them continually surfaced in monument documents, some of which is included in this history. Part I contains background information about the Kaibab Indian Reservation and Moccasin to facilitate the reader's understanding of later events. This study provides only scattered references, however, to economic and social conditions among these communities after the Great Depression. As those communities research and compile their own histories, the Pipe Spring story can only grow richer.

The history of the monument's establishment is prefaced with a description of its setting and with historical and ethnographical background on the Arizona Strip. From that point

onward, the history is written predominantly in chronological fashion through World War II. Beginning with the chapter on the Cold War (Part VIII) the chronological style is continued, but section headings tend to assume a more predictable format, allowing the reader to target specific information from one chapter to the next with relative ease. This style of organization, along with the index and an electronic version of this document, will enable monument staff to quickly computer-search subject areas and generate comprehensive reports on various sub-topics of the monument's history.

Sources

Research for this administrative history relied heavily on primary federal government documents from the National Archives and Records Administration (NARA), especially Records of the National Park Service, Record Group 79. Documents were also located in the NARA's Records of the Office of the Secretary of the Interior, Record Group 48, and from Records of the Bureau of Indian Affairs (BIA), Record Group 75. Documentation on the Division of Grazing's Civilian Conservation Corps (CCC) Camp DG-44 was primarily obtained from NARA's Records of the CCC, Record Group 35, and from monument archives. Other Park Service records and official correspondence were obtained primarily from the archives and administrative files of Pipe Spring National Monument and Zion National Park.

In addition to these sources, documents critical to the understanding of the history of the Kaibab Indian Reservation and its relations to the monument came from one regional office and two field stations of the BIA, listed below. Most documents related to the history of the Union Pacific's tours of and development in southern Utah and northern Arizona parks came from the Union Pacific Museum's archives in Omaha, Nebraska. Oral histories were also an important source of information. Oral history interviews were conducted with former superintendents (both of Pipe Spring and Zion), former interpreters and other monument staff, local cattlemen, Kaibab Paiute, and others. Maps, plans, and construction drawings were particularly helpful in reconstructing the history of monument developments and changes to the landscape (see Appendix XII for a list of these documents). Historical photographs were also useful in that regard.

The following is a comprehensive list by state of archives and libraries visited by either Historian Mary S. Culpin and/or myself in the course of research:

Arizona: Bureau of Indian Affairs, Western Regional Office, Branch of Real Estate Services and Branch of Land and Water Resources (Water Rights Protection Section), Phoenix; Hayden Library, Archives and Manuscripts, Arizona State University, Tempe; Northern Arizona University, Cline Library, Special Collections and Archives Department, Flagstaff; Museum of Northern Arizona, Flagstaff; Pipe Spring National Monument archives and administrative files, Fredonia

California: Bancroft Library, Manuscript Collections, University of California, Berkeley; National Archives and Records Administration, San Bruno and Laguna Nigel

Colorado: National Archives and Records Administration, Lakewood; National Park Service, Water Resources Division files, Ft. Collins; National Park Service, Intermountain Region, Denver Support Office, administrative files; National Park Service, Denver Service Center, Technical Information Center and Library; Denver Public Library, Western History Collection

Maryland: National Archives and Records Administration, College Park

Nebraska: Union Pacific Museum, Omaha

New Mexico: National Park Service, Intermountain Region, Santa Fe Support Office, library, Santa Fe

Utah: Harold B. Lee Library, Special Collections, Brigham Young University, Provo; Church of Jesus Christ of Latter-day Saints, Church Library and Archives, Salt Lake City; Zion National Park archives and administrative files, Springdale; Bureau of Indian Affairs, Southern Paiute Field Station, St. George and Uintah and Ouray Field Station, Ft. Duschene

Washington, D.C.: National Archives and Records Administration

The following is a list of the most important series of official reports utilized during the course of research:

Annual Reports (Pipe Spring National Monument and Zion National Park)

Annual Statements for Interpretation and Visitor Services (Pipe Spring National Monument)

Custodian's/Park Manager's/Superintendent's Monthly Reports (Pipe Spring National Monument)

Camp Inspection Reports for Pipe Spring National Monument (Emergency Conservation Work/Civilian Conservation Corps)

Field Reports for Pipe Spring National Monument (Branch of Plans and Design)

Historian's Monthly Reports (Pipe Spring National Monument)

Inspection Reports (Pipe Spring National Monument)

"Notes of C. Leonard Heaton on Pipe Springs National Monument" (Heaton Journal)

Log of Significant Events (Pipe Spring National Monument)

Log of Significant Events and Important Contacts (Zion National Park)

Monthly Reports to Chief Architect (Branch of Plans and Design)

Monthly Reports to Chief of Planning (Regional Landscape Architect)

Project Completion Reports (Pipe Spring National Monument)

Reports of the Secretary of the Interior

Reports of the Director of the National Park Service

Reports of Park Engineer on Civil Works Projects

Southwestern Monuments Monthly Reports

Staff Meeting Minutes (Zion National Park)

Superintendent's Monthly Reports (Zion National Park)

The Heaton Journal, referenced above, is a particularly valuable document. Leonard Heaton, the monument's custodian from 1926-1963, kept a daily journal at the monument, faithfully recording much of what took place during those years (this was in addition to his monthly reports to superiors). While the Heaton family retains the original handwritten journal, the monument has a typed transcription, made some years later. The latter contains numerous typographic and factual errors, however, and required considerable analysis and comparison with other documents to correct. It would be very useful to the monument to have a photocopy of the original.

Citations and Research Collection

As a point of clarification, early monthly reports were dated in endnotes according to when they were written (for example, a report for August might be dated September 5, when it was prepared). In later years, the date of preparation is unknown and reports are cited for the month they were written about ("monthly report, April 1964"). Over the years titles and positions of officials often changed. In the narrative, I referred to each official by the title that was current for the period I was writing about. It is customary in official government correspondence for memorandums to use titles only, rather than names. Whenever I could determine the name of an official, I used it in the endnote in lieu of title. In a few instances, it was not possible to locate the name of the official, in which case only the title was used. Finally, whenever I provided information that came from a secondary source, I referenced the primary document in the endnote, but did not list it in the bibliography, where only the secondary source it came from was listed. With few exceptions then, the bibliography contains only those documents that I had direct access to.

With the exception of books and works cited by other authors, copies of all documents reviewed and analyzed during the course of this study now form an administrative history research collection, which will become part of the monument's permanent archives. The exact location where each document was found is referenced in pencil on the individual copy of the document. This information is not included in endnotes for several reasons. First, most of the documents obtained from the monument's archives were in process of being re-archived when copies were made for this study. In many cases, the file and location codes later changed and it was not possible for researchers to re-identify the thousands of pages of data copied and hand-labeled. Second, adding locational information to endnotes would have increased the length of these notes significantly. Third, most people who have additional questions about a document will most likely seek out the document copy in the monument's administrative history research collection, not go directly to the original archives or library. Finally, the locational information *does* exist on the copied document, should the reader still require it.

Within the administrative history research collection, documents from Park Service records have been filed chronologically; documents from other agencies or repositories (such as the BIA or Union Pacific) are also filed chronologically but separately, with other

documents from that location. Particularly lengthy or significant reports - deemed critical to the monument's administrative history - were filed in individually-labeled files and kept together to facilitate future reference. This overall organization should facilitate future use of the documents.

Acknowledgments

When the Pipe Spring National Monument administrative history project began in 1995, two Park Service historians were assigned to research and co-author the monument's history, Regional Historian Mary S. Culpin and myself. Culpin was by far the more senior historian and is acknowledged Service-wide as an authority on the history of water rights in national parks. Her expertise was important as the monument sought to document and gain perspective on resource issues at Pipe Spring. Culpin was instrumental in defining the scope of the project, successfully lobbied for initial funding, and actively participated in gathering primary research materials during 1995 and 1996. Her pending resignation from the Park Service, however, forced her to withdraw from active participation in the project in 1997. She continued to serve in an advisory capacity through the preparation of the history's first draft in late 1998 and provided much constructive comment.

During the research phase of the project, staff at all the archives and libraries visited were very helpful. In particular, I want to thank the following people: Vicki Black Webster, Southeast Utah Group, who assisted Culpin's and my work with the monument's archival collection even as she was busily reorganizing it; Pierre M. Cantou, Bureau of Indian Affairs (BIA) in Phoenix, who graciously allowed access to BIA records in the midst of an office move; and Rosemary Sucec, for locating and copying Pipe Spring documentation in BIA offices in St. George and Ft. Duschene, Utah. The following people also offered assistance with archival collections: Karen Underhill at Northern Arizona University's Cline Library; Pat Etter at Arizona State University's Hayden Library; Tony Marinella at the Museum of Northern Arizona; Pat Fesler and Steve Floray at Zion National Park; and Don Snoddy at the Union Pacific Museum.

Other Park Service staff who reviewed and commented on the draft manuscript were Chief Chuck Pettee, Water Rights Branch, Water Resources Division, and Bureau Historian Barry Mackintosh, National Center for the Cultural Resource Stewardship Partnership Programs. Aside from the author, only one other person was required to read and reread multiple copies of the draft, and that was the monument's Chief of Interpretation and Resource Management Andrea Bornemeier. In addition to providing constructive comments and corrections, she tirelessly searched out answers to questions that lingered after I had exhausted all other sources. In many of these efforts she had the support of other monument staff and I wish to express my appreciation to them as well.

In addition to internal review, a manuscript draft was submitted to two other historians: Dr. Reba Wells Grandrud, Acting Director of the Arizona Historical Society, Central Arizona Division, and Utah historian Charles S. Peterson. Both provided very helpful comments to the author and in a number of instances raised provocative questions worthy of future research. I also thank Tribal Administrator Angelita Bulletts, Civilian

Conservation Corps veteran Jack Harden, and former Park Historian Jim McKown for reviewing portions of the manuscript. I am particularly indebted to Martie Succe for her careful editing as well as to Lori Kinser for expertly formatting the manuscript and preparing it for publication.

A number of former employees and people living in communities near Pipe Spring National Monument contributed to this report through their willingness to be interviewed. For their interviews, I am grateful to the following people: former Zion National Park Superintendents Warren F. Hamilton and Robert C. Heyder, former Pipe Spring National Monument Superintendents Bernard G. Tracy and William M. Herr, former monument employees Melvin Heaton, Nora Heaton, Adeline Johnson, Leonard P. Heaton, Grant Heaton, Jack L. Harden, Park Guide Debra Judd, and two now-retired Park Service officials, Architect A. Norman Harp and Civil Engineer William E. Fields. For taking the lead in joint interviews with members of the Kaibab Paiute Tribe I want to thank Dr. David E. Ruppert, Park Service ethnographer. I am also thankful to the following members of the Kaibab Paiute Tribe for sharing their stories: Gloria Bulletts-Benson, Carlos Bulletts, Fred Drye, Vivienne Jake, Warren Mayo, Dolores and Gevene Savala, Lita Segmiller, Ila Bulletts, Angelita Bulletts, and Amelia Segundo.

During the course of time it took to complete research and write the administrative history, I worked under the supervision of three men: former Team Coordinator Robert L. Moon, former Acting Program Manager Richard J. Cronenberger, and current Program Manager William P. O'Brien. Without Moon's initial sanction and support in 1996 to work at home part-time on the project, followed by Cronenberger and O'Brien's subsequent support for the arrangement, it would not have been possible for me to devote the kind of concentrated attention the project required. For their support and for my co-workers' genial acceptance of the arrangement, I am very appreciative.

Finally, I am indebted to Superintendent John W. Hiscock for doing whatever was needed to ensure the success and completion of this study. In addition to making sure all the necessary funds were available to see the project through to completion, he fostered an environment at the monument that made working with him and his staff a continual pleasure. His meticulous review of the draft manuscript and searching questions reveal his training in law and history, at times spurring me to dig yet another layer deeper into the complexities of Pipe Spring's history. Of paramount importance to him was that the history be balanced and objective in its consideration and interpretation of historic events. To the extent to which I have achieved such a perspective, I owe much to those people cited above; to the extent that any lapse may have occurred, I take full responsibility.

Table of Contents

FOREWORD	iii
PREFACE	v
ACKNOWLEDGEMENTS	xi
TABLE OF CONTENTS	xiii
LIST OF ILLUSTRATIONS	xix
INTRODUCTION	1
Location and Environment Utah and the Arizona Strip, Ethnographic and Historical Background Native American Occupation, pre-1776 Spanish and Euroamerican Exploration and Contact The Coming of the Saints and the Call to Dixie The Honeymoon Trail The Impact of Latter-day Saint Colonization on the Southern Paiute Pipe Spring and Its Ownership, 1863-1909 Moccasin Ranch and Spring The Federal Government's Response: Creation of the Kaibab Indian Reservation The Pipe Spring "Compromise"	9 10 11 19 25 46 51 51 51 74 76 74
II. THE CREATON OF PIPE SPRING NATIONAL MONUMENT Introduction The Impact of Auto Touring on Utah's Southern Parks and the Arizona Stri Mather Visits Pipe Spring "If You Build It They Will Come" - The Challenge of Roads Less Traveled The Role of Union Pacific in the Parks' Transportation Network The Railroad Comes to Cedar City The Establishment of Pipe Spring National Monument Reasons for the Establishment of Pipe Spring National Monument Bryce Canyon Declared a National Monument	85 p86 91 95 100 104

	"Shall We Go This way, or That Way?" - Officials Decide Best Route for	
	Tourists	119
	A Deal Is Struck at Pipe Spring	123
	The Heatons Have Second Thoughts	126
	Pipe Spring's Purchase and Belated Transfer to the Federal Government	138
	Area Developments, Late 1924	
	-	
III.	THE MONUMENT'S FIRST TEN YEARS	
	Area Developments	147
	Presenting Pipe Spring National Monument	152
	The "Boss" Directs First Improvements	153
	East Cabin Repairs; A New Caretaker Is Hired	154
	Repairs to the Interior of Pipe Spring Fort	159
	Repairs to the Fort Exterior and West Cabin	164
	So Much To Do, So Little Help	166
	The Heatons' Store, Gas Station, and Lunch Stand	169
	Pipe Spring as a Gathering Place	
	The Greening of Pipe Spring	172
	"A New HighwayThrough a Mountain!"	
	Early Interpretive Efforts in National Monuments	
	A Monument to Mormon Pioneers	
	Early Fort Exhibits	182
	The Utah Pioneer Trails and Landmarks Association's Marker	185
IV.	THE GREAT DIVIDE	
	Introduction	
	Water Problems at Moccasin Spring	
	The Indian Service Looks Toward Pipe Spring	
	A Bittersweet Trade	196
	The Opposition Rallies	199
	1933	207
	The Rose Report	222
	Monument Development Planning, 1933	227
	Water Regulations Issued	229
V. 1	THE GREAT DEPRESSION	• • • •
	Introduction	
	The First New Deal	
	Completing the Division of Water	
	The Second New Deal	
	Planning Continues at Pipe Spring	
	The Establishment of DG-44	
	To File or Not to File?	
	The Aftermath of DG-44	
	The Fredonia-Toroweap Approach Road	303

The Hurricane-Fredonia Road	305
Monument Interpretation during the Great Depression	309
VI. THE WORLD WAR II YEARS	
Introduction	319
Monument Administration	
Wartime Visitation	
Weathering the Infirmary and Other Cold Places	
Flood Problems.	
Museum Collection	
The Ponds and Fish Culture	333
Leaving Their Mark	
The Stockmen's Two-acre "Reserve"	
Area Roads	
Water Issues	
Interpretation	
VII. THE CALM BEFORE THE COLD WAR	
Introduction	
Monument Administration	
Planning and Development	
Post-war Visitation	
Births, Deaths, and Accidents	
Historic Buildings	
The Heaton Residence	
Fish and Ponds	
Flood Diversion, Irrigation, and Pipelines	
Floods	
Soil Conservation	
Museum Collection	
Historical Research	
Area Roads	
Interpretation	380
VIII. THE COLD WAR ON THE ARIZONA STRIP	202
Introduction	
Cold War Background	
Pipe Springs and Weapons Testing	
Uranium and Oil Exploration	
Monument Administration	
The "Neglect" of Pipe Spring National Monument	
Visitation	
Historic Buildings	
The Heaton Residence	
Planning and Development	408

	The Ponds, Fish, and Fowl	410
	Flood Diversion, Irrigation, and Pipelines	411
	Floods	411
	Museum Collection	412
	Water Issues and the Kaibab Indian Reservation	413
	Accidents, Deaths, and Heaton Family Matters	415
	Alcohol and Law Enforcement Problems	417
	Area Roads	417
IX.	MISSION 66	
	Introduction	421
	Monument Administration	421
	The Final Push for Power	452
	Visitation	453
	Historic Buildings	455
	The Heaton Residence	459
	Planning and Development	459
	Ponds, Fish, Fowl, and Springs	465
	Flood Diversion, Irrigation, and Pipelines	
	Floods	
	Museum Collection	470
	Water Issues	471
	Deaths, Accidents, Missing Persons, and Heaton Family Matters	473
	Oil Exploration and Drilling	475
	Area Roads	476
X. F	PIPE SPRING NATIONAL MONUMENT COMES ALIVE	
	Introduction	485
	Monument Administration	
	Planning and Development with the Kaibab Paiute Tribe and Associated	
	Water Issues	513
	Nature Trail	537
	Interpretation	539
	General Historical Research and Publications	
	Visitation	545
	Historic Buildings	548
	Other Historic Resources	
	Residences, Utility Area, and Walkways	550
	Sewage System	
	Ponds, Fish, and Fowl	551
	Flood Diversion, Irrigation, and Pipelines	
	Floods	
	Museum Collection	
	Water Issues (pre-1968)	
	Deaths, Accidents, Missing Persons, and Family Matters	

	Law Enforcement	556
	Movies	557
	Area Roads	558
XI.	LIVING IN THE PAST, PLANNING FOR THE FUTURE	
	Introduction	561
	Monument Administration	562
	Visitor Services Operated by the Kaibab Paiute Tribe	579
	Developments in Kaibab Village	
	Neighborhood Youth Corps, Comprehensive Employment Training Act	
	Programs	581
	The VIP Program	584
	Zion Natural History Association	585
	Personnel	586
	Interpretation	587
	Visitation	595
	Historic Buildings	595
	Landscape Changes	597
	Planning and Development	602
	Museum Collection	603
	Movies and Other Filming	604
	Natural History	605
	Archeological and Historical Research	607
	Seasonal Residence	607
	Solid Waste Disposal	607
	The Navajo-McCullough Transmission Line	607
	Measurements of Spring Flow	608
	Ponds, Fish, Fowl, and Farm Animals	608
	Floods	609
	Flood Diversion	610
	Fire Protection	610
	Safety and Law Enforcement	610
XII	THE HERR ADMINISTRATION	
	Introduction	611
	Federal Legislation and Federal Water Rights	
	Monument Administration	
	Tribal Developments and Tribal-Monument Relations	
	Employment of the Kaibab Paiute at Pipe Spring	
	Water System	
	Decline in Spring Flow and Area Water Studies	
	Tunnel Spring Rehabilitation	
	Water Developments in Moccasin	
	Water Issues, 1988-1989	
	Visitor Services Operated by the Kaibab Paiute Tribe	
	± •	

	795
Bibliography	783
Notes	685
XII. Maps and drawings, Pipe Spring National Monument	681
XI. Kaibab Indian Reservation statistics (1910-1955)	
X. List of officials, Pipe Spring National Monument (1923-1999)	
IX. Personnel, Pipe Spring National Monument (1923-1990)	
VIII. Monument's administrative budget (1972-1988)	
VII. Water agreement between NPS and Kaibab Paiute Tribe, April 13, 1972	
VI. Visitation, Pipe Spring National Monument (1925-1990)	663
V. Regulations for the division of the waters of Pipe Springs	
IV. Robert H. Rose report summary, September 1933	
IIIb. Charles C. Heaton's withdrawal of homestead application	
IIIa. Quitclaim deed from Charles C. Heaton to the U.S. government	
II. Proclamation establishing Pipe Spring National Monument	
I. Pipe Spring ranch ownership summary	651
Appendices	
Epilogue	649
Accidents, Thefts, and Law Enforcement	647
Radio Communication.	
Fire Protection	646
Ponds, Fish, Fowl, and Farm Animals	644
Solid Waste Disposal	644
Seasonal Residence	643
Permanent Residences	
Archeological and Historical Research	642
Natural History	642
Museum Collection	
Roads, Walks, and Nature Trail	
Planning and Development	
Landscape Changes	
Historic Buildings	
Visitation	
Interpretation	
Zion Natural History Association	
The VIP Program	
Student Conservation Association Programs	627
Building Maintenance Issues	027

List of Illustrations

Par	t I	
1.	Pipe Spring National Monument vicinity map, 1959, modified	8
	"The Mormon Exodus to the Rocky Mountains"	
	Erastus Snow, in charge of Arizona colonization	
4.	Mormon settlements along the Arizona Strip and in Arizona	17
	Map showing early settlement and roads in Arizona	
6.	Map showing boundary changes to Utah and surrounding territories, 1850-1896	28
7.	Detail from USGS survey map, John Wesley Powell's expeditions of 1871, 1872 and 1873	30
8.	An ox dragged building stone on a "rock lizard" down the quarry trail	34
9.	The quarry trail followed along the cliff face to the fort's construction site	34
	Albert Tissandier and his drawing of Pipe Spring, 1885	
	Pipe Spring fort, April 27, 1891	
12.	William B. Maxwell, first Mormon claimant of Moccasin, undated	47
	Kaibab Paiute Indians at Moccasin, 1904	
	Jonathan Heaton and his 15 sons, Moccasin, 1907	
	Map of Kaibab Reservation, 1911	
	GLO survey map, approved in 1916	
	Map of Kaibab Reservation, Arizona, 1921	
	Edgar and Anna Farrow and children, September 1923	
	Charles C. Heaton, September 1923	
20.	Stephen T. Mather, 1923	82
ъ		
Par		0.5
	Barbara Babcock opening gate for car at Pipe Spring, ca. 1920	
	Map showing National Park-to-Park Highway and interpark road system, 1920	
	Map detail, Utah State Trunk Lines, State Road Commission, 1923	
24.	Map showing Union Pacific's future five-day "circle tour" of southern Utah parks and the	
25	Grand Canyon's North Rim	
	President Warren G. Harding at Angel's Landing, Zion National Park, June 1923	
	LDS Church President Heber J. Grant at Angel's Landing, Zion National Park, undated Utah Parks Company map of southern Utah and northern Arizona, ca. 1923	
	Charles and Maggie Heaton with 8 of their 10 children in Moccasin, Arizona,	121
20.	September 1923	125
20	Jonathan and his plural wife, Lucy Elizabeth (Carroll) Heaton in Moccasin,	123
29.	September 1923	126
30	Jonathan and his first wife, Clarissa Amy (Hoyt) Heaton, September 1923	
	Mather standing on wall of west cabin with the Heatons, September 1923	
	View of Pipe Spring fort, taken from the north, September 1923	
	Jonathan Heaton and four sons, September 1923	
	Sketch map showing suggested watering place for local non-Indian cattlemen, May 1924	
	Map of Kaibab Indian Reservation, May 1924	
	Union Pacific tour map, 1924	
50.	Onton Lucino tour map, 1727	1-13
Part		
	Utah Parks Company buses lined up at Cedar City depot, ca. 1928	147
	Tourists boarding buses at Cedar City, ca. 1928	

39.	Officials at Pipe Spring, en route to the dedication of Grand Canyon Lodge,	
	September 1928	150
40.	Pipe Spring fort, ca. 1925	152
41.	Southwestern National Monuments' Superintendent Frank Pinkley inspecting	
	southwest corner of fort; undated, ca. 1923-1925	155
42.	East cabin and corrals, ca. 1924	156
43.	West cabin and meadow, ca. 1924	156
44.	Restored east cabin, undated	157
	Floor plans of the Pipe Spring fort, 1940	
46.	Flood at Pipe Spring National Monument, ca. 1926-1927	164
	West cabin ruins, ca.1924	
48.	Landscape and view of meadow and west cabin, ca. 1924	165
	Kanab Lodge, ca. 1928	
	Union Pacific promotional map, May 1929	
	Cover of Union Pacific's publication on Zion-Mt. Carmel Highway, 1929	
	"If it's a National Park" Union Pacific advertisement, ca. 1930	
	Sketch map of Southwest Utah and Grand Canyon, 1930	
	Leonard Heaton and caged reptile exhibit, September 1933	184
55.	Utah Pioneer Trails and Landmarks Association plaque affixed in 1933 to Pipe Spring	
	fort	186
Part		
	Kaibab Paiutes hauling water, Kaibab Indian Reservation, 1932	
	Sketch map showing location of Pasture No. 2 ("calf pasture"), 1921	
	Sketch map of Pipe Spring landscape, 1932	
	Sketch map of Pipe Spring National Monument, June 1933	
	Sketch map showing location of springs, September 1933	
	Overflow pipe at upper meadow pool, September 1933	224
62.	Custodian Leonard Heaton's stables and poultry sheds, east of meadow ponds,	225
62	September 1933	223
03.	September 1933	226
61	Sketch map of Pipe Spring National Monument and plan for division box,	220
04.	November 1933	231
65	Sketch map showing water situation, December 1933	
05.	Sketch map showing water situation, December 1933	232
Part	\mathbf{V}	
	Sketch map of tunnel spring, December 1933	240
	View of Pipe Spring landscape, looking west toward the fort, 1934	
	Early photo of CCC Camp DG-44, ca. late 1935	
	Trees being planted on the monument by CCC enrollees, probably 1935	
	CCC barracks with meadow pond in foreground, late 1935 or early 1936	
	Morris Jake, Dan Bulletts, and CCC enrollee Bernie Effler, 1936	
	CCC enrollees watching Kaibab Paiute cowboys dehorn cattle in monument corrals,	
	undated	259
73.	Dan Bulletts and John Boyce, January 23, 1936	
	CCC enrollees placing line fence, February 26, 1936	
	, , , ,	

75.	Diversion ditch under construction by CCC enrollees to prevent flooding of campground,	
	probably 1936	
76.	Camp DG-44's Headquarters building with swimming pool in foreground, June 1938.	.265
77.	First Sergeant Boyd Clevenger all dressed up to meet his girlfriend in Kanab, July 1939	.266
78.	Custodian C. Leonard Heaton in front of his fort office, ca. 1935	.269
79.	Detail from "Water Systems Study" map, April 9, 1937	.274
80.	Campground with poplar log tables and benches, late 1930s	.276
81.	Plan of the Monument, part of 1937 Master Plan for Pipe Spring National Monument	.281
82.	A few of CCC Company 2557, Camp DG-44, March, 1938	.283
83.	Custodian C. Leonard Heaton in dress uniform, 1938	.284
84.	View of Camp DG-44, looking south, 1939	.291
85.	General Development Plan, 1940 Master Plan for Pipe Spring National Monument	.296
Part	VI	
86.	Custodian C. Leonard Heaton in spring room of the fort, ca. 1942	.322
87.	Charles J. Smith, superintendent of Zion National Park from 1943 to 1952, undated	.327
Part	VII	
88.	Developed Area Plan, 1947 Master Plan for Pipe Spring National Monument	.355
89.	Crowd gathered in meadow for the community barbecue at Pipe Spring, April 29, 1950	.362
90.	Custodian's residence (old CCC infirmary), 1946	.370
91.	Monument campground and picnic area, June 1950	.374
Part	VIII	
92.	Leonard Heaton with "rainmaker machine," April 1951	.389
93.	Joseph Frank Winsor, age 88, taken August 31, 1951	.404
94.	Custodian's residence, April 10, 1951	.407
95.	Map of Kaibab Indian Reservation, 1953	.414
Part	IX	
96.	Park Historian Lloyd S. Sandberg, 1957	.423
97.	General Development, 1959 Master Plan	.426
98.	Park Historian James C. McKown with hand-cranked wood lathe, ca. 1959	.430
99.	Ray Mose, undated; probably late 1950s or early 1960s	.431
100.	Panoramic view of Pipe Spring National Monument, February 5, 1959	.436
101.	Leonard Heaton in front of office trailer, August 20, 1959	.438
102.	Excavation of Whitmore-McIntyre dugout, undated; probably August 1959	.440
	Seven Zion National Park superintendents, assembled at Zion for the dedication of its	
104	new visitor center, June 17, 1961	
	Scaffolding erected on south side of fort, January 19, 1959	
	Comfort station, ca. 1957	
	New staff residences and parking, October 1960	
	New east entrance sign, 1961	
	Sketch showing location of spring and collection box, February 1959	
109.	Pipe Spring National Monument Boundary Status Map, May 1957	.478

Part	X	
110.	Newly-reconstructed corral, August 1966	488
111.	An authentic telegraph pole behind the east cabin, September 1999	489
112.	Arizona Governor Jack Williams, assisted by "Miss Fredonia," at ribbon cutting	
	ceremony for dedication of State Highway 389, August 5, 1967	494
113.	Fredonia Mayor Warren Dart Judd with his wife Olive (left) and Governor Jack	
	Williams and wife (right) at the Pipe Spring fort, August 5, 1967	494
114.	Map showing nature trail and native grass restoration project areas, 1968	501
115.	Barney Burch (left) and Tony Heaton (right) take part in a branding demonstration, 1969	510
116.	Attentive onlookers watch Tony Heaton (left) and Herman Tso (right) lasso a calf	
	during a branding demonstration, 1969	510
117.	Joe Bolander, undated	511
118.	Sketch map showing initial area proposed to locate Indian developments, April 1968.	517
119.	Sketch map showing general area Park Service proposed to acquire from the Kaibab Paiute Tribe through land exchange, 1968	519
120.	Sketch map of proposed locations of developments, April 1970	533
	NYC boys working on the nature trail, July 1968	
122.	Visitor contact station after flood, August 1969	553
Part	VI	
	Aerial view of Pipe Spring National Monument, April 1971	566
	Program to dedicate new Kaibab-Paiute Tribal Cultural Building/Visitor Center,	500
127.	May 26, 1973	572
125	View of visitor center and crowd gathered for its dedication, May 26, 1973	
	Visitor center ribbon-cutting ceremony, May 26, 1973	
	Kaibab Paiute dancers at visitor center dedication, May 26, 1973	
	Superintendent Bernard Tracy stands behind new visitor center, May 26, 1973	
	NYC crew take a break from work, July 27, 1971	
	NYC girls by fort gate, August 3, 1971	
	Quilting demonstration in the fort, 1977	
	Duke and Mel Heaton on wagon pulled by Mick and Molly, undated	
	Adeline Johnson demonstrating cheese making, July 1977	
134.	Bicentennial Wagon Trek, September 1976	592
135.	Julie Heaton and Tina Esplin baking cookies in the fort's kitchen, September 1976	593
136.	Mel Heaton plowing demonstration garden, May 1977	599
137.	Mel Heaton resting with Mick and Molly, June 1977	599
138.	Filming of "Brigham Young" in November 1976	605
139.	Filming of "The Last of the Mohicans" in September 1977	606
140.	Burros at Pipe Spring National Monument, 1970s	609
Part	XII	
	Williams M. ("Bill") Herr and his wife Jan at Pipe Spring, undated	614
	Elva Drye (left) and Gail Bulletts (right) demonstrate their beadwork skills at crafts	
	exhibit, summer 1988	616
143.	Work in progress on the fort's underground drainage system along the north wall,	
	June 1980	635

144.	Mature Lombardy poplars screening residence 9, planted under Bill Herr's direction	
	in the early 1980s	.637
145.	Live monument geese were plucked to make goose down pillows, 1980	.645

Introduction

On May 31, 1998, Pipe Spring National Monument celebrated its 75th anniversary. Festivities included guided tours of "Winsor Castle," living history demonstrations, pioneer and Native American craft demonstrations, old-time tunes performed on banjo and fiddle, Indian dancing and drumming, and informal talks about the management and preservation of the monument. Former, long-time Custodian Leonard Heaton would have approved of the free dinner of pit-roasted beef and Dutch oven-baked potatoes served to 400 at the celebration, what he used to call a "big feed!" In a number of ways, the day's activities were reminiscent of the old Establishment Day celebrations Heaton had hosted at the monument during the 1950s. Prior to the event, the Canyon Country Quilt Guild demonstrated quilting over a three-month period in the visitor center. Monument staff attempted to track down descendants of the "W" families - the Winsors, Whitmores, and Woolleys - to extend a special invitation. About 1,000 people attended the one-day event, most from towns within a 100-mile radius. A special exhibit on the history of National Park Service management of the site was produced and on display at the visitor center throughout the year.

After completing this report, I pondered the question, "If one could miraculously be transported back to Pipe Spring in the year 1923, what would be different?" The most dramatic differences are visual ones. The once-crumbling buildings have been fully restored and are well maintained. As for the landscape, most remnants of the site's late 19th and early 20th century ranching activities - the old corral fencing and cattle troughs, mud-lined reservoirs, earth compacted by cattle watering at the site - are all gone, replaced by verdant growth of shade trees, fruit orchards, and demonstration gardens. In place of a caretaker and cowhands inhabiting the Pipe Spring fort, employee housing is discretely tucked behind trees some distance south of the historic area. Rooms of the historic buildings are furnished now with artifacts that speak to the visitor of a way of life that none has ever experienced and few can imagine, life 120 years ago on the remote Arizona Strip.

Aside from the visual differences between the Pipe Spring of 1923 and now, there are other, more subtle differences. Not only a window to the past, this national monument is a window on the present, one through which we can see a nation wrestling on a daily basis with the human costs of Westward expansion. In years past, descendents of Euroamerican settlers sought to commemorate the sacrifices of their forebears, often through the preservation of such historic sites as Pipe Spring. Today, the country's collective consciousness has broadened to consider the impact that such settlement had on native peoples, to consider what they too sacrificed, almost always without choice. Since the 1970s, beginning with the rise of Indian activism in the United States, Pipe Spring National Monument has made a sustained effort to incorporate the story of the Kaibab Paiute people, struggling at times with how this could best be done. More and more, with the support of the National Park Service, the Kaibab Paiute are telling their own stories, leaving the listener to ponder history's lessons as well as its paradoxes.

The task directive for this administrative history specified that there were to be six areas of concentration: the monument's creation, its administration from 1923 to 1990, the evolution of the buildings and landscape, the history of water rights and water use, the development of interpretive themes and services, and - since the monument is located within the Kaibab Indian Reservation - relations between the Park Service and the Kaibab Paiute.

The introductory chapter describes the monument's setting and provides background on the ethnography and pre-monument history of the region. Use of and competition for resources is clear at this time and is a recurring theme throughout the region's history, one that would continually color the monument's relations with its neighbors. The remaining chapters chronicle events leading up to the creation of the monument and its subsequent administration. The roles played by private enterprise (especially Union Pacific), the Church of Jesus Christ of Latter-day Saints (the Church), private citizens, and state and federal governments in developing tourism in southern Utah and northern Arizona are critical to understanding how and why the monument was established. Indian-white competition in Moccasin for water and land are also described, as this too played a role in the Heaton family's willingness to convey the Pipe Spring title to the federal government. Soon after the monument's establishment in 1923, the competing interests of two sister agencies of the federal government (the National Park Service and the Office of Indian Affairs) emerged as yet another thorny administrative issue.

In some ways, former Custodian Leonard Heaton was typical of early Park Service caretakers, often men with roots in the local community. Working for a nominal \$1 per month in exchange for the "privilege" of living at and managing a site, Heaton had his counterparts all over the West. In other ways, however, Pipe Spring's history is unique. Built as a fortification against Indian raids just as treaties ended the threat to white settlers, it was never attacked. After establishment, the monument's location within the Kaibab Indian Reservation presented a number of challenges to the Park Service, the Office of Indian Affairs, and tribal government. Heaton oversaw the monument for a remarkable 37 years, from its early years through the Great Depression, World War II, the Cold War, the Korean War, and the onset of the war in Viet Nam. He did it with the unflagging help of his entire family, which included his wife Edna and, eventually, 10 children.

Thanks to the detailed monument journal kept by Heaton, we have an unusually personal picture of what life was like for a monument caretaker and his family during the Park Service's formative years. Even his letters and official reports to headquarters contain an open and frank style that reveals his thoughts and feelings on various matters. (This personal perspective of events is often lacking in most official records that administrative histories are based on.) Recent interviews with some of the Kaibab Paiute, as well as Heaton's own records, reveal a man who respected his neighbors and who was in turn held in esteem by Mormons and Indians alike. No other administrator after Heaton was so much a part of the two distinct yet overlapping worlds that lay just outside the monument's boundaries. Later Pipe Spring administrators came up through the ranks as career Park Service personnel. Since nearly all were regarded as

"outsiders," they faced one problem that Heaton did not, that of earning the trust and respect of local communities.

Of all the subject areas covered by my research, I found the quality of the monument's public relations with its neighbors, particularly the Kaibab Paiute, the most difficult to quantify through historical documentation. Still, certain things are apparent. What monument managers *didn't* do was just as important as what they *did* do in establishing and maintaining good communication with the Tribe. My overall impression is that the individual manager's personal circumstances, interests, and style had much to do with whether or not successful relations were built with members of the Tribe, or for that matter, with the non-Indian community. For example, the fact that Superintendent Bernard Tracy's wife was a member of the Church of Jesus Christ of Latter-day Saints, that he considered himself a native of the West, and that he loved to farm certainly facilitated the couple's acceptance by local Mormon families. Of course, individual personalities and interests of tribal representatives were also part of the mix, coloring whether relationships with monument staff were close, as during Tracy's tenure, or distant at other times.

At times, a monument manager's particular past experiences infused Pipe Spring with much needed "new blood," reinventing or reinvigorating interpretive programs and relationships with the public. Superintendent Ray Geerdes' prior experience working with Alaska's white and Indian youth through the Neighborhood Youth Corps program in Sitka National Historical Park led to his successfully establishing similar programs at Pipe Spring in the late 1960s.

During the 1960s and 1970s, there was a great deal of face-to-face communication between monument staff and members of the Kaibab Paiute Tribe or its representatives. Mutual cooperation resulted in a wealth of visible benefits to all. The "honeymoon period" between the Tribe and Park Service resulting from their joint development activities in the early 1970s inevitably ended, however, deteriorating from time to time into the proverbial (and literal) spat over who was responsible for cleaning up what. During the 1980s, Superintendent Bill Herr's interests appeared to be in establishing and strengthening social and political relations with the communities of Fredonia and Kanab. There is little evidence that he cultivated either personal or professional relations with the Tribe. Under his tenure, communication with tribal members was often indirect, made through the monument's maintenance man, Doug Dewitz. My impression is that relations with the Tribe stagnated during this period. Relations with Mormon neighbors also appear to have become rather strained in the 1980s as managers experimented with new ways of interpreting the site's history. The love of tradition is strong in this country and change is not easily taken to.

What is apparent from the historical record is that when monument-community relations have been good, truly *remarkable* things have happened! Much of the credit of the success of the monument's living history program during the 1970s is due to the enthusiastic involvement of interpreters (paid and unpaid) from Moccasin, Fredonia, and Kanab. Federally-funded Community Action programs of that period enabled the monument to

employ young whites and Indians alike in unprecedented numbers, arguably making a real social and economic difference in the community. Plans to jointly plan and build a visitor center and joint-use well and water system in the early 1970s, accompanied by a vital and popular interpretive program, resulted in initial bridge building between three very different worlds: that of the white Mormon, the Indian, and the Park Service.

Much to the credit of the monument's current administration, great strides have been made in recent years in improving community relations, particularly with the Tribe. Once again, as it was nearly 30 years ago, Park Service and tribal representatives are communicating face-to-face, looking for ways to solve problems together. Only recently, in 1998, a resource collection agreement - now considered a model for the agency - was made with the Kaibab Paiute Tribe and Southern Paiute Nation for Zion National Park, Pipe Spring National Monument, and Cedar Breaks National Monument. (It is certainly not the first Pipe Spring model worthy of emulation. The joint developments with the Tribe in the early 1970s were considered exemplary at the time, held up as a model for other federal agencies.) Currently, monument management is working closely with the Kaibab Paiute Tribe to transform the current visitor center into a joint Park Service and tribal visitor center. (Ironically, something similar was the original intent of those who planned the building in 1971. Somewhere along the way, the Tribe's inclusion failed to materialize.) Living history interpretation has attained new levels of professionalism, accuracy, and inclusiveness with excellent "pioneer" and Indian presentations and demonstrations routinely available.

Challenges and opportunities will continually present themselves at Pipe Spring National Monument as it enters the next century. The proposed joint visitor center will not only enhance relationships with the Tribe, but also greatly aid in telling the inclusive, culturally complete stories of the site. Pipe Spring should serve as an example to the diversity of our modern American populace, of how different cultures prehistoric Indian, Southern Paiute, and Euroamerican – utilized and lived within the natural environment differently, and how their practices, contact, and interactions changed lifestyles, and even the environment they relied upon. It can also serve as a monument to the struggles and triumphs of Americans seeking social, economic, and religious freedom in the American West – in this particular instance, the Latter-day Saints. Management continues to be confronted with issues associated with protection, allocation, and distribution of water resources. Current efforts to expand our knowledge of the regional groundwater aquifer and to convince all local communities of its limits and the need to concur in its use and protection are critical. Additional partnerships with tribal government should be built to allow relocation of other facilities (curatorial storage, housing) from the 40-acre monument to the neighboring reservation. All of these visionary goals will require positive relations between the National Park Service, the Kaibab Paiute Tribe, and local descendants of Euroamerican settlers.

As part of its mission to preserve, protect, and interpret its resources, one of the monument's greatest challenges in the coming century is to study the lessons afforded by its history and to strive to become a vital link between the generations and between

diverse cultures. During the late 1980s, a visitor wandered into the visitor center and asked one of the Paiute seasonal interpreters at the front desk, "What *is* this place?" He answered, "Well, do you want the pioneer version, the Indian version, or the Park Service version?" For Pipe Spring National Monument to matter to all our country's citizens in the years ahead, it must find a way to convey the stories and values of the indigenous people, the white settlers, and the National Park Service. Pipe Spring National Monument is indeed a place where cultures are at a crossroads.¹

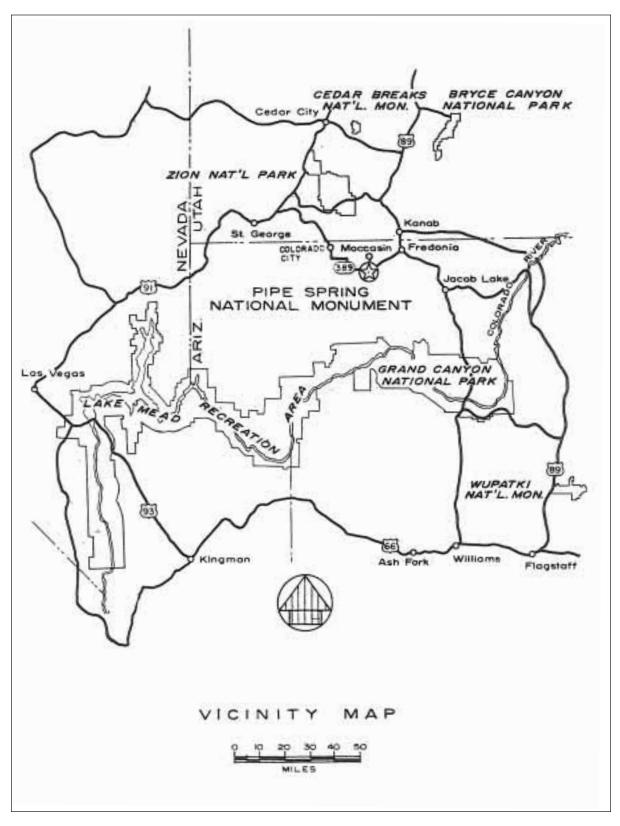
Part I – Background

Location and Environment

Pipe Spring National Monument is located on a 40-acre tract of land in Mohave County, in the northernmost part of central Arizona. The monument is eight miles south of Utah's southern boundary, 60 miles southeast of St. George, Utah, 20 miles southwest of Kanab, and 15 miles west of Fredonia, Arizona, on State Highway 389. The entire stretch of land between Utah's southern boundary and the Grand Canyon is known as the "Arizona Strip." This region has very strong historical and cultural ties with Utah among the immigrant "Mormons," a popular term for those with religious and/or cultural ties to the Church of Jesus Christ of Latter-day Saints.² The Kaibab Paiute consider the larger area encompassing the southern half of Utah, northern Arizona, and portions of Nevada as traditional areas of prehistoric and historic use. Pipe Spring National Monument lies within the boundaries of the Kaibab Indian Reservation, established before the monument was created.³

Primary historic resources at the monument include three sandstone buildings (the Pipe Spring fort, east cabin, and west cabin), the historic-period sites of the Whitmore-McInytre dugout and a lime kiln, and other structures, including stone walls, the quarry trail, and the fort ponds. Reconstructed "historic" features include a vegetable garden, orchard, vineyard, telegraph line, and corrals. For the most part, modern developments are located at the southernmost part of the monument and include a residential area, maintenance area, and access road. This area is fairly well screened by plantings. There are three springs at the monument: the main spring (Pipe Spring), emerging from beneath the fort itself; tunnel spring (located just southwest of the fort); and cabin spring (a seep spring near the west cabin, once called the "calf pasture spring"). The springs are fed by the Navajo Sandstone aquifer to the north and west, via the Sevier Fault. Because there is more than one spring at the site, for many years it was referred to as "Pipe Springs," although the monument's official name was never plural.

The monument occupies the Moccasin Terrace of the Markagunt Plateau at the southern sloping base of the Vermilion Cliffs. From this site, a dry plain slopes southward for 40-50 miles before it descends dramatically into the Grand Canyon. The elevation of the monument is 5,000 feet, the climate is fairly temperate, and the plant and animal species are typically semi-desert. North of the monument is pinyon-juniper woodland. Intermingled with and at the edge of this woodland community is a sagebrush grassland with sagebrush dominant on the more level areas of ground and pinyon-juniper occurring on the shallow rocky soils and broken country of adjacent higher elevations. Other on-site vegetation includes rabbitbrush, prickly pear cactus, and sagebrush. Culturally introduced plant materials include a variety of shade trees (ash, cottonwood, poplar, elm, locust, ailanthus), fruit trees, a grape arbor, and a vegetable garden. Animal species include small rodents, reptiles, birds, coyotes, badgers, and porcupines. High temperatures range in the summer from 90 to 115 degrees; in the winter, normal low temperatures range from 0 to 40 degrees.



1. Pipe Spring National Monument vicinity map; 1959, modified (Pipe Spring National Monument)

Utah and the Arizona Strip: Ethnographic and Historical Background

Native American Occupation, pre-1776

"Pipe Spring" (as it was later named by Latter-day Saints), along with other springs in the immediate area, was used by indigenous peoples long before European or Euroamerican explorers and colonists discovered it. Prehistoric cultural resources appear in all portions of the monument and consist of ceramic and lithic scatters, charcoal deposits, and structural remains akin to what archeologists classify as the Virgin/Kayenta Anasazi (ca. A.D. 1100-1150). These materials appear to be related to prehistoric structures in the area, including the large unexcavated pueblo of 22-40 rooms located immediately south of the monument, all of which are within the boundaries of the Kaibab Indian Reservation. Prehistoric petroglyphs are also found in and adjacent to the monument.

The arid region of southwestern Utah, southern Nevada, and northern Arizona was territory traditionally inhabited by the Southern Paiute by A.D. 1150.6 Prior to the arrival of Europeans to North America, small bands of semisedentary people gathered the natural plants and hunted the fauna of this ecologically diverse region. Pine nuts were especially valued as a dietary staple. The Southern Paiute practiced small-scale horticulture, planting and irrigating crops of corn, beans, and squash near permanent water sources. Their lives depended on a wide range of seasonal resources in different ecozones. Considerable distances between these food sources demanded great mobility. Water was then, as now, a key resource available at only a few places, and these places governed band movement and territories.⁷

The Southern Paiute had contact and relations with other native peoples: the Hopi to the east, Ute to the north, Goshute to the northwest, Shoshone to the west, Mohave to the southeast, and Hualapai and Havasupai to the south, across the Colorado River. Today, most Southern Paiute believe they were the people, or were related to the people, that archaeologists refer to as the Virgin River Anasazi. (The Kaibab Paiute refer to these ancient people as the *iinung wung*.) Archaeologists, however, are not in agreement on this issue. Some believe the Southern Paiute came out of the Great Basin when the Virgin River Anazasi abandoned the area; others propose they were post-agricultural Anasazi using hunting and gathering strategies in response to recurring environmental crises. Existing evidence is insufficient to determine if the Southern Paiute pushed the Anasazi out of the area ca. A.D. 1100-1150 or joined with them to become a common people.8

The Kaibab Paiute are one of a number of distinct Southern Paiute bands that have inhabited the Arizona Strip. They believe the area to be their ancestral home, their mythology holding that the Kaibab Plateau was their place of origin. According to oral history accounts collected in 1932 by anthropologist Isabel T. Kelly, the southern boundary of Kaibab Paiute traditional territory extended from the junction of the Paria and Colorado rivers downstream until just beyond Kanab Creek Canyon. The western boundary extended northward crossing the Virgin River just east of Toquerville and ended at the Kolob Plateau. The northern boundary proceeded from that point to the Paria River, which formed the eastern boundary. A conservative estimate of their traditional territory is 4,824 square miles. Events of the 18th and 19th centuries would irrevocably impact

the extent of their territory and way of life, and pose a serious threat to their survival. The history of the Southern Paiute and in particular, the Kaibab Paiute, continues in the following sections.

Spanish and Euroamerican Exploration and Contact

The time period from 1776 to 1847 is marked by early Spanish and later Euroamerican contact with the Southern Paiute through their exploration and economic activities in the area. The 1776 expedition led by two Franciscan priests, Francisco A. Dominguez and Silvestre Velez de Escalante, through northern parts of the Southern Paiute territory provided the first historical references to the native peoples. The explorers were attempting to find a northern route that would connect Santa Fe with Monterey, California. On the return to Santa Fe, the Spanish expedition crossed the Arizona Strip. On the Pilar River (now called Ash Creek) near its junction with the Virgin River 25 miles below Zion Canyon, Escalante noted the Indians' cultivation of corn in irrigated fields located on small flats along the river bank, thus documenting Southern Paiute agricultural practices. While the expedition failed to accomplish its mission, it gained much knowledge of the Great Basin region. It was later followed by excursions into the region by fur trappers, including Jedediah Smith (1826) and William Wolfskill and Ewing Young (1830). The 1849 California gold rush brought large numbers of prospectors and others traveling through Southern Paiute territory.

Prior to the arrival of the Latter-day Saints in 1847, Southern Paiute bands were impacted by the slave trade, a topic discussed by Isabel T. Kelly and Catherine S. Fowler in their chapter on the Southern Paiute in *Handbook of North American Indians, Vol. 11, Great Basin.* ¹² By the early 17th century, Spanish colonies in what are now northern New Mexico and southern California had institutionalized slavery and other forms of servitude. ¹³ Ute and Navajo slave raiders preyed on Southern Paiute bands. Spanish expeditions and American trappers repeated this pattern. Women and children were the most sought after as captives. One Indian agent noted that prior to 1860, scarcely one-half of the Paiute children escaped slavery, and that a large majority of those that did were males. One history of Utah refers to the trade:

In historic times the Ute carried on an extensive slave traffic. Children were obtained by barter or by force from poorer bands of Paiutes and exchanged with the Navahos [sic] and Mexicans to the south for blankets and other articles. Certain Paiute bands were almost depopulated by this traffic.¹⁴

The Kaibab Paiute maintain a memory of these raids by the Ute and Navajo. Feelings of enmity harbored by the Kaibab Paiute toward these tribal groups is often explained today by reference to such past raiding activity. Some documentation suggests that Southern Paiute bands responded to the threat of enslavement by retreating from heavily traveled areas, particularly the Old Spanish Trail that opened as a commercial route in the 1830s. (This 1,200 mile rugged path was charted to link the old established settlements in New Mexico with the fledgling Spanish colony of Los Angeles, California. The New Mexicans carried westward serapes, blankets, knives, guns, hardware items, and cloth bought in the

Santa Fe trade.¹⁶) At the same time, the slave trade may have forced abandonment of ecologically favorable areas, inhibiting the expansion of horticultural activities among the Southern Paiute, while increasing their dependence on hunting and gathering as a way of life.

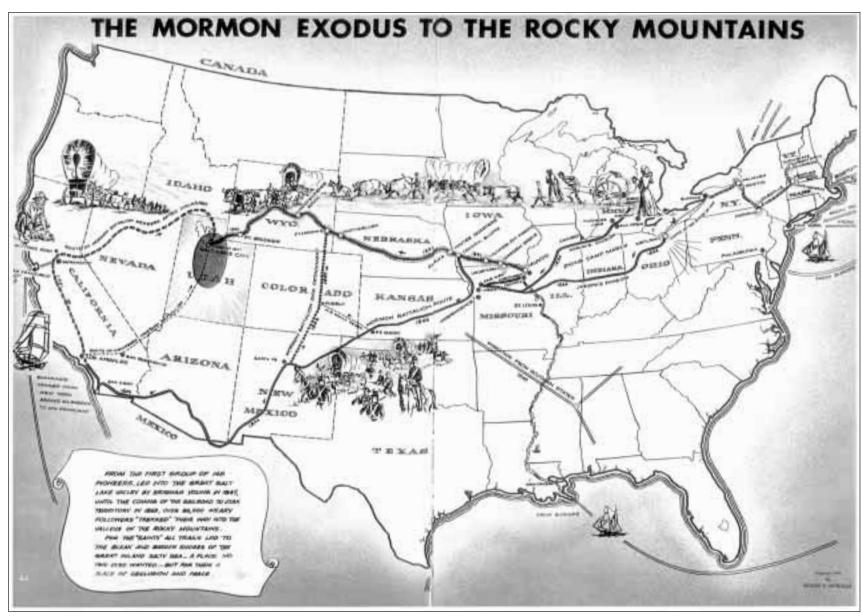
In their study, *Kaibab Paiute History, The Early Years*, anthropologists Richard W. Stoffle and Michael J. Evans calculated the pre-1492 population estimate for the Kaibab Paiute to be at least 5,500. By the mid-1800s, Stoffle and Evans estimated the Kaibab Paiute population to have declined to about 1,175.¹⁷ Although Spain's colonizing activities never reached the Southern Paiute territory, Stoffle and Evans attribute Indian population decline to the effects of diseases (in particular, smallpox and measles) which the Spanish introduced into native populations in Mexico and the Southwest between 1520 and 1846.

The Coming of the Saints and the Call to Dixie

Joseph Smith, Jr., born in Vermont on December 23, 1805, was the organizer and first president of the Church of Jesus Christ of Latter-day Saints. On June 27, 1844, Smith and his brother Hyrum were murdered by a mob at Carthage, Illinois. Brigham Young (also born in Vermont) succeeded Smith as Church president at the age of 34. Less than two years after the murders of the Smith brothers, Young and his group of followers left Nauvoo, Illinois, in February 1946, fleeing religious persecution. They headed for the Great Basin with the main party arriving at the Great Salt Lake Valley on July 24, 1847. This region was then part of Mexico. With no official Mexican presence closer than Santa Fe and Tucson, many Latter-day Saints may have dreamed of establishing a new empire in the Great Salt Lake Valley.

The United States declared war on Mexico on May 13, 1846. Its victory in the conflict and the Treaty of Guadalupe Hidalgo, signed February 2, 1848, resulted in Mexico's relinquishment of all claims to Texas above the Rio Grande, an addition of 1.2 million square miles of territory to the United States. While this put an end to any hopes the Latter-day Saints may have had for an independent empire, they wrote a memorial to the U.S. Congress in December 1848 for creation of a territorial government. Without waiting for a response to the petition, the new immigrants undertook to create a provisional government for the "State of Deseret," electing Brigham Young, president of the Church, as their governor. On September 9, 1850, President Millard Fillmore signed a bill creating the Territory of Utah, renaming it after the Ute Indians. Young was retained as governor until 1857.

Not long after the arrival of Brigham Young and the Latter-day Saints to the Salt Lake Valley, parties of men were organized and sent out to explore other regions.¹⁹ On November 23, 1849, one such party of 50 men set out under the leadership of Apostle Parley D. Pratt to explore southern Utah. By January 1850, Pratt's party had reconnoitered the country as far south as the mouth of the Santa Clara River, beyond the rim of the Great Basin.



2. "The Mormon Exodus to the Rocky Mountains" (Reprinted from Howells, The Mormon Story, A Pictorial Account of Mormonism, 1964)

Kelly and Fowler report that slave raiding on the Southern Paiute ended soon after the arrival of the Latter-day Saints while noting that,

Initially the Mormons became unwilling participants in the trade, purchasing Indian children from the Utes who threatened to kill the children if the Mormons did not buy them. But active measures by Brigham Young and the territorial legislature ultimately ended the trade by the mid-1850s.²⁰

While Mormon immigration to Salt Lake Valley went uncontested, resistance by native peoples began as soon as the colonizers headed south into the Utah Valley in 1849. The Walker War of 1853-1854 was precipitated by Mormon occupation of Ute lands. The war alerted the Church leaders that a more forceful Indian policy was needed. Five Indian missions were quickly dispatched between 1854 and 1856, all located on important trails within what were called the "outer cordon" colonies.²¹

Mormon settlers considered it their religious duty to influence the native peoples. They lived among Indians, baptized them, gave them Mormon names, and in a few cases married them.²² By the end of 1858, only one mission survived, the Southern Indian Mission in southwestern Utah, where it served as a base for exploration, colonization, and Indian control.²³ Ironically, at the same time indigenous peoples in the Utah Territory were beginning to reel from the effects of Mormon colonization, the Latter-day Saints themselves felt their own way of life imperiled by the government of the United States.

In 1856 President Brigham Young oversaw the formation of the Express and Carrying Company (also known as the Y.X. Company or the B.Y. Express Company). This business was the largest single venture undertaken to date by the Latter-day Saints in the Great Basin. It was designed to provide way stations for handcart companies and other immigration, to carry the United States mail between the Missouri Valley and Salt Lake City, and to facilitate the movement of passengers and freight between Utah and the East. In 1857 Anson Perry Winsor, an important figure in the history of Pipe Spring, was appointed to work for this company as wagon master.²⁴ Nearly all Mormon villages sent men to assist with the enterprise. The vast majority of them were called to work as missionaries. Their primary concern, of course, was the establishment of new settlements.²⁵

On a trip to the Missouri River for Brigham Young's express company, Winsor arrived at Fort Leavenworth, Kansas Territory, on May 1, 1857. The year 1857 was marked by a serious political crisis in Utah, one that would hasten a movement of Latter-day Saints into the Arizona Strip and other areas far distant from Salt Lake City. The causes of this crisis and related events - known as the Utah War - are examined in detail in other Utah histories and will only be summarized here.²⁶

In June 1857 President James Buchanan appointed a new governor for the Utah Territory. This move was designed to displace Church leaders with politicians closely tied to

authority in Washington, D.C. An order directing troops to Utah was issued June 29, 1857, by the Commanding General of the Army and was justified as follows:

The community and, in part, the civil government of Utah Territory are in a state of substantial rebellion against the laws and authority of the United States. A new civil governor is about to be designated, and to be charged with the establishment and maintenance of law and order... [military action] is relied upon to insure the success of his mission.²⁷

At the same time the new governor was appointed, the federal government cancelled all contracts with Brigham Young's Express and Carrying Company. Utah historian Leonard Arrington states that the activities of this company in carrying out the mail contract and in performing other economic chores for the Church figured prominently among the factors that led to the conflict with the federal government.²⁸ The desire of non-Mormons to impose national institutions and customs on Mormons (particularly with regard to the practice of polygamy) also played a role in the conflict.

The first of 2,500 federal troops left for Utah Territory from Fort Leavenworth under the command of Colonel Albert Sidney Johnston on July 18, 1857. The entire force committed to the expedition amounted to 5,606 men. "Express missionary" Winsor learned of the military action, known as the "Utah Expedition," while at Fort Leavenworth, and alerted Brigham Young of the impending advance of the U.S. Army.²⁹ Winsor sent a letter via Abraham O. Smoot who delivered the letter to Young on July 24, 1857, at Big Cottonwood Canyon, located near Brighton, Utah, about 20 miles southeast of Salt Lake City.³⁰ A reported 2,587 persons were gathered there that day to celebrate the 10th anniversary of the Latter-day Saints' arrival in the Valley of the Great Salt Lake.³¹ Thus Young had many months to take defensive action against the expected arrival of federal troops. The Utah Territorial Militia – consisting of about 3,000 men - was mustered into full-time service. While they were instructed to "take no life," the militia considerably slowed the advance of troops through implementation of a "scorched earth" policy, destroying resources ahead of the Army's advance.³²

The advance of federal troops on Utah was considered a threat and Utah Mormons considered it continuing "gentile" persecution.³³ While the troops were still en route, a tragic event occurred in southern Utah. On September 11, 1857, Mormon militiamen killed over 100 men, women, and children who were part of a group of Missouri and Arkansas emigrants; the incident is known as the "Mountain Meadows massacre." While the massacre involved many individuals, John Doyle Lee was the only person brought to trial much later. An all-Mormon jury found him guilty and sentenced him to death, a sentence carried out on March 23, 1877.³⁴

On September 15, 1857, Brigham Young declared martial law and proclaimed, "Citizens of Utah - We are invaded by a hostile force." Federal troops, in fact, were still en route. As he made preparations to defend the Kingdom, Young ordered Latter-day Saints in Idaho, Nevada, California, and other western states to abandon their settlements to "come

home to Zion." The same directive was issued to missionaries scattered throughout the world, resulting in the return of several hundred. Anson P. Winsor was later sent to Echo Canyon, east of Salt Lake City, in October 1857 to make fortifications and to guard the area against federal troops. In the spring of 1858, Winsor was called back to Echo Canyon with 300 men to relieve troops who had been on duty there the previous winter. Outright war was averted when negotiations held in February and March 1858 led to an agreement that Brigham Young would relinquish his governorship of the Utah Territory. Alfred Cumming, a federal appointee from Georgia who had served as Superintendent of Indian Affairs on the Upper Missouri, arrived to take over the territorial government on April 12, 1858.

The military actions of the federal government and its subsequent takeover of official government functions by "gentiles" reinforced the Latter-day Saints' long standing sense of injustice and oppression.³⁶ Just prior to Cumming's arrival, Brigham Young called a "Council of War" in Salt Lake City on March 18, 1858, where he announced his plan "to go into the desert and not war with the people [of the United States], but let them destroy themselves." Four days later, Young wrote, "We are now preparing to remove our men, women, and children to the deserts and mountains..." What followed has been called "The Move South." The events that follow chronicle this southern migration as it pertains to the Arizona Strip region near Pipe Spring.

Brigham Young instructed missionary and explorer Jacob Hamblin to learn something of the character and condition of the "Moquis" (whom we now refer to as the Hopi) and to preach to them. On October 28, 1858, Hamblin and a small party of men were sent southeast from the young southern Utah settlement of Santa Clara to contact the Hopi.³⁷ A Kaibab Paiute referred to as Chief Naraguts served as the party's guide through the region. Their other purpose was to determine if the Latter-day Saints could retreat to this region should the conflict with the U.S. Army become unbearable, to establish a mission among the Tribe, and to explore the region.³⁸ On October 30, 1858, the men encamped at Pipe Spring. Hamblin's party is the first documented visit by Euroamericans to Pipe Spring. Their explorations revealed the general topography between the Virgin and Colorado rivers to other Euroamericans, opening the way for later colonization of northwestern Arizona. The name "Pipe Spring" was in use by the time a second Hamblin mission to the Hopi passed by Pipe Spring on October 18, 1859.

Protected by the Utah Territorial Militia (also known as the Nauvoo Legion), Mormon expansion moved quickly, occupying the richest river valleys, reducing game, and preempting forage and water holes. Serious friction continued between Indians and settlers as whites penetrated other areas of Utah.³⁹ Between 1858 and 1868, 150 new towns were founded, and the 1850 Utah population of 11,000 grew to 86,000 by 1870.⁴⁰

A move to relocate the Ute on the Uintah Reservation in the 1860s led to the Black Hawk Indian War of 1865-1868.⁴¹ Initial fighting broke out between the Ute and the Latter-day Saints in 1865 in the Sevier Valley in central Utah. The war led the Church in 1867 to build Cove Creek Fort 200 miles south of Salt Lake City, located midway along the 60-



3. Erastus Snow, in charge of Arizona colonization (Reprinted from McClintock, Mormon Settlement in Arizona, 1921)

mile stretch between Fillmore and Beaver. The fort's primary purpose was to protect the telegraph line that linked the area's settlements to Salt Lake City.⁴² The Utah Territory's last major Indian conflict, the war forced the temporary abandonment of a number of southern settlements. Ute resistance was contagious, stirring some Southern Paiute into sporadic resistance.43 However, no major confrontations took place between the Latter-day Saints and Southern Paiute. Some ascribe the non-combativeness of the Southern Painte to activities of missionaries among them, most notably, Jacob Hamblin.44 Perhaps, more likely, they simply lacked the numbers and resources with which to effectively stave off intruders, whether Euroamerican or Indian, such as the Ute and Navajo.⁴⁵

The early 1860s mark the beginning of Mormon encroachment on Kaibab Paiute territory through the establishment of missions and

permanent white settlements. At a semi-annual general conference of the Church held in October 1861, Brigham Young called 300 families to the Dixie Mission.⁴⁶ Utah's "Dixie" was in the Virgin River Basin, established to produce cotton, molasses, wine, and other warm-climate crops. On November 29, 1861, a group headed by George A. Smith and Erastus Snow left Salt Lake City to colonize the valleys of the Virgin and Santa Clara rivers. The town of St. George was surveyed and incorporated in 1861.

Again on October 19, 1862, Young issued another call for 250 families to go south. Two other important events occurred earlier that year which would eventually spur colonization activity in southern Utah and northern Arizona, along with other western regions: passage of the Homestead Act on May 20, 1862, and President Abraham Lincoln's signing of the Pacific Railroad Act on July 1, 1862. The latter act authorized and provided financial aid for the nation's first transcontinental railroad. While the Civil War delayed its construction, the union of the Central Pacific and Union Pacific railroads at Promontory, Utah, on May 10, 1869, ended the isolation of Brigham Young's Kingdom. Young organized a company to build a trunk line between Salt Lake City and Ogden, completed on January 10, 1870. The railroads provided a transportation corridor that linked Utah



4. Mormon settlements along the Arizona Strip and in Arizona (Reprinted, by permission, from Walker and Bufkin, Historical Atlas of Arizona, copyright © 1979 by the University of Oklahoma Press)

commercially to other states while ensuring a continuing stream of new immigrants. The Homestead Act, on the other hand, added an incentive to land-hungry settlers to take their families into arid lands that would have otherwise been considered desolate and unpromising by most folks back east. Not until 1869 did federal officials open a land office in the Utah Territory. Prior to that time, Church officers supervised settlement and land distribution, issuing land certificates to settlers in both Utah and the Arizona Strip.⁴⁷

Other events had more immediate effects on settlements. Kit Carson's 1863-1864 bloody campaign against the Mescalero Apache and Navajo in the Territory of Arizona (which at that time included New Mexico) resulted in the infamous "Long Walk" during the winter of 1863-1864 and subsequent incarceration by April 1864 of about 9,000 Navajo and 400 Mescalero Apache at Fort Sumner in Bosque Redondo, New Mexico Territory. Many there suffered from disease, inadequate food rations, and crop failures. Before being released to return to their homelands in 1868, 1,000 Navajo died at Bosque Redondo.⁴⁸

White settlers in Arizona and New Mexico hoped that the creation of reservations in the 1860s would solve the "Indian problem" and end their war with the Apache and Navajo. For Indians, of course, white immigrants and their protectors, the territorial militias, and the U.S. Army created the problem. Pockets of Indian resistance to white encroachment persisted for decades in some cases.⁴⁹ Displaced by years of conflict with the U.S. Army and refusing to go to their assigned reservation, some Navajo took refuge in Monument Valley and other remote locations while continuing to raid villages and livestock in southwestern Utah and along the Arizona Strip.⁵⁰

Manuelito was the last of the Navajo war chiefs who held out against forced incarceration, hiding with a small band of about 100 men, women, and children along the Little Colorado. Finally, he and 23 defeated and emaciated warriors surrendered at Fort Wingate on September 1, 1866.⁵¹ The free Navajo not only lived in fear of capture or death by U.S. Army soldiers, but also of Ute and Mexican slave raiders who still trafficked in stolen children. The choice between going to the reservation and remaining free was difficult, with either alternative posing considerable threats to survival. Some resistance leaders finally chose to surrender, concluding a treaty with U.S. government representatives led by General William Tecumseh Sherman at Bosque Redondo in May 1868. The 1868 treaty did not end hostilities along the Arizona Strip, however. Navajo raids continued to be a problem, particularly during the winters of 1867-1870. During the 1860s, the Latter-day Saints in Kanab Creek area permitted some Paiute Indians to have access to water and land for farming. In turn, these Paiute warned members of the fledgling white communities of impending raids by the Navajo, who were also the traditional enemy of the Paiute.⁵² Since both Latter-day Saints and Paiute were vulnerable to the Navajo attacks, they served for a time as mutual allies.

In September 1870 Jacob Hamblin, accompanied by Major John Wesley Powell, concluded a peace treaty on behalf of the church with the Shivwits Paiute at Mt. Trumbull, on the north side of the Colorado River. (Powell was an explorer and geologist who convinced the Smithsonian Institute and Congress to fund two

exploratory expeditions he led down the canyons of the Colorado and Green rivers during 1869 and 1871-1872. He conducted other explorations in Arizona and Utah in 1874 and 1875. Powell became director of the Survey of the Rocky Mountain Region in 1875, director of the Bureau of American Ethnology in 1879, and director of the U.S. Geological Survey in 1881.⁵³) Soon after, Hamblin and Powell embarked to Fort Defiance, New Mexico Territory, on a peace mission. At the time 6,000 Navajo were gathered there to receive their annual government allotments. Their meeting with the Tribal Council, begun on November 1, concluded on November 5 with a peaceful settlement. One source reports that Hamblin wrote Erastus Snow details of the meeting in a letter dated November 21, 1870.⁵⁴ Another source states that Hamblin returned to Kanab with word of the treaty about December 11, 1870.⁵⁵ The raids on white settlements soon ended, allowing the development of existing towns and the establishment of new ones.

The Honeymoon Trail

Once peace was made with the Navajo, Latter-day Saints began colonizing along the Little Colorado River in Arizona. A ferry was established across the Colorado at the mouth of the Paria where both Jacob Hamblin and John Wesley Powell had found a feasible crossing. John D. Lee, in hiding for his role in the Mountain Meadows massacre, moved to this remote site with one of his wives, Emma, in December 1871. By January 1873, Lee offered regular ferry service to travelers seeking to cross the river and the place became known as "Lee's Ferry." Brigham Young issued a call that year for colonists to go to Arizona and fill the Little Colorado Mission. The missionaries - 109 men, 6 women, and 1 child - gathered at Pipe Spring, beginning the trek in 54 wagons. The wagon trail traveled nearly 200 miles, creating a rough road as it went. Historian C. Gregory Crampton describes their route to Lee's Ferry:

From the open valley of Kanab Creek the colonists wound along the ledgy, rocky western slope of the Kaibab Plateau. On top they had to traverse a thick forest of pinyon and juniper which snared animals and tore canvas. Then they jolted and bumped down the eastern slope of the Kaibab, which was steeper than the western slope. Through House Rock Valley and along the base of the Vermilion Cliffs they pulled through deep sand, headed washes and deep gulches, and finally arrived at the mouth of the Paria.⁵⁶

Once they made the difficult crossing at Lee's Ferry, the first band of colonists had only a horse trail to follow along a steep and rugged rock crest known as "Lee's Backbone." Wagons had to follow switchbacks over a talus slope covered with sandstone blocks, then made their way southward along the base of the Echo Cliffs. Wagons continued into side canyons opening into Marble Canyon, through washes, barren hills, and across the Painted Desert until they reached Moenkopi, where they found spring water. Moenkopi was only 70 miles from Lee's Ferry, but the trek took the band 26 days, attesting to the ruggedness of the terrain. Proceeding on to the Little Colorado River, the settlers found a bleak and barren region with the riverbed nearly dry. Believing no settlement could be established in such a place, they headed back over the route just traversed.

Still, the road had been opened to the Little Colorado, soon to be traveled by a scouting party in 1875 and another mission of 200 men, organized in 1876. The settlers in this latter mission reached Sunset Crossing, near present-day Winslow, Arizona, in March 1876. Between 1876 and 1880, the Utah-Arizona road was in constant use as Latter-day Saints streamed into the Little Colorado region, establishing a foothold in northeastern Arizona. Beyond Lee's Ferry the route was known as the Mormon Wagon Road. By 1880 two other routes were used by Latter-day Saints traveling between Utah and the Little Colorado River settlements in Arizona, although neither was as heavily traveled as the Lee's Ferry route.⁵⁷

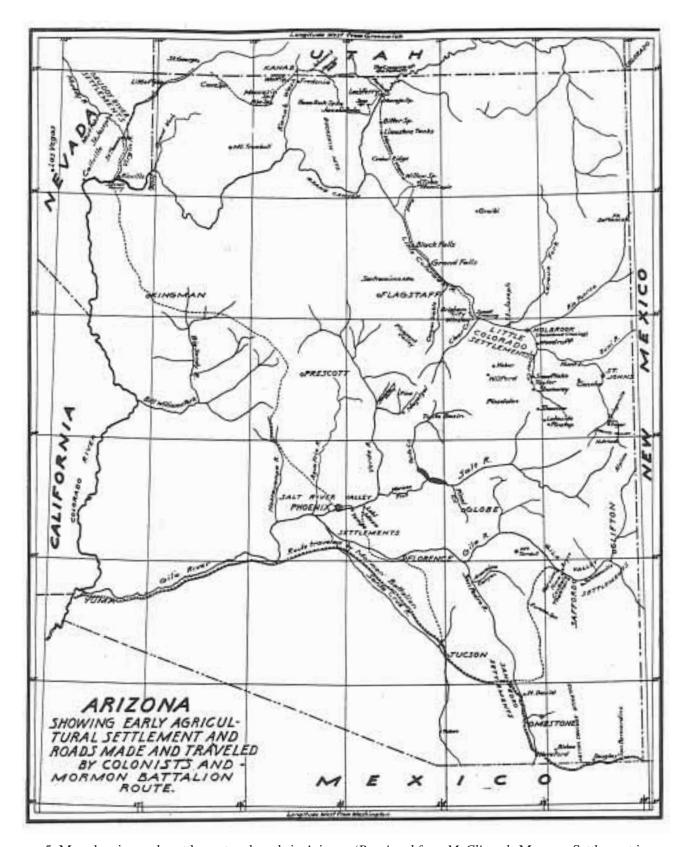
Once the St. George Temple was completed in 1877, young Mormon newlyweds, married by civil authorities in the Arizona settlements, traveled from the Little Colorado River settlements to St. George (by way of the Mormon Wagon Road and Lee's Ferry route) to have their vows solemnized in the temple. Generally, several wagons traveled together, providing both companionship and security in case problems were encountered along the primitive road. C. Gregory Crampton reports these treks were usually made in mid-November with the couples remaining in St. George for the winter, returning to the Little Colorado in April.⁵⁸ The route was traveled by so many newlyweds that it came to be known popularly as "The Honeymoon Trail."

Portions of the old road's well-worn trace can still be seen, including at the vicinity of Pipe Spring where late 19th century travelers would have naturally stopped for water. A portion of the Honeymoon Trail is shown on early 20th century area maps as the "Kaibab Wagon Road" as it passes through the Pipe Spring vicinity. Once Pipe Spring National Monument was established, a number of changes were made to the small section of historic road that traversed the 40-acre tract. In 1934 the road was relocated south of the fort ponds; it was abandoned altogether as a vehicular route, once State Highway 389 opened in 1967. While native vegetation now obscures much of the old road trace within the monument itself, it can be very easily discerned as one looks southwest far across the landscape from the fort.⁵⁹

The Impact of Latter-day Saint Colonization on the Southern Paiute

Historian Leonard Arrington compared the early Latter-day Saints with this country's first colonists, the Puritans, whose religious dogma carried over into secular life. Arrington wrote,

[The Church's task] did not end with the conversion of individual souls. As the germ of the Kingdom of God, the church must gather God's people, settle them, organize them, and assist them in building an advanced social order. Ultimately, according to Mormon theology, the Church must usher in the literal and early Kingdom of God ('Zion') over which Christ would one day rule.... All individuals who participated in this divine and awesome task would be specially blessed and protected. One day, when the Kingdom was finally achieved, there would be no more wars or pestilence, no more poverty or contention.⁶⁰



5. Map showing early settlement and roads in Arizona ($Reprinted\ from\ McClintock$, Mormon Settlement in Arizona, 1921)

Brigham Young likened the process of teaching Indians the ways of white men and leading them toward Latter-day Saint conversion to the process of irrigation. Young stated, "[We must] cut channels" for water to run in "and gradually lead it where we want it to go.... Just so we must do with this people... by degrees we will control them."⁶¹ With regard to contact between the white settlers and native peoples, Utah historian Charles S. Peterson observed:

Mormon relations with native Americans were at once an expression of faith and conquest. The *Book of Mormon* taught that Indians were a fallen people with whom God's spirit had ceased to contend but who were nevertheless united by blood and heritage to ancient Israel. In God's due time, the dark skin and 'loathsome' ways of the curse would be lifted and an inherited claim to the American continent be made valid. In the meantime the Saints watched closely for signs indicating that the curse was lifting and experimented with the means of redemption.⁶²

Peterson refers to the strong cultural and religious overtones of Latter-day Saint colonization efforts:⁶³

By the roads of the gathering the Mormons came to Utah. By colonization they distributed themselves and became a force in the West. By colonization they made a hostile land habitable and brought its discordant elements into a harmonious relationship with God's kingdom. Initiated in 1847, colonizing was repeated on successive frontiers during the next four decades. Responding in part to the Great Basin environment and in part to the teachings and experiences that made them a chosen people, Mormons developed their most distinctive institutions and practices in the process of colonizing. In other words, the climax of withdrawal from the larger society occurred not in arrival in Salt Lake City nor in the conflict that came to center there, but in the colonizing process - the call, the move, group control over land and water, and the farm village life. Developed to bring a raw environment into harmony with God's will on the one hand, and to protect the independence that its rawness permitted on the other, the practices of colonization proved impossible to perpetuate indefinitely, but until 1890 they distinguished Mormon culture and served as the vehicle of the church's geographic expansion.⁶⁴

During the four decades of colonization that spanned from 1850 to 1890, Latter-day Saints established some 450 farm villages and towns. Even before the last watered lands in Utah were ferreted out during the 1870s and 1880s, the Saints extended their colonizing efforts to the neighboring states of Nevada, California, Idaho, Colorado, and Arizona. These settlements were a highly effective means of expanding the Church's area of the influence and economic power. By the 1890s, Latter-day Saint colonies were established as far as Canada and Mexico as a direct response to the U.S. government's crackdown on polygamists that began in 1885.

Several members of the Edwin D. Woolley, Jr., family recorded their recollections about Pipe Spring and the local Kaibab Paiute in the late 19th century.⁶⁵ Their observations included the following:

They are not a fighting tribe.... As a tribe they gave the white settlers little trouble. They seemed to have one need and that was food. They were always hungry. Their friendliness was the trusting friendliness of a child, and their pleasure and gratitude for kindness and a 'bees-kit' [biscuit] was of the same nature. We found them a most likeable people of many virtues, and fear never entered the relationships between the races when we were children. Indeed it seems that if they did not actually welcome the coming of the Mormons they were willing to settle for peaceful co-existence so long as the phrase meant Mormon food and clothing and a few of his utensils such as knives and guns.... Such an attitude on their part is understandable when the conditions of their life are appreciated. The lot of this handful of human beings was not a happy one even in good seasons but in bad seasons when nature forgot to send the rain life was cruelly hard.⁶⁶

The narrative described the manner in which "wick-i-ups" were made by the Paiute, the use of various plants (particularly the squawbush), and various aspects of their material culture. "Clothing was scanty beyond belief," consisting of an apron made of strips of coyote and rabbit hide. Robes of rabbit skin were worn in winter. The pine nut "could be called the staff of life of these people... It became their first article of commerce when the white man invaded their land." While the writer expressed admiration for the ability of the Paiute to survive in a harsh environment, it was obvious these Indians were viewed as extremely "lowly" in terms of cultural and social development. This "backwardness" he attributed to the rigors of their way of life.

"They were always hungry." Some would argue that they had not always been hungry but that the deprivation witnessed by the Woolleys and their Latter-day Saint neighbors just prior to the turn of the century was caused by the indigenous people's loss of access to important resources. The impacts on native flora and fauna that accompanied Mormon settlement along Kanab Creek and other nearby locations, such as Short Creek, Pipe Spring, and Moccasin Spring, were disastrous, resulting in the loss to the Kaibab Paiute of their traditional means of subsistence. This in turn led to a rapid decline in population. Stoffle and Evans cite starvation, rather than war or disease, as the primary cause of Indian deaths during the decade following the first arrival of Mormon settlers. From an estimated pre-contact population of 1,175, the Kaibab Paiute were reduced to 207 by 1873, representing an 82 percent decline in their numbers. Although relations stabilized between Latter-day Saints and the Kaibab Paiute during the following three decades, the Indians found themselves in a desperate plight.

The immediate effects of colonization were apparent early on. Angus M. Woodbury, born in 1886 in St. George, Utah, of Latter-day Saint immigrant parents, wrote in *A History of Southern Utah and its National Parks*:

The coming of the Mormon pioneers gradually upset the Paiute government. The whites frequently settled on Indian campsites and occupied Indian farming lands. Their domestic livestock ate the grass that formerly supplied the Indians with seed, and crowded out deer and other game upon which they largely subsisted. This interference with their movements and the reduction in the food supply tended eventually to bring the Indians into partial dependence upon the whites.

Within a few years, farm crops and livestock brought the whites more food and clothing than the Indians had ever dreamed of. No wonder they became beggars in the towns and thieves of cattle and horses on the range. As long as the whites were in the minority, they used to feed the Indians.... As the whites increased and became strong enough to defy the Indians, the attitude changed from one of fear to that of domination.... In time, it became increasingly difficult for the Indians to maintain themselves.⁷¹

The Latter-day Saint's religion and charity proved to be woefully insufficient compensation for the Kaibab Paiute loss of traditional lands and other resources essential to their way of life.

In the 1860s, the federal government began establishing agencies (reservations) for Utah's native population. The Uintah Ute were attached to an Indian agency established in northeastern Utah in 1868. In an 1873 special commission report, John W. Powell and G. W. Ingalls recommended that the Kaibab Paiute also be placed under federal jurisdiction so that they might at least have food to eat and accessible farmland. No action was taken. In 1880 Jacob Hamblin wrote Powell, then director of the Smithsonian Institution's Bureau of Ethnology,

The Kanab or Kaibab Indians are in very destitute circumstances; fertile places are now being occupied by the white population, thus cutting off all their means of subsistence except game, which you are aware is limited. They claim that you gave them some encouragement in regard to assisting them eak [sic] out an existence....

The foothills that yielded hundreds of acres of sunflowers which produced quantities of rich seed, the grass also that grew so luxuriantly when you were here, the seed of which was gathered with little labor, and many other plants that produced food for the natives is all eat out [sic] by stock.

As cold winter is now approaching and seeing them gathering around their campfires, and hearing them talk over their suffering, I felt that it is no more than humanity requires of me to communicate this to you.... I should esteem it a great favor if you could secure some surplus merchandise for the immediate relief of their utter destitution.⁷²

President Ulysses S. Grant issued the order establishing a reservation in 1872 on the Upper Muddy River in Nevada. Few but the Moapa Paiute went there. Powell responded with the recommendation that the Kaibab Paiute, now consisting of about 40 families

according to Hamblin, move to the Uintah or the Muddy Valley reservations, so that they might obtain federal assistance. It is hardly surprising that the Kaibab Paiute shunned resettlement at the Uintah Reservation, given the history of Ute slave raiding among them. In the late 1880s, a federal appropriation was obtained to remove the Shivwits Paiute from their land on the Arizona Strip to a reservation on the Santa Clara River, just west of St. George. No evidence indicates that any Kaibab Paiute were able or willing to relocate to these reservations, choosing to remain instead on their traditional lands. As native subsistence became increasingly precarious, many Kaibab Paiute moved into closer proximity to the Latter-day Saint settlements of Kanab, Fredonia, and Moccasin, while others sought out wilderness refuge away from Euroamerican settlements, such as Kanab Creek Canyon.

Stoffle and Evans point out that the situation the Kaibab Paiute found themselves in was, in a number of ways, atypical of the post-conquest experience of most other native peoples in the region:

Unlike most other Native Americans, the Kaibab Paiutes did not during these years (1) have a treaty agreement with the United States government, (2) have any territory officially recognized as a reservation, or (3) receive regular welfare subsidies from either the Mormon Church or the federal government. It was a time of hunger, disease, and rapid cultural change for the Kaibab Paiutes. Yet they were ignored by the peoples and institutions that had set these processes in motion.⁷³

Not until the early 20th century would the federal government take action to alleviate the dire circumstances of the Kaibab Paiute.

Pipe Spring and Its Ownership, 1863-190974

As they carried out Brigham Young's directive, Mormon settlers moved to southern Utah and into what soon was to become Arizona Territory, created by President Abraham Lincoln on February 24, 1863. They laid out town sites, allocated fields, and constructed communal irrigation systems. Between 1863 and 1865, stock ranches were established at Short Creek, Pipe Spring, and Moccasin Spring (also known as "Sand Spring"). At about the same time, ranches were established at the present site of Kanab although these were temporarily abandoned during the height of conflict with the Navajo.⁷⁵ Thus, within a very short time period, white settlers had expropriated all perennial water sources in the Kaibab Paiute territory. These were Kanab Creek, Short Creek, Pipe Spring, and Moccasin Spring. The latter two were the only large springs in the area.⁷⁶

The first white man to lay claim to Pipe Spring was James Montgomery Whitmore. After joining the Church of Jesus Christ of Latter-day Saints in Texas, Whitmore moved with his wife, Elizabeth, and several children, a brother, and a sister to Utah in 1857. Because he had been a druggist before coming to Utah, he was known as "Doctor Whitmore." Whitmore remained in Salt Lake City until the 1861 call, then moved with his family to St. George. On April 13, 1863, Whitmore received a land certificate for a 160-acre tract,

which included Pipe Spring.⁷⁸ (It is notable that John D. Lee, participant in the Mountain Meadows incident referenced earlier, signed this certificate.) Upon this tract Whitmore, assisted by Robert McIntyre, established a ranch, constructed a small dugout for quarters, fenced about 11 acres for cultivation, set out about 1,000 grape vines, built corrals, and planted peach, apple, and other fruit trees.⁷⁹ While some accounts refer to McIntyre as a hired hand, a number of writers report he was related to Whitmore.⁸⁰ It seems possible that he was both related to and worked for Whitmore.

It is important to note that Whitmore's settlement at Pipe Spring coincided with Kit Carson's military campaign against the Mescalero Apache and Navajo in Arizona Territory, as referenced earlier. In 1865 Navajo raiding parties began crossing the Colorado River, raiding settlements along the Arizona Strip. In December 1865 the Navajo attacked the Utah Territorial Militia garrisoned at Kanab, forcing the settlement's abandonment. On or about January 9, 1866, a party of Indians drove off a herd of sheep from Whitmore's ranch. (According to David Chidester of Venise, Utah, Navajo, aided by some Shivwits Paiute, made the raid on Whitmore's ranch.81 C. Leonard Heaton, long-time monument custodian, wrote that the raiders were Navajo and some Paiute who had been "kicked out of the local tribe because of their wickedness."82) Whitmore and McIntyre set out to trail the raiders, leaving James Jr., Whitmore's 11-year-old son, in the dugout.83 When the men didn't return, the boy headed on foot for William B. Maxwell's ranch in Short Creek, 25 miles west. He was intercepted by men on horseback who then informed Maxwell of the situation. Maxwell, a major in the militia, began gathering men for a search party. On January 11, 1866, word was received in St. George from Maxwell of the disappearance of Whitmore and McIntyre. Thirty-one local volunteers under the command of Col. D. D. McArthur and a second detachment from St. George of 46 men led by Capt. James Andrus arrived at Pipe Spring to search for Whitmore and McIntyre.⁸⁴ Anson P. Winsor was one of those in the search party, as was Edwin D. Woolley, Jr., both prominent in Pipe Spring's later history.

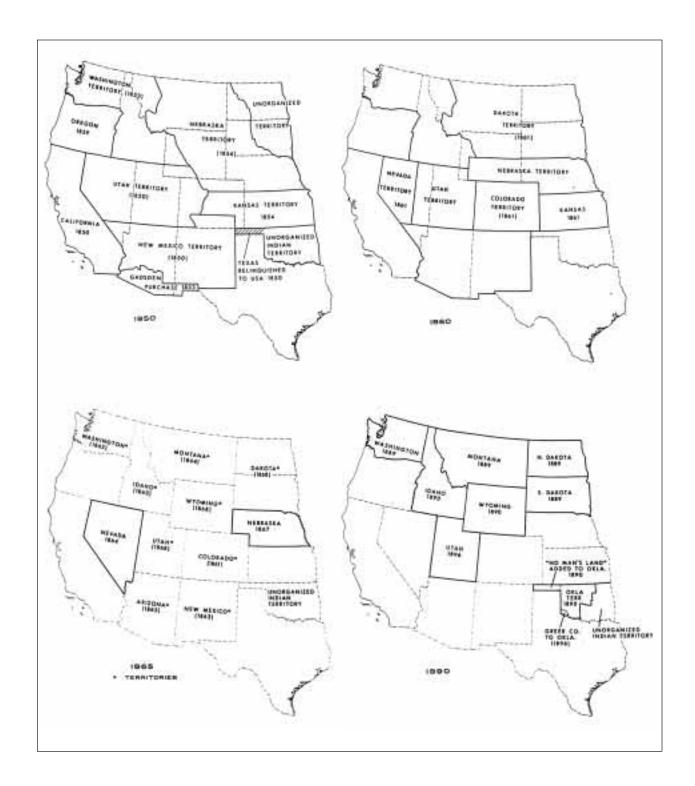
Numerous conflicting accounts relate the events surrounding the militia's January 20 discovery of the bodies of Whitmore and McIntyre and the subsequent retaliatory killings of a number of Paiute men. Some reports say that the Paiute were found to have in their possession some of Whitmore and McIntyre's property. Years later, in July 1914, James Andrus told his version of the story to photographer Charles Ellis Johnson who wrote it down. So According to Andrus, his troops had encountered two Indian men in the process of attempting to kill several cattle. They took the two prisoners to the militia camp and turned them over to McArthur. In return for a promise of his freedom, the older of the two Indians led them to the bodies of Whitmore and McIntyre. Later, again in return for a promise of freedom, the younger Paiute led the militia to the Indian encampment where the militiamen arrested nine more Paiute men. In spite of protestations of innocence by these captives, the militiamen held them accountable for the murder of Whitmore and McIntyre and shot and killed them. Thus, according to Andrus' account, nine Paiute men were killed; other reports of the number killed range from 6 to 13.87 There is no record of what happened to the remains of the slain Indians. The bodies of Whitmore and McIntyre were

returned to St. George for burial. All business was suspended on the day of the funeral, January 23, 1866, and over 300 people attended last rites for the two men.⁸⁸

Jacob Hamblin later learned from contact with the Indians that the Paiute men the militiamen had shot to death were innocent.⁸⁹ It is worthy of mention that the 1866 slayings of Whitmore and McIntyre and the militia's subsequent killing of Paiute men are alive in the memory of many local Latter-day Saints and Kaibab Paiute today. The controversy would resurface in 1933 when the Utah Trails and Landmarks Association affixed a commemorative marker to the fort. The current site of the Whitmore-McIntyre dugout is located about 100 feet southeast of the fort. Not long after the construction of the Pipe Spring fort, the roof of the old Whitmore-McIntyre dugout collapsed, reportedly under the weight of a cow. The dugout was used thereafter as a trash pit by residents of Pipe Spring.⁹⁰

The slaying of Whitmore and McIntyre and subsequent retaliation by militia against the Paiute were not to be the last blood shed between whites and Indians on the Arizona Strip. On April 7, 1866, Joseph Berry, Robert Berry, and his wife Isabella were killed by Indians near Maxwell's Ranch at a spot since known as Berry Knolls, located 1.5 miles south of Short Creek (now Colorado City). It was not known if the Paiute or the Navajo were responsible. The danger to the Mormon frontier was now grave. Martial law was declared and Brigham Young urged that small frontier settlements be abandoned with residents moving to larger towns for security. No settlement, he advised, should have less than 150 well-armed men. As the theft of livestock was thought to be the Indians' primary objective, Young urged settlers to guard their animals. Practically the entire eastern line of settlements, those in the Sevier Valley, most of those along the upper middle sector of the Virgin, and all the settlements in Kane County as well as Moccasin and Pipe Spring were abandoned, not to be reoccupied until about 1870-1871.

Although Pipe Spring was within the new territory of Arizona, James M. Whitmore had received the land certificate for his Pipe Spring claim from Washington County, Utah Territory. The confusion was attributable to the shifting character of Utah's territorial boundaries, beginning 11 years after its creation, and to a prolonged effort by Utah officials to have the Arizona Strip returned to Utah. During its early history, Pipe Spring fell under the jurisdiction of three different counties in two different territories. From January 4, 1856, to August 1, 1864, it fell under the jurisdiction of Washington County. When Kane County was organized in 1864 Pipe Spring came under its jurisdiction where it remained until 1883. Both these counties were located in the Utah Territory. The size of its territory was reduced a number of times by the creation of the territories of Nevada and Colorado (1861), and Wyoming Territory (1868). More Utah territory was lost when the Nevada Territory's eastern boundary was moved eastward in 1864. As late as 1897, some Utah officials were still arguing to retain the Arizona Strip territory, lands that lay between the Utah border and the Grand Canyon, but to no avail.⁹² Arizona's territorial boundaries were extended in 1883 to take in much of the Arizona Strip, and at that time the Pipe Spring ranch was placed under the jurisdiction of Mohave County, Arizona, where it has since remained.93



6. Map showing boundary changes to Utah and surrounding territories, 1850-1896 (*Reprinted, by permission, Beck and Haase*, Historical Atlas of the American West, *copyright* © 1989 by the University of Oklahoma Press)

In 1866 Capt. James Andrus was given command of a cavalry company consisting of 62 officers and men and was instructed to examine the country along the Colorado River from the Buckskin Mountain (on the Kaibab Plateau) to the north of the Green River. The expedition left St. George on August 16, 1866, and traveled by way of Gould's Ranch, Pipe Spring, the abandoned settlement of Kanab, Skutumpah, to the Paria River, which they reached in the vicinity of the later site of Cannonville.⁹⁴ It may have been at this time (or shortly after) that a stone cabin was constructed at Pipe Spring to be used for periodic encampment by the militia (the north part of what is now known as the east cabin). On November 24, 1868, Colonel John Pearce camped at Pipe Spring with 36 men of the Utah Militia under his command.⁹⁵ By March of 1869, Erastus Snow, Bishop of Southern Utah, decided to make Pipe Spring a permanent supply base for the militia. Men were sent to plant turnips and corn where Whitmore had once raised his crops. 96 The stone cabin was repaired for use as guard quarters. In August of that year, John R. Young reported from Pipe Spring that four tons of hay had been cut on the "Moccasin spring creek," 2.5 miles north of PipeSpring.97 Two tons of this hay were brought to Pipe Spring and a shed was built to shelter 16 horses.98 By September 12 of that year, a decision was made to winter the militia at Kanab due to its proximity to the Colorado River.⁹⁹ The Pipe Spring supply base was soon vacated.

In April 1870 Brigham Young traveled to the site of Kanab and issued a call for it to be reoccupied. During this trip, he surveyed the Pipe Spring area and decided that the site would be a good location for some of the Church's tithed herds. For the safety of local settlers, Young also decided that a fort should be constructed at Pipe Spring. 100 He returned to Salt Lake City and appointed Anson P. Winsor to take charge of the operations, offering an annual salary of \$1,200. On his return trip to consecrate the town of Kanab the following September, Young stopped at Pipe Spring to inspect the site for the new fort. Present there at the time were Major John Wesley Powell, Jacob Hamblin, and Chuarumpeak (nicknamed "Frank" by whites), Powell's Paiute guide. Powell reported that the Paiute Indians called Pipe Spring "Yellow Rock Water," after the nearby cliffs. 101 A map produced by Powell's expedition surveys of 1871-1873, however, depicts "Yellow Rock Spring" as located approximately 10 miles southwest of Pipe Spring. This leaves open the question of whether or not Pipe Spring and "Yellow Rock Water" are really the same. 102

How did the Church obtain the ranch property? Upon Whitmore's death on January 9, 1866, his widow, Elizabeth Carter Whitmore, inherited the ranch as part of her husband's estate. 103 In December 1870, Mrs. Whitmore made a verbal agreement with Brigham Young to sell the Pipe Spring ranch to the Church. 104 A record of payment to Mrs. Whitmore was not made until just over three years later, however, after the organization of the Winsor Castle Stock Growing Company (Winsor Company). Church historian Andrew Jenson provides a description of the meeting held for the purpose of organizing this cooperative livestock company. 105 The meeting convened in the St. George Tithing Office on January 2, 1873. Erastus Snow was chosen its first chairman. The maximum capital stock agreed to was \$500,000. The Board of Directors elected Brigham Young, Sr., president; his nephew, Joseph W. Young, vice-president; and Alexander F.



7. Detail from USGS survey map, John Wesley Powell's expeditions of 1871, 1872, and 1873 (Courtesy Bancroft Library, University of California)

MacDonald, treasurer.¹⁰⁶ Initial subscriptions in stock were made totaling \$17,450, with the Church as primary subscriber.¹⁰⁷ Minutes of the meeting stated:

In addition to the 140 acres of land at Pipe Springs, purchased by the Trustee and Trust of the James M. Whitmore estate in 1870, the church has since negotiated for a one-third interest in Moccasin Springs, but which, up to the organization of the Winsor Castle Stock Growing Company, has not been paid for; and therefore, will have to be paid for by that company. Some 15 acres of land have been irrigated by the one-third interest in Moccasin Springs.¹⁰⁸

The reference to 140 acres is believed to be an error, one that has been repeated in other subsequent accounts. The size of Whitmore's original claim was 160 acres as verified by the land certificate. The reference to purchase of one-third water rights and irrigation of land at Moccasin Spring is important to note and will be discussed under a later section, "Moccasin Ranch and Spring."

A memorandum of agreement was made on February 15, 1873, between the Winsor Company and Anson P. Winsor as follows:

In presence of President Brigham Young, Vice-President Joseph W. Young and Secretary Alexander F. MacDonald, at St. George. A. P. Winsor proposes to do the work of herding at the ranches of the company, also the farming and fencing connected therewith at Winsor Castle and Moccasin Spring and the dairy work at the ranches for \$3,500 per annum. Anson P. Winsor to pay all board and expenses. ¹⁰⁹

Winsor was to receive \$1,000 salary; the other \$2,500 was to pay four hired men and one woman. (Winsor received \$1,200 salary per year from May 1870 until January 1873. Under the new arrangement, his salary was reduced.) At the preliminary meeting it was recorded, "Mrs. Whitmore to be offered \$1,000 in capital stock in the company if she will accept it, for ranch and improvements." ¹¹⁰ Accept it she did, for a January 1, 1874, entry in Winsor Company's Ledger B recorded that she was paid \$1,000 in Winsor Company stock. Another Ledger B entry indicated a cash payment to Mrs. Whitmore of \$366.64. The latter is believed to be for interest owed resulting from the three-year delay of payment. In exchange, Mrs. Whitmore provided the company with a bill of sale. ¹¹¹ No legal record of the transfer of title from Whitmore to the Church has ever been located and may have never been executed, given the political tenor of the times.

James M. Whitmore's death left Elizabeth Carter Whitmore with nine children under the age of 12 to raise. After her husband's death, she managed the family farm, raising grapes, apples, and peaches. 112 She became a very influential person in St. George, holding and exchanging a great deal of property. 113 In September 1869 she purchased the home of Jacob Hamblin in Santa Clara. Then she and a "Mrs. McIntyre," whom she had previously been living with, moved to the Santa Clara home. 114 (Mrs. McIntyre may have been the widow of Robert McIntyre. If so, the fact that the widows of Whitmore and

McIntyre were living together after the men's deaths lends credence to sources which say the two men were kin. The exact relationship of the two men and two women has yet to be documented.) In 1883 Mrs. Whitmore moved to Salt Lake City where she lived until her death on November 24, 1892.

Anson P. Winsor was one of the Latter-day Saints who responded to the call of 1861. Born August 19, 1818, in Ellicotville, New York, he was baptized into the Church in 1842. As a member of the faithful group gathered in Nauvoo, Illinois, he had acted as one of Joseph Smith's bodyguards. He emigrated from the Midwest to Utah in 1852 with his wife, Emeline Zenatta Brower, and a growing family, and soon located in Provo. (The couple eventually had nine children.) There in 1855, he took in plural marriage a second wife, Mary Nielsen, a Danish immigrant. Winsor's role in the Utah War (1857-1858) has already been mentioned. During the period of heightened conflict with Indians (late 1865-1869), Winsor served as colonel in the Third Regiment of the Utah Territorial Militia under General Erastus Snow. He is reported to have participated in several battles with Indians.¹¹⁵

In response to Brigham Young's call to colonize southern Utah, Winsor moved his families in 1861 from Provo to Grafton on the Virgin River, and was appointed its bishop in 1863. Grafton, along with Kanab and other settlements, was abandoned in 1866 during the period of Navajo raids. Winsor was living in Rockville when he was appointed in April 1870 to collect and oversee the Church's ranch of tithing cattle at Pipe Spring. His role as ranch superintendent began that May. Toon after, he sent his 15-year-old son, Anson Jr., to the site to plant a garden prior to the family's arrival. No documentation has yet identified the location of this early garden, but it is reasonable to assume it was the same land previously cultivated by Whitmore and the militia. Because of the lay of the land, the garden would most likely have been located south of the fort where it could be irrigated by gravity flow from the springs. The boy lived in the old Whitmore-McIntyre dugout during this period.

Joseph W. Young, president of the Stake of Zion in St. George and a nephew of Brigham Young, was charged with overseeing the construction of the fort.¹¹⁸ Young wrote a letter on October 16, 1870, from his home in St. George to President Horace S. Eldredge in England describing his appointment and noting,

This work will keep me out most of the winter, but it is a very necessary work, and I am willing to do my part in it. This Pipe Spring and Kanab country is right between us and the Navajos, and it is the best country for stock raising that I ever saw if it can be made safe against the raids of these marauding Indians. I start out tomorrow with a small company to commence the work.¹¹⁹

Presumably, Young and his party left the following day and soon began the preliminary work of laying out the fort. John R. Young, brother to Joseph W. Young, brought his two wives, Albina and Tamar, and their children from Washington, Utah, to Pipe Spring in 1870 so that he could assist his brother with construction of the fort. John R. Young

reported that his wife Tamar (born Tamar J. Black) assisted Joseph Young in drawing up the plans for the fort. Construction of the fort began that fall.¹²⁰

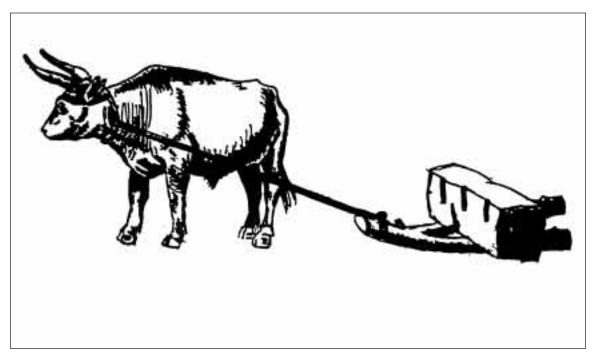
It is not known exactly when the rest of the Winsor family arrived, but it was some time prior to Joseph W. Young's arrival. The one-room stone building constructed a few years earlier by the militia was modified in 1870 through the addition of another room to the south, the two rooms separated by an open bay. The Winsors lived in this building, now known as the east cabin. Anson P. Winsor's son, Walter, later reported that Joseph W. Young was also mayor of St. George, thus did not spend all of this time at Pipe Spring. When he was at Pipe Spring, he reportedly shared the Winsors' cabin. In 1870 a second two-room stone cabin was erected west of the fort site to house workers (now referred to as the west cabin or bunkhouse).

Blocks of sandstone for the construction of the fort walls were quarried from the sandstone cliff immediately west of the fort site. The partially worked stones were placed on a forked log called a "rock lizard" and dragged by an ox down a trail cut or worn into the face of the cliff. This contraption has also been called a "stone-boat," thus the trail has been referred to as both the "stone-boat trail" and the "quarry trail." The proximity of this trail to the fort is shown in figure 9.

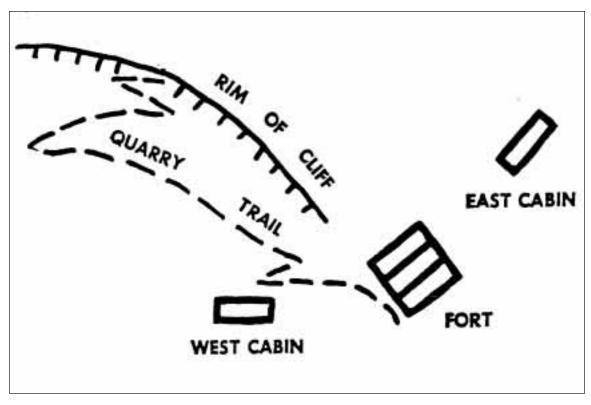
Lumber for the fort came from a sawmill at Mt. Trumbull (located 60 miles from Pipe Spring in the Uinkaret Mountains of the Uinkaret Plateau), and lime was brought from a deposit located eight miles to the southwest near Cedar Ridge. 122 While the fort was originally planned to be 152 feet by 66 feet, Young reduced it to approximately 68 by 44 feet, most probably because threats from Navajo to nearby settlements were no longer a problem after the November 5, 1870, treaty of Fort Defiance. 123 (As mentioned earlier, word of the treaty did not reach Pipe Spring until December, several months after construction activities began on the fort.) Once the possibility of Indian attacks was over, the fort's defensive function was rendered obsolete. Although reduced in size, it still retained its defensive design.

The Pipe Spring fort was completed by April 1872 except for interior work that continued for several years.¹²⁴ The completed structure consisted of two sandstone block buildings, each two-stories, that faced each other across a courtyard. Heavy wooden gates, which opened outward, enclosed both ends of the courtyard. Wood shingles covered the fort's roof. For defensive purposes, none of the buildings' exterior walls were constructed with windows but instead were supplied with gun ports.

The north building (or "upper house") of the fort abuts a hillside that historically yielded the site's primary source of spring water. The spring water flowed by gravity southward, beneath the floor of the north building's west room, then through a stone-lined trough across the courtyard, and into the west room of the south building (the "lower house"). The main function of the cattle ranch at Pipe Spring was to produce cheese, butter, beef, and hides for Mormon workers building the St. George Temple, which was under construction 1871-1877. Sheep were also kept at Pipe Spring during this period, providing a source



8. An ox dragged building stone on a "rock lizard" down the quarry trail ($Pipe\ Spring\ National\ Monument$)



9. The quarry trail followed along the cliff face to the fort's construction site (*Pipe Spring National Monument*)

of wool and lamb for the St. George workers. In addition to cooling the dairy room, the water that issued from the spring behind the fort was used for culinary purposes, crop irrigation, and stock watering. 125 Reports detailing the fort's construction, physical appearance, and history as the Church's cattle ranch are described in other sources, and will not be repeated here. 126

During fort construction, a telegraph line was being constructed from Rockville, Utah, to Kanab, Utah. The organization of the Deseret Telegraph Company dates back to 1861, when the transcontinental telegraph reached Salt Lake City. Church leaders immediately planned to build a line for the settlements from north to south but the Civil War temporarily prevented them from acquiring the necessary wire, insulators, and equipment. During the winter of 1865-1866, the Latter-day Saints subscribed money and contributed teams and teamsters to form a train to transport these supplies from the Missouri Valley. A Church-run school for telegraphy was set up in Salt Lake City, the company was incorporated by the territorial assembly, and construction began on the telegraph line with men's labor credited as a Church tithe. Troubles with Indians during 1865-1870 hastened the line's construction. It reached St. George on January 15, 1867. Pipe Spring was chosen to be a station of the Deseret Telegraph Company, making it the earliest telegraph station in Arizona. The first message was sent from there on December 15, 1871. The telegraph line reached Kanab on Christmas Day, 1871. Eliza Luella ("Ella") Stewart was the first operator at Pipe Spring; she was also was the first operator in Kanab where the office was set up in the home of her father, Bishop Levi Stewart. The arrival of the telegraph line in southern Utah and the Arizona Strip enabled settlers there to communicate with Salt Lake City and thus with the rest of the world. It helped to end the terrible isolation that was characteristic of remote settlements and kept those in Salt Lake City informed of distant developments. By 1880 the telegraph line was about 1,000 miles; 1,200 miles of wire were strung over thousands of rough poles, and there were 68 offices or stations. In 1900 the company was sold to eastern interests. 127

Major John W. Powell obtained supplies for his Grand Canyon expedition at Pipe Spring in 1871 and 1872. Anson P. Winsor's son, L. M. Winsor, reported that it was during these visits that Powell christened the new fort, "Winsor Castle." Prior to that time he said it was called "Fort Arizona." L. M. Winsor also recalled the family had a vegetable garden planted with tomatoes, corn, potatoes, squash, and pumpkin. In addition, the family kept a vineyard and a variety of fruit trees (peaches, apples, and two varieties of plums) and planted black currants. 129

The fort at Pipe Spring never came under Indian attack. Relations with the nearby Kaibab Paiute had long been friendly, and the peace negotiated by Hamblin and Powell with the Navajo while the fort was under construction eventually ended the raiding of white settlements. Few references to the Winsors' relationship with the Kaibab Paiute at Pipe Spring have been found so the following quotation is particularly useful. L. M. Winsor reported that his father, Anson P. Winsor, "...spent much time with the Paiute Indians who taught him many things. He acquired a love for these Indians that remained through life, and he always had some of them near or working for and with him." 130 While there had

once been occasional Navajo raids in the area, the local Paiute were friendly to the family, the son recalled. In addition to a huge herd of cattle, the Pipe Spring ranch had a band of sheep. John R. Young's son, Silas, remembered that an Indian tended the sheep.¹³¹

After the signing of the November 5, 1870, treaty, the Navajo became frequent visitors and traders in Mormon settlements. Their raiding of Southern Paiute camps, however, continued. According to Stoffle et al., as threats of Navajo attacks on Mormon settlements gradually waned, the Latter-day Saints broke earlier mutual protection treaties with the Paiute. A significant decline in interactions between Euroamericans and the Paiute characterized the three following decades. Southern Paiute north of the Colorado River sought refuge with other peoples, such as the Hualapai and Havasupai, or moved to more isolated places like the lower Kanab Creek area, and to hidden places along the Colorado River in the Grand Canyon. 132

A number of Kaibab Paiute cast their lot with the white settlements of Kanab, Fredonia, and Moccasin where they eked out a marginal existence by relying on occasional handouts of food and on limited opportunities for employment doing menial jobs. At least until 1900, payment was usually made in the form of produce or locally produced goods. Even menial jobs were not secure, however. As thousands of poor, land-hungry Church converts from Great Britain, Ireland, and Scandinavia continued to immigrate to the newly colonized areas, many of the unskilled tasks once performed by Indians were turned over to the immigrants. 133

Anson Perry Winsor continued overseeing the Church's cattle at Pipe Spring until he was called to St. George in the fall of 1876 to labor there as an ordinance worker in the Temple.¹³⁴ After Winsor's departure, his son Walter was in charge at Pipe Spring until the arrival of Charles Pulsipher.¹³⁵ Pulsipher was elected superintendent of the Winsor Company's herd on January 3, 1877, moving to Pipe Spring from Hebron, Utah, where he had supervised another Church herd.¹³⁶ The size of the Pipe Spring herd in mid-1877 was 2,097. Pulsipher lived at the fort with the second and third of his three wives, Sariah and Julia, and children.¹³⁷

By a unanimous vote of stockholders present at a meeting held January 1, 1879, the property of the Winsor Castle Stock Growing Company was transferred to the Canaan Cooperative Cattle Company (Canaan Company) of St. George, headed by Erastus Snow, president of the St. George Stake. Brigham Young, who was its primary shareholder until his death in 1877, founded the Canaan Company in 1870. It was probably the largest of the southern Utah cooperatives, operating dairies, farms, meat markets, and hiring agents to represent it. The company's main ranch headquarters was at Canaan Spring, in a cove at the base of the Vermilion Cliffs a few miles west of Short Creek. Soon after the merger between the Winsor Castle Stock Growing Company and the Canaan Company, Pipe Spring's dairy cattle were transferred to Canaan's dairy ranch at Upper Kanab. Pipe Spring ranch operations then concentrated on the production of beef cattle.

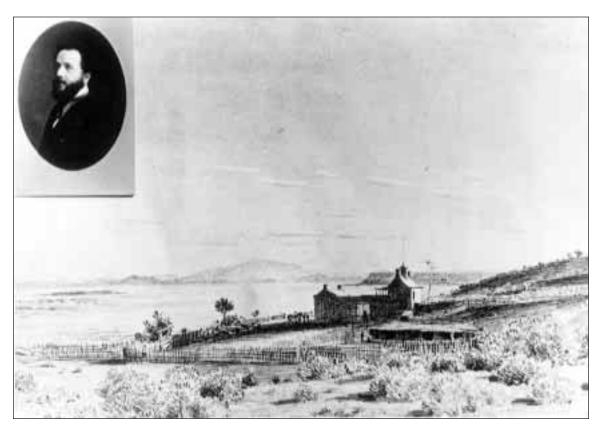
Drought in 1879 and over-grazed range land reduced the Pipe Spring herd. On November 15, 1879, the Canaan Company returned the Pipe Springs property to the Church, or rather, to the Trustee in Trust, President John Taylor. At their next meeting on December 17, 1879, the Company directors approved paying the Trustee in Trust rent for the Pipe Spring ranch from July 1 through December 31, 1879. In late 1879, the Company's Chairman Erastus Snow and President Taylor agreed that annual rent in 1880 for the Pipe Spring ranch would be \$250.

The transfer of Pipe Spring to the Canaan Company, then back to President Taylor, may seem curious, but in context of the events of the time, it can be better understood. At the personal orders of Brigham Young, the Pipe Spring fort had been constructed by a work mission of the Church and subsequently used as a tithing ranch. President Young held controlling stock of the Winsor Castle Stock Growing Company as Trustee in Trust for the Church. The legal process to settle Young's estate, begun after his death (which took place on August 29, 1877), was not completed until some time in 1879. According to Leonard Arrington, the giant share of Church properties in Young's name was eventually turned over to his successor, John Taylor. It is probable that Pipe Spring wasn't immediately transferred to Taylor's control pending the outcome of the settlement of Young's estate. In any event, President Taylor continued the policy of secretly holding certain Church business properties in the names of individual trustees, presumably to prevent federal officials from knowing the actual extent of Church holdings.

In early 1879, Canaan Company Superintendent James Andrus was appointed to take charge of the Winsor Castle herd but resigned later that year. Pulsipher stayed on at Pipe Spring into the winter of 1879-1880.¹⁴¹ On December 17, 1879, the company hired James S. Emett to oversee the Andrus Spring, Short Creek, and Pipe Spring ranches. Census records indicate Emett lived in Kanab. He was released from his position the following year, and soon after the company notified Church President Taylor it would not renew its lease.

By 1880 the Church's policy in managing the Pipe Spring ranch was to lease it to interested cattlemen who would use it as an investment and care for the Church cattle herd. After the Canaan Company's lease expired (some time in 1880), the ranch was vacant until late 1881 or early 1882 when it was leased to Kanab resident Joseph Gurnsey Brown, who lived there with his wife Harriet. In 1885, shortly before the Brown family left Pipe Spring, they received a visitor, a Frenchman named Albert Tissandier, who stopped both en route to and on return from Kanab. On the first visit, Tissandier drew a sketch of the fort and its setting, the oldest known picture of the site, and presented it to a Kanab family. Ida

The Browns left Pipe Spring in 1885, moving back to Kanab. Either just before or at the time of their departure, the Church turned management of the ranch and herds over to the United Order of Orderville (described later). Erastus Snow's son-in-law, Edwin D. Woolley, Jr., was placed in charge of the Pipe Spring herd in late 1885. Woolley, president of Kanab Stake, maintained a home and family in Kanab while moving his plural



10. Albert Tissandier and his drawing of Pipe Spring, 1885 (*Pipe Spring National Monument*, neg. 5013)

wife, Florence (or "Flora," daughter of Erastus Snow), and their three children to the Pipe Spring ranch in the spring of 1886.¹⁴⁵ A series of caretakers was hired to oversee ranch operations, among them were George Hicks, Loren Little, and Squire Hepworth.¹⁴⁶ During Woolley's management, John M. McFarlane, U.S. Deputy Mineral Surveyor for Arizona, made a private survey by metes and bounds of the Pipe Spring ranch on December 3-4, 1886.¹⁴⁷ The plat of survey showed that the property, with all its improvements, contained 40 acres.¹⁴⁸

Prior to this time, a number of federal laws had been passed that would directly impact activities at Moccasin and Pipe Spring. In 1862, Congress passed an act prohibiting polygamy, disincorporated the Church, and prohibited it from owning more than \$50,000 worth of property other than that used directly and exclusively for devotional purposes. Although the law was generally considered unconstitutional, the Church attempted a kind of surface compliance with it by permitting only one civil marriage, calling the others "sealings," and placing properties acquired by the Church in the hands of Brigham Young as trustee in trust. After Young died, Church business properties continued to be secretly held in the names of individual trustees.

Crucial weaknesses in the early legislation targeting Latter-day Saints led to the passage in 1882 of the Edmunds Act. The Edmunds Act set in motion a process for reordering

the political climate in Utah, and it also had a profound impact on territorial life through criminal prosecutions. The number of deputized federal marshals in the territory increased 300 percent, given the primary responsibility of tracking down polygamists. 149 This law put "teeth" into the 1862 law by enacting heavy penalties for the practice of polygamy, defining cohabitation with a polygamous wife as a misdemeanor, disenfranchising polygamists, and barring them from serving on juries or holding public office. The Edmunds Act also attempted to eliminate the Church as a power in Utah by vesting the territory's political machinery in federal non-Mormon appointive officers. Until 1885, there was widespread belief this law was unconstitutional, so federal officials moved slowly in bringing indictments under it. On March 3, 1885, the Supreme Court upheld the constitutionality of the Edmunds Act by denying the appeal of convicted polygamist Rudger Clawson. Territorial officials then commenced the systematic and intensive prosecution of Church leaders in Utah and elsewhere, known as the "Raid." 150

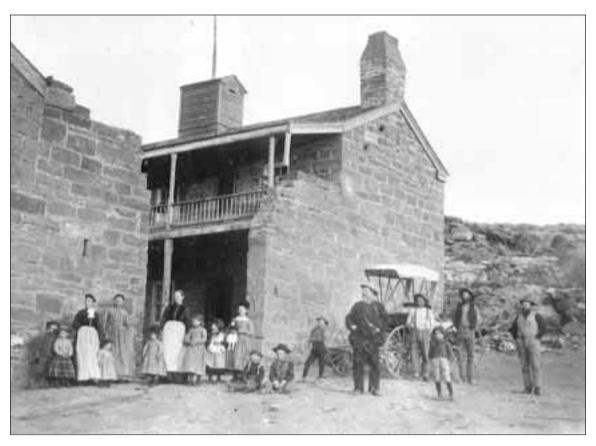
In 1887 the Edmunds-Tucker Act, or "Anti-Polygamy Act," amended the 1862 law, putting even greater pressure on Latter-day Saints. This law was designed to destroy the temporal power of the Church. Among its provisions was the dissolution of the Corporation of the Church of Jesus Christ of Latter-day Saints. The Attorney General was directed to institute proceedings to forfeit and escheat all property, both real and personal, of the dissolved Church corporation held in violation of the 1862 limit of \$50,000. It also called for the dissolution of the Perpetual Emigrating Company, the abolition of female suffrage in Utah, and the disinheritance of children of plural marriages. Moreover, it empowered the court to compel the production of books, records, papers, and documents relating to properties held by the Church's president.

Between 1884 and 1893, there were 1,004 convictions for unlawful cohabitation and another 31 for polygamy under the Edmunds Act. ¹⁵³ As polygamous marriage was difficult to establish in the courts, most often the charge made was that of unlawful cohabitation. Under the Edmunds Act, cohabitation with a polygamous wife was a misdemeanor punishable by a fine of up to \$300 or by six months imprisonment, or both. The period from 1885 to 1890 was marked by intensive "polyg hunts" for "cohabs." Many Church leaders went into hiding (or hid their plural wives and children) to escape prosecution. (Church President John Taylor died while in hiding on July 25, 1887. His last public appearance was in the Salt Lake City Tabernacle on February 1, 1885.) Just as the 1858 federal takeover of Church government functions had spurred southern colonization, the struggle over polygamy served also as catalyst for further expansion of Mormon settlements.

Edwin Dilworth ("Dee") Woolley, Jr., was one of the polygamists who sequestered his wife Flora and their children across the state line in the remote Pipe Spring fort. 154 Federal agents sought plural wives as witnesses in those days. If the plural wife could not be located, it was nearly impossible for the federal deputies (referred to as "Deps" by the locals) to prove cohabitation. Nine other plural wives and their children are reported to have taken refuge at Pipe Spring at various times during the raiding period. (They were never all there at the same time.) Their names were Josephine Snow Tanner and Georgie

Snow Thatcher (sisters to Flora Snow Woolley), Lynda J. (or T.) Marriger, sisters Ellen C. and Ann C. Chamberlain, Caroline Woolley, Emma Carroll Seegmiller, Mrs. Bringhurst and Mrs. Sangford of Toquerville. The husbands of the two Toquerville wives were serving time in the penitentiary. The Chamberlain sisters were the wives of Thomas Chamberlain, president of the United Order in Orderville. Chamberlain was one of those arrested, convicted, fined, and sentenced to prison for violation of anti-polygamy laws.

A significant number of changes were made to the Pipe Spring fort and landscape during Flora Woolley's five-year stay there. The fort alterations (principally the cutting of window and door openings and the removal of the large wooden gates on the east and west end of the courtyard) are described in detail in Park Service Historian A. Berle Clemensen's historic resource study. 157 The changes were made in order to let more air and light into the buildings and to minimize its fortress-like feeling. 158 Flora Woolley reportedly wanted these alterations to make the place feel less like a prison. 159 Of her move to Pipe Springs Flora once said, "...I went to prison to keep my husband out." 160 (In 1959 the fort was restored to its original appearance through filling in the openings made during the Woolley's period. See Part IX.) Another change made during this period was that, at Flora Woolley's



11. Pipe Spring fort, April 27, 1891. The man wearing a white hat is Edwin D. Woolley, Jr. (*Photograph by J. J. Booth, Pipe Spring National Monument*, neg. 29)

request, brick extensions were added to the upper building chimneys to improve the chimney's draw and to keep flying red ants from nesting in them. Landscape changes made during the Woolley period included the planting of cottonwood, elm, willow, and ailanthus trees near the fort and changes to the ponds located just south of the fort. The ponds were there prior to the arrival of the Woolleys, but during their tenancy the ponds were enlarged, the banks built up, and stonework was constructed around them. They were used as a reservoir for water to irrigate the Woolleys' orchard, garden, alfalfa, and currants. Les In 1890 there were about 1,400 head of cattle in the Pipe Spring herd. During this period, cattle drank from a large watering hole and troughs located about 200 yards west of the fort.

According to Flora Woolley, eight women gave birth to nine children (three girls and six boys) while at Pipe Spring during the raiding years, thus earning it the popular name, "Woolley's lambing ground." ¹⁶⁴ Another source confirms that eight wives gave birth at Pipe Spring, one bearing twins. ¹⁶⁵ Another humorous nickname applied to Pipe Spring during these years was "Adamless Eden," as men put themselves in legal jeopardy if caught by federal deputies while visiting wives there. Pregnant plural wives in particular appear to have been a threat to their husbands' freedom during this period, since one couldn't explain one's "delicate condition" and deny a plural marriage at the same time. This might explain the unusually large number of women who gave birth at Pipe Spring over a relatively short span of time.

These women were not totally isolated from the outside world for a telephone was installed in the fort in 1888. It was located on the doorframe in the west room of the north building. Dilworth Woolley recalled the first time it was used:

The telephone bell tinkled. Mother in much excitement, took down the receiver and called, 'Yes, yes, yes' and talked into the mouthpiece. I do not remember what else she said. There were many persons in the room but I do not recall who they were. There were some Indians looking on. After much excited talk back and forth over the line, Father called old Frank Indian to come to the phone. He put the receiver to his ear with manifestations of fear in every move – listened a second or two, dropped the receiver, shook his head and mumbled something in Indian, and departed quickly. But his reaction caused an explosion of laughter among the audience. ¹⁶⁶

Dilworth Woolley reported in 1938 that the first message sent over the telephone from Kanab to the Pipe Springs ranch was a musical number played by the Kanab Marshal Band. 167

Fredonia also served as a refuge for plural wives during these years. The town lies on the east bank of Kanab Creek. The first settler in that area, Thomas Frain Dobson, brought his family from Kanab in the spring of 1885. The town site was surveyed in 1886. The name was suggested by Erastus Snow, wrote Arizona historian James H. McClintock, "naturally coming from the fact that many of the residents were from Utah, seeking freedom from the enforcement of federal laws." ¹⁶⁸

The problem of plural wives and their children was only one of the concerns of Church leaders, however. Protecting its property from federal escheatment under the Edmunds-Tucker Act was also of utmost importance. Most of the 3,000 head of livestock on Church ranches at Star Valley, Wyoming; Oxford, Idaho; and Pipe Springs, Arizona, was sold to Mormon capitalists and semipublic livestock associations. Immediately following President Taylor's death on July 25, 1887, a suit was filed on July 30, 1887, by the U.S. Attorney General against the Church and the Perpetual Emigrating Company. The Edmunds-Tucker Act abolished the legal position of the Trustee in Trust, and thus another device had to be invented to protect the Church's assets. On August 22, 1887, under New York state law, one of Brigham Young's sons, John W. Young, formed a holding company, the Kaibab Land and Cattle Company. This company took under its umbrella the Pipe Spring ranch, grazing herds at House Rock Valley, Kaibab, and the Arizona Strip, and controlled all the assets of the Canaan Cooperative Stock Company.

Through the Kaibab Land and Cattle Company, the Church continued to indirectly run the Pipe Spring ranch. Daniel Seegmiller, like Edwin D. Woolley, was married to one of Erastus Snow's daughters, Artimesia, with whom he lived in Kanab. His plural wife, Emma Seegmiller (born Emma Isabelle Carroll), lived at Pipe Spring during the raiding years. Daniel Seegmiller was put in charge of the Church's herd of horses at House Rock Valley. Seegmiller was later fired from his position for unscrupulous dealings and was replaced by his foreman, Ed Lamb. 173 Seegmiller played a significant role in confusing the ownership history of Pipe Spring when in 1888 he filed ownership rights to the Pipe Spring property with Valentine scrip. 174

The use of Valentine scrip as a means of buying land originated from April 5, 1872, legislation (17 Stat. 649; "An Act for the Relief of Thomas B. Valentine"). By this act, the federal government bought out a Spanish land grant in California in exchange for scrip worth an equal amount of "...unoccupied and unappropriated public lands of the United States, not mineral, and in tracts not less than the subdivisions provided for in the United States land laws, and if unsurveyed when taken, to conform, when surveyed, to the general system of United States land surveys." The scrip came to be known as "Valentine scrip" and was bought and sold throughout the West. One such certificate came into the hands of Daniel Seegmiller. On May 3, 1888, in Prescott, Arizona, Seegmiller filed application on a tract of unsurveyed land described by metes and bounds and courses and distances in the 1886 McFarlane survey (referenced earlier) by using this Valentine scrip.

After researching the history of Pipe Spring ownership in 1969, National Park Service Area Manager Raymond Geerdes concluded that Daniel Seegmiller had attempted, for reasons of self-interest, to lay claim to the Pipe Spring tract, even while he knew it was Church property.¹⁷⁷ Geerdes asserted that Seegmiller's attempt to legally gain title was unsuccessful, but that he still profited by selling the "bogus" claim to Benjamin F. Saunders on July 23, 1895, for \$2,500.¹⁷⁸ The Mohave County Recorder recorded the quitclaim deed from Seegmiller at the request of Saunders on December 5, 1895. Seegmiller's sale of the scrip lent the appearance of authenticity to his claim for years

thereafter. Saunders, who would also pay the Canaan Cooperative Stock Company for the property, may have simply purchased the Valentine scrip to avoid any future potential disputes over his legal ownership of Pipe Spring.

Ninety years later, questions still arose about the Valentine scrip. A letter to A. D. Findlay of Kanab (grandson of the A. D. Findlay who once owned Pipe Spring) from Attorney Ken Chamberlain of Richfield, Utah, dated June 19, 1985, offers additional information on the Valentine scrip:

Under the Code 17 Stat. 696 (the Act of April 5, 1872) 'Valentine Scrip' was issued as a 'lieu selection or scrip right or bounty right which was permitted on unsurveyed lands as the equivalent of a homestead entry with a maximum of 160 acres.

The scrip was issued in about the same manner as an unpatented mining claim and it was redeemable up until about 1955 but was redeemable as early as 1905 by exchanging it for an application for a homestead or desert land entry. All scrip that had not been converted to a homestead patent became null and void in 1970. 179

Between 1895 and 1909, when Jonathan Heaton purchased the Pipe Spring ranch, Seegmiller's Valentine scrip got passed from one buyer to the next. It would later create a huge headache for one of Jonathan's sons, Charles Carroll Heaton, when he attempted to prove legal ownership of Pipe Spring.

After President Taylor's death in July 1887, Wilford Woodruff became head of the Church. On September 25, 1890, President Woodruff issued the "Official Declaration" (also referred to as the "Manifesto") which proclaimed the end of polygamy among Latter-day Saints. The following summer Flora Woolley left the Pipe Spring fort and moved to Kanab. 180 After Woodruff issued his declaration withdrawing official Church sanction of polygamy, "polyg hunts" by deputy marshals became less frequent and judges showed more leniency in dealing with "cohabs" brought before the courts, sometimes fining them only six cents and dismissing the case if they professed to accept Woodruff's "Manifesto." In January 1893 President Benjamin Harrison signed into effect a limited, carefully worded amnesty proclamation for people convicted under antipolygamy laws. In 1894 President Grover Cleveland granted them complete amnesty, thereby restoring their voting rights and other privileges. In October 1893 an act was passed in Congress authorizing the return of escheated property to the Church. Personal property was returned to the First Presidency in January 1894. Church real estate was returned in June 1896. 181 Utah became the nation's 45th state on January 4, 1896.

By 1895 the Church was free to openly sell properties that had proven unprofitable. In mid-1895 the Church sold the Pipe Spring property to Benjamin F. Saunders. Saunders was a rancher who dealt in both sheep and cattle and had ties to southern Utah and northern Arizona dating from about 1883 until his death in 1909. Saunders also had interests in Colorado, Nevada, Wyoming, and other parts of the west. Although he was

a "gentile," he reportedly got along quite well with the Latter-day Saints. ¹⁸⁴ Saunders had wanted to buy the Pipe Spring ranch for years. In the January 22, 1883, meeting minutes of the Canaan Cooperative Stock Company, Chairman Erastus Snow told the directors, "B. F. Saunders desires to buy stock and if the circumstances were right favorable, to buy into the Company." (According to one source, the company had some 4,200 cattle in 1883. ¹⁸⁵) While the Board refused to sell Saunders capital stock in the Company, it agreed to sell him 500 head of grazing stock. ¹⁸⁶ Saunders bought the cattle and in addition offered to buy Parashont Ranch, located between Mt. Trumbull and the Grand Canyon. ¹⁸⁷ After conferring with Church officials in Salt Lake City, Snow wired instructions to Company directors to sell this ranch to Saunders. Later, in 1899, Saunders also acquired all the property of Kaibab Land and Cattle Company, comprising its House Rock and Kaibab operations. ¹⁸⁸

Records from 1883 until 1895 for the Canaan Cooperative Stock Company have not been located. At its last meeting on October 1, 1895, held in Salt Lake City, a record was made for the sale of all the Canaan Company's remaining assets to B. F. Saunders, including Pipe Spring ranch. Saunders paid \$10 a head for all cattle and horses born before 1895. All improvements - buildings, corrals, watering troughs, etc. - were included in the bargain. One researcher speculated that this is the reason no legal transfer of recorded property took place, for this method of transfer (selling the cattle and "throwing in" all the improvements) saved the Church from revealing its lengthy ownership of Pipe Spring. Further proof that the Church still owned Pipe Spring at the time of this sale is a telegram dated June 7, 1895:

To President Woodruff

Sale of Pipe Springs to Cattle Syndicate [B. F. Saunders] means serious loss to the people of our stake; if it must be sold the people of the stake wish to buy. See letter by the people.

E. D. Woolley¹⁹²

Why the Church chose to sell the ranch to Saunders instead of honoring the request of Kanab Stake may never be known. In any event, while Saunders acquired Pipe Spring, no official or legal record of conveyance from the Church to Saunders has ever been found. The sale to Saunders officially ended Church ties to the Pipe Spring property.

Saunders held the property only briefly, however. On December 2, 1895, he sold Pipe Spring to David Dunn Bulloch of Salt Lake City and Lehi W. Jones of Cedar City, Utah, for \$3,250.193 Excerpts from a letter Bulloch wrote to his wife Sarah Ann in Salt Lake City included a description of the ranch:

...I think it is the finest ranch I ever seen for livestock, and it is a very pretty place. There is about \$5,000 worth of improvement on the place. There is [sic] two large buildings, one a two-story with five rooms in, and a number of small buildings, a hay field, and all kinds of apricot and plum trees, a fish pond, I think the fish are carp. There is a number of corals [sic], the best I ever seen on a

ranch. So I bought it, and I think I got a bargain. I paid thirty-two hundred and fifty dollars.... I have let the Jones boys have a half interest.¹⁹⁴

On May 24, 1897, Bulloch and Jones formed the Pipe Springs Cattle Company. 195 Heber Monair was ranch foreman for Bulloch and Jones from 1895 to 1897 and lived in the upper building of the fort during those years. Monair visited the fort with his wife in 1946 and, characteristically, Custodian Leonard Heaton plied him for historical information. During his time at Pipe Spring, Monair recalled, the stock watered in troughs west of the fort ponds. He also told Heaton that he traded some wine to Jonathan Heaton for a barrel full of carp to put in the fort ponds. 196

At a meeting of the Pipe Springs Cattle Company on January 19, 1901, a resolution was passed to sell the property to A. D. Findlay. On January 23, 1901, the Pipe Springs Cattle Company entered into a contract with Findlay whereby the Company agreed to deliver 1,200 head of cattle from the Pipe Spring and Bull Rush ranches to Findlay, with principal deliveries to be made during the spring and fall roundups of 1901, and final delivery to be made prior to December 15, 1902. Findlay was to pay \$22.50 per head of cattle.¹⁹⁷ He was also to pay \$20,000 in cash, thereafter having the option of completing payment by delivering his herd of sheep (known as the "Heart herd") numbering about 3,000 and valued at \$2.25 per head. 198 Also in the contract were provisions for the sale and transfer of the Pipe Springs and Bull Rush ranch properties. The Pipe Spring ranch deed was to be conveyed on October 15, 1901, for \$4,000. (The price for the Bull Rush ranch was to be the actual cost to the Company and date of deed transferal to take place on October 15, 1901, "or as soon thereafter as title...is perfected." The Company had yet to secure the title.) The quitclaim deed for Pipe Spring was not executed until November 3, 1902. The Pipe Spring purchase was to include lumber, fencing, hay machinery, and the stove and furniture in use at the ranch.¹⁹⁹ The total price for the livestock from both ranches and the Pipe Spring tract would have totaled \$31,000.

The ranch was actually sold by Bulloch and Jones to Findlay on October 8, 1901 (a week earlier than stated in the above contract). On November 12, 1902, Findlay also purchased 100 head of cattle for \$1,100 from John R. Findlay. On April 13, 1907, Findlay formed the Pipe Springs Land & Live Stock Company. During Findlay's ownership, as well as that of Bulloch and Jones, caretakers and cowhands lived at the fort. Between 1902 and 1907, a long underground tunnel was constructed into a rocky hill to reach a water source. This water source was called tunnel spring. Hint Silar of Alton, Utah, built it. Silar told Edna Heaton in 1934 that the purpose of the tunnel was to get beneath the main body of the spring and transport the water by pipeline five miles southwest to the Indian Knolls and make a cattle ranch there. Findlay sold the ranch, however, before the project could be completed.²⁰⁰

Findlay sold the ranch to Jonathan Heaton and Sons, a copartnership, on January 2, 1909, with Findlay carrying the mortgage.²⁰¹ (Heaton's seven sons were William, Israel, Ira, Junius, Jonathan Jr., Charles, and Fred.) The amount promised in payment was \$59,563.13, payable one year later, with interest. In return, Jonathan Heaton and Sons

were to receive the Pipe Spring ranch "with all improvements, water rights and appurtenances," as well as a parcel of land known as the "Findlay Lower Reservoir" along with its improvements, water rights, privileges, and appurtenances.²⁰² The sale also included the transfer of 4,400 head of range cattle. The Heaton period of ownership will be covered in a later section.

Moccasin Ranch and Spring

Because the settlement of Moccasin, its residents, and the main spring there are so closely tied to the history of Pipe Spring (as well as to the Kaibab Indian Reservation), a brief history of Moccasin is included here.

The Mormon settlement of Moccasin is located four miles north of Pipe Spring, just a few miles south of the Utah line. Histories of Moccasin vary in detail, particularly with regard to its earliest years. The following is an account by historian James H. McClintock:

The place got its name from moccasin tracks in the sand.²⁰³ The site was occupied some time before 1864 by Wm. B. Maxwell, but was vacated in 1866 on account of Indian troubles. In the spring of 1870, Levi Stewart and others stopped there with a considerable company, breaking land, but moved on to found Kanab, north of the line. This same company also made some improvements around Pipe Spring. About a year later [1871], a company under Lewis Allen, mainly from the Muddy, located temporarily at Pipe Springs and Moccasin. To some extent there was a claim upon the two localities by the United Order or certain of its members. The place was mainly a missionary settlement...²⁰⁴

Historian C. Gregory Crampton wrote that Maxwell established his claim at Moccasin at "about the same time" that Whitmore acquired Pipe Spring. 205 As mentioned earlier, Maxwell also owned a ranch at Short Creek, 25 miles west of Pipe Spring, where he lived. According to Crampton, Maxwell sold the Moccasin claim in 1864 to one Rhodes, who moved to the spot with Randall and Woodruff Alexander (and possibly others).²⁰⁶ As mentioned in the section pertaining to the organization of the Winsor Castle Stock Growing Company, sometime between 1870 and 1872 the Church negotiated the purchase of one-third interest in Moccasin Spring. This interest was transferred to the Winsor Company soon after organization in January 1873. While the water at Moccasin Spring may have provided water for the Church herds, it also served an additional purpose. As cited earlier, it was noted at the Winsor Company's organizational meeting that "Some 15 acres of land have been irrigated by the onethird interest in Moccasin Springs." In August 1869, John R. Young had reported four tons of hay being harvested "on the Moccasin spring creek" just 2.5 miles north of Pipe Spring. It appears that prior to 1870 either Maxwell or the second owner(s) of Moccasin Ranch was irrigating land with water from Moccasin Spring to produce winter feed for livestock. It is obvious then why the Church had a strong interest in purchasing one-third interest in Moccasin Spring.

In later years some conflict would emerge in the historical record over the question of when the Kaibab Paiute began to live at Moccasin Spring, so it is helpful to note some of the recorded memories of the early white settlers.²⁰⁷ Emma Seegmiller (1868-1954), mentioned earlier, was one of the women who hid at Pipe Spring during the "Raid" of the late 1880s. She wrote, "Since my earliest recollection, Moccasin Springs, or near vicinity, has been the home of a tribe of Ute [sic] Indians, and for many years an Indian reservation has adjoined the Moccasin Ranch property."208 While the federal government did not withdraw land in the area for Indian use until 1907, her "earliest recollections" would most likely date to the 1870s. Emma Seegmiller also recalled good relations between the Paiute and local Latter-day Saints, including melon feasts, the two groups joining together for dances, and the Indians praying for Church and U.S. leaders, such as George Washington.²⁰⁹



12. William B. Maxwell, first Mormon claimant of Moccasin, undated (*Reprinted from McClintock*, Mormon Settlement in Arizona, 1921)

Emma Seegmiller is not the only person who recalled the Paiute living at Moccasin Spring from an early date. Silas Smith Young, born in 1863 and the son of John R. Young, later told Edwin D. Woolley, Jr., that Indians were living at Moccasin when he was there, and that it was not yet claimed by white men.²¹⁰ The boy, who would have been only seven or eight years old at the time, was probably unaware of William B. Maxwell's 1865 claim. As Maxwell's primary ranch was in Short Creek, he may have spent little time at the Moccasin claim. What is most important to note about the memories of Emma Seegmiller and Silas Smith Young is that their record is the earliest available Euroamerican acknowledgment of native people living in the immediate area at least by the time of the fort's construction in 1870.

To return to the chronology of ownership of the Moccasin ranch, according to Leonard Heaton, Christon Hanson Larson purchased the Moccasin property in 1874. Larson owned the ranch for two years. Heaton reported that Larson then sold it to Lewis Allen and Willis Webb, along with two-thirds of the water rights from Moccasin Spring. Canaan

Cooperative Cattle Company Cattle Company owned the other one-third of water. (Brigham Young and the Church controlled this company, like the Winsor Company, thus the Church was still preserving its one-third rights through the Canaan Company.) Heaton wrote that on March 4, 1887, Allen and Webb joined the United Order at Orderville and turned over to the Order their land and rights to two-thirds flow of the spring.²¹¹ Emma Seegmiller gives a slightly different account, writing that Lewis Allen (also known as "Moccasin Allen") acquired Moccasin Ranch as a result of his joining the United Order. Like James H. McClintock, she makes no mention of Willis Webb.²¹²

John R. Young, nephew to Brigham Young, organized the United Order at Mt. Carmel, Utah, on March 20, 1874. It was a communitarian effort that emerged after the economic Panic of 1873. Promoted by Brigham Young, the program was designed to spur spiritual and communal economic revival and, for a time, was particularly successful in southern Utah. The town of Orderville, located two miles north of Mt. Carmel, was surveyed on February 20, 1875. It was situated on the Virgin River in Long Valley, in southern Utah. The heyday of the Order was 1880 when its adherents numbered nearly 600. Farming lands were expanded to include areas scattered through Long Valley and Kanab.²¹³ By 1881 the Orderville Order "owned 5,000 head of sheep and the cattle had increased tenfold."²¹⁴ Such success led the Church to put this Order in charge of the Pipe Spring ranch in 1884.²¹⁵ Leonard Heaton reported in 1961 that his great-grandfathers were among the early settlers who had moved to Long Valley in 1870, after having spent five years on the Muddy River in Nevada trying to raise cotton and to "be peace makers among the Indians along the California road."²¹⁶ The Heaton family was thus a part of the Orderville communitarian experiment from beginning to dissolution.

Either in late 1879 or early 1880, the Church "bought" the water rights to one-third of the flow of Moccasin Spring from the Canaan Company (which the Church controlled) and established an Indian mission at Moccasin Ranch for the Kaibab Paiute. ²¹⁷ It has been reported that at this time the Church gave the one-third water rights of the spring to the Kaibab Paiute. In February 1880, the Orderville United Order sent C. B. Heaton to oversee the Indians at the mission. The Kaibab Paiute are reported to have numbered 150 at the time the mission was established. During this period of Moccasin's history, sorghum, fruits, and grapes were cultivated. The site was particularly well known for its sorghum and melons. Leonard Heaton later reported, "It was when the United Order was in operation that the Paiute Indians were first introduced [sic] to take up farming, as the Mormon Church gave the Indians one-third of the spring and 10 acres of land and had the foreman of the ranch teach them the arts of farming." The gift of land and one-third rights to the spring to the Paiute would have accomplished a number of Church objectives, as mentioned earlier.

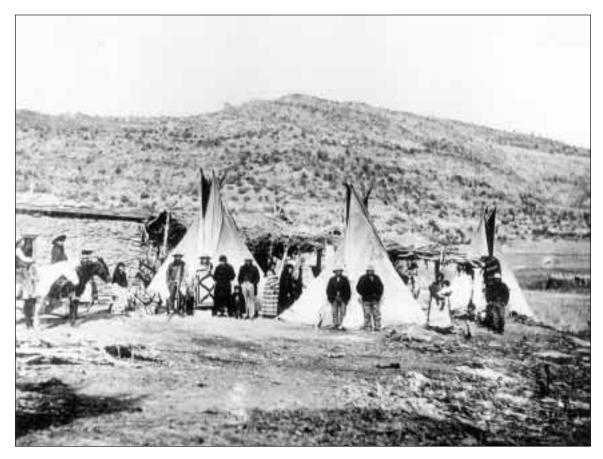
When the federal government began intensive prosecutions of polygamists in 1885, Church authorities counseled dissolution of the United Order. Sources report a wide variety of dates for the dissolution of the Orderville Order. One states that the United Order of Orderville began in 1875 and was practiced for 11 years, suggesting dissolution in 1886.²¹⁹ Leonard Heaton also reported that the Order dissolved in the 1880s.²²⁰ Angus

Woodbury wrote that the dissolution was gradual, hastening after 1885. (According to Woodbury, the United Order of Orderville did not officially dissolve until 1900. By that date, however, the only property it held was a woolen mill.²²¹) Prior to then, the Order sold its farm lands, livestock, ranches, tannery, and sawmill to members, with each man allowed to use his work credits to buy property. Common possessions of all were distributed among the 100 or more families that remained.²²² Five Heaton brothers, all members of the Order, had been working at the Moccasin ranch for a year or so, and received the 400-acre property as their share of the common property in 1893.²²³ One of the brothers, Jonathan Heaton, later bought out his brothers' interest in the property.²²⁴ It was Jonathan Heaton and his plural wife Lucy who would sire the population of the village of Moccasin in the first three decades of the 20th century, including son Charles C. Heaton, father of C. Leonard Heaton, future custodian of Pipe Spring National Monument.²²⁵

A school building was constructed in Moccasin in 1904-1905. The building was used for Church services on Sundays by special permission of the school board. For a time, the Kaibab Paiute continued to farm the small piece of land given to them by the Church and to live in the community of Moccasin. As late as 1908, when the Indian camp was relocated 1.5 miles to the southeast, Leonard Heaton could remember the Kaibab Paiute using tepees as homes and moving from Moccasin to the mountains in the summer. They returned in the winter, he stated, "...leaving the white men to care for their crops while they were gone during the summer, coming home with their horses loaded with dried venison and pine nuts which they would trade for fruits and vegetables and flour."226 While Buckskin Mountain at the northern part of the Kaibab Plateau was the closest, some Kaibab Paiute regularly made their summer hunting and gathering excursions to other areas on the Kaibab Plateau. Heaton wrote that another name used to refer to the Kaibab Paiute was the "... Moccasin Indians, a name applied to the Indians by the Mormon people who tried to get them to settle down at Moccasin, Arizona, four miles north of the monument, and live like white people, farming and cattle raising, instead of roaming over the country in search of a living."227

By 1921 the white population of Moccasin was 39, made up of 14 adults and 25 children. Sugar cane, corn, alfalfa, and potatoes were grown on the acreage that was cultivated. Possibly as much as 150 to 200 acres were irrigated with water supplied by Moccasin Spring, which its residents claimed had been "highly improved by white settlers." Five hundred head of cattle were grazed in the area, 100 year-round and the rest during the winter months. The patriarch of the family, Jonathan Heaton, died in 1928 at age 72 from injuries sustained in a farm accident. 229

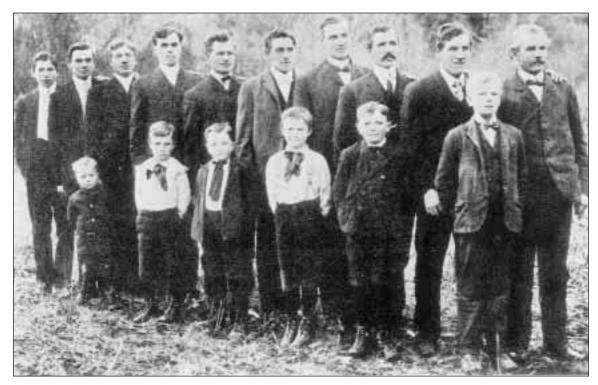
During the early 1920s, residents of Moccasin rallied to defend their rights to settled lands that lay within the bounds of the Kaibab Indian Reservation. Local residents and their attorneys described the early Kaibab Paiute as "roving bands of Indians who had no permanent place of abode," who only settled down once they were given the "care and attention of the white settlers."²³⁰ (The story that the Paiute never lived in the area until the establishment of the Church mission there is contradictory to reports by other sources,



13. Kaibab Paiute Indians at Moccasin, 1904. From left to right: Charles Bulletts and Toby John, on horses; Minnie (Soxoru) Tom, wife of Indian Tom; Mammie (Wuri) Frank, her child Maroni, and her husband Mustach Frank; Young Williams (Na'apiv), Dave Cannon; Indian Tom (Naap) and son, Tommie Tom (Oaisin), Tappio Dick; Annie (Wiuys) Frank; Tunanita'a (John Seamon's father); Adam Commadore, his wife Fannie (Punuv) Commadore and their two grandchildren (*Photograph by Charles C. Heaton, Pipe Spring National Monument, neg. 2476*)

cited earlier.) The Kaibab Paiute had long utilized the resources most valued by settlers, land and water, as well as native plants and animals. Perhaps because their use was dictated by a seasonal, semi-nomadic tradition, or perhaps out of pure self-interest, some white settlers chose to deny any prior use or rights of Indians to these resources, particularly after the lands were withdrawn from settlement for Indian use.

By the early 1940s, Moccasin's white population totaled 63, all reportedly descendants (by birth or by marriage) of Jonathan and Lucy Heaton and their 11 children. As the children grew up and married, they were allotted a share of the land.²³¹ A small store was located in Moccasin, patronized mostly by the Kaibab Paiute living on the reservation. In 1928 it was agreed among the Heaton family that none of the land would be sold to an outsider. A problem arose when, during the 1941 restoration of the fort at Pipe Spring, men needed to be hired as laborers. Custodian Leonard Heaton hired 40 men, who all listed their address as Moccasin. When the payroll was submitted to the chief clerk of Southwestern National



14. Jonathan Heaton and his 15 sons, Moccasin, 1907 (Reprinted from McClintock, Mormon Settlement in Arizona, 1921)

Monuments, a few eyebrows must have been raised. Of the 40 men listed, the last names of 37 were "Heaton." (The other names, Brown and Johnson, were related to the Heatons by marriage.)²³² Federal rules against employing relatives appear to have been ignored in Pipe Spring National Monument's early years, perhaps because the Heatons of Moccasin supplied such a close and capable labor pool.

The Federal Government's Response: Creation of the Kaibab Indian Reservation Mormon settlement at Moccasin and elsewhere in the region was not the only threat to the Kaibab Paiute way of life. Federal government actions also made a significant impact. In 1893 much of the nearby high country to the southeast was set aside as a forest preserve. The impact on the Kaibab Paiute was noted 10 years later in the Commissioner of Indian Affair's annual report to the Secretary of the Interior for the year 1903. At that time the Kaibab Paiute numbered 110 (64 men and 46 women). Special Agent James A. Brown, who described existing conditions in the following excerpts, made the report:

These Indians are gradually adopting the ways of the white people.

As yet no houses have been built by the Indians, but all of them live in teepes [sic], never remaining in one place long at a time. They are quite superstitious, and as soon as one of their number dies they will move camp within the next few hours.

They have a small farm, located at Moccasin Spring, about 18 miles from Kanab. This farm is taken care of by the Indians. At present about 7 acres are cultivated. Corn and alfalfa are the chief crops raised. They do not realize much money from their farm, as they do not try to market any of their products; but as soon as it is ripe most of them go to Moccasin and eat up what they have raised.

The men work for the white men at odd jobs. The haying season is when they are most employed. Some few are herding sheep this year. The squaws have steady employment the year round washing for the white people. They get from 25 cents to 60 cents per day for putting out a washing (or a batch of clothes). They never get anything ahead, but spend their money as fast as they make it to support themselves.

The young Indians do a great deal of hunting, but game is very scarce, rabbits being about all they get. Formerly the Buckskin Mountain afforded excellent hunting ground, but since that has been made a forest reserve the Indians have been shut off. In fact, they have not been allowed the same privilege as white men have during the open game season, which I think they certainly should have.

Deer are very plentiful on the Buckskin Mountain, and before it was made a reserve these Indians obtained most of their living from that source.²³³

Concerned Church officials brought the condition of the Kaibab Paiute to the attention of Utah Senator Reed Smoot who, in late 1905, asked the Office of Indian Affairs for federal relief.²³⁴ The situation regarding access to traditional hunting lands, however, only worsened. On November 28, 1906, President Theodore Roosevelt established the Grand Canyon National Game Preserve.²³⁵ On January 11, 1908, Roosevelt proclaimed Grand Canyon National Monument, separating it from the Kaibab National Forest which was created that year from the forest reserve set aside in 1893.²³⁶ From 1906 to 1923, the federal government employed hunters of the U.S. Biological Survey to kill predatory animals, including more than 800 cougars, 30 wolves, nearly 5,000 coyotes, and more than 500 bobcats.²³⁷ State deer-hunting laws suddenly became rigidly enforced in the interest of the infant tourist industry. As off-reservation Indians with no treaty protection or hunting rights, the Kaibab Paiute were subject to these laws. The imposition of state license, season and bag limits dealt them a serious blow, as they had long been dependent on deer for food and buckskins to trade. Cut off from deer hunting, the Paiute were, as Ethnohistorian Martha Knack wrote, "plunged into hunger and poverty."²³⁸

The displacement of the Kaibab Paiute from their lands and the resources they had depended on created a crisis that prompted remedial action from the federal government. The government's solution to the "Indian problem," implemented throughout the West during the 19th and early 20th centuries, was the creation of Indian reservations. The creation of the Kaibab Indian Reservation was not accomplished by a single act of government, but rather evolved by fits-and-starts over a period of 10 years, from 1907 to

1917. This section describes the major factors in that evolution. Also included is information drawn from letters of superintendents of the Kaibab Agency, as well as from a number of investigatory reports filed by field agents during the early years. These data provide a picture of how the Kaibab Indian Reservation first developed and what resources were available to it during the years leading up to the establishment of Pipe Spring National Monument. It also offers additional information about Moccasin Ranch and about relations between its white residents and their Kaibab Paiute neighbors.²³⁹

By 1906 the Kaibab Paiute population reached a historic low of 73. By the Indian Appropriation Act of June 21, 1906 (34 Stats. 325 and 376), Congress appropriated \$5,000 for the purchase of lands and sheep for the San Juan Paiute and \$10,500 to "support and civilize" the Kaibab Indians in southern Utah and northern Arizona and for the purchase of lands and water, along with farming implements, machinery, and livestock. At the time of this appropriation, certain facts were reported by Office of Indian Affairs on the San Juan Paiute and Kaibab Paiute tribes. Regarding the latter, the Office reported that,

...a remnant of the Kaibab tribe, consisting of 73 Indians, owned a small tract of land aggregating about 12 acres and lying west of Kanab, Utah, on which they were trying to produce enough to exist, but that it was impossible for them to make a living because the land was next to worthless and that they had to rely upon the citizens of that place and the surrounding ranches and towns for enough to keep them from starving; that in past years they had access to the Buckskin Mountains [sic] to graze their ponies and secure game, that they realized quite a revenue from the sale of buckskins, which has since been cut off; that the only thing which they could secure money from was the sale of the few pine nuts they were able to gather during the fall.²⁴⁰

U.S. Indian Inspector Levi Chubbuck was immediately directed by the Office of Indian Affairs to conduct an investigation for purposes of determining how the funds could best be expended in the interests of the Indians in the region. Chubbuck's report of December 31, 1906, failed to find the Indians in a starving condition, but made other observations:

Hearing the Indians express the desire that they might have the Moccasin Ranch because it was where their fathers and grandfathers had been born and were buried, I made inquiry of Mr. Nephi Johnson, Sr., one of the first white men to come into that section, as to the early occupancy of that land by the Indians, and he stated publicly that to his knowledge the Indians were living on what is now known as Moccasin Ranch long before any white men lived there, and that they tilled the ground and used the water from the springs. Afterwards white men took full possession and the Indians were located on land close to Kanab. Their close proximity to the town being distasteful to many at the time, the church undertook to relocate the Indians at the ranch acquiring a claim to the 10 or 12 acres with water right and putting them in possession of the tract.²⁴¹

As opposed to Office of Indian Affairs accounts, in the 1920s local Latter-day Saints and their attorneys asserted that the Kaibab Paiute were drawn to the settlement of Moccasin only after the Church mission was established there, as well as by the Church's "gift" of land and water. These assertions were made in legal defense of their homestead claims.

What appears to be the case is that Indians were indeed living at Moccasin Spring, at least seasonally, prior to Maxwell's 1865 claim. In fact, the suggestion that any such reliable water source went unused prior to the Latter-day Saints' arrival would seem highly improbable as the livelihood of the Indians depended upon the use of all available resources. When the Navajo raids of December 1865 forced the four-year abandonment of the Kanab settlement, some, if not all, of the Paiute band at Moccasin may have moved to Kanab Creek, joining others already there prior to the settlement's abandonment. Their combined numbers would have offered an increased measure of safety against the Navajo. As Latter-day Saints responded to Brigham Young's 1870 call to resettle Kanab, demand for irrigable land along Kanab Creek grew quickly. With the threat of Navajo raids ended, the Paiute were no longer needed in Kanab as political allies. At that point it is likely they were viewed not only as competitors, but also perhaps as a public nuisance. The fact that some Indians were reduced to begging for food and clothing may explain Chubbuck's 1906 report (cited earlier) that the Indians' close proximity to Kanab was "distasteful to many." The Church's solution to the problem may well have been to draw the Indians back to Moccasin with an offer of water, land, and a Church mission. The offer of the return of some part of their traditionally used land and water would have been attractive to the Kaibab band, especially as they were being squeezed out of the Kanab area by a growing number of white settlers. The establishment of a Church mission might also have been considered beneficial by providing institutional charity to the Indians, a form arguably more reliable than individual charity.

More importantly from the Church perspective, the mission may have facilitated some measure of Church control of the Indians by offering a tried-and-true means of imposing Euroamerican, and distinctively Latter-day Saint, values upon them. In other words, if the Indians became enough "like them," the Church and its members would provide enough work, food, clothes, and other essentials to enable the Indians to physically survive. Even so, Kaibab Paiute lives were still miserable enough to prompt such heart-rending appeals as the one made in 1880 by Jacob Hamblin to John Wesley Powell (cited earlier), to warrant the Indian Appropriation Act of June 21, 1906, and to prompt later federal investigations, such as the one made by Levi Chubbuck (quoted above).

Levi Chubbuck filed a supplemental report to the Office of Indian Affairs on February 12, 1907. While unsatisfactory to his superiors in several ways, these two reports led to a modification of the original Indian Appropriation Act of 1906. Under the Indian Appropriation Act of March 1, 1907 (34 Stats. 1015 and 1049), the original sums were reappropriated and made available for the use of the Paiute Indians in southern Utah and northern Arizona.²⁴² In Chubbuck's February report, he stated, "Stock raising must be the principal means of support for these people, as it is for the whites of this region, hence it is necessary that ample provision for grazing ground be made..."²⁴³

On May 18, 1907, Inspector Frank C. Churchill was instructed to return to the area and to complete the investigation begun by Chubbuck. While Chubbuck had reported on the conditions of the Paiute, his report failed to make definite recommendations. Churchill inspected conditions of the Shivwits group residing near St. George, population about 150, and at Moccasin Ranch, where the Kaibab Paiute were reported as numbering about 80. In his report of August 30, 1907, Churchill also noted a fenced pasture containing several thousand acres and "some ten or fifteen acres of tillable lands, well-watered by a spring located on the private property of Moccasin Ranch, owned by Mr. Jonathan Heaton, the Indians owning one-third of the full flow of the spring..."²⁴⁴ Churchill reported that the Indians' share of water was sufficient to cultivate 50 acres.²⁴⁵ Churchill also reported on several smaller, scattered groups of Paiute living in northern Arizona, central Utah, and eastern Nevada.²⁴⁶

In submitting Inspector Churchill's report to the Secretary of the Interior on October 8, 1907, Acting Commissioner C. F. Larrabey stated,

It appears from the report that it will be practically impossible to locate these Indians on any one tract of land, as each group is attached to the vicinity where it is now located and would not be content elsewhere; and as the appropriation would not be sufficient to purchase lands for each group in the vicinity of its present location, some other policy must be followed.²⁴⁷

In this letter Larrabey concurred with Churchill's recommendation that a reservation 18 miles long by 12 miles wide be established "for the use of the Kaibab and other Indians." He also agreed with the Inspector's other recommendations: 1) that one-third of the flow from Moccasin Spring be piped down 1.5 miles south of the spring "to a point at or near the cedar post set by me with the assistance of Jonathan Heaton, Walter Funke, and E. D. Wooley [sic] ...the object being to construct a small, inexpensive reservoir at the end of the pipeline;" 2) that an engineer be directed to measure the flow of Moccasin Spring and to stake out a pipeline and reservoir site; and that 3) after the construction of the water system, between 50 and 100 two-year-old heifers, along with a suitable number of bulls, be issued to the Kaibab Paiute. Larrabey assured the Secretary that "the adoption of these recommendations for the Kaibabs will place them in a comparatively independent position whereby they can protect their homes without further assistance from the Government." 248

The Secretary of the Interior approved Larrabey's recommendation on October 10, 1907. Five days later, Larrabey requested the Secretary to direct the Commissioner of the General Land Office (GLO) to withdraw the necessary lands (216 square miles, or 138,000 acres) from settlement and entry. On October 16, 1907, First Assistant Secretary Thomas Ryan approved the request and referred it to the Commissioner of the GLO for action. On October 23, 1907, the GLO notified the Register and Receiver in Phoenix, Arizona, of the withdrawal of public lands for the Kaibab Indians. The 1907 withdrawal - the first step toward creating the Kaibab Indian Reservation - enclosed all of Moccasin and Pipe Spring and part of the town of Fredonia within the boundaries of the reservation.

Office of Indian Affairs Chief Engineer William H. Code was directed on November 11, 1907, to further investigate the water situation at Moccasin Spring and to determine the requirements and cost for a pipeline. After he reported, it became apparent that the pipeline and irrigation project could not be completed by June 30, the end of the 1907 fiscal year, and also that this work should be accomplished prior to the purchase of farm equipment and livestock. The Secretary of the Interior learned that the \$10,500 appropriated in June 1906 had to be spent in fiscal year 1907, and took action to have the funds reappropriated by Congress for fiscal year 1908.

In 1908, by agreement between the Department of the Interior and the Heaton family, the Kaibab Paiute moved from the 10-acre tract the Church had given them located next to Moccasin Spring, to a location 1.5 miles to the southeast. The new school and village were established on lands claimed by the Heatons but relinquished to the Indians in exchange for the Moccasin land the Indians had vacated. That year a division weir was installed at Moccasin Spring and a pipeline was laid to transport the Indians' one-third share of water to the new village reservoir. Both Indians and white employees living and working in Kaibab Village for both domestic and agricultural purposes used the Indians' portion of spring water. Other developments (believed to all date to 1908) comprised a school, an office/residence for the superintendent, six stone residences for Kaibab Paiute families, and several support buildings. In addition, the Indian Office issued 83 heifers to the Indians.

A number of protests were received against the setting aside of the lands for the Kaibab Paiute. On December 9, 1909, Senator Reed Smoot submitted a petition to the Secretary of the Interior signed by about 100 residents of Kanab, Utah, and Fredonia, Arizona. The petition requested that the newly created Kaibab Indian Reservation be reduced in area. The Secretary replied that he would request a report from the superintendent of the Kaibab agency "as to the needs of the Indians for the lands referred to in the petition," and would advise Senator Smoot later about the matter.²⁵⁰ While no other correspondence on this particular petition was found, no action was taken at this time to further reduce the reservation's size.

With their traditional economies threatened or destroyed by Euroamerican incursion and removal to reservations, Indians were forced to develop new strategies for survival. In his article, "When Indians Became Cowboys," historian Peter Iverson describes how and why many Indians became involved in the lucrative cattle industry:

As Indians began to search for ways to transform the imposed setting of the reservation into a home with appropriate cultural meaning, once again they had to tie economy with society. How could they use the lands they now occupied? They did not have to look far for possibilities. Non-Indian neighbors all over the West had appropriated Indian land for the cattle industry. Now whites were trying to gain access to Indian reservations for the same purpose. It is not surprising that Indians soon realized that cattle ranching offered them opportunities too. Indian cattle ranching therefore

began to emerge as a strategy to confront changing times. It gradually became part of the tradition of many western Indian communities.²⁵¹

Cattle were initially provided to the Indians by the federal government, while agents of the Office of Indian Affairs worked hard to develop the reservation's fledgling industry. Despite problems (such as continued pressure by non-Indian neighbors for the government to reduce the Indian land base), cattle ranching still offered the best chance for many Native American communities to build a local economy and rebuild a society.

Early reports by Indian Service officials provide a glimpse into the increasingly important role cattle ranching played on the Kaibab Indian Reservation shortly after it was set aside. During the month of June 1911, at W. H. Code's instructions, engineer Howard C. Means of the U.S. Indian Service at Ft. Duchesne, Utah, investigated conditions relative to the water supply for the Indians on the Kaibab Indian Reservation. Means' report of July 12, 1911, included a description of Kanab Creek and its use by Kanab residents, along with a description of Moccasin Springs. The latter, he reported,

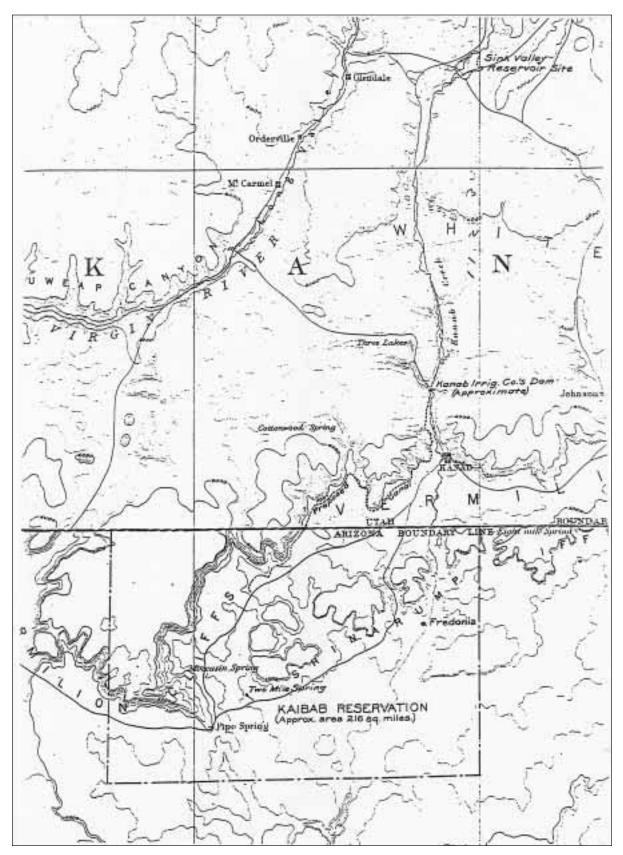
...is composed of two springs. The larger one flows approximately 1/2 second foot and the smaller one about 1/3 of the amount of the larger. The Indians own 1/3 of the flow of the larger spring and this amounts to approximately 1/6 of a second foot. The Kaibab School is located 1? miles south of Moccasin Springs and the water is conveyed from the spring to the school through a 4" pipeline. This pipe empties into a small reservoir above the school buildings from which the fields are watered through open ditches. The school buildings are supplied for domestic use through a branch line connecting with the main line before it reaches the reservoir.... The school and farm is located on a sandy spot, which increases the amount of water necessary to grow crops.

Supt. R. A. Ward has approximately 150 acres under fences which is the school farm. He has 10 acres of this planted to alfalfa, 6 of which is good. The remainder is very poor on account of lack of water. He also has 1/2 acre of potatoes, which he waters...²⁵²

Means also mentioned that in addition Ward dry farmed 6 acres of wheat, 10 acres of rye, 5 acres of corn, 1.5 acres oats and cowpeas, and 2.5 acres cane and millet. "It appears that Supt. Ward is accomplishing considerable with the amount of water and help he had to work on," he wrote. Means' report continues, describing the Indian settlement at what is now called Kaibab Village and the white settlement at Moccasin:

There are about 90 Indians attached to [the Indian] school of which 50 live in the six small houses back of the school buildings. The remainder live around Kanab. Supt. Ward states these Indians own 300 head of cattle, which are kept in a pasture about 8 miles square and on a good range.

The Moccasin Springs, owned by Jonathan Heaton (except that portion claimed by the Indians), Pipe Springs, owned by Jonathan Heaton, and Two Mile Spring, owned by Brig. Riggs, are all the springs on the reservation that amount to



15. Map of Kaibab Reservation, 1911 (Courtesy Bureau of Indian Affairs)

anything.... I believe that Heaton acquired the rights to these springs from the Mormon Church and am unable to state how the Church acquired them. The Pipe Springs practically control the range to the Buckskin Mountains [sic] to the south and thousands of head of cattle water there. The Mormon Church built a two-story stone house at this spring a good many years ago but no one lives there at present.

The Heaton family live at the Moccasin Springs, which has been developed by planting trees and shrubbery until it is an oasis in the desert in reality. There are 4 dwelling houses, a schoolhouse and two barns, besides several small houses and sheds, located around the springs.²⁵³

When Means visited Moccasin during the summer of 1911, Jonathan Heaton was away, so he spoke with two of Heaton's sons, described as "joint owners in the place." He asked at what price they would sell their interests in Moccasin Springs. They told him that the place had been offered to the government "at the time plans were being made to move the Kaibab School there for \$12,000 but were sure their father would not consider such a price at this time." Means observed that given the fact that the federal government had expended \$17,000 in building the school and pipeline and as water was in such scarce supply, he couldn't understand why the government hadn't taken advantage of Jonathan Heaton's earlier willingness to sell. Means urged that steps be taken to determine the Heaton's legal holdings, to arrive at a fair appraisement of their rights, and to acquire them by purchase. There is no evidence that his recommendation was acted upon, but others later echoed it.

In 1911 Special Agent Lorenzo D. Creel reported to the Office of Indian Affairs what he had been able to learn about Jonathan Heaton's ownership rights at Moccasin and about the way in which the Indians' had obtained their one-third ownership rights to the main spring at Moccasin. An unknown informant made the following statement. It is apparent from the quotation, however, that the informant was living in Kanab, Utah, and that he was president of Kanab Stake at the time of the interview.²⁵⁵ The informant stated the following to Agent Creel:

Mr. Heaton acquired his title as follows:

The Springs were located by an unknown man.²⁵⁶ The Indians had undoubtedly used them for centuries and [had] attempted to obstruct the flow of the Springs by various means. They later allowed the white man to remain in possession of them. A cooperative association within the Mormon Church, known as the "United Order," purchased his right. When this Society dissolved and distributed its property among the stockholders, the Church purchased 1/3 of the water and gave it to the Indians who were then living close to the present Heaton improvements and sent a man to help them bring some of the land under cultivation, as sort of a missionary enterprise.²⁵⁷ Mr. Heaton took the remaining 2/3 of the Springs and all improvements as a part of his interest in the stock of the 'United Order,' and has retained peaceful possession up to the present time.... Now this is the natural home of the Indians. They already own ten acres of land with water right that was bought and given to them over twenty-five years ago by our Church and that

right has always been respected by the whites that have operated from then till now. The Indians have cultivated the ten acres all these years.... And to show he [Mr. Heaton] is not extravagant in his values he has given me, as president of the [Kanab] stake, a standing offer of a thousand dollars for [the] Indians unimproved, so far as buildings are concerned, ten acres with water right.²⁵⁸

This quotation documents that by 1911, Jonathan Heaton had an interest in buying the land and water rights granted to the Indians by the Church when its mission was established about 1880.

Correspondence between Superintendent Ward and the Commissioner of Indian Affairs indicates that providing water for Indian stock continued to be a concern. By 1912 the Indian cattle herd had grown to 350-400 head.²⁵⁹ On March 5, 1912, Ward wrote that there had been one unsuccessful attempt to pipe water from some of the mountain springs to the flat below and that it had failed, primarily because of the pipe's exposure to the elements. He opined that the construction of two or three reservoirs was a more viable solution, to be located in different sections of the pasture. The possibility of digging wells was also suggested.²⁶⁰

In the same letter, Ward referred to "drift" permits he had issued to cattlemen for grazing: "These permits call for 1,700 head of cattle which, of course, will not be on the reservation all of the time as they drift on and off. The rate charged was twenty cents per annum or a total of \$340. For years sheep have grazed on this land much to its detriment, however, they are not allowed on the reservation now."²⁶¹ Ward stated that his main objective was "to make the Indians self-supporting and self-reliant." He maintained that the Kaibab Paiute

...have the nicest bunch of cattle in the country. This spring I expect to sell for the Indians about \$1,000 worth of steers which will be the first sale from the increase of 83 heifers, which were issued to them three years ago and which the purchase price was \$1,860. Beside this a number of steers have been slaughtered which is a great benefit to the Indians....

Agriculture is a great factor in the Indian's development and much more difficult to impress upon him than stock raising.... The people are just beginning to realize the opportunities that agricultural pursuits offer them.²⁶²

Ward had fenced over 200 acres of the reservation for dry farming. Most of the Indian residents were skeptical of his experiments, but a few were beginning to show interest. "The main thing is to get the Indian to see the necessity of cultivation," he asserted. He also was making "very slow progress" in convincing the Kaibab they needed better horses, but "a few of them are gradually working toward better stock," he reported.²⁶³

Office of Indian Affairs Second Assistant Commissioner C. F. Hauke forwarded Ward's letter of March 5, 1912, to the Secretary of the Interior stating, "It is clear from this report that the most promising means for supplying the necessary water supply for stock, at least

for the present, lies in construction of reservoirs rather than to undertake the reconstruction of the pipeline from the springs higher up the mountain side."²⁶⁴ Hauke directed Ward to construct reservoirs and to dig test wells in the ravines near the school site, using Indian labor. Hauke advised Ward that the \$500 appropriation to develop water for stock must be expended by June 30. Hauke stated that he was "not convinced that the course you are now pursuing with reference to the grazing of outside cattle on the reservation is obtaining the largest revenue..." and wanted to discuss the matter at a later date. Documentation indicates that by 1913 grazing fees charged to non-Indian cattlemen were significantly increased. At least 28 permits were issued in 1913; the rate charged per head for cattle was most often one dollar per head, paid in advance; a few men were charged 50 cents per head.²⁶⁵

On June 11, 1913, President Woodrow Wilson issued Executive Order No. 1786 temporarily withdrawing public lands ("Township 41 N., R.2 W., G. and S.R.M.") from settlement, location, sale, or entry "for the purpose of classifying said lands, and pending the enactment of legislation for the proper disposition thereof..." (As this executive order did not supersede the Departmental Withdrawal Order of October 16, 1907, it is presumed that its intent was to strengthen the 1907 order in anticipation of the creation of the reservation.) A few weeks later, on July 2, Office of Indian Affairs Commissioner F. H. Abbot wrote to Department of the Interior Secretary Franklin K. Lane to request that the lands that included the town of Fredonia be eliminated from the reservation. The public survey completed in 1912 showed that part of the town lay within its boundary. In describing the process by which lands had been set aside for the Indians, Abbott stated that the October 1907 withdrawal,

...was temporary in its nature and was made for the purpose merely of protecting the Indians from encroachments by whites and not with the idea of establishing a permanent reservation. Since the withdrawal the Office has had correspondence with officers of the Indian Service and with other persons, and has invariably promised to eliminate the lands not actually needed for the Indians, and has assured the settlers that any prior rights obtained by them would be respected. At the time the withdrawal was made the lands were unsurveyed, but the township containing the town of Fredonia, namely 41 north, range 2 west, has now been surveyed and the approved plat of survey filed in the local land office.... The established line of the reservation on the east runs almost directly through the center of the town of Fredonia, and the citizens of the town have requested that all of the township now included in the temporary withdrawal be eliminated.²⁶⁷

Abbott wrote that Special Agent Creel had been sent to Fredonia, as instructed by the Office, "to gain a thorough knowledge of the true conditions so that he may be in a position to make a clean cut recommendation as to what eliminations should be made." Creel submitted his report on May 5, 1913, stating,

So far as I was able to learn that part of the petition giving a history of the town and conditions is substantially correct. These people settled upon this land in good faith and proceeded to make homes in the face of almost insurmountable

difficulties, and have had a constant struggle to maintain themselves and families. They appear to be honest, industrious citizens and anxious to comply with the law in every respect, but earnestly desire that they may obtain legal right to the homes they have labored so hard to establish.²⁶⁸

In his report, Creel recommended that the township of Fredonia be eliminated from the reservation to enable its citizens "to obtain a legal title to their holdings without further delay." Commissioner Abbott concurred with Creel's recommendation and asked that the Departmental Withdrawal Order of October 16, 1907, be revoked "so far as affects the township" of Fredonia. The recommendation was approved by First Assistant Secretary A. A. Jones on July 8, 1913, and referred to the Commissioner of the General Land Office. Thus by Departmental order, the part of Township 41 north, range 2 west, that lay within the boundaries of the reservation was withdrawn.²⁶⁹

The General Land Office survey of the boundaries of the Kaibab reservation (Township No. 40 North, Range No. 4 West) was begun on July 1, 1914, and completed on August 10, 1914. At the urging of Chairman Mulford Winsor (Arizona's State Land Commission), First Assistant Secretary A. A. Jones wrote to Office of Indian Affairs Commissioner Clay Tallman in early July requesting that the survey be suspended, stating, "It is the belief of the Department that should it later be decided to establish a permanent Indian reservation it is best to fix the boundaries of such reservation in accordance with the regular public land surveys." Commissioner Tallman concurred and subsequently telegraphed the Surveyor General on July 14, 1914, instructing him to omit the survey of the reservation boundaries. The first township plat of survey for part of the reservation was not approved until February 15, 1916, and was filed in Phoenix, Arizona, on September 8, 1917. The map shows the 22,637.66-acre area surveyed as public land, not as Indian reservation.

A lengthy "Report on Water Supply of the Kaibab Indian Reservation, Arizona" was submitted to Commissioner Tallman in November 1914 by Henry W. Dietz, Superintendent of Irrigation, U.S. Indian Service, Salt Lake City, Utah. It contains a description of the reservation, weather conditions, and water supply sources, including Kanab Creek, Moccasin Springs, Pipe Springs, Two Mile Spring, Stock Spring, and seepage water. Dietz described Agency developments at a site located 1.5 miles from Moccasin Springs. They included a schoolhouse, a combined office/superintendent's residence, barn, sheds, and six stone cottages "built for Indian families in order that they might be near the school and water." These were located close to the school. A water and irrigation system consisted of a four-inch pipeline about 7,760 feet long piped to the various buildings, also discharging into a small reservoir (200 feet square, 3.5 feet deep) near the school. 273

Dietz described farming activities on reservation lands as practiced both by the "Agency farmer" (Superintendent Ward) and by the Indians. Ward maintained 1 acre of alfalfa and 1 acre of potatoes on irrigated land, and dry farmed 17 acres of barley and wheat, 28 acres of corn, and 25 acres of "Soudan grass." The Indians farmed 15 acres of alfalfa

and 5 acres of corn on irrigated lands. They dry farmed 10 acres of alfalfa and 15 acres of corn. Thus, a total of 22 acres were irrigated and 95 acres dry farmed. The report by Dietz also evaluated available water storage options. It concluded that diverting and storing water from Kanab Creek was impractical and should not be considered, even though some Kanab citizens had offered to "trade" a supply of water to the Indians for part of the reservation land. Dietz stated, "All of the flow of this creek is used by farmers at Upper Kanab, Kanab, and Fredonia, in all about 1,500 acres being irrigated." Dietz made the following observation:

There seems no other way of obtaining water from any source other than that already being used and my recommendation is that every effort be put forth to utilize the present supply to obtain a maximum benefit. To accomplish this I believe the culture should be confined to garden truck and such crops as can be used by the Indians in their homes. I do not think that an attempt should be made [to] raise alfalfa since this requires a great deal of water and can benefit a very limited number of Indians only.²⁷⁵

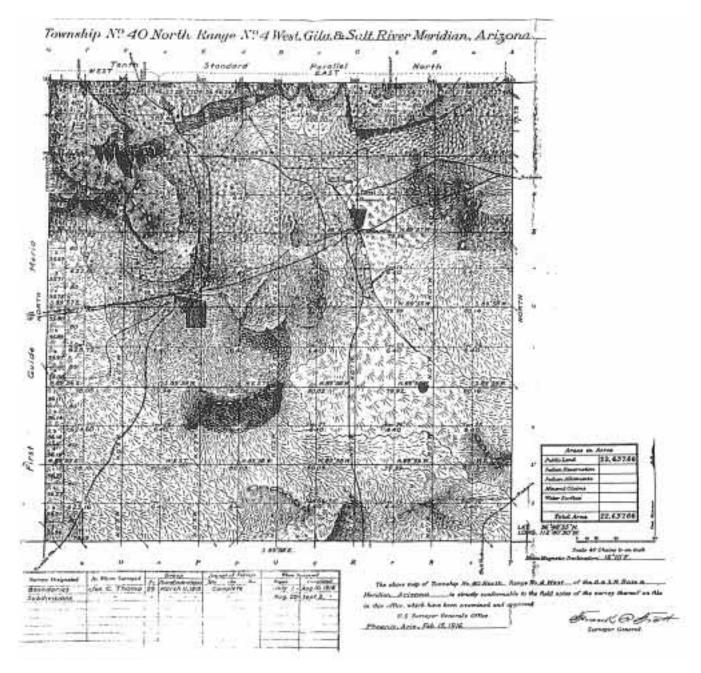
Dietz then offered a recommendation that had been suggested by several before him:

It would be very desirable to obtain from Jonathan Heaton his interests in the Moccasin Springs and the land to which he claims ownership. This would give the Indians water sufficient to irrigate seventy-five acres in addition to that now irrigated by them and would also give them undisputed title to till the land in the vicinity of the School. Heaton is endeavoring to obtain title to six homesteads and this will occupy all the best land in this vicinity. There is no question but what he has a moral, and perhaps a legal right to a certain amount of land but I do not believe he should be given title to any land to which he did not have a just claim at the time the reservation was established.

I was unable to obtain any committal from Mr. Heaton relative to a consideration for which he would be willing to relinquish his claims but believe he would consider a proposition were it tendered him.²⁷⁶

Dietz thought the Indians needed complete control of Moccasin Spring for a number of reasons. He observed, "...there is a constant feeling on both sides of unfair division of water." It was pointed out to Dietz that Heaton was diverting spring water into a small reservoir prior to its flow to the division weir. At the same time Heaton accused the Indians of battering down the edge of the weir in order to obtain more than their share. In addition to putting an end to such arguments, Dietz thought Indian control of Moccasin Spring would enable additional development of the springs, thereby increasing the water supply; it would also make it easier to ensure sanitary conditions.²⁷⁷ Dietz's report recommended that test wells be drilled on the reservation in an attempt to locate additional sources of water.

In his report, Dietz made only a curt reference to Pipe Spring: "These springs are located on the southwestern portion of the reservation and are used only for stock



16. GLO survey map, approved in 1916 (Courtesy NPS, Water Resources Division)

watering. They are claimed by Jonathan Heaton."²⁷⁸ The controversy over water between white residents of Moccasin and the reservation's Superintendent Ward centered squarely on Moccasin Spring. No attempts were made by him or by the Office of Indian Affairs to claim or utilize water from Pipe Spring, nor does any documentation suggest the idea was ever brought up during the reservation's early years.

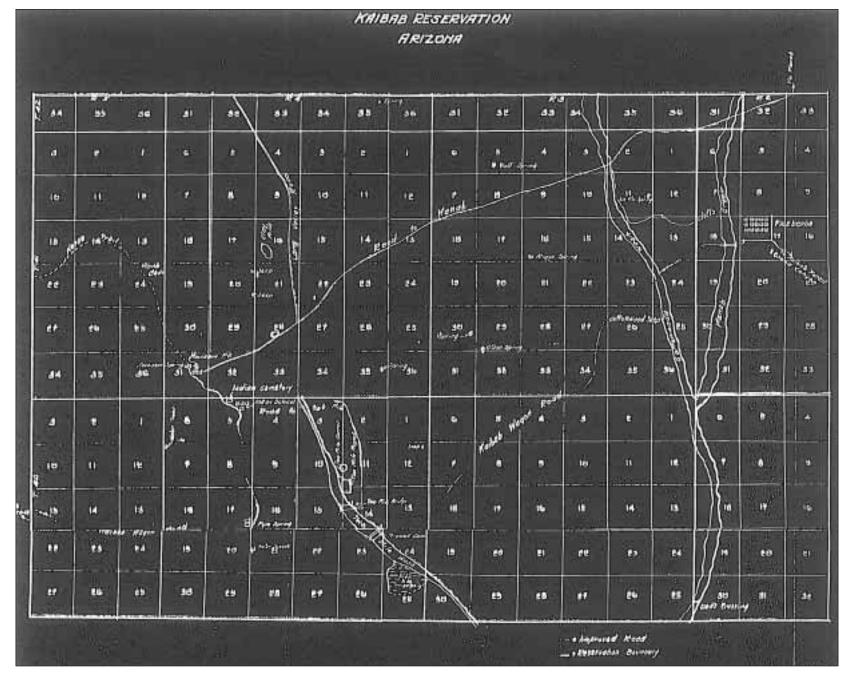
By Executive Order of January 13, 1915, all land within one-quarter mile of Canaan Reservoir was set aside as public water reserve No. 24. The following year, an Executive Order of April 17, 1916, set aside all land within one-quarter mile of Two Mile Spring and all land within one-quarter mile of Pipe Spring as public water reserve No. 34, open to all livestock and travelers.²⁷⁹

On July 9, 1917, Commissioner Tallman submitted to the Secretary of the Interior a draft of an executive order that would withdraw 125,000 acres of Arizona land "for the Kaibab and other Indians residing thereon" along with a letter recommending his approval of the order. Secretary Lane forwarded the order and Tallman's recommendation to President Wilson on July 12, saying he concurred with Tallman's opinion. On July 17, 1917, President Wilson issued Executive Order No. 2667 creating a permanent reservation for the Kaibab Paiute. At the time of this order, the Kaibab population was 95 persons of which 54 were adults and 41 of minor age. About 87,000 acres were under lease to stockmen for grazing purposes, with the remaining grazing lands utilized for tribal stock. The Indians had individual stock valued at \$18,600 and tribal stock valued at \$23,400. The total value of all individual and private property on the reservation in July 1917 was \$221,578.

On June 16, 1917, Commissioner Cato Sells, Office of Indian Affairs, wrote to Secretary Lane requesting yet another modification to the reservation. Sells informed the Secretary that the GLO had abstained from surveying the reservation boundaries in response to First Assistant Secretary A. A. Jones' request of July 10, 1914 (referenced earlier). Since then, portions of townships 39, 40, and 41 north, ranges 4 and 5 west, had been surveyed without regard to the boundary lines of the reservation. The filing of plats of these townships was being withheld by the Commissioner of the GLO pending adjustment of the reservation boundary lines. Sells transmitted a blueprint map requesting the revision of the reservation boundaries, eliminating sections along the western border and adding sections on the east. He explained, "This has been done in order that the boundaries may fall on section lines and also for the purpose of removing conflicts along the western line with settlers who have established themselves within the lines of the reservation but outside of the fence.... The effect of these changes will reduce the total area by more than five thousand acres."283 The boundaries were revised in accordance with Sells' request. By the time the final boundaries were established, the land base of the reservation was 120,413 acres.

The Pipe Spring "Compromise"

Shortly after Dr. Edgar A. Farrow was appointed superintendent of the Kaibab Agency in 1917, he became concerned about the manner in which the Heatons were using the main spring at Moccasin. He particularly objected to the two-inch pipe installed by the



17. Map of Kaibab Reservation, Arizona, 1921 (Courtesy National Archives, Record Group 75)

Heatons which had for years been diverting water from the main spring to property owned by the Heatons prior to its reaching the measurement weir. In 1918, in anticipation of legal action that the Agency might take against the Heatons to protect the Indians' share of Moccasin Spring water, Farrow began trying to track down the history of the Indians' water and land rights in Moccasin. He wrote Jonathan Heaton an innocent-sounding letter, stating that his objective was to gather data "relative to matters pertaining to the reservation," which would be useful to future superintendents: "...To this end I am asking you to advise me in detail as to your knowledge of the rights of the Indians in the water of Moccasin Spring, how they obtained such rights, when and from whom if possible." 284

In response to Farrow's request, Jonathan Heaton's brief response is cited in full:

In answer to your ____ [indecipherable] to the Indians share of the water at Moccasin, will say that the old Kannan Cattle Company bought 1/3 of the Sand Spring water with about 11 acres of land af. [from] Lewis Allen. Then the Mormon Church bought it af. [from] the Kannan Co. and gave it to the Kane Co. Indians without any remuneration.

A man by the name of James Maxwell was the first white settler at Moccasin. ²⁸⁵

["Kannan" should be spelled "Canaan" Cattle Company. "James Maxwell" should be William B. Maxwell.]

Farrow forwarded a copy of Heaton's handwritten reply to the Office of Indian Affairs with a letter detailing his concerns. He was convinced the Heatons were cheating the Indians of their water, not only by the two-inch diversion pipe above the weir, but by occasionally obstructing the workings of the weir, both of which jeopardized the Indians' water supply. Upon receipt of his letter, the Office of Indian Affairs searched their files in attempt to document the use of Moccasin Spring. One piece of information they sent Farrow was an excerpt from the 1911 report made by Special Agent Creel, cited earlier. While sending this and other information to Farrow, Assistant Commissioner E. B. Meritt stated, "Nothing in the nature of a deed or other evidence of title under which the Indians acquired their share of the flow of Moccasin Springs as a gift from elders of the Mormon Church, is in evidence here." Meritt then offered a rationale for why his office had not pursued the oft-recommended purchase of the Heatons' two-thirds rights to Moccasin Spring:

For your information it may be said that ever since Inspector Chubbuck's visit to this locality there has been more or less consideration given to the acquisition from the Heatons of the so-called Moccasin Ranch and their interest in Moccasin Springs, but the valuation placed thereon has been more than it was thought the property was reasonably worth. It is understood that the Heatons themselves have only 'squatters' rights, arising through occupancy, the lands being unsurveyed preventing them from acquiring absolute title thereto. Interference with the flow of water to which the Indians are entitled may be a

move on the part of the Heatons to cause the Government to acquire their rights in order to avoid further difficulty. These latter suggestions are offered solely for your information and, of course, are to be regarded as confidential.²⁸⁷

Farrow responded with a suggestion to the Commissioner of Indian Affairs, one which - had it been carried out - would have had a direct and immediate impact on Pipe Spring:

My proposal is as follows: That we offer to Mr. Heaton a compromise in the shape of allowing him to continue with his two-inch pipe at the Sand Spring provided he will in exchange lay a one-inch pipe from Pipe Spring to a point in the so-called Pipe Pasture, known also as the West Pasture, giving to the Government a perpetual title to the capacity of this pipe, the pipe together with the right of way to be furnished by Mr. Heaton and to become the property of the United States without remuneration...

An arrangement of this kind would result in a solution of the water problem in the West Pasture, which after the expiration of the present permit (June 1, 1919) could be used either as a bull pasture or allowed to grow up for winter range. I am convinced that this arrangement would eventually be of more advantage to the reservation and the Indians than the elimination of the two-inch pipe at Moccasin and at the same time it suggests an opportunity for the Heaton corporation to give the reservation value received for what they are undoubtedly obtaining more than their due without interrupting their present arrangement.

I am submitting this proposition to the office for approval before taking the matter up with Mr. Heaton.

In this connection I would say that in my letter of July 16... [in which] I discussed the title to Pipe Spring and referred the matter to your office for investigation and am of the opinion that before any action is taken on the plan proposed in this letter that we determine definitely whether Mr. Heaton's title has any special value. If, however, we found that his title might be invalid and we could at the same time prevail upon him to agree to our proposition and actually lay the proposed pipe, we could immediately place a filing on the amount of water thus appropriated and in this manner establish for the United States an unquestionable title.²⁸⁸

Farrow included a sketch map with his letter that showed the Pipe Spring water would have to be piped approximately 1,320 feet. It is worth noting his reference to plans for the "west pasture." He did not plan on renewing the cattlemen's permit to graze their cattle on this desirable piece of land.

Assistant Commissioner E. B. Meritt responded to Farrow's suggestion with a letter that reveals the highly complicated legal aspects of the issues that pertained to both Moccasin and Pipe Spring. Most of Meritt's letter is quoted below:

The office has your letter of August 23 wherein you suggest as a possible solution of the 'Moccasin two-inch pipe problem' that 'we offer to Mr. Heaton a

compromise in the shape of allowing him to continue with his two-inch pipe at the Sand Spring provided he will in exchange lay a one-inch pipe from Pipe Spring to a point in the so-called Pipe Pasture, etc.'

It is presumed that you suggest the use of a one-inch pipe in order to obtain an amount of water equal to one-half of that which Mr. Heaton obtains [at Moccasin Spring], the Indians' share in this water being one-third and Mr. Heaton's share being two-thirds. In this connection your attention is invited to the fact that a one-inch pipe will not carry one-half the water that a two-inch pipe will carry. In order to carry one-half the water that will flow through a two-inch pipe under given conditions, a one and one-half inch pipe must be employed.

Since it appears that Mr. Heaton has only 'squatter's rights' to the land which he occupies and as the title of the water used by the Indians is unsettled, it would seem to be inadvisable to take any steps which might complicate the situation; therefore, your proposal to trade, so to speak, the Indians' rights in Sand Spring for the right in Pipe Spring would seem inadvisable. This does not take into consideration that Mr. Heaton's title to Pipe Spring has not been definitely determined. If his title to this Spring should be invalid we would then have in return for the exchange only the value of the pipe laid by Mr. Heaton from Pipe Spring as proposed; furthermore, additional complications in regard to the water might develop.

Until such time as the land and water rights can be definitely fixed, some means of procuring for the Indians an actual one-third of the waters of Moccasin, or Sand Spring, should be developed...²⁸⁹

The following spring, Farrow took up the matter of the two-inch pipe with one of Jonathan Heaton's sons, Charles C. Heaton. Heaton told Farrow the history of the weir's installation by George Sears in 1907 and assured him that the water diverted by the family's disputed two-inch pipe had been taken into consideration when the measuring weir was installed below it. Farrow felt unqualified to make the measurements in order to verify the truth of Heaton's statement.²⁹⁰ Meanwhile, he continued to pursue information about the Heatons' claims. In April 1919 he wrote the Mohave County Recorder to inquire if water filings had ever been recorded on either Moccasin or Pipe Spring, stating "I am attempting to fix the legal and moral rights of settlers."²⁹¹

The above correspondence between Farrow and the Office of Indian Affairs illustrates that because the Heatons had not yet established their legal claims to Moccasin or Pipe Spring, the Agency feared negotiating with the family on the Indians' behalf with regards to either property. Any deal that the Agency made with the Heatons might later strengthen the Heatons' claims of ownership by being viewed as tacit acknowledgement of their ownership. This would in turn weaken the Agency's own position against those very claims. Consequently, no action was taken by the Agency to negotiate with the Heatons to either obtain access to Pipe Spring water or to purchase the Heatons' claimed two-thirds water rights at Moccasin. Instead, they focused their efforts on protecting the Indians'

share of water from Moccasin Spring, one of the few claims in the region that was contested by absolutely no one.

Farrow protested any actions taken by the Heatons that he perceived to be detrimental to the interests of the Kaibab Paiute. In September 1919 he filed a protest with the Secretary of State of Arizona over a new problem that arose in August:

I am enclosing herewith a formal protest which is self-explanatory except that it does not explain the rights and title to the water of the springs in question.

Several years ago - perhaps thirty or more - one-third of the outflow of Moccasin Springs was purchased from the squatters and given to the Indians. Since that time the squatters right to the property on which the springs are situated has come into the possession of Jonathan Heaton and sons. These people have at various times constructed a dirt dam between the outflow of the main springs and the weir constructed by the Government for the division of the water. These dams have according to the opinion of expert water men, inhibited the flow of the springs (and this fact has been proven by demonstration) and through breaking down have been a constant menace to the water supply of the Indians who use this water for culinary purposes as well as irrigation. As the Indian Camp is situated in a position that makes water unobtainable except that which comes from these springs, any obstruction of the flow is a serious matter.

Not being familiar with the law covering such cases and being unable for the moment to obtain expert legal opinion, I am entering this protest at the moment when last dam (constructed early in August, 1919) has broken down and polluted the water and obstructed the pipes. It is my intention to ask the Indian Office to enter suit for protection of the rights of the Indians and this protest is formally made as a basis of such suit.

I would consider it a favor if you would refer this document to the proper department and advise me with whom I should communicate.²⁹²

No response to Farrow's letter has been located. Less than two years later, in January 1921, Farrow reported to the Office of Indian Affairs that the Heatons were attempting to increase their water supply by constructing a new tunnel. He feared an imminent threat to the main spring's water supply:

The water supply of the Indians here could easily be reduced to such an extent as to destroy their fields if not to the limit of making the removal of the camp a necessity for want of water.

Inasmuch as the final settlement of the Heaton titles promises to be in the near future it seems necessary that some steps be taken to remove the menace that must always hang on the slender thread of the honesty of the owners of the Heaton ranch...

I suggest that steps be taken to tie up the land titles at Moccasin till the water is absolutely safeguarded.²⁹³

Two weeks later, Farrow reported to the Office of Indian Affairs that the Heatons had commenced blasting the new tunnel "just north of the old one above Jonathan Heaton's house." He maintained that the Heatons' continuing efforts to develop new water sources in Moccasin were having a negative impact on the Indians' portion of water: "The Indians insist that the water discharged into their reservoir has materially decreased in the last few years," he reported.²⁹⁴ As additional proof of a reduction in water available to the Indians, he stated that he had been forced to eliminate three acres from fields and gardens irrigated on reservation lands since his arrival in 1917. He feared that if the Heatons' pending homestead claims were patented,

...and we have not safeguarded our water supply, a few blasts might easily leave us high and dry with no potable water of sufficient quantity to supply the Indians nearer than the Cottonwood farm, a matter of approximately 11 miles from the [Indian] school.

In this connection I wish to refer to Pipe Spring. Correspondence forwarded to me by the Office, which was had between the Director of Lands and the Register of Phoenix, indicated that the Valentine Scrip which had been the basis of tentative title on the part of the Pipe Springs Land & Livestock Company (Heatons) had been rejected; that appeal to the Secretary of Interior must be made within thirty days. To this date I have been unable to obtain any definite data as to the possible outcome of this claim, but have been unofficially advised that Governor Campbell of Arizona has been interested in the matter and has promised to support the claimants. If the spring and 40 acres surrounding it at Pipe had been in the hands of an actual settler who could make claim under the homestead rights and who had by his own efforts developed it, used it to advantage, and created himself a home, it would seem that at least a moral right to a title should be conceded; however, this spring has for years been in the hands of a corporation and this corporation has received many times the original cost from use; they have made no developments and I know positively that a portion of the water from this spring has been sold to the local cattlemen contingent on being able to deliver a marketable title. This sale has been made within the last year and money or value have actually changed hands as part of the option...²⁹⁵

Three important points are worth noting about Farrow's above statements. The first is that he questioned whether Pipe Spring's historical use as a cattle ranch, administered by a series of corporations, didn't disqualify its claimants from filing on it under homestead laws. Second, his reference to Arizona Governor Thomas E. Campbell's support of Heaton's case is important. Third and last, Farrow's letter of February 2, 1921, provides the earliest reference to the Heaton family's sale of one-third water rights at Pipe Spring to cattlemen.

The preceding documentation has been cited at length in order to convey the serious nature of the conflict that existed between the Heaton family of Moccasin and the Kaibab Indian Reservation's Agent and physician, Dr. Farrow. Such conflict appeared to escalate during the first few years after the reservation's formal establishment in 1917, which happened also to coincide with Farrow's arrival.²⁹⁶ Issues related to competition for land and water would continue to impact relations between the Heatons and the Kaibab Paiute for years to come. Beginning in 1923, a third party would enter the fray: the National Park Service.

Heaton Family Claims to Lands Within the Reservation

President Wilson's Executive Order of June 11, 1913, withdrawing public lands from settlement prompted a flurry of activity by white settlers to legally prove their claims on lands that lay within the reservation. The Heaton family in particular fought a lengthy battle to gain title to lands it claimed.²⁹⁷ They wrote letters, engaged lawyers in Phoenix and Washington, D.C., made personal appeals to Senator Reed Smoot in Utah and Senator Carl Hayden in Arizona, and submitted numerous petitions to state and Washington officials from about 1915 into the early 1920s, with only limited success. Two actions taken by the Heatons with regard to land claims are worthy of mention here. The first action consisted of separate filings by Jonathan Heaton's plural wife and two sons (Lucy, Fred, and Charles) on three 160-acre homestead entries. Final proof was made on these entries on December 13, 1920. The General Land Office accepted these three homestead applications and the local land office in Phoenix issued certificates. (The application of Charles C. Heaton did not include the Pipe Spring tract, only Moccasin property.)

At the urging of Dr. Farrow, however, the Office of Indian Affairs challenged Charles C. Heaton's homestead application. Farrow feared the Heaton family would at some time in the future cut off the Indians' access to Moccasin Spring. On March 7, 1921, Farrow filed a protest to the filing of a homestead claim by Charles C. Heaton. Upon hearing of the protest to his application, Heaton wrote his lawyers the following letter:

I have just learned from some of the Indians that the object of Supt. E. A. [sic] Farrow's going over our three homesteads. He has entered a protest and he and some of the Indians have signed it. Now these Indians are very friendly with us. They came and told us that they did not know what they were going to sign until the Supt. had them in the courthouse in Kane County, Utah. They came to us and told what the Supt. was doing.

I think it would be well to have this matter brought before Congressman Carl Hayden, as this Supt. [sic] actions on other matters have been put to him.

I also call your attention to the 7 or 8 acres of land that the Indians have used for some time that is in the 40 that my house and most of my improvements are in. Now, I am willing to put up something for the Indians that use this land, so as to be on good terms with them.

Hoping that with this information you will be able to get these homesteads through.²⁹⁸

His request for intervention by Senator Carl Hayden was not unusual. Mohave County Sheriff W. P. Mahoney had kept Hayden apprised of the land controversy and the conflict between Farrow and the Heatons for some time. The Heatons and their lawyers also kept Hayden informed. While the details of further negotiations are unknown, an agreement was reached in June 1923 whereby Heaton's homestead entry was approved, with several stipulations. An area not exceeding 200 feet on either side of the spring was to be segregated (about four acres), and it was stipulated that when the patent was issued to Heaton, it would contain a clause allowing him an unobstructed use of two-thirds of the flow of Moccasin Spring.²⁹⁹

In addition to protesting Charles C. Heaton's Moccasin claim, Farrow served Heaton with a peremptory notice on August 7, 1922, directing him and other parties using certain lands within the reservation to vacate the lands within 60 days, and to promptly remove all enclosures and fences on those lands. The only exception made to the order was the Pipe Spring tract. Heaton's legal firm conferred with Senator Hayden

regarding the matter in September 1922. On advice from his attorney, Heaton took no action to comply with Farrow's demands.³⁰⁰ The fencing remained in place for another three years.

The second action of note by the Heatons involved the attempt by Jonathan Heaton's immediate family (by his plural wife Lucy) to claim thousands of acres of fenced reservation land under homestead laws.301 This effort was unsuccessful because most of the 11 children listed as co-applicants with Jonathan and Lucy were minors on October 17, 1917, and thus did not meet the requirements of bona fide settlers as required under the Homestead Act. The family then petitioned in March 1921 to have these lands withdrawn from the reservation. That petition was denied by the Indian Office on April 6, 1921, and upheld by the Department of the Interior on July 5, 1921.302



18. Edgar and Anna Farrow and children, September 1923 (*Photograph by Francis P. Farquhar, Courtesy National Archives, Record Group 79*)

Even after private claims to lands had been settled, relations between the residents of Moccasin and those charged with protecting the interests of the Kaibab Paiute would be strained for decades to come. Land and water were only two of the issues over which conflict arose. Trespassing and unauthorized use of reservation timber and grass by non-Indians created additional problems.³⁰³ Dr. Farrow continued to be extremely diligent in his efforts to protect the interests of the Kaibab Paiute and to oppose the Heaton family's land claims. He was also vociferous about the removal of their fencing from reservation lands. At the request of Commissioner Charles H. Burke, the Secretary of the Interior asked the Attorney General to take legal action against the unlawful fencing in late November 1922; the Heatons and others finally removed the fences in 1925. Farrow's antagonism toward and intense distrust of the Heaton family would considerably color later interactions with Pipe Spring National Monument's first custodian, C. Leonard Heaton. Farrow's actions as an advocate, as well as his kindly doctoring, would endear him to the local Kaibab Paiute.³⁰⁴

The Kaibab Indian Reservation in 1922

Compared to earlier times, conditions on the reservation for the Kaibab Paiute seemed considerably improved immediately prior to the establishment of Pipe Spring National Monument.

During late August 1922, John W. Atwater inspected the Kaibab Agency and Schools. (The Kaibab Agency administered a second Indian school for the Shivwits Paiute.) His report indicated that Dr. Farrow's wife, Anna, served as the financial clerk for the Kaibab Agency. Atwater gave the Farrows high marks on their work: "A more efficient couple cannot be found in the Service." The couple had previously lived and worked in the Philippines. Atwater wrote,

Superintendent Farrow is an excellent officer. His education and training, combined with his business qualities and executive ability, equip him to manage successfully any Superintendency in the Service. His invariable kindness and good judgement have secured for him the respect and friendship of his Indian charges. He is not only content to remain in his present position but desires to do so until the indebtedness upon the tribal herd is paid.³⁰⁵

A white stockman, Arch Lallard, and white female housekeeper, Julia Perkins, were also employed at Kaibab Agency in 1922, as well as an unidentified teacher. Atwater reported existing conditions at the reservation:

...Perhaps about 50 acres are now under irrigation and for which a meagre [sic] supply of water is obtainable. By the expenditure of two or three thousand dollars, perhaps twenty-five acres additional might be placed under irrigation.

The reservation has no other resources. The Indians seek employment among the White settlers during the summer and autumn months, some of them going to the beet fields. Work is plentiful and fair wages.

The Indians, as a whole, appear healthy, though they have not increased in numbers. Epidemics such as Flu, Whooping cough, etc. account for this.

Outside of the very few acres of valley land, this reservation is of little value. It is mountainous, much of it devoid of any vegetation. It would sustain a small number of cattle, but a fence should surround it before it is used for pasture.... Like the [sic] most of the Indians of the southwest these people wish to remain where they are. By respecting these wishes very little can be done for them.

By day labor on the farms and ranches of the Mormon people, together with the small amount of produce raised on their irrigated tract of land, they can continue to eke out a precarious sort of existence.³⁰⁶

The report described the Kaibab School as a frame structure built to accommodate 20 students. The building, noted to be in good repair, contained a classroom, small dining room, wash room and pantry. Outbuildings included a barn, wagon shed, blacksmith shop, and outhouses. Other frame buildings included an office building and employee building. Buildings were heated by wood stoves and lighted by coal oil lamps. Atwater omitted description of the six stone residences known to have been occupied since 1908 by Kaibab Paiute families.

The Kaibab Agency owned three milk cows, a team of workhorses, a saddle horse, and one colt. Atwater recommended getting an additional saddle horse and replacing the team of horses with a truck. Attempts at dry farming by whites and Indians in the area had been abandoned, reported the inspector, who opined that the reservation was suited solely for stock raising. Still, 18 families maintained gardens at Kaibab, growing corn, potatoes, squash, pumpkin, beans, and other vegetables. "No surplus is produced, but full use is made of the products raised," he observed. The gardens, along with 25 acres of alfalfa, were irrigated with water piped from Moccasin to a reservoir near Agency headquarters at Kaibab Village. Another 25-acre field of alfalfa was located a two-mile distance from the Agency; it was irrigated with water originating on the reservation, possibly from Two Mile Spring. (Another 1922 report states that in addition to the one-third interest in Moccasin Spring, the Indians had "two fairly good stock water springs in the Indian pasture" and "two or three small seeps in the Indian pasture that may be developed into stock water springs." 307)

Inspector Atwater also reported on tribal livestock. The tribal herd consisted of 662 "good quality grade Herefords" in good condition. Atwater estimated that the reservation range could support 1,500 head of cattle if used to capacity. Individually owned cattle numbered 126 head, belonging to 21 owners. Atwater wrote, "About 150 horses are owned by the Kaibab; they are of mixed breed, many of them worthless. The care given the work horses is quite indifferent, many of them lacking sufficient feed in winter time." He reported that the tribal herd was brought into the reservation in the autumn of 1916. At the time Farrow took over the superintendency in 1917 the herd consisted of 178 cows and 22 bulls, Atwater wrote. The sale of 200 head of cattle already had already

brought in \$3,600. Grazing leases were issued on land not needed by the Tribe for grazing its own herd.

In general, health on the reservation was reported to be good with only three known cases of tuberculosis. In addition to routine medical treatment. Dr. Farrow was usually called when Indian women were in labor and frequently assisted in deliveries. In concluding his report of inspection, Atwater shared Farrow's concern about the Moccasin water source and pending Heaton land claims, making the following recommendation: "Definite arrangements for water protection for the Kaibab Agency and school plant should be made with the Heatons before titles to the land claimed by them as homesteads are patented to them. The loss of this water would completely ruin the project there."309

While many area cattle ranchers were hard-hit by the 10-year drought



19. Charles C. Heaton, September 1923 (Photograph by Francis P. Farquhar, Courtesy National Archives, Record Group 79)

that began in 1922, by 1930 the Kaibab Paiute had reportedly established a fairly successful cooperative cattle business.³¹⁰ In addition to farming their garden plots and tending their tribal and individual herds, the Indians of Kaibab Agency maintained their traditional practice of seasonal harvesting of wild food resources and medicinal plants. The impact that the later creation of Pipe Spring National Monument would have on the Kaibab Paiute and the relations between the two entities are interwoven throughout the rest of the monument's history.

The Heaton Family and Pipe Spring, 1909-1924

As mentioned earlier, A. D. Findlay sold the Pipe Spring property to Jonathan Heaton and his sons on January 2, 1909, with Findlay carrying the mortgage. The Heatons' copartnership was called the Pipe Springs Land & Live Stock Company. The Heatons continued to live in Moccasin while renting out the ranch at different times to a number of different families.

According to Leonard Heaton, O. F. Colvin lived at Pipe Spring from about 1908 to 1914.³¹¹ Beginning in 1915 the Pipe Spring property was rented out for two years to William S. Rust for \$10 a month. Given all the family linkages at Pipe Spring, it should

not come as a surprise that Rust was Edwin D. Woolley's nephew.³¹² Rust had taken up a homestead in Short Creek with his wife and children in 1911, proving the claim in just three-and-one-half years. The Rusts then sold this homestead for \$2,200 and moved to Pipe Spring. Rust wanted to buy the Pipe Spring ranch but the Heatons were not inclined to sell. Rust later recalled in his autobiography: "In the big living room of the old Pipe Springs fort the red sofa and chairs looked very elegant and refined. Tourists traveling through there on their way to Cedar City, St. George, and Hurricane would stop for meals or stay overnight. There was no other road to those points."³¹³

Rust's daughter, Maida, remembered that during that time, in addition to "the most wonderful spring water," the family had an orchard, garden, field, pastures, cows, a pet goat, chickens, "and a pond of water surrounded by tall trees." She also mentioned the downside of living at Pipe Spring. She once had a face-to-face encounter with a rattlesnake while retrieving her shoes from the under-the-stairway kitchen closet. After leaving Pipe Spring in 1917, the Rusts struggled to make a living in Hurricane and Cedar City. Then "Uncle Dee" (Edwin D. Woolley) told Rust he needed someone to run his hotel in Kanab, so the family moved there in 1919 and took on the job, soon paying off all their debts. At some point after the Rusts left Pipe Spring, John E. White lived there as caretaker for the Heatons.

On March 3, 1920, Charles C. Heaton, vice-president of the Pipe Springs Land & Live Stock Company, filed application to locate Valentine scrip certification for the Pipe Spring ranch. (As mentioned earlier, the Valentine scrip had been filed by Daniel Seegmiller in 1888, later sold to cattleman B. F. Saunders, then passed down to succeeding buyers.) On April 10, 1920, the Commissioner of the General Land Office held for rejection of the filing of the Valentine scrip, subject to appeal:

The filing of Valentine scrip upon unsurveyed land does not segregate the land from the public domain, nor secure to the application a vested right in the land applied for. The application to locate the certificate according to the subdivisions of the survey is therefore held for rejection subject to the right of appeal to the Secretary of the Interior within thirty days from receipt of notice...³¹⁵

Charles C. Heaton appealed the decision. Obtaining the quitclaim deed from the Findlays was one of the actions he took to prove legal ownership of Pipe Spring. Exactly when Jonathan Heaton and his sons paid off the mortgage of the Pipe Spring property is unknown. No quitclaim deed was obtained from A. D. Findlay until one was executed on December 30, 1920, to the Pipe Springs Land & Live Stock Company. On December 18, 1920, the Pipe Springs Land & Live Stock Company executed a quitclaim deed to Charles C. Heaton. (The reason these two deed transactions occurred out of chronological order is unknown, but both were executed in compliance with a letter request by Charles C. Heaton dated November 12, 1920.)

In late March 1921, Charles C. Heaton wrote to his attorney, John H. Page, to inquire about progress on the case.³¹⁶ On April 8, 1921, Page replied to Heaton that, with the

recent recording of the Findlay deed, the legal firm now had an abstract of a complete chain of title from Daniel Seegmiller to Charles C. Heaton. In other words, they possessed the evidence needed to show the General Land Office that Heaton was legal owner of the Pipe Spring tract. The complete abstracts had been forwarded to the firm's attorney in Washington, D.C., Samuel Herrick. A decision in a test case which Page thought was similar to Heaton's had just been handed down. Herrick believed that the Heaton case might be argued under the earlier decision.³¹⁷ The General Land Office, however, had denied the homestead application because the land was not unappropriated; rather, it had been withdrawn from the public domain in 1907 for the Indians. Heaton's lawyers filed an appeal, arguing that application under the Valentine scrip could not have been made until the public survey had reached the area and that they had filed soon thereafter. Assistant Secretary of the Interior Edward C. Finney denied the appeal on June 6, 1921.³¹⁸

Farrow's letter of February 2, 1921, cited earlier, has already documented that Arizona's Governor Campbell had promised to support Heaton in his land claims at Pipe Spring; Senator Carl Hayden had also taken Heaton's side. Add to these facts one more – that one-third rights to water at Pipe Spring had already been sold to area cattlemen – and it is no wonder then that Charles C. Heaton would not give up his fight for the property. A motion for review of the June 6 decision was made. On August 25, 1921, Heaton's lawyer, John H. Page, wrote to Senator Hayden to ask for his assistance with the "Heaton scrip case" (also called the "Valentine scrip case"). Samuel Herrick had already supplied Hayden with a copy of the motion and a brief on the rehearing of the case. Page asserted,

Some of the arguments in the Secretary's recent decision in this Valentine scrip case, and which decision Judge Finney signed, have nothing to substantiate them, and the conclusions reached are absurd. We cannot help thinking that this office has had no experiences with scrip cases. But no matter how it happened, the decision is all wrong, and our present motion for a rehearing should be granted with the result [of] a favorable decision as to the scrip location. Mr. Heaton has advised us that if his property and improvements should be confiscated by final adverse action of the Interior Department, we are authorized to take this case to the courts, to the Supreme Court of the United States, if necessary.³¹⁹

Page asked Hayden to delay the rehearing until the return to Washington, D.C., of Secretary Albert B. Fall so that Hayden could personally review the case with Secretary Fall prior to its rehearing. (Assistant Secretary Edward C. Finney had made the original decision in the scrip case.) By the time Page's letter arrived in Washington, Hayden's secretary wrote to inform him that Hayden had already read the brief and that Hayden had already assured Herrick that he would be glad to "extend him all possible cooperation."³²⁰ On October 17, 1921, Hayden wrote Page that he had spoken with Assistant Secretary ("Judge") Finney, who "was still a little bit peeved" over a letter Page had sent Senator Henry F. Ashurst about the Heaton case.³²¹ Finney was determined to make the final decision in the rehearing of the Heaton case, but Hayden assured Page he was still "hopeful that the outcome would not be unfavorable."³²² Such was the status of the Valentine scrip case when early discussions took place about the idea of transforming

the Pipe Spring ranch into a national monument. The events directly leading up to the creation of Pipe Spring National Monument and the National Park Service's acquisition of the site from Charles C. Heaton are the subject of Part II of this report.

The National Park Service, Historical Background

National Context, 1916-1923

Before focusing on National Park Service (NPS or Park Service) activities in Utah and Arizona, it is helpful to consider the larger national context, both prior to and after the 1916 creation of the Park Service. As the Church's fort at Pipe Spring was under construction in the Arizona Territory, a number of expeditions between 1869 and 1871 traversed the region of Yellowstone in the Montana and Wyoming territories. Members of these parties suggested reserving Yellowstone for public use, rather than let it fall into private hands. Agents of the Northern Pacific Railroad Company threw their weight behind the idea of setting aside Yellowstone and its geological wonders, standing to benefit financially from such a tourist attraction.³²³ The Yellowstone bill was passed in Congress and signed into law by Ulysses S. Grant on March 1, 1872. Like Yellowstone, parks set aside in the following years were most noted for their natural or scenic values: Sequoia, General Grant, and Yosemite in California were the next national parks to be established during the 1890s. All had Army superintendents. The Forest Reserve Act of 1891 authorized U.S. presidents to set aside forest reserves on the public domain; 176 million acres were so designated by 1916.³²⁴ Meanwhile, 10 more national parks were established by 1916.

During the 1880s and 1890s, efforts were made to secure protective legislation for prehistoric and historic sites, contributing to congressional passage and Theodore Roosevelt's signing on June 8, 1906, of the Antiquities Act. The Antiquities Act gave U.S. presidents authority to proclaim and reserve "historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest" on lands owned or controlled by the United states as "national monuments," while prohibiting excavation or appropriation of antiquities on federal lands without government permission. Mesa Verde National Park was created three weeks later. Roosevelt proclaimed 18 national monuments during his tenure, 12 of which were designed to protect natural features, such as Wyoming's Devils Tower. Nearly one-fourth of the units in the current National Park System today originated in whole or part from the Antiquities Act.³²⁵

Lack of central control in the pre-Park Service years led to serious problems, as Paul Herman Buck writes in *The Evolution of the National Park System of the United States*: "Without responsible direction, the establishment of parks and the efforts to secure appropriations for them in several instances deteriorated into a scramble for federal appropriations.... There was no over-all administrative authority to check on the quality of national park proposals." Consequently a number of "inferior parks" were added to the system, some of which were later abolished. Such parks drained scarce resources from the more worthy parks while creating an impression that Congressional appropriations smacked too much of pork barrel. 327

On January 21, 1915, Stephen Tyng Mather was appointed Assistant to the Secretary of the Interior, as director in charge of parks. Both Secretary Franklin K. Lane and Mather were alumni of the University of California at Berkeley. Horace M. Albright, another Berkeley graduate, became Mather's top aide. Mather and Albright garnered support from influential journalists, railroads likely to profit from increased tourism, and members of Congress as they lobbied for passage of the bill creating the National Park Service. Notably, Senator Reed Smoot was an ardent champion of the bill. By the time the National Parks Act (Organic Act) was passed and signed by President Woodrow Wilson on August 25, 1916, the Department of the Interior oversaw 14 national parks and 21 national monuments, the vast majority being in the western United States. Mather was appointed the Park Service's first director (serving from 1917 to 1928) with Albright appointed assistant director, a position he held until 1919. Both men firmly believed that the parks needed to attract and accommodate more visitors.

In 1916, to stimulate public awareness of the available transportation to national parks and to publicize their extraordinary scenery, Mather's infant agency published the *National Parks Portfolio*, a stunning publicity volume containing pictures and descriptions of all the major preserves. Seventeen western railroads contributed \$43,000 toward the publication of the first edition. Mather mailed 275,000 copies to carefully selected scholars, politicians, chambers of commerce officials, newspaper editors, and other influential people who were likely to boost the national park idea.³³⁰

In a letter to Mather from Secretary Lane on May 13, 1918, the policies that were to guide future expansion of the park system were outlined:

In studying new park projects, you should seek to find scenery of supreme and distinctive quality or some natural feature so extraordinary or unique as to be of national interest and importance. You should seek distinguished examples of typical forms of world architecture.... The national park system as now constituted should not be lowered in standard, dignity, and prestige by the inclusion of areas which express in less than the highest terms the particular class or kind of exhibit which they represent.³³¹

In the East, the War Department since the 1890s had administered historic sites of national significance (battlefields, forts, and war memorials). Having a personal interest in history, Assistant Director Horace Albright sought to have these areas transferred to the Park Service soon after its creation, but met with little success until he succeeded Mather as director in 1929.³³² President Franklin D. Roosevelt issued two executive orders, effective August 10, 1933, that transferred these historical areas along with national monuments administered by the U.S. Forest Service to the National Park Service. The reorganization of 1933 added 44 historical areas to the Park Service's holdings.

While the West had an abundance of candidate places possessing historical significance, nearly all of the parks and monuments established under the new Park Service from 1916 to 1930 featured spectacular scenery or prehistoric sites. Pipe Spring National Monument

was only the second historical monument created during this period.³³³ Given Secretary Lane's guidelines for designating national parks and monuments, why did the remote and little-known Pipe Spring site come to be one of the earliest historical monuments established under the newly created Park Service? That question can be partly answered through an understanding of the economic and political context that fostered development in southern Utah and northern Arizona during the 1920s.

Regional Context, 1910s-1920s

Stephen T. Mather played a pivotal role in developing and promoting parks in the West, including those of southern Utah and northern Arizona. It was during Mather's tenure that the standard was set for later Park Service administrators. In *Our National Park Policy*, John Ise wrote of the Park Service's first director:

Mather was a man of prodigious and explosive energy, a tireless worker, a born promoter, 'a practical idealist of the live-wire type,' with a generous devotion to his job which is reminiscent of some of America's greatest.... Handsome, of winning personality, he commanded respect and admiration and was able to win many friends for the parks.... In his years in the Park Service he gave much of his fortune to the promotion of the parks, and gave of his energies so prodigally that his health broke several times and he died in 1930 at the age of sixty-three, after only twelve years as Director.³³⁴

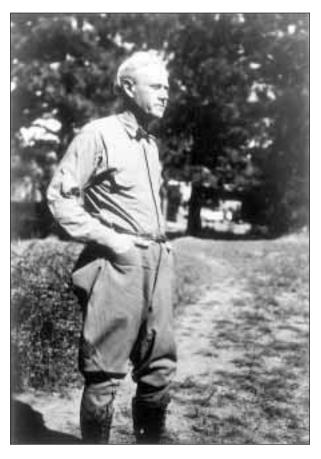
One of Mather's favorite methods of promoting parks was to take influential men, senators, representatives, newspapermen, writers, and others who might help promote the parks on trips through some of the parks. If these trips were pleasant, the guests might be inclined to support them thereafter. Even if hardships were encountered on the journey, such as poor road conditions, they might become supporters of increased park financing. One such trip in the summer of 1920 involved taking some members of the House Committee on Appropriations to visit a number of parks. Western cities paid the cost of the trip, concessioners provided free accommodations in the parks, officials of the railroads accompanied them on their respective lines, and Park Service officials acted as guides. The trip was an apparent success for appropriations began to climb the following year.³³⁵

Mather would effectively employ similar promotional tactics in southern Utah and northern Arizona during his tenure. Two parks key to Pipe Spring's fate were established during Mather's tenure in 1919: Arizona's Grand Canyon National Park (incorporating the 1908 Grand Canyon National Monument) and Utah's Zion National Park (incorporating the 1909 Mukuntuweap National Monument). Pipe Spring National Monument was established in 1923 as was Bryce Canyon National Monument, the latter first administered by the Department of Agriculture until redesignated as a national park in 1928. The details of Pipe Spring's establishment and events leading up to it are considered fully in Part II.

Railroads were another key player in promoting and developing parks. In addition to providing tourists transportation to parks, they offered special summer rates for travel to

parks, provided visitor accommodations, and financed costly publicity campaigns. The Union Pacific System was instrumental in the development of Zion, Bryce Canyon, and the north rim of the Grand Canyon. (Cedar Breaks was also a part of Union Pacific's area tour in the 1920s and 1930s, but was not established as a national monument until August 22, 1933.) The fact that Pipe Spring National Monument was located along an early Union Pacific motorcoach route of the "Grand Circle" tour of Zion, Cedar Breaks, Bryce Canyon, and the north rim of the Grand Canyon is critical when considering reasons behind its establishment.

Also crucial to an understanding of the development of western parks was Mather's remarkable ability to weave an intricate web of relations between the private and public sectors in order to further the agency's goals. Perhaps nowhere is this better illustrated than in his activities promoting parks in



20. Stephen T. Mather, 1923 (Courtesy Zion National Park, neg. 2139)

southern Utah and northern Arizona. What were the most important considerations in getting the public to visit parks during the 1920s? In a nutshell, 1) access to information about the parks (publicity); 2) a means to reach the parks (train, auto, or motorcoach); 3) reliable transportation networks to travel on (efficient railroads and good vehicular roads); 4) comfortable places to lodge and dine while visiting the park (pleasant, affordable accommodations); and finally, 5) a pleasant in-park experience. The latter would either ensure visitors' desire to return or prompt them to tell their friends and family about the experience, meanwhile broadening the base of the Park Service's constituents by creating new "converts" to its mission.

Fortunately Mather's infant agency was not required to solve all of these problems single-handedly, nor did it have the financial resources and political clout to do so. State and local communities recognized the value of attracting tourist trade to their regions. During Utah's agricultural depression of the 1920s, a great deal of attention was paid by both politicians and businessmen in campaigns to establish new parks and monuments encompassing the outstanding scenic features of its southern regions. This depression coincided with the birth of auto touring as a national pastime. In the 1920s and 1930s, tourism offered the best hope of reviving depressed agricultural economies. What ensued was a period of extraordinary

collaboration between the private, public, and even ecclesiastical spheres, leading to the creation of a number of park units, including Pipe Spring National Monument. Part II of this report explores the means by which these various parties became agents of change in southern Utah and northern Arizona, and examines some of the motivating forces behind their actions.

Part II - The Creation of Pipe Spring National Monument

Introduction

The reasons for the establishment of Pipe Spring National Monument can best be understood within the context of the overall development of parks, transportation systems, and tourism in southern Utah and northern Arizona during the late 1910s and early 1920s. To a much greater extent than is the case with other national parks and monuments, Pipe Spring's creation and later development hinged heavily on what was happening to parks in the surrounding area and to improvements to the region's transportation network. The development of the region's scenic attractions required a massive and coordinated effort of the federal government (most importantly, the National Park Service, the U.S. Forest Service, and the Bureau of Public Roads), state and county governments in Utah and Arizona, the Church of Jesus Christ of Latter-day Saints (Church) officials at all levels, the Union Pacific System (Union Pacific or UP) and its subsidiaries, local businessmen, and private citizens. With such a conglomerate of interests involved, it is hardly surprising to discover - as events will show - that this remote site became the vehicle to accomplish a wide variety of goals. Some objectives were quite temporary in nature; others were decidedly permanent. The metaphor for Pipe Spring as "vehicle" is most appropriate, for the invention and popularization of motorized transportation would have long-lasting impact on the fate of this historic site.



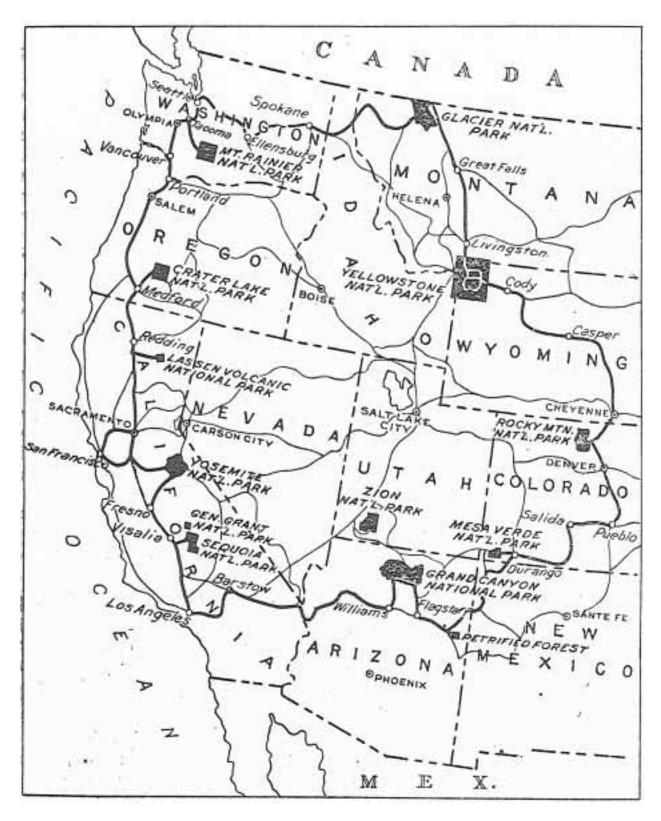
21. Barbara Babcock opening gate for car at Pipe Spring, ca. 1920 (Courtesy Union Pacific Museum, image 643)

The Impact of Auto Touring on Utah's Southern Parks and the Arizona Strip

The first automobiles in the United States were produced just prior to the turn of the century. At first considered a luxury, rapid technological improvements and Henry Ford's mass production methods soon made them available to the middle class. The advent of the automobile dramatically changed the nature of tourism in the American West. No longer dependent on the stagecoach or the railroad to reach one's destination, travelers with the incredible "horseless buggy" could now strike out courageously at a moment's notice and tour the countryside to their heart's desire. Edwin Gordon Woolley did just that in June 1909. (Woolley was a son of Edwin Dilworth Woolley, Sr., former manager of the Pipe Spring ranch.) Woolley drove with his wife and brother-in-law, D. A. Affleck (who drove a second auto), from Salt Lake City to Kanab. There they picked up Edwin G. Woolley's half-brother, Edwin D. Woolley, Jr., and Graham McDonald, then they took off for the Grand Canyon's North Rim. Three days later, they arrived at Bright Angel. "Indians came from miles around to see their first 'devil wagons,' which they were loath to believe could run," wrote Angus M. Woodbury about the event.336 The Woolleys envisioned the wealth of development opportunities that would arise, if only good roads could be built and autoowning tourists could be enticed into venturing across the desolate Arizona Strip! The U.S. Rubber Company, "to demonstrate the wonderful performance of their product," later proudly displayed the nine tires they wore out on their journey.³³⁷

Utah politicians could also see the potential for tourism to revive the state's agricultural economy, which plunged into a serious depression after the "boom" years of World War I.³³⁸ Senator Reed Smoot introduced a bill to establish Zion National Park (previously Mukuntuweap National Monument) on May 20, 1919. The bill was passed by Congress, and was signed by the President on November 19, 1919. Stephen Mather was in Colorado's Rocky Mountain National Park for the fifth annual conference of superintendents when word came that Zion National Park had been established. At Albright's urging, Mather made his first visit to the area. He became enamored with the park, returning every year for the remainder of his life.

One of the most notable accomplishments of the good-roads movement, in relation to the national parks, was the August 1920 establishment and designation of a great, connected highway between the major national parks of the Far West. The purpose of the National Park-to-Park Highway was three-fold: 1) to make scenic areas more accessible to the public, 2) to aid further development of the West by bringing its industrial resources to the attention of the traveling public, and 3) to attract new settlement. The National Park-to-Park Highway Association (NPPHA) accomplished the undertaking, in cooperation with the American Automobile Association (AAA) and other western organizations. The official designation tour began in Denver, Colorado, on August 26, 1920, "at which time," Stephen Mather reported, "I formally dedicated the National Park-to-Park Highway with appropriate ceremonies to the American people." The 4,700-mile-long circle tour passed through nine western states, crossed every main transcontinental highway and touched most of the north and south highways west of the Rocky Mountains. The only parks in the southwest included on this route were Mesa Verde, Petrified Forest, and the



22. Map showing National Park-to-Park Highway and interpark road system (*Reprinted from* Report of the Director of the National Park Service, 1920)

Grand Canyon's South Rim. Mather envisioned the Park-to-Park Highway as "but a nucleus of a great interpark road system which will be developed later on." ³⁴⁰

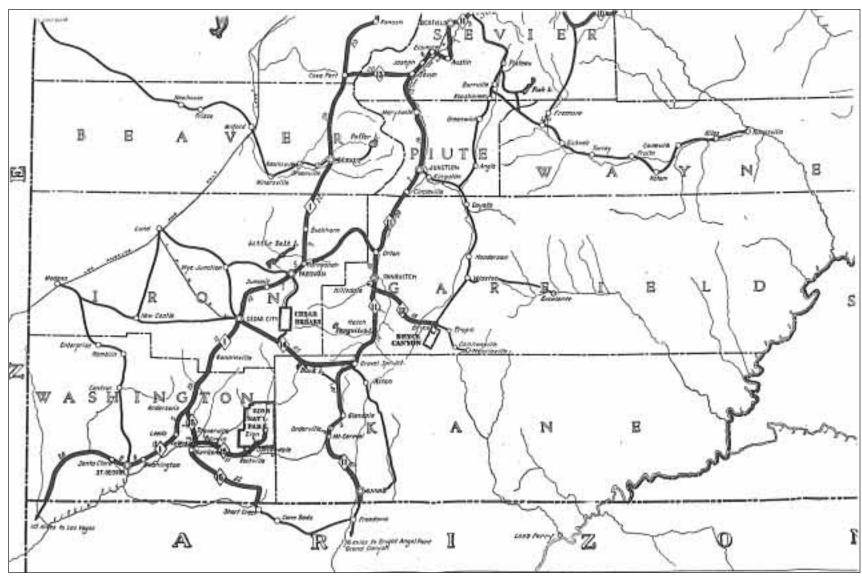
In conjunction with the dedication of the highway, a National Park-to-Park Highway conference was held in Denver, Colorado. Utah's Governor Simon Bamberger sent Randall L. Jones as its representative. (Jones was an architect and a native of Cedar City.) There, plans were laid to coordinate the local movements for good roads into a park-to-park system. The NPPHA and AAA continued to hold annual conferences each year in various western cities. By 1923, thanks to their efforts and those of chambers of commerce, boards of trade, and other local civic organizations, the "great circle route" had expanded to 6,000 miles and included 12 national parks.³⁴¹ The NPPHA's objective was to hard surface the entire route (only one-fourth of this length had been "permanently improved"). In support of the work of the NPPHA, the National Highway Association offered in 1923 to print maps depicting the National Park-to-Park Highway for public distribution by the Park Service.

While the nation wide effort to provide a highway to link national parks was growing, state and local officials in Utah and Arizona were well aware of the need for local road improvements. Without them, the vast majority of motorists would visit only the most well known and easily accessible of the parks. In the early 1920s, most of Zion National Park's visitors were Utah residents, folks long accustomed to the terrible conditions of rural roads. To reach Zion from the east, travelers drove down through central Utah to Fredonia in northern Arizona, then, passing Pipe Spring, westward to Hurricane "on a mere faint trail where there was some danger of getting lost and perishing," wrote historian John Ise.³⁴² There was a rough road from Hurricane to Rockville and to Zion's entrance. Even the best of roads and bridges were susceptible to washouts from flash floods, making a well-planned road trip still a gamble during some seasons. If one was spared the fate of washouts and of having one's vehicle mired in the tire-clenching "gumbo" created by rainstorms, a road trip through many parts of Utah or Arizona in those days was always accompanied by a steady diet of dust.

In his 1923 annual report to Congress, Mather wrote that more than 60 percent of park visitors came in their own private automobiles.³⁴³ A detail from the following map produced by the Utah State Road Commission and dated 1923, shows existing roads in Iron, Garfield, Washington, and Kane counties (as well as the Hurricane-Fredonia road) in 1923. Also depicted is the Union Pacific's Los Angeles and Salt Lake City Railroad line passing through Lund with its newly constructed spur line to Cedar City. (Pipe Spring National Monument is not shown on the map, perhaps because it was located in Arizona or because the map was produced prior to the establishment of the monument.)

Mather Visits Pipe Spring

Stephen T. Mather's first visit to Pipe Spring was made in conjunction with his participation in the dedication of Zion National Park that took place on September 15, 1920. Among those speaking at the dedication were Senator Reed Smoot and Church President Heber J. Grant. (In the usual blurring of lines between Utah's Church and State,



23. Map detail, Utah State trunk Lines, State Road Commission, 1923 (Courtesy Union Pacific Museum)

Grant was representing Governor Bamberger at the event). The park's new status resulted in an immediate boost in visitation, which doubled between 1919 and 1920, from 1,914 to 3,692. After attending the dedication ceremony at Zion National Park, Mather drove south to visit other southwestern monuments. During his tour he stopped at Pipe Spring and took photographs of the fort.³⁴⁴ (At this time the old wagon road traveled by motorists from Hurricane to Fredonia passed right by the fort.) Mather briefly discussed the idea of making Pipe Spring a national monument with the Heatons. Not only were they receptive totheidea, they promised to furnish labor should the National Park Service (Park Service or NPS) decide to undertake a restoration.³⁴⁵

On June 6, 1921, about nine months after making his first visit to Pipe Spring the previous fall, Mather wrote to Office of Indian Affairs Commissioner Charles H. Burke that he had found "a very interesting old homestead" on the Kaibab Reservation that he wanted to acquire for the park system.³⁴⁶ What transpired during the time between Mather's letter to Burke and his next visit to Pipe Spring is only sparsely documented. If he was not already aware of the legal troubles Charles C. Heaton was having in proving his Pipe Spring claim, it is quite likely that Commissioner Burke informed Mather of the facts in 1921. Consultation with Arizona's Governor Thomas E. Campbell and U.S. Senator Carl Hayden would have also been in order, but no record of such contacts have yet been located.³⁴⁷

Mather returned to Pipe Spring in the fall of 1921, this time in the company of Union Pacific's President Carl R. Gray, Senator Hampton of Montana, and possibly one or two others.³⁴⁸ Mather took the group on a tour of southern Utah and northern Arizona to demonstrate the area's potential for tourism. The men left Zion early one morning in Mather's Packard heading for the North Rim of the Grand Canyon. At Short Creek, Mather's automobile got stuck in the sand. In a 1991 interview, C. Leonard Heaton related the rest of the story as follows:

They were stuck there for about three or four hours in the sand, and when they come to Pipe Spring, along about one or two-o'clock, they were so famished and they didn't have any water with them. And while they were resting there he [Mather] began to look around the fort and my father [Charles Heaton] was down there riding on the range...

And then my father come up on horseback and Randall Jones was with him from Cedar City. He was promoter of tourism in southern Utah, and Dad knew Randall Jones, and he introduced him to Mather. And after Mather walked through the fort, the old fort (a lot of it was torn out then, inside of it and things like that), he asked my dad what the history of the place was. So Dad told him... about the early history of the place.

And then Randall Jones said, 'How close is it where we can get something to eat? These fellows,' he says, 'they haven't had anything since six o-clock this morning.' And my dad told him, 'You can go up to Moccasin and I think my wife can fix you a dinner.' ... And Dad told them how to get to Moccasin and he got

on his horse and galloped up to here and by the time they got up here my mother had dinner about ready for them.... Mather had thought that Pipe Spring would be a good place for tourists to stop on the road from Zion to the Grand Canyon or the Grand Canyon back to Zion. And that was it. From that time it was Randall Jones and these other fellows, they decided to make Pipe Spring a national monument...³⁴⁹

Leonard Heaton was not at Pipe Spring at the time of Mather's visit, so he most likely heard this account from his father, Charles C. Heaton. The fact that Randall Jones was present with Heaton is a sure indication that this was a prearranged meeting.³⁵⁰

According to historian Robert H. Keller, Mather was sympathetic to the Church and fascinated by its history. He also could see the benefits of making the site a part of Union Pacific's tour package. He soon took direct action to acquire Pipe Spring for the National Park Service. On January 18, 1922, Mather wrote to Apostle George A. Smith, a high Church official, and asked him to approach the Heatons about selling Pipe Spring. Mather asked Smith to negotiate a purchase price and to then act as spokesman to raise the necessary funds. In his letter, Mather placed a heavy emphasis on his belief that Pipe Spring as a national monument would "be a big stimulus to the work that is now going on to develop the tourist possibilities of this southern Utah and northern Arizona country." Smith and President Heber J. Grant worked together to help Mather achieve his goal, but progress was very slow. In the meantime, Mather, Union Pacific officials, and federal and state government officials began to focus on the daunting challenge of providing a road system capable of handling the tourist traffic they all dreamed of.

"If You Build It They Will Come" - The Challenge of Roads Less Traveled

On Director Mather's second visit to Pipe Spring, his party experienced first-hand the problems associated with Utah's poor roads. Yet in 1921 much was happening that would soon greatly impact the ability of states to improve their roads. That year the Federal Aid Law was passed which provided that the federal government would aid in the construction of highways in several states to the extent of funding seven percent of the total mileage of the public highways in each state.³⁵² This law is sometimes referred to as the "seven percent system" for highway development. Under this program, Utah received 74 percent of the construction costs of roads and paid the balance of 26 percent plus preliminary engineering costs.³⁵³ Plans, specifications, and estimates had to be approved by the U.S. Bureau of Public Roads. Roads were required to have at least 18 feet of either gravel or paved surfacing with a three-foot shoulder on each side. Maximum grades were not to exceed six percent and there were certain specifications for bridges, culverts, and other road features.

The difficulty in Utah in the early 1920s was that the state had no funds for road construction, thus the 26 percent amount payable by the state had to be raised by individual counties through subscriptions.³⁵⁴ Many rural counties in southern Utah were poor, resulting in a delay in financing road projects in some areas. County residents needed to be convinced that development of roads in their county would result in general

economic or other improvements. Local associations were formed to promote the development of roads, while both state and local officials, as well as businessmen, acted as ardent boosters (Cedar City's Randall L. Jones was one such booster). Road development was a costly gamble toward future economic prosperity, with much at stake. Not surprisingly, competition for road funds and highway projects was at times fierce and always intensely political. While the struggle to raise local funds would be slow-going, the new Federal Aid Law set into motion in 1922 a number of serious road studies by federal agencies (including the National Park Service), the state road commission, and Union Pacific.

Along with its surveys of Utah's roads, Union Pacific directed its information-gathering efforts toward accumulating knowledge of the agricultural, mining, and scenic resources in southern Utah with the intent of expanding its transportation network in those areas with marketable resources. In 1921, at the urging of Utah politicians, Union Pacific's President Gray made a personal investigation of some of Utah's southern agricultural communities (Cedar City, Parowan, and Fillmore) and interviewed farmers and ranchers. Impressed with the area's potential, Gray authorized the building of a railroad spur to Fillmore, which was completed the following year. Later trips were made by UP officials in September and October. The latter occurred during the week of October 22, involving a Mr. Platt and an unidentified official who filed the report. Their purpose was to continue the company's survey of southern Utah and northern Arizona attractions. The two men traveled from Kanab to Zion via Pipe Spring and Hurricane. Their later trip report stated,

After making this second trip via the Pipe Springs desert and Hurricane, I am more than ever confirmed in the opinion that a touring trip in which the railroad is interested in advertising must avoid the most unpleasant hot desert trips via La Verkin, Hurricane and Pipe Springs on the south, and via Parowan, Bear Valley and Panguitch on the north. These hard hot trips would soon result in some very unfavorable advertising by tourists. The highways and roads on these portions of the trips are very bad. On account of being out of line of general travel, these particular stretches stand very poor chance of being maintained properly. A large part of these stretches are unattractive. The heat, dust and poor roads destroy the pleasure of the entire trip.³⁵⁵

This official proposed a route that would have excluded the "most unpleasant" roads described above and a loop tour that would have excluded Pipe Spring. This alternative route, however, required additional road construction and improvements. The significance of this report is that it appears to have been the first of several to recommend against use or development of the Hurricane-Fredonia route, a sentiment that resulted in continued isolation for Pipe Spring National Monument.

The problem of roads for the National Park Service was two-fold: first, how to construct and maintain a viable system within parks, and second, how to persuade state and local officials to finance a transportation network that would enable visitors to get to the parks. In late 1921 Director Mather called for a meeting to be held to discuss park developments

in southern Utah. Called the Governor's Committee on National Park Development, the assembly was scheduled for December 19-20 in Salt Lake City. About three weeks prior to the meeting date, Mather wrote D. S. Spencer, General Passenger Agent of the Union Pacific System, regarding plans for the event. Mather's remarkable political acumen is illustrated by the request he made of Spencer, whose office was in Salt Lake City:

The success of the meeting will largely depend on how representative a one it is. We should absolutely count on having President Grant there, and Apostle Smith if possible. We will want men like Lafayette Hanchett and Mr. [William W.?] Armstrong of the National Copper Bank, besides the Governor, Mayor [C. Clarence] Neslen, and others. Cedar City should be represented by Randall Jones and one or two of their important men. Petty and some of the Chamber of Commerce men from Hurricane should be there, as well as Mr. [Joseph?] Snow of St. George. We ought also to get the elder [Ole] Bowman of Kanab, and Johnson [sic; Jonathan] Heaton, or one of his sons, as it will be advisable to bring up the Pipe Springs proposition at the same time. We should also count on having Mr. Adams and Mr. Basinger present.³⁵⁶

Lafayette Hanchett was president of the National Copper Bank in Salt Lake City and chairman of the Governor's Committee on National Park Development; H. M. Adams was vice-president of UP, in charge of traffic; W. S. Basinger was UP's passenger traffic manager. Joseph Snow was a promoter of the Arrowhead Trail, as well as represented St. George in the Southern Utah & Northern Arizona Road Association.

Horace Albright (at the time both superintendent of Yellowstone National Park and field assistant to Director Mather) was unable to attend the December meeting but sent a letter to Mather at Hotel Utah expressing his views on park development in southern Utah. It would be important to connect financial interests in Salt Lake City to the new developments, he advised. Albright also stressed the importance of a Park Service alliance with Union Pacific:

That Union Pacific support for the new project would be the biggest guarantee of its success. Such support would be beneficial in every respect and I do not see where any grounds could be found for criticism of the Park Service for dealing with the Union Pacific. I mention this because in the past it has been customary for everybody to rap a big corporation, particularly the railroads, and to look upon their every action with suspicion. I believe we are getting away from this sort of thing now and are coming to realize that railroads and other big organizations are necessary and desirable in our commercial life and that any business is not necessarily bad because it is big.³⁵⁷

Mather followed Albright's advice and achieved successful results in the region, as evidenced by later events.

The December meeting was held in Salt Lake City at the State Capitol's Commercial Club. It was called to order by Governor Charles R. Mabey and chaired by Lafayette

Hanchett. One hundred representatives attended, including some from almost every county in southern Utah where scenic attractions were located. In addition to the National Park Service, the U.S. Forest Service was represented. Officials from the State Road Commission and from the railroads (Union Pacific System and the Denver & Rio Grande Western) were also present. The chief business of the meeting was "The Marketing of Utah Scenery." Topics for discussion included linkage of Utah's southern attractions with the Grand Canyon; the construction and maintenance of connecting highways and selection of best available temporary and permanent routes; the provision of adequate lodging and transportation facilities; plans for securing adequate state and federal legislation; enlisting the cooperation of national, state, and county organizations, as well as chambers of commerce and other civic organizations; and plans for adequate surveys of park territory and highways. Those present passed a resolution endorsing and pledging support for the plans made. Five subcommittees were created to tackle all of these issues. Appointees to the five committees constituted exactly the kind of powerful coalition that Mather had envisioned. Unfortunately, there is no record of whether or not Jonathan Heaton or a family representative attended the conference, but the fact that Mather had requested that a family representative attend strongly suggests that a Pipe Spring "deal" was already in the making by December 1921.358

At this meeting, Mather presented a plan for a system of roads that would link the scenic attractions of Utah. The convention unanimously adopted his recommendation. This system was intended to connect Zion, Cedar Breaks, Bryce Canyon, Kaibab National Forest, and the Grand Canyon's North Rim. The Salt Lake City meeting and Mather's proposals drew considerable attention in the press. The *Deseret News* published a lengthy report, which included the following excerpt:

State and local organizations and citizens must unite in placing suitable accommodations in the region of Utah's scenic wonderland and with these accommodations installed developments will be pushed rapidly by the federal government and the railroads. This appeared to be the consensus of opinions expressed today at the conference of officials called by Director Stephen T. Mather of the National Park Service for deciding on some definite course of action to pursue in exploiting the scenic attractions of the state...

The necessity of good roads and the founding of good hotels so that the people could be cared for was urged...

Director Mather presented a definite proposal before the convention that a state park association be organized in Utah with representatives from various part of the states as members.³⁵⁹

The next day, the *Deseret News* followed up the meeting with three more articles. The first, "Highway System to Link Utah Parks Proposed," reported that plans were adopted at the conference for the improvement of existing roads and the construction of new ones that would link the scenic attractions of southern Utah and northern Arizona together, hopefully by the 1922 travel season. Among a number of proposed plans was the

construction of a road from Rockville to Short Creek and improvement of the segment between Short Creek, Fredonia, and Kaibab National Forest. The article reported another proposal: "Construct a road from Mount Carmel to the rim of Zion canyon." No one at the time knew if such an idea could be carried out, or at what expense. The engineering subcommittee was to coordinate with the National Park Service, U.S. Bureau of Public Roads, U.S. Forest Service, and state, county, and local authorities to develop the improved road system. This article also points to the driving enthusiasm of Church President Heber J. Grant, who spoke at the conference. The newspaper referred to his speech:

Heber J. Grant told of the power of scenic attraction and how he had been led to visit the Yellowstone park and the Grand Canyon after being told of their wonders in Europe. He pronounced himself a thorough convert of the possibilities of a national park in Cedar Breaks and Zion canyon and announced that he believes in the 'gold mine of tourists.'

'I am ready to work,' he said, 'to the best of my ability to try to persuade other people to put up their money. I have been called long ago the 'boss beggar' in the 'Mormon' church.' 361

President Grant meant what he said. His persuasive "begging" would eventually be successful in helping to raise the funds needed for the Park Service to acquire Pipe Spring from the Heaton family of Moccasin. The hopes of conference attendees that the new road network would be in place for the 1922 tourist season, however, were overly optimistic.

The second article appearing in the *Deseret News* referenced plans for an improved road system and reported that resolutions made at the Salt Lake City meetings included a call to enlarge Zion National Park to include Cedar Breaks, and for the state to take action to make Bryce Canyon a state park.³⁶² While Albright wanted to see Bryce Canyon brought into the national park system, Mather at this time favored the idea of it being part of a state park system that would supplement the national system.³⁶³ (The Department of the Interior inaugurated the state park movement in 1921 with its first national conference held that year in Des Moines, Iowa.³⁶⁴) A third newspaper article focused on Utah's need to complete a primary concrete road called the Arrowhead Trail.³⁶⁵ The road passed through Iron and Washington counties, linking Cedar City to St. George. Large amounts of money were being spent to promote it as an all-year route from southern Utah to Los Angeles, reported Joseph Snow of the Arrowhead Trail Association, who believed their efforts had led to a substantial increase in automobile traffic and revenue in his home town of St. George.

The Role of Union Pacific in the Parks' Transportation Network

While the railroad and National Park Service shared a common goal - to attract people to the parks and to ensure them a memorable visit - there were different reasons behind their objectives. The Park Service's primary goal was preservation-oriented. It recognized that survival of the national parks and monuments hinged on the number of people who

claimed direct benefits from scenic preservation.³⁶⁶ As might be expected, the railroad companies' objectives were profit-oriented. There was a long and successful history of the railroads investing in Western tourism, both in promoting the establishment of scenic preserves and in offering transportation and accommodations to tourists to the relatively remote locations of such places. The Northern Pacific promoted the 1872 creation of Yellowstone National Park; Southern Pacific campaigned for Yosemite, Sequoia, and General Grant reserves in the 1890s, all ultimately set aside; the south rim of Arizona's Grand Canyon was made accessible in 1901 by the Santa Fe Railway; and the Great Northern Railway's Louis W. Hill enthusiastically supported the 1910 establishment of Glacier National Park in Montana. Some of the railroad companies constructed grand hotels in the nation's parks and spent huge sums of money advertising their scenic splendors in brochures, complimentary guidebooks, and full-page magazine spreads.³⁶⁷ The parks needed the railroads and the railroads needed the parks. Their alliance was well established before World War I.

Immediately after World War I ended, the United States experienced what can only be described as a transportation revolution, brought on by the invention, mass production, and rapid spread of the automobile. By 1919 the availability and popularity of motorized vehicles posed a serious financial threat to the economic well-being of the railroads as former rail passengers purchased and used their own automobiles. Trucking companies were formed, offering expeditious freight transportation service. The motor bus was developed in 1912 by C. S. Wickman of Hibbing, Minnesota, who later founded the Greyhound Corporation. Steamships using the Panama Canal, opened in 1912, increasingly diverted freight traffic away from rail transport. Along with other railroad company managers, Union Pacific President Carl Gray found himself facing a new world. Railroad historian Maury Klein wrote that in 1919, "On every side, Gray found himself hedged in by forms of competition that had scarcely existed before the war."368 A revolution in energy sources as well as means of transportation was in progress. Pipelines now transported much of the West's oil and natural gas to market, increasingly preferred by industries over coal, a staple of Union Pacific traffic. The rapidly developing field of commercial aviation was already eating away at one of the railroad's most lucrative services, mail delivery. To survive the challenge, wrote Klein, "the railroads had to redefine their place in an expanded transportation industry." 369

As more and more people bought automobiles, the summer vacation emerged as a national institution. Not only were vacations touted as enjoyable recreation, but as a means of bringing about wholesome family togetherness. The transportation revolution required the rapid development of a road system. The total mileage of surfaced highway doubled between 1910 and 1920, then doubled again between 1920 and 1930.³⁷⁰ Ironically, a major portion of the highway system came to be constructed on right-of-ways leased from the railroads. State and federal governments poured \$1.8 billion into highway construction between 1922 and 1930.³⁷¹ Until 1929, states were challenged to find sources of funding for road development. Then in 1929 a gasoline tax was imposed in every state to defray the expense of road construction and maintenance.

The impact of the new forms of transportation was immediately felt by the railroads. In 1920 rail passenger travel reached a peak of 1.27 million passengers. Over the next 10 years, the numbers steadily declined toward 707,987 passengers in 1930.372 Passenger revenues went from \$1.17 billion in 1921 to \$731 million in 1930, a drop of 37 percent.373 The railroads were forced to accept the popularity of the auto, and to find a way to integrate automotive transportation into their tourism-related plans and operations. As a result some redefined themselves as transportation companies that not only sold rail travel, but offered planned motor coach tours, complete with restaurant and lodging accommodations, as well. During the 1920s, Union Pacific pioneered the practice of operating buses along with its rail lines in southern Utah and northern Arizona parks.

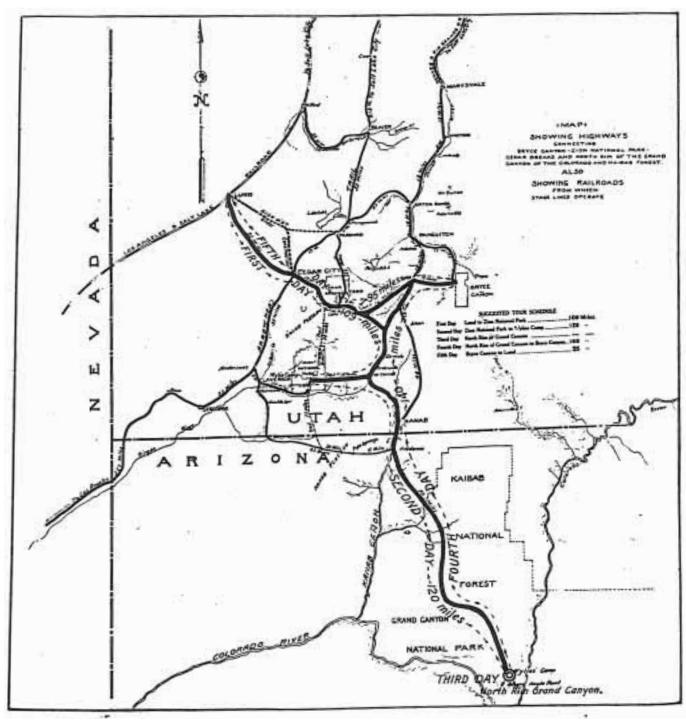
The January 1922 issue of *The Union Pacific Magazine*, included an article entitled "Zion - Our Newest National Park - And Other Southern Utah Scenic Attractions," by UP official D. S. Spencer. The first in a series of articles on scenic attractions found along the transportation routes of the Union Pacific, the article painted a highly romantic picture of travel in the area's "undiscovered country:"

The opening of Zion National Park to tourist travel during the last few years, has resulted in directing attention to other remarkable scenic regions in southern Utah and northern Arizona, including Cedar Breaks, Bryce Canyon, Kaibab Forest, and the North Rim Grand Canyon National Park, so that it is now impossible to think of Zion National Park without thinking of these other attractions, each of which has a distinctive geological individuality. To reach a fair estimate of them you must see each one, and as you pass from one to the other, inspiration exalts the soul, and reverence bows the head.³⁷⁴

Alluding to the Great Northern Railway's "See America First" campaign, Spencer declared "...until one has seen Zion and Southern Utah, he has not seen America." Along with the article, a map was offered to readers to assist them in their planning of future vacations.

The map herewith, based partly on actualities and partly on proposed improvements, gives an idea in tabloid of the relative locations of the features mentioned. Reference to it demonstrates that when the road plans are consummated, the schedule of the Southern Utah attractions will embrace a circle tour...³⁷⁵

What is interesting to note on this map is the 18-mile "trail" shown traversing Zion National Park toward Mt. Carmel. This trail appears to be the basis for Union Pacific's confidence that a road could be constructed that would perfect their plans for their circle tour, a multi-park trip they began to promote (at least internally by way of *The Union Pacific Magazine*) as early as January 1922. This approximate route would later become the Zion-Mt. Carmel Highway, not to be completed until 1930. In addition, the UP map shows a 25-mile "trail" from Zion to the Hurricane-Fredonia road, terminating at about the location of Short Creek. This route approximates the Rockville cutoff road, to be constructed 1924-1925. The development of both routes was an important part



24. Map showing Union Pacific's future five-day "circle tour" of southern Utah parks and the Grand Canyon's North Rim, 1922 (Courtesy Union Pacific Museum)

of UP's plans and, when completed, would considerably shorten the travel distance between parks while improving the scenic aspects of the tour.

The Union Pacific tour outlined in this article began at Lund then went to Cedar Breaks, Zion National Park, the North Rim of the Grand Canyon, Bryce Canyon, and then ended at Lund. While tourist camps then existed at Zion, Bryce Canyon, and the North Rim, the article promised readers,

..it is reasonable to assume that within the next few years each of the four attractions [Cedar Breaks included] will be provided with both hotels and camps and; with the completion of the necessary connecting highways, will provide accommodations corresponding in service with those in Yellowstone Park and others of our long known National Wonderlands.³⁷⁶

The map showed no planned tour routes to travel the Hurricane-Fredonia road or to go to Pipe Spring (yet to be declared a national monument) on its 464-mile circle tour. The tour route counted heavily on road improvements along the route from Mt. Carmel to Kanab and on an entirely new road, the Zion-Mt. Carmel road. With planned road developments accomplished, Spencer assured readers, the circle tour could expected to take only five days. This article is an excellent example of a marketing tactic used by Union Pacific in its southern Utah campaign throughout the 1920s: that is, creating a public desire and demand for an improved road system in Utah by having its agents paint a glowing picture of the future that lay ahead, once the new road system was in place. It was so effective a tactic, in fact, that on at least one occasion, a Utah official pleaded for them to stop promoting the region until the necessary road improvements had been completed. UP official, J. T. Hammond, Jr., reported that in a November 1923 meeting he had with State Land Commissioner John T. Oldroyd, that Oldroyd "...stated to me that he thought it would perhaps be for the best interest of the Union Pacific and for the State of Utah as well for the Union Pacific not to feature Southern Utah until the roads were made safe and convenient for handling tourist travel."377

Union Pacific was by no means alone in agitating those in power in Utah for improved roads. In addition to the successful Salt Lake City Governor's Conference of December 1921, Mather worked on a local level to obtain his objectives where road improvements were concerned. Correspondence of April 1922 attests that Mather personally wrote to William W. Seegmiller of Kanab and Charles B. Petty of Hurricane urging them to push through the construction of the Hurricane-Fredonia road. (Petty and Seegmiller served on the committee of the Southern Utah and Northern Arizona Road Association. The committee included representatives from a dozen towns in the two areas. Zion's Acting Superintendent Walter Ruesch represented Springdale on this committee; Dr. Edgar A. Farrow represented Moccasin.) This Hurricane-Fredonia route took travelers from Zion to the Grand Canyon, which at the time some favored over the poor road that lay between Mt. Carmel and Kanab.

While construction work on the road from the Hurricane end commenced about February 1922, Petty informed Mather that nothing had happened on the Fredonia segment. Mather expressed his appreciation to Petty and informed him, "We have had a number of inquiries about travel conditions in Southern Utah and Northern Arizona, and I confidently believe that an increased number of people will visit that beautiful and interesting section during the coming year."³⁷⁸ At Petty's suggestion, Mather then wrote Seegmiller, telling him of the progress in Utah under Mr. Petty while adding, "I know that you will see to it that construction on the Fredonia end of the road is carried out as soon as possible so that the whole road will be in good shape for this season. It is bound to be a great help to travel which should develop this year."³⁷⁹

During early July 1922, a party of UP traffic officials, headed by Carl Gray, H. M. Adams, and W. S. Basinger, toured the scenic areas of Utah's south. During this trip Gray reportedly offered to buy the El Escalante Hotel (designed by Randall L. Jones) in Cedar City.³⁸⁰ Numerous other investigatory trips were made by UP officials in the following months, including one that consisted of a party of 10 men, with hotel and engineering experts, led by Basinger during the second week of October 1922. Accompanying the high level officials on this trip was NPS Chief Civil Engineer George E. Goodwin. The group traveled to Zion, Cedar Breaks, and Bryce Canyon studying potential sites for hotels and water sources.

The following month (November 1922) The *Union Pacific Magazine* touted its commitment to the development of transportation to and tourist facilities in the attractions mentioned above. It reprinted an article by D. S. Spencer previously published in the *Salt Lake Tribune* on October 16, 1922.³⁸¹ The article described the company's plans to construct two railroad branch lines, a 31-mile spur from Fillmore to Delta and a 32-mile spur from Lund to Cedar City, at a cost of \$3 million. The company also planned to acquire and complete the El Escalante Hotel in Cedar City (which had been under construction for several years), to construct two hotels at Zion and Bryce Canyon, and to furnish a lunch station and limited hotel accommodations at Cedar Breaks, at an additional estimated cost to the company of \$2 million. The Lund-Cedar City spur line would open up markets to agricultural land and enable locals to market the area's rich iron ore and coal deposits to industrial promoters. A new steel mill was planned in Provo in anticipation of access to the rich iron fields of Iron County; even automobile manufacturers had their eye on the area. The attention of railroad men, however, was first and foremost on developing the gold mine of tourism.

The Railroad Comes to Cedar City

The year 1923 was quite an eventful one in the history of tourism in southern Utah. The first step in Union Pacific's development program at Zion and Bryce Canyon was the completion of the Lund-Cedar City line. In 1922 the Interstate Commerce Commission had granted a certificate of necessity and convenience to Union Pacific allowing them to build the spur line from Lund to Cedar City. The new line was justified on the basis of anticipated traffic from livestock, agriculture, iron ore, and tourist travel. Cedar City residents had raised \$57,000 to purchase a right-of-way for the new branch line. On

March 12, 1923, the *Salt Lake Tribune* announced construction on the Union Pacific's Lund-Cedar City line would begin on March 15 and reported extensively on related southern Utah developments.³⁸² The UP had already taken over the El Escalante Hotel in Cedar City, repaying its citizens for the \$80,000 already invested in a cooperative plan for the building's construction. (Union Pacific completed its construction by the summer of 1923.³⁸³) In addition, it was reported that Union Pacific would invest \$250,000 to construct a 100-room hotel in Zion, with plans to invest another \$200,000 in constructing a second hotel at the rim of Bryce Canyon.

In March 1923 a federal appropriation of \$133,000 for Zion National Park was allocated for survey and specifications of park roads. The appropriation included \$40,000 for the construction of a bridge on public land outside the park boundary, crossing the Virgin River near Springdale, Utah. The bridge was to be used to permit a shortcut into Arizona (later known as the Rockville shortcut or Rockville cutoff) with work undertaken during the winter of 1923-1924. The U.S. Forest Service, both in southern Utah and northern Arizona, continued its program of improving roads on lands under its jurisdiction. Not all improvements were the result of state and federal governments, however. In Washington County citizens raised \$27,000 in subscriptions for road improvements in their area. Union Pacific's Parks Engineer Samuel C. Lancaster and NPS Chief Civil Engineer George E. Goodwin were reportedly in the process of going over the southern Utah territory. In anticipation of road improvements, Union Pacific planned to invest \$750,000 in motor buses in 1924.

In early March 1923, Utah passed legislation allowing the leasing of state school lands at Bryce Canyon for hotel and tourist camp purposes for up to 25 years, with the option of a 25-year renewal. John T. Oldroyd had drafted the bill with the approval of Governor Mabey. It went into effect on March 26 when the governor signed it. On March 29, 1923, the *Deseret News* announced the incorporation of the Utah Parks Company, a subsidiary of the Union Pacific System. (Carl Gray and H. M. Adams headed both as president and vice-president, respectively.) The corporation was formed, reported the newspaper,

...for a period of 100 years for the purpose of building, buying, owning and operating practically every conceivable convenience for tourists visiting the park section including hotels, chatels, inns, restaurants, garage and livery stables, stage and truck lines, skating rinks, tennis courts, golf links, swimming pools, bowling alleys and billiard rooms, power lines and plants, water systems, real estate and concessions of various descriptions.³⁸⁴

By this time, the federal government had already given Union Pacific approval to construct visitor accommodations at Bryce Canyon. They and their subsidiary, the Utah Parks Company, were not interested, however, in investing huge sums in building tourist accommodations on land leased from the state. Rather, they sought to purchase sufficient land on which to site primary developments and to lease additional land. On May 4 Oldroyd announced that the former action withdrawing the entire school section of Bryce Canyon land from sale had been revoked.³⁸⁵ The very same day UP's solicitor George H.

Smith filed application to purchase a 40-acre tract of a state school land section located on the rim of Bryce Canyon and to lease an adjoining 600 acres.³⁸⁶ The proposed sale was opposed by some on the grounds that scenic resources were the property of all the people and future generations. The Chamber of Commerce voted on May 12 to refuse endorsement of UP's application to purchase land at Bryce.³⁸⁷

Meanwhile, President Gray set about garnering support for Union Pacific's plans among the state's businessmen. On May 20, 1923, a large delegation of Los Angeles UP officials and Los Angeles Chamber of Commerce businessmen arrived in Utah to conduct a three-day inspection of the Delta-Fillmore agricultural area, to which UP had just completed building a spur line.³⁸⁸ Gray traveled from New York City, arriving in Delta on May 21, to meet with the delegation and to present addresses at Delta's Chamber of Commerce. The following day, Gray and his party inspected Fillmore with Gray making another presentation at Fillmore's Commercial Club. Gray announced his intention to assist the community in growth and progress, and spoke of UP's \$15 million campaign then underway "for the betterment of Utah."389 On May 23 Gray made a third presentation at a luncheon held at Salt Lake City's Chamber of Commerce. Mayor Clarence C. Neslen and 61 retail merchants attended the event from six states. At the gathering Gray disclosed UP's plans to develop the economic and scenic resources of Utah. Gray and vice-president Adams then met with high-ranking members of the Chamber of Commerce to inform them that the company was willing to build a \$200,000 hotel at Bryce Canyon only if the state would sell them the land or if it were owned by the federal government and then leased to them.

On the same day that Gray made his presentation to Salt Lake City's Chamber of Commerce (May 23, 1923), Governor Mabey returned from a 10-day trip to Washington, D.C. There, a federal road project was discussed that had a bearing on southern Utah's Arrowhead Trail. At a May 14 hearing concerning road projects before Department of Agriculture Secretary Henry C. Wallace, Lincoln Highway Association representatives argued against development of the Arrowhead Trail due to its poor "scenery." Mabey also conferred with NPS officials in Washington, D.C., on how to handle the Bryce Canyon situation. Park Service officials favored a leasing system. "They are against the sale of any land except a very small area upon which a hotel resort is to be built," Mabey later reported. 391

In response to Gray's firm position on Bryce Canyon development, the Salt Lake City Chamber of Commerce board of governors voted on May 24, 1923, to endorse UP's application to purchase 40 acres at Bryce and to lease the remainder of section to the company. Negotiations were not yet over. Mabey and Oldroyd put off action on UP's application in order to reinspect the school section at Bryce with UP officials. Meanwhile, NPS and UP architects and engineers began surveying building sites and sketching preliminary plans. Confident that the Park Service would approve its developments in Zion and Bryce Canyon, Union Pacific started cutting timber and quarrying stone for its Zion and Bryce Canyon hotels in late May. Major construction efforts on the hotels at Zion and Bryce Canyon (as well as completion of Cedar City's El Escalante Hotel)

hinged on the completion of the Lund-Cedar City branch line, which was projected for June.³⁹³ All developments were planned to be ready for the 1924 tourist season. Meanwhile, campgrounds at Zion and Bryce Canyon were available in the 1923 season.

In the fall of 1923, Union Pacific's General Solicitor George H. Smith wrote Carl Gray a letter concerning federal aid for highway construction. Certain roads had already been selected by the State Road Commission for expenditure of federal funds with the approval of Secretary Wallace; others had been designated by the Commission, but still needed Wallace's approval. The total mileage of these roads equaled seven percent of all the roads in the state (1,612.7 miles out of 24,000 miles). The vast majority of funding was to come from the federal government either through the Federal Aid Law or the U.S. Forest Service. In the meantime, the State of Utah began to assume some of the road maintenance tasks formerly poorly performed by local counties in the area of Zion National Park, in order to assure better maintenance of approach roads to the park. Near year's end, Randall L. Jones assured UP's Vice-president H. M. Adams, "The roads next season should be in very good shape and with the maintenance being in the hands of the State Road Commission, there will be not only a decided improvement by the addition of many miles of new construction, but they will undoubtedly be kept in good repair." 394

Shortly after this communiqué, Jones informed Adams that the Cedar City-Cedar Breaks road was financed in mid-November, and that he now would turn his attention to the Cedar City-Zion road. He later wrote to H. M. Adams,

With no road funds in the State Treasury and very little prospect of getting any in the near future, with the southern counties bonded to capacity and assessing for road purposes the legal limit, it became necessary to look to other sources for funds to build Utah's parks. There was only one source - liberal subscriptions from those interested in the development of the parks - Salt Lake City, Los Angeles, and the towns in the park district.³⁹⁵

Toward that end, the State of Utah looked beyond its borders to southern California. In early December 1923, a series of meetings took place in Utah and in Los Angeles to raise funds for road development, particularly for the beleaguered Arrowhead Trail. A party consisting of Randall L. Jones, Governor Mabey, Preston G. Peterson (Chairman, Utah State Road Commission), F. D. B. Gay (Secretary, Scenic Highway Association) and reporters from the *Salt Lake Tribune* and *Deseret News* first met with citizens of Parowan, Cedar City, and St. George. Then the whole entourage headed by auto for Las Vegas except for Governor Mabey, who took the train from Las Vegas. At the Los Angeles station he was met by Union Pacific official, M. de Brabant. Also in Los Angeles for the meeting were UP officials H. M. Adams and W. S. Basinger. On December 7, 1923, Mabey and Peterson presented Utah's road problem to the Auto Club of Southern California's Board of Governors. The following day, at the Auto Club's suggestion, they repeated their presentation to the officers of the Los Angeles Chamber of Commerce. By the end of the two meetings, the two organizations had promised Mabey they would raise \$100,000 toward the completion of the Arrowhead Trail through Utah.³⁹⁶

There was a very good reason why Randall Jones appeared so eager to assure UP officials that road improvements in southern Utah would take place at a rapid pace. President Carl Gray's commitment to building hotels at Zion and Bryce Canyon had always been contingent on Utah improving the transportation network that served the region. The company was not willing to make a tremendous outlay of capital on hotels - not to mention a new fleet of motor coaches - if it wasn't convinced its concerns about safe and comfortable road travel would be addressed.³⁹⁷ At the same time, UP had their own headaches: construction of a dependable water supply for developments at Bryce Canyon was proving to be more costly than anticipated, and the company's rights to offer motor transport service between Cedar Breaks, Zion National Park, and Bryce Canyon had yet to be secured.³⁹⁸ Meanwhile, Director Stephen T. Mather had managed to line up a delightful place for tour buses to stop for lunch, once Union Pacific actually got its tour operations underway.

The Establishment of Pipe Spring National Monument

While Union Pacific officials were negotiating over the purchase and lease of lands at Bryce Canyon just prior to its establishment as a national monument, Director Mather was working in Washington, D.C., to have Pipe Spring established as another national monument. It would be seven long years before a feasible alternate route was available for travelers to go from Zion National Park to the Grand Canyon's North Rim. In May 1923 no one knew if it were even possible to construct such a road or just how and when the means could be found for the undertaking. Thus, the immediate concern for Union Pacific, state officials, and the National Park Service was to improve the existing route from Zion to the North Rim and to make it as pleasing to tourists as possible. Mather envisioned the majority of tourist traffic would traverse the Hurricane-Fredonia route, at least until the Rockville shortcut to Short Creek could be built. The fort and its natural spring water would offer a welcome respite to tour buses and individual travelers, weary from crossing miles of the desolate Arizona Strip. The establishment of a National Park Service site at this strategic location would, however, require more than the usual amount of political maneuvering. Issues of ownership of the Pipe Spring ranch had never been completely settled. The Office of Indian Affairs and General Land Office had refused to recognize Charles C. Heaton's claims to the tract and he had filed a motion for a rehearing on their decision. The creation of the new monument at Pipe Spring called for that problem to be addressed, along with others. To achieve his goals, Mather appears to have solved the problem in a rather convoluted yet successful fashion.

As mentioned earlier, Mather asked Church officials in January 1922 to serve as intermediary between the government and the Heaton family in determining a selling price for the Pipe Spring ranch. Nearly a year and one-half later on May 12, 1923, President Grant wrote to Mather to inform him that Charles C. Heaton had set the selling price at \$5,000. The Church promised to subscribe some of the money and to approach the Oregon Short Line (a Union Pacific subsidiary) for additional funds.³⁹⁹ Grant wrote,

Perhaps my associates may reconsider allowing the Church to subscribe for at least 10% toward purchasing this property, although it hardly seems in line for a

church, which is a charitable institution, to be spending money to purchase property to make a present to the United States government.⁴⁰⁰

Mather replied to Grant on May 21 informing him of the urgency of raising the funds within a month so that President Warren G. Harding could sign the proclamation establishing the monument before he left on a trip to the West. His letter ended with the plea, "so please do all in your power to put this pet project of mine through in the next thirty days."401 Leaving little to chance, Mather also acted to enlist the aid of Lafayette Hanchett, president of National Copper Bank in Salt Lake City. Mather had scheduled a trip to take several congressmen to southern Utah and northern Arizona after President Harding departed the area. It was critical to establish the monument at Pipe Spring prior to President Harding's trip to southern Utah, Mather explained, "so that we can convince the Congressmen who are going to accompany me, and who happen to handle these specific appropriations, that we need funds for its [the fort's] proper restoration."402 (In fact, the funds to purchase Pipe Spring were not raised in time, but this will be discussed later.) Hanchett offered to do his part while stating, "The preservation of Pipe Springs wakens little or no enthusiasm among non-Mormons, who seem to regard the place strictly as an old outpost of the Mormon Church, and who frankly say it is up to the Mormons to take care of the matter if they wish anything done."403

Meanwhile, Mather asked his assistant Arthur E. Demaray to draw up the proclamation, which was completed on May 23.404 Mather then gave the draft proclamation to Commissioner Charles Burke, Office of Indian Affairs. Burke returned the draft to Mather two days later, disapproving it for lacking a provision by which the reservation's Kaibab Paiute could utilize the waters of Pipe Spring. Mather hastily inserted a clause prepared by Burke and returned it for the Commissioner's signature. Burke signed it on May 28 and returned it to Mather with the following memorandum addressed to Secretary Hubert Work:

The forty-acre tract described in the proposed Presidential Proclamation attached is within the Kaibab Indian Reservation in Arizona. The Indians have no special need for the land, and as a clause has been inserted giving the Indians the privilege of utilizing the waters from Pipe Spring for irrigation, stock watering, and other purposes, under regulations to be prescribed by the Secretary of the Interior, I concur in the proposed action to set the land aside as a national monument.⁴⁰⁵

There were still legal issues to work out over the clouded title to the land. The same week that Director Mather was working to obtain Commissioner Burke's cooperation and support of the monument's establishment, General Land Office Commissioner William Spry sent a memorandum to Assistant Director Arno B. Cammerer about the ownership of the Pipe Spring tract. The memorandum summarized actions related to Pipe Spring and surrounding lands, including those leading up to the creation of the Kaibab Indian Reservation. It stated that Charles C. Heaton's March 3, 1920, application to locate the Valentine scrip on the Pipe Spring tract was rejected on April 15, 1920, "for conflict with the withdrawals and for other reasons. The evidence of assignment from Daniel

Seegmiller to the applicants [sic] was not sufficient." On December 10, 1920, Heaton's case "was transmitted to the Secretary of the Interior on appeal and has not since been returned," stated Spry. 406 Oddly, the fact that Assistant Secretary Edward C. Finney denied Heaton's appeal on June 6, 1921, and that Heaton had filed a motion for a rehearing of the case was not brought out by Spry in his memorandum to Cammerer. 407 It is also worthy of note that the date of Finney's denial of Heaton's application - June 6, 1921 - is exactly the same date that Director Mather wrote to Commissioner Burke about his interest in making Pipe Spring a national monument.

On May 29, 1923, Mather transmitted a form of the proclamation establishing Pipe Spring National Monument to Secretary Work. The transmittal included the proclamation, a draft letter to the President recommending its establishment, and three other memoranda: a copy of Commissioner Spry's memorandum of May 23 to Cammerer (cited above), Commissioner Burke's May 28 memorandum (also cited above), and a memorandum from Mather himself. The memorandum from Mather is quoted in full below:

Attached letter to the President transmits form of proclamation for the establishment of the Pipe Spring National Monument, Arizona.

There is attached memorandum from the Commissioner of the General Land Office relative to the Pipe Spring property in Arizona. It will be noted that on March 3, 1920 Chas. C. Heaton and the Pipe Spring L. S. Company filed application to locate the Valentine Script [sic] on the SE 1/4 SE 1/4 Sec. 17, which is the area to be established as the National Monument. The application has been held for rejection for conflict with the prior withdrawals and on December 10, 1920 the record was transmitted to the Secretary on appeal and has not since been returned to the General Land Office.

I have personally visited Pipe Spring several times and realize the desirableness of having this area established as a National Monument for the benefit of motorists traveling between Zion and Grand Canyon Parks. I have interested a number of Utah's representative citizens in this matter and have secured promise from the claimants of the property to sell it to myself and associates for \$5,000. It is my intention, when this purchase has been completed, to have the claimants withdraw their application now pending on the appeal in order that the National Monument proclamation may be made effective.

[signed, Stephen T. Mather]
Director

At the suggestion of the Commissioner of Indian Affairs a clause has been inserted in the proclamation, giving the Indians of the Kaibab Reservation the privilege of utilizing the waters of Pipe Spring for irrigation, stock watering and other purposes under regulations to be prescribed by the Secretary of the Interior.⁴⁰⁸

Secretary Work transmitted the proclamation to President Harding on May 29, 1923, with the following memorandum, quoted in full:

There is enclosed form of proclamation to establish the Pipe Spring National Monument, Arizona, reserving 40 acres on which are located Pipe Spring and an early dwelling place, which was used as a place of refuge from hostile Indians by the early settlers. Pipe Spring, first settled in 1863, was the first station of the Deseret Telegraph in Arizona. The spring affords the only water on the road between Hurricane, Utah, and Fredonia, Arizona, a distance of 62 miles, which is the direct route from the Zion National Park, Utah, to the North Rim of the Grand Canyon National Park, Arizona. It is an oasis in the desert lands and with the increasing motor travel between the two National Parks, it is highly desirable that this area be established as a National Monument.

I have, therefore, to recommend that you sign the enclosed form of proclamation.⁴⁰⁹

President Harding signed the proclamation establishing Pipe Spring National Monument on May 31, 1923. A copy of Presidential Proclamation No. 1663 establishing the monument and accompanying map depicting the monument's boundary is attached to this report as Appendix II. It states that the monument "affords the only water" between Hurricane and Fredonia, "a distance of 62 miles;" that Winsor Castle was used as a place of refuge from hostile Indians by early settlers; that it was the first station of the Deseret Telegraph in Arizona; and that, "...it appears that the public good would be promoted by reserving the land on which Pipe Spring and the early dwelling place are located as a National Monument, with as much land as may be necessary for the proper protection thereof, to serve as a memorial of western pioneer life..."410

The details of the sale and transfer of the Pipe Spring property to the federal government were still to be worked out.⁴¹¹ While Pipe Spring had been proclaimed a national monument, the Heaton family still owned it, or - in the eyes of the Office of Indian Affairs - they still maintained their claim to ownership of Pipe Spring. Mather worried that the Heatons might not continue caring for the property so he had B. L. Vipond contact the Office of Indian Affairs to investigate the possibility of having the Kaibab Reservation superintendent look after the place to prevent vandalism.⁴¹²

In July 1923 Mather's assistant, Arthur E. Demaray, led a congressional delegation to Pipe Spring in hopes of obtaining funds for the fort's restoration. (Mather was ill at the time and was directed by his physician not to make the trip.) Representative Louis C. Cramton of Michigan, chairman of the subcommittee for Interior Department appropriations, accompanied the group. When they arrived at Pipe Spring on July 1, an angry Charles C. Heaton met them. Apparently, Dr. Farrow had been to the fort at some point prior to this time to check on it, as requested by his superiors. Heaton thought that Farrow had come to the monument to oust John White, his caretaker, and to take over the administration of the site. Neither Heaton nor other local ranchers liked or trusted Farrow, given his six-year history of vigorously defending the interests of the reservation's Kaibab Paiute. Heaton had also received word of the last-minute clause inserted into the proclamation at the insistence of Commissioner Burke giving the Kaibab Paiute the "privilege" of using Pipe Spring water. Heaton feared that if left in charge of the

monument, Farrow would take all the water for the Indians. Heaton informed Demaray and the accompanying delegation that he would not sell Pipe Spring unless assured that White would be retained as caretaker. He also told them that he had sold some of the water rights to local ranchers, and that this sale had to be recognized prior to his selling the property to the government. When Demaray told Heaton he could make no such promises, the argument intensified. Representative Cramton then declared he could not accept Heaton's demands and added that, under the circumstances, he would not promise any money for improvements and restoration. Mather's hope that this trip would result in funding for his "pet project," was thus unexpectedly dashed. In late July Mather made a partial concession to Heaton's demands by agreeing to let White and his family continue to live at Pipe Spring until the end of 1923.⁴¹³

The unpleasant confrontation that occurred on July 1, 1923, at Pipe Spring exemplifies the realities and conflict involved in the final process of the sale and transfer of Pipe Spring to the federal government. Government agencies, represented by the National Park Service and the Office of Indian Affairs, had conflicting goals to a great degree. The national monument was established to preserve and interpret the historic site for future generations. The Park Service also had to take into consideration the needs of the traveling public. The reservation was established on behalf of the Kaibab Paiute and its agents had the responsibility for protecting the interests of the Indians. Charles C. Heaton, on the other hand, represented both the interests of the Heaton family and those of other cattlemen with a continuing interest in Pipe Spring water.

Reasons for the Establishment of Pipe Spring National Monument

The historical significance of the Pipe Spring cattle ranch, particularly as it relates to Church history, was certainly a consideration when Mather proposed its inclusion within the national park system. Yet the language of the proclamation and, even more so, the language of related internal correspondence justifying its establishment, seem noticeably more emphatic about its strategic importance as a rest stop for tourists.

When Secretary Franklin K. Lane proscribed National Park Service policy for adding new sites to the system (quoted earlier in Part I), he wrote to Mather that the standards of the national park system should not be compromised "by the inclusion of areas which express less than the highest terms the particular class or kind of exhibit which they represent." 414 Mather reiterated this caveat in his annual report for the fiscal year ending June 30, 1923:

National parks... must continue to constitute areas containing scenery of supreme and distinctive quality or some natural feature so extraordinary or unique as to be of national interest and importance as distinguished from merely local interest. The national park system as now constituted must not be lowered in standard, dignity, and prestige by the inclusion of areas which express in less than the highest terms the particular class or kind of exhibit which they represent...⁴¹⁵

In the same report he announced the establishment of Pipe Spring National Monument, quoted in full:

The newest national monument is the Pipe Spring in Arizona, established by proclamation of May 31, 1923. This not only serves as a memorial to western pioneer life, but is of service to motorists, containing, as it does, the only pure water to be found along the road between Hurricane, Utah and Fredonia, Arizona. This area is famous in Utah and Arizona history, having been first settled in 1863. In 1870 it was purchased by President Brigham Young of the Mormon Church, and during that year, a stone building with portholes, known as 'Windsor Castle,' was erected to serve as a refuge against the Indians. This building still stands. The relinquishment of certain adverse claims to the lands contained in the monument was secured by the donation of \$5,000 for this purpose by a few public-spirited people.⁴¹⁶

What seems to be rather unusual for the Pipe Spring situation is that neither Mather nor his associates made a case for national importance of the site during the process of its establishment. The importance of its history to the states of Utah and Arizona was acknowledged, but real emphasis was given to the fact that Pipe Spring was "an oasis in the desert," providing a convenience to the traveling public. Ironically, the same natural resource that was responsible for Brigham Young establishing a cattle ranch at Pipe Spring in 1870 - water - was Mather's primary argument for setting it aside as a national monument 53 years later. Only this time, Pipe Spring would be a welcome watering hole for far-ranging tourists rather than for free-ranging cattle.

Another consideration in the era of the automobile was the necessity of a place motorists could refuel on the long distances between the region's scenic wonders. By 1926 the Pipe Spring caretaker would be running a lunch stand and gas station, with Director Mather's blessing. A review of files from the early 1920s led the Park Service's Branch of History in 1943 to make the following conclusion about why the monument was created:

In 1921, Director Stephen T. Mather visited Pipe Spring and expressed interest in its historical associations and its important location between Zion National Park and the north rim of the Grand Canyon. Aside from its historical interest, Director Mather believed the area might be developed as an important stopping place for the sale of gasoline on the proposed highway between Zion National Park and the north rim of the Grand Canyon.⁴¹⁷

While Mather sought to realize a number of objectives, certainly none was in conflict with any of the motives of other interested parties, save perhaps the Office of Indian Affairs. His desire to work with Union Pacific as a partner has been well documented. His appreciation for Mormon history and culture has been alluded to, and certainly his agency benefited from good relations with the Church and its leadership. President Heber J. Grant had expressed and demonstrated a strong commitment to the development of southern Utah's scenic resources, a cooperative spirit to which Mather may have felt indebted. The establishment of a memorial to Mormon settlers made a fitting "thank you" to the Church and its leadership, while providing a long-overdue acknowledgment of the important role of the Latter-day Saints in colonizing the West (a sentiment that President Harding seemed to share). It is noteworthy, however, that the proclamation never once referred to the role

of the Church or its followers at Pipe Spring, stating only that the monument was a memorial to "western pioneer life." One can ponder whether the outcome of Mather's efforts would have been successful had the uniquely "Mormon" aspects of Pipe Spring been emphasized in the proclamation or in official internal correspondence.

By the same token, the National Park Service was indebted to Union Pacific for all its financial investments in southern Utah. (Its development activities at the North Rim of the Grand Canyon were already planned, but took place a little later.) Even if Union Pacific needed Pipe Spring only as a tour stop for as long as it took to build the Zion-Mt. Carmel road, its availability for that time period was important in terms of enhancing the tourists' experience as they visited the region's national parks, forests, and monuments. Finally, Mather's actions to establish the monument certainly rescued the Heatons from a very difficult legal situation and ended the family's controversy of property ownership with the Office of Indian Affairs (although no documentation considered in this study suggests that this was one of Mather's objectives). As a result, Mather's success in having the monument established made quite a number of people happy: the Heatons and local cattlemen, Union Pacific, the Church, the states of Utah and Arizona, local tourism boosters, and last but not least, the National Park Service. Even the Office of Indian Affairs, while it would have preferred to have had all of Pipe Spring for the Kaibab Indian Reservation, won a small victory through its insertion of the water use clause into the proclamation. From the Park Service perspective, the establishment of Pipe Spring was what would be called today the perfect "win-win" situation.

Still, a valid question has sometimes been raised: why a *national* monument? Why not a state park? It is telling to contrast Mather's push for the establishment of Pipe Spring as a national monument with his initial reticence in the early 1920s to push for the same status for Bryce Canyon. Mather had urged Utah officials to create a state park at Bryce Canyon. (Recall that Mather at this time favored the idea of a state park system that would supplement the national system.) Why was his approach with Pipe Spring so markedly different? The site's significance arguably could have been considered to be of local or regional, rather than national, significance. Its history was related to the expansion of Latter-day Saint colonies from Utah into a neighboring state. It is highly unlikely that many people outside of the two-state area, particularly non-Mormons, had ever heard of Pipe Spring or of the events related to its history. Moreover, the primary resource at the time the monument was established (the fort) was in extremely poor condition, with its two associated buildings (the east and west cabins) in complete ruin.

Yet, as far as we know, Mather never contacted state officials in Arizona to propose such a solution.⁴¹⁸ A state park at Pipe Spring, had it been created, would have accomplished some of Mather's objectives, but certainly not others. It would not have been as attractive an offer to the Heatons, nor would it have solved the legal challenge to their ownership claim within the Department of the Interior. It would not have given the site the level of status afforded it by the federal government, possibly making it far more difficult for Church President Grant to raise the funds (particularly within the state of Utah) that

would have allowed its "donation" to the State of Arizona. Creating a state park within the Kaibab Indian Reservation would most likely have been far more problematic than establishing a park unit administered by another federal agency within the reservation. In any event, if Mather ever explored this alternative, no record of it has surfaced. On the other hand, national status for Pipe Spring accomplished all the objectives mentioned earlier, and was a goal completely within Mather's realm of influence to achieve. The addition of Pipe Spring to the national park system makes complete sense within the framework of 1920's regional planning and politics. This historic site was simply one small piece of a very complex puzzle being assembled by many hands. All were seeking to develop the scenic resources and transportation network of southern Utah and northern Arizona for a variety of purposes.

The monument's validity would remain an issue. In fact, in 1932 Park Service officials called into question the status of Pipe Spring as a national monument. A letter of November 8, 1932, from Superintendent Roger W. Toll, Yosemite National Park, to Director Arno B. Cammerer suggested that a "trade" might be made in order to establish Capitol Reef National Monument. During the late 1920s and 1930s, Utah officials lobbied to have what was then called "Wayne Wonderland" made into a national park unit. Roger W. Toll was sent on a reconnaissance mission to determine if the area was worthy of such status. Included in his report to Cammerer, was the following suggestion:

Possible substitution for Pipe Spring

If it is felt that the number of national monuments should not be increased at present, it may be that the people of Utah and northern Arizona would prefer to have Pipe Springs National Monument discontinued and the Wayne Wonderland established in its place. Such a substitution would strengthen the value of the national monuments. Pipe Springs, while valuable as a state historical landmark, seems lacking in national interest, and has but few visitors since it is no longer on a main tourist route. No important event seems to have occurred in Pipe Springs, and there are many more important historical places in Utah and Arizona. The Wayne Wonderland, however, is an important scenic area and seems to have much more national value. Pipe Springs is located in Arizona, a few miles from the Utah line, and is probably of more interest to the residents of Utah and the 'Arizona Strip,' north of the Colorado River, than it is to residents of Arizona in general.⁴¹⁹

Cammerer's response to Toll's idea of substituting Wayne Wonderland for Pipe Springs is undocumented, so it is unknown if it was given serious consideration. President Franklin D. Roosevelt eventually proclaimed Capitol Reef National Park on August 2, 1937.

What was Union Pacific's interest in Pipe Spring? Its officials and advisers, as demonstrated earlier, never cared for the Hurricane-Fredonia route that passed Pipe Spring and had planned since at least 1921 to eliminate it entirely from its circle tour of southern Utah and northern Arizona parks.⁴²⁰ Not only were roads poor, but the desert scenery was, by most people's standards, downright boring (or, to put it more in the more subtle terms of UP's advertising, the views were "uninspiring"). Until the Zion-Mt. Carmel road became a reality, however, UP was dependent on the road that went by Pipe

Spring. No one in May 1923 knew for certain how, when, or if the Zion-Mt. Carmel road would be built, nor where the funds would come from to finance the costly project. As long as Union Pacific was not required to invest anything in the development of Pipe Spring (and they were not), the monument's establishment benefited their travel operations, at least for the short term. The company knew a stop was needed on the long, tedious haul from Zion to the Kaibab National Forest, then to the North Rim. Pipe Spring provided an opportunity for UP motor coach passengers and individual motorists to stretch their legs, have lunch in the shade of towering cottonwoods and elms, dangle their feet in the fort's ponds, all the while enjoying a romantic slice of local history. For a few years, UP buses could even refuel at Pipe Spring at a store and gas station operated by Leonard and Edna Heaton.

Others stood to benefit from the monument's establishment as well. The Heaton family and local ranchers had a great deal to gain by working a deal with the federal government. While Charles C. Heaton had vowed to take his Valentine scrip case to the Supreme Court if necessary, it would have been a costly fight with absolutely no guarantee of success. As mentioned above, the fort was in an advanced state of deterioration (its lower building was completely uninhabitable); the other two small buildings had only remnants of their walls remaining. The Heaton family lacked either the means or the interest in personally keeping up the buildings, yet they expressed to Mather a genuine desire to see the site preserved as a memorial to the early Mormon settlers. Their own family, staunchly faithful to the Church, played an important role in the area's history and still made up the sum total of the population of the nearby village of Moccasin.

While the historic value of Pipe Spring was appreciated, the Heaton family appeared to have attached equal, if not greater, value to the water rights that came with the property. The vast majority of cattle ranches on the Arizona Strip were struggling for their very survival during this period, and the loss of an area's principal water source might have guaranteed their complete ruin. While a 10-year drought beginning in 1922 proved disastrous to the local private cattle industry, the decline actually began just after the end of World War I when beef prices fell.⁴²¹ The Kaibab Indian Reservation herd, on the other hand, was doing comparatively well in the 1920s. As the size of the Indian cattle herd on the reservation increased during the 1910s and early 1920s, permits to white stockmen on the fenced sections of the reservation were retired. Increasing numbers of the white cattlemen's stock were grazed off-reservation. Access to Pipe Spring water was economically critical to a number of non-Indian ranchers who grazed their cattle in the area.

Water was still surfacing as a critical issue in 1933 when Director Albright instructed Assistant Superintendent Thomas C. Parker of Zion National Park to go to Pipe Spring and report on the water situation there. Parker's report includes a reference to the reason Charles C. Heaton had in selling Pipe Spring to the federal government, which is cited below. On June 1, 1923, Parker had met with Agency Superintendent Farrow, then had a meeting at Zion on June 2, 1933, with C. Leonard Heaton, Charles C. Heaton's eldest son. Parker wrote that during this latter meeting, "Heaton told me that the only reason his father had

for selling Pipe Springs to the Government was to keep the water for the cattlemen as he was afraid that the Indian Service would get Pipe Springs. This thought appears to have been in the elder Mr. Heaton's mind when Mr. Demaray talked to him on July 1, 1923."422

While the "elder Heaton" Parker refers to in his letter is Charles C. Heaton, other sources document that Charles' father, Jonathan Heaton, as well as some of the Heaton brothers, were also involved in the decision to sell the Pipe Spring property. The "silent" players also represented by the Heatons were area cattlemen, based primarily in the Washington and Kane counties of southern Utah. It was their interests that were jeopardized by any potential loss of access to Pipe Spring water. Not surprisingly, Charles C. Heaton later specified that the cattlemen of these two counties were to contribute to the fund to purchase the property so that it could be made into a national monument. The citizens of Arizona's Mohave and Coconino counties apparently were not asked to make such a sacrifice.

And what of the Office of Indian Affairs? The Kaibab Paiute had been virtually cut off from the Pipe Spring water sources since at least the beginning of the fort's construction in 1870, becoming dependent entirely on their one-third share from Moccasin Spring. While Dr. Farrow and the Office of Indian Affairs began vociferously objecting to Charles C. Heaton's claim to Pipe Spring after he filed application on the Valentine scrip in 1920, their primary focus in years prior had been squarely on protecting Indian water rights at Moccasin. Field inspectors repeatedly urged officials in Washington to buy out the Heatons' Moccasin claims in order to end the continual conflict over water there. All during the early years of the reservation's establishment, no direct claim to Pipe Spring land or water had been made by the Office of Indian Affairs or by its earliest reservation official, Superintendent Ward. As discussed in Part I, it was only after Farrow took charge that the Agency's eyes ever cast a sideways glance at Pipe Spring. That was when the "compromise" involving Pipe Springs was suggested by Farrow in an attempt to solve the Moccasin Spring dilemma. But no action to acquire additional rights at Moccasin or any rights at Pipe Spring was made until the monument was created in 1923. The Indian Office feared pressing the legal issues of land and water ownership prior to the settlements of Heaton claims by the General Land Office. Particularly since the latter had a record of deferring to the opinions of the Indian Office, the Indian Office's interests appear to have been sufficiently protected by other high officials in federal government. Heaton's homestead filing on Pipe Spring had been twice denied by Assistant Secretary Finney, suggesting that Commissioner Burke also had the Department of the Interior's ear.

In Heaton's original filing, in his appeal, and finally in his motion for a rehearing, the burden of proof lay primarily on Charles C. Heaton and his lawyers. The Indian Office had so far maintained the upper hand, without ever directly taking Heaton head-on in court. It could well have been to the Agency's advantage to avoid a court case where they would have had to disprove the ownership rights of the Heatons, although some of their agents, particularly Dr. Farrow, sincerely questioned those rights. It was to the Indian Service's advantage to let the Department of the Interior and General Land Office settle

the larger legal question, while reaping what they could from the seeds of doubt they had sown in the minds of those departments' officials. The fact that the Indian Office was successful in challenging Charles C. Heaton's ownership claims gave them considerable bargaining leverage within the Department of the Interior. Commissioner Burke cleverly used this political power to have Director Mather insert an important clause into the Presidential proclamation, a clause Commissioner Burke's office would use to full advantage during later water rights negotiations at Pipe Spring.

The final player in the scenario leading to Pipe Spring's establishment as a national monument was President Heber J. Grant, representing the interests of the Church of Jesus Christ of Latter-day Saints. Undoubtedly, the preservation of the site was important to the Church because of its association with the history of Latter-day Saint efforts to perform missionary work and to permanently settle in the Arizona Territory. Director Mather fully recognized the importance of working cooperatively with Utah's dominant religion as much as with its state government. Wherever he went in southern Utah and northern Arizona, he established personal contact with Church leaders. Mather was well aware that in many cases Church leaders carried considerable political power in their respective towns and districts. By establishing relationships with Church officials, he learned their views, but also shared his own vision of how the region's scenic resources could attract much-needed revenue. In doing so, Mather appears to have garnered their hearty support for National Park Service plans. Mather's first face-to-face contact with President Grant may have taken place at the Zion National Park dedication in September 1920, and a number of other meetings Mather was involved in included President Grant. Their contacts and relationship continued to develop throughout the early 1920s as the Park Service sought to build its wide network of park-promoting partners in the state. We know, however, that President Grant made no secret of his enthusiastic support for development of tourism in southern Utah as evidenced by the statement he made at the December 1921 Governor's Committee on National Park Development, referenced earlier. His role in raising funds to purchase the Pipe Spring property from Charles C. Heaton has also been mentioned. Beyond these contacts, little correspondence between National Park Service and Church officials has been found to chronicle the extent of the Church's role in Pipe Spring's establishment as a national monument.

One other personal factor - difficult to measure and to document - seems to have influenced Director Mather. Mather not only appreciated Utah's spectacular scenic resources, he had sincere admiration for its people and their history. During the important meetings and conferences in Salt Lake City, the personal visits with local bishops in their small rural towns, and the overnight visits and home-cooked meals with the Heaton family, Stephen T. Mather came to know and appreciate the Latter-day Saints as a people. There seemed to have developed a connection of the heart between the descendants of Utah's early settlers and the National Park Service's first director. Historian and preservationist Charles Hosmer, Jr., reveals this link in a 1969 interview with Mather's close friend and associate, Horace Albright. A portion of the interview is quoted below. Hosmer asked Albright how Pipe Spring came into the park system:

Hosmer: There's one historical area in the far West that struck me as kind of out of the ordinary for those days. And that was Pipe Spring, I think it was called, that little Mormon...

Albright: Oh, the Mormon fort, Pipe Springs.

Hosmer: Yes, how in the world did that get into the Park System? It's not an Indian ruin; it's...

Albright: No, it's a Mormon fort built against the Indians.

Hosmer: Yes, but I mean they weren't accepting forts in those days into the Park System.

Albright: It was bought and given to the Park Service.

Hosmer: It was given to the Parks?

Albright: Director Mather, the president of the Mormon church, Mr. Heber Grant, and Mr. Carl Gray, president of the Union Pacific Railroad and there's one other man, I think, bought the fort and gave it to the Park Service under the Lacey Act... [the 1906 Act for Preservation of Antiquities].

Hosmer: They all bought it?

Albright: Bought it.

Hosmer: Why did Mather want that?

Albright: It was historic and also, of course, it was part of his program of cooperating with the Mormons. They didn't want it destroyed; they wanted it kept. Mather was very strong with the Mormons. He used to go down and sing with them; he had a beautiful baritone voice. He and I for several years there were all but Mormons, we spent so much time down there with them in southern Utah.⁴²³

One cannot sing among a people and not feel a special bond with them.

Thus it was that Pipe Spring acquired recognition as a historic site and became a national monument. Its new status was quickly overshadowed by events taking place a short distance to the north.

Bryce Canyon Declared a National Monument

On June 4, 1923, the day after Governor Mabey's party returned to Salt Lake City, John T. Oldroyd announced Utah's decision to sell Union Pacific 21.61 of the 40 acres at Bryce Canyon's rim that UP had desired to purchase and to lease 138.39 acres to the company.⁴²⁴ While UP had offered to pay \$2.50 per acre, the state requested \$25 per

acre; UP had offered to lease land at 25 cents an acre, the state countered with a request for \$1 an acre. Other stipulations were included, primarily that a road right-of-way (ranging from 100 to 200 feet in width) was reserved along the rim and that the company was not to charge the public for water. This counterproposal was put forth by the state as being more in the public's best interest. Union Pacific was given 30 days to respond.

On the same day the state of Utah made its Bryce Canyon counterproposal to Union Pacific, the Salt Lake Tribune published an article entitled "Scenic Utah to Be Viewed." The article, whose main focus is an upcoming trip to the region by Mather and an influential U.S. Congressman, references the National Park Service Director's opposition to the selling of Bryce Canyon land to Union Pacific. Buried halfway through the piece was an announcement about the establishment of Pipe Spring National Monument. Excerpts are cited below:

Stephen T. Mather, director of national parks, and Representative L. C. Crampton [sic] of Michigan, chairman of the subcommittee on appropriations...will make an extended tour through the park region of southern Utah in about a month....⁴²⁶

The visit is calculated to encourage greater liberality in congress toward Zion park and the north rim highway, and incidentally, may encourage the move to have Bryce Canyon made a national park.

Mr. Mather, seeing the possibility of having congress create the Bryce Canyon national park, is hopeful the state of Utah will not make an outright sale of its lands on the rim of Bryce Canyon to the Union Pacific, but, instead, lease those lands as lands are leased in national parks....

On the recommendation of the Secretary of the Interior, President Harding has established by proclamation the Pipe Springs [sic] national monument, containing forty acres. The monument was created primarily for the benefit of motorists traveling between Zion National Park and the north rim of the Grand Canyon, as it contains the only pure water along the road between Hurricane, Utah and Fredonia, Arizona, a distance of sixty-two miles.⁴²⁷

The article provided a brief history of the fort then added the following information:

At present there are two old stone buildings and it is planned to have the old fort restored as it was formerly, with a wall connecting the two buildings.

Pipe Springs is within the Kaibab Indian reservation and is involved in certain private claims. It is the intention of public-spirited citizens in Utah to recompense the present claimants for improvements made, in order that the Department of the Interior may take over the active administration of the monument.⁴²⁸

On June 1, 1923, Utah state officials (including Governor Mabey, Congressman E. O. Leatherwood, John T. Oldroyd and others), Union Pacific's Parks Engineer Samuel C. Lancaster, and reporters from four newspapers departed in three automobiles from Salt Lake City on a three-day, 600 mile driving trip to Bryce Canyon by way of Richfield and other Sevier County communities. It was reported that the trip was made for the purpose of conducting "a study of road conditions and of development of scenic resources of southern Utah, with particular reference to the plans of the Union Pacific railway in that direction..."⁴²⁹ The trip's primary focus was to enable concerned parties to assess the situation at Bryce Canyon with regards to UP's request to buy land for its developments and to come to some mutually acceptable agreement. They met on June 2 at Bryce Canyon with UP's solicitor George H. Smith, Randall Jones, and others to discuss the proposed land purchase and hotel site. Lancaster was later lauded as the engineer in charge of the Columbia River Highway, "the greatest scenic highway in the world, and who...may yet supervise construction of a still greater highway connecting the scenic wonderlands of southern Utah," proclaimed one *Deseret News* reporter. Page 10.

On June 8, 1923, President Harding created Bryce Canyon National Monument by Executive Order No. 1664. Since the monument was located within Powell (formerly Sevier) National Forest, it was placed under the administration of the U.S. Forest Service, U.S. Department of Agriculture. The Forest Service (unlike the Park Service) had funds available to build roads, reported the *Salt Lake Tribune*, which also reported that the monument could possibly be converted to national park status "within a few years." Events leading up to and surrounding the establishment of Utah's Bryce Canyon National Monument appear to have been considerably more publicized than those connected to the establishment of Pipe Spring National Monument, perhaps because development plans for the entire region hinged so heavily on Bryce Canyon. At the time of its creation, provisions were made to elevate Bryce Canyon to national park status once 640 acres of land within its boundaries, owned by the state of Utah and Union Pacific, were turned over to the federal government in exchange for other public lands. Years would pass before Union Pacific was willing to give up its holdings. 433

On June 27, 1923, President Warren G. Harding paid an official visit to Zion National Park. The stop was one of several scheduled during his trip to the West and to Alaska. His entourage included Secretary of the Interior Hubert Work, Secretary of Agriculture Henry C. Wallace, Secretary of Commerce Herbert C. Hoover, and all of their wives. Speaker of the House of Representatives Frederick H. Gillett and U.S. Navy Admiral Hugh Rodman were also in attendance, along with about 70 other public officials and newspaper reporters. Utah officials included Governor Mabey, President Heber J. Grant, and Senator Reed Smoot. On the same day, the Union Pacific officially opened its 33-mile spur line from Lund to Cedar City with President Harding's special train. The spur line created a new railhead for tourists visiting southern Utah's scenic attractions. In bidding farewell to a group of original Latter-day Saint settlers gathered in Cedar City, Harding made the following speech:



25. President Warren G. Harding at Angel's Landing, Zion National Park, June 1923 (Courtesy Union Pacific Museum, image 3321)

I have today viewed the greatest creations of the Almighty in the majestic natural wonders of Zion National Park. It has inspired me with a deeper religious conviction.

I am acquainted with pioneer stock. It has made the United States. By the difference between the arid and cultivated sections I can read the story of your work. To you men and women who came with your families in covered wagons into this country when the water still flowed through its natural gorges, the nation owes a debt of gratitude. I am the first President of the United States to come and express that gratitude but I feel sure when I tell of this trip to my successors all future Presidents will come to visit this country of wonders.⁴³⁴

In fact, Harding had just recently demonstrated his appreciation for Utah's "pioneer stock" less than one month prior to this speech by authorizing the establishment of Pipe Spring National Monument. It is unknown if he made public reference to Pipe Spring

during his whirlwind tour through southern Utah. In addition to Zion, Harding also visited Yellowstone and Yosemite on his tour. President Harding never returned home from this trip. On his way back from Alaska, he died suddenly in San Francisco on August 2, 1923.

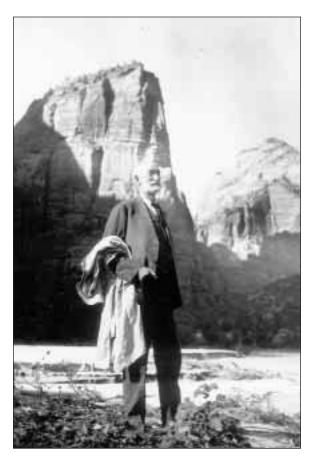
In a June 30, 1923, *Salt Lake Tribune* article entitled, "Bryce is Made U.S. Monument," it was reported that the U.S. State Department made public the proclamation establishing Bryce Canyon National Monument on June 29, only two days after Harding's stop in southern Utah. (One can only speculate that the announcement was held off so that Harding could have the pleasure of personally announcing the historic event during his trip to southern Utah.) The article references the impact Bryce Canyon's new status would have on road development in the area:

Unlike other national monuments, which are under jurisdiction of the Interior Department, Bryce Canyon is placed under control of the Department of Agriculture, which in effect, means under the Bureau of Forestry. And in view of the limited appropriations available for the National Park Service, this is a fortunate move, for the Forest Service has on hand a lump sum for the building of roads, and now that it had been given full jurisdiction over Bryce Canyon, will at once begin the construction of both roads and trails...⁴³⁵

In another article of the same date, the *Salt Lake Tribune* reported that the cutting of timber for construction of a \$300,000 hotel at Zion National Park had begun. During 1923 the National Park Service granted the Utah Parks Company the concession for touring accommodations in Zion, Bryce Canyon, and the Grand Canyon's North Rim.⁴³⁶ Engineer Samuel C. Lancaster was placed in charge of Union Pacific's development program in southern Utah.⁴³⁷

On July 2, 1923, the *Deseret Evening News* reported that an agreement had been reached between Union Pacific and the state of Utah on the terms of sale at Bryce Canyon. Forty acres was to be sold to UP "with the reservation that the company will deed back the original reservation along the rim desired by the state." Union Pacific was to pay \$25 acre, with the remainder of state section lands it wanted leased for 25 years at 50 cents an acre. The company was also granted a 25-year renewal option. The next day's *Salt Lake Tribune* reported that the agreement between the state and Union Pacific assured UP's commitment to development of hotel and water there. ⁴³⁹ Nineteen of the 40 acres sold to UP were deeded back to the state. On September 25 the Utah Parks Company purchased Ruby S. Syrett's improvements at Bryce Canyon, along with water rights for \$10,000.

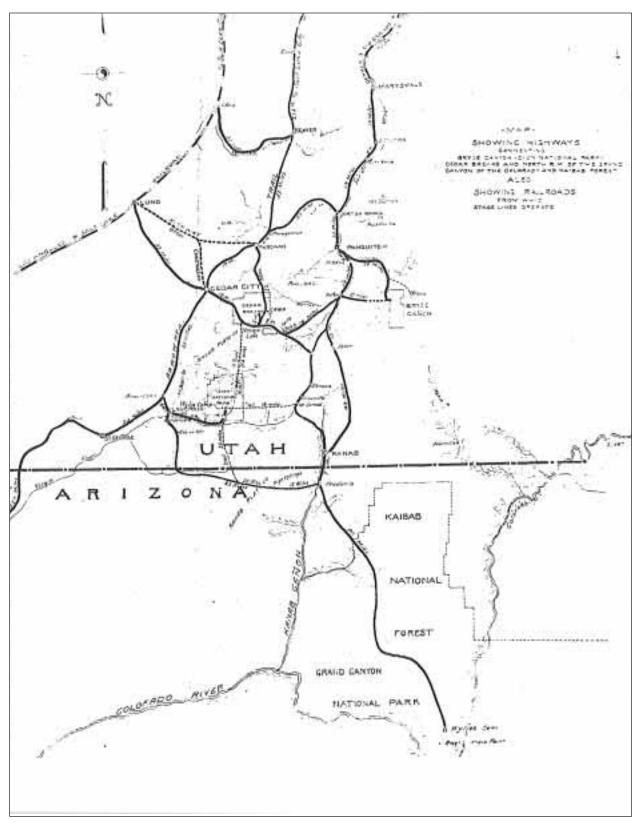
"Shall We Go This Way, or That Way?" - Officials Decide Best Route for Tourists
By 1923 primitive but passable auto roads reached Zion National Park, Kaibab National
Forest, the Grand Canyon's North Rim, Bryce Canyon National Monument, and Cedar
Breaks. Some routes, however, were either circuitous or had to be retraced in order to go
from one park to another. Popular demand grew for improved roads, as well as for shorter,
more direct routes. In 1923 both the Federal Bureau of Public Roads and the Utah State
Road Commission intensified their study of the problem of linking southern Utah's



26. Church President Heber J. Grant at Angel's Landing, Zion National Park, undated (Courtesy Union Pacific Museum, image 557)

scenic wonders with those of northern Arizona. In June 1923 Bureau of Public Roads District Engineer B. J. Finch and Utah State Road Engineer Howard C. Means met in southern Utah to conduct a five-day investigation of available routes in the region. The men's objective was to determine a way to link Kanab (the Kane County seat) with the business centers of south-central Utah, the railroad at Cedar City or Marysvale, and the Federal Highway System. There were three aspects to the problem, Finch wrote in his later report: 1) economic considerations, which had to do with the difficulty of providing a road to and from Kanab that could be traveled year round and its consequent effects on development of all of southcentral Utah; 2) social considerations, which had to do with the possibility of improving life in the isolated communities east of Zion Park and south of Panguitch; and 3) scenic considerations, in that any improvement of the transportation conditions would make more accessible the points of interest in southern Utah and increase the number of people who would see its scenic wonders.

In June 1923 Kanab could be reached only by two routes, one from Marysvale via Panguitch, and the other from Cedar City via Andersons Ranch, Toquerville, Hurricane, and Fredonia. The first route involved crossing a summit (7,150-foot elevation) south of Panguitch, a route blocked by snow at least four months of the year and often impassable for another two months due to melting snow, muddy road conditions, or inadequate maintenance. If one got beyond this point, the Mt. Carmel-Kanab portion of the road crossed what was then known all over Utah as "the Sands of the Desert." Recent county road improvements had made this 17-mile stretch passable for automobiles within the previous two years. He second route to Kanab from Cedar City posed its own set of problems, although it started out well enough. The portion from Cedar City to Andersons Ranch, known as the Arrowhead Trail, lay on the approved Federal Highway System. The section from Andersons Ranch to Toquerville was the route taken by travelers to Zion National Park. The Toquerville-Hurricane portion passed through irrigated farmland, then ascended 1,500 feet up the Hurricane Cliffs before running southeast toward Short Creek. From the Arizona state line, Coconino County had rebuilt the road to Utah's border for a distance of 15-20



27. Utah Parks Company map of southern Utah and northern Arizona, ca. 1923 (Courtesy Union Pacific Museum)

miles. Finch commented that the new Arizona road was poorly located ("The previous location of the road in Arizona was much better..."), climbing a long, narrow dugway to the top of Cedar Ridge then "twisting and turning in all directions over rocks and ridges until it joins the former road." Neither this new route nor the original one "has been anything more than passable," Finch reported.⁴⁴² In fact, the Cedar City-Kanab road was so fraught with problems that Kane County had recently expended \$40,000 to improve the alternate Marysvale-Kanab route.⁴⁴³

Economics aside, Finch remarked,

From the social standpoint the isolation of these Kane County communities is most pronounced. We found that a large percentage of the population had not been beyond the County line in years. Many of the younger generation have never seen a railroad.... An all the year round road to the railroad would bring new blood into these communities and stimulate those already there to a greater activity.⁴⁴⁴

From the standpoint of scenery and tourism he added,

In no other State is there to be found in so small a space three such scenic attractions as Cedar Breaks, Zion Canyon and Bryce Canyon. Add to these the North Rim of the Grand Canyon in Arizona and the combination becomes greater in attraction to sightseers than any other part of the United States within a similar area. But the means of reaching these points of interest is over the two routes [just] described.... The round trip from one to the other cannot be made without more hardship than the average tourist will endure.⁴⁴⁵

For the purpose of finding an all-Utah, year-round route, engineers Means and Finch spent June 19 and June 20, 1923, in Orderville and Mt. Carmel interviewing Kane County commissioners and others familiar with the outlying territory. They were convinced by these informants (and by their own later observations) that the Cedar City-Kanab route south of the Virgin River (the one Mather had counted on to get tourists to the Grand Canyon via Pipe Spring) was impracticable. "This territory is so broken and faulted that any further investigation on that side was given up," Finch reported.⁴⁴⁶ They explored the region west of Mt. Carmel by horseback, accompanied by county commissioners. The men then drove an auto from Kanab to Hurricane by way of Fredonia, observing the dismal road conditions described earlier.

On the morning of June 20, Means and Finch drove from Hurricane to Zion National Park where they spent the day riding horseback, exploring Pine Creek Canyon with John Winder of Springdale. They also walked portions of the route, at one point accompanied by Superintendent Walter Ruesch. "This is the only side canyon emptying into the Little Virgin of sufficient length to give promise of possibility of the necessary grade development," Finch observed. The men continued their investigations on June 22, concluding that there was indeed a feasible route from Zion to Mt. Carmel, one that would be no more than 25 miles long. Only six miles would entail heavy expense, Finch

estimated, a section in which tunnels would be required to pierce the wall at the upper end of Pine Creek Canyon. The new road would shorten the distance from Cedar City to Kanab by 12 miles. An impressive 93 miles would be saved in traveling from Cedar City via Zion to Bryce Canyon. The driving distance from Cedar City to the North Rim was about the same, 186 versus 187 miles.

On June 25, 1923, Means and Finch presented their study findings and recommendations to Utah's State Road Commission Chairman Preston G. Peterson and State Road Commissioner Henry H. Blood. The two state officials viewed the Zion-Mt. Carmel road as a "very promising proposal," the newspapers reported the following day.⁴⁴⁷ From this preliminary survey by Means and Finch evolved the route that later became the famous Zion-Mt. Carmel Highway.

While one source stated there was a great deal of skepticism by private citizens and public officials about the proposed Pine Creek Canyon route, there were a number of factors in its favor. 448 First (and perhaps most influential), being within park boundaries its construction would be completely federally funded. Second, this route had been promoted by Union Pacific as part of its planned circle tour since at least 1921. Thus, only one month after Pipe Spring National Monument had been designated by President Harding, its fate was irrevocably altered by an informal decision by Means and Finch (heartily supported by commissioners of Kane County) to recommend construction of a road that would divert tourist traffic across Zion National Park to Mt. Carmel, then southward via Kanab and Fredonia to the North Rim of the Grand Canyon. Nevertheless, it was well known that the new route across Zion National Park would be years in the making. Stephen T. Mather, along with local and state officials and tourism boosters, continued to focus their efforts on providing at least temporarily serviceable routes to link together the outstanding tourist attractions of southern Utah and northern Arizona. Pipe Spring National Monument was a one of those attractions.

A Deal Is Struck at Pipe Spring

In September 1923 Mather planned a 10-day trip through southern Utah and northern Arizona. The trip was planned to coincide with the September 12 dedication of the new Union Pacific spur line from Lund to Cedar City, completed in June. Mather was scheduled to take part in the ceremonies. Mather's friend, Francis P. Farquhar of San Francisco, was invited along; he also assisted in making preparations for the trip and acted as the official record keeper. Farquhar wrote Jonathan Heaton shortly before the scheduled trip and informed him the Mather party would be visiting Pipe Spring on September 7 and inquired if they might spend that night as the Heatons' houseguests in Moccasin. If the Heatons could not keep them, Farquhar wrote, would he kindly ask "the Indian Agent at of the Kaibab Agency" (Dr. Farrow) to accommodate them? Without delay Heaton replied, "We will be pleased to take care of Mr. Mather and party at Moccasin."

Farquhar's daily journal of the trip records that on September 3 he and Mather traveled from San Francisco by rail to Salt Lake City where they were met James W. Good and A.

W. Harris, President of Harris Trust Company, both of Chicago, at the Hotel Utah. Horace Albright and Senior Landscape Architect Daniel R. Hull met them there. Three other Utah officials joined the group that Mather addressed in the Hotel Utah that day: Dan S. Spencer (Union Pacific), Lawrence Maringer (Salt Lake Transfer Company), and Church President Heber J. Grant. Albright returned to Yellowstone that evening while Mather, Good, Harris, Farquhar, and Hull rode the Union Pacific night train to Lund, arriving in Cedar City the following morning.

There Walter Morse, who had driven Mather's 1917 Packard from San Francisco, met the Mather party. The same day (September 4), Morse chauffeured the five men to Zion National Park, which they toured for two days. On September 6 they drove by way of Hurricane from Zion to Pipe Spring. Mather found caretaker John White at the fort. The party visited that day with Dr. Farrow and his family at the Kaibab Agency, then with members of the Jonathan Heaton and Charles C. Heaton families in Moccasin. Farquhar took photographs during these visits. (He could not resist noting in his log that Jonathan Heaton had 26 children by his two wives, 15 sons and 11 daughters, and "unnumbered grandchildren.") On September 7 Farquhar reported, the party traveled to the North Rim, then returned to Pipe Spring for further inspection of the site and for a conference with the Heatons over terms of sale of the property. Farquhar later described the scene at Pipe Spring that day:

Mr. Mather sat on the wall with the Heatons and worked out the terms under which the Heatons would dispose of their interest in the property. Mr. Mather turned to me and said: 'Francis, you have heard what has been said. Make a note of it and we will write it out more fully later on.' So I took the first piece of paper that came to hand and jotted down the notes in pencil.⁴⁵¹

Farquhar recorded the following memorandum in the presence of Mather and the Heatons. He read the agreement back to them, whereby it was approved by all:

It is understood that one-third of the water supply was disposed of on August 26th, 1920 to cattlemen of Kane, Washington and Iron Counties. The water was to be taken from the Tunnel Spring first.⁴⁵²

The Heatons will let the place go for \$5,000.

The Heatons will donate toward the purchase price the sum of \$500 provided the people of Kane and Washington Counties will donate \$500. If the \$500 is not raised from the Counties the Heatons will stand the whole \$1,000.

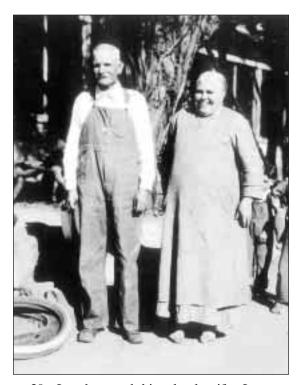
It is understood if the [Valentine] script [sic] is sold the Heatons will get proportionate shares of the amount they have donated.⁴⁵³



28. Charles and Maggie Heaton with 8 of their 10 children in Moccasin, Arizona, September 1923. Back row, left to right: C. Leonard, Charles, Maggie, Jennie, Clifford (far right). Front row, left to right: Grace, Grant, Kay with baby Kelly (Melvin K.), and Richard. (*Courtesy National Archives, Record Group 79*)

Farquhar also noted, "Pinckley [sic] and Gov. Hunt [plan] to look the place over and meet with Heaton on restoration" (reference is to Southwestern National Monuments Superintendent Frank Pinkley and Arizona's Governor George W. P. Hunt). Thus the purchase terms of the Pipe Spring property were negotiated more than three months after Pipe Spring was proclaimed a national monument. A letter written 24 years later by Farquhar to Zion's Superintendent Charles J. Smith reported that those at the signing of this 1923 agreement included Jonathan Heaton and "several of his sons." (The photograph Farquhar took suggests four of his sons were present.) A number of photographs were taken by Francis P. Farquhar. Photographs 28-30 were probably taken on September 6 and photographs 31-33 on September 7, 1923.

Mather's tour continued on after the Pipe Spring meeting to the North Rim of the Grand Canyon. From there the group traveled to Kanab, Bryce Canyon, and Cedar Breaks before returning to Cedar City on the night of September 11.⁴⁵⁴ After participation in the town's "Old Home Celebration" the following day, Mather traveled by rail to Yellowstone while Harris and Good returned to Chicago. Morse and Farquhar drove the Packard back across the Nevada desert to San Francisco. The following



29. Jonathan and his plural wife, Lucy Elizabeth (Carroll) Heaton in Moccasin, Arizona, September 1923. The couple had 10 children. (Courtesy National Archives, Record Group 79)



30. Jonathan and his first wife, Clarissa Amy (Hoyt) Heaton, September 1923. They had 15 children and maintained a home in Alton, Utah. (*Courtesy National Archives, Record Group 79*)

month, Farquhar sent copies of photographs taken during the trip to D. S. Spencer for Union Pacific's collection. In addition, he sent Pipe Spring photos to five Heaton women in St. George, and to Jennie Heaton and Myrtle White of Moccasin. ⁴⁵⁵ Farquhar forwarded copies of photographs taken during the Moccasin visit and Pipe Spring meeting along with copies of his handwritten and typed agreement to Zion National Park's Superintendent Charles J. Smith in July 1947. Many are included in this report.

The Heatons Have Second Thoughts

One of the most unusual circumstances surrounding the creation of Pipe Spring National Monument is the fact that by the time the monument was officially established, Mather had not formally worked out the terms of how the Pipe Spring tract was going to be purchased from the Heaton family.⁴⁵⁶ The fact that he proceeded with having the monument established prior to the government obtaining legal ownership is evidence of the high level of confidence he placed in the cooperative actions of other interested parties, including the Heatons, Union Pacific supporters, Church officials, and the Office of Indian Affairs. (What appears to have driven his sense of urgency in the matter, as mentioned earlier, was the timing of President Harding's trip and the trip to Pipe Spring by a congressional delegation immediately following this trip. Mather wanted the



31. Mather standing on wall of west cabin with the Heatons, Pipe Spring, September 1923 (Courtesy National Archives, Record Group 79)

monument established in order to appeal to this delegation for funding the fort's restoration.) The Pipe Spring property remained under the private (albeit disputed) ownership of Charles C. Heaton for another 11 months after the monument's establishment. What Mather could not have foreseen was the mounting level of antagonism and distrust between local cattlemen and the reservation's Superintendent Farrow, primarily (but not exclusively) over the issue of water. While relations had never been very good, tensions were most certainly heightened during the early 1920s due to the frustrated efforts of the Heaton family and several others to obtain legal title to thousands of acres within the reservation and their foot-dragging at the Agency's demands that they remove fencing from those lands.⁴⁵⁷

A series of events transpired within months of the monument's establishment which very nearly threatened to capsize all the carefully laid plazns of Director Mather, Church officials, and Union Pacific representatives to establish Pipe Spring National Monument. The terms for sale of the Pipe Spring tract had been established during Mather's September 1923 meeting with the Heatons at Moccasin and Pipe Spring, referenced earlier. The Heatons wanted to preserve the monument along with the cattlemen's water rights, but weren't willing to entirely give the property away. The Heatons promised to contribute \$500 toward the \$5,000 price tag "provided the people of Kane and ashington Counties will donate \$500," stated the agreement; "If the \$500 is not raised from the



32. View of Pipe Spring fort, taken from the north, September 1923 (Courtesy National Archives, Record Group 79)



33. Jonathan Heaton and four sons, September 1923. From left to right: Charles, Jonathan, and Fred; two at right are either Ed, Chris, or Sterling (*Courtesy National Archives, Record Group 79*)

Counties, the Heatons will stand the whole \$1,000." It is clear that the Heatons were willing to make a significant sacrifice, both to see the site made into a monument and to see the property not fall into the hands of the Indian Office, which was sure to happen if they lost their case on appeal. The Union Pacific System contributed \$1,000, as did the Church. Mather gave \$500 of his own personal funds toward the purchase. The challenge was to raise the additional funds. Mather had approached both Lafayett Hanchett and President Heber J. Grant to ask for their assistance. While the two men were largely successful, only \$3,000 had been collected by December 5, 1923, when Union Pacific made its \$1,000 contribution. Still \$500 short of the goal, Mather wrote to Ole Bowman of Kanab to inquire about donations from Kane and Washington county cattlemen. Bowman replied that he was unaware that anything was being done to raise the money.

About the same time, Charles C. Heaton learned the final \$500 had not been raised. He then informed President Grant that he was willing to donate the cattlemen's \$500 in addition to the \$500 he had pledged. He also told Grant that he had drawn up a quitclaim deed by which the National Park Service would get *two-thirds* of the Pipe Spring tract while the remainder would be held by local ranchers, "that is one-third of the water and enough land for corrals in handling cattle." ⁴⁶⁰

This was an unexpected turn of events. Why was Heaton going back on the September 1923 agreement and setting new conditions for the sale of Pipe Spring? It appears that Heaton and the other cattlemen had reason to suspect that Dr. Farrow, staunch representative of the interests of the Kaibab Paiute, intended to terminate the cattlemen's rights to water from Pipe Spring at some point in the near future. Heaton was simply trying to insure that the upcoming sale and transfer of title to the federal government did not compromise the cattlemen's interests regarding stock water and corrals at Pipe Spring. The agreement made at Pipe Spring in September 1923, whereby Mather acknowledged the cattlemen's right to one-third of the water at Pipe Spring, was no longer sufficient guarantee for Heaton and the stockmen, given the threats they perceived in Farrow's actions.

The land division proposed by Heaton's description of the quitclaim deed surprised President Grant who notified Mather of Heaton's change of mind. Mather telegramed Grant on January 4, 1924, to say Heaton had evidently misunderstood the water agreement they had made. The Park Service wanted a deed for the entire 40 acres without additional conditions. Mather instructed Grant to "please defer payment." Mather was unable to attend to the Pipe Spring matter for another month, due to other work and travel. Upon his return in February, Mather wrote Heaton to firmly reject his new proposal while attempting to reassure Heaton about his concerns.

I have been out in California for a month or two on Park matters and find on my return that things have not finally been settled up as regards the relinquishment of Pipe Springs and the payment to you of the \$4,000 by President Grant. Of course, it will be necessary for you to give a clear title or relinquishment for the entire Pipe Springs ranch, not the two-thirds as stated

in your letter to President Grant. The United States could not accept partial title to this property.

I plan to work things out so that the cattlemen could use the water of Tunnel Spring as they have been doing. As regards corrals for handling cattle, our plan, as you remember, was to carry the water down some distance away from the buildings so as to avoid the necessity of having corrals at their present location where they would interfere more or less seriously with tourist travel. At the same time, [they] would take away from the attractiveness of the spot after it was properly developed.

As regards the pipeline, you will remember that we figured that the water could be handled better if it was carried down a mile or two.⁴⁶²

Charles C. Heaton responded to Mather on February 29, 1924, saying that he was only trying to make sure the cattlemen got their one-third share of water. He asked if a public water reserve could be set aside to ensure the cattlemen's access to water from tunnel spring.⁴⁶³ (On May 31, 1922, Secretary Albert B. Fall had adjusted the boundaries of Public Water Reserve 34, created April 17, 1916.⁴⁶⁴) Mather responded to Heaton on March 13, promising to take up the matter of a public water reserve with the Commissioner of Indian Affairs. He hinted, however, that the matter could be complicated as public water reserves could only be created on public lands. Heaton was requesting one be established on reservation lands.

On the same day (March 13, 1924), Mather requested that Commissioner Burke amend the executive order which established the Kaibab Indian Reservation so that a water reserve could be located where Heaton wanted it.⁴⁶⁵ On April 8, 1924, the Commissioner of Indian Affairs telegraphed instructions for Supervising Engineer C. A. Engle of the U.S. Indian Irrigation Service in Blackfoot, Idaho, to make an official trip to the Kaibab Indian Reservation. Engle made a two-day visit (April 27-28) and there "investigated conditions affecting the establishment of a proposed public watering place near Pipe Spring." In his five-page report, Engle gave a largely confused and inaccurate historical summary of the property's ownership:

Some time prior to 1888, Pipe Spring and the adjacent land came into the possession of an individual named Valentine and since that time, claims to this tract have been based on the 'Valentine Scrip.' It is doubtful whether there has been such settlement or continuous use of these premises and springs, as to constitute a legal and valid claim to the property, on the part of anyone other than the Indians. As indicated above, it is now, and has been since 1907, part of the lands withdrawn for the Kaibab Indian Reservation....

Mr. Charles C. Heaton, who claims Pipe Springs, Moccasin Springs and a large portion of the Kaibab reservation, has suggested to Director Mather of the National Park Service, that a portion of the Indian reservation a short distance southwest of Pipe Springs be set aside as a public watering reserve. In this connection he suggests the use of Tunnel Springs as a source of supply

for the proposed watering place. The land referred to by Mr. Heaton is within the most desirable portion of the reservation not yet claimed by the Heatons and the Tunnel Springs, suggested as a source of water, has been developed by Superintendent Farrow, at considerable expense, for the use of the Indians engaged in stock raising, and also for some white lessees holding grazing permits on the reservation.⁴⁶⁶

Mr. Heaton objects to the use of Pipe Springs and the 40 acre tract for a National Monument as provided for by the Presidential proclamation of May 31, 1923, claiming to have sold a portion of it on August 28, 1920, to stock growers for corral purposes.⁴⁶⁷ He therefore suggests the use of another tract of land, as above indicated, to which he at this time, makes no claim.

We are firmly of the opinion that under no circumstances should the proposed public watering reserve be established within the Kaibab reservation. More than 4,000 acres, constituting the most valuable portion of the reservation, and including practically all of the springs, which are the only sources of water supply in this country, are already claimed and used and virtually owned by white people. To take from the Indians any additional land, and especially any of the water supply that has been developed on land not claimed by whites, would constitute a grave injustice and would only lead to endless friction and trouble and possibly to violence between the whites and the Indians...

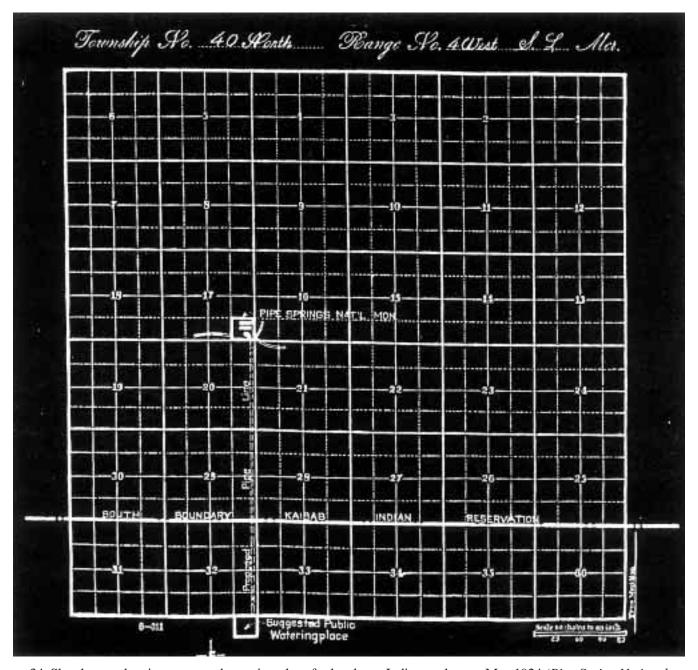
If the cattlemen have a vested right in this water on the Indian reservation, it should be conveyed to a watering place by means of a pipeline to a point entirely outside and at some distance from the reservation boundary, as indicated on the attached sketch. 468

Engle recommended that water be piped at least a mile outside the reservation boundary to minimize the possibility of conflict between Indians (or their Agent) and stockmen. A map of the Kaibab Indian Reservation was also produced in connection with Engle's trip and is shown in figure 34.

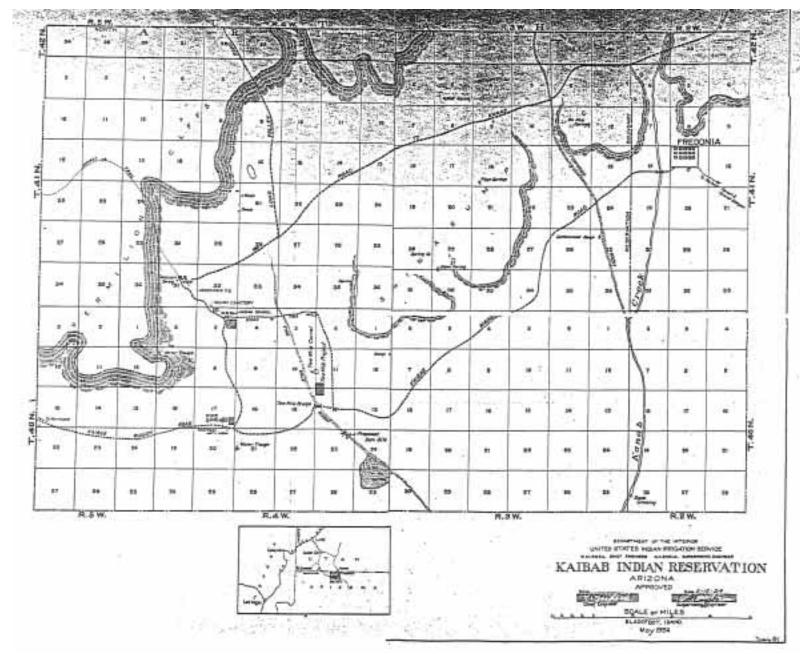
Engle's recommendations were as follows: 1) that immediate steps be taken to "secure a decision as to the ownership of Pipe Springs;" 2) that the rights of the claimant (if proved) be purchased "at any reasonable price;" 3) that the monument be enclosed by a suitable fence; 4) that all water at Pipe Spring "not needed for use in connection with the National Monument be made available for the Indians at Kaibab Reservation;" 5) that the proposed watering place ("the necessity of which is considered doubtful") be established outside the reservation, at least one mile from its boundary at the stock growers' expense; and 6) "that any future proposals to further decrease the size of the reservation and especially to surrender a drop of water originating on the reservation, be firmly rejected." 469

Engle investigated establishment of a water reserve at Pipe Spring on April 27-28, 1924. Charles C. Heaton executed a quitclaim deed for Pipe Spring to the United States of

America on April 28, 1924. Also on this date Heaton withdrew the pending application to locate Seegmiller's Valentine scrip certificate No. E-13 that the Pipe Springs Land & Live Stock Company filed earlier. (The two documents are provided as Appendices IIIa and IIIb of this report.) This is the second, extremely intriguing coincidence of dates that occurs in the Pipe Spring story.⁴⁷⁰ Had Engle made his views known to



34. Sketch map showing suggested watering place for local non-Indian cattlemen, May 1924 (*Pipe Spring National Monument*)



35. Map of Kaibab Indian Reservation, May 1924 (Courtesy Bureau of Indian Affairs)

Charles C. Heaton about his opposition to creating a public water reserve at Pipe Spring? Did he share any of his other views with Heaton, all of which were strongly in favor of protecting the rights of the Kaibab Paiute? Was Heaton aware that Engle's report recommended that the Office of Indian Affairs pursue legal ownership of PipeSpring? Did he know that should the Indian Office fail in its attempts to acquire Pipe Spring for the reservation, that they were advised to insist that all water at Pipe Spring not needed for national monument purposes be turned over to the Indians? There is no written evidence that Heaton knew of Engle's views or of the recommendations he intended to make. However, *something* caused Heaton to finally act, to turn the property over to the National Park Service, in spite of ongoing (and still unresolved) concerns he had expressed to President Grant and Director Mather in December 1923 and early 1924. While Heaton had only the September 1923 agreement to pin the cattlemen's "hat" on, had Engle been successful in encouraging the Office of Indian Affairs to pursue certain goals advantageous to the Kaibab Indian Reservation, the Heatons and the cattlemen would have lost all.

While at Moccasin, Engle examined other conditions pertaining to the reservation and prepared a separate report that he submitted to the Commissioner a day after his first report, on May 14, 1924. Engle's final conclusions to his report are highly illustrative of the challenges faced by the Kaibab Paiute, the U.S. Indian Irrigation Service, and the Office of Indian Affairs with regard to the Kaibab Indian Reservation. These conditions would also be those faced by the National Park Service after it took on the administration of Pipe Spring National Monument. Engle made the following observations:

Many of the Indians on this reservation are thoroughly disheartened, and have lost faith in the desire of the government, and the power and ability of the government, to protect their rights.

Various officials informed them, at the time of the Withdrawal Order of October 15, 1907, and again at the time of the promulgation of the Executive Order of July 17, 1917, that the land included within the boundaries of the reservation was their undisputed possession. Failure on the part of the government to fulfill these promises has caused these Indians to lose faith in the government and has caused lack of respect and confidence in the government officials. Many of them are of the opinion that their reservation will gradually fall into the possession of their white neighbors.

In this connection is should be borne in mind that the Indians lived at or near Moccasin Springs for a long time after the coming of the white settlers, and only moved away when they were forced to do so.

Present conditions and past experience seem plainly to indicate that the Heatons will, in a very few years, be in entire control and virtual possession of the entire reservation by gaining control of the water resources, most of which they already claim or use. It is manifestly a question of either the government or the Heatons vacating.

The fact that the first white settler at Pipe Springs was killed by the Indians, and that it was necessary for later settlers to construct a fort for protection against the Indians, would seem to indicate that the Indians did not willingly submit to the conquest of their lands and springs.⁴⁷¹

Even though Charles C. Heaton signed the quitclaim deed conveying Pipe Spring to the United States of America in late April, this legal document had yet to be turned over to the government. Mather sensed that immediate action was needed to keep his plans on track and on May 25, 1924, he directed Superintendent Pinkley to go to Pipe Spring in early June. Mather then informed Heaton of the objectives of Pinkley's visit: "Pinkley is going to look into the question of the water hole pretty thoroughly and talk over matters generally with you, as well as seeing the cattlemen and finding out what they will do toward running the water from Pipe down to the proposed water hole and corrals." Mather informed Heaton that Pinkley "may be accompanied by one or two others." He chose not to tell Heaton that Pinkley also planned to meet with Dr. Farrow.

Director Mather had his driver, Walter Morse, drive from Barstow, California, to Needles where Morse met Pinkley on June 1, 1924. (The men were there to investigate the proposed new monument of Mystic Maze.) The following day the two men drove to St. George where Pinkley met with Joseph Snow. Upon Mather's instructions, Pinkley discussed with Snow the general road situation, the Rockville cutoff, and the Pipe Spring water matter. While in St. George, Pinkley received a telegraph that William Reed, chief engineer of the Indian Irrigation Service, would be leaving Washington, D.C., for Cedar City the next day to attend the meeting at Pipe Spring. Pinkley stalled for time in Hurricane and at Zion National Park investigating road matters and trail development. On Saturday, June 7, Morse and Pinkley met Reed at the Cedar City train depot. Dr. Farrow had also driven up from Moccasin in his Ford to meet Reed. Pinkley, Reed, Morse and Farrow dined that evening in the El Escalante Hotel, spending the night in Cedar City. It was decided that the following morning Farrow would drive back to Moccasin alone and that the others (now including Randall L. Jones) would take the Packard and stop at Zion en route to Pipe Spring.

After arriving at Pipe Spring, the group looked around for an hour, then dropped Reed off at Dr. Farrow's office. Jones, Pinkley, and Morse spent the night in the home of Charles C. Heaton. Reed spent the night with the Farrows. Pinkley later wrote Mather of his visit, "I need hardly detail to you the pleasure it was to meet the Heatons, because you have met them yourself and know what fine people they are. We sat up until nearly eleven o'clock that night and then arose early in the morning to resume our talk." 473

The next morning at nine o'clock (now June 9, 1924), all the men met at Pipe Spring to thresh out the issues. The cattlemen had a five-year permit to graze cattle on the

reservation with three years yet to run. Reed said he was not opposed to the cattlemen using tunnel spring water for the life of their grazing permit, but beyond that would not comment. During negotiations, Pinkley determined that Farrow intended to cease issuing cattle permits at the end of the three years and to use the water from Pipe Spring for irrigating Indian lands. He asked him outright if that was the case and Farrow admitted that it was. This revelation frightened Charles C. Heaton, who then could see that any pipeline serving the cattlemen's needs would have to go completely outside the reservation boundary. Reed suggested they go back to Farrow's office to go over records, which they did. (It is doubtful that Heaton accompanied the officials.) Pinkley later reported to Mather,

It was at this time that Dr. Farrow turned his heavy artillery loose by attacking directly the right of the President to legally proclaim the Pipe Springs a national monument. His argument is based on a rider, which he says the Interior Department appropriation bill carried in 1921 or 1922 to the effect that Indian reservation boundaries should not thereafter be changed by executive order. He had already hinted at this once before when we were talking in Cedar City, and I feel sure from the way he talked about it that he is sincere in his belief. Whether he is correct or not I do not pretend to say, but it might be worthwhile to look into the matter and see what there is at the bottom of it, for the Canyon de Chelly lies on an Indian reservation and it looks like we may be asked to make a monument in there in the near future.

Dr. Farrow is very sincere in his belief that the Indian rights are being abused by the white man. The white men seem to have been running cattle on that range since about 1861 and the Indians had no cattle until some time after 1900 when the Government bought them some. By right of use, then, I should think the white men have the prior right to use Pipe Spring for watering cattle.⁴⁷⁴

At some point, Charles C. Heaton told Superintendent Pinkley and Chief Engineer Reed that if the cattlemen could pipe the water from tunnel spring through the reservation to the public domain they would be satisfied. Unfortunately, due to the low price of cattle and having had a bad year, the cattlemen would be unable to raise funds to build the pipeline, reported Heaton. After further discussion, agreement was finally achieved. Pinkley drew up a memorandum to make it official. Dated June 9, 1924, the memorandum states:

At a conference held upon the ground at Pipe Springs, located on the Kaibab Indian Reservation, at which representatives of the National Park Service, of the cattlemen's organization, of Mr. Heaton (claimant of Pipe Springs), Mr. Jones of the Cedar City, Dr. Farrow and Mr. Reed were present.

The object of this meeting was to arrive at a satisfactory arrangement concerning the use of water from Pipe Springs by the aforesaid association of cattlemen. It was the consensus of opinion and practically agreed upon by those present as being a fair and just solution of the situation that the cattlemen had the acknowledgement of all parties present to an ownership of one-third

the waters from these springs and since a permit exists over the adjacent portion of the Indian reserve that they have the right to conduct water to and upon any portion of the land covered by permit during the life of that permit and at the expiration of the permit, if said permit is not renewed, to conduct the water off the reservation.⁴⁷⁵

Pinkley, Farrow, Reed, Jones, and Charles C. Heaton signed the agreement. (While Jones identified himself on the agreement simply as "Citizen," he had ties to the state and local governments, to local business interests, and to Union Pacific.) Charles Heaton represented the interests of the Heaton Brothers of Moccasin (Charles C., Fred C., Christopher C., Edward, and Sterling) and 12 other parties: The Bulloch Brothers, Lehi Jones, and John A. Adams of Cedar City, Utah; Heber J. Meeks and B. A. Riggs of Kanab, Utah; David H. Esplin and Ed Lamb of Orderville, Utah; and E. Foremaster, John Schmutz, John Findlay, Mrs. Andrews, and Ben Sorenson of St. George, Utah.⁴⁷⁶

Superintendent Pinkley considered his Pipe Spring trip a complete success. The objections Dr. Farrow had raised about the monument's establishment, however, created sufficient doubt in his mind so that he wrote the following in his report to Mather: "I told Mr. Heaton that he had probably better hold the papers which you had sent him until he heard from you, thinking that you might want to clear up the question of the legality of the proclamation making the monument before any money was paid over." Pinkley's report was received and promptly responded to by Acting Director Arno B. Cammerer who replied,

The question brought up by Dr. Farrow as to the right of the President to create the Pipe Spring Monument has been looked into. The act of Congress making appropriations for the Bureau of Indian Affairs for the fiscal year ending June 30, 1920, approved June 30, 1919, (41 Stat., 3), contains the following provision: 'That hereafter no public lands of the United States shall be withdrawn by Executive Order, proclamation, or otherwise, for or as an Indian reservation except by act of Congress.' I think this is what Dr. Farrow had in mind, as there is no similar reference in the Indian appropriation acts for 1921 or 1922. This provision does not prevent the setting aside of a national monument within an Indian reservation by Presidential proclamation as contended by Dr. Farrow, and this is the informal view of the Chief of the Land Section of the Indian Bureau with whom this matter was discussed this morning. Had this question been involved it would have unquestionably have been brought out by the Indian Office at the time the Pipe Spring proclamation was prepared. The monument proclamation was approved by the Indian Office before it was submitted to the Secretary to the President for signature.

In closing I want to congratulate you on the manner in which you handled this rather difficult situation, as the solution worked out is probably the very best that could be accomplished in view of the circumstances.⁴⁷⁸

Conflict over water was not the only source of antagonism between the Indian Agency and the Heatons. Since late 1922, the Office of Indian Affairs had pushed for the Attorney General to take legal action to force removal of unlawful fencing on reservation land. Documentation suggests that efforts toward this end intensified during 1924. On June 25, 1924, in response to a request from the Attorney General, Assistant Secretary of the Interior Francis M. Goodwin sent him a description of the lands within the Kaibab Reservation which were unlawfully fenced by "Charles C. Heaton, et al, of Moccasin." Two areas were fenced, each enclosing a certain amount of cliff. Goodwin stated that the area enclosed by the fencing, including the cliffs, was "something in excess of 4,000 acres of land.⁴⁷⁹ As mentioned earlier, the fencing was removed in 1925.⁴⁸⁰

Pipe Spring's Purchase and Belated Transfer to the Federal Government

Thanks to Frank Pinkley's adroit handling of the concerns of area cattlemen and of the Office of Indian Affairs in their meeting of June 9, 1924, the process of sale and transfer of the Pipe Spring property to the federal government proceeded during the summer of 1924. In early July Director Mather sent Charles C. Heaton a copy of the June 9 memorandum, which had been approved by Mather and by the Commissioner of Indian Affairs. He again reassured Heaton with regard to the cattlemen's access to water and also instructed him to forward the legal paperwork to President Grant:

When the time comes, should it be necessary to run the water off the Indian Reservation, sufficient of the public land can be set aside as a public water reserve. The Commissioner of the General Land Office has this in mind and there should be no reason to worry about this as at the proper time it will be taken care of if the present permit is not renewed.

If you have not forwarded the signed quitclaim deed and other papers to President Grant, Salt Lake City, I trust you will now do so in order that the money in payment for your rights can be turned over to you. This will clear up the final steps so as to enable the Government to take over the control of the monument. I am sending a copy of this letter to President Grant, together with a copy of this agreement so he will understand the situation.⁴⁸¹

President Grant took the step of having the withdrawal of pending application to locate the Valentine scrip recorded by the Mohave county recorder on September 29. Heaton either received payment, or the Church's promise of payment, by mid-October 1924. By October 15, Mather had received the quitclaim deed for Pipe Spring. On that date, he transmitted the quitclaim deed and an abstract of title to Secretary Work. In his cover letter to the secretary, Mather mentioned,

...Although the title to this land was never passed on by the Solicitor, the records of the Service show that Attorney John P. McDowell of your office has examined the abstracts and prepared the form of quitclaim, which was executed by Mr. Heaton.

There is also attached, duly executed by Mr. Heaton, form of withdrawal of pending application to locate the Valentine scrip certificate No.E-013 (Prescott No. 3), which was also prepared by Attorney McDowell. It is understood that a refund, in the form of the return of the original Valentine scrip, will be made to Mr. Heaton and interested parties upon completion of the withdrawal of the pending application to locate.

It is respectfully recommended that the quitclaim deed herewith be accepted and that the original Valentine scrip be transmitted to this office for return to the interested parties.⁴⁸²

One week later, Secretary Work acknowledged and accepted the deed, returned the paperwork to Mather, and informed him that he had directed the Commissioner of the General Land Office to return the Valentine scrip certificate to Charles C. Heaton.⁴⁸³

Once again, the infamous Valentine scrip of Daniel Seegmiller resurfaced to take on a new role in the Pipe Spring story. Apparently, when the Pipe Spring deal was underway with the Park Service, no one knew exactly who in the Heaton family had the Valentine scrip. While relating the story of his grandfather Jonathan Heaton and the Valentine scrip to historian Robert H. Keller in 1991, Leonard Heaton recalled, "And when that scrip was finally located... they had to hunt all over the country.... Finally one of my father's aunts found the scrip in her papers and Mather had it turned over to the Federal Government..."

As mentioned earlier, Charles C. Heaton executed a quitclaim deed to the United States of America on April 28, 1924, "for and in consideration of the sum of four thousand dollars." No money changed hands between the federal government and the Heatons as part of the deed transfer. In fact, later documentation suggests that not even the Church had paid the Heatons by the time the family turned over the quitclaim deed to the National Park Service.

At some point either prior to or during the sale and transfer of Pipe Spring to the federal government, President Grant was made aware that the Valentine scrip in the Heaton family's possession had cash value and that it could be sold once Charles C. Heaton dropped his application with the General Land Office. Once the federal government owned the land and the Valentine scrip was returned to the Heatons, the scrip could be sold and profits distributed to reimburse the purchasers of the Pipe Spring property. What is unknown is whether this plan was hatched before individuals had made their contributions to the Pipe Spring land purchase, or if the idea occurred to President Grant or others afterward. Evidence of this plan is contained in a letter written 10 years after the monument's establishment by President Grant to Leonard Heaton. In October 1933 Leonard Heaton wrote Grant requesting a list of contributors and the amounts they had given toward Pipe Spring's purchase. He wished to honor them by creating a photo display at the fort, said Heaton. Grant responded to Heaton's request, sent the list of donors to him, and also made the following reference: "By the way, we have secured a

return from what is known as the Valentine scrip that could be planted on ranches. We originally paid for this ranch and the scrip was in the hands of Lafayette Hanchett and we had hoped to sell it and return some of the contributions made by the different people."486

In addition to showing the \$1,000 each donations by the Union Pacific System and the Church of Jesus Christ of Latter-day Saints, the list sent by President Grant to Heaton showed the following individual donations were made: Stephen T. Mather, \$500; Heber J. Grant, \$250; J. M. and M. S. Browning, \$200; and G. M. Whitmore, \$150. In addition, ten men contributed \$100 each (S. R. Inch, J. William Knight, William R. Wallace, Thomas Kearns, Herbert S. Auerbach, E. O. Howard, Lafayette Hanchett, L. S. Cates, William W. Armstrong, John C. Howard, and William H. McIntyre) and one man contributed \$50 (Russel L. Tracy).⁴⁸⁷ None of these small donors was among the cattlemen's association whose stock watered at Pipe Spring. The total figure of contributions, not including that portion donated by the Heatons, was \$4,250. This means that the Heatons contribution toward the asking price of \$5,000 was \$750. President Grant's list indicates that interest amounting to \$293.11 accrued between the time of collection of these funds and March 10, 1925. While it is not certain, this suggests that March 10, 1925, was the date the Church sent payment to Charles C. Heaton, with accrued interest. If so, they were paid about six months after Heaton forwarded the legal paperwork to Mather in Washington, D.C.

As late as 1926, the Church was endeavoring to straighten out matters pertaining to the Valentine scrip so that it might reimburse contributors to the Pipe Spring purchase fund. That year attorney Robert A. Burns of Salt Lake City wrote Jonathan Heaton the following letter:

In behalf of Mr. Lafayette Hanchett and Heber J. Grant and others, I am endeavoring to straighten out the title to the Valentine scrip which is to be placed in the name of Bankers Trust Company, as Trustee, for the purpose of selling the same and distributing the proceeds of such sale to the original subscribers to the fund which was raised for the purpose of purchasing Pipe Springs from you, and transferring it to the United States Government. As you are aware, the abstract of title of this scrip does not show a satisfactory conveyance from Daniel Seegmiller to yourself and we are now preparing to have an administrator reappointed of Daniel Seegmiller's estate for the purpose of having such a conveyance executed. We are endeavoring to have Mr. William W. Seegmiller consent to act as such administrator. However, before he will consent he wants to be assured that the course we are taking is being taken with your consent and for this reason I ask you to write me stating that it is satisfactory to you that such administrator be appointed for Daniel Seegmiller's estate for the purpose of having a conveyance executed conveying the Valentine scrip from Daniel Seegmiller's estate to Bankers Trust Company, as Trustees.⁴⁸⁸

Here the trail of information regarding the Valentine scrip ends. Additional research might establish if and when the funds from the sale of the Valentine scrip were distributed to the

"subscribers" of the Pipe Spring property sale as well as the exact date the Heatons received payment. It is enough to know that the troublesome scrip may have hastened President Grant's ability to find contributors toward the campaign to establish a memorial monument at Pipe Spring, or to have at least provided a belated reward to those who responded to the Church's proverbial "call."

As for the day-to-day caretaking of the new monument, as mentioned earlier, John White was temporarily retained after its establishment. In November 1923 White wrote to Mather and asked if the Park Service wanted him to stay at Pipe Spring beyond the end of the year. Mather communicated his reply through a letter to Charles C. Heaton that he wanted White to stay at least until the summer of 1924 although the Park Service could not pay his salary. In mid-March 1924, on learning that White was receiving only \$25 a month pay from the Heatons, Mather offered to personally supplement White's pay, writing Heaton, "With regard to Mr. White, I note that you are paying him \$25 per month and, as I wrote you before, I will be glad to add to this \$25 a month for March, April, and May. I will send him a check at the end of each month and would like you to send me his initials so that I can make the check out properly."489 White or Heaton must have also asked Mather if White could continue to plant a garden, for the director also informed Heaton, "I have no objection to him putting in a garden again down below the road where he had it last year, but will expect him to keep the grounds around the house [fort] in a clean and presentable condition."490 In June 1924 Superintendent Pinkley (who did not think White was an appropriate choice as permanent custodian) proposed that Charles C. Heaton be made custodian with White retained as a laborer. Assistant Director A. E. Demaray opposed the idea, knowing that Heaton represented the cattlemen's water rights interests and fearing he might provoke Dr. Farrow into taking a more extreme position on the Indians' behalf. Yet he could propose no alternative. So White remained and, with a meager appropriation for the 1924-1925 fiscal year, began initial restoration work under the supervision of Charles C. Heaton.⁴⁹¹

Area Developments, Late 1924

On October 9, 1923, Mather wrote a letter to Union Pacific's President Carl Gray regarding the company's developments in southern Utah and northern Arizona. While the Commission of Fine Arts in Washington, D.C., had approved plans for the company to build a hotel in Zion, Mather believed that the company's desire to build a large hotel on the floor of Zion Canyon would be "a grave mistake." He outlined the manner in which he wanted to see regional developments proceed:

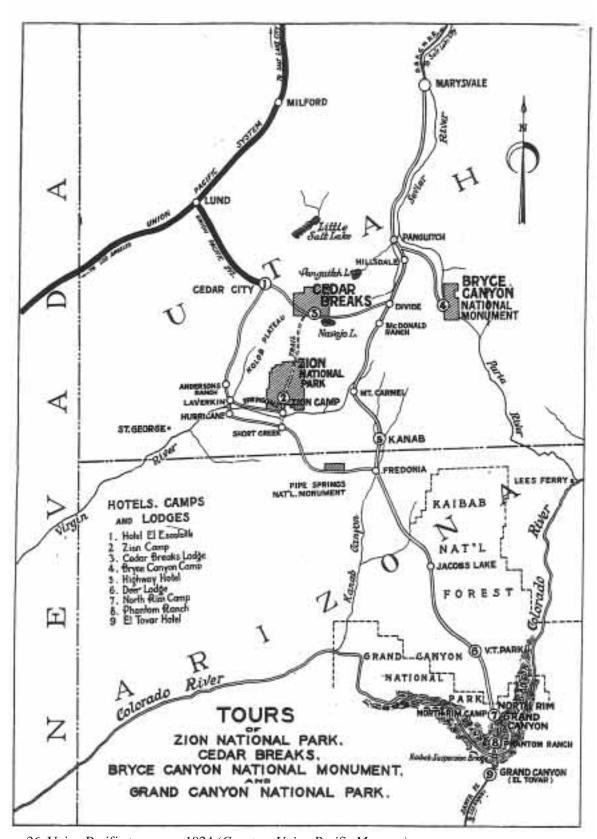
I believe that the orderly way to do this is to develop the present [Zion] camp to a high degree and, if necessary, build a small hotel to house thirty or forty on the beautiful bench two hundred feet above the camp with its fine outlook on the whole canyon. This would then make it possible for you to concentrate on the transportation system, which is going to be a costly investment at best, and also to make the camp development at the North Rim of the Grand Canyon which is so badly needed. Then, too, at the town of Kanab there should be something in the way of an inexpensive hotel to take the place of the very poor

hotel which is not giving service and which is going to militate against the whole circle travel. I think too you should put in a lunch station at Pipe Springs, which we are going right to work to restore to its original basis and intend to make a very attractive spot. Just such an excellent man as you have at the Zion Camp, who is giving a far better service than Wylie ever gave, would be an ideal one to have at Pipe Springs.

It may be a little late to shift around, but I have now made four trips into this country, have studied the situation in the light of my experience in the last eight or nine years with all the National Parks, and am confident that I am on the right track in making these recommendations. I might say that Secretary Work... agrees with my point of view.⁴⁹²

Ultimately, the Utah Parks Company abandoned their plans for a large hotel and opted for a central building with small cottages. 493 Zion Lodge and cottages were under construction in 1924, completed in time for the 1925 season. What is interesting to note about Mather's above reference to Pipe Spring is his suggestion that Union Pacific develop a lunch stop facility there and hand-pick their own man to run the operation. Mather was still counting on his excellent working relationship with Union Pacific to provide much-needed visitor services at this very convenient point for a rest stop. In the midst of their crossing a particularly monotonous section of Arizona Strip desert to reach the Grand Canyon, the oasis-like quality of the fort and its ponds and the sight and sound of the running spring water would provide a welcome respite to visitors traveling on Union Pacific's tour buses as well as to individual auto tourists. Their \$1,000 contribution toward the purchase of Pipe Spring was evidence of UP's interest in having the site made available to their tours as a rest stop. As events would show, however, Union Pacific wasn't disposed to comply with Mather's suggestion to sink any additional money into Pipe Spring development. Company officials cared little for the uninspiring Hurricane-Fredonia route and had long decided to route their buses across Zion National Park to Mt. Carmel, then directly southward to the North Rim, eliminating Pipe Spring National Monument from their circle tour entirely. They were only biding their time until the completion of the new road. With such plans on the table, why should Union Pacific invest money in a lunch stop at Pipe Spring, even if it was going to be "a very attractive spot"?

The 1924 travel season marked the official beginning of Union Pacific's circle tour which included stops at Cedar Breaks, Zion National Park, Pipe Spring National Monument, Kaibab National Forest, the Grand Canyon's North Rim, and Bryce Canyon National Monument. At this time, the complete tour was still seven days long. Travelers riding in one of UP's new fleet of motor coaches left Zion on the morning of the third day of the tour and arrived at Pipe Spring about four hours later, conveniently at 12:30 p.m., just in time for a leisurely lunch and restroom break. Thus in 1924, by virtue of its location on Union Pacific's tour route from Zion to the Grand Canyon's North Rim, Pipe Spring National Monument received an influx of tourists destined for neighboring scenic attractions. Advertised in Union Pacific brochures, depicted on their maps, listed as a scheduled tour stop, the new monument's future in 1924 appeared very bright indeed.



36. Union Pacific tour map, 1924 (Courtesy Union Pacific Museum)

Meanwhile, Utah state road crews were constructing several shortcuts in 1924 for travel use. Perhaps the most important was the Rockville cutoff to Short Creek, later renamed Colorado City.⁴⁹⁴ Completed in 1925, this short section of road eliminated the westward trip from Zion back to Hurricane in order to then travel eastward toward Pipe Spring and the North Rim.⁴⁹⁵ It would shorten the travel distance from Zion to Pipe Spring by 30 miles.⁴⁹⁶ Not surprisingly, the \$40,000 steel truss bridge spanning the Virgin River (constructed 1924-1925) was partly financed by a \$5,000 contribution from Stephen Mather.⁴⁹⁷ In April 1924 Mather telegramed Union Pacific's D. S. Spencer, "I fully understand Utah situation and will take full responsibility for getting cut-off road built."⁴⁹⁸ Mather appeared determined to get tourists to the North Rim via the Pipe Spring route and to make the trip as enjoyable as possible.

In mid-July 1924, the Annual Conference of the Western Highway Association was held in Yellowstone National Park. Two sessions held in conjunction with the conference were called especially to consider plans for the further development of the trunk line roads to the southern Utah parks. Attendees included Governor Mabey, Lafayette Hanchett, officials from the Bureau of Public Roads (Deputy Chief Engineer L. I. Hewes, District Engineer B. J. Finch), the National Park Service (Superintendent Horace Albright, Chief Civil Engineer George E. Goodwin), Utah State Road Commission (Henry H. Blood, Henry W. Lunt), as well as State Highway Engineer Howard C. Means and Randall L. Jones. Among the decisions made at this meeting were the following: the Utah State Road Commission agreed to spend \$30,000 on the Rockville cutoff road from the Virgin River Bridge (then under construction); a road survey was to be conducted on the proposed road from Zion National Park to Mt. Carmel; the National Park Service agreed to spend \$300,000 on the construction of the Zion-Mt. Carmel road; and Deputy Chief Engineer Hewes of the Bureau of Public Roads authorized expenditure of \$30,000 of U.S. Forest Service funds to build and surface the road from Fredonia to the Kaibab National Forest.⁴⁹⁹ The construction funds for the Zion-Mt. Carmel road promised by Albright and Goodwin were contingent on Congressional approval of the budget for park improvements, an appropriation estimated to be \$7.5 million.⁵⁰⁰

Meanwhile, by the fall of 1924, Union Pacific's "Sell 'em Utah" campaign was in full swing. In late November the *Salt Lake Tribune* reported that \$200,000 was to be spent by the company during 1925 to advertise southern Utah's scenic wonders by the issue of 100,000 high-class booklets with colored illustrations of Utah's scenic attractions.⁵⁰¹ In addition, there would be advertising in east and west coast newspapers and national magazines. The article described Utah Parks Company developments at Cedar City, Bryce Canyon National Monument, and Zion National Park. Forty-two rustic cottages had been completed at Bryce Canyon, and another 42 cottages of similar design were under construction at Zion. Transportation facilities for the 1925 season "will be greatly enlarged and improved with the purchase of forty, twelve-passenger automobile buses..." ⁵⁰²

All in all, remarkable development had taken place in southern Utah from 1923 until the end of 1924. A railhead for tourists had been constructed to transport visitors to Utah's scenic south, two new monuments had been created, hotel and other lodging accommodations had been either completed or would be by the 1925 season, and considerable progress had been made in improving the state's network of roads. Road officials had recommended a route from Zion to Mt. Carmel and the National Park Service promised to fund its construction. Its completion would further cut down the travel time between scenic attractions and enhance the scenic component of the Utah Parks Company's tours. Also worthy of mention, an incredible system of trails had been constructed in Zion National Park "destined to bring fame to Zion as a wonderful trail park," stated Mather in his annual report.⁵⁰³ Mather now looked toward future development at the North Rim of the Grand Canyon. Toward this end, the Park Service Director would once again rely on his close alliance with Union Pacific. All of these events bore on the history of newly created Pipe Spring National Monument. Still, no permanent caretaker had been chosen and there was no money to pay one. Until funding could be found for the nascent monument, Pipe Spring would remain as it had been for many years, a quaint place to pass by or to stop on one's journey from one scenic area to another.

Part III - The Monument's First Ten Years

Area Developments

During its first decade as a national monument, from 1923 to 1933, Pipe Spring continued to be affected by developments taking place in national parks to the north and to the south. From 1924 to 1930, Pipe Spring was included on the Utah Parks Company's circle tour of Zion, Cedar Breaks, Bryce Canyon, and the Grand Canyon's North Rim. During those years tour buses regularly made scheduled lunch and rest stops at Pipe Spring. Motorists traveling in private automobiles also traveled the route from Zion to the North rim via the Rockville shortcut, passing by Pipe Spring. The event that proved most significant in Pipe Spring's history, in terms of visitation, was the completion of the Zion-Mt. Carmel Highway in Zion National Park.

Zion National Park

On April 9, 1924, Congress authorized appropriations of \$7.5 million over a three-year period for construction of roads and trails in the national parks and monuments. The Interior Department appropriation act of March 3, 1925, carried an additional \$1.5 million



37. Utah Parks Company buses lined up at Cedar City depot, ca. 1928 (Courtesy Union Pacific Museum, image 8635)



38. Tourists boarding buses at Cedar City, ca. 1928 (Courtesy Union Pacific Museum, image 8634)

for road construction in national parks. The new funds were immediately available, providing added impetus to the park road program. The Bureau of Public Roads conducted the survey for the Zion-Mt. Carmel road in September 1925. In March 1925 the completion of the 220-foot steel bridge that spanned the Virgin River and the regrading of 15 miles of road beyond the bridge at Rockville shortened the distance from Zion to the North Rim by 30 miles. Tourists and others heavily used the Rockville shortcut for about five years prior to the completion of the Zion-Mt. Carmel Highway.

The 1925 season was a significant one at Zion. It was the first highly advertised season, bringing 16,817 visitors - more than twice the previous year's visitation. The Utah Parks Company was ready by May 15 with its new two-story rustic lodge and 46 guest cottages. (The lodge was enlarged and an additional 15 cottages were built in the spring of 1926.) A new fleet of motor buses transported tourists from the railhead at Cedar City to Zion. Transportation to other scenic areas was provided by another subsidiary of Union Pacific, the Utah & Grand Canyon Transportation Company, whose motor fleet was also new. By the 1926 season, visitation at Zion had increased another 30 percent, enabling the Utah & Grand

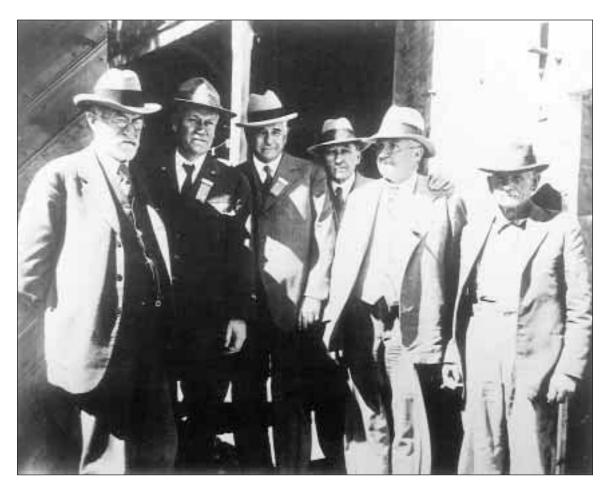
Canyon Transportation Company to maintain daily bus service to the North Rim via the Rockville shortcut.

In fiscal year (FY) 1927 Congress approved base plans to develop adequate road and trail systems in the national parks to modern standards which called for the ultimate expenditure of \$51 million, in addition to \$9 million previously appropriated. In FY 1928 Congress increased the authorization for park road construction from \$2.5 million annually to \$5 million annually.504 It was during 1927 that construction work on Zion National Park's 25-mile road to Mt. Carmel began. This road, with its milelong tunnel through solid sandstone, is considered one of the greatest pieces of road construction in the country.⁵⁰⁵ Named the Zion-Mt. Carmel Highway, the highly scenic road was dedicated and opened to general traffic on July 4, 1929, with National Park Service Director Horace Albright serving as master of ceremonies.⁵⁰⁶ Utah's Governor George H. Dern presented the formal dedication speech, and a chorus of 30 men from St. George furnished musical entertainment. The new road finally made Zion National Park directly accessible from the east. Visitation rose from 33,383 in 1929 to 55,297 in 1930, an increase of 65.6 percent.⁵⁰⁷ Another event that occurred at Zion National Park in 1930 was an expansion of its east and south boundaries through an act of Congress on June 13, 1930, adding 17,900 acres to the park.

The Grand Canyon's North Rim

For the most part, no development took place at the North Rim of the Grand Canyon until the mid-1920s. Before that time, the vast majority of visitors went to the Canyon's South Rim where both administrative and tourist developments were concentrated. There was a Wylie camp at the North Rim in 1919 (as there was at Zion National Park) but little else. By 1922 stage trips were available every other day from Lund and Marysville alternately, to Cedar Breaks, Bryce Canyon, Zion, and the North Rim of the Grand Canyon. In 1924 plans were tentatively outlined for Park Service facilities that called for development of a water system and construction of several ranger cabins at Bright Angel Point, as well as area road and trail developments. Director Stephen T. Mather favored tourist accommodations at the North Rim to be camps rather than hotels: "This area should be kept exclusively for the benefit of nature lovers and for those who are willing to forego such conveniences as room with bath in order to visit it." It would not remain so primitive.

During FY 1925 surveys were completed for the installation of water development at Bright Angel Point on the North Rim. A ranger cabin and support buildings were constructed. In 1925 visitation to the North Rim was up 110 percent over the prior year. Camping at the North Rim was limited in 1925 and 1926 because water sources had yet to be developed. Poor roads in southern Utah and northern Arizona also played a part in limiting travel to the North Rim. Finally, funds were authorized for use in FY 1927 to develop a water system at the North Rim. Water from two springs was to be collected and pumped to a tank at Bright Angel Point, then distributed by gravity to nearby campgrounds.



39. Officials at Pipe Spring, en route to the dedication of Grand Canyon Lodge, September 1928. From left to right: Heber J. Grant, Stephen T. Mather, Carl R. Gray, Utah Senator William King, Harry Chandler, and Jonathan Heaton. (*Pipe Spring National Monument*)

In 1927 the boundaries of Grand Canyon National Park were changed, adding 51 square miles of the Kaibab Forest on the north. Also that year, a government contract was awarded to Utah Parks Company to construct a lodge and cabins at Bright Angel Point. The Company had already purchased the Bright Angel Camp from Elizabeth McKee, operating it during the 1927 season. Construction of a new lodge at Bright Angel Point at the North Rim began during the winter of 1927-1928. Leonard Heaton noted in his journal for the month of January 1928, "Large UP trucks pass every day for the Grand Canyon or back for Cedar City." Heavy rain in early February made the road from Zion to Fredonia so soft and muddy that Heaton reported, "Two UP trucks four days on the road from Hurricane, Utah to Fredonia, Arizona, 65 miles." By May Heaton reported tourists were starting to come through on their way to the North Rim, in addition to heavy freight traffic: "Lots of trucks passing hauling freight to the Grand Canyon for the UP. Also lots of tourists coming, on an average of six cars a day." 515

On September 14, 1928, the Utah Parks Company dedicated its new Grand Canyon Lodge at Bright Angel Point. An entourage of officials, most of whom were important

in the creation of Pipe Spring National Monument, stopped at Pipe Spring en route to the dedication of the new lodge. A photograph taken at Pipe Spring that day shows Church President Heber J. Grant, Director Stephen T. Mather, Union Pacific's President Carl R. Gray, Utah Senator William King, *Los Angeles Times* Publisher Harry Chandler, and Jonathan Heaton, patriarch of the Heaton family and prior owner of Pipe Spring (see figure 39).⁵¹⁶

At about the same time as the completion of Grand Canyon Lodge, the Kaibab Trail was completed to the North Rim, making it possible to travel by horse from the South Rim to the North Rim in one day instead of the two days previously required. By 1929 the Utah Parks Company added five, four-room deluxe cabins to the lodge complex at the North Rim. During the 1929 season, the Grand Canyon Lodge and cabins were open from May 28 to October 6. The company reported a very successful season in their first year of operation at the North Rim. The opening of the North Rim to tourists was a very important advance. To some, the North Rim was more attractive than the South Rim and much less congested. The road to the North Rim from Utah is of great scenic beauty, through the aspen and pine forests of Kaibab Plateau. Travel between the north and south rims of the Grand Canyon, as well as general park-to-park travel in the Southwest, was soon greatly facilitated by the completion of a steel bridge which crossed the Colorado River at Lee's Ferry. The Navajo Bridge opened on June 15, 1929.

Bryce Canyon National Park

A congressional act of February 25, 1928, increased the area to be included in Bryce Canyon National Monument and changed its name to Bryce Canyon National Park. The new park contained 22 square miles and was overseen by the superintendent of Zion National Park. Under an agreement reached with Union Pacific, the company's private holdings were deeded to the federal government. State lands within the area were exchanged for other lands outside the park boundaries.

Visitation to Bryce Canyon during FY 1929 was 21,997. (By contrast, Pipe Spring National Monument had an estimated 24,883 visitors that year, and Zion National Park 33,383.⁵¹⁷ The completion of the Zion-Mt. Carmel Highway had an immediate and positive effect on Bryce Canyon's visitation, which increased in 1930 to 35,982, an increase of 63.5 percent over 1929.⁵¹⁸ All the efforts to improve roads and promote southern Utah's parks appeared to be successful, for Zion's visitation too had more than doubled since 1925. Improved driving conditions, advertising, and the growing popularity of the automobile contributed to a significant increase in the number of visitors to national parks and monuments by the end of the 1920s. While increased visitation to southern Utah and northern Arizona sites had been a chief goal of Mather and Albright, rapidly rising numbers of visitors created additional strain on Park Service caretakers and on scarce financial resources. More people meant demand for more camping space, more parking space, more toilet facilities, and – perhaps most challenging in the Southwest – more water.

Presenting Pipe Spring National Monument

At the time of the monument's creation in 1923, the Pipe Spring site was visually unimpressive. The fort was in poor condition, particularly the lower building. Its primary associated structures, the east and west cabins, were in total ruin. Moreover, in the eyes of Park Service officials, the landscape was littered with an extensive array of old fences, corrals, and cattle troughs (the latter consisted of both wooden troughs and open, mud-ringed pools of water which served as watering holes). What is now referred to as the old monument road, previously called the Kaibab Wagon Road, had long passed through all of this, but now that Pipe Spring was federal government property, practical as well as aesthetic concerns immediately arose and needed to be addressed.⁵¹⁹

First, the Park Service wanted the visitor to the historic site to have a pleasant and memorable visit, as well as a safe one. As monument boundaries were unfenced, local horses and cattle criss-crossing the road to reach watering troughs spelled obvious trouble for motorists. In addition to addressing issues of safety, the Park Service also wanted to make all the sites as attractive as possible. During this period park managers were concerned with making all of its sites within the system "presentable" to the public, as NPS Historian Linda Flint McClelland documents so well in *Presenting Nature: The Historic Landscape Design of the National Park Service, 1916-1942.* 520 It is true that "beauty is in the eye of the beholder," for while a typical cattle ranch landscape may have appeared practical if not attractive to a cattle rancher, its looks were unappealing to urbanized Park Service officials from Washington, D.C., Union Pacific officials, and to most tourists that hailed from a city of any size. Thus there



40. Pipe Spring fort, ca. 1925. People in gateway are unidentified. (*Pipe Spring National Monument, neg. 355*)

were two immediate problems to be tackled: 1) the cleanup of the landscape and 2) the restoration of the buildings. Because the first task required only unskilled labor and very little expense, it was the easiest and earliest one undertaken.

The "Boss" Directs First Improvements

The monument was one of many southwestern sites administered by Superintendent Frank Pinkley of Southwestern National Monuments, headquartered from October 1923 through August 1943 in Coolidge, Arizona.⁵²¹ Nicknamed "Boss" by the many men who served under him, Pinkley held this position from October 25, 1923, until February 14, 1940. He was in charge of general supervision of 18 national monuments in the Southwest, including serving as custodian for Casa Grande and Tumacacori. The appropriation for general repairs to historic and prehistoric ruins in all the monuments under his care was \$5,000 for FY 1925; the same amount was requested for FY 1926.

By 1923, with the exception of three monuments that required a full-time custodian (Petrified Forest, Aztec Ruins, and Casa Grande), all custodians at other monuments served for the nominal salary of \$12 per year. Their federal appointments and nominal salary gave them the legal authority to make arrests and otherwise enforce Park Service regulations.⁵²² During the 1926 travel season, visitation to the southwestern national monuments totaled just over 200,000.⁵²³ With only a few full-time custodians and a dozen part-time and temporary men staffing the monuments, Pinkley reported in 1926 that the work force manning these sites was "totally inadequate." Things would get worse. During the 1929 travel season, the number of visitors to the southwestern national monuments rose to nearly 300,000.

During the summer of 1925, Pinkley set about directing the landscape work at Pipe Spring to make the historic site and its setting more presentable to the public. Local laborers under the supervision of the monument's first caretaker, John White, did the initial work.⁵²⁵ Work involved neither historical research nor an attempt to recreate the fort's historic period landscape. Rather, changes followed guidelines dictated by Park Service aesthetics and by officials' desire to provide unobstructed views of the fort and its two associated cabins. The fact that the fences, corrals, and troughs were an integral part of the fort's operations as an historic cattle ranch was not considered, only that they were "eyesores" and posed hazards for tourists. (But then, cultural landscapes as an historic resource would not even begin to be a Park Service concern for another 60 years.)

On August 1, 1925, Pinkley described to Director Mather the cleanup operations at Pipe Spring conducted during all of July:

We took out a hundred yards of fence on the line as one approaches from the west. This was a fence made of cedar posts planted as closely as they would stand some eight or nine feet high and they obscured the foreground as one approached the place. We replaced this with a barbed wire fence, which is quite inconspicuous as compared with the other.

We put in a cattle guard at the west entrance to the monument.

The main buildings at Pipe Spring, as you know, have long been used as headquarters for this whole cattle range and the place was all messed up with corrals and fences. We took out a cedar post fence just west of the spring which was spoiling the view to the southwest; a fence around the pools which was an eyesore and is no longer needed; two corrals to the east of the buildings which were in the foreground as one approached from the east; a fence and gate which connected these corrals with the fence around the pools; and the big corrals where the roundups have been held these last forty years and would have continued to be held if we had not removed them. We changed the line of about 200 yards of other fence, throwing it behind trees and bushes and hiding it almost completely.

We rebuilt 100 yards of rock wall around the two pools and graded two sites, one at the east and one at the west end of the pools for automobile campers. We built a terrace wall 30 feet long and from 1 to 3 feet high in line with the front of the big building and in front of the spring.⁵²⁶

An interesting aspect to the work revealed by Pinkley in the above report is that the removal of these ranch-related structures was needed not only to clean up the landscape, but also to change the habits of the local cattle ranchers. Given their practical nature and the site's historical use, the ranchers might have been inclined to continue to use any thing left standing. Probably as a concession to Charles C. Heaton, the two main corrals at the southwest corner of the monument were left standing. These had been used up to the time the site became a monument for branding and separating cattle during semi-annual roundups.

East Cabin Repairs; A New Caretaker Is Hired

The restoration of Pipe Spring's three historic buildings would take a great deal of physical effort, a good many years, and considerable funding to accomplish. It was a process that proceeded bit-by-bit, as labor and funds slowly chipped away at a very long list of needs. Even prior to the monument's creation Director Mather was aware that restoration funding was essential to the plans he had envisioned for the site. It was this vision that facilitated his selling the Pipe Spring idea to Union Pacific and Church officials who in turn helped bankroll the property's purchase.

In September 1923, just over one year prior to the Park Service's acquiring title to the Pipe Spring tract, Mather directed Frank Pinkley to go to the site and assess restoration costs. Mather told Pinkley the fort's large wooden gates needed to be rebuilt so the courtyard could again be enclosed, much of the woodwork needed to be replaced, and the roof required new shingles. Since the July 1924 incident between Dr. Edgar A. Farrow and Charles C. Heaton had soured Congressman Louis Cramton on providing restoration funds for the 1924-1925 year, Mather suggested that Pinkley try to solicit money for restoration and for road improvements from Arizona's Governor George W. P. Hunt. Pinkley went to Pipe Spring early the following month (October 1923). After consulting with Charles C. Heaton, Pinkley reported to Mather that he thought the west cabin



41. Southwestern National Monument's Superintendent Frank Pinkley inspecting southwest corner of fort; undated, ca. 1923-1925 (*Pipe Spring National Monument*)

should be restored first since it would provide experience with local materials and labor.⁵²⁸ Due to the scarcity of money, restoration of the fort had to be put on hold until the fall of 1924.

On October 15, 1924, Mather was able to get \$300 set aside for restoration work at Pipe Spring. Pinkley assigned John White the task of gathering together native building materials for work on the west cabin. During the winter of 1924-1925, White obtained logsandstone to be used in its reconstruction. He also cleaned out 20 loads of dirt from the cabin's two rooms and removed rock that had been dropped in the cabin's chimneys by vandals.

Pinkley evidently changed his mind about wanting the west cabin reconstructed first, for he spent the month of July 1925 at Pipe Spring overseeing reconstruction of the east cabin. Separate As mentioned in Part I, Anson P. Winsor's family lived there while the fort was under construction, reportedly sharing it on occasion with Joseph W. Young who was charged with overseeing the fort's construction. Its use from 1872 to 1886 is unknown. During the Woolley period of occupation (1886-1891), the cabin was reportedly used as a chicken house and stable. The cabin was allowed to deteriorate between 1895 and the time the property was acquired by the Park Service, being used as a cow and pigpen



42. East cabin and corrals, ca. 1924 (Pipe Spring National Monument, neg. 936).



43. West cabin and meadow, ca. 1924 (Pipe Spring National Monument, neg. 4110)

by those who lived at the fort. When Pinkley inspected the cabin in 1924, it was missing its roof, the back wall, and part of the front wall. Using most of the \$300 appropriation he had for the monument that year, he had the east cabin reconstructed, using the materials gathered the previous winter by John White. For the roof, pine stringers were used to support peeled cedar posts fitted tightly together. It was then covered with cedar bark and dirt. At the time, funds were insufficient to replace the hand-hewn window and doorframes. These were installed the following year.⁵³¹

Earlier, in the spring of 1925, White notified Mather that he needed additional income and requested a five-year permit from the National Park Service to operate a gas station at the monument. Mather wrote Pinkley that he disapproved of the idea. Pinkley then informed White that while he would not be given the permit, he would be allowed to sell his farm products to tourists. Next, White asked if he could use the ground floor of the upper building to prepare and serve hot lunches to tourists, but it was determined that the floors of those rooms were too deteriorated for such use. Unable to make sufficient income to support his family at the monument, White left the monument in the fall of 1925.⁵³²

Soon after John White left his custodial job at Pipe Spring, Mather made the decision to offer the position to C. Leonard Heaton, oldest son of Charles and Maggie Heaton of Moccasin. Heaton had worked as a monument laborer under Pinkley at some point during 1925.⁵³³ After attending high school in St. George, Leonard may have attended



44. Restored east cabin, undated, probably late 1920s (Courtesy Union Pacific Museum, image 39023)

several of years college at Brigham Young University; when in Moccasin, he worked for his father.⁵³⁴ At age 24, Leonard Heaton assumed his new position on February 8, 1926, riding to work his first day on a black horse named "Snake."⁵³⁵ Although he acted as the monument's caretaker, Heaton's first job title was laborer.⁵³⁶ In addition to pay of one dollar a month, his appointment included permission to operate a gas station and store, a request earlier refused to White.⁵³⁷ In a 1991 interview, Leonard Heaton stated that the permit was issued and the store was opened in February 1926. While his memory is most likely correct regarding when the permit was issued (which coincided with his hiring), documentation suggests it took a number of months for the small store and gas station to be constructed. In a letter report for the month of April 1925 to Director Mather, Superintendent Pinkley wrote, "Mr. Leonard Heaton is building a service station and lunch stand at the monument. This is a very pleasant stop on the way from Zion National Park to the North Rim of the Grand Canyon, but it is a very interesting relic in itself. We hope in time to rebuild this fort and furnish it with old-time Mormon furnishings."⁵³⁸

The only photographs known to depict the store are taken from such a distance that it is impossible to give a detailed physical description of it (see figure 67). A number of later maps label it as a stone building. In a recent interview with Moccasin resident Grant Heaton, Heaton said he thought the store was about 12 x 16 feet.⁵³⁹ It appears to have had a rectangular footprint with a flat roof. A 1933 service permit stated the store occupied a plot of land "not to exceed 30 feet square," located south of the fort ponds. That permit was issued to Grant Heaton (rather than Leonard Heaton) for one year at a cost of \$3 per year beginning January 1, 1933.⁵⁴⁰ Grant Heaton, who was only 15 years old at the time the permit was issued, stated in his interview that Leonard and Edna ran the store and that he only helped them out on occasion.⁵⁴¹

The arrangement with Leonard Heaton - a nominal salary, a place to live, and a permit to operate a small business - was not particularly unusual for the National Park Service during that period.⁵⁴² In fact, the store (or "lunch stand," as Frank Pinkley called it) and gas pump served a real need that Mather had earlier identified when he suggested to President Carl Gray that Union Pacific set up a lunch station at Pipe Spring, and which the latter declined to act upon. As long as tourist traffic followed the Hurricane-Fredonia route to the Grand Canyon's North Rim, a gas station also filled a need of the traveling public.

In a 1991 interview, Leonard Heaton described his first meeting with Director Mather. He believed it took place in 1925, after Mather had taken his teen-age daughters on a trip to Yellowstone National Park. Heaton recalled of their meeting: "Well, he was just an ordinary man. He didn't seem to show any superiority about anyone else... [and] he was easy to talk to. He told me what he wanted to do but he said to use your best judgement in putting it back like it was." The last time Leonard Heaton saw Mather was in September 1928, when the director was traveling through the area for the September 14 dedication of Grand Canyon Lodge at the North Rim. On November 5, 1928, Mather was stricken with paralysis. Due to ill health, reportedly "brought on largely through his

steadfast devotion to his work," Director Mather resigned his position on January 8, 1929.⁵⁴⁴ After 15 years of service to the National Park Service, he died on January 22, 1930, at the age of 63.

Horace M. Albright was appointed Mather's successor, serving as director until August 9, 1933. Even before Mather's death, Heaton had more contact with Albright than with Mather. Albright's early instructions, in Heaton's words, were as follows: "As custodian now, your first job is the traveling public and then your next job is to keep the place clean and presentable. Then if you've got any time left, it's yours." Heaton would have little spare time, because in 1923 Mather and Pinkley started to put together a list of jobs to be undertaken at Pipe Spring which only grew longer after he was hired.

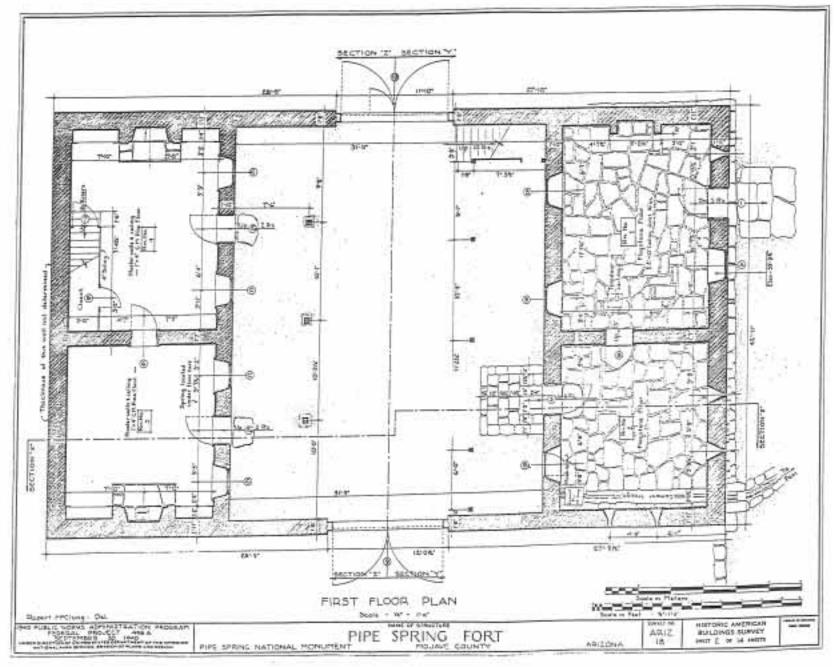
Repairs to the Interior of Pipe Spring Fort

In early 1926, after the appointment of Leonard Heaton as caretaker, Pinkley turned his attention to restoration needs of the fort. Repairs to the fort's interior were made first. The ground floor of the lower building had two rooms. The east room was in poorest condition. The floor was dirt, little plaster was left on the walls, and there was no glass in the window. Heaton replaced the glass in 1926. In early 1926 Pinkley also instructed Heaton to replaster the walls of the east room (which Heaton did later that year) as well as the walls of the west room, traditionally referred to as the "spring room."

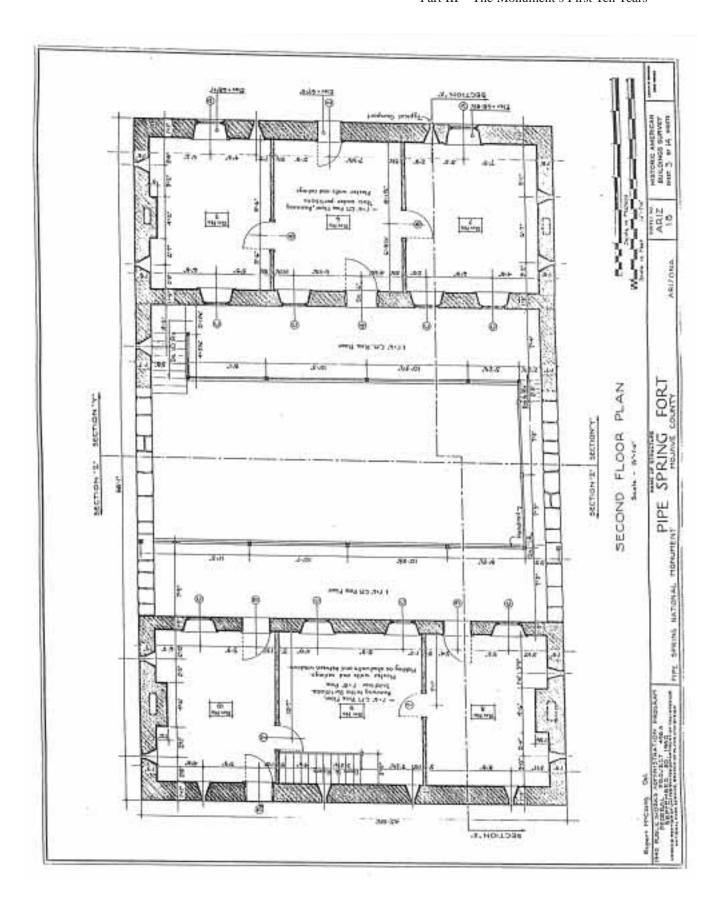
In his report to Mather for FY 1926, Pinkley reported on activities at Pipe Spring: "Repair work here is going on at the rate of about \$500 per year and we have already made a great improvement in the looks of the place." 546 In a later report made at the end of the 1926 travel season, Pinkley wrote to Mather, "Local interest is high here and all the neighborhood is interested in the repair and restoration work." 547

The spring had not flowed into the spring room since its diversion out of the fort by Edwin D. Woolley, Jr., in the late 1880s. It had originally flowed under the floor of the west room of the upper building, across the courtyard, then into the spring room. The cooled room was used during the historic period for making and storing cheese and butter. The restoration of spring flow into this room was thus linked to the condition and repairs required in the upper building. Heaton worked on this project over the winter of 1927-1928, reporting to Pinkley on March 1, 1928, "I have just completed the work of finding the [spring] water and getting it to run through the lower house. It is about three times more work than I thought it would be."548

The ground floor of the upper building also had two rooms (what are now the parlor and kitchen). Its floors were in very deteriorated condition, particularly those in the west room. Moisture from the spring that passed under the ground floor had wreaked havoc on its joists and floorboards. When Heaton removed these floors in August 1926, he found water standing on the ground beneath them. He believed that if he redirected the spring water across the courtyard and into the lower building, this would solve the moisture problem of the upper building. He proceeded to restore the spring flow into the spring room by using



45. Floor plans of the Pipe Spring Fort, 1940 (Courtesy NPS Technical Information Center)



a two-inch pipe to conduct the water into the room where it entered a two-foot square concrete box. It exited the box into a wooden trough in the room. From the spring room it flowed into a rock-filled ditch which carried it to the ponds.⁵⁴⁹

Because he thought he had solved the moisture problem, Heaton made no attempt to waterproof the kitchen and parlor floors when he replaced them. He simply replaced them with tongue-and-groove pine boards that he nailed to new 2 x 8-inch joists. No measurements were taken of the floor as it was removed since it was one installed by Charles C. Heaton in 1910 (most likely due to earlier moisture problems). As it turned out, moisture problems would be a recurring problem in the upper building's first floor, particularly in the parlor.

Floors proved to be less problematic in the lower building. After the Park Service acquired the Pipe Spring fort, there was uncertainty over whether the original floor of the east room of the lower building had been wood or stone. (This room would later serve as Custodian Leonard Heaton's office for many years.) In 1926, because of the absence of a sill, Pinkley suspected the original floor was stone and directed Heaton to lay a rock floor, which he did during March and April of 1927.⁵⁵⁰ (Eight years later Florence Woolley recounted there had been a wood floor when she lived at the fort.) The west (spring) room, on the other hand, retained much of its rock flooring. Only a few rocks were missing several feet from the north wall. Heaton and his father, Charles, replaced these in March 1927. The rock used to replace or repair the floors of both rooms came from Bullrush Wash, located seven miles south of the monument.⁵⁵¹

The only part of the fort in fair condition was the second floor of the upper building. While it had some warped floorboards and its walls were in need of plaster, its condition was far better than the building's ground floor. It contained three rooms, two of which (the center and east rooms) were created by the addition of a partition in about 1874.⁵⁵² The floors and the wall plaster were thought to be original, according to Leonard Heaton.⁵⁵³ This area had only to be cleaned before it could used. Once Heaton had replaced the floors of the ground level of the upper building, the entirety of the upper building was useable as living space.

In June 1926, probably just after the combination store/gas station was built (and just in time for the busy tourist season), Heaton married Edna Robertson of Alton, Utah. Leonard and his 18-year-old wife made their first home in the fort. The couple moved to the fort "with a horse, two dogs, table, no chairs, a few dishes, and bedding," Heaton later recalled.⁵⁵⁴ Precisely where they lived in the fort varied from time to time, depending largely on the condition of the fort's various rooms. The upper building was in far better shape than the lower one, thus was the couple's first living area. Heaton later recalled,

We lived in the upper building because the lower building wasn't fit to live in. It was just used as a camp house and the porch on the south side is [was] torn out, and the partitions of the walls upstairs had been torn out to make [camp fires]... campers used to come in there in the winter time and they would go

and knock a board out rather than go and cut a piece of wood. ... And when I got the lower building back into shape, we moved from the ground floor of the upper building into the second story of the lower building. 555

Leonard's younger brother, Grant Heaton, spent quite a bit of time at the fort as a youth in the late 1920s and early 1930s. By this time, Heaton had repaired the floors of the first floor of the upper building and the family was able to temporarily expand their living area, for Grant Heaton recalled in a 1997 interview that Leonard and Edna slept in the west room of the upper building's ground floor (now the parlor). The east room of that level was presumably used as the kitchen. According to Grant Heaton, when the family lived in the upper building, the three upstairs rooms were the children's bedrooms. Leonard's office was in the east room of the ground floor of the lower building. The west room (the spring room) was used for storage and as a "cold room." The living arrangement changed in early 1930, with the family moving to the lower building.

At the time the National Park Service acquired Pipe Spring, the second floor of the lower building was one large open space, missing two of its interior partitions. The existing walls needed plaster and a number of floorboards were badly warped and needed to be replaced. Due to budget constraints, it would be another three years before Heaton could do anything with this area. In December 1929 Heaton hired a laborer to plaster the walls. In January and February 1930 he rebuilt the two missing partition walls. In early March Heaton reported to Director Albright,

We have moved into the upstairs of the lower house this month and find it much more agreeable and pleasant. Also I am glad to say that the upper house will be opened for the people to go through and see this year, with the exception of the west upstairs room which I intend to use to keep some of my things in.⁵⁵⁸

In November of that year, Heaton reported to Pinkley, "I am getting along pretty good with the repair work this fall; will have practically all of the repair work on the main building [fort] done this month." The Heatons continued to live in the upstairs rooms of the lower building and did so without electricity. During the summer of 1933, Leonard Heaton asked Pinkley for permission to install electric lights in their living area of the fort. Pinkley said there were no funds that year to purchase a light plant (electric generator) and doubted the Heatons wanted to go to that expense personally. It is doubtful that the family ever had electric power while living in the fort.

Floods would plague Leonard Heaton and family throughout his years of monument caretaking. Heavy rains, usually in August and September of each year, created floods that cut a wide, diagonal swathe through the monument from its northeast to southwest boundaries. Below is an undated photograph of one such flood, probably taken either in 1926 or 1927 (prior to the first replacement gates being hung on the fort). The tiny figure in front of the fort may be Edna Heaton with what appears to be a line of laundry hanging between the fort and east cabin.



46. Flood at Pipe Spring National Monument, ca. 1926-1927 (Pipe Spring National Monument)

Repairs to the Fort Exterior and West Cabin

During Frank Pinkley's July 1925 visit to Pipe Spring, he directed Heaton to begin certain work on the fort's exterior. Mather had wanted the great gates entering the courtyard to be replaced, but before that could be done the stonework that had once surrounded the gates needed to be rebuilt. Heaton and his father Charles began restoring the stonework for the courtyard gates in February 1928, completing the east gate reconstruction in March. Mork on the west gate began in late April and was presumably finished in May. Grant Heaton was about 11 years old and living at the fort at the time. He remembered watching the older men work on the stonework, using two 12 x 12-inch beams to hold the rock in place. The father and son had found and used the original stones stacked neatly near the fort. In June 1928 Heaton reported, The old fort here at the monument is beginning to look inviting now as we are getting it pretty well cleaned up and fixed up. In August 1928 Leonard Heaton completed and installed three of the four gates. The fourth gate was presumably hung shortly thereafter.

Pinkley had also directed Heaton to repair or replace the verandas on the upper and lower building. The one on the lower building was in especially poor condition. Heaton began work on the south veranda as soon as lumber arrived in September 1926 and completed work by April 1927, replacing everything except the center support post. He also replaced missing balusters and the flooring of the north veranda, but retained the original floor joists. ⁵⁶⁶



47. West cabin ruins, ca. 1924 (Pipe Spring National Monument, neg. 3585)



48. Landscape and view of meadow and west cabin, ca. 1924 (*Pipe Spring National Monument, neg. 4055*)

The two-room west cabin, built in 1870 to house the workers who constructed the fort, is believed to have been used later by cowhands working at the Pipe Spring ranch until the mid-1890s after which it probably stood vacant. By the time the Park Service acquired Pipe Spring, the cabin had no roof and only partial walls.⁵⁶⁷ It was not until 1929 that Heaton was given the job of reconstructing the west cabin. For the most part, Heaton reconstructed the cabin based on Pinkley's ideas. The walls were rebuilt to their original height, repointed, and window frames were installed. Pine stringers were used to support thecedarpoleroof covered with cedar bark and dirt. On July 20, 1931, the west cabin roof beam broke and part of the roof caved in, requiring repairs.

Correspondence from March 1930 indicates that some consideration was given at that time to erecting two Park Service-designed buildings at Pipe Spring, neither of which was constructed. Zion's Landscape Architect Harry Langley drew up plans for a tool and implement shed and a comfort station. Langley conferred with both Zion's Acting Superintendent Walter Ruesch and the Park Service's Branch of Planning and Design in San Francisco about the matter, advising that native stone be used "with as little dressing as possible and set up with plenty of mortar in a very irregular manner." The rustic style described by Langley, which was highly characteristic of the period, was a far cry from the comfort station ultimately built at Pipe Spring during Mission 66, discussed in a later chapter. Why these two buildings were not constructed after the initiation of public works programs at Pipe Spring is not known. There simply may have been insufficient funds to address more than the monument's most pressing needs. Visitors continued to use pit toilets for years, while Heaton eventually constructed his own storage shed for tools.

So Much To Do, So Little Help

For the most part, Heaton seems to have kept busy with restoration and repair tasks assigned him by Superintendent Pinkley. On occasion, he completed his list of jobs and had to await further instructions. In early September 1929 Heaton reported, "I have not done anything on the monument the past two months, hoping that Mr. Pinkley would be up here and help plan what is to be done this year." Heaton had certainly not been idle for the two months, since the summer of 1929 appears to have been one of the busiest ever at Pipe Spring in terms of visitation.

Congress finally approved funding for the custodian's position at Pipe Spring for fiscal year 1932; it took effect July 1, 1932. Beginning then, Heaton was paid \$75 per month.⁵⁷⁰ He had no staff, even seasonal, until 1953.

In addition to special projects assigned to him by Pinkley, routine work for Heaton by the 1930s, as well as in later years, included the following activities: trap setting, bird banding and record keeping; sweeping the fort and cleaning its windows (a constant chore, thanks to a "dirty west wind"); constructing or cleaning out irrigation ditches; watering vegetation; routine building maintenance; controlling weed growth (foxtail, milkweed, wild morning glory, thistles); tree planting and trimming; cutting dead trees; raking leaves and trash; cleaning fort ponds; journal keeping; writing monthly reports; gathering and pressing plant specimens; cleaning out pipelines to springs; cleaning out

cattle guards; trapping gophers (who ruined the meadow and irrigation ditches, and ate tree roots) or plugging up their holes; replastering fort walls and ceilings when old plaster fell down; maintaining the monument road (hauling gravel, filling holes, grading); clearing the road of snow; cutting up firewood for campground or monument use (or hauling it from local sawmills); hauling coal from local mines for fuel; keeping museum collection records; maintaining or repairing the Park Service truck; preparing cost estimates for rehabilitation and other projects; keeping track of expenses; preparing fire reports; cleaning the camping areas; and last but not least, giving guided tours of the fort. Heaton also often came to the aid of motorists whose cars became stuck in mud holes on the abysmal approach road to the monument.

For many years, Heaton regularly worked six days a week for the monument. In addition, Heaton was active in local church and community activities. He usually tried to take one-half or all of Sunday off to attend church or to tend to personal chores. However, at least in 1932 Heaton reported, "In the summer my wife and I take turns in showing the visitors [the fort] on Sunday, that is she goes to church one Sunday and I the next."⁵⁷¹ The Heatons also had a farm in Alton, Utah. Leonard used most of his approved leave from the monument to plant or cultivate wheat there. He was also heavily involved with the Boy Scouts of America, and sometimes took leave to attend their official gatherings. From time to time, Heaton recruited the boy scouts to do small jobs on the monument such as weeding, paying them \$2.50 per day. The boys used the money to attend July summer camp.

In addition to maintaining the monument and tending their store and gas station, Leonard and Edna Heaton began raising a family that grew over the years to number 10 children, seven boys and three girls. Five children were born between June 1927 and April 1934 (Maxine, Clawson, Dean, Leonard P., and Lowell); two more were born in 1936 and 1939 (Sherwin and Gary). The last three (Olive, Claren, and Millicent) were post-World War II births.⁵⁷² All of the children were brought up on the monument, with exception of the years the Civilian Conservation Corps camp was at Pipe Spring (1936-1940). During those years the family lived in Moccasin.⁵⁷³ The children attended elementary school in Moccasin and later, high school in Fredonia. Years later, a proud father wrote that seven of the children attended college, two served in the Korean War, and five went on Church missions.⁵⁷⁴

Heaton had little or no money to pay for help for much of his long tenure at Pipe Spring. Members of both his immediate and extended family were recruited to help with some of the day-to-day tasks. Edna Heaton in particular helped out with giving tours, as did many of the children as they grew older. Leonard Heaton often expressed dismay in his journal whenever visitors (or worse, a surprise visit by Park Service officials) caught him in dirty or disheveled clothing while performing routine chores. He once wrote, "I try to be halfway presentable when doing outside work to take the visitor through the fort." 575 As hard as the outdoor monument work was, Heaton far preferred physical labor to working in the office writing reports or filing

correspondence, chores he distinctly disliked. Edna often helped out with the filing, keeping museum collection records and helping her husband prepare plant specimens.

The summers were always a very busy time for the Heatons – maintaining the monument, supplying and running the store and gas station, in addition to taking care of personal chores (his farm in Alton, fruit trees and gardens at Pipe Spring, household tasks, and large family). The winters, on the other hand, could get boring. In December 1932 Heaton reported "the worst blizzard that I have ever seen in this country raged, causing death and misery to many birds and animals and much discomfort to us humans." ⁵⁷⁶ During that month Heaton wrote headquarters,

I find that I have got more time than I know what to do with on my hands this winter and I am going to ask you to give your opinion on some of the things that I have thought of to do here, not only to keep me at work but to make the place more attractive and educational. A few of my ideas are as follows:

- 1) Fixing up the lower east room of the lower house for use as a registering office and [with] literature of the Monument, also having some of the relics on exhibition in this room.
- 2) Label all of the furniture as to when it was made and who now owns it.
- 3) Make hitching racks or tie posts for the horses instead of letting horsemen tie [them] to the trees.
- 4) Collect plants and insects found on the Monument, giving them the common and scientific names.
- 5) Make a nature garden of all plant life with signs telling of the kinds of plants.
- 6) Make a lookout point on the top of the hill back of the Fort showing the interesting places in the development of this country.
- 7) Have a museum of the live reptiles to be found on the monument.
- 8) Make a sign of shrubbery, 'Pipe Spring National Monument,' for the airplanes so they can locate this place while flying past.⁵⁷⁷

(This last item suggests the custodian might have been suffering from a sense of neglect, as few visitors - including official ones - stopped by to see the monument, partly due to the distance of the site from U.S. Highway 89.) Heaton assured Pinkley there would be very little cost involved in these projects as he planned to use materials on hand. He wrote that with few visitors, there was little work for him to do and he would enjoy doing these projects. The conscientious custodian added, "Another reason that I want to do it is that when a man gets a government job it is said he can lay around and do nothing. I don't want it said that I did not try to earn the salary that the Government is paying me for staying here." 578

As a rule, the workload was far heavier in the summer than during the winter. As the weather worsened, very few visitors came by the monument. Less seems to have been done by either the Indian Service or Mohave County road crews to maintain the roads once the travel season ended, making travel conditions over the winter worse than

usual. Heaton tried to keep the fort clean and to stay warm in his office, located for many years in the east room of the lower building's ground floor. During this time he usually read or wrote in his journal (often expressing boredom during the winter months), trapped birds, updated bird and museum records, maintained the monument road, repaired museum furnishings, worked on woodwork and floors, or painted inside areas of the fort. The arduous work of cleaning out irrigation ditches and watering vegetation could begin as early as February each year, depending on the weather. Winter brought the area's children a new recreational opportunity: children skated on the meadow pond when it was sufficiently frozen.

Heaton worked very hard to learn as much as he could about the natural history of the area, both for the purpose of sharing this knowledge with visitors and in order to keep official monument records. Heaton faithfully recorded bird sightings in his journal.⁵⁷⁹ Heaton also noted numerous reptiles on the monument.⁵⁸⁰ Monument reports over the years have many references to finding rattlers on the monument, particularly during the driest months. In July 1931 Heaton reported, "The rattlesnakes seem to be taking a liking to this place this summer, as I and others have killed some on the monument, and some of them are [as] large as I have ever seen, one having 14 rattles and a button, and measuring over three feet long."⁵⁸¹

In addition, Heaton studied the monument's plant life, seeking outside professional assistance in identifying any kinds of plants he was unfamiliar with. He often sent specimens to Boyce Thompson Arboretum in Superior, Arizona, for identification. As Heaton became more familiar and appreciative of the area's native plants and animals, he also became increasingly protective of those on the monument. His resolve to "preserve and protect" both natural resources and cultural resources would be severely put to a test after the Civilian Conservation Corps camp was established at Pipe Spring.

The job of tending to the monument as well as trying to make a living on the side could be quite a juggling act for Heaton at times. He reported to Pinkley in June 1932,

Just a line to let you know that I am still at the place and trying to take care of it and do the farm work and make a living. Have been spending most of my time getting in crops and gardens and have somewhat neglected the care of the fort, but I am about through with the farm work.... There has not been very many people here this month.⁵⁸²

The Heatons' Store, Gas Station, and Lunch Stand

The Heatons' little store and gas pump were situated on the south side of the old monument road, directly below the fort and its ponds.⁵⁸³ The newlyweds ran the service station and store "for about five years," Leonard Heaton told historian Robert Keller in 1991, suggesting he had been given a standard five-year permit to run their business.⁵⁸⁴ During this period it was the family's primary source of income.⁵⁸⁵ From all accounts, Edna was as involved in running the store as Leonard, making and serving sandwiches and attending to tourists' needs.⁵⁸⁶ Gasoline was hauled in from Cedar City in 55-gallon iron barrels. Supplies to stock the store were also bought in Cedar City. Heaton later recalled that

the dirt road that passed by the monument had very little travel at first, "maybe one a day on average." Travel slowly increased over time, reaching its peak in 1929, with most visitation occurring during the summer months. From the small number of cars passing by the monument, routinely reported by Heaton, it is hard to imagine that individual traveling motorists could have generated very much income. It would have been the lunchtime stops by the Utah Parks Company's tour buses that provided the Heatons' "bread and butter."

Tourists were not the only people to patronize the little store, however. The Kaibab Paiute from nearby Kaibab Village, few of whom had automobiles to drive to Fredonia or Kanab, also came to the Heatons' store at Pipe Spring to buy groceries and candy. In fact, recent oral interviews with two tribal elders suggest that visits to the store were their earliest and strongest memory related to the monument. Born in 1921 and a little boy at the time the store was at Pipe Spring, Kaibab Paiute elder Warren Mayo remembered the store. Mayo smiled as he spoke of trips to the store he had taken long ago with childhood friends to buy candy, one of whom is another tribal elder, Leta Segmiller. Segmiller, born in 1925, also recalled visiting the Heatons' store as a little girl. In a 1997 interview conducted by ethnographer David E. Ruppert and the author, Segmiller remarked,

...it was just across from the fort they had that gas station and that store there. And my uncle and I used to go down there [in his car].... That was in 1931, when I was about six years old, that he used to take me down there to buy crackers and candy and all those junk food. That's when I knew there was - he used to tell me about it, that there was a fort there, and that the white man built [it] to defend themselves. He used to tell me that.⁵⁸⁹

Segmiller laughed as she spoke of the store. She was asked if she had visited the store very often and replied, "Yeah, we used to go down there all the time, because we could buy things there to eat. They had mostly everything in there, so we wouldn't [have to] go to Fredonia or Kanab."590 She also recalled,

And they also had that old-fashioned gas pump that used to stand in the front [chuckles]. People used to buy gas there then, you know, 'cause it was so far to Kanab from here, and Fredonia. So that was good when they had that gas there for the cars. You didn't have very many cars. You know, very few people owned cars around here then.⁵⁹¹

Segmiller was asked if she ever went inside the fort when she was a little girl and, if so, did she remember anything displayed? She replied:

Well, he had the grinding stones, and all those little things that go with it. And I think the reason why the [Indian] kids didn't go there was because he had skull in there - you know, an old skull that used to sit in the window. And I went in there with my uncle twice, because he said I needed to see what was in there, when I'd keep asking him about the water. And he showed me where the water was coming from, that was flowing out [of the spring]. And I would never go back in there

myself, because there was a skull sitting in there. You know the Indian people are not supposed to associate with old skulls – you know, Indian children, when we were little. And I used to be scared of that, and I thought maybe I'd have nightmares, if we, you know, continued all the time to go down there.

.... Oh, they didn't want us to go there, because they said that the white man took the skull out of the ground, or robbed the Indian out of his head. You know, stories like that, so we would [not] go in there.... There were displays, you know, along the wall of the fort, and you could see all the things like old bowls. I always wondered what happened to those Indian bowls they had in there.⁵⁹²

Segmiller wasn't the only one who remembered seeing the skull in the fort as a child. In the mid-1970s, when she was middle-aged, Segmiller worked briefly at Pipe Spring demonstrating traditional Paiute crafts. She was hired by the Park Service to do so, along with another Kaibab Paiute woman, Elva Drye. Drye too was haunted by childhood memories of the skull in the fort window, according to Segmiller:

....when me and Elva were working there, we went up there and Elva [was] talking about that skull [laughs], you know, [about] how scared she used to be. She said, 'I don't want to go in there, because there's a skull sitting in the window.' So we went up there, and it wasn't in there then. They must [have moved it] because when Mr. Tracy – she was asking Mr. Tracy about the skull. He said he didn't know where it went to. They were like that.⁵⁹³

Segmiller was referring to Superintendent Bernard Tracy, who oversaw the monument in the 1970s.

Pipe Spring as A Gathering Place

Pipe Spring has served as a gathering place at many different points of its history. Before and after becoming a national monument, it was a natural gathering place for ranchers. For a number of years after the creation of the monument, cattlemen held meetings at Pipe Spring, such as the one Leonard Heaton noted in a 1930 report to Pinkley: "August 24th, the cattlemen of this region met here to discuss their range problems as to cattle thieves, cattle sales, and etc. They brought their wives and we had a fine crowd."594 The following year, Heaton reported: "Our visitors this month have been mostly cattlemen and riders gathering cattle for sale: there have been about 40 men here the last few days handling about 3,000 head of cattle. It sure seems like the good old cattle days [to] have them back."595 Heaton reported the low spirits of cattlemen that October 1931, due to low prices and "not many buyers." In August 1932, 16 Arizona Strip cattlemen met at Pipe Spring to discuss "their troubles and the range conditions."596 Similar meetings were held throughout the 1930s. Heaton seemed to look forward to the fall cattle roundups. Heaton wrote in September 1932, "The cattlemen are now gathering the steers for sale and in a few days this place will be alive with cowboys and cattle, reminding one of the old days when Pipe Spring was a cattle ranch."597

The year 1933 was the first ever that Heaton could recall the region's annual fall roundup not being based at Pipe Spring. Usually cowboys rounded up several thousand head of cattle each fall, camping at Pipe Spring the last three or four days of their effort to get steers to market. That year ranchers had to graze their cattle on other parts of the range, the grazing was so poor in the area. In October Heaton reported that only 100 or so were at Pipe Spring and that "they were cattle that are pastured [in the area] most of the time." He mused that the corrals in the monument's southwest corner "will soon be all that will be left to remind us of what was once a common sight here in the past."598

The monument provided a congenial atmosphere for social gatherings. In October 1931 the Young Men's and Young Women's Association of the LDS Church held a Halloween party at the fort. Heaton reported on the success of the event, which had 67 attendees: "Whites and Indians all joined in and had a very good time.... After all the 'spooky' places were visited, we all met in the upper house and danced and ate watermelons." This is the only Halloween party reported to have been held at the monument. On May 20, 1940, Heaton reported the Stake M Men and Gleaner Girls had a moonlight party and supper at the monument. Summer outings by boy scout troops and Beehive Girls from Kanab, Fredonia, and Moccasin were also common through the years. 600 School groups often made outings to the monument over the years, especially toward the end of the school year. Most children came from schools in Kanab, Fredonia, Moccasin, Hurricane, and Short Creek, but at times they came from as far away as St. George. The Kaibab Indian Reservation's school children also made outings to Pipe Spring. School groups usually toured the fort, picnicked, and/or played ball while at the monument.

Numerous other social groups, as well as Church and civic organizations, held outings at Pipe Spring throughout its history as a monument. Heaton reported that during the month of July 1933 eight parties were held at Pipe Spring with a total attendance of 171.601 Group picnics, dances, chicken roasts, barbecues, and swimming parties were common. The site was also frequently used for family reunions over the years. Also quite common (particularly in the 1940s and 1950s) were Easter weekend outings at the monument.602 On May 17, 1941, Heaton reported a group of men and boys from Kanab Stake "came out to get acquainted with early history of their ancestors that settled southern Utah and northern Arizona."603 Many people had family ties either to the site itself or to the area, and coming back reminded them and their children of a shared history. Others enjoyed the old buildings, the ponds, and the shade of large towering trees. These had long been there. What was much newer by the later 1920s was the absence of fencing, corrals, and water troughs from the immediate fort area and the growing expanse of green irrigated meadows, gardens, and fruit trees.

The Greening of Pipe Spring

Under the care of Leonard Heaton, the 40 acres that comprised Pipe Spring National Monument was quickly being transformed from a cattle ranch into a little Garden of Eden. The Park Service's 1925 removal of landscape features associated with cattle ranching was just the first of many landscape changes that took place at Pipe Spring after it was made a national monument. In fact, Leonard Heaton's tenure as the monument's

caretaker was just the beginning of the gradual "greening" of Pipe Spring. While a certain amount of both native and introduced plant growth had always been associated with the presence of the springs and ponds at the site, it was only after the site became a monument that planting and irrigation significantly increased. Prior to that time, water had been used primarily for stock-watering purposes and for domestic consumption. At an unknown date, the Heaton brothers (presumably during their ownership) constructed a pond "just north of the present public campground," Leonard Heaton wrote ca. 1945.604 Built on sandy soil, Heaton reported, it was unsuccessful as a reservoir, for water "soaked out through the bottom."605 In 1926 and 1927 two new ponds (referred to as the upper and lower meadow ponds or pools) were constructed southwest of the fort by Leonard Heaton, apparently with the approval of Mather and Pinkley. 606 They were gravity fed by water from tunnel spring. Grant Heaton reported in 1997 that Leonard built these to irrigate his garden.⁶⁰⁷ Water flowed by gravity to a large grassy meadow where Heaton pastured his livestock, south of these ponds. Heaton's main garden, kept with permission from the Park Service, was located just below the irrigated meadow. (The Heaton brothers' pond and the upper meadow pond were both done away with - or as Heaton put it, "leveled off" - by the Park Service in 1932.608 The ponds' removal coincides with a severe drought in the region as well as with a highly sensitive time of water negotiations between the Park Service and the Office of Indian Affairs, described in Part IV.)

Grant Heaton reported that Leonard and Edna kept horses, a milk cow, some sheep, chickens, ducks, and geese.⁶⁰⁹ In fact, in January 1931 Heaton reported that he had 220 chickens.⁶¹⁰ From time to time, even a few young deer could be found living on the monument.⁶¹¹ A small corral, barnyard, and barn were located northwest of the meadow ponds, just below the monument road. The Heaton family's two chicken houses, originally located east of the meadow, were eventually relocated to a more remote site near the monument's southern boundary, east of the two main cattle corrals.⁶¹²

In early 1926 Heaton planted a few peach trees and some gooseberry and currant bushes on the south side of the field and around the corrals. Later that year he planted more fruit trees and some grapevines. In the spring of 1927, Heaton set out 54 apple and plum trees south of the fort and 25 elm trees to the west along the fence south of the monument road. He also planted 500 grapevines. The main spring provided an ample supply of water which Heaton took full advantage of, cultivating and irrigating as much of the land encompassed by the monument's boundaries as the Park Service would permit.

Other landscape changes took place over the winter of 1927-1928. In December 1927 Heaton worked on improving the approach road west of the monument.⁶¹⁴ Another change related to the safety issue of livestock crossing the old monument road to reach their watering holes. For many years the main troughs and watering holes had been located north of the old monument road and due west of the fort. Grant Heaton reported that cattle for a 10-mile radius would water there.⁶¹⁵ In March 1928 Leonard Heaton reported a change: "The cattlemen have made the water pond south of the road, so the cars will not be bothered by cattle on the highway this summer."⁶¹⁶ In August 1928 Heaton repaired the monument's south boundary fence, which also helped to keep out livestock.

Weather conditions, motorists, and auto campers also made their mark on the landscape. Heaton reported in March 1928 that with the arrival of spring weather, he had 28 campers and an average of 12 cars passing each day. Spring rains, however, brought muddy roads. The next month an average of four cars a day passed the monument. Due to a scarcity of rain in April, the dirt road from Fredonia west to the Utah line was "full of dust and pot holes," Heaton reported.⁶¹⁷ If the truth be told, there was only a rare, totally unpredictable, and small window of time when the condition of the dirt road passing the monument could be called "good," since its state was so subject to weather conditions and infrequent maintenance. In April 1929 motorists encountered a more unusual problem: high winds had created sand drifts four to five feet high south of the monument. Union Pacific had to send its snowplows to clear the road in time for the beginning of its travel season. In July 1929 Heaton wrote, "We are still having dry and windy weather here. No storms as yet, and the roads are getting almost impossible to travel on account of the deep ruts and sand." ⁶¹⁸

Blowing sand and dirt created more than just a road problem. Heaton was continually challenged to keep the stuff out of the fort and to keep the windows clean. "We have had west winds that have drifted the sand and dust about every day," he wrote in the summer of 1929, "so that it has been almost impossible to keep the old fort clean of dirt."⁶¹⁹ One of the most effective ways used to reduce the dust problem around homes in such arid regions is to plant trees or other vegetation, thus Heaton's planting activities also served a practical function in addition to creating a more attractive site for tourists.

Despite the difficulty motorists encountered reaching Pipe Spring because of poor road conditions, auto camping was quite popular at the monument. A report from Pinkley (cited earlier in this section) indicated that in July 1925 he had two areas graded for camping, one at either end of the fort ponds. 620 Most camping took place east of the ponds. The ground to the east of the ponds is considerably dryer due to a seep spring near the west cabin. 621 During every night in June 1929, there were usually two or three cars whose occupants camped at Pipe Spring. 622 The travel season in the region usually ended about mid-September. During the month of October, traffic consisted primarily of deer hunters en route to the Kaibab National Forest. In November 1929 only three or four cars passed by the fort each day; nearly all were local traffic. 623 Even after the opening of the Zion-Mt. Carmel Highway, campers continued to stop at Pipe Spring. At the end of May 1932, Heaton reported, "There has been a total of 43 campers this month, the most I have seen since last fall." 624

"A New Highway...Through a Mountain!"

During the 1929 travel season, Pipe Spring National Monument experienced its highest visitation since establishment. But the winds of change were starting to blow. As mentioned earlier, the Zion-Mt. Carmel Highway was dedicated and opened to traffic on July 4, 1929. The road's impact on both travel past and visitation to Pipe Spring National Monument was nearly immediate for beginning in the 1930 travel season, commercial tours no longer took the road that passed by the monument. Nor

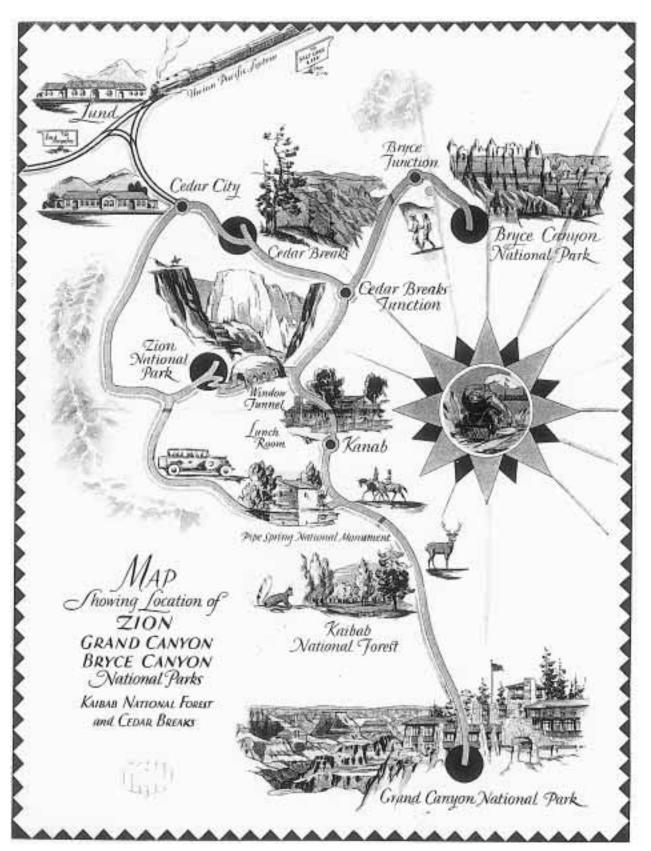
were many private auto-tourists inclined to take the longer and less scenic route, even though the distance from Zion to the North Rim had been reduced by the Rockville shortcut.

Union Pacific published its 1929 maps and promotional literature offering trips to the North Rim via the new highway. Only one trip traveled the Pipe Spring route, a tour of Zion, Bryce, and Cedar Breaks, with the footnote that the Zion road would be taken as soon as it was completed. It offered only a 15-minute stop at Pipe Spring.⁶²⁵ Beginning in 1929, UP's tour scheduled a new stopping place for lunch: Kanab, Utah.

From that year on, all of UP's tours exclusively took the Zion-Mt. Carmel Highway in its park-to-park travel. That year's promotional maps showed both routes to the Grand Canyon. In later years, UP's promotional maps would either show the Pipe Spring route by a very faint line or not show a road there at all. The company's venture with tour buses in southern Utah proved so successful that in 1929 Union Pacific and Northwestern bought out a bus company called Interstate Transit Lines and launched a series of interstate bus routes, soon paralleling all its major rail routes with bus service. By 1931 Utah Parks Company was running 65 buses in its circle tour of southern Utah parks and the North Rim.⁶²⁶



49. Kanab Lodge, ca. 1928 (Courtesy Union Pacific Museum, image 8519)



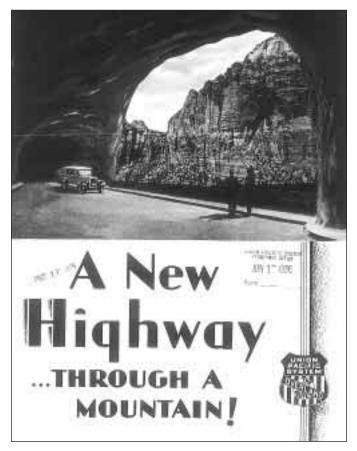
50. Union Pacific promotional map, May 1929 (Courtesy Union Pacific Museum)

Heaton's monthly reports to Pinkley indicate the new road did not impact visitation to Pipe Spring during the 1929 travel season.⁶²⁷ The decline became noticeable, however, by early 1930. At the end of January 1930, Heaton reported, "Very few cars and visitors this month aside from the mail truck. There has not been more than two cars per day this month. This is probably due to the fact that the Zion-Mt. Carmel road is now open to travel."⁶²⁸ Another factor in low visitation that month was most certainly the weather, for one of the worst snowstorms to sweep over southern Utah occurred between January 9-18, 1930.

Still, Heaton's observations about the impact of the Zion-Mt. Carmel Highway on Pipe Spring travel were an ominous sign of things to come or - it might be more accurate to say - *not* to come. For the month of February Heaton observed, "There has been very little travel this month and it has been all local people. The Zion-Mt. Carmel road has been opened to the travel and that has taken the travel from this way."629 Again in March, Heaton reported, "...very little travel this month."630 By summer Heaton still reported low visitation even though road conditions were improved due to rains. He wistfully wrote, "...wish more travel would come this way."631 Things did not pick up in July, usually the heaviest travel month for the region's parks. Heaton's report for July stated, "There is very little to report.... Only one car camped here this month and an

average of one car of tourists per day and only about half of them stop."632 Two years later Heaton reported that visitors who came generally drove out from Fredonia, rather than from Short Creek: "After spending an hour or more here they return to the highway and continue on their way to Grand Canyon, Bryce or Zion National Parks."633

While visitation in Zion rose 65.6 percent the year after the opening of the new highway, visitation figures for Pipe Spring dropped dramatically. From the estimated 24,883 Pipe Spring visitors reported for FY 1929, only 8,765 were reported for FY 1930, a 65 percent drop.⁶³⁴ (The drop corresponds almost exactly with the amount of *increase* in visitation to Zion and Bryce Canyon for the same period.) In 1931 visitation to



51. Cover of Union Pacific's publication on Zion–Mt. Carmel Highway, 1929 (Courtesy Union Pacific Museum)

Pipe Spring dropped to an estimated 2,300; in 1932, only 2,100 visitors came to Pipe Spring.⁶³⁵ Thus in just two years after the Zion-Mt. Carmel Highway was completed, Pipe Spring National Monument experienced more than a 90 percent decrease in visitation.

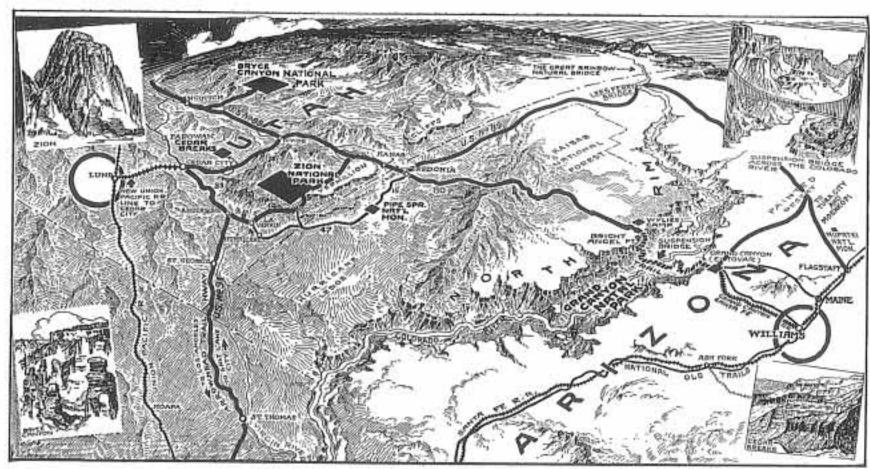
Zion National Park's travel statistics for FY 1930 recorded another marked trend: while the number of people driving automobiles to Zion nearly doubled between 1929 and 1930, the count of those coming by train dropped by about 20 percent.⁶³⁶ As more people took their personal cars on vacation, their destinations and routes were no longer constrained by Union Pacific's planned tours. One would think this would have lessened the impact of the Zion-Mt. Carmel Highway on Pipe Spring, but it did not. Because the spectacular new highway with its milelong tunnel cut through solid rock was a not-to-be-missed attraction in and of itself, its construction resulted in a permanent rerouting of tourist traffic



52. "If it's a National Park..." Union Pacific advertisement, ca. 1930 (Courtesy Union Pacific Museum)

traveling from southern Utah parks to the Grand Canyon's North Rim. Shortly before the 1930 travel season, Union Pacific published a large format, five-page advertising brochure on the Zion-Mt. Carmel Highway, complete with panoramic photographs of Zion scenery taken from the vantage point of the new road. The publication proclaimed that the new \$2 million, 24-mile highway "is one of the most spectacular scenic roads in America, if not the whole world." Also stated that one of the new road's chief advantages was that the shorter distance between parks resulted in a \$15 reduction in the cost of the tour. The amount of driving distance saved, however, completely depended on what parks one was visiting. If one traveled from Zion to Grand Canyon, the new highway was only 18 miles shorter than the old route past Pipe Spring. On the other hand, if one traveled from Zion to Bryce Canyon, a distance of 61 miles was saved. The new road provided an obvious boost to visitation at Bryce Canyon, but then Bryce Canyon had just been elevated to national park status. The new park's visitation doubled between the 1929 and the 1930 travel seasons.

About 1930, Union Pacific's advertising wizards hatched the slogan, "If it's a National Park it's probably on the Union Pacific." By then 13 of the nation's 19 national parks were either directly on UP rail routes or could be conveniently reached by UP service,



53. Sketch map of Southwest Utah and Grand Canyon, 1930 (Courtesy Zion National Park)

such as the Utah Parks Company's bus operations serving the Cedar City tourist railhead. It was most likely a very effective advertising message but carried with it the veiled implication that what *wasn't* on their route perhaps wasn't worth seeing. By the 1940s, a number of UP's promotional maps did not even depict the old route past Pipe Spring and certainly never advertised it, as UP had (by including it in their itinerary) from 1924 to 1929. The fortunes of Pipe Spring, "monument to western pioneers," seemed destined to suffer the whims of tourism. As the demands of motoring tourists (and those who served them) contributed to the monument's establishment in 1923, so did their changing travel patterns lead to near abandonment of Pipe Spring National Monument after 1930.

Union Pacific wasn't the only agency changing its maps. A map of southwestern Utah and northern Arizona included in the general circular for the 1930 travel season, issued by Zion and Bryce Canyon, also indicated that the Zion-Mt. Carmel route was the one to take from Zion to reach either Bryce Canyon or the North Rim. Major routes were depicted in bold, as opposed to the fainter line of the old route that passed Pipe Spring.

At least the Park Service circular that contained this map included a few enticing paragraphs describing the monument:

Pipe Spring, now a national monument, contains the finest spring of pure water along the road between Hurricane, Utah and Fredonia, Arizona, a distance of 62 miles, and some beautiful shade trees, and to travelers it is a welcome oasis in the desert...

Pipe Spring is an attractive place for motorists using the old road to stop and eat lunch... 639

The circular fails to mention that camping was allowed at Pipe Spring, only saying that comfortable accommodations could be had in Fredonia and Kanab. Neither is there any reference to the history of Pipe Spring.

It would not be accurate, however, to view the Zion-Mt. Carmel Highway as the sole reason for the dramatic drop in visitation to Pipe Spring by 1932. Travel statistics to nearly all southwestern national monuments show a marked downward trend after 1929. While a steady increase in visitation was experienced in the late 1920s, this trend began to reverse after the Wall Street stock market crash of October and November 1929. Overall visitation to all southwestern national monuments was at its peak for the 1929 travel year: 567,667. The following year, the figure dropped to 472,095. In 1931 it fell even further to 392,011, representing a 69 percent drop in only two years. One might argue that the Zion-Mt. Carmel Highway caused Pipe Spring's initial 65 percent decrease in 1930, but that the continued decrease in 1931 and 1932 (the other 25 percent drop) was caused by the effects of the onset of the Great Depression.

While the completion of the Zion-Mt. Carmel Highway spelled trouble for Pipe Spring, a road disaster in Zion could just as easily bring about good times again. In September

1932 the road's mile-long tunnel was blocked by a cave-in and was closed for the entire month of October. Heaton reported, "...the contractors on the Zion road had some bad luck by having the tunnel blocked by a cave-in. I don't wish Zion Park any bad luck but their bad road has boomed my travel. It sure puts new life into a fellow after two years of depression in travel to see cars coming and going all hours of the day and night. It is like it was before the Zion-Mt. Carmel Road was opened." Visitation at the monument went from 411 visitors in September to 750 in October with an average of 10 cars per day. By November the tunnel had reopened and visitation was down to 165, mostly local travelers.

Throughout his tenure at Pipe Spring, Leonard Heaton demonstrated a willingness to follow whatever direction he was given by Park Service officials. There were times though, particularly in the early 1930s, that the monument received few official visits. On July 1, 1930, Heaton had to travel to Kanab to meet with Horace Albright, as the director either wasn't inclined or didn't have time to make the 15-mile drive to Pipe Spring on the poor road from Fredonia. At such times Heaton used his own judgment in administering the monument, just as former Director Stephen T. Mather had advised him. Two things began to alter this pattern: 1) the push beginning in 1929 by the Bureau of Indian Affairs to obtain water from Pipe Spring for the Kaibab Paiute, and 2) the launching of President Franklin D. Roosevelt's New Deal programs, most enacted by Congress beginning in March 1933.

Early Interpretive Efforts in National Monuments

By 1923 no definite program had yet evolved for the development of museums in national sites. Mather first experimented with establishing temporary museums in the parks considered most important (such as Yellowstone National Park) to test the popularity of such exhibits among visitors. The results exceeded expectations, both in positive public response and in private loans or gifts of materials for the exhibits. (As no money was available to purchase materials for exhibit, the only way they could be obtained at this time was through loan or donation.) In his annual report for 1923, Mather stated that little, if any, material for museums would have to be purchased with federal funds, "since experience has shown that public-spirited owners of important and valuable materials will gladly donate or lend it to the Government for such exposition."641 In 1925, of the 18 national monuments in the Southwest, only the three monuments with a full-time paid custodian (Petrified Forest, Aztec Ruins, and Casa Grande) had museums. By 1929 three more monuments had added museums (Gran Quivira, Chaco Canyon, and Montezuma Castle.) Artifacts were usually displayed on open shelves or tables and were rarely labeled. Instead the usual custom was for the custodian to show the visitors about the site, explain any exhibits, and answer questions. At the time, this method of a personally conducted tour was considered far superior to exhibit labeling.⁶⁴²

During FY 1926 an educational division was created for the Park Service with its headquarters established at Berkeley, California. (The University of California had a history of cooperative work with national parks, as did the Sierra Club.⁶⁴³) A ranger with field experience was assigned to work there, and put in charge of educational development throughout the system. In the field, park information was disseminated

through guided tours, interpretive signage, lantern slides presentations, public lectures, and writings in magazines and books.

A Monument to Mormon Pioneers

During the late 1920s and throughout the 1930s, Leonard Heaton appears to have received no outside professional assistance with historical research of the monument or help with preparing interpretive talks or exhibits for the fort. Rather, the concern of administrators was to first repair, restore, or preserve the historic structures, then to furnish the fort appropriately as a house museum. No interpretive brochures were available during this period. All information was provided to visitors orally by Heaton or, at times he was away or indisposed, by his wife Edna. Perhaps by default then, Leonard Heaton took on the role of researching, writing, and telling the monument's history, as best he could. The result was an emphasis on Mormon history, especially as it pertained to the Pipe Spring cattle ranch and settlement of the immediate area.

Most of the historical information used by Heaton appears to have been derived from Church and/or local sources, particularly personal interviews. After Pipe Spring was established as a national monument, descendants of those associated with the fort's history often made visits to Pipe Spring. Family reunions and Establishment Day (celebrated at Pipe Spring on or near May 31 each year) were especially rich times for Heaton to gather stories. Heaton conducted informal interviews whenever he could find the time to chat with "old-timers" returning to visit the site or with visiting descendants of people with historic ties to the site. From time to time, Heaton typed up notes from these conversations from memory and retained them in monument files. He also frequently requested knowledgeable "old-timers" to send him copies of diary entries or other documentation in their possession relating to Pipe Spring.⁶⁴⁴

On occasion, the visiting locals knew so much about the history that they wanted to give their own talks to visiting friends. In such cases, Leonard Heaton despaired of getting a word in edgewise. He wrote Pinkley in 1935:

My greatest problem in handling the visitors is when some local friend brings some relative or other person out to see the Monument, and in the enthusiasm to show the place off, they do all the talking. There are lots of interesting points that are missed and some mistakes made which I can hardly get corrected at all. Maybe I don't have the knack of capturing the interest of these local people who think they know all about the place. If there is anyone in the service who can help me out in this matter I would thank them a lot.⁶⁴⁵

Early Fort Exhibits

The biggest impediment to the National Park Service's plan to turn the fort into a house museum was the fact that the Heaton family lived in much of it from 1926 to 1935, leaving just after the Civilian Conservation Corps (CCC) camp was established at the monument. No serious attention was paid to having a professional historian conduct historical research and make recommendations about furnishing the fort until a year

after the CCC left Pipe Spring, when the Heaton family moved into the old CCC infirmary. Prior to that time, like other national monument custodians of this period, Heaton did his best to collect or borrow exhibit materials from local folks to furnish or display in the fort. Superintendent Pinkley reported to the director's office in early January 1931 that, "Leonard is gathering in some of the old things for his museum. That period of the sixties, seventies, and eighties up through that country is an intensely interesting period of western pioneer history." In his October 1933 monthly report to Pinkley, Leonard Heaton wrote, "I am also hunting down any old relic that should be here in our museum, [such] as a telegraph instrument of 1871; the telegraph signs that were here. I just learned that one was at a dry farm in Short Creek; couches; bed; added an old chair this month; guns; got a bullet loader this month; spools that were used to wind thread on as it came off the spinning wheels." 647

There were several problems with this approach to collecting, although it was probably the only option open at the time. (After all, Heaton wanted to have *something* for visitors to look at besides empty buildings and their setting.) First, there were no collecting guidelines and no overall exhibit or furnishings plans for the fort, so Heaton ended up with rather a hodge-podge assortment of artifacts. Second, many objects were on loan, subject to recall at the whim of the owners. On the other hand, many of those items Heaton collected during the early years - particularly those with any direct association with Pipe Spring's history - most likely would not be in the monument's collection today had it not been for Heaton's close ties to the local Latter-day Saint community and his appeals to them for donations. He also tried his best to collect and record information about the items he was given from the donors, many of whom have now been dead for many years. All in all, he took a commendable interest in doing whatever was within his means to accomplish by way of furnishing and interpreting the historic fort and site, with very little assistance or direction in that regard from Park Service headquarters.

Starting in 1933, Heaton created displays in some of the fort's interior rooms. In April or May he "put up a few shelves in the East lower room" on which he displayed local Indian utilitarian objects - "water jugs, baskets, battle axes, battle hammers" metates and grinders - as well as two skulls "found near the fort." (It must have been these human remains that struck fear into the hearts of Elva Drye and Lita Segmiller when they visited the site as little girls, an emotion that lingered long into their adulthood.) To represent the lives of Mormon settlers, Heaton displayed household furnishings and early tools, such as a churn, iron kettle, wood plane, as well as some telegraph wire from the old system.

In a 1997 interview, Leonard Heaton's brother, Grant Heaton, recalled seeing Indian pottery, grinding stones, and arrowheads displayed in the fort during the 1930s.⁶⁵⁰ Leonard Heaton's inclusion of Indian artifacts suggests both his personal interest in Indian culture and history, as well as some awareness of the early role of the region's earliest occupants. Displaying the "primitive" implements and utilitarian objects of the Indians side-by-side with the more technologically advanced "pioneer" objects, however, may have served to reinforce white prejudices against Indian culture in general. The fact that he described some Indian tools displayed as "battle axes" and



54. Leonard Heaton and caged reptile exhibit, September 1933 (*Photograph by Robert H. Rose, courtesy National Archives, Record Group 79*)

"battle hammers" when they may have simply been utilitarian or agricultural implements, indicates he was perpetuating the myth held by most whites at the time that all Indians were warlike, aggressive, and a threat to be quelled and "civilized." To what extent Heaton acknowledged the actual history of the Kaibab Paiute and their often peaceful relations with local white settlers in his talks or exhibits is unknown.

In addition to historical interpretation, Heaton was encouraged by his supervisors and visiting scientists to learn and talk about the area's natural history. Heaton began collecting samples of flowers, grasses, shrubs, and trees, which he and Edna Heaton worked to identify and study. In a 1935 report to Pinkley he wrote, "I have upwards of a 100 plants now and I am sure that I have not them all that grows here."651 Heaton also displayed snake skins and other animal specimens as they became available. Grant Heaton recalled that someone was once driving in the area with a live cougar chained in the back of their pickup. The gate accidentally came open, the cougar fell out, and was dragged to death. Leonard Heaton recovered the animal's body, had its skull mounted on a plaque, and displayed it on a wall in the fort.⁶⁵² Heaton also maintained a popular "living" exhibit for the visitors' benefit, building a compartmentalized cage to house examples of local snakes and lizards. In a hot, dry June 1933, he reported, "We have plenty of snakes and lizards around the place. I am collecting some of them and placing them in cages."653 Heaton released the reptiles in the fall. Visitors expressed disappointment upon discovering the cages were empty during the offseason, he reported.654

In Heaton's monthly report for April 1933, he suggested Pipe Spring was a "monument created to the memory of the pioneers of our own country." ⁶⁵⁵ After reading the report, Assistant Director George A. Moskey wrote to Heaton,

As opportunity is afforded we hope to give Pipe Springs more attention to the building up of the historical program. Not only is the history of this area very interesting in itself, but we look forward to the use of it in interpreting the larger story of the pioneer life of the West. It is fine to note that you are anticipating this sort of thing.⁶⁵⁶

Park Service efforts to research the monument's history, however, were delayed until the early 1940s.

The Utah Pioneer Trails and Landmarks Association's Marker

In late 1930 Zion's Superintendent Eivind T. Scoyen wrote Director Horace Albright that Lafayette Hanchett of Salt Lake City had recently informed John D. Giles of the Utah Pioneer Trails and Landmarks Association (association) that there still remained a \$190 balance in the fund that was raised to purchase Pipe Spring. Hanchett suggested Stephen T. Mather and the "citizens of Utah" use the excess to erect a suitable tablet at the monument giving its history and acknowledging that it was a gift to the United States. He was willing to turn over the money if the association would take responsibility for working with the NPS on the matter. Scoyen subsequently discussed the idea in person with Hanchett.⁶⁵⁷ Albright immediately wrote Scoyen in support of the idea and asked him to have the association work with Pinkley on the plaque. Albright wrote,

The first thing to do is to do the research work that is necessary to write a statement to be placed on the tablet, then send the statement to the landscape division for the designing of the tablet.... Please advise Mr. Hanchett that I think it would be a very fine thing to erect a tablet at the old fort and hope that this idea appeals to him. President Grant told me about this fund but I did not know what the balance was.⁶⁵⁸

Soon after, Albright informed Pinkley of his interest in seeing an interpretive tablet erected on the fort. Pinkley, however, wrote back in January 1931 saying, "I am not very strong for putting up any tablets." Pinkley preferred that the people in charge of the excess funds spend it on "old Mormon furniture" to donate to the fort, arguing antique furnishings would be of far more interest to visitors than the proposed plaque. Assistant Director Demaray replied to Pinkley that Albright would support either option. The Utah Pioneer Trails and Landmarks Association, however, was determined to erect a marker. In February a representative from the association wrote Pinkley and asked permission to erect a marker at the monument. Pinkley said that if the wording and design met with the approval of Albright and an NPS landscape engineer, he would approve it.

Nothing was done until March 1933, at which point the Utah Pioneer Trails and Landmarks Association informed Heaton they wanted to erect the marker at Pipe Spring

by May. They sought NPS advice on where to put it, with some wanting it affixed to the fort. Again in June, when Charles C. Heaton was in Salt Lake City, some men of the association mentioned to him that they would be coming to Pipe Spring to put up a marker, but gave no date. Nothing was heard again until August, when George A. Smith (president of the association) wrote Director Cammerer to request permission to have the association's marker affixed to the fort at a ceremony already scheduled for September 2.662 The order had already been placed with Salt Lake Stamp Company of Salt Lake City for the casting of the bronze, 18 x 24-inch marker. Smith apologized for the association's oversight in not having the marker pre-approved, but asked Cammerer to authorize their going forward with their plans "as a special favor."

Due to the short time frame, Cammerer deferred the final decision to Pinkley. Judging from the contents of a letter the association received from Cammerer and in correspondence from Pinkley, there was more concern among NPS officials with the design and placement of the plaque than with the text content. Pinkley granted permission for the association to proceed with their ceremony but requested that Landscape Architect Harry Langley first go to Pipe Spring to survey the situation, review the text, and decide where the marker should be mounted on the fort. Langley made the trip on August 29, just days before the ceremony was to take place. His only criticism of the plaque was that the National Park Service wasn't mentioned in the text. Langley recommended it be affixed on the south wall of the fort near the entrance door. The marker was thus attached to the fort during formal ceremonies on September 2, 1933. It is still in its original location.



55. Utah Pioneer Trails and Landmarks Association plaque affixed in 1933 to fort (*Photograph by author, 1996, Pipe Spring National Monument*)

The marker reads as follows:

PIPE SPRING NATIONAL MONUMENT Established May 31, 1923 Through efforts of Stephen T. Mather and friends

PIPE SPRINGS

Occupied in 1863 by Dr. James M. Whitmore, who, with Robert McIntyre, was killed 4 miles S.E. of here January 8, 1866 by Navajo and Piute Indians.⁶⁶³

WINSOR CASTLE

Erected by direction of Brigham Young in 1869-70 by Anson P. Winsor for handling the Church tithing herds and as a frontier refuge from Indians. It became the first Telegraph Office in Arizona when the Deseret Telegraph line reached here in December 1871.

Utah Pioneer Trails and Landmarks Association and the citizens of Kanab Stake

Thus it was that the Utah Pioneer Trails and Landmarks Association and citizens of Kanab Stake were responsible for erecting the first interpretive marker at Pipe Spring. The plaque-unveiling ceremony had 124 people in attendance. Those present that day included Dr. Howard R. Driggs, President of the Oregon Trails Association, George A. Smith, President of the Utah Pioneer Trails and Landmarks Association, John D. Giles, secretary of the association, Andrew Winsor, son of Anson P. Winsor, H. J. Meeks, and Leonard Heaton's father, Charles C. Heaton. According to Heaton's record of the event, the presentation focus was on early settlement and the value of preserving "our early pioneer history spots for those who come after us." 664

Prior to the installation of the plaque in 1933, there was no time to formally review the accuracy of the historical information included on it. One problem in particular arose over a part of the history included on the marker. The Kaibab Paiute have long denied involvement in the Whitmore-McIntyre slayings. Even the legal settlement to the heirs of the deceased men stated the killings were by Navajo. Heaton reported on what happened the day that the marker was affixed to the fort:

[On] September 2, 1933, the Utah Trails and Landmarks Association placed a bronze plaque marker on the southwest corner of the fort, at which time a large number of Indians were present, descendants of the Paiute that were blamed for the killing of Whitmore and McIntyre. And after the story had been told about how the two men had been killed by one of the speakers, there was manifest among the Indians quite a bit of discussion and uneasiness. And a young Indian name of Levi John, stood out from among the Indians and facing the crowd and said in a defiant voice, 'We want you people to understand that it was not our people who killed them. It was the other Indians, not us.' So to this day they still maintain their innocence.⁶⁶⁵

In a history of the monument that Heaton wrote in 1936 he stated that a son and brother of two of the Indians who were slain by the militia lived "a couple of miles north of Pipe Spring" (that would be in old Moccasin, or Kaibab Village). The man's name was Captain George.⁶⁶⁶

It is doubtful that we will ever know for certain whether there was Paiute involvement in the murders of the Whitmore and McIntyre, and if so, which Paiute band they belonged to. The fact that a number of Kaibab Paiute men were slain by the militia in retaliation, however, is well documented (only the number slain is in question). The cruel manner and injustice of the retaliatory, vigilante-style killings is sufficient to cause considerable resentment among the Kaibab Paiute, but even more so since the descendants and friends of the murdered Paiute men believed the executed men were innocent of any crime.

On the other hand, descendants of the militia men involved in the killings (as well as other Latter-day Saints) had (and perhaps still have) a vested interest in maintaining that at least *some* Paiute men were involved in the slaying of the two white men, otherwise they would be forced to acknowledge a terrible wrong was done to the Indians. Some have made such an acknowledgment (even before the turn of the century) but the 1933 marker is affixed to the fort to this day. It attests to the all-too-human human tendency to record one's history in a manner which often obscures or changes the facts, particularly if historical events appear in direct opposition to the ideals or values one's religion or culture upholds.

While the plaque commemorates the hardships and dangers Latter-day Saint settlers faced as they colonized the West, it is also a painful reminder of a period in history that created tremendous upheaval and suffering in the lives of American Indians. The fact that it was erected long after many Latter-day Saints knew (and quietly admitted) that innocent Paiute men had been killed, also attests to the fact that some whites wanted to preserve an untarnished image of their forefathers. In doing so, they demonstrated considerable insensitivity toward their Kaibab Paiute brothers, ensuring that an old and deep wound would remain unhealed, festering for years to come.

Part IV - The Great Divide

Introduction

Despite the water agreement reached at Pipe Spring National Monument on June 9, 1924, between the National Park Service, Office of Indian Affairs, and Charles C. Heaton (representing area cattlemen), the issues of water rights and distribution came up again in the summer of 1929 and continued to surface into the 1930s.⁶⁶⁷ They primarily arose from the Office of Indian Affairs' concern about the amount of water being used on the monument by caretaker Leonard Heaton. Prior to Heaton's appointment, little if any monument water was used for landscape maintenance. There is no evidence of landscaping activities at Pipe Spring while the monument was under John White's direction, other than removal of fences and corrals. With Park Service permission, White did maintain a small family garden, and the Office of Indian Affairs had made no objection to that concession. However, once Leonard Heaton was hired as monument caretaker in early 1926 things quickly changed. In addition to the Heaton brothers' pond (mentioned in Part III), two new reservoirs (the meadow ponds) were built to impound spring water for irrigation. Some of the water was used to irrigate land for the Heatons' personal use (for grazing meadows, gardens, and fruit trees) while other water from Pipe Spring sustained vegetation of direct benefit to the public (shade trees around the fort and nearby camping areas). Although Heaton's planting activities demanded ever-increasing amounts of water to maintain, a surprising five-year period of calm reigned between the signing of the 1924 agreement and 1929 when conflict over water issues erupted once again to a level requiring involvement by Washington's Department of the Interior officials. To understand why this was so, one must know what was happening a few miles to the north.

Water Problems at Moccasin Spring

After ownership of Pipe Spring was transferred to the federal government in 1924, the Office of Indian Affairs and its agent, Dr. Edgar A. Farrow, grew increasingly concerned about the Kaibab Reservation's water supply at Moccasin. (Farrow's worries were no doubt heightened by the 10-year drought that began in 1922.) One-third of Moccasin Spring served the Kaibab Agency and School headquarters, provided the domestic water for the Indians, water for their work animals, and water for irrigation of the school and Agency gardens and the Indians' fields. For years an almost constant controversy persisted between Agency personnel (especially Farrow) and the extended Heaton family about Moccasin Spring, whether it was a dam below the weir, a pipe outlet above the weir, pollution of the spring by stock and poultry, the development of nearby springs by the Heatons (believed by Farrow to reduce the flow of the main spring), or other matters. In addition to these long-standing problems, by the mid-1920s the old division weir and water pipeline constructed by the Indian Irrigation Service in 1907 had seriously deteriorated. In a January 1925 letter to Office of Indian Affairs Commissioner Charles H. Burke, Farrow reported that "the condition of the weir is exceedingly bad. It is doubtful if temporary repairs can be made to prevent leaks. A portion of the pipeline leading from the weir has become eroded to such an extent as to make it unsafe."668 Farrow made several recommendations to make the weir and pipeline safe and effective.

He had no funds to pay for the work, however, thus sought assistance from the Washington office.

After informing Commissioner Burke of the poor state of the reservation's water system, Farrow went back and thoroughly reviewed C. A. Engle's report of May 14, 1924.669 Believing that the Indian Service had overlooked several points in this report, he wrote to Burke to bring them to his attention. Farrow also stressed the need for water measurements to be taken right away to determine what effects planned water development by the Heatons might have on the flow from Moccasin Spring. He suspected that an observable decrease in spring flow was caused by the family's attempts to develop additional water supplies in the immediate area.670 Farrow advised Burke that immediate construction of a new weir was needed and that a new pipeline should be laid over the Heaton family's garden plot prior to planting time.671 He also reported on recent conversations that he had with "Mr. Heaton, Sr.," (Jonathan Heaton) over the water situation:

He believes that legally he is entitled to this water without division but is willing to waive this point and allow the Indians one-third of the water as it flows to the present weir. As to the justice of this contention, I have no means of knowing and doubt if it could be determined even after much litigation.⁶⁷²

This is the first and only instance encountered to date where the Indians' one-third right to Moccasin Spring was called into question, even during all the years of the Heatons' litigation over homestead claims on the reservation. Jonathan Heaton, according to Farrow, was now implying that he was letting the Kaibab Paiute have the one-third share of water out of the goodness of his heart, not because they were entitled to it. The fact that the patriarch of the family made such a comment in 1925 bolstered Farrow's fear that the water supply, so long depended on by the Kaibab Paiute, was in grave danger of being taken over by the Heatons. It also suggests that while Moccasin Spring supplied enough water for both the handful of white residents and the small band of Indians who lived there in the late 19th century, its resources were now being stretched beyond capacity by increasing population of both Heatons and the Kaibab Paiute, their growing livestock herds, and the area's drought.⁶⁷³

By the winter of 1926, Farrow had managed to buy materials for improvements to the reservation's water system. In January 1926 Farrow notified the Commissioner of Indian Affairs that pipe and cement were on site and that lumber was soon to be purchased for the project. He requested the assistance of an engineer to oversee the work and stated, "It is proposed to change the location of the weir and construct it in such a manner as to guarantee uncontaminated water for the domestic supply of the Kaibab Agency and Indian settlement." Engineer C. A. Engle had expressed his willingness to do the work if authorized by the Washington office. Assistant Commissioner E. B. Meritt responded to Farrow's request, informing him that no additional funds were available for allotment to the Kaibab Indian Reservation, but that if Farrow could pay the engineer out of his existing budget, then Engle would be authorized to do the work. Farrow wrote Engle

on March 5, and asked if he could begin work after March 15th for he wanted the new system completed before planting season. Engle replied he was unable to come until late summer due to other work priorities. He recommended instead that Farrow use another engineer, Leo A. Snow of St. George.⁶⁷⁶

Engineer Snow was contacted in late March and consented to do the work for \$10 per day plus mileage. On June 1 work commenced on the Moccasin weir. Immediately upon arrival, Snow measured the flow of the spring with a 24-inch Cipolle weir. The spring flow was 0.60 second feet. "Without a full understanding and appreciation of the problems involved or the spirit and temperament of the contending parties concerned, I permitted the small impounding dam to be cut before making a careful observation of losses due to this impounding," Snow later reported.⁶⁷⁷ The reservoir was drained and a concrete cutoff wall was constructed, into which an 18-inch weir was installed. Original plans had to be modified due to objections by Moccasin residents. Seepage that occurred prior to the concrete wall further complicated the water division, requiring Snow to modify the weir. Snow reported that he had had to go to considerable lengths "to satisfy the demands of residents of Moccasin." In addition to the construction of the new weir, the old pipeline to Kaibab Village was replaced with 7,800 feet of four-inch steel pipe. Snow wrote in his final report,

I was very much grieved to see that the residents of Moccasin felt to distrust every effort toward the correct division of the waters and even expressed their determination of employing an engineer to go over the work accomplished and see if it was correctly done and that they were not being mysteriously robbed.⁶⁷⁹

In September Farrow forwarded a copy of Snow's report to Engle who in turn commended Farrow and Snow for their good work. Engle said the concrete weir was "a great improvement over the old system, especially regarding the important considerations of conservation of the limited water supply, and the sanitary conditions affecting it."680 He also called attention to a slight error he believed Snow had made in proportioning the weir which would result in the Indians getting slightly less than the one-third share they were entitled to. He requested that Snow recheck the flow and make adjustments if needed by making a change in the position of the knife-edge dividing the weir. It is presumed that Engle's request was carried out (no further correspondence on the matter was located). What is apparent from the actions described in connection with the installation of the new weir and replacement pipeline is that the Office of Indian Affairs went to considerable lengths to ensure a fair division of Moccasin Spring water, in spite of the intense distrust displayed by the white residents of Moccasin. These feelings of distrust, however, were not at all one-sided; Farrow had expressed similar feelings for years.

At about the same time Farrow noticed that the water flow from Moccasin was diminishing, the reservation's use of water for irrigation was approaching its peak. From the time of its being set aside in 1907 and 1938, land irrigated on the reservation varied from 15 to 45 acres. In 1931, 44 acres were being irrigated. Meanwhile, Moccasin

farmers were irrigating 90 acres of land. (By way of comparison, 22 acres were being irrigated on the reservation in 1914 versus 75 acres in Moccasin.⁶⁸¹)

Water was not the only area of contention between local ranchers and the reservation's agent. During the 1920s and early 1930s, issues of stock trespass, grazing permits, and grazing fees on Indian land were also areas of considerable conflict.⁶⁸² Local competition for water and grazing land was becoming particularly intense and, perhaps not surprisingly, increasingly antagonistic. The 10-year drought and onset of the Great Depression only worsened the situation.

Although Farrow and his family left the reservation to move to Cedar City, Utah, in 1926, Farrow continued to serve as the Indian Service's agent for the Kaibab Indian Reservation. During the summer of 1928, two influential visitors from the East visited Anna Farrow in Cedar City (Dr. Farrow was away at the time). The two were Mary Vaux Wolcott of the Board of Indian Commissioners and John Collier, Office of Indian Affairs. Collier already had the reputation of being a tough, zealous, and idealistic crusader for native rights. According to one source, he had heard that the establishment of Pipe Spring National Monument shorted the Indians water. It the Indians were not receiving their share of water, he told Anna Farrow, he planned to launch a "press campaign in Washington, which would show up... the Park Service." When Collier succeeded Charles J. Rhoads as head of the Office of Indian Affairs in May 1933, change at Pipe Spring was inevitable.



56. Kaibab Paiutes hauling water, Kaibab Indian Reservation, 1932 (*Photograph by C. Hart Merriam, courtesy of Bancroft Library, University of California*)

The Indian Service Looks Toward Pipe Spring

Assistant Commissioner E. B. Meritt reported to Secretary Hubert Work in August 1926 that "the Indians do very little farming, owing to their lack of water, and have very little stock. They gain their livelihood principally by day labor."688 The economic well being and health of the Kaibab Paiute heavily depended on access to a safe and sufficient supply of water. A number of earlier surveys on the Kaibab Indian Reservation had been made with a view to improving the water supply for irrigation (Means, 1911; Dietz, 1914; Engle, 1924) but nothing feasible was reported.⁶⁸⁹Aside from Moccasin Spring and Pipe Spring, there were a number of other springs on the reservation, but these were used only for stock watering as they were small and not permanent. The washes were only an occasional source of water for cattle. While they carried water after storms, they were dry most of the year. A suggestion had been made in at least one of the early reports that investigations of underground water supplies be conducted, but even if a source could be located, its development would entail considerable expense. Increasingly, it became obvious to the Indian Service that a less costly solution would be to use Pipe Spring water, as already provided for in the monument proclamation. At the same time the Indian Service cast its eyes at Pipe Spring as a promising new source of water, the monument caretaker was busily impounding much of it in two new reservoirs (the upper and lower meadow ponds) and greatly expanding his agricultural and landscaping activities.

Heaton's flurry of activity in farming, irrigating, and tree planting on the new monument had not for one moment escaped the attention of Dr. Farrow. The reservation's superintendent looked upon Leonard Heaton's actions as a deliberate move to deprive Indians of their rights to Pipe Spring water. He wanted and believed the reservation was entitled to any monument surplus water to irrigate the gardens of the Kaibab Paiute. Yet the clause that Commissioner Burke had insisted be inserted into the 1923 monument proclamation left too much room for conflicting interpretation. By the late 1920s, it was becoming apparent that the water provision for the Indians needed to be spelled out in much clearer terms.

In June 1929 Supervising Engineer L. M. Holt of the Indian Irrigation Service visited the Kaibab Indian Reservation to measure the flow of water from Pipe Spring. 690 The engineer then recommended to his superiors in Washington that the Office of Indian Affairs and the National Park Service jointly develop regulations governing the use of water at Pipe Spring. Assistant Commissioner J. Henry Scattergood requested a conference for the purpose of formulating definite regulations. 691 Associate Director Arno B. Cammerer replied that the Park Service was agreeable to the meeting but asked that the Indian Service furnish its suggestions in advance so that they might be considered by local field officers prior to the conference. 692 Commissioner Rhoads replied in a letter to Director Horace M. Albright, explaining that the engineer had been sent to Pipe Spring due to the difference of opinion between Farrow and Heaton over the division and use of the water. Rhoads wrote,

As we understand it, there is nothing in the President's proclamation to indicate that this water was to be used by the National Park Service for irrigation

purposes, and it does appear that the language shows clearly an intention to allow the Indians the use of surplus water for irrigation and other purposes. It is reported that the Caretaker of the National Monument has conveyed water from the springs through two small reservoirs and uses it for irrigating his garden. It is further reported that there are indications that he intends to construct another reservoir to impound more of the water, evidently to be used for irrigation.

...The total flow of the springs was found to be only 33.56 gallons per minute, from which there would still remain after depletion by evaporation from the surface of the pools and by the use of the Caretaker for domestic purposes a sufficient amount to irrigate several acres of garden, which would add greatly to the food supply of these Indians...

It was with a view to preparing definite regulations primarily on this feature that a conference with your service was suggested.⁶⁹³

The reference to Heaton's plans to construct a new reservoir is important for it would have alarmed Farrow sufficiently to request that Washington send an engineer to Pipe Spring. This may have been the trigger that led to the eruption of problems in 1929. John Collier probably was also behind the Indian Service's new push for a share of Pipe Spring water.

In response to Rhoads' letter, Assistant Director Arthur E. Demaray directed Superintendent Frank Pinkley to prepare a report detailing local conditions and the monument's water needs, along with his recommendations on regulations, so that the director's office could prepare for the proposed conference. Pinkley wrote back expressing his views in strong terms. He pointed out that the Office of Indian Affairs was basing its demand on the clause in the proclamation, not on water rights legally established under controlling Arizona state law. He wrote:

If they could have shown prior use of water or some such valid ownership, they would have most certainly have put it in [the proclamation] at that time. This arouses a pretty strong assumption that they knew they did not have a legal title to the water and so built this clause in the proclamation on which they could make a demand at a later date. That time has now come.

So far as I know, the water law of Arizona covers that National Monument and under the Arizona law the water goes with the land, cannot be sold or transferred apart from the land, and the right to it is established by prior use.

What prior use of the waters of Pipe Spring for irrigation on behalf of the Indians can the Indian Service show? If they could show prior usage they most certainly would not be putting their claim on this clause in the proclamation and letting the real legal right drop into the background. I know of no usage by modern Indians for irrigation. On the other hand, the water has been used for irrigation by the owners of the land now included in the monument for

some time in the '80s, if the old timers have reported correctly to me. Under the Arizona laws if the Park Service were a private corporation owning that land I don't believe the Indian Service would have a leg to stand on in bringing suit to take the water over our boundaries and give it to the Indians. They must admit this to themselves or they would not base their demand on the fact that they can take it for use in one Service because the title lies in another Service and both Services belong to the Government.⁶⁹⁴

Pinkley thought the Office of Indian Affairs was playing with words in the proclamation and that under no circumstances did it need to be spelled out exactly how the monument would use the water. Disagreement was on the word "surplus." Referring to Commissioner Rhoads, Pinkley continued,

In other words he is going to allow us to use enough water to supply the needs of only one family and he takes the remainder for the Indians! And this is done on the basis of the clause, which says the Indians shall have the privilege of using waters from Pipe Spring. Maybe we overlooked something when we didn't put a clause in that proclamation allowing the Park Service the privilege of using some of the waters too. If they take the irrigation water after 40 years or so of use on the land, they will be back next year after the drinking water and tell us to catch rainwater for our Custodian!⁶⁹⁵

Pinkley argued that since Heaton was receiving virtually no pay for his services (only a nominal salary of \$1 per month), he should be allowed to grow his own crops. Pinkley asserted that no change regarding water use should be made prior to the monument hiring a paid custodian. He wanted to make clear

...that the right and title to the spring rests with the monument but that we will let the Indians use not to exceed half of the flow of the spring out of which they will have to furnish half the stock water when and as needed. If they put that to good use and we find that we can spare any more in future years after we see how this monument develops, we may give them an additional percentage.

It might be well to write into any agreement that they are to take their share of the water at a point to be determined by us. The whole spring might as well run out into the pools and be enjoyed by our visitors and the water divided after that at an inconspicuous point chosen by our landscape experts.⁶⁹⁶

Pinkley had no objections to a time-division of the water if the director cared to go that route, and suggested various methods of distribution.⁶⁹⁷ Notice Pinkley's caveat above, "If they put that to good use...." What this appears to have meant from the Park Service point of view was that the Indians needed to demonstrate that any water released to them from Pipe Spring would be used for agriculture (either stock raising or gardening) with a minimum of waste. While a cultural bias was inherent in this demand, it also reflected the reality that water was a scarce and precious resource.

Nothing was done immediately to resolve the situation. For the time being, Heaton continued using water as he had in the past. On occasion, Heaton received requests from local ranchers for water from Pipe Spring. When this happened, he consulted with Superintendent Pinkley for permission, as he did in April 1931 when Lloyd Sorenson of Hurricane asked to water his sheep on the monument for four weeks or until rains filled his own tanks.⁶⁹⁸ Pinkley replied to Heaton's request,

There will be no objection from our Park Service standpoint if there is none from the Indian Service.... We will make no charge for the water but he ought not to be allowed to use it longer than is absolutely necessary. We don't want to set up any general practice of having these men depend on us for water, but we are willing to help them out in a neighborly way if they are caught in a jam.⁶⁹⁹

Pipe Spring National Monument had goodwill aplenty, but when it came to water, there just didn't seem to be enough to go 'round.

A Bittersweet Trade

The controversy over interpretation of the proclamation clause that simmered during the fall of 1929 was kept on the bureaucratic back burner until the spring of 1931. In April of that year, Commissioner Rhoads sent a lengthy letter to Secretary of the Interior Ray Lyman Wilbur regarding land and water rights at Pipe Spring. The letter outlined the history of the establishment of the Kaibab Indian Reservation as well as provided a summary of the Heaton land claims. The Rhoads discussed Pipe Spring (which he referred to in plural form), first pointing out that Charles C. Heaton's claim, which he attempted to locate under the Valentine scrip, had been rejected by Departmental finding of June 6, 1921. Rhoads continued:

The 40-acre legal subdivision upon which the Pipe Springs are located having thus in 1921 been officially cleared as to prior homestead or entry rights became the subject of discussion as a suitable location for a national park which culminated in a Proclamation by the President under date of May 31, 1923 actually designating said 40-acre tract as a national monument. The Proclamation, however, contains the following provision regarding the use of the water of the Springs...⁷⁰¹

Rhoads then quoted the provision as contained in the monument proclamation that granted water privileges to the Indians of the Kaibab Indian Reservation under regulations to be prescribed by the Secretary of the Interior. Rhoads referenced the meeting held during the summer of 1924 at Pipe Spring between Chief Engineer Reed, Dr. Farrow, Superintendent Pinkley, Charles C. Heaton, and Randall L. Jones for the purpose of discussing ownership and use of waters at Pipe Spring, the meeting which led to the June 9, 1924 memorandum.⁷⁰² Commissioner Rhoads pointed out to Secretary Wilbur that,

This memorandum agreement does practically nothing more than to acknowledge the ownership of one-third of the waters from these Springs as belonging to the cattlemen and granting them the right to conduct that quantity of water to and upon any portion of the land covered by their grazing permits,

or upon the expiration of such permits, to conduct that quantity of water off the reservation.

Notwithstanding the provisions of the Presidential Proclamation and the subsequent agreements in regard to the use of the waters of these Springs, there still continues a controversy in the matter and the same was the subject of a conference recently held in the Indian Office between officials of the National Park Service and the Indian Irrigation Service at which Dr. Farrow, Superintendent of the Kaibab Indian Reservation, was present. The following facts and conditions were brought out:

- 1) In regard to the National Park Service, their present Caretaker of the Pipe Springs National Monument is serving practically without salary other than the benefits he may derive from the premises furnished him on the grounds, the value of which depends almost altogether upon his being permitted to have the use of the water from Pipe Springs over and above the one-third set apart for the cattlemen. The National Park Service raises a question as to the validity of the claim to a use of this water for irrigation purposes by the Indians. But they further point out that if it shall be decided that the use of this water belongs to the Indians, it will be necessary for the National Park Service to recommend legislation looking to the establishment of a definite salary for the Caretaker of the National Monument or to an appropriation of funds with which to purchase any rights the Indians may have to the use of the water.
- 2) In regard to the Indian Service, the records show clearly that the available water supply from Pipe Springs over and above the one-third set apart for the cattlemen and the water required for general domestic purposes, is only sufficient to irrigate garden tracts upon which the Indians would depend for subsistence and would leave none for the Caretaker to use for irrigation purposes.

It is the contention of the Indian Service that these Springs being situated within the boundaries of the Kaibab Reservation and having been cleared officially by the General Land Office as to prior homestead or entry claims, clearly come within the principle laid down in the Winters case whereby the Indians are entitled to the use of the water for irrigation, as was recognized in the Presidential Proclamation. If this contention be true, it is the plain duty of the Indian Service to insist the Indians be protected in their rights to the use of the water, or if it shall be found that they are without valid rights thereto, that fact should be established so that other provisions may be made for these Indians.

It is respectfully requested therefore that this matter be referred to the Solicitor for the Interior Department for his opinion as to who really has a legal right to the use of that portion of the water of Pipe Springs available for irrigation over and above the quantity required for stock water and domestic purposes.⁷⁰³

"It is the contention of the Indian Service that these Springs clearly come within the principle laid down in the Winters case." What Rhoads is referring to is known as the Winters doctrine. This doctrine of reserved water rights emerged from the legal case

of Winters v. U.S (207 U.S. 564, 1908). The suit was brought before the government to restrain appellants and others from constructing or maintaining dams or reservoirs on the Milk River in Montana, or in any manner preventing the water from this river or its tributaries from flowing to the Fort Belknap Indian Reservation. This reservation, located in eastern Montana, was set aside in 1888 for the Gros Ventre and Assiniboin Indians. The U.S. Supreme Court made the decision that access to water there was a "reserved right" implicit in setting aside reservation land, for without water, the court argued, arid land was "practically valueless." In the case of Winters v. U.S., it was decided that the traditional western legal doctrine that guaranteed prior appropriation of water was subject to preceding Federal reservation of lands and implicit reservation of water rights in the amount sufficient to fulfill the purposes of the reservation. The doctrine was not absolute, however. It did not affect pre-reservation appropriations, and the amounts of water reserved were limited to the amounts reasonably necessary for present and future Indian needs.⁷⁰⁴ Rhoads' contended in his statement above that the clause inserted into President Harding's proclamation provided de facto recognition that the Winters case applied on the Kaibab Indian Reservation.

Director Albright indicated his concurrence with Commissioner Rhoads' request for a decision by the Solicitor. First Assistant Secretary Joseph M. Dixon also concurred, then the matter was referred to Solicitor Edward C. Finney for an opinion on April 15, 1931. On May 6, 1931, Finney responded to the Department of the Interior's request about the use of Pipe Spring water. He stated that "certain premises" in the proclamation were very important in determining the rights of the springs. These premises were:

- 1) that the spring afforded the only water along the road between Hurricane, Utah, and Fredonia, Arizona;
- 2) that the public good would be promoted by reserving land on which Pipe Spring and the early dwelling place were located; and
- 3) that the Indians were to have the privilege of utilizing the water from Pipe Spring.

Finney stated that in the dispute between the Park Service and the Indian Service on the use of the waters the problem narrowed down to the

...right of the caretaker of the national monument to receive part or all of his pay for service rendered the United States by the use of the waters of Pipe Springs for irrigation or other purposes.

The rights as referred to in the Presidential proclamation to the use of the waters of Pipe Springs apparently contemplate (a) use by travelers on the highway, (b) the privilege of the Indians of utilizing the water for irrigation, stock watering, and other purposes, and whenever these priorities are satisfied the rights of the junior appropriator would begin. It is, however, not intended to define or determine the rights or priorities under (a) or (b) above.⁷⁰⁵

What Finney completely sidestepped in his decision was the legal question of water rights. Rhoads' contention that the Winters case applied to Pipe Spring went

unaddressed, as did Pinkley's assertion that, under Arizona water laws, legal ownership of two-thirds of Pipe Spring's water was acquired when the Park Service took possession of the land.

Commissioner Rhoads forwarded copies of the joint request for the Solicitor's opinion on water use at Pipe Spring, as well as the Solicitor's response, to Dr. Farrow at the Kaibab Indian Reservation. In addition, he informed Farrow that Director Albright had asked permission to continue existing conditions for the time being, to allow the Park Service to approach Congress when it reconvened in December with a request for "necessary relief of the situation." Rhoads directed Farrow to grant Albright's request "to the fullest practicable extent without serious loss to the Indians..."

The opinion rendered by Finney meant the Park Service could no longer offer Heaton a livelihood in exchange for his labor. On the other hand, it created the perfect "crisis" situation for asking Congress for an appropriation to fund a salaried position. In a May 18 letter to Chief Landscape Architect Thomas C. Vint, Pinkley wrote,

We just got a body blow at Pipe a few days ago when the solicitor of the Department ruled that we had no right to use of the spring water for irrigation; that it belonged to the Indians. Since we are paying the Custodian \$12 per year and the use of the water as his compensation, this is going to force us to make other arrangements in the matter of a Custodian. It is possible it will result in us getting a full paid salary there in the next deficiency bill.⁷⁰⁷

In June 1931, at the director's request, Pinkley forwarded budget estimates for the monument for FY 1932 and FY 1933, with the warning, "Unless we get a full time custodian at Pipe Spring, we will be forced to do without one altogether, as Mr. Heaton will be unable to continue holding the place down if he is deprived of his irrigation water for his crops." Shortly thereafter, Pinkley informed Heaton that the Park Service had permission to continue using water as they had in the past until the matter could be brought before Congress, so that the Park Service could get relief in the way of a full salary for the custodian. He wrote optimistically, "I feel fairly certain that this salary will be allowed." The result was that the Park Service would soon get its funding for a custodian, but only at the cost of sacrificing its previously unregulated use of two-thirds of Pipe Spring's water.

The Opposition Rallies

While Solicitor Finney's opinion had somewhat of a bright side for the Park Service (it would get a salaried position), it was viewed strictly as bad news by white residents of the area and others as far away as Salt Lake City. Leonard Heaton was caught smack in the middle of this mess and could hardly be expected to remain neutral. On the one hand, he was a Department of Interior official (and thanks to the water dispute, soon to be a paid one). On the other hand, he had strong allegiance to his family and heritage, and to area ranchers. On June 10, 1931, Leonard Heaton wrote Pinkley that there was opposition to the Solicitor's opinion, men who "expressed themselves to the fact that the Indian Department would not get the water without hearing from them. They are asking that

I send them all the material that I have regarding the matter and they will take the case to Senator Smoot and [Senator] King of Utah."⁷¹⁰ Heaton wrote in the same letter that his father, Charles C. Heaton, had been to Salt Lake City to garner the support of powerful men there.⁷¹¹ At the end of this uncharacteristically short but highly charged letter, Heaton signed his full name, "Charles Leonard Heaton." In previous (as well as later) correspondence, Heaton always signed his correspondence, "C. Leonard Heaton" or "Leonard Heaton." The use of his entire name in this instance suggests he may have been feeling a particular allegiance to the Heaton family as sides prepared to mount for the anticipated battle over water at Pipe Spring.

Even though the cattlemen had been assured their one-third rights to Pipe Spring (just as the Indians had been assured their one-third rights at Moccasin Spring many years earlier), it appears that they deeply distrusted the intentions of the Indian Service, perhaps fearing they would lose their rights to Pipe Spring water. After all, in the negotiations of June 1924 whereby Charles C. Heaton agreed to deed over Pipe Spring to the federal government, the cattlemen believed the Park Service would be in control of water at Pipe Spring. The Solicitor's opinion now created the very real possibility that the Indian Service would be calling the shots on the use of this precious resource. It is no wonder then, given the history of mutual distrust over the division of water in Moccasin, that a number of local white ranchers and others loudly protested the Solicitor's opinion.

The uncertainty of his economic future must have also been agonizing to Leonard Heaton. In early January 1932, Heaton asked Superintendent Pinkley about the status of the water situation. If the Indian Service was to get the water he had been using, could he at least raise a garden of about one-half acre? In addition to the 220 chickens and 20 x 40-foot house he already had, could he get 300 or 400 more hens and erect a second 20 x 40-foot chicken house? (Possibly Heaton was thinking of going into the egg business, if he was not already engaged in it. One family could hardly eat the eggs of 660 chickens!)⁷¹² Pinkley wrote back saying that he

...had word from the Washington office just lately that we were likely to get the salary there raised to \$1,200 per year so it would be worth someone's while to stay there without having to raise a living out of the soil to keep from starving to death. This is not an absolute certainty yet, but I feel pretty safe about it...

I think it would be all right to build the extra chicken house if you put it where it will not be an eye-sore from the road and if you want to continue on the place with this \$1,200 salary which will start on July 1. Can you make ends meet on that basis?⁷¹³

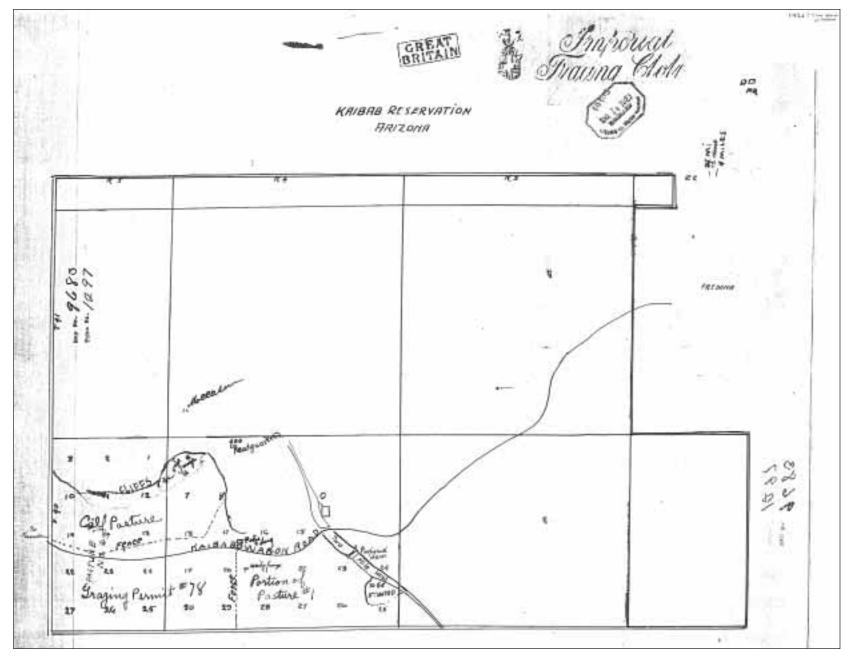
On January 19, 1932, Director Albright informed the Office of Indian Affairs that if the custodian's position was funded the Park Service would be in a position to release the water previously used by Heaton, permitting it to be used by the Indians. The filling of the position of laborer (GS-4) at \$1,200 was approved by President Herbert Hoover on June

18, 1932, authority No. 98.⁷¹⁴ Beginning July 1, 1932, Heaton became a salaried employee.

Local sentiment over the water issue at Pipe Spring continued to simmer into the summer of 1932. During a hot, dry May, about 3,000 cattle were watering at Pipe Spring, Heaton reported, "and if there is no storm before long there will be a lot more." A major controversy over the issue of cattle permits was taking place during this time.⁷¹⁶ Up until 1932, a conglomerate of non-Indian cattlemen had been grazing on 6,000 acres of Indian land under three-year permits issued by the reservation. The southwestern section on which permits were issued was known as Pasture 2 (also known as the "calf pasture") located west of the Pipe Spring fort. A 10-year drought and the onset of the Great Depression had resulted in poor grazing and extensive cattle losses. In August 1932 the cattlemen petitioned the Office of Indian Affairs through Arizona Senator Carl Hayden that their permits be renewed at half the rate and that an outstanding debt of \$600 to the reservation be cancelled. The petition was signed by five members of the Heaton family, two affinal Esplins, three affinal Lambs, and various Maces and Judds. The Commissioner replied to Hayden in October that he had no authority to cancel the debt, but if it were paid he would consider a reduction in the new permit fee if cattlemen would agree to lower carrying capacities and "provided the Kaibab Indians agree to such action."717 The outcome of this request will be discussed a little later on.

In August 1932 Office of Indian Affairs Acting Commissioner B. S. Garber wrote to Director Albright pointing out that since Albright's last communication of January 19, his office had assumed that the custodian's position had been funded. Garber then dropped the other shoe: he asked to know when the Park Service would release surplus water to Farrow, "over and above the amount required for domestic use, for the irrigation of the Indian lands." On August 30 Associate Director Cammerer sent a letter to the Commissioner of Indian Affairs releasing the surplus water "which you permitted the Custodian of Pipe Spring National Monument to use." On the same date, he forwarded copies of this letter to both Pinkley and Heaton and informed them that the surplus water had been released by the Park Service to the Indian Service.

The dispute at Pipe Spring over water use was hardly settled. It would take more than a year of negotiations between the stockmen, National Park Service, and Kaibab Indian Reservation officials over use and distribution of water from Pipe Spring before a mutual agreement was reached. Men at the highest levels of power in the State of Utah rallied to defend the water of Pipe Spring from the Indian Service. (Obviously, some considered the old fort was finally under the anticipated Indian attack for which it had originally been built!) On September 23, 1932, Apostle George A. Smith (who would succeed Heber J. Grant as Church President in 1945) instructed Senator Reed Smoot to lodge a protest with the Commissioner of Indian Affairs over the water issue.⁷²¹ On October 4 Senator Smoot protested to Commissioner Rhoads of the Office of Indian Affairs that the monument needed its water "for the beautifying of the



57. Sketch map showing location of pasture No. 2 ("calf pasture"), 1921 (National Archives, Record Group 75)

grounds."⁷²² Rhoads responded to Smoot's suggestion that the Indian Service utilize Two Mile Wash for additional water:

That matter has already been carefully considered by our engineers with the result that it does not appear feasible for the Indian Service for the reason that the sides of the wash are almost perpendicular, and to get the water out by gravity is practically out of the question. It would require a dam of considerable proportions and of material that would resist the elements, which would be expensive beyond practicability...

We regret that the conditions are such as to make it necessary for this Office to insist upon the use of the water from the spring for the Indian lands.⁷²³

Smoot sent a copy of Rhoads' reply back to George A. Smith, writing, "I regret that the reply is unfavorable but know of nothing further than can be done in the matter."⁷²⁴ Smith later forwarded copies of Rhoads' and Smoot's letters to Charles C. Heaton, writing,

I regret exceedingly that this complication has occurred but if Senator Smoot knows of no way to remedy it, I am sure I do not. I have given the Senator all the information that you gave me but he evidently concludes that there is nothing he can do in the matter.

I am sorry that the department has taken the attitude it has on this very important matter and hope that there may be something develop in the future to improve the situation. I am closing the incident as far as I am concerned at the present time.

It does occur to me that you might take this matter up with your Arizona Senator and the new administration and in that way have it reopened.⁷²⁵

In early October Leonard Heaton wrote directly to Director Albright, expressing his surprise that the water had been turned over to the Indian Service. Although the proclamation had left decisions about water use in the hands of the Secretary of the Interior, he protested, "... as yet I have not read of any action taken by him on this matter."⁷²⁶ Heaton interpreted the Solicitor's opinion of 1931 as meaning that the apportioning of water would be determined according to prior use, thus the monument had the right to keep as much as had been used "ever since 1863." He continued:

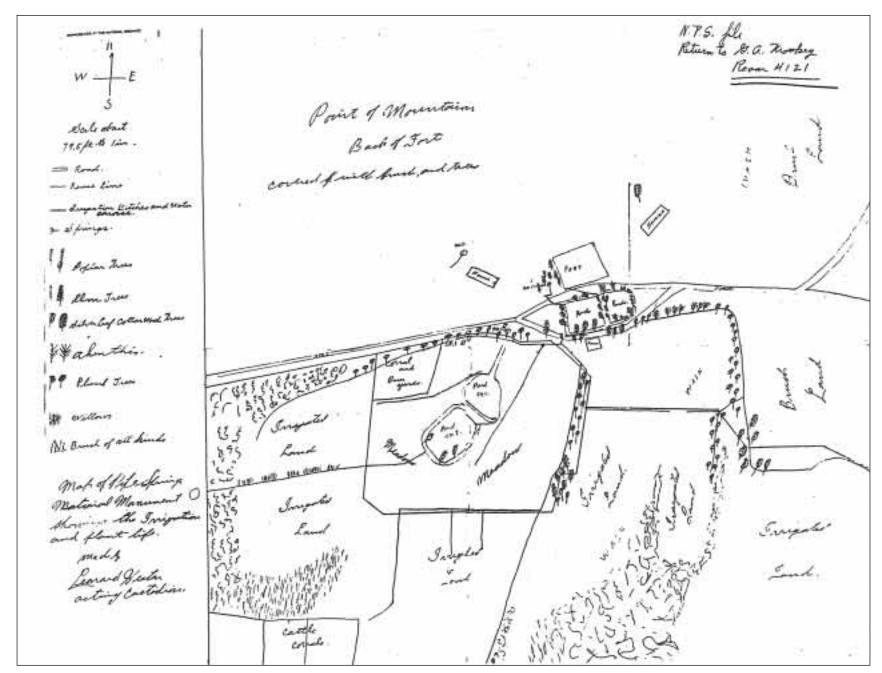
Maybe I am over stepping but as Custodian I am working for the best of the Monument as I see it. If all the water is taken from the Monument and not allowed to water the meadow and trees it will be a matter of a year or so till most of the trees and meadow will be dead. I can't quite bring myself to the idea that those men that purchased Pipe Spring and gave it to the Government meant that the water should go the Indians, but rather that it should be used in making the place more attractive to the public. I am sure that this is what the late Mr. Mather had in mind in having it as a monument. It is also the wishes of the local people that are interested in this place.⁷²⁷

Director Albright responded to Heaton's letter by explaining that Solicitor Finney's opinion did not preclude Heaton from using water for domestic use "and as may be required for the benefit of visitors to the monument including that necessary for the preservation of trees and shrubbery." He requested that Heaton submit a report "at as early a date as possible" describing the water situation at the monument, providing maps showing the trees and shrubbery and estimating the amount of water required to maintain them.

Heaton complied with Albright's request by letter of November 7, 1932. He pointed out to the director that even though one-third of the water at Pipe Spring had been reserved for cattlemen, no division had ever been made of the monument's water. Now that the Indian Service was claiming part of the water at Pipe Spring, Heaton believed the cattlemen would demand that a formal division be made to ensure that they received their share. Heaton reported that about 12 acres of land were being irrigated on the monument. Should he cease irrigating, he wrote, much of the land "will turn to sand dunes if nothing is put on it, and the rest will go to thistles and cockleburs. I suggest we get something growing on it as planting it back to its native state of brush and cedar if we can't keep the water to make further improvements in trees and meadows for the benefit of the public and tourists."⁷²⁹ Heaton protested the Indians getting more water, "as they have not been making use of the water that is on the reservation. About two and one-half miles to the east there is a stream of water that is larger than all the water combined at Pipe Springs. It seems to me that there was a selfish motive connected with the writing of the proclamation."⁷³⁰

Included with Heaton's letter was a detailed, hand-drawn sketch map depicting - in addition to the historic buildings - the springs, irrigated areas, irrigation ditches, location and types of some of the trees, and other landscape features (see figure 58). Heaton wrote Albright, "There is more trees and brush on the place by about three times but they are located as indicated on the map, and all are along the irrigation ditches.... It will also be seen that the meadow is about one-third of all the land irrigated."731

In addition to the earlier fort ponds, the map shows the two meadow ponds, surrounded by meadow. Heaton's small corral and barnyard are shown immediately northwest of the meadow ponds. To the west and south of these ponds and meadow, extending to the monument boundary, was a large expanse of irrigated land. All that remained of the historic cattle corrals at Pipe Spring were the two cattle corrals located at the southwest corner of the monument. In addition to the meadow areas, much of the land directly south of the fort and its ponds was irrigated. Only the areas directly east of the fort were characterized by Heaton as "brush land." Heaton labeled the unirrigated areas as "wash" areas, suggesting that periodic flooding made cultivation there impractical. The location of irrigation ditches is shown on this map as well as the location and identification of trees by type. The location of the old monument road (previously the Kaibab Wagon Road) is shown on this map and should be noted, as it would soon be relocated. The small building shown just south of the west end of the fort ponds labeled "house" represents the Heatons' store which was not removed until 1935.



58. Sketch map of Pipe Spring landscape, 1932 (Drawn by Leonard Heaton, courtesy National Archives Record Group 79)

What is obvious from Heaton's sketch map is that much of the monument landscape was being heavily irrigated and cultivated by the early 1930s. Prior to the creation of the monument, such a landscape would have been highly incompatible with the site's use as a stock watering and corral site for thousands of cattle. Once cattle were no longer watered on the monument and most corrals and fencing were removed, a whole new world of possibilities opened up for the landscape. Heaton only did what any other self-respecting farmer would have done under the circumstances: he irrigated and cultivated the land. Given the number of years the ground had been trod on by large herds of cattle, it seems rather remarkable he could loosen the soil enough around Pipe Spring to permit plant growth, but this he accomplished within only a few years. In this regard, Heaton merely exemplified the tenacity and resourcefulness for which Latterday Saint settlers in the arid West have long been famous.

Heaton's efforts were at least partly aided and abetted by Park Service overseers who viewed the increased vegetation as making the monument more inviting to tourists. After all, additional trees created shade for campers and picnickers and lush green meadows added visual appeal to the site. Fruit trees have an extremely strong association with the traditional Mormon landscape and would have appealed to the aesthetics and sentiments of many visitors. Besides, the cattlemen seemed content with their share of monument water derived from tunnel spring. Until the Office of Indian Affairs forced them to, the National Park Service simply had no reason to question or limit Heaton's activities with regard to water use at the monument.

The effect of Heaton's increased agricultural activity was that it certainly boosted the amount of water required to maintain the monument's landscape. Yet it must be stated that no documentation has surfaced to indicate that the motivation of either Heaton or the Park Service, which sanctioned his activities, arose from a desire to artificially inflate water requirements and/or usage on the monument. At the time Heaton was undertaking his landscaping activities, he believed the Indians were not *entitled* to any of Pipe Spring's water, regardless of what the proclamation said. This being the case, why would he need to take action to circumvent their getting it? Given the benefit of the doubt, Heaton appears to have acted as he did in order to provide support for his immediate family and to perform a service to the Park Service, sincerely believing these agricultural activities enhanced the monument's landscape for visitors.

In early December 1932, Associate Director Arno B. Cammerer acted on Heaton's November 7 report on the Pipe Spring water situation. He wrote Commissioner Rhoads stating that the Park Service interpreted Solicitor Finney's opinion as meaning that only waters used by the custodian for his personal farming operations were to be turned over to the Indian Service, and that no objection had been made by the Solicitor to the continued use of water required for "benefit of travelers, including that required for the maintenance of the landscape features at the Monument and for the domestic purposes of the Custodian." He reported that Heaton claimed if the cattlemen demanded their full one-third of the monument's water there would not be enough

remaining to meet the needs of tourists and travelers or to maintain the landscape features. Cammerer made the following request of Rhoads:

Under the circumstances, it would appear advisable that the surplus waters of Pipe Springs be left available for the use of the traveling public, including that required for the maintenance of the landscape features at Pipe Springs National Monument and for the Custodian's domestic purposes so far as practicable and until absolutely necessary to draw on it for the Indians. Accordingly, this Service would respectfully request that nothing be done to impair the Pipe Springs National Monument by the diversion of any of the waters from the springs within the monument area for other uses.⁷³³

On December 27, 1932, Assistant Commissioner Scattergood wrote Director Albright in response to Cammerer's letter opining that, at the time of the monument's establishment, it was "evidently intended" that the surplus water overflowing from the two fort ponds "should be permitted to go to the Indians for their use as stipulated in the proclamation."734 He pointed out that water taken from the fort ponds would not affect the water taken by cattlemen from the tunnel (tunnel spring). The Indian Service interpreted Cammerer's earlier letter of August 30 as meaning that the Indian Service would get all the water impounded by the meadow ponds as well as overflow from the fort ponds. It was the opinion of its supervising engineer that seepage from the fort ponds would be adequate to maintain the trees and shrubbery surrounding the fort and grounds immediately adjacent to it. Scattergood was opposed to any Park Service plans to enlarge the landscape or maintain vegetation beyond the immediate fort area for this "would hardly be consistent to require the Indians to sacrifice the water for such purposes, which water they are very badly in need of in order to grow the garden crops for their subsistence."735 Scattergood informed Albright that Dr. Farrow had already purchased pipe to convey the surplus water from the spring to Indian lands and contemplated employing Indian labor to perform the work of laying the pipeline and constructing the reservoir "in the near future." He asserted that the Indian Service could make no further concession of the Indians' water rights "which are recognized in the Presidential Proclamation and are so essential for their subsistence."736

The year thus ended with the Office of Indian Affairs insisting that all surplus water at Pipe Spring be turned over to the Kaibab Paiute. But exactly what constituted "surplus" water? That question would take more time, investigations, and negotiations to address.

1933

President Franklin D. Roosevelt's election in November 1932 was soon followed in March 1933 by the appointment of Secretary of the Interior Harold L. Ickes. Historian John Ise described Ickes as an "honest, honorable man and a devoted public servant, but a crusty, crabbed 'curmudgeon'....not an easy man to get along with." Confident that the Park Service was in good hands, Horace Albright tendered his resignation on July 17, 1933, but continued to provide active and constructive leadership in the conservation movement throughout the remainder of his life. His successor was Arno B. Cammerer, who assumed office on August 10, 1933.

The year 1933 was a pivotal one in the history of Pipe Spring National Monument with regard to decisions made and actions taken affecting the use and distribution of water. In early January of that year, Cammerer forwarded Leonard Heaton a copy of Scattergood's letter of December 27, 1932, informing him that Farrow would soon install a pipeline. Given the position of the Indian Service, wrote Cammerer, "there does not appear to be anything further we can do to forestall the use of water from Pipe Springs by the Indians after that Service has installed the necessary pipeline for that purpose." Heaton then sent a lengthy letter to Superintendent Pinkley on January 11 "to show that there are some facts that have not been considered" in the water matter at Pipe Spring.

As you know my Father and his brothers owned Pipe Springs before it was made a National Monument. In about 1920 or 1923 there was a law suit on between the Heatons and the Kaibab Indian Reservation, with Dr. E. A. Farrow supt. over the water and rights here. In this suit the Indians were allowed the place by [the] Sect. of Interior, but the Heatons appealed to the U.S. Supreme Court where they won the case by getting the water and forty acres of land. Before they had the deeds all straightened out it was made a National Monument.

Dr. Farrow, knowing that he had now lost the water by the Supreme Court's decision, saw an opening whereby he could get the water if he could get the CLAUSE put in to the proclamation setting aside Pipe Springs as a Monument, which was done.⁷⁴⁰

It is obvious from this statement that Heaton himself had a poor grasp of the facts, since these statements are completely untrue. The issue never went to the Supreme Court, Charles C. Heaton had just threatened to take it there rather than lose the Pipe Spring tract and water to the Indians. Still, it is important to know that the monument's Custodian believed these assertions to be the facts, although how he obtained these impressions is unknown. It is apparent that there was strong, negative feeling on the part of the Heatons about the water use clause that Commissioner Burke had had inserted at the last minute into the proclamation. To some extent, the family (and perhaps others in Utah who had supported the monument's creation) felt betrayed, as this provision had never been put forth by Mather as a condition for having the site made a national monument. Heaton's words imply that the Office of Indian Affairs had somehow tricked Mather (as well as the Heatons). Heaton wrote,

In going over the letters to Charles C. Heaton from Mr. Stephen T. Mather, he never once mentioned the possibility of the Indians getting part of the water. From the statements that I heard made here by Mr. Mather and others, when they were on their way with Mr. Gray to the Grand Canyon Lodge opening, [I believe] that they did not know that the Indians were to get any water at all and did not know of the part of the proclamation giving them the water. They seemed surprised to learn of the fact.⁷⁴¹

The occasion Heaton is referring to, the dedication of Grand Canyon Lodge, took place on September 14, 1928. Of course, Mather was aware of the clause inserted into the

proclamation, but not at the time of his discussions with the Heaton family. He knew of it just before the signing of the proclamation.

Heaton's heated letter to Pinkley continued with a series of questions: Why didn't the Indian Service demand their water as soon as the Park Service had a clear title instead of waiting until 1930? Why, if the Park Service could keep the Indian Service from getting the water for 10 years, could they do nothing now? "It seems to me that there is a 'nigger' in the woods that is being kept covered up and needs to be seen," Heaton stated.⁷⁴² He vehemently refuted the Indian Service's supervising engineer's contention (referenced in the Scattergood letter) that seepage from the fort ponds was adequate to sustain monument trees and shrubbery. "I am wondering... if he has a knowledge of the nature of the soils and the lay of the land, also the action of water in seeping in sandy soils and uphill. For there are trees and the meadow that will never world without end - get water from those two ponds which he refers to, by seepage."⁷⁴³ Heaton argued that the Indian Service could develop Two Mile Wash. (This is a proposal the Indian Service maintained was not feasible year after year. Nevertheless, Heaton continued to beat this dead horse over the years, time and time again.) Heaton suggested to Pinkley that Park Service and Indian Service officials investigate the water problem, "together with the local men." He urged, "Have this investigation here before anything further is done by either party."744

Heaton wrote a second, hand-written letter to Pinkley on the same date, January 11, 1933. The letter was more of a private nature, "matters that I don't care to have made public unless you think they would help to preserve the water for the Monument." Heaton wrote:

When Dr. Farrow first came here, he and the Heatons did not get started off together and they have been fighting over water and land ever since, and now there is more trouble coming up over the water at Moccasin. Soon after Farrow came he made the statements that he would have the Heatons out of Moccasin in six months or so, and that he would have the water at Pipe for the Indians, so that brought about the lawsuit as mentioned in the other letter.

I have withheld writing this way because I don't want to make more trouble than necessary but things have gone on till I am ready to fight to a good finish to see that justice is done. I know and anybody else does that Farrow is after the water and to show the Heatons that he can get the water. I might say in all the cases that he has brought against the Heatons, he has lost.

The above is the starting and bottom of the whole affair and not that the Indians need the water....

There are going to be several problems come up when the Indians get the water, such as the fish in the ponds, watering of livestock from the spring and several others if Dr. Farrow carries out his fast policies here as he did at Moccasin..Gosh, it will be like having an eyetooth pulled to see the water go and the meadow and trees left to die.⁷⁴⁵

The impact of the Great Depression was being felt all over the country by this time, particularly in unemployment. In February 1933 Commissioner Rhoads wrote to Director Albright that Dr. Farrow had reported there was no prospect of work (i.e., day labor) for the reservation Indians and that they needed to produce as much foodstuff as possible on their lands. Consequently, stated Rhoads, "it is essential that they be permitted to use the surplus water from Pipe Springs as soon as the irrigation season begins."⁷⁴⁶ Rhoads asked Albright to instruct Leonard Heaton "to release the water for the use of the Indians" in conformity with Director Cammerer's earlier directive of August 30, 1932. On February 24 Albright sent a telegram to Heaton stating, "Indian Service desires early transfer surplus water from Pipe Springs to Indians. Please make arrangements for this purpose immediately."⁷⁴⁷ Albright then informed Rhoads that the action had been taken.

The day he received Albright's telegram directing him to release water to the Indians, Heaton wrote two letters, one to Superintendent Pinkley and the other to Dr. Farrow. To the latter he stated curtly that "...as soon as I hear from Superintendent Pinkley of the Southwestern Monuments regarding the outlet of the water, I will be ready to turn the water over to [the Indians.]"748 In his letter to Pinkley, Heaton asked where the outlet should go and what type of headgate the Indian Service should use? He also informed Pinkley that he planned to talk with Farrow about three points when Farrow came to get the water. First, he would inform him that "surplus" water was what remained after meeting the needs of "the meadow and other plant life on the monument when it was set aside."749 Second, the Tribe would be allowed to use the ponds by the fort as their storage ponds but Heaton wanted the water level kept from overflowing so as to prevent the road and campgrounds from getting muddy. Third, Heaton wanted to work out a way with Farrow that he could use some of the water for his family garden and domestic needs. Heaton must have been dreading the encounter with Farrow. In ending his letter to Pinkley he wrote, "I suggest, since you have not been up here for over three years, that you come up and help in settling this water problem..."750

The new Secretary of the Interior, Harold L. Ickes, assumed office on March 4, 1933. Pinkley replied to Heaton's above letter on March 11. He told Heaton that while he was of the opinion that Arizona water law should govern the usage and appropriation of water at Pipe Spring, when he brought the matter up for discussion in Washington he had been overruled. Thus, he wrote Heaton,

...we can do nothing but follow out the orders of our superior officers. We will have to deliver the water to the Indian Service and then try to get the Director to come to Pipe and go into the legality of the original usage and the rights we acquired when we acquired the title. Like you, I am inclined to think we may hear of trouble about the division of the water with the cattlemen, but there again, we can do nothing until we have proof that they are being injured.

I do not think the Indian Service has any idea of putting the two old ponds out of use and they will probably want to take their water some place below that. You will let them choose their place for the headgate. Our best play right now is not to fight the Indian Service, but obey the decision of the Secretary of the

Interior and find out what use and how much use the Indian Service is going to make of the water when it is turned over to them.

I plan to come up there as soon as I can this spring and we can then go over the details...⁷⁵¹

About the time that Pinkley wrote his letter to Heaton, a Mr. Lindquist (an inspector for the reservation) and Dr. Farrow visited Pipe Spring to make preparations for installing the new headgate and pipeline. Heaton wrote Pinkley that he hoped to get the Indian Service to allow him to use the fort ponds 4 out of every 12 days for irrigating the meadow and trees. Meanwhile, knowing he could no longer use Pipe Spring water to irrigate a garden, he had not made preparations for one. As area farmers began their spring plowing and seeding, Heaton wrote dejectedly, "It seems something is missing here this year, not having the fields plowed and preparing to plant some kind of crops."⁷⁵² He brightened at the thought that Pinkley and his Assistant Superintendent Robert H. (Bob) Rose would soon be visiting the monument. As he closed his monthly report for March, Heaton wrote, "Your visit cannot be any too soon to suit me."⁷⁵³

Heaton informed Farrow by letter at the end of March 1933 that he could proceed with putting in the Indians' pipeline, taking the water from the top of the ponds, as the two men had previously discussed. The water was to come from the southeast corner of the east pond.⁷⁵⁴ He then wrote Pinkley that his plans were to let the Indians use the two fort ponds as their storage and "take only the water that is not required for the watering of the meadow and trees."⁷⁵⁵

In order to eliminate any possible misunderstanding about the use of the waters at Pipe Spring between the Park Service and the Indians, Commissioner Rhoads issued the following regulations on April 3, 1933:

- 1) The National Park Service will retain the two reservoirs constructed prior to Presidential Proclamation of May 31, 1923, and use such water from these springs and/or the said reservoirs as may be necessary for domestic and stock watering purposes including that necessary for the accommodation of travelers and tourists.
- 2) The Indians of the Kaibab Reservation shall be permitted to use for domestic, stock watering, and irrigation purposes all water from these springs except such above described use by the NPS and their rights to such use shall not be interfered with. The Indians in connection with such use of the water as herein defined are hereby authorized to construct, operate, and maintain a pipeline or lines to convey same to their point of use.⁷⁵⁶

Later correspondence indicates that Rhoads submitted the draft regulations to Albright on April 3 and obtained the director's concurrence with the provisions.⁷⁵⁷ Rhoads then transmitted the regulations on the same date to Dr. Farrow. The Indian Service began work on the new pipeline at Pipe Spring on April 5 and completed installation on April 7.⁷⁵⁸ The work was performed by eight Indians under the supervision of a Mr. Hanrion,

who presumably worked for Farrow. Heaton reported, "It starts from the south side of the east pond and runs in a southeasterly direction to the Indian land where they intend to do some farming." The reservoir with its four-foot dam was located about 1,000 feet southeast of the fort ponds, just outside the monument boundary. (See Thomas C. Parker's sketch map of June 1933, figure 59, or a December 1933 sketch map, figure 65, later in this section.) The first water ran through the Indians' pipeline on April 19. On the same day, Farrow wrote Commissioner Rhoads that the pipeline was completed and the Indians' reservoir ready for the water. Farrow stated that Leonard Heaton wanted to tap the pond reservoirs with a four-inch pipeline and take a turn using the water once in every nine days. In Farrow's opinion, this would practically defeat the purpose of the Indians' pipeline. He expressed the difficulty in knowing what constituted "surplus" water. In Farrow's view, a reasonable concession to Heaton was to provide him with whatever water was needed for culinary use and possibly enough for Heaton's cows and chickens. "I request that a conference be had with the Director of Parks and that a definite understanding be had and that I be advised as to the results," Farrow wrote. The results is a surple of the results.

Heaton received a copy of Farrow's letter. Sensing his intentions had been misrepresented, he wrote Director Albright explaining he wanted to run a four-inch pipeline from the west outlet ditch to water the trees and shrubbery east of the ponds, not tap directly into the reservoir itself. With regard to taking turns, he had wanted it to be worked out so that about every third or fourth time the reservoirs were filled, the Indian Service and Park Service would alternate taking water from them. He then suggested a rather complicated method of watering "turns" based on hours of use.⁷⁶¹ Meanwhile, Heaton reported for the month of April that "Albert Frank and Ray Mose, two young Indians with their wives, have moved here and are making their home just south of the Monument. They are going to do some farming with the water that comes from Pipe Springs."⁷⁶²

Frank Pinkley held off until mid-April before sending Albright a transcription of the contents of Leonard Heaton's first letter of January 11 (referred to earlier) in which Heaton related "the facts" of the Pipe Spring water controversy (Pinkley did not include or mention excerpts from Heaton's second letter). Pinkley pointed out that although Heaton's statements were "tinged with some personal feelings... there is still enough to cause some reflection." He asked if it would be possible to have Assistant Director George A. Moskey (who was also an attorney) brief the file letters to see how much could be dug up about "the old water fight" at Pipe Spring. Pinkley then put forth his own view in the controversy:

I have always had a distinct impression that the Arizona Water Right Law ought to obtain [sic] in the settlement of who owns the water at Pipe Spring, but nobody else seems to have been interested in that angle. It seems to me that the Indian Service wrote the phrase protecting any rights of the Indians into the proclamation and then afterward pointed to it as evidence that the Indians had some rights and this claim was allowed by the Secretary of the Interior, sort of on the basis that if the Indians hadn't had any rights the phrase would

have never been put in the proclamation. My personal opinion is that we have given up water to which we had a legal right if the case were tried under the Arizona water laws and I would like to see one of the lawyers sent out to Pipe Spring this summer to gather the evidence and see if we have not a case to go to court with and get a final adjudication on.⁷⁶⁴

This information from Pinkley gave Albright pause to reconsider the regulations just issued by Rhoads with his concurrence. Albright then appeared to backpedal. On April 27, 1933, the director wrote the commissioner about the regulations, stating that he believed "in general they are satisfactory." Albright continued,

I am fearful, however, that the matter of saving enough water to the National Park Service for the preservation of the vegetation and trees at the monument headquarters is not covered sufficiently to avoid future misunderstanding. It seems to me that this problem is deserving of a more thorough investigation and understanding and I feel that your Service would not wish any unnecessary action taken that would cause the monument area which is not planted to go back to a barren desert. This is quite an oasis in the desert and every effort should be taken to further the development of this growth. To do this would require a modification of the proposed letter, which would incorporate some irrigation by the Monument Custodian...

May I suggest that before these regulations are finally decided one of our engineers in the vicinity go over the matter on the ground with your superintendent and make careful measurements of the spring flow and report on the possibilities of a fair adjustment of water, and a method of piping and control? This can be arranged for at once and a report secured within the next few weeks.⁷⁶⁵

In the meantime, Assistant Director Demaray contacted Zion National Park Superintendent Preston P. Patraw at to ask for his assistance, pending the Commissioner's approval of the above Park Service proposal.

At this point, however, Rhoads was no longer in charge of the Office of Indian Affairs. Beginning in May 1933 the new commissioner was John Collier. Collier seems to have regarded Albright's request for a conference to discuss the water matter as just another Park Service stalling tactic. Collier considered Albright's request, then appears to have denied it in the following response:

...on account of the careful investigations and reports that have been made in connection with this matter and the further fact that the Indians are even now in need of the water for irrigation, it is not believed further delay should occur. Our contention is that the Indians are entitled to all of the water of these springs with the exception of that necessary for domestic and stock watering purposes in connection with the operation of the National Monument, and that while the preservation and further development of trees and vegetation planted

at the Monument are, of course, very desirable yet the use by the Indians of this water for growing subsistence is of much greater importance.⁷⁶⁶

Commissioner Collier referenced the April 3, 1933, regulations, pointing out they had been jointly agreed upon, while stating "I believe that the division of the water as therein contemplated is as much of a concession as the Indian Service can make." The lines were clearly being drawn in Arizona's desert sand for an interdepartmental battle over water. In anticipation of a legal challenge, within a few months Collier had his staff outline legal arguments for Kaibab Paiute water rights at Pipe Spring. In addition to falling back on Solicitor Finney's 1931 decision, the Indian Service interpreted the "all prior valid claims" language in Harding's proclamation to mean protection of an *Indian* prior water right as of at least October 16, 1907. (The cattlemen and Park Service, on the other hand, interpreted "all prior valid claims" as applying only to white settlers' claims.) Collier argued that the stockmen's agreement of June 9, 1924, had not been officially approved by the Secretary of the Interior, even though the Park Service and Indian Service had agreed to it, thus lacked legal status. Total

At about the same time Pinkley was asking Director Albright for legal assistance on the water issue and the Indian Service was tapping into the Pipe Spring water supply, the fate of an earlier request by cattlemen was being decided by Kaibab Paiute men. As mentioned earlier, in August 1932 Commissioner Rhoads had received a request by cattlemen who grazed on reservation land and watered their stock at Pipe Spring that their permits be renewed at half the rate and that an outstanding debt of \$600 to the reservation be cancelled. Rhoads had left the decision up to the reservation's Indians. This may have been the first time the Kaibab Paiute were directly consulted about an issue of this kind. Farrow put the cattlemen's request before a general council of Kaibab Paiute men in the spring of 1933. By a majority vote, the men rejected the proposal. On May 15 several cattlemen appealed to Utah Senator William King to have the decision overturned, stating,

Prior to the creation of the Kaibab Indian Reservation the cattlemen had water, corrals, and pastures capable of handling 5,000 cattle.... To deprive the cattlemen of this pasture leaves them without facilities for handling their cattle and no place to go. Again Pipe Springs is the only fresh waster on this part of the desert, and in hot weather and during drought periods it is the salvation of the cattlemen and cattle industry here. We must have access to these waters.⁷⁶⁹

Should their permits not be renewed, the cattlemen asked King to arrange for a three-quarter-mile-wide right-of-way that would allow them access across reservation land to Pipe Spring. Further negotiations resulted in the Kaibab Paiute agreeing to allow three-year permits on Pasture 2 but only with the understanding it was the final agreement and that a permanent solution to the problem would be reached before expiration of the permits. The cattlemen quibbled over the price of the permits and the compromise fell through during the summer of 1933.

Meanwhile, soon after the Kaibab Paiute general council voted not to renew the cattlemen's leases, local tensions quickly escalated and a direct confrontation took place. Heaton wrote in his monthly report for May: "The most interesting topic of the day in this section is the fight between the cattlemen and the Indian Department as to the rights of the cattlemen to one-third of the waters of Pipe Spring. The Indian Department has closed the cattle away from the water and are claiming that the cattlemen have no right whatever to any water."770 Indeed, on May 23, 1933, Farrow prevented the cattlemen's stock from using Pipe Spring water. In immediate response, the cattlemen sent telegrams to Washington demanding an investigation. They also defiantly told Farrow they would water their livestock at Pipe Spring when the cattle became thirsty. Heaton informed Director Albright of this situation on May 26 and added that the cattlemen were going to demand their one-third of Pipe Spring water, "which means that all of the water will have to be measured and division pipes put in for the Park Service, Indian Service, and cattlemen."771 In a separate letter of the same date, Heaton informed Director Albright that he had worked out his own method of distributing surplus water to the Indians, emphasizing his conviction that the needs of the Park Service and the cattlemen should be fully satisfied before any water was given to the Indians.

By coincidence, on that same day, May 26, 1933, Associate Director Cammerer wrote Heaton that Park Service officials had met with an official from the Office of Indian Affairs to discuss the proposed regulations of Pipe Spring's water (those drafted on April 3 by Rhoads). Both offices agreed to submit the regulations to Heaton and to Farrow "in order that the same may be thrashed out on the ground and either individual or joint reports submitted to the two Services for final adjustment and agreement here in Washington."⁷⁷² Cammerer informed Heaton that the Park Service desired

...to conserve every bit of this water that is possible and to reserve for use at the monument the minimum required in its satisfactory administration. However, we would not care to reach an agreement or to approve regulations that would through lack of sufficient specification prevent us from getting sufficient water to properly administer the monument for the benefit of the public.

In this connection we understand that the Indian Service now has its pipeline installed and ready to connect. Therefore, pending the approval of regulations regarding the division of these waters it is not desired to delay the diversion of the waters for the benefit of the Indians and our previous instructions to you to release the waters should be followed.⁷⁷³

In his monthly report to Pinkley, Heaton reported, "The water question is still on the firing lines and it appears as long as it is left up to Dr. Farrow and myself it will not be settled as we cannot seem to get together on just what water belongs to the Monument and what is surplus."

On May 30, 1933, the cattlemen and Custodian Heaton met with Dr. Farrow and a Mr. Lenzie (another Indian Service official) at Pipe Spring to discuss the water issue.⁷⁷⁵ On June 1 Farrow met Assistant Superintendent and Engineer Thomas C. Parker at Zion

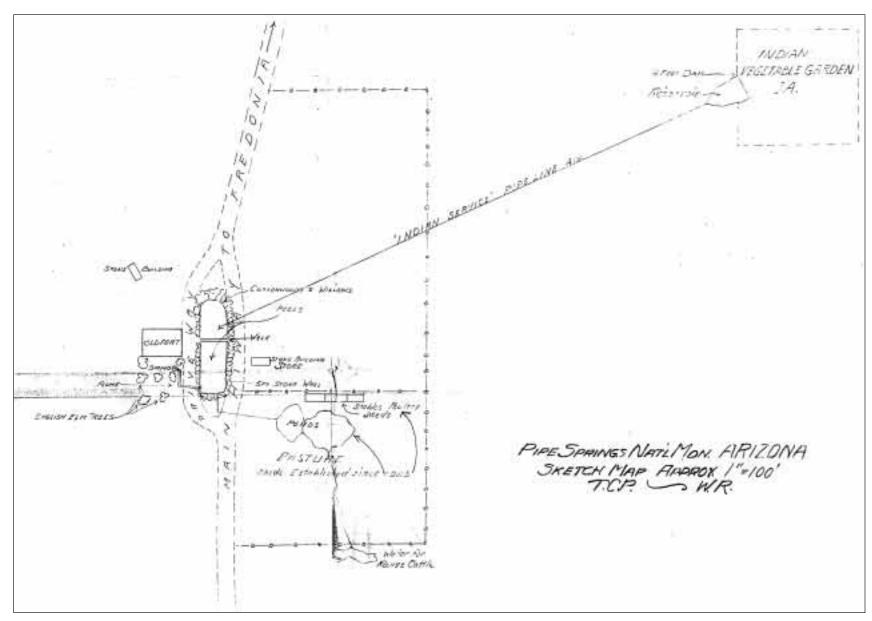
National Park then the two men drove to Pipe Spring together. During the drive down, Farrow made it clear that he did not care to get into a discussion over water rights with Heaton. Parker spent only one-half hour at the monument.⁷⁷⁶ From talking separately to both Farrow and Heaton, Parker learned of the "very bad feelings" between the two men. He asked Heaton to come to Zion the following day to meet with him and Superintendent Patraw to discuss the water problem. Heaton brought with him several letters that indicated that the conflict between local ranchers and Farrow over water was long-standing. After reviewing the monument's correspondence relative to the government's purchase of Pipe Spring, Parker concluded the ranchers were using Heaton to further their ends. Heaton told Parker that "the only reason his father had sold Pipe Springs to the Government was to keep the water for the cattlemen as he was afraid that the Indian Service would get Pipe Springs."⁷⁷⁷

In his June 6, 1933, report to the director, Parker did his best to explain the Pipe Spring situation and why "certain changes in the management of Pipe Springs" were necessary. Parker made the following observations:

- 1) that the Heatons were working against the Indians through Custodian Heaton;
- 2) that Heaton had been allowed by the Park Service to fence off a section of the monument (about 2.5 acres) in order to pasture livestock and poultry. The buildings associated with these animals, wrote Parker, "resulted in a very unsightly condition which is far below park standards;"
- 3) that if Pipe Spring National Monument was brought up to park standards there would not be need for a great deal of water "as the watering of the meadow by overflow from the pools would be the only need outside of that of travelers, which is not great;"
- 4) that cattlemen had at least a moral right, if not a legal one, to overflow water from the springs; and
- 5) that the Indians should be entitled to all the surplus water of the springs and that the Park Service should administer the waters with due regard for the Indians' needs by "very economical use" of water at the monument.

Parker estimated the flow of Pipe Spring was approximately 75 gallons per minute. (This estimate was much too high; it may have been based on misinformation given him by Leonard Heaton.) He recommended four actions to the director:

- 1) that all rights of the springs and pools be retained;
- 2) that three pipelines be installed, with one going to the meadow, one to the stockmen, and one to the Indians;
- 3) that, until a further study could be made on monument needs, the overflow be divided equally among the three parties (to be considered a non-binding arrangement); and
- 4) that the tunnel through which spring water flowed should be cleaned out and water properly piped, ensuring that the stockmen received their share of water.



59. Sketch map of Pipe Spring National Monument, June 1933 (Drawn by Thomas C. Parker, courtesy National Archives, Record Group 79)

"This would give more water to the Indians and need in no way infringe on the needs of the monument," wrote Parker.⁷⁷⁸

Parker also recommended that an engineer make a topographic map and that a landscape architect inspect the ground. Once it was determined how to bring the monument up to Park Service standards, Parker thought the question of water distribution would be easy to handle. Parker included a rough sketch in his report to the director, shown in figure 59.

Finally, Parker wrote in his report, "In conclusion I wish to state that the monument at present is a disgrace to our Service and I have gone over the matter with Superintendent Patraw and request him to visit the monument, and I believe that you will find that the problem is not one of engineering and simple water measurement, but of an administrative nature."⁷⁷⁹

Heaton also reported to Associate Director Cammerer on the June 2, 1933, meeting he had with Assistant Superintendent Parker and Superintendent Patraw. It was concluded at this meeting, said Heaton, that Park Service engineers and landscape architects needed to be involved in making development plans for Pipe Spring prior to the Park Service agreeing to the proposed water regulations. No consideration had been given to the needs for development of a public campground and restrooms, Heaton argued, thus Park Service future needs had not been given consideration by the Indian Service.

Heaton also prepared a letter to Dr. Farrow on June 2 informing him that until a definite agreement over water could be worked out (subject to the recommendations of Park Service engineers and landscape architects), he planned to use Pipe Spring water three of every twelve days, and turn the other nine days over to the Indians.⁷⁸⁰ Farrow decided not to fight Heaton about his method of distribution, and to bide his time until his superiors took more definite action. Instead, Farrow informed Heaton that for the nine days they were allowed access to the ponds, the Indian Service would take their water from the bottom of the pond reservoirs, otherwise they would have to wait two days for them to refill after Heaton drained them to water monument vegetation. "The Indians have growing gardens and this seems to be the only way to protect them," Farrow informed Heaton.⁷⁸¹ Heaton protested to Farrow that he only lowered the ponds about 16 inches each day of use, that the ponds refilled in 24 hours, and that the Indians would get their full nine days' worth of water. He objected to the water being taken from the bottom of the ponds. He then copied his letter to Director Albright, along with a copy of Farrow's letter, informing him of the distribution method he was using. Heaton added, "I trust that some of our landscape men and engineers can be sent to this Monument and lay out plans for its future development."782

In July 1933 Heaton wrote Superintendent Pinkley and asked, "Is there any chance of a park landscape man getting in here this summer or fall to make plans for the future development or will it be left up to me to decide what to do?"⁷⁸³ He also requested additional metal signs for the monument. Pinkley replied that Landscape Architect Harry Langley (based at Grand Canyon National Park), would be there in the fall "to

look things over" and that he (Pinkley) and Assistant Superintendent Bob Rose would also try to visit.⁷⁸⁴ "One of us ought to have been in before this but first one thing and then another has happened to prevent it," wrote Pinkley.⁷⁸⁵

In early August 1933, Park Service Chief Engineer Frank A. Kittredge wrote Assistant Superintendent Parker at Zion National Park to inquire about the status of the water dispute at Pipe Spring. Parker sent Kittredge a copy of his June 6 report informing him that, "I have never received an answer or any further instructions [from the director] since sending this report in."786 Meanwhile, cattlemen and visitors alike were hounding Leonard Heaton over the use of water at Pipe Spring. In mid-August Heaton wrote the Park Service's new Director Arno B. Cammerer on behalf of the cattlemen asking "if something could not be done so that they could get the one-third of the waters of Pipe Springs that they own and has been acknowledged by the Park Service and the Indian Service under date of June 9, 1924."787 "It appears on the surface," he wrote, "that the Indian Service is trying to take the water from the cattlemen, and they have appealed to me to ask the Park Service to set the division of these waters."788 The cattlemen planned to gather their steers in five weeks and wanted the water by then, which would have been in late September. While the cattlemen had been getting their water from tunnel spring, Heaton wasn't sure this was the full one-third they were entitled to. He proposed that accurate measurements be taken, that the cattlemen and Indian Service be given their share of water from the fort ponds, and that the tunnel water and "enough water from the ponds" be used for watering the monument. Water for domestic use by the Heatons and by the traveling public should be taken out prior to any division, Heaton believed. "I trust that this water question will soon be settled as I am getting raked over the coals by the cattlemen, Indians, and local people and some [of] our tourists about the water and the way it is being handled by the Park Service."789

Associate Director Demaray forwarded a copy of Heaton's letter to Commissioner Collier in late August, soliciting the Indians Service's views on the matter. In late August Demaray also forwarded a copy of Parker's June 6 report to Pinkley at Southwestern National Monuments. He asked for Pinkley's assessment of the situation and for his "definite recommendations," especially with regard to whether Leonard Heaton should be retained as acting custodian.⁷⁹⁰ A copy of Parker's report was not sent to Heaton, probably because it was scathingly critical of him and the monument's appearance.⁷⁹¹

Meanwhile, Harry Langley again visited the monument on August 29, 1933. In addition to reviewing the text and approving the placement of the Utah Pioneer Trails and Landmarks Association's plaque on the fort, he secured the necessary data for preparation of drawings for monument development purposes.⁷⁹² (The plaque was discussed in Part III.) Heaton assisted Langley in making measurements of the buildings and offered suggestions for improvements of the monument.

In response to Demaray's request for a report on the Pipe Spring situation, Pinkley sent a six-page letter to Director Cammerer in early September. It is apparent in his reply that Pinkley took offense at Parker's more critical comments about the monument made in his report of June 6. Parker's implication that firing Heaton would solve the monument's problems particularly incensed Pinkley, who wrote,

Does Mr. Parker know that Heaton is not Custodian at Pipe Spring, but is a \$1,200 laborer with 15 percent off that under the present economy rules? Will Mr. Parker or the Washington office guarantee to replace Mr. Heaton with one of the fine, upstanding type of young executive men who are up to the Park Service standards, who will come out there and run Pipe Spring National Monument for \$1,020 net per year? Give me the address of two or three of them and I will throw in with you and agree to change men at Pipe. There isn't any sense in firing him to put another local man in his place; that won't get you any place. The solution to that is to raise the salary to Park Service standards (and I mean a different thing from the park standard mentioned by Mr. Parker) and put in a man drawn from the Civil Service list at \$1,860. I have been trying to do that for four or five years, thus far without success. Will the Washington office try to get the job re-allocated?⁷⁹³

Pinkley said that Parker's estimate of the flow of Pipe Springs was two and one-half times the real amount. The Indian Service's Supervising Engineer had measured the flow in September 1929 and recorded the discharge as 33.56 gallons per minute, not the estimated 75 gallons per minute that Parker reported. Pinkley then addressed each of Parker's recommendations, one by one. Parker's recommendation that the Park Service "retain all rights to the monument springs and pools" implied that the monument had legal rights to the water, and in this matter Pinkley and Heaton believed they did. He bridled at Parker's implication, however, that the land had been sold to the federal government in a less than honorable fashion. If the Park Service had any water rights, Pinkley asserted, they must have come with the transfer of the land. This being the case, could anyone blame the cattlemen for fighting to maintain control of water that allowed them to run their cattle on the public domain? Why did Parker treat Charles C. Heaton's sale of the property to preserve the cattlemen's access to water as something wrong? Pinkley wrote,

If you were a Heaton and were running cattle on the open range and owned a spring that it looked like the Indian Service was going to plaster a law suit on and you would have to fight it through to the United States Supreme Court to get what you thought was justice, and you didn't like to look three or four thousand dollars worth of lawyer's costs in the face, what would you do if our beloved Chief, Stephen T. Mather, came along and offered to buy your place and promised that the cattlemen, of whom you were one, would not be cut off from the water they had used since some time in the sixties? Well, I agree with you, I would sell out too, and I wouldn't consider that I had done a crooked thing in doing so. Would you?⁷⁹⁴

Next, Pinkley regarded Parker's method of dividing and distributing water three ways as

...a wasteful way of handling the water. Eleven gallons per minute is applying water to a meadow with a sort of an eyedropper. The proper and economical way to apply that water would be to make a time division of it. Let the whole

head accumulate in the ponds. Then open the gates in the ditch and let it go to the Indians for a certain number of hours with a rush..... This is what Heaton meant in his letters in June when he was talking of his taking the water three days and giving it to the Indians nine days.⁷⁹⁵

As for Parker's suggestion that the water be divided three ways, Pinkley wanted to know, had Farrow agreed to this arrangement? From the correspondence that Pinkley had seen going back and forth between Heaton and Farrow, it appeared that Farrow wasn't even satisfied with the nine out of twelve days that Heaton was then giving him, which amounted to three-fourths of the water from Pipe Spring. Judging from Farrow's April 19 letter to the Commissioner, countered Pinkley, it seemed that Farrow considered "ninety-nine and a fraction percent of the water to the Indians would be about right." 796 As for Parker's fourth suggestion regarding tunnel spring, Pinkley cautioned that no work should be done before a qualified geologist had determined the source of water for the tunnel and how its use would impact the main spring. The same was true of the water seep by the west cabin, which Parker had not mentioned, wrote Pinkley. He agreed with Parker that the monument needed a topographic map, that unsightly structures need to be removed, landscaping done, etc., "but," Pinkley stated, "until we get something besides cigar bands to use for money up there, those things will just have to wait."797 Even if the monument had a topographic map and the recommendations of a landscape architect, how would that make the distribution of the monument's water easier to handle, he queried?

Pinkley wrote of his high opinion of both the Heatons and of Dr. Farrow and stated,

I hold no brief for either the Heatons or Dr. Farrow.... My brief is for the Park Service. I think we own the Pipe Spring National Monument and the water thereupon except for such water as may have had prior rights acquired by usage, or such as was promised by Mr. Mather in taking over the property. I am sorry for Dr. Farrow's Indians, but if the President had wanted them to have 99 percent of the water of our spring, so far as I am concerned, he had better have stated his intention to that effect in the proclamation. They are welcome to 'surplus' water but they are not welcome to say how much water is surplus; some place in our organization we ought to have some engineers and landscapers who can do that for us.⁷⁹⁸

Finally, Pinkley recommended to Director Cammerer that first, if the position could be reallocated to the Civil Service as a park ranger or custodian, that Heaton be replaced with a man picked from the eligible list. ("This naturally involves an increased allotment," he added.) Second, the Park Service should try to hold on to the rights to the water as well as the land, except such rights as might have been acquired by prior usage of the water on the part of the cattlemen. Third, the water should be divided into three equal portions on a time basis. Fourth and last, nothing should be done to open the tunnel or any other seep until the present water situation was cleared up, and even then approached only after expert geological examination.

At the request of Pinkley, Assistant Superintendent Bob Rose visited the monument September 12-17, 1933, to conduct an accurate water resources survey and geological reconnaissance. He was accompanied by his wife. A chicken supper was held for the Roses in Moccasin the evening of September 15, attended by most of the community's residents. In his monthly report to Pinkley, Heaton wrote, "Tell Bob that several of the women want him to come back and sing some more songs as they thought he had one of the best voices for singing out of doors that they have ever heard. Bob and his wife surely made a good impression on the people up here..." Rose's report will be described shortly. Prior to leaving the area, Rose met in Kanab for a one-hour discussion with Dr. Farrow.

On September 15 Harry Langley, Landscape Architect Harlan B. Stephenson (Zion), and a Mr. Ford (a Union Pacific official) joined Rose. The men reviewed development plans at Pipe Spring. Langley later reported that Heaton "was very pleased with all the suggestions made and is willing to rearrange certain farming operations in any manner we suggest."800 Langley stated optimistically, "At present conditions are not as desirable as they might be, solely because of the peculiar conditions under which the Monument is operated but with a definite plan of development and the cooperation of the Custodian, I feel sure everything will work out all right."801

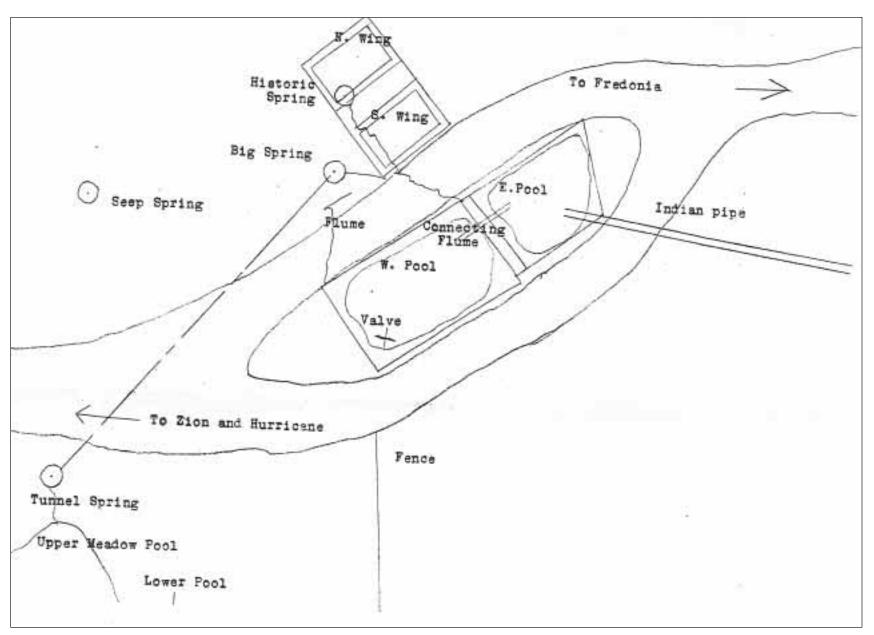
Langley reported that providing Heaton with a residence was "most important" so that the fort could be vacated and restored. He also recommended the monument road be relocated: "At present there is a road right alongside the building which should be eliminated and by changing the main road, camping facilities can be improved." On September 17 Superintendent Pinkley, Zion's Superintendent Patraw, and Sanitary Engineer H. B. Hommon, U.S. Public Health Service, met with Langley at the monument and reviewed the plan of development.

The Rose Report

Bob Rose soon backed up Frank Pinkley's position on Pipe Spring's water with his investigation of September 12-17, 1933, at the monument. On September 19 he submitted his 54-page report to Pinkley, entitled "Report of Water Resources and Administrative Problems at the Pipe Spring National Monument." After reviewing the document, Pinkley sent a copy of Rose's report to Director Cammerer on October 12 with Pinkley's hearty endorsement of Rose's conclusions. (See Appendix IV.) In December Chief Engineer Kittredge was also sent a copy.

Rose began by describing the relative locations of springs and seeps at the monument. He identified these as the historic spring, big spring, tunnel spring, and seep spring (west of the fort, also called "west slope seep"). These are shown in a sketch map from the report (see figure 60).

He then measured the flow of each of the springs, using various measuring techniques, described in his report. The historic spring (located under the west end of the upper house) produced a flow of 5.67 gallons per minute. The big spring (located 25 feet



60. Sketch map showing location of springs, September 1933 (Drawn by Robert H. Rose, courtesy National Archives, Record Group 79)

from the southwest corner of the fort) produced an average of 27.77 gallons per minute. Both of these springs flowed into the fort ponds, or interlocking pools, as Rose referred to them. Together, their flow equaled 33.44 gallons per minute.⁸⁰³ The flow from tunnel spring (located just north of the upper meadow pool) was measured at the point of overflow from the upper meadow pool. Its flow was 7.7 gallons per minute. The overflow from the upper meadow pool was carried in a small ditch to the cattlemen's reservoirs just outside the southwest boundary of the monument. "This is all the water cattlemen have been getting during the summer of 1933," Rose reported.⁸⁰⁴ The combined flow of the three springs was 41.14 gallons per minute. Rose also determined the west slope seep produced about .05 gallons per minute.

It is important to interject here that the big spring identified by Rose was later determined not to be a separate spring at all but only subsurface diversion from the historic spring placed by Edwin D. Woolley, probably in the 1880s. In 1937 Park Service Hydraulic Engineer A. van V. Dunn opined there were only two significant springs on the monument, the historic spring and tunnel spring.⁸⁰⁵ In fact, tunnel

spring was man-made through excavation into the main water source in the early 1900s. The only two true springs at the monument are the one that emerges under the fort and the one by the west cabin, which is a seep spring.

Pipe Spring water was being distributed in the following manner at the time of Rose's investigation: three-fourths of the water from the interlocked pools was going to the Indian Service (nine out of every twelve days); one-fourth of the water from these pools was used by Heaton to irrigate the 2.5-acre meadow and to water trees; and the cattlemen were getting the overflow from the upper meadow pool.

Improvements to tunnel spring - cleaning the tunnel entrance and constructing a flume - would only increase the total output of the combined springs by 3.42 gallons per minute, an increase of only about 10 percent, estimated Rose.



61. Overflow pipe at upper meadow pool, September 1933 (*Photograph by Robert H. Rose, courtesy National Archives, Record Group 79*)



62. Custodian Leonard Heaton's stables and poultry sheds, east of meadow ponds, September 1933 (*Photograph by Robert H. Rose, courtesy National Archives, Record Group 79*)

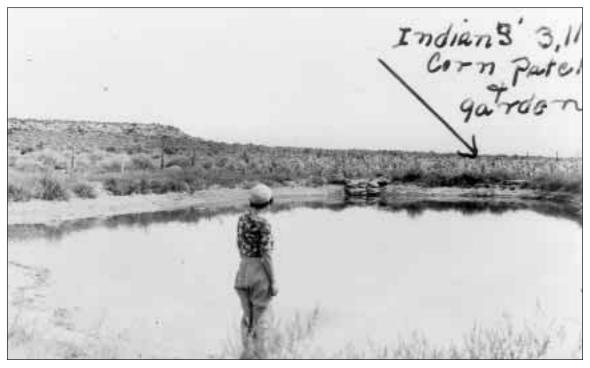
He described the geological conditions and how these affected the springs. While he recommended improvements to tunnel spring, Rose warned against enlarging or extending it "because of the great danger of tapping the historic or big springs." In reality, tunnel spring probably already compromised the flow of the main spring by tapping into it.

The meadow pools, according to information from Charles C. Heaton, were regarded by Mr. Mather "as an addition to the beauty of the little meadow," reported Rose. It appeared they had been constructed with the approval of Mather and Pinkley in 1926. "The burden of evidence will be found to prove these pools were designed for their scenic effect and approved with that end in mind," Rose noted. 807 At the time of Rose's visit, Heaton's stables and poultry sheds were located east of the meadow ponds. These were later moved and located near the monument's south boundary to be less visible.

Rose argued that the Heaton family did not create the monument's water problems. Heaton Brothers of Moccasin, stated Rose, "are but one of thirteen people or groups of people belonging to the organization that is interested in watering cattle from the waters of Pipe Springs. The Heaton cattle usually comprise less than one-third of all the cattle involved in this watering problem." 808 In a section entitled "Claims of Various Contestants to Pipe Springs Water," Rose reviewed the claims of the cattlemen, National Park Service, and the Indian Service. He seemed particularly incensed at the attitude of Dr. Farrow, who always talked of Pipe Spring water in terms of, Rose reported, "CONCESSIONS which the Indian Service was willing to make to the Park Service...as though the Indian Service was in complete charge of parceling out these waters." 809

With regard to Arizona water law in the case of Pipe Spring, Rose maintained that onethird of Pipe Spring water belonged to the cattlemen and the remainder to the Park Service. The monument proclamation only gave the Indian Service the "privilege" of using surplus water if it was available, argued Rose. Then Rose made the case that the Indians were not making efficient use of the water they were receiving either from Pipe Spring, reservation water sources, or Moccasin Spring. Rose reported that the Kaibab Paiute had a 3.11-acre cornfield and garden plot near the "Indian Pool" (reservoir) just outside the southeast edge of the monument. Leonard Heaton and his father, Charles C. Heaton, told Rose the output of the big and historic springs and tunnel spring was sufficient to irrigate 15 acres in addition to meeting the needs of cattlemen. Since the Indians were receiving three-fourths of the water, Rose calculated they should have enough water to irrigate 11.25 acres. "It would appear, therefore, that no great need or emergency for water exists on the part of these Indians, who are raising 3.11 acres of crops where they should, properly directed, be raising more than 10 acres."810 Rose then discussed sources of water located on the reservation (the North Seep Indian Spring and Two Mile Wash) and argued that these too were not being well utilized. Several local Moccasin residents told Rose the Indians were not even using their share of Moccasin Spring water efficiently. The obvious implication underlying Rose's arguments was that the Indians were undeserving of additional water from Pipe Spring since they were not making efficient use of what they already had available to them.

On the other hand, the Park Service had a solemn trust to keep with the Church, Rose argued:



63. Indian pond/reservoir, located southeast of the fort area on reservation land, September 1933. A 3.11-acre corn patch and garden was located below the pond. (*Photograph by Robert H. Rose, courtesy National Archives, Record Group 79*)

The Monument area is 40 acres. The early Mormons had orchards, gardens, and many more trees than are now on the Monument. With the reservation of the Winsor Castle there was also the reservation of its setting. For increased cultivation and irrigation of the future, and with increased needs for tourists and the Custodian's residence and public facilities, it would seem unwise to turn over 99 percent of the water to the Indian Service after the Cattlemen have been recognized.... If we give away all but a figurative spoonful of this monument's water and cannot carry out the development of gardens, orchards, trees, and meadows, we will be breaking the faith Mr. Mather developed with the heads of the Mormon Church....

The Mormon Church had faith in Mr. Mather's desire to recognize the rights of the Cattlemen. They were also enthusiastic about Mr. Mather's intense interest in restoration of the place to its old historic standard. To do both of these things will require that (1) we recognize the Cattlemen's legal or moral right to the water as the case may be, and (2) that we guarantee ourselves the necessary amount of water to care for all of the needs, present and future, of the monument.⁸¹¹

Rose did not address the fact that the National Park Service had already substantially modified the landscape. Also lacking was any documentation on the appearance of the original landscape and any evidence that "many more trees" existed.⁸¹² Nonetheless, Rose urged the following action:

Landscape architects should cooperate with us at once in working out definitely the future needs in trees, meadows, orchards, and gardens for an historical restoration of the Monument. The Engineers should then promptly have someone familiar with Irrigation Engineering submit figures on water the National Park Service needs for this restoration, and for residential and tourists' needs. We will then know just how much water we can turn over as surplus above our needs to the Indians.⁸¹³

Rose concluded his report with the following statement:

The entire Mormon Church has a live interest in this most important historic landmark to their early pioneers. The Mormon Church fully expects us to bring the property up to Park standards by a full and complete restoration of Winsor Castle and its setting. To accomplish this end, most if not all, of the water to which we now have legal right will be needed. Whatever is then surplus can be utilized by the Indians.⁸¹⁴

While the water question now lay at the doors of officials in Washington, unprecedented planning activities were taking place back at Pipe Spring National Monument.

Monument Development Planning, 1933

Frank Pinkley did not submit Rose's September report to Director Cammerer for almost another month. (It was not sent to Kittredge and Heaton until mid-December.) Meanwhile, Park Service officials were busy developing plans for Pipe Spring National

Monument. On September 27, 1933, Harry Langley visited the monument again, only this time with Chief Landscape Architect Thomas C. Vint and Zion's Superintendent Patraw. They brought with them development plans drawn up by Langley since his earlier trip. Discussions between the men included proposed developments as well as the ongoing water dispute between the Park Service, cattlemen, and Indians. Heaton later reported to Pinkley: "Mr. Vint left instructions to set trees all over the place, saying that, 'You can't plant too many trees in this country,' and especially where the proposed campgrounds are to be, or any place that they will not have to be moved when the proposed plans are put into effect." This comment appears to have been marked for deletion when the monthly report was prepared for the director, probably because of the sensitivity of the water issue at that particular time.

Langley filed a trip report for Pipe Spring to the Branch of Plans and Designs on December 20, 1933. It covered his three trips of August 27, September 15, and September 27, 1933, all made for the purpose of studying existing conditions and planning future developments. Langley recommended relocating the approach road south of the ponds; planting ground cover in the area of the fort to improve the appearance and reduce dust nuisance; moving the custodian's residence out of the fort and constructing a residence "in the area of the south," preferably of local sandstone; furnishing the fort; planting trees to improve the general appearance of the area as well as to provide shade and a ground cover to reduce the dust problems; developing a small campground southeast of the fort which required planting shade trees; removing "unsightly pit toilets" and constructing a comfort station in the new campground. Langley had no objections to the fences Heaton had erected to contain his animals and the "small amount of farming" that he was doing at Pipe Spring. He did ask Heaton to move his animal sheds from their site next to the meadow to a place where they would less visible. Langley thought the store should also be moved, provided there was enough travel to justify keeping one at the monument. Heaton was told he could leave the old cattle corrals in place at the monument's southwest corner, since they were part of the history of the place.

While President Franklin D. Roosevelt's New Deal programs may have contributed to increased development activity at Pipe Spring during the fall of 1933, the water controversy was at least as, if not more, important in driving the Park Service to develop the monument. Roosevelt's public works programs would soon make labor and funds available to carry out some of the plans scoped out at Pipe Spring during this period of turmoil over water. (The public works programs of the Great Depression are covered in Part V.)

During the month of October, Dr. Farrow and Mr. Lenzie met with local cattlemen Heber J. Meeks and Charles C. Heaton in attempt to resolve the water dispute. (Meeks was president of the committee of cattlemen who had one-third share of Pipe Spring water). Meeks and Heaton asked if the water supplied by tunnel spring would be sufficient to supply the cattlemen's needs, since it was thought to equal one-third of the water at the monument. Using Rose's measurements, Leonard Heaton told them it delivered only one-sixth of the monument's water, an amount the Indian agents

questioned. Then, according to Heaton's later report, Farrow stated, "That if the two ponds were left in the meadow and a forest of trees planted as that man Rose wants, the purpose of the monument would be defeated and I won't stand for them planting any trees." To this, Heaton added his reaction: "Say, that just made me boil and I wondered if Dr. Farrow knew who was running this monument, he [sic] or the Park Service." In the same monthly report, Heaton wrote, "The past week I have been getting the water out on the campground and preparing it for the planting of the trees this fall..." It appears that Farrow's threat merely served to goad Heaton into planting more trees. That October Heaton also removed half of the big elm trees that were leaning against the fort (presumably on its west elevation). This was done because the trees were threatening the fort's wall.

In late November 1933, Heaton reported that he had spent most of the month "...moving the garage and other buildings that I had by the meadow, making irrigation ditches for the campground trees and in the meadow so that it all could be watered with less waste. Have had some work done on the house and grounds this month. Expect to set out about 75 trees Saturday in different parts of the monument." There was no doubt in the mind of Leonard Heaton exactly *who* was running Pipe Spring National Monument!

Water Regulations Issued

Neither Director Arno B. Cammerer nor Commissioner John Collier apparently ever read Rose's report prior to making an important decision that would impact Pipe Spring National Monument and the Kaibab Paiute for decades to come. For some unknown reason, Pinkley did not mail Cammerer the Rose report until October 12, 1933.⁸¹⁹ On October 13 Collier informed the Secretary of the Interior that an agreement had been reached between the National Park Service and the Indian Service over the division of Pipe Spring water. It was agreed that the cattlemen had a moral if not legal right to one-third of the monument's waters, wrote Collier. As for the two agencies,

It is understood that the Park Service is agreeable to the issuance of regulations providing for a division of the available waters of Pipe Springs (three springs) on the basis of one-third to the Park Service, one-third to the cattlemen, and one-third to the Indian Service. It would appear that such a division, if the water be properly measured, would under normal conditions take care of the respective needs. It is therefore recommended that in lieu of and without definitely settling the legal rights of the respective parties, that regulations along the lines above suggested be approved.⁸²⁰

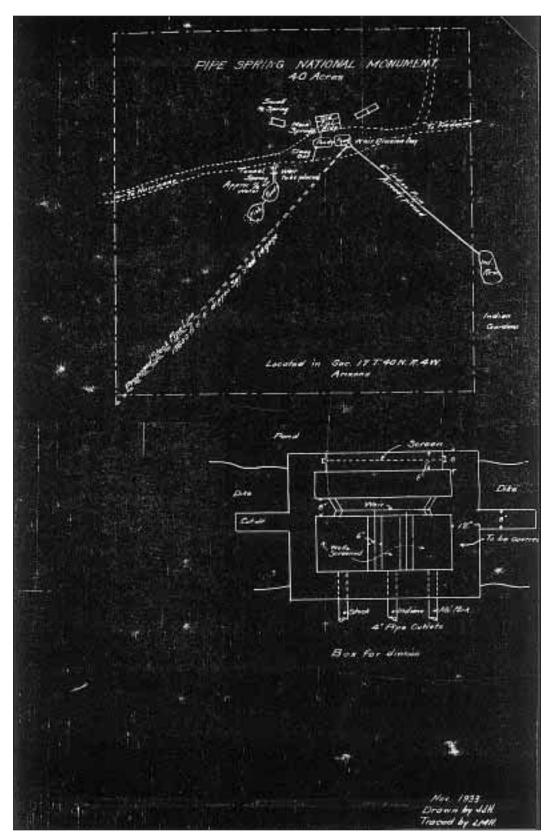
Director Cammerer signed his concurrence to the letter on October 17, 1933. Collier then submitted a draft of the regulations with his letter to the office of the Secretary of the Interior. On November 2, 1933, Assistant Secretary Oscar L. Chapman added his concurrence to Collier's letter and approved the draft regulations. Thus on November 2, Department of the Interior's "Regulations for the Division of the Waters of Pipe Springs" took effect. (See Appendix V.) In addition to the three-way water division, the regulations called for installation of water measuring devices to ensure equitable division. The cost of installation, maintenance, repairs, and replacements was to be borne equally by the

three parties. Each party was given the right to inspect at any time the records of the division of the waters but not to tamper in any way with the water meters. The regulations finally stated, "Nothing herein shall be construed as in any way affecting or determining the respective water rights of the parties here referred to. The right is reserved to modify, amend or change these regulations as conditions may warrant."821 Thus while the division of Pipe Spring waters had now been agreed upon, the legal question of water rights at the monument still went unanswered.822

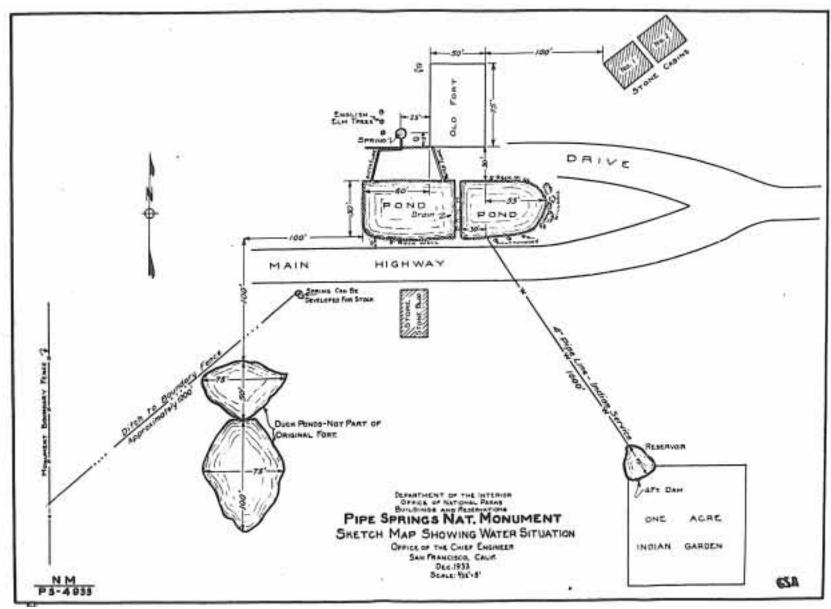
The cattlemen got word that the Indian Service had agreed to recognize their right to one-third of Pipe Spring waters from Congressman Murdock, who telegramed the news to Heber J. Meeks in October.⁸²³ They also learned they had been given a right-of-way to pipe the water off the reservation, although the cattle business that year had been so bad, this was not something they could immediately afford to do.

On October 28, 1933, just before the Department's water regulations were issued, Associate Director Demaray wrote Pinkley acknowledging receipt of the Rose report, "one of the finest reports on the Pipe Spring situation that we have ever had in this office," opined Demaray.⁸²⁴ He informed Pinkley that the water situation "has tentatively been settled" and described the three-way division agreement reached between the Park Service and the Indian Service. "It is believed that this distribution will be commensurate with satisfactory development at the monument as proposed," Demaray wrote.⁸²⁵ Upon hearing of the agreement, Chief Engineer Kittredge wrote Director Cammerer saying, "I think the allotment of water is very fair, and the Park Service certainly will have all it needs under this agreement. At least that is the impression that I have gained from the various reports, and especially Mr. Parker's. I am very glad that this has reached the settlement stage and that the Indians also are properly taken care of." ⁸²⁶

In late November Chief Engineer Kittredge asked Zion's Assistant Superintendent Parker to go with Engineer Arthur E. Cowell to Pipe Spring to take the necessary



64. Sketch map of Pipe Spring National Monument and plan for division box, November 1933 (*Courtesy NPS Water Resources Division*)



65. Sketch map showing water situation, December 1933 (Courtesy National Archives, Record Group 79)

measurements and to collect data for a map to be used to base recommendations "for future piping, troughs, reservoirs, etc." Parker responded that he and Cowell were very busy with public works and civil works programs, but would try to get there on a weekend to do the work. That month plans for the division weir were drawn up, as shown in figure 64.

Based on information provided by Parker and Cowell, Kittredge had a sketch of Pipe Spring made in December 1933 (see figure 65). It apparently was drawn up as a reference by Cowell and Parker for use in surveying the water issues and was not meant to be complete, nor is it (the west cabin does not appear on the map). Development of the water system, laying of the cattlemen's pipeline, and installation of the division weir would all take time. The new system would not be in place until late summer 1934.

New Deal programs began to impact Pipe Spring and other area parks beginning in November 1933. By December work projects were in full swing. These programs and related monument developments during the Great Depression are the subject of the next chapter.

Part V - The Great Depression

Introduction

By the fall of 1930, Custodian Leonard Heaton's monthly reports to headquarters referenced problems of area unemployment. In November he wrote, "There have been only a few people here this last month and they have been hunting work and something to eat." In August 1932 he reported, "The people of this section received 10,800 pounds of flour from the Red Cross which will be a great help to some, but if work is not furnished to some they will go hungry or will have to be kept by some charity organization this winter." During the fall of 1932, Mohave County offered roadwork to help alleviate the problem. Heaton reported, "Road work on Highway 89 is underway allowing married men 30 hours of work each week at .50 per hour. The work has been so arranged that about six or seven men from each settlement will be at work all the time." Yet the problem of unemployment was far too acute and widespread to be solved by local, county, or even state measures. The mobilization of federal forces was required to address the worst financial crisis of the 20th century, known as the Great Depression. The federal programs implemented during the 1930s would considerably impact Pipe Spring National Monument.

The First New Deal

The economic crisis sparked by the stock market crash of late 1929 only deepened during the early 1930s. Before Franklin D. Roosevelt took office in early March 1933, a total of 5,504 banks had closed. Nearly all the remaining banks had been placed under restriction by state proclamations. That month, President Roosevelt took immediate steps to strengthen the banking system while initiating his nationally radio-broadcasted "fireside chats" in an attempt to calm the fears of the nation. Congress then held a 100-day session to address unemployment and farm relief. The resulting legislation was aimed primarily at relief and recovery. Known as the "First New Deal," it lasted roughly from 1933 to 1935.

By an act of March 31, 1933, the agency known as Emergency Conservation Work (ECW) was created to provide work for the unemployed. The law authorized the federal government to provide work for 250,000 jobless male citizens between the ages of 18 and 25. Their duties were to be reforestation, road construction, prevention of soil erosion, and national park and flood control projects. Roosevelt's Executive Order 6101 of April 5, 1933, authorized the commencement of the program. Robert Fechner was named director of the ECW, later more commonly referred to as the Civilian Conservation Corps, or CCC.⁸³³ He served in that position from fiscal years 1933 through 1939. Four government departments (War, Interior, Agriculture, and Labor) cooperated in carrying out the program. At its peak the CCC had as many as 500,000 on its rolls; over two million were enrolled over the course of the program by the end of 1941.⁸³⁴

Placed under the direction of Army officers, CCC work camps were established with youths receiving \$30 per month, \$25 of which went to their families. The government provided room, board, clothing, and tools. The enrollee was expected to work a 40-hour week and adhere to camp rules. Initially, enrollment for conservation work was limited

to single men between the ages of 18 and 25. New categories were opened during the months of April and May 1933. On April 14 enrollment was opened to American Indians, who were generally allowed to go to their work projects on a daily basis and return home at night. On April 22 enrollment was opened to locally employed men (known as LEMs). The marriage and age stipulations did not apply to these men, most of whom were in their 30s or 40s. While a limited number of skilled local men were employed, the bulk of the CCC work force came from the unemployed in large urban areas. On May 11 enrollment was opened to men in their 30s and 40s who were veterans of World War I. These enrollees were given special camps, operated with more leniency than the regular camps, and selection was determined by the Veterans Administration rather than the Labor Department.⁸³⁵ Except for a few installations in Northern states, the camps were racially segregated into white, Negro, and Indian camps.

The program was to be started in the East and extended to the rest of the country as soon as possible. Roosevelt's goal was to have 250,000 youths at work in national parks and forests by July 1, 1933. Various agencies of the Department of the Interior directed the work of the CCC camps: the Office of Indian Affairs, the Bureau of Reclamation, the General Land Office, the Grazing Service (also referred to as the Division of Grazing), the Fish and Wildlife Service, and the National Park Service. In the state of Arizona, the National Park Service directed camps in Grand Canyon National Park and the following national monuments: Petrified Forest (NP-8), Chiricahua (NP-9), Saguaro (NP-10), and Wupatki (NP-11). In addition, Mt. Elden Camp (NP-12), located at Walnut Canyon, performed work there, at Wupatki, and at Sunset Crater National Monuments. ⁸³⁶ In the case of Pipe Spring National Monument, however, the Grazing Service oversaw the camp. Designated Camp DG-44, its work activities concentrated on the public domain. ⁸³⁷ By contrast, for its first two years CCC camps administered under the Park Service were forbidden from working outside park boundaries.

On March 16, 1933, the NPS Washington office issued a memorandum to parks and monuments requesting a report of the number of unemployed in the area, projects on which they could be put to work, and available housing. Heaton reported that 25 men were unemployed in the area of the monument, 18 were supporters of families, and seven were single. All came under the class of common laborer. Unemployed Indians, he reported, were not included in this count as the local Indian Agency was caring them for. Heaton stated that he could house 40 or more men at the monument. (Presumably he was considering the fort and two cabins for housing.) No plans had been formally prepared for the monument, but Heaton suggested a number of possible work projects.⁸³⁸

The Office of Indian Affairs participated in the CCC program, and more than 88,000 Indian men enrolled nation wide. The work performed under this program was generally carried out on Indian reservations. CCC regulations were changed according to the realities of reservation life. The War Department was not involved in camp administration on reservations.⁸³⁹ In September 1933 Heaton reported to Southwestern National Monuments Superintendent Frank Pinkley, "Nine of our Indians have got work in one of

the CCC camps for the winter and a large percent of our unemployed are in these camps. There are five of them within 150 [miles] of here."840 It would be two more years, however, before a CCC camp would be located at Pipe Spring National Monument.

Of earlier importance than the CCC at Pipe Spring National Monument was the Civil Works Administration (CWA), established on November 8, 1933, as an emergency unemployment relief program for the purpose of putting four million jobless persons to work on federal, state, and local make-work projects. Funds were allocated from Federal Emergency Relief Act (FERA) and Public Works Administration (PWA) appropriations supplemented by local governments.⁸⁴¹ The CWA was created in part to cushion the economic distress over the winter of 1933-1934. It was terminated in March 1934 and its functions transferred to FERA.

On the date of the CWA's establishment, Director Arno B. Cammerer issued Circular No. 1, "The Civil Works Program," which was distributed to parks and monuments. Data was requested from the parks and monuments to enable the Washington office to compile a comprehensive outline of possible Civil Works Projects with an estimate of the number of men who could be employed. On November 8, 1933, Chief Engineer F. A. Kittredge telegramed Heaton to inquire how many men and women he had working on Civil Works Projects. Heaton telegramed back that he had not yet been authorized to commence work, that he would only be employing men, and that men were available and ready for work. On November 15 Kittredge informed Leonard Heaton that his office had wired Washington, D.C., requesting 15 men for work at Pipe Spring National Monument, at a cost of \$3,510 for the three-month program. The men were to live at home while working. The projects listed for the men to work on were described as "repairs to one-fourth mile road, general clean-up, shifting outhouses, etc.; repairing and rebuilding fences, grading, and planting."842

On December 3, 1933, Southwestern Monuments headquarters notified Heaton that funding for work at Pipe Spring had been approved by the Washington office under the Civil Works Program. The monument was allotted \$3,167 for labor and \$405 for other expenditures. Workers authorized included 13 unskilled men, 1 semi-skilled man, 1 skilled man, and 1 foreman. The next day, Heaton wrote to Pinkley about his plans to use the men:

I have spent some time in planning what work that would be the most benefit at present. I have come to the conclusion that the road be the first consideration, which will be connected up with the changing of the wash so that it will run the water down the east side of the campgrounds and through the place where the old stock corrals were, the filling up of the present wash preparatory for the building the restrooms and residence buildings as Mr. Langley has them planned.

The rebuilding of some of the rock walls and lay[ing] them up with mud [mortar] to keep the rats and rodents from digging out the soil and thus causing the [fort] walls to fall down, also the rock walls around the ponds be pointed up with some material to keep out rodents.

Then I would like to fix up the tunnel [spring] some way and level up the meadow. Then there is the fencing of the monument and putting in a good cattle guard on the east.⁸⁴³

Heaton estimated that three or four teams of horses would be needed to keep the men at work on the projects and that they could be accomplished in the 12-week period allowed.

On December 14, 1933, Heaton received the go-ahead from Pinkley to put the men to work. He went to Short Creek to request 16 men from the local Civil Works Administrator. Clifford K. Heaton was hired as foreman at \$30 per week. Unskilled men on the work teams were paid 30 cents per hour. The men were to work five days a week, six hours per day. Repair Leonard Heaton purchased materials in Kanab the next day. Park Engineer Arthur E. Cowell arrived from Zion National Park on December 16, as did eight workmen. Cowell, Heaton, and two of the men surveyed the road from the west to east boundary in preparation for its relocation. Five more men arrived two days later, joined by another three on December 23. Heaton had the men work on the monument road and on cleaning up the meadow and the tunnel. The men were to relocate the road that passed between the ponds and the fort to a location just south of the ponds. An archeological discovery of old watering troughs was made during the first week of roadwork, as Heaton describes below:

We had a surprise in digging out the road where we are taking a part of the hill off. After we had taken off about eight inches of dirt from the highest part we began to find cedar and pine logs which had hardly decayed at all. When we reached the 18-inch level we dug up about 20 feet of 2-inch pipe, 15 feet of 1-inch pipe, and some scrap iron. There were several different colors of dirt, indicating that it had been hauled in at different times and from different places. After talking with some of the old timers about my finds, I found that at one time the troughs for watering stock were about in that place and the timbers had been put there to keep the ground from getting soft and sloppy. I am taking this hill down about 24 inches and putting the dirt in the low place east of the pools.⁸⁴⁵

In addition to the roadwork, Superintendent Pinkley directed Heaton to have the entrance to tunnel spring cleaned out, to put in "some sort of rock box for the water," to install cattle guards, and to rebuild monument boundary fences. At the end of a busy December, Pinkley lauded Heaton in the *Southwestern Monuments Monthly Report* for his careful attention to the "pages and pages of instructions" that were sent out related to reporting requirements for the Civil Works Projects. Headquarters reported that Heaton "turned in the best papers that have come out of the field." 846

Meanwhile, the Park Service's Branch of Plans and Design in San Francisco completed the monument's first "General Development Plan." Chief Engineer Kittredge forwarded the plan to Cowell at Zion National Park at the end of December 1933 with the request that he proceed to Pipe Spring as soon as possible to stake out the various developments. The plans called for the construction of a campground and comfort

station, to be located east of the fort ponds and north of the monument road; a parking area south of the fort ponds and monument road; and two residences, an equipment shed and garage, just below the parking area.⁸⁴⁸ All development was sited in close proximity to the fort. Director Cammerer approved these plans in February 1934.

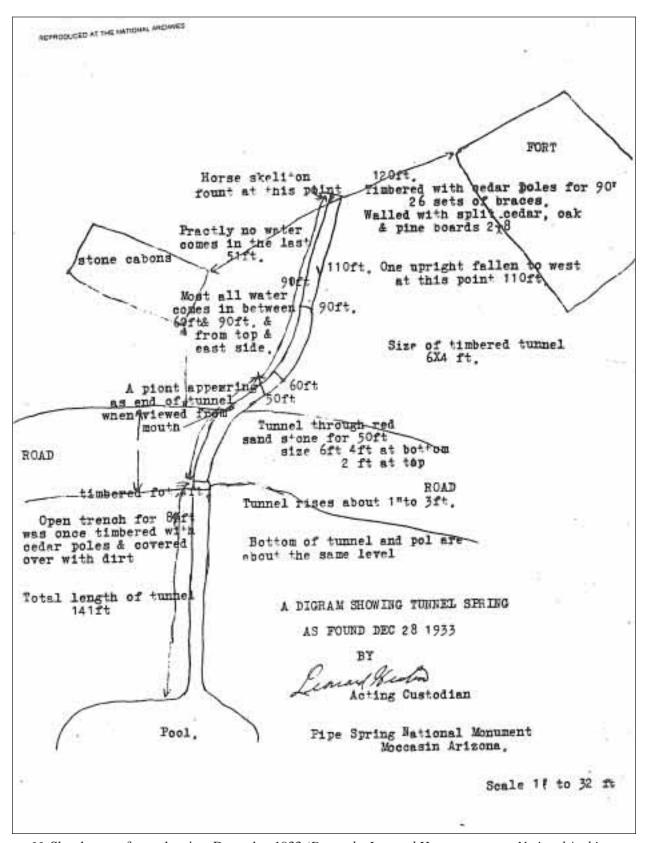
As Heaton and the workers cleaned out the tunnel, they discovered that the original bottom was 2.5 feet lower than previously thought. Heaton speculated, "If we rock up the sides of the tunnel as we had planned, it will mean that the upper meadow pool will be lowered about two feet. I will therefore wait until some Landscape man comes in before I rock it up."849 On January 5, 1934, Heaton reported on the progress made cleaning out the tunnel. With the help of some boy scouts, he took measurements to send to Pinkley. The first part of the tunnel was six feet high and four feet wide. The tunnel went 88 feet (including four feet of timber at the mouth of the tunnel) until it reached "the hill." At that point, tunneling through sandstone, it proceeded another 50 feet. Within the rock, its dimensions were four feet wide at the top and two feet wide at the bottom. Heaton made several surprising discoveries as he explored the tunnel. The first was that most of the water was encountered between 60 and 90 feet into the tunnel, and practically none at the terminus. The other surprise was at the end of the tunnel a horse's skeleton was found. Heaton stated the horse once belonged to O. F. Colvin who lived at Pipe Spring "from about 1908 to 1914." "He never knew what became of his horse," reported Heaton.850 Heaton included a rough sketch map with his letter (see figure 66).

Cleaning out the tunnel had created a new problem however. Heaton wrote,

Now the trouble I am having is to decide as to what to do with the tunnel, for the bottom is about on the level of the bottom of the upper pool, and if the flow of the water is changed much by cleaning it up we may have to do away with the pool. The sides keep sloughing in so that we will have to cut the banks on a slope about 20 percent to keep them from caving in.

Mr. Cowell suggested that we place a 3 or 4-inch pipe in at the mouth of the tunnel, then cover up the open trench out to the pool, but I am in favor of rocking it up if possible, as it would add to the beauty of the place.⁸⁵¹

Chief Engineer Kittredge approved of Cowell's plan to pipe water out of tunnel spring. He wrote, "I see no reason why you should not construct within the tunnel the desired catch basin at each spring, and conduct the assembled flow of water from them to outside the tunnel."852 Kittredge advised Cowell to construct the collection boxes "in a very permanent manner, preferably out of concrete." Kittredge assured Cowell that the meadow pond would not be lost if he kept the pipe at the same elevation water had flowed through the tunnel in the past. Ultimately, 75 feet of two-inch pipe was placed in the tunnel to carry water to the upper meadow pond. The mouth of the tunnel and pipeline were covered up and a man-hole was left for inspection and cleaning purposes.853



66. Sketch map of tunnel spring, December 1933 (Drawn by Leonard Heaton, courtesy National Archives, Record Group 79)

Civil works projects continued into early 1934. Harry Langley made several trips to Pipe Spring during this period, one on January 31 and the other on February 6. He reported to Chief Architect Thomas C. Vint that the CWA crew had been cleaning out tunnel spring, grading the campground area, constructing a road through the monument on a new location, planting the campground area, and constructing a diversion ditch to protect the campground from flooding.⁸⁵⁴ Langley recommended that the Heatons' store be removed at once to allow completion of the parking area grading (it was situated right in the center of the proposed parking area). He also opined, "The condition of the fort will always be a disgrace to the Office of National Parks, Buildings and Reservations until such time as all living quarters are excluded from it."⁸⁵⁵ Vint forwarded Langley's report to Director Cammerer, emphasizing the importance of providing the custodian with a residence. Cammerer replied that Langley's recommendation for development "seems to be to be just about what is desired for Pipe Spring National Monument."⁸⁵⁶ Descriptions and estimated costs of the proposed projects, Cammerer wrote, would need to be included by Pinkley when he sent in his request for future Public Works Administration projects.

At Superintendent Pinkley's request, Heaton developed a list of additional projects to undertake if CWA work continued. Proposed projects included work on the east and west approach roads; construction of a water system for the campground and residences; irrigation of trees and meadow; planting of lawns and trees; quarrying of stone for the proposed comfort station, residence, and garage; and completion of filling the wash. Heaton recommended that the irrigation project be done as soon as possible for, once the water was divided three ways, he asserted, "there will be not enough water to irrigate the meadow and trees by the ditch method and to plant trees and lawns as being planned."857 He also suggested that a trail be constructed "to the top of the hill beginning at the fort going west along the old road where the rock was hauled in for the fort then on top at the monument boundary, from where a good view of the surrounding country and mountains [can be seen] and then coming back down the hill east where the cactus and other plant life can be seen."858 (Heaton's idea for a nature trail would be around for many decades before it was implemented.) The irrigation system was "first and most important," wrote Heaton. Vegetation was then being irrigated by the ditch and flood system and Heaton felt the Park Service should convert to a piped system and use of sprinklers. A water system would be required if the new residences and comfort station were to be built as planned. Only a few of these projects would ultimately be constructed during the 1930s.

On February 15, 1934, the 30-hour-work week for CWA crews was cut to 15 hours and Heaton was required to lay off some men. Work continued on irrigation ditches and more trees were planted. Cedar and pine trees were set out on the south side of the monument on land that had been farmed. On March 15 Heaton reported to Pinkley that construction on the road and cattle guards was still incomplete. Langley returned to Pipe Spring on March 16 to inspect work projects, to discuss landscaping plans for the monument with Heaton, and to do some fishing in the fort ponds. After six hours of work, Langley spent one hour fishing. Heaton reported he caught five good-sized trout and that Langley asked him to "get some more fish so that he can get to fish every time

he comes in."⁸⁵⁹ (Heaton made numerous efforts to obtain more fish over the next few years to no avail.) In addition to visits by Langley, Park Engineer Cowell visited Pipe Spring about every other week to oversee CWA work while it was ongoing.

The work program was terminated at the monument on March 22, 1934, leaving Heaton to finish up projects as best he could. Heaton reported that due to the early layoffs, "I was not able to complete a single project." He asked to retain surplus materials associated with the CWA work so that he could complete the projects. The leftover cement was needed to make headwalls for culverts and a rock wall to divert flood waters around the campgrounds. ("If this wall is not completed the first flood that comes will undo all the filling in for the new road, also damage the campground considerable," Heaton explained. ("Heaton expl

In April Heaton sent in a final report on the projects completed under the CWA program from December 16, 1933, to March 22, 1934. The projects included relocation of the monument road, flood diversion in the area of the new campground, removal of old fences, trimming of deadwood from trees, work on tunnel spring, removal of old reservoir dikes and grading the campground area, survey of boundary lines and installation of new fencing (cedar posts and barbed wire), and preparation of a contour map of the monument by Zion National Park engineers. The work to construct an irrigation system to water monument vegetation had been started but not completed. Heaton reported a number of archeological finds were made during the relocation of the road and grading of the campground, all historic period materials. He estimated that the projects were 80 percent complete by the time work was stopped. The weather had been "ideal," Heaton stated. No work days were lost due to bad weather.

Park Engineer Cowell also filed a formal report on Civil Works Projects at Pipe Spring. (The Pipe Spring work was designated CWA Work Project F68, U.S. No. 8.) In addition to the projects listed by Heaton, Cowell's report noted that boundary survey markers had been placed and location surveys made of the road, campground parking loop, and other planned developments. Topographic surveys were completed for the entire area. Only 80 percent of the grading for the relocated road had been completed; parking area grading was only 40 percent completed. Culvert pipes for drainage had been installed but headwalls still needed to be constructed. Cattle guards had been sited at the monument's east and west boundaries, but not constructed. Boundary fences were about 75 percent completed. Flood drainage rockwork was "about 20 percent" complete. In describing work on tunnel spring, Cowell stated that the outer four feet of tunnel (which was timber) and 14 feet of the tunnel were cleaned out and stoned up and provided with a manhole. A six-inch intake was set in a concrete wall at the lower end of this stone-lined section from which water was carried 185 feet through a two-inch pipe to the upper meadow pool, supplying water to stock. The cut had been backfilled and landscaped. Pipe had



67. View of Pipe Spring landscape, looking west toward the fort, 1934 (*Pipe Spring National Monument, neg. 367*)

also been installed to carry water from the fort ponds to the campground and utility area to irrigate trees. A pipe supplying water from the main spring to roadside was installed to accommodate the public. No work was done to any of the buildings. The total cost of all projects was \$2,207.50 in labor and \$138.15 in "other," or a total of \$2,345.65.861

Development planning for the monument continued, with Cowell working under the direction of Chief Architect William G. Carnes, Branch of Plans and Design. In late April 1934, Cowell reported the state of developments at Pipe Spring. He recommended that the irrigation system be extended to cover more of the proposed utility area and the comfort station site. A sewage system was needed, along with completion of all other projects begun under the CWA program. His cost estimates for completing all work (water and sewer systems, roads, fencing, grading, cleanup, drainage, and engineering) was \$4,639.862

As mentioned, development plans called for the removal of the Heatons' store from its location south of the fort ponds as this area was to be used for visitor parking. In June Heaton informed Assistant Superintendent Hugh M. Miller at Southwestern National Monuments that he wished to move the store and gas pump "to a point just opposite from the road that leads to the campground site." Rea The Heatons planned to enlarge the store at its new site and Grant Heaton sought renewal of his permit. In mid-July, however, Superintendent Pinkley turned down the application to operate the store and gas station due to insufficient traffic at the monument for the previous two years and undemonstrated visitor need. Rea The exact date of the store's removal is unknown, but

by April 1935, Heaton reported it had been removed.⁸⁶⁵ In a recent interview, Grant Heaton confirmed that the store was torn down and not moved.⁸⁶⁶

Completing the Division of Water

After months of frenzied CWA program activity, things began to settle back to normal at Pipe Spring. Heaton reported to Superintendent Pinkley in April, "I could not resist the call of the garden this spring, so I have plowed up a plot of ground and planted me a garden just south of the meadow. Talking about gardens brings up the question of the water. I have been wondering if anything is going to be done about it this year."867

In fact, Dr. Farrow, Kaibab Indian Reservation superintendent, had not been idle on the issue. In mid-November 1933, Farrow spoke with Heber Meeks of Kanab. Meeks had assured Farrow that if the Indian Service purchased the pipe, the cattlemen would lay the pipeline from tunnel spring. The Indian Service then proceeded to obtain the materials. On February 2, 1934, bids were opened by the Office of Indian Affairs on 15,600 feet of four-inch, 16-gauge steel pipe for the construction of the cattlemen's pipeline from tunnel spring to the border of the reservation. The total cost of supplies needed for the pipeline was estimated at \$4,600. Before the contract was awarded, Supervising Engineer L. M. Holt informed Office of Indian Affairs Commissioner John Collier that, "we know little regarding the stockmen, whether or not they will be ready to do the work of trenching and laying the pipe when the same is delivered, and line located on the ground." 868 Holt recommended that Farrow be allotted the funds for the work and be put in charge of making arrangements with the stockmen for laying the pipe. Farrow then attempted to recontact Meeks, only to discover he had since died. He wrote to Lee Esplin to find out who had succeeded Meeks as head of the stockmen's committee.

While CWA projects were still underway at Pipe Spring, Langley, Cowell, and Heaton had decided the division box should be placed on the west end of the fort ponds. Heaton informed Superintendent Pinkley in his April report that Dr. Farrow had said the Indian Service was buying three miles of four-inch pipe, that it would be delivered May 15, and that their engineer would be installing the division weir. (The weir was being designed by Cowell.) Heaton doubted that he could sufficiently water the meadow without the flood method, but said with resignation, "I will do the best I can." On a more upbeat note, a proud father announced, "On April 9 a nine lb. boy arrived here to help with the monument work. Mrs. Heaton and baby are getting along just fine." This was the couple's fifth child and fourth son, named Lowell.

On May 3, 1934, Park Engineer Cowell, N. A. Hall (Indian Service Engineer), and Dr. Farrow met with Heaton at the monument in preparation for measuring the flow of the springs and installing a division weir.⁸⁷¹ The Indian Service approved the division weir design suggested to Cowell by Chief Engineer Kittredge with the exception of the weir plate. The Indian Service had a design for a weir plate that Cowell agreed to send to Chief Engineer Kittredge for approval and fabrication; consequently, it was not installed until almost one year later. Hall and Cowell measured the flow by the weir method on May 7 with

Charles C. Heaton present, representing the cattlemen's interests. The flow for the main spring (referred to as the "historic spring") was 34.03 gallons per minute; for tunnel spring, 8.12 gallons per minute. The combined flow was 42.15 gallons per minute. A division into thirds provided 14.05 gallons per minute to each party. It was decided that the elevation of tunnel spring could not serve the needs of the Park Service or Indian Service, but met all the requirements of the stockmen. It was agreed that the stockmen would receive all the water from tunnel spring along with 5.93 gallons per minute from the main spring. Three discharge lines were to be installed at the division box, one for the Tribe's pipeline, one connecting to the monument's water system, and one that discharged into the tunnel spring.⁸⁷²

From May 8-10, 1934, Indian Service Engineer Hall supervised three Indian CCC workers as they installed the division structure. The concrete box measured 42 x 42 x 42 inches on the inside and had six-inch walls. It contained three compartments, 12 x 18 x 42 inches in size, and a two-inch outlet pipe located three inches from the bottom of the box. The weir was to be placed about 12 inches below the top of the box. The top of the division box was level with the water of the ponds. On May 16 the Indian Service re-laid a two-inch pipeline to carry water from the division structure to a point outside the eastern boundary of the monument. On the same date, the Park Service connected a two-inch cast iron pipe from the structure to the monument's water system. The system directed water to the south side of the monument where the corrals and chicken houses were located and east to the campground. When Heaton tested the system about a week later, he found the campground was getting insufficient water through the line, but that other points were receiving enough water.⁸⁷³ "It looks to me as if some other method must be found to get the water to the trees on the north side of the campground or the campground will have to be moved to a lower level if trees are to be grown on it," Heaton reported to Superintendent Pinkley.874 The alternatives, Heaton suggested, were to hand-carry water to the trees, purchase and install a pump, or construct an open ditch to irrigate the trees. None of these alternatives was practical, however, and the following spring officials decided to relocate the campground south of the road where it could be gravity fed with water.

The division of the water was held up further awaiting the construction of the brass weir plate at the Branch of Plans and Design.⁸⁷⁵ The stockmen's pipeline also had yet to be constructed. In late May the pipe for the stockmen's pipeline finally arrived. Farrow had it delivered to the monument on May 28 and informed Heaton that the stockmen could begin immediately to lay the pipe. The stockmen refused to lay the pipe, complaining that the 16-gauge sheet iron pipe purchased by the Indian Service would not last more than three to five years in the mineral soil and that they'd been told the pipe would be galvanized.⁸⁷⁶ Heaton reported the Indian Service pipe was "tarred" and that its value was decreasing the longer it sat in the hot sun, tar melting, awaiting installation. So the Indian Service had no choice but to trench and lay the pipeline themselves. The pipeline was 2.25 miles long and terminated about 250 yards outside the reservation on land leased by Charles C. Heaton.⁸⁷⁷

That wasn't the only problem, however. Heaton dreaded losing the meadow pond that had been filled by tunnel spring. "A lot of swimmers come there to cool off," Heaton

told Pinkley.⁸⁷⁸ Of course, the pond had always furnished irrigation water for Heaton's family garden and it was often stocked with fish, so there was more at stake than visitor recreation. The stockmen feared they would be getting less than their one-third share if the meadow pond remained, due to evaporation and seepage. Heaton assured them they had never needed the full one-third in the past. He asked Pinkley if he could rock up or cement the bottom and sides of the pond if the stockmen would let it remain. Pinkley responded that if the cattlemen insisted, the monument would have to do away with the pond, but he agreed with Heaton that their cattle would never need their full one-third share of water. He suggested running a ditch around the pond to allow bypassing the pond when the cattlemen needed more water. No funds were available to cement or rock-line the ponds, Pinkley told Heaton.⁸⁷⁹ Heaton then brought up another problem. As the horses "have not learned to drink out of a faucet," he asked if he could construct a concrete watering trough for them and place it "somewhere near the head of the meadow."880 Apparently, this was a need that had never occurred to Park Service planners and designers back in San Francisco! Pinkley approved his request, but asked Heaton to have Langley draw up the plans and choose the site for the trough.

On August 3, 1934, a crew of 15 Indians began digging a 2.5-foot deep trench to lay the stockmen's pipeline. Farrow informed Heaton that they would not turn the water on until the stockmen constructed cement or wooden troughs outside the reservation boundary for the water to run into. The cattlemen protested they didn't know how they were going to finance such construction as cattle sales had been so bad, which was indeed true. Heaton was incensed that Farrow had once again issued an ultimatum. Tensions escalated again over water. Heaton went to Kanab to meet with the stockmen where,

For some reason which I could not find out, they all blew up and I could not get any word or suggestion in that they would listen to. They even went so far as to suggest that they get their water from the main spring as they were owners of one-third. Some expressed that they had no faith in any of the Government Services and wanted to get as far away and have as little to do as possible with them.

This much I did tell them, that the Park Service did not work against the stockmen and that the water that the stockmen got was coming from the tunnel and from the division box to the west end of the ponds...⁸⁸¹

Leonard Heaton was caught in the middle. Superintendent Pinkley advised him "to remain neutral in any controversy between the Indian Service and the Cattlemen."882 The details of how this particular impasse was resolved are undocumented. The pipeline was completed and all tunnel spring water turned into it on September 4. By September 18 several leaks were repaired and the pipe was covered. By the time Heaton filed his monthly report on the 24th, the meadow pond was nearly dry.

In August 1934 an allotment of \$900 was given to Pipe Spring under the Public Works Administration program for completion of the monument road. Park Engineer Cowell and his wife spent several hours on September 21 at the monument so that Cowell could

gather data related to the roadwork. During this visit, Cowell also delivered the long-awaited weir plate for the division box (it would still be more than six months before it was installed). Meanwhile, plans for the monument road were being completed in the Park Service's San Francisco office. In October Pinkley informed Heaton that the funds for the road were not sufficient to complete the road, parking area, and cattle guards. Pinkley wanted the cattle guards to be built first and then the parking area finished. That way, Pinkley explained, Heaton could begin the landscaping around the parking area.⁸⁸³

Heaton was already in a planting mode. In early October 1934, he reported that he was getting "more ground ready to set out more trees this fall around the campgrounds, and my sheds to the south." Heaton later wrote to Pinkley of his plans to plant cedars and pines "to help take away the bareness of the land that has been farmed on [the] east side" and to gather and plant some cacti to "help nature to bring back the plant life on the monument..." A dispute erupted over water between Heaton and Reservation Agent Parven E. Church in November when Church learned Heaton was using pond water to irrigate campground trees. Heaton reported the incident to Pinkley, expressing annoyance that the "the Indian Service has made no attempt whatsoever this summer to use the water that has been running into their pipe, which for the most part of the summer has been about half of the water from the ponds by the fort."

Also in October, the Mohave County Board of Supervisors wrote Superintendent Pinkley to request that a new road between Fredonia and Pipe Spring be built as "in wet weather the road is practically impassible."888As 19 of the 20 miles passed through Indian reservation and since tourists were the primary users of the road, the letter argued, couldn't a new road be constructed using 100 percent federal aid?889 Believing the road might qualify as an approach road, Pinkley forwarded the letter to Cammerer and asked that a preliminary survey and estimate be directed to see if the road could be requested under emergency construction or other emergency funds. In December Park Engineer Cowell was instructed to prepare a map that showed the location of the proposed road. The map was prepared and sent to Pinkley at the end of December.890 At least 90 percent had to cross government-owned land for it to qualify as an approach road. Cowell informed Pinkley that lands adjacent to the road were government owned, and with the exception of the monument, were all part of the Kaibab Indian Reservation. A more formal road survey for the Fredonia-Toroweap approach road was completed in 1937 and will be described later in this chapter.

The Second New Deal

In his annual message to Congress on January 4, 1935, President Roosevelt outlined a program of social reform that signaled the beginning of the second New Deal. The chief beneficiaries of this phase of the New Deal were labor and small farmers. Most of the projects were geared to the employment of manual labor. Congressional passage of the Emergency Relief Appropriation Act of 1935 on April 8, 1935, extended the ECW until March 31, 1937. The current size of the work force was 300,000. Roosevelt issued a directive on April 10 to double enrollment to 600,000. To achieve this increase, the maximum age limit was raised to 28 and the minimum lowered to 17. By the fall of

1935, however, Roosevelt instructed Fechner to reduce the ECW back to 300,000 men by June 1, 1936.

Roosevelt's sudden reversal on the size of the CCC workforce was linked to his efforts to make the ECW a permanent government agency. While his New Deal social and economic programs were attacked by a coalition of Republican adversaries, Roosevelt was overwhelmingly re-elected for a second term in the 1936 elections. Democrats vastly outnumbered Republicans in both the House and Senate. In his annual budget message to Congress for January 5, 1937, Roosevelt lauded the ECW's accomplishments and asked Congress to pass legislation establishing the force as a permanent federal agency. The new agency was to be called the Civilian Conservation Corps. Congress passed legislation on June 28, 1937, formally establishing the CCC, but it did not make it a permanent agency; it only extended its operations for three more years. Roosevelt signed the bill into law. The reduction of CCC camps continued throughout 1937 and 1938. In 1939 another attempt was made to make the CCC a permanent agency and failed. No large-scale reductions in camps took place in 1939, but some camps were phased out or relocated to other areas.

On December 31, 1939, Robert Fechner died from complications following a heart attack. His successor was James L. McEntee, formerly Fechner's assistant director. With the beginning of World War II in Europe during the spring of 1940, Roosevelt turned his attention to defense planning. The trend in 1940 was to reduce the number of supervisory positions in the camps, with regional offices assuming some of the supervisory duties. Many of the camp supervisors were reserve military officers who were withdrawn for active military duty. Two resolutions were introduced in the House of Representatives to require eight hours per week of military tactics and drill to CCC enrollees. Opposition prevented them from being passed. Director McEntee, however, revamped CCC training and education programs to meet some of the needs of national defense, such as shop, mathematics, blueprint reading, basic engineering, and other skills considered vital to national defense.

By 1941 the national defense program with its higher paying jobs was competing with the CCC program and it became harder to attract recruits. Beginning in April, further camp reductions were made. A program adopted in January allowed CCC youths to be excused from work five hours per week if they would volunteer an additional 10 hours per week in national defense training. In August rules were adopted to drill all CCC enrollees in simple military formations, but no guns were issued. Twenty hours a week or more were to be devoted to general defense training, eight of which could be done during regular work hours. In September the number of camps was reduced further. The establishment of new camps in areas with national defense projects took precedent over camps in park areas.

The country's entry into World War II on December 8, 1941, led to the termination of all CCC projects that did not directly relate to the war effort. On December 24 the Joint Appropriations Committee of Congress recommended terminating the CCC no later

than July 1, 1942. Roosevelt argued it should be maintained as it performed needed conservation work and served as a training program for pre-draft-age youth. Meanwhile, McEntee ordered the closing of all camps unless they were either engaged in war work construction or in protection of war-related natural resources, to take effect at the end of May 1942. Congress refused to appropriate funding to continue the CCC program during the summer of 1942. Instead they voted sufficient funds to terminate the program. Termination was completed by June 30, 1943.

Pipe Spring National Monument was one of many Park Service sites that served as a site for a CCC camp. While many national park units had Emergency Conservation Work camps in them performing unprecedented levels of development, this was not to be case at Pipe Spring. Because the Park Service did not administer it, its usefulness, in terms of monument development, was limited. Work assignments for the vast majority of CCC enrollees residing at Pipe Spring would be mostly outside the monument rather than in it. Pipe Spring would experience all the pitfalls of being occupied by an army of adolescent boys and very few of the benefits. While the camp was constructed in July and August of 1935, the main contingent of boys would not arrive until November 1935. Meanwhile, there was much to keep Custodian Heaton and planning officials fully occupied. The following section describes monument activities that immediately preceded the establishment of the CCC camp at Pipe Spring.

Planning Continues at Pipe Spring

During the spring and summer of 1935, Heaton did what he could to complete projects begun by CWA crews. In March the monument road was graded and cattle guards were installed.⁸⁹¹ (This one-quarter mile road section was part of State Highway 40.) Then, with Superintendent Pinkley's blessings, Heaton left Grant Heaton in charge of Pipe Spring operations from April 6 through April 14 to make a tour with his wife Edna of southwestern national monuments. Their tour included Wupatki, Petrified Forest, Tonto, Montezuma Castle, and Walnut Canyon national monuments, as well as headquarters in Coolidge. His trip filled him with renewed appreciation for the "jolly high class of men and women willing to serve" in the Park Service, he later wrote Pinkley.⁸⁹² Upon their return, he and Edna started planning a second trip for the following year to visit the other 18 monuments in the Southwestern National Monuments system.

Monument development planning continued in order to take full advantage of any Public Works Administration funds or labor that might become available. During April 1935 the monument received a number of visits by high officials. Assistant Director Hillory A. Tolson visited, as well as Chief Landscape Architect Thomas C. Vint, Chief Engineer Frank Kittredge, Harry Langley, and A. E. Cowell. On April 4 Cowell and two assistants finally installed the weir ensuring the three-way division of the monument's water. ⁸⁹³ The following day Kittredge paid Heaton a surprise one-hour visit to inspect developments on his way to Zion National Park. On April 22 Tolson, Vint, and Langley spent two hours at Pipe Spring. While they were there the decision was made to relocate the campground and pit toilets south of the road, and to keep everything north of the monument road

undeveloped to preserve a more natural and undisturbed setting for the fort. Everyone reiterated the need for a custodian's residence. Preliminary drawings for a custodian's residence were prepared by the Branch of Plans and Design and forwarded to Pinkley in mid-April.⁸⁹⁴ The proposed stone residence was to be a public works project. Pinkley reviewed the plans and requested a few minor modifications.

During his visit, Harry Langley also reiterated the need for Heaton to restock the ponds with trout. He suggested Heaton contact officials in Salt Lake City to acquire more fish. Heaton did so, explaining to the official there that he had stocked the ponds in August 1927 with 5,000 fingerlings from the federal government. At the end of eight years, "I have only about 15 fish left," he wrote.⁸⁹⁵ He inquired if he could get more fish to restock the ponds and estimated the ponds "would support 3,000 or 4,000 fish as the water is almost as full of water bugs as it can get and still be fresh."⁸⁹⁶ Nothing came of the letter. Heaton pursued the matter again in September with Russell K. Grater, Assistant Wildlife Technician at Grand Canyon National Park, during his visit to Pipe Spring. Grater in turn, asked Pinkley for ideas but no restocking occurred that year.

In April 1935 Heaton wrote Superintendent Pinkley seeking permission to use spring water for his family garden. He asked, "Will there be any objections to the use of the water if I do not let the monument trees and meadow suffer, but just use that part of the water that is not needed for monument purposes?" Pinkley had no objections and granted permission. At the same time, Heaton raised the question about his employment status - was he classified as Civil Service? Pinkley wrote to Director Cammerer about the matter. Hillory Tolson replied that Heaton could not obtain Civil Service status without passing an examination given by the Civil Service Commission. His appointment had been issued outside of the labor regulations, wrote Tolson. 898

Park Engineer Cowell submitted cost estimates to Chief Engineer Kittredge for proposed public works projects for the monument on May 4, 1935. Eighteen projects were listed, including road work; construction of a parking area, campground loop road, service roads, and graveled walks (300 linear feet); placement of field stone barriers along roads and parking areas (2000 linear feet); clay surfacing camp sites; filling of wash at building sites; installation of a water and sewer system; construction of storm water drainage ditch; completion of boundary fences; improvement of grounds, fine grading, landscaping and planting; and restoration of the fort. The total cost for these projects was estimated at \$11,135.899

Heaton reported to Pinkley in May 1935 that a meeting was held in which Grazing Service officials asked stockmen and citizens of the Arizona Strip how they would feel about the establishment of one or two CCC camps in the area. The question of sites came up and Pipe Spring was suggested as a possible site. Heaton later reported,

So these two men came out here to look the place over and three possible camp sites were selected... one at Moccasin, one at the southeast corner of the monument, and one four miles south of the monument where the stockmen's water is now piped to.

You will probably have word from these men before you get this letter as I referred them to you about the use of the monument for one of their camps. 900

The Establishment of DG-44

On June 10, 1935, Director Cammerer received the following radiogram message:

Request authority to locate our DG Forty Four in Pipe Springs National Monument area northwest Arizona and to use approximately six thousand gallons of water daily from springs supplying the monument area (stop) Present capacity of springs now fifty-five thousand gallons per day (stop) Army recommend [sic]as only possible site (stop) Kindly wire answer - OTT Division of Grazing ECW Salt Lake City. 901

The request was approved and plans proceeded for the Grazing Service to locate the CCC camp at Pipe Spring. A brief description of the camp's purpose is provided below, prior to a description of their operations.

The Taylor Grazing Act was passed on June 28, 1934. This was the first law ever passed by Congress to regulate grazing on the public domain. 902 The Grazing Service was established on July 17, 1934, to administer the Taylor Grazing Act. 903 Its objectives were conservation of natural resources by prevention of overgrazing, range rehabilitation by development of necessary facilities for efficient range utilization, stabilization of the livestock industry through cooperation with local stockmen, orderly use of the range, enforcement of trespass regulations, and enforcement of local rules on range practices. The establishment of the CCC provided the primary means by which the agency carried out its range improvements. Seven camps were allotted the Grazing Service in April 1935. By the end of fiscal year (FY) 1936, the agency administered 45 camps. Camps were established in 58 grazing districts in 10 western states.904 Projects initiated and carried out from these camps were suggested and approved by the local advisory boards of the grazing districts who knew the most urgent needs of the districts. Projects included water hole construction, reseeding of burned over range, fence building, surveying and map making, construction of stock bridge and trails, erosion control, flood control, eradication of poisonous weeds and plants, and cricket and rodent control.905 Much of Arizona's 10,685,000 acres of public land was suitable only for grazing. By 1936, grazing districts comprised 7,000,000 acres of the state of Arizona.906

The establishment of a CCC camp at Pipe Spring National Monument in July 1935 and its four years of operations there had considerable impact both on the monument's development and on its landscape. On July 20 Landscape Architect Alfred C. ("Al") Kuehl, Southwest Region, visited the monument with Park Engineer Cowell and the decision to relocate the monument's campground to the southeast part of the monument was confirmed. This required the Grazing Service to modify its plans and to site the CCC camp operations in the monument's southwest quadrant.

Heaton was notified that officers and 10 CCC enrollees were being sent to establish the camp in mid-June. On July 4, 1935, U.S. Army and Grazing Service officials came to Pipe Spring to decide on a site for the camp. At 1:00 a.m. on July 12, 10 trucks arrived with 24 more enrollees and two officers. These were advance men for Co. 3298, DG-45 and Co. 3287, DG-44. The boys from Co. 3298 remained at Pipe Spring until July 22, when they returned to Black Canyon, Arizona. The 12 remaining boys soon returned to California, replaced by 10 boys from Utah. Construction materials for the camp arrived between July 17-24, until 200,000 feet of lumber had been delivered. On July 24, 23 enrollees began the work of building the camp, joined by 10 more workers on July 25. Heaton reported to Superintendent Pinkley on that date, "The head boss says that in about three weeks the camp will be about finished. If they keep up the speed of yesterday and today I think the camp will be ready for the Eastern Boys by the last of August, if not before." 907

In late June 1935, Heaton told Superintendent Pinkley that the three rooms of the lower house of the fort were not enough space for his growing family. He asked permission to move to the upper house of the fort. Pinkley denied the request, reasoning that a permanent custodian's residence for the Heatons would soon be constructed under the Public Works program. Pinkley, Harry Langley, and Al Kuehl, discussed the custodian's residence and decided to try to have it built from ECW funds. On August 1 Kuehl asked Chief Architect William G. Carnes to prepare estimates for the cost of materials for the residence. Estimates were submitted to him on August 7, with the cost estimate ranging from \$3,021 to \$3,586. (The higher figure was for an alternate plan including an additional room.) In late September Heaton informed Pinkley he planned to move his family to Moccasin for at least the school year in order not have to make the trip back and forth twice daily to the school.⁹⁰⁸ The family did not actually locate a residence and move until late February 1936.⁹⁰⁹

By mid-August 1935, most of the CCC camp was built. It included: eight 26-men barracks, an administration/recreation building, mess hall, hospital, officers quarters, shower house, garage, six smaller out buildings, a "cooler," powerhouse, cellar, latrines, and tool shed - 20 buildings in all. Heaton reported, "They have used most of the old west field down to the stockmen's corral and part of the meadow, on the southwest corner [of the monument]..."910 On August 17 a dance was held in the camp's new recreation hall. Attendance was 140 with people coming from the neighboring towns. "A very enjoyable time was had by all," Heaton reported. 911 No word had yet been received by Heaton on when the main body of enrollees would arrive.

What effect did the camp's establishment have on the carefully worked out water agreement between the Park Service, Indian Service, and cattlemen? On August 15, 1935, an agreement was reached between these three groups, the Grazing Service, and the Army that the camp's water supply would be provided by the cattlemen's share of water. The agreement stipulated that if the cattlemen's share proved insufficient the Park Service, Indian Service, and cattlemen would furnish an additional 6,000 gallons per day, each furnishing an equal share not to exceed 2,000 gallons per day each.⁹¹² It is unknown

if the Grazing Service paid for the privilege of using the cattlemen's water or if the cattlemen simply expected to benefit in other ways by having the camp in the area.

On August 25, 1935, a severe flood occurred on the monument. A storm "turned loose on us all the water that it could in about two and one-half hours, causing the largest flood that we have had in several years and doing us a lot of damage," Heaton reported the following day. The flood deposited trash, brush, and sand on the monument, stopping up the head of twin culverts installed by the CWA. As a result, the new drainage wash filled with sand and turned the water into the old channel, washing out the service road to Heaton's barn and hen house and covering up or washing out most of the irrigation ditches on the east side of the fort. Heaton estimated damage at about \$350. CCC enrollees later carried out much of the repair work, along with making improvements to prevent future flood damage.

The monument's CCC camp was constructed during the fifth period of the ECW Program (April 1-September 30, 1935). Other than the construction of the camp, no monument projects were worked on during that period. The sixth period lasted from Oct 1, 1935, to March 31, 1936. The work program for the monument submitted for both periods consisted of nine projects. Some were completion of projects begun by the CWA crews. All projects were part of the approved 1935 master plan for the monument. On September 21 Cowell visited the monument to go over with Heaton a list of projects to be accomplished. In mid-October Hillory Tolson sent Pinkley a list of projects in his region whose applications were disapproved for funding by the National Emergency Council. Among them was the monument's water and sewer system. Without this infrastructure, plans to build permanent buildings at Pipe Spring could not go forward.

The impact of President Roosevelt's "about face" on the size of the CCC was being felt at Pipe Spring. As mentioned earlier, President Roosevelt's April 1935 directive to increase the size of enrollment to 600,000, was followed that same fall by instructions to Director Fechner to reduce the ECW back to 300,000 men by June 1, 1936. On October 11, 1935, Acting Associate Director Hillory Tolson informed Pinkley of how the cutbacks in manpower would impact developments at Pipe Spring National Monument. The allotment for sixth period ECW camps had been reduced from 2,916 to 2,427 camps and a reduction from 600,000 to 500,000 enrollees nationwide. Hillory wrote,

All technical agencies have been forced to reduce the number of camps originally allotted to them for the sixth enrollment period and consequently approval of your sixth period program has been withheld until this definite information was made available within the last few days. Every effort should be made to complete our approved program, since it appears probably that a further reduction in camps will be required for the next enrollment period.⁹¹⁴

Tolson approved the work program for Pipe Spring with several stipulations, including a \$1,500 building limitation and requirement that projects had to have approved plans. Tolson also requested the boundary fence "not interfere with the movement of

wildlife," that the walks be made of flagstone instead of graveled ("to be in keeping with old developments") and that only native trees and shrubs be used in landscaping the campground. As the Grazing Service was to finance work undertaken, Tolson told Pinkley his cost estimates would have to be approved by the Grazing Service.

In either late September or early October 1935, the small group of CCC boys and officers at the monument were transferred to Vayo, Utah, to construct another camp. Heaton had the place to himself during the month of October. During that month, Superintendent Pinkley asked custodians to begin keeping a daily diary of their activities. Heaton expressed his approval of the requirement, writing, "for the past 3 years I have kept a personal diary written up every night or at least every week.... With a daily monument diary one would not have to worry and stew about his monthly report." Heaton had a short entry at the end of October, then began keeping a daily work journal that continued until his retirement in 1963.

Camp DG-44 was administered by the War Department, which oversaw nine corps areas. The company assigned to Pipe Spring National Monument was Company 2557.918 Company 2557 was designated a 5th Corps Area, thus its enrollees could come from Ohio, West Virginia, Indiana, and/or Kentucky. The company's initial officers were Capt. Earl S. Jackson, Lt. Donald A. Wolfe, Lt. John J. Prokop, Jr., and Lt. Ralph W. Freeman (the camp doctor). Aland Forgeon was the camp's first educational officer.919 On October 29, 1935, Capt. Jackson and a small advance group of enrollees arrived at Pipe Spring to get the camp in shape for the main contingent.



68. Early photo of Camp DG-44, ca. late 1935 (Pipe Spring National Monument)

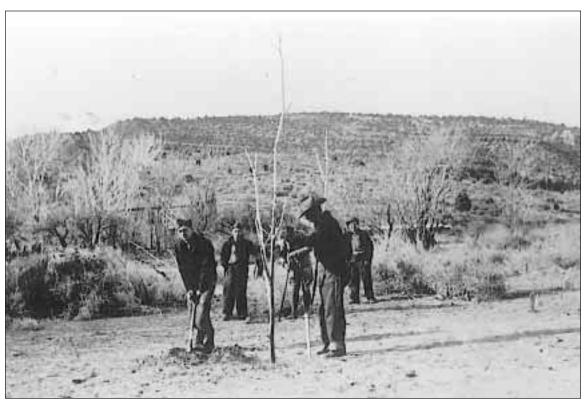
On October 31 Heaton received word that the CCC boys would arrive in Cedar City at noon the following day. At 8:00 p.m. on November 1, 180 junior enrollees from Ohio, Kentucky, and Indiana arrived at the monument from Fort Knox, Kentucky. 920 Heaton reported on November 23, "We now have the largest town in Mohave County north of the Colorado River, and all on a 10-acre lot." The photo shown here (figure 68) was most likely taken shortly after the camp's construction. This early view of the camp does not show later stone curbing at the entrance (probably added in 1936) or the education building, constructed in March 1938.

In addition to the Army officers, a number of U.S. Forest Service men were employed as instructors, supervisors, and foremen to teach classes and to oversee work performed by enrollees. DG-44 had six such men during the sixth period, with Hamilton A. Draper serving as project superintendent. It was Draper and Heaton who oversaw most of the work performed on the monument. On November 25 Capt. Jackson was transferred to St. George, and Capt. Alma S. Packer assumed command of the camp.

No Grazing Service projects were yet approved, so for the remainder of 1935 work focused on the monument. One group of 25 enrollees was immediately assigned to work on the monument. Another group worked on Hurricane-Fredonia road improvements. By Christmas 1935 Heaton reported the following monument projects either underway or completed: boundary fence, 65 percent complete; ditch diversion, 30 percent complete; flagstone walks laid out but not constructed (50 percent of the rock had been obtained). Most work had been in the new campground area that had been staked out. Most work had been in the new campground area that had been staked out. Most more populars, 121 black locusts, 55 Lombardy populars, 13 black cottonwoods, 5 ailanthus, 11 elms, and 32 silver leaf cottonwoods (153 total). Most more projects either underway or complete; ditch diversion, 30 percent complete; flagstone walks laid out but not constructed (50 percent of the rock had been obtained). Most work had been in the new campground area that had been staked out. Most more populars, 121 black locusts, 55 Lombardy populars, 13 black cottonwoods, 5 ailanthus, 11 elms, and 32 silver leaf cottonwoods (153 total). Most work had been irrigation ditches were relocated and others were newly dug to irrigate campground trees.

T'was not all work and no play, however. During the sixth period, a tennis court, baseball diamond, basketball court, volleyball court, and boxing ring were constructed, presumably all within the monument. The camp owned an impressive amount of both indoor and outdoor athletic equipment, including two pool tables. Sports activities often pitched enrollees against boys in surrounding schools and communities. Boys attending Forgeon's journalism class published a bimonthly camp paper called *The Pipe Post*. The camp also had two libraries (one permanent and one traveling), and an upright piano. Just west of the camp barracks was the meadow pond that Heaton had built in 1926. Both are shown in figure 70, a photograph taken prior to the lining of the pool with sandstone.

Church services (one interdenominational and one Catholic) were conducted twice monthly by the district chaplain, in addition to two programs offered each month by the Church of Jesus Christ of Latter-day Saints. Three classes were held per day, five days a week. Classes were offered at three levels, elementary (reading and writing), high school (journalism, vocal music, history, shorthand), and college level (physiology, psychology). Vocational courses included baking, cooking, construction (building, concrete, road), photography, use of explosive powder, typewriting, and care and use of tools and trucks.



69. Trees being planted on the monument by CCC enrollees, probably 1935 (*Pipe Spring National Monument*)



70. CCC barracks with meadow pond in foreground, late 1935 or early 1936 (*Pipe Spring National Monument*)

The majority of enrollees attended the latter courses. Informal activities included woodworking, photography, drawing, drama, nature study, discussion groups, and safety meetings. Heaton too, assumed a new role, as he was asked to speak several times per month to the boys about the National Park Service and its sites (this was in addition to the fort tours he always gave whenever a new group of enrollees arrived). Not all the CCC boys were "happy campers," however. In early December, 21 enrollees were discharged for causing trouble and refusing to work.⁹²⁵

On November 21, 1935, four Ohio enrollees discovered Major John Wesley Powell's survey marker buried under a rock cairn north of the fort outside the monument boundary. Sealed within an old-style lye can was a rare and valuable hand-written document, a survey record left by Major Powell's expedition when they visited the fort in December 1871. The company doctor brought the document to show Heaton so that he could make a record of it, as the boys were claiming ownership of their valuable "treasure." Heaton reported the find in his monthly report to Pinkley, who included it in the *Southwestern Monuments Monthly Report* for November 1935. Upon reading of the discovery, Acting Chief O. T. Hagen, Branch of Historic Sites and Buildings, Western Division, immediately wrote Heaton and sent him a copy of the Antiquities Act of 1906. Hagen wrote,

The finding by CCC enrollees of the marker... is of such importance as to require immediate attention.

No doubt, Superintendent Pinkley has already advised you of the proper procedure for the retention of the document....

In historical and archeological areas, all materials found have been considered as property of the National Park Service and not as that of the finder. The enrollees should be made to understand this and also that unauthorized digging or excavating is unlawful. 926

Hagen requested a photographic copy of the document. On December 21 Heaton attempted to reconstruct the Powell survey marker monument as best he could. He noted several sets of initials on several of the rocks and surmised they were placed there at a later date. Heaton provided a description of the location of the marker in his December report to Pinkley and suggested that the monument boundaries be extended to include the marker as well as to "take in the old Indian ruins just south of the monument." This suggestion would be echoed again and again by others in years to come.

1936

During January 1936 monument work continued on two projects: laying the walkway from the east cabin to the fort and construction of a diversion ditch. Heaton suspended completion of the walk on February 13 when his crew of boys uncovered what Heaton soon suspected to be the site of the Whitmore-McIntyre dugout. The boys continued to excavate under Heaton's supervision the following day until Heaton's suspicions were

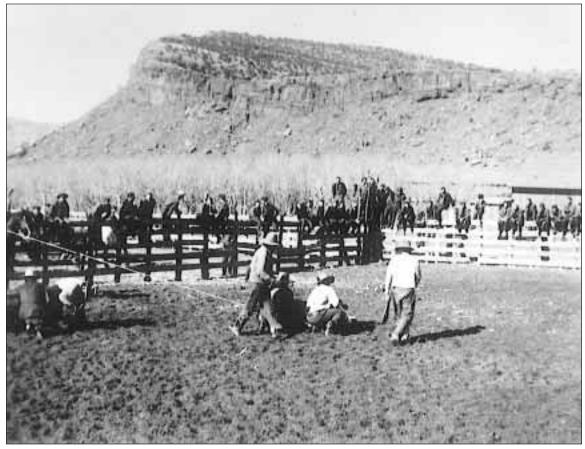
sufficiently confirmed by finds of broken crockery, animal bones, a mule shoe, burned rock, and other materials. Heaton then stopped work and reported his find to Al Kuehl and Superintendent Pinkley, asking them for directions. Assistant Superintendent Hugh Miller telegramed Heaton from Coolidge, "Park Service regulations prohibit excavations by Rangers and Custodians therefore you cannot continue work described in your letter February sixteenth. Fill trenches made to prevent damage by rains and snow." The alignment of the walkway was subsequently rerouted to avoid the archeological site, which was not excavated until 1959.

For many CCC enrollees, their time at Pipe Spring would be their first contact with Native Americans. Imagine their surprise to meet Indian cowboys and watch them in action! There are several photographs of Kaibab Paiute men with CCC enrollees, but very little written about the circumstances under which they came together on the monument.

In February 1936 the Heatons moved out of the fort and into a place in Moccasin. Heaton wrote in his diary, "I feel like now I can really show the monument.... As I have only one room fixed up as an office and all the rest will be filled with relics and museum stuff." As Heaton took note of the 10th anniversary of his working at Pipe Spring, he wistfully recounted some of the changes that had taken place over the years:



71. Morris Jake, Dan Bulletts, and CCC enrollee Bernie Effler, 1936 (*Photograph by Jack L. Harden, Pipe Spring National Monument*)



72. CCC enrollees watching Kaibab Paiute cowboys dehorn cattle in monument corrals, undated (*Photograph by Leonard Heaton, Pipe Spring National Monument*)

Once [this was] a place of activity for cattlemen and the watering of hundreds of cattle, now none are allowed to come near the water.

Once a stopping place on the main highway between Zion and Grand Canyon Parks with a yearly travel of 26,000, now only a few hundred.

Once, irrigation of 15 or 20 acres, now only the meadow and shade trees to beautify the monument.

Once buildings in a falling down state, now practically restored to the condition when built.

Once rooms barren of all furniture of pioneer life, now a few pieces of prehistoric Indian and pioneer relics are placed to break the barrenness of them.

Once a poor place for campers, now the beginning of an ideal campground.

Once a poor road which took hours to get over, now it takes only minutes.

Once the wind blew and the stoves and fireplaces smoked with every breeze, and IT IS THE SAME TODAY & IT WILL ALWAYS BE SO IN THE FORT.

All in all, I have enjoyed my life here at the Monument very much and hope that I will be able to continue my services for some time to come.⁹³⁰

In March 1936, approaching the end of the sixth period, Camp DG-44 was formally inspected by J. C. Reddoch. The primary work of the camp during the sixth period had been monument landscaping, his report stated. Outside the monument, the chief project had been road maintenance and construction. Commander Packer told Reddoch that he was of the opinion that the enrollees discharged in December "were Communistically inclined," even though no Communist propaganda could be found in their possession. Reddoch concluded the boys just wanted to go home. He reported that the morale and spirit of the 180 remaining boys was "good."⁹³¹

For the first three weeks of March 1936, Heaton performed guide work at Casa Grande National Monument, leaving the monument under the care of Ranger Donald J. Erskine from Zion National Park. Landscape architects Harry Langley and Edward L. Keeling visited on March 11 to go over ECW projects. The diversion ditch, monument fencing, and leveling of the parking area had all been completed. Completion of the walkways had been held up by the discovery of the Whitmore-McIntyre dugout. Despite all the work that had been accomplished, Ranger Erskine's report to Superintendent Pinkley at month's end suggested serious trouble was brewing between the Army and the Park Service. Erskine was living at the monument "at the courtesy of the officers," he reported in March, sharing their quarters. Thus he had a first-hand look at what went on in the camp 24 hours a day. He expressed serious reservations to Pinkley about the camp officers, stating,



73. Dan Bulletts and John Boyce, January 23, 1936 (Photograph by Leonard Heaton, Pipe Spring National Monument)



74. CCC enrollees placing line fence: Hemsley, Wright, Boyce, Effler, and Bill Thompson, February 26, 1936 (*Photograph by Leonard Heaton, Pipe Spring National Monument*)



75. Diversion ditch under construction by CCC enrollees to prevent flooding of campground, probably 1936 (*Photograph by Leonard Heaton, Pipe Spring National Monument, neg. 165*)

I feel that I should go on record as stating the situation here truthfully. The officers of this CCC camp could not be less cooperative with the policies of the National Park Service as it pertains to the camp and the surrounding area. Capt. Packer has shown no inclination to cooperate anyplace where he has the slightest wish on his own part for a result contrary to what we desire.⁹³²

Langley, for example, had asked that a road system be laid out in the camp area in order to preserve what little remained of vegetation. Packer shrugged off Erskine's frequent reminders of Langley's request by saying the Army and Park Service had a difference of opinion. Erskine was also told by some of the CCC boys that officers were shooting birds on the monument. Upon his return, Heaton wrote in his journal,

There seems to be some friction coming up between the Army officers and the policies of the Park Service, and the Captain, Mr. Packer, wants to have his way regardless of what the NPS has in its program for the development of the monument, so maybe we will have some excitement yet.⁹³³

A few days later Heaton wrote, "Had a long talk with Captain Packer and he is getting more determined to have his own way and insists on telling me how I must run this monument, and they are mostly Army methods..." Three days later, Heaton wrote in his journal,

Did some cleanup on the east side of the meadow to please Captain Packer, who keeps suggesting things and how the monument should look like a DANCE FLOOR.... We also discussed the water and the making of a swimming pool in the meadow where the old pond is. I told him that I did not think there would be enough water to keep it fresh unless there was put in cement or rocks to hold the seepage...⁹³⁵

(Recall that two years prior to this, the idea of lining the meadow pond with stones or cement had already been discussed between Heaton and Pinkley as a way of conserving tunnel spring water; no funds were available at the time, however. No doubt, Heaton was delighted to have the Grazing Service do this at no expense to the monument, albeit for different objectives!)

As the end of the sixth period neared (March 31, 1936), Heaton found it increasingly difficult to get much work out of the enrollees who were about to go home. This was a time when boys were also most likely to search about for souvenirs of their stay at Pipe Spring, such as the illegal gathering of cactus or the pilfering of museum artifacts. Or they found a way to leave their "mark" at the monument - inscribing their names or initials into historic buildings was a common method. Some boys didn't wait to go home, mailing horny toads and lizards caught during their monument stay. 936 Others found and killed snakes for their skins, which they sent home or put on their belts. Rattlesnakes in particular were killed on sight.

Heaton's monthly accounts of such activities, included in the *Southwestern Monuments Monthly Report*, distressed Acting Chief Victor H. Cahalane, Wildlife Division, who wrote Superintendent Pinkley asking him to have Heaton call to the attention of enrollees the monument's responsibility to preserve and protect native wildlife. Heaton enlisted the camp commanding officer's aid in an attempt to dissuade the boys from their more destructive activities. "There are one or two who have been raised out in the open that can't see any good for any living shake or smaller animal, only to practice on with a rifle or rock," Heaton wrote Pinkley. "I might confess," he continued, "that I was that way till I began to study the life and use of wild animals to man, and this has mostly all happened since I have been working for the National Park Service. I surely have repented of my evil ways of taking the life of such harmless creatures, and get after everyone else that delights in killing the same."937

Heaton's heightened sensitivity toward monument wildlife, however, did not apply to domestic pets living on the monument. He frequently expressed his frustration in dealing with cats and dogs brought into camp by CCC boys or Army officers and their families. Heaton grew to intensely dislike these animals for the damage they did to the wildlife and regarded them as a nuisance. Moreover, boys and dogs chased down his domestic geese until none were left. Cats broke into his bird traps killing the birds. When a grader ran over a dog in late April, Heaton wrote in his journal, "Well, this saved me the job. I wish the same thing would happen to the rest of the dogs hanging around here." Heaton is also not uncommon to find a Heaton journal entry during this period that reads, "Got rid of another cat last night." Even Pinkley sympathized with his plight but cautioned, "You are quite right to kill the house cats, though if the Army should bring cats to the monument I would rather you would talk the policy over with them before doing anything which would result in antagonism." Heaton is a policy of the property of the dogs hanging anything which would result in antagonism."

While Heaton thoroughly disapproved of the mailing home or killing of wildlife, he never objected when the boys caught reptiles and delivered them to his earlier brainchild, the monument's caged reptile exhibit. Not all captured reptiles were kept for exhibit, however. In an attempt to monitor wildlife at Pipe Spring, Heaton developed a unique, "digital" method of marking, releasing, and tracking lizards. On March 30 he wrote in his journal,

I got the bird traps set, three of them. About noon I caught three chipmunks, two English sparrows and one Stephegers Blue-bellied Lizard and marked it by cutting off one of its toes. By this system of marking I will be able to mark a lot. The system is cutting off a different toe each time and keeping a record of each individual lizard.⁹⁴⁰

While Heaton was busy thus "marking" lizards, temperatures were starting to climb and CCC enrollees became hell bent on converting the meadow pond into a swimming pool. Meanwhile, they cooled off by taking dips in the fort ponds. A cat and scraper were used to slope the sides of the meadow pond. In late April 1936, Heaton reported to Pinkley, "The Army is now working like beavers to get the meadow pond in shape for a swimming

pool. It is being lined with flagstone rock and cement in the cracks, so it ought to be almost water tight."941

Assistant Director Conrad Wirth, chief of the Branch of Planning, visited the monument with his wife on April 20, 1936. Wirth met with ECW Superintendent Draper to discuss work projects and to get his assurance that enrollees would continue to be available for monument work. (The Grazing Service thought the boys were only to be used by the monument for the sixth period.) Draper later told Heaton he could have 10 boys whenever he wanted them but that the monument had to buy its own materials for projects. More often, no more than eight boys were available.

Much to Heaton's relief, Capt. Packer left the monument on April 23, 1936. His replacement, Capt. Shirey, wrote Heaton in his journal, "seems to be a man we will be able to get along with." On March 1 Aland Forgeon, the camp educational adviser, was transferred to another camp and Reed Clegg was assigned to take his place. On the day Packer left, Clegg asked Heaton if he could use one of the west cabin rooms for a classroom. Heaton mentioned it to Landscape Architect Keeling who thought it could be worked out. Heaton gave his approval to Clegg in May.

During the month of April 1936, a local effort was made to have Pipe Spring National Monument enlarged. J. D. Walkup, member of the Coconino County Board of Supervisors, wrote Arizona Senator Carl Hayden and Assistant Superintendent Miller at Southwestern National Monuments asking that Sections 17 and 20 be included to include the Powell survey marker and the Indian ruins south of the monument. Senator Hayden forwarded Walkup's letter to Director Cammerer, who then sent it to Superintendent Pinkley. Pinkley wrote to Walkup in reply:

I thank you for your interest in the Pipe Springs area. We know of the ruins near the Monument. They are, however, situated on the Indian Reservation, and there is at present a definite policy against withdrawing any land from the reservation and hence from Indian use. So I am inclined to believe that the Secretary of the Interior would not approve an application for transfer of any part of section 20 to the National Park Service.⁹⁴⁴

Pinkley assured Walkup the ruins were protected under federal law, regardless of which agency administered them. The Powell marker, while interesting, was not sufficiently important to warrant a boundary extension, wrote Pinkley. Acting Director Hillory Tolson also informed Senator Hayden of the Park Service's position on the issue and mentioned the Indian ruins were not thought to be of "sufficient importance" to justify their addition to the monument. Pinkley followed up in late May with a letter to Director Cammerer explaining his position. He did not see the need for the proposed additions and he expected the Indian Service would "promptly protest" any move to remove the two sections from the reservation. In 1939 Assistant Chief H. E. Rothrock (Naturalist Division, Branch of Education and Research, Washington, D.C.) would again argue for expanding the monument's boundaries. (See "Monument Interpretation during the Great

Depression.") On May 14, 1936, Harry Langley and Charles A. Richey visited the monument. Langley was leaving the area to work in northwest parks and Richey was to take his place as the district's landscape architect. Heaton wrote in his journal, "Will miss him a lot as I have had many fine discussions about the monument and learned a lot from him. I wish him a lot of success in his new field and especially the fishing part of it, as the southwest is dry fishing." (If only Heaton could have kept those fort ponds stocked with trout!)

Superintendent Pinkley had not forgotten Heaton's desire to restock the ponds. During the summer of 1936, Pinkley contacted David H. Madson, Supervisor of Resources, who made arrangements with the state game commissioner for fish to be given to Heaton for the monument from the Panguitch hatchery, three miles south of Hatch, Utah. Madson wrote, "It seems to be that 5,000 trout will be a little too many to put in these two ponds. Mr. Heaton can have any size fish he wants up to four or five inches in length, and I would suggest that if he takes fish four inches long, 2,000 will be ample for the ponds. However, you can have the 5,000 if you wish them." Heaton delayed restocking the ponds until later that year.

The CCC swimming pool was completed on May 20, 1936, but would not hold water. A May 22 dance had already been scheduled to celebrate its completion. The dance was held in the mess hall anyway, but there was no swimming. The seepage problem was solved



76. Camp DG-44's Headquarters building with swimming pool in foreground, June 1938 (*Photograph by Jack L. Harden, Pipe Spring National Monument*)



77. First Sergeant Boyd Clevenger all dressed up to meet his girlfriend in Kanab, July 1939. He borrowed the 1937 Plymouth Coupe from Lt. Paul C. Scollard for the occasion. (*Photograph by Jack L. Harden, Pipe Spring National Monument*)

and by late June the swimming pool was about three-fourths full of water. "To see them after work hours," Heaton reported, "you would be reminded of the old water hole near town on a hot summer day. There has been as high as 50 or more boys in the pool at once."948 The pond was located just south of the camp headquarters building, which also held the post exchange and supply room. Other CCC activities in June included grading and graveling the parking area and monument road, and hauling flagstone for walks and sandstone for stone curbing.

A couple of serious incidents occurred in June 1936 involving some of the boys from Camp DG-44. From the time the enrollees set foot in the camp, some set about trying to attract the attention of local girls. If they managed to borrow a car, then access to the area's females was much easier, but most cars were owned by officers. 949 Regulations prohibited enrollees from having their own automobiles in the camp.950 Usually boys had to wait for a social event to be held at the monument or for trucks to take them in to town to have a chance at mingling with area girls. A number of CCC romances actually ended up in marriage, with the boys remaining in the area.

The intentions of some boys were more of an immediate nature, however. On June 5, after a night in Kanab, a group of boys smuggled two young girls back to the camp in Army trucks. The Kanab marshall came out to the monument looking for them the same night and Heaton accompanied him to retrieve the girls. The youngest was 13. "It looks like the CCCs have just about fixed themselves with the local people, for they are going to get the boys that brought out the smallest girl," Heaton wrote in his journal the next day.⁹⁵¹ Another night on the town resulted in tragedy. On July 24, a Friday night, a truckload of CCC

boys was involved in an accident near Kanab. Four of the boys were hospitalized and one died about two days later.⁹⁵²

During the ECW seventh period (summer and fall of 1936), the irrigation ditches were laid to the campground, the parking area was constructed and stone curbing installed around it, the campground was cleaned up, and a minor road to the campground was built. Work also continued on a flood control project and on landscaping. A 10,000-gallon water-storage reservoir was proposed with pipeline and pump house to service the new campground. No engineering plans had yet been prepared for the monument's water system, however, and with ECW cutbacks, Pinkley wrote Al Kuehl in August, "there is little likelihood that the camp will allocate sufficient funds for the Monument projects to permit construction of the proposed reservoir. For this reason, I think we may as well defer preparation of an engineering plan."953 In September the regional office in Santa Fe approached the Grazing Service to ask if they would finance the cost of constructing a 10,000 concrete reservoir on the monument, justified "on the basis of water conservation and usage for outstanding public good."954 Unsuccessful in that attempt, Pinkley then sought special funding from Director Cammerer for the \$1,500 needed to construct the reservoir and distribution system. Pinkley was advised that Park Service funds were not available and that funds would have to come from the Grazing Service. Plans for a monument water system were put on hold, awaiting funding.

Eighth period ECW jobs approved for construction were filling in a drainage channel; laying a flagstone walk from the campground to the parking area; constructing campground fireplaces, a water trough, and drinking fountain; and building tables and benches for the campground. Al Kuehl prepared construction drawings for the projects in November 1936.

By the fall of 1936, Park Service officials became increasingly concerned about the impact the CCC camp was having on the monument. In his monthly report to Chief Architect William G. Carnes, Kuehl reported that the Army was making no effort to revegetate in the disturbed area of the campground. He expressed the view that the monument was not benefiting significantly from the CCC camp:

Due to the lack of funds available for ECW jobs to be furnished by the Division of Grazing, job progress has been hindered...

I am likewise of the opinion that this camp is much more of a detriment to this little 40-acre Monument than a benefit thereto. Approximately one-fourth of the total Monument area is devoted to housing a camp which benefits stock men in the vicinity, and as far as I have been able to find out, these very people are not particularly interested in the small amount of work being accomplished.

For the privilege of using Monument water and the area occupied by the camp, the Park Service receives the work of eight enrollees, and little if any material funds for job execution.

It will take years to revegetate the area now occupied by the camp. 955

On December 3, 1936, Pinkley wrote Director Cammerer recommending that the CCC camp be withdrawn from Pipe Spring. About one week later, in hopes of securing additional ECW funds for projects, Pinkley left for Washington, D.C., to meet with officials to discuss the monument's need for a custodian's residence, comfort station, equipment shed, and water and sewer system. Meanwhile, Custodian Heaton continued to "hold down the fort," in the face of problems posed by the monument's occupation by Camp DG-44.

Despite the fact that some improvements had been accomplished since the arrival of the CCC camp, most involved little or no expense, just physical labor. The most monument's pressing needs - the development of a water and sewer system and construction of a custodian's residence and comfort station - remained unmet due to lack of funding. The situation was well-described by Assistant Superintendent Miller who wrote Assistant Regional Officer George L. Collins the following, as Pinkley was en route to Washington:

The camp has been at Pipe Spring for approximately a year and a half and in that time every effort to secure funds from any source or cooperation from either the Army or the Grazing Division has been unsuccessful. Not a single project of any consequence has been accomplished for the Park Service during that time. Ever since the camp went in there has been a constant stream of complaints and in spite of protests and promises no effective action has apparently been taken. When things reached the state of permitting enrollees to shoot up our entrance signs from the back door of their barracks we are forced to the conclusion that we do not want a camp at Pipe Spring.

Naturally, however, if the Grazing Division and the Army should counter with a proposal to enforce effectively National Park Service rules and regulations within the area and on adjacent lands, and if definite arrangements could be made to give us the funds to accomplish even one worth while project, such as the water system and reservoir, I think Mr. Pinkley might be inclined to listen. The question is, why should we let this camp trample our little monument into the earth and get, in effect, nothing to compensate us for the damage done?⁹⁵⁶

This query would be made again in subsequent years that the camp remained at Pipe Spring.

The one thing that definitely *was* being accomplished with the help of the CCC boys however, was planting. In Heaton's December 1936 report to Superintendent Pinkley, the custodian reported more landscaping had been undertaken:

This month I have had the CCC boys do a lot of planting of trees and shrubbery. On the 10th and 11th, we got from Moccasin some 500 wild rose roots, and set out by the east entrance, at the head of the meadow, and some at the southeast corner of the meadow. On the 14th and 15th, we set out 200 or more of the shadscale in front of the west cabin and will get some other kind of brush when the weather gets colder. Dec. 21st & 23 we have set out about 130 trees, some to replace those that died from last years planting, and then some to fill up ground around the parking area and campground. 957

In addition, work proceeded on the ditch elimination. This month Heaton also restocked the ponds with 18 cans of three to four-inch rainbow trout and eastern brook trout from the Utah State Fish Hatchery at Mammoth Creek.⁹⁵⁸ On occasion, Heaton caught CCC boys pole fishing with hooks fashioned from safety pins. He confiscated their fishing equipment and gave them his usual ineffectual chastising.

To File or Not to File?

While no documentation suggests any dispute during 1936 over the tri-partite division of water at Pipe Spring, in December 1936 Attorney Joseph E. Taylor, Branch of Land Acquisition and Regulations, informed Director Cammerer that Superintendent Pinkley desired "a different adjustment" in the division of water.⁹⁵⁹ Toward that end Pinkley had requested a filing be made on behalf of the United States, through the National Park Service, "upon all the waters of the Springs, or at least upon the waters used by the National Park Service."960 Taylor asked the director for authorization to precede with the filing. It is not known what, if any, event precipitated Pinkley's action. It may have been simply that Pinkley had always resisted the three-way division as unfair to Park Service interests, and had wanted the legal question of ownership formally determined. A review of all correspondence related to the proposed filing suggests that Pinkley may have wanted the filing to be a



78. Custodian C. Leonard Heaton in front of his fort office, ca. 1935 (*Pipe Spring National Monument*)

vehicle for demonstrating Park Service need for Pipe Spring water, based on administrative needs and rising visitor demand. Such a move would have forced the Office of Indian Affairs to demonstrate the reservation's need and use of the share of water it was receiving. While the Park Service could have easily made a case that it needed more than its one-third, Pinkley was convinced that the Indian Service could neither demonstrate a need for one-third of the water, nor show they made efficient use of what they were receiving. If this was Pinkley's goal, however, it was not reflected in statements made by the director's office, as will be seen below.

When Pinkley wrote Heaton to gather information needed for the filing, he stated, "The Service is working on an appropriation of water rights to protect our water supply for all time to come at Pipe Spring."961 In addition to water use information, Pinkley asked Leonard to obtain a copy of the quitclaim deed from his father, Charles C. Heaton.⁹⁶² Leonard Heaton responded in late May 1937, describing how water from the Indians' pond was being used. "The Indian Service, or Albert Frank, an Indian, has tried for the past several years to do some irrigation and raise some crops but has been unable to get enough crop returns to pay for the seed and work put into the ground," wrote Heaton. 963 Heaton also reported that during the drought of 1936 when the reservation springs dried up, 75 to 100 head of Indian stock watered at the Indian pond for three or four months, but none were watering there in May 1937. Heaton provided other specific information on water use by the Park Service, general public, and local residents. When it came to stockmen, however, he provided only the most general information. Suspicious of government intent, the stockmen refused to tell Heaton the number of cattle dependent on water from the monument. They told Heaton the government could write them individually for that information.⁹⁶⁴ "They are rather sore at the way the government has treated them," explained Heaton. 965 Heaton wanted to know if the rights of the cattlemen to Pipe Spring water were being questioned again, and if so, by whom?

Superintendent Pinkley forwarded Heaton's letter to Attorney Taylor who urged Pinkley to assure the cattlemen that no attempt was being made to take away their water or divest them of any right which they might have to Pipe Spring water. "Insofar as the three-party agreement concerning the use of waters of Pipe Springs is concerned," wrote Taylor, "the only dissatisfaction of which I am aware lies in the distribution of the water between the Park Service and the Indian Service."

To go back to Pinkley's original request that Taylor file on behalf of the government, Assistant Director George A. Moskey acknowledged receipt of Taylor's letter in late January 1937, replying,

The question whether we should file upon all the waters of the springs is being considered, and will be the subject of a separate communication in the near future. There is nothing in our files to indicate that any filing has been made on behalf of the United States. It is understood from Mr. Dunn's report that none has been made by private interests.⁹⁶⁷

Moskey forwarded to Taylor copies of the regulations issued November 2, 1933; the October 13, 1933, agreement between the Park Service and Office of Indian Affairs; and a copy of the Memorandum of Agreement signed June 9, 1924, by representatives of the Park Service, Office of Indian Affairs, and cattlemen. The legal division of the Branch of Land Acquisition and Regulations also wrote to the state water commissioner to inquire if any water filing had been made on the Pipe Spring property and was informed that a search of their records indicated no filing had ever been made.⁹⁶⁸

On February 11, 1937, Director Cammerer prepared a letter for Joseph E. Taylor informing him,

You are authorized and instructed to make the necessary filing on behalf of the United States for all the waters of the springs. When the right to the water is vested in the United States by appropriation, its future disposition will remain subject to the regulations of the Secretary. No change in the present disposition is now contemplated.⁹⁶⁹

The letter was forwarded for concurrence signature to the Office of Indian Affairs, immediately raising the suspicions of that office. Assistant Commissioner William Zimmerman, Jr., replied to Cammerer on March 12, 1937,

Before agreeing to the proposed letter to Mr. Taylor, we would like to know the purpose of such filing and also have the opportunity of examining and approving the form of the application to be filed with the State Water Commissioner of Arizona. As you no doubt are aware, the Department of the Interior withdrew from settlement an area including the springs in 1907, which was conformed and established as an Indian Reservation by executive order of July 17, 1917. At that time there were reserved by implication sufficient waters of the reservation for the use of the Indians. See Winters v. United States (207 U.S., 564). Therefore there appears to be no reason for the United States at this late date to file on the waters pursuant to the State laws. In view of this we have not concurred in the letter proposed by your office. There probably would be no harm in making a filing if the prior water rights were properly safeguarded. If, therefore, you still are desirous of having a filing made this Service would want an opportunity to examine all papers prepared for such purpose before any actual filing is made. 970

Associate Director Arthur E. Demaray then forwarded Zimmerman's reply to Taylor with the following communiqué:

There is enclosed a copy of the reply of March 12 from the Assistant Commissioner of Indian Affairs, in which he refuses to concur in the proposed authorization to file for all the water of the springs. It appears that the Office of Indian Affairs prefers to depend upon rights vested under the ruling in Winters v. United States. The wisdom of such a course may be questioned, in view of the uncertainty of the ruling as affected by later decisions. Your opinion is requested whether it is advisable to file an application specifically reserving all rights which may have vested merely by reason of the establishment of the Indian Reservation.

The Office of Indian Affairs will probably not object to the filing of the application if such a reservation is made. If you consider it advisable to file the application for appropriation, you may prepare an application containing the reservations which the Office of Indian Affairs has indicated will be acceptable, and submit it to this Office. It will be transmitted to the office of Indian Affairs for approval before it is returned to you for filing.

It seems that if any rights are already vested in the United States under the ruling in Winters v. United States, such rights may include all the waters within the boundaries of the Kaibab Indian Reservation. Therefore, it seems useless to make any filing for less than the total flow of the springs.⁹⁷¹

The possibility of filing raised a host of legal questions, some of which are contained in correspondence of April 1937 between Attorney Taylor, the director's office, and NPS Associate Engineer A. van V. Dunn. Taylor responded to the director,

It seems to me that if we attempt to file an application specifically reserving rights vested (if any) by reason of the establishment of the Indian Reservation, we thereby designate in our application an adverse claimant to be notified by the State Water Commissioner of our application, and possibly to be placed in the position of protestant. Inasmuch as our filing should be in the name of the United States of America, this would present an anomalous situation of having the applicant protesting against its own application...

Assuming, for the purpose of discussion, that there were private holdings such as to include the area around the springs, I can't see how the creation of an Indian Reservation farther down could affect rights acquired in the waters of the springs. The question of the reservation may be moot now because valid rights may never have been acquired, or they may have been forfeited long before this. But such a state of affairs would serve to illustrate the fact that the forfeiture would be accomplished under the laws of the State of Arizona, and the acquisition of new rights would have to be accomplished likewise under the State laws. If the Indian Reservation did not include the entire area, or at least an area providing access to the water supply, then, in my opinion, its creation could not amount to a reservation of the waters of the spring for use upon the Indian Reservation. The Indian Reservation would have to acquire its rights just as any one else would have to do it, and the decision of Winters vs. the United States would not be applicable under the facts.

On the other hand, if the Indian Reservation did actually include the entire area including the springs and the lands surrounding the springs, it is probable that the United States is the owner of the waters by either of two theories; one being reliance upon the doctrine established in Winters vs. the United States (though this position may not be entirely secure, since the reservation is not a treaty reservation and the area was withdrawn subsequent to the Desert Land Act of 1877), and the other being reliance upon the fact that under Arizona law the waters of a spring which do not flow in a well defined channel beyond the boundaries of the owner's property would not be subject to outside appropriation...

I would make the recommendation in the alternative – depending upon the facts applicable. If the ownership of land is such than no channel from which water might be appropriated extends beyond the lands of the United States, my suggestion would be that no filing is required. If, on the other hand, a channel does extend beyond the confines of Government land, then I would recommend a filing for all of the waters of the springs if we can possibly justify the use of the amount of flow, with a reservation in favor of such rights as are vested by virtue of the establishment of the Indian Reservation.⁹⁷²

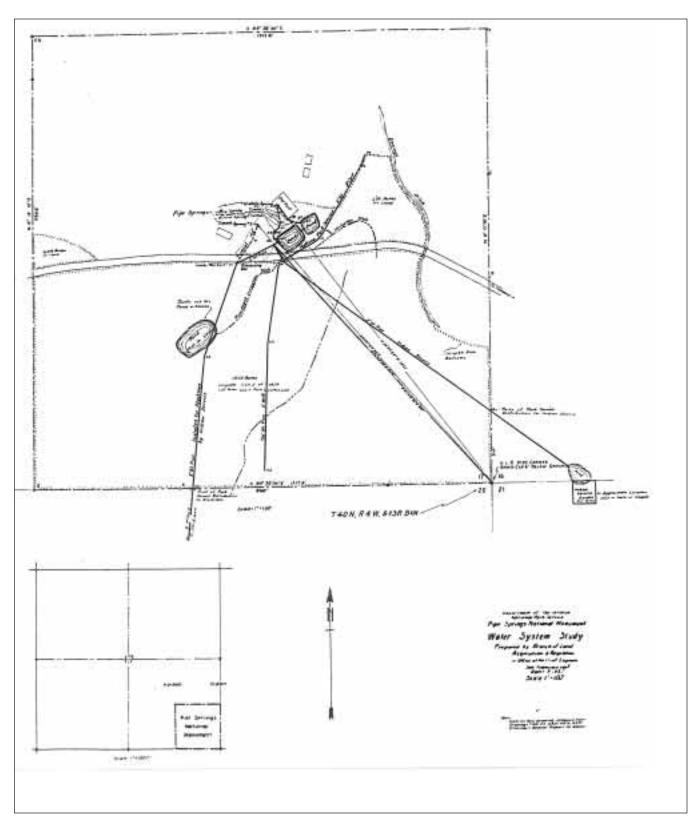
Taylor included a specimen application to present to the Office of Indian Affairs "for their scrutiny" should Director Cammerer choose to proceed with filing. Meanwhile, A. van V. Dunn drew up a sample application at the request of Taylor, but raised a host of questions prior to doing so.⁹⁷³ The draft "Application for a Permit to Appropriate Public Waters of the State of Arizona" was completed and submitted to Office of Indian Affairs Commissioner John Collier in late April, and was subsequently opposed by him. The Branch of Land Acquisition and Regulation, however, appears to have not given up at that point, contacting Pinkley in May for additional information. (See map that office prepared in April, figure 79.) The water of Pipe Spring did not flow off the monument through Indian lands in a defined channel and, to Pinkley's knowledge, never had.⁹⁷⁴ The director's office made the decision not to file. In May 1937 Demaray informed Taylor,

In view of your recommendation that no filing be made if no channel from which water from the springs might be appropriated extends beyond the lands of the United States, it is considered inadvisable to file the application. Our sole object in making a filing is to prevent the vesting of any water rights in private parties which would be adverse to those of the United States. Since there appears to be no danger of the establishment of additional adverse rights, the existing complications render a filing inadvisable...

The application was not intended to affect the present distribution of the water among this Service, the Indians, and the cattlemen.⁹⁷⁵

The issue of Charles C. Heaton's earlier transfer of water rights at Pipe Spring to cattlemen arose. Demaray opined, "The reported sale to the cattlemen appears not to have been a transfer of any definite water right, but a mere continuance of a license to water stock for which Heaton received compensation." Whether the cattlemen's use of water at Pipe Spring could be viewed as adverse to the interests of the United States "may require consideration at some future time," Demaray wrote. 976

In early June 1937, Taylor wrote to Pinkley stating that he fully concurred with the director's decision. There was no need to file an application to appropriate water, Taylor maintained, "unless it is found that runoff water from these springs might be subject to appropriation at a point beyond the reservation." Thus ended, for a time at least, Pinkley's attempt to establish the National Park Service's legal rights to the waters of Pipe Spring.



79. Detail from "Water Systems Study" map, April 9, 1937 (Courtesy National Archives, Record Group 79)

1937

Snow storms beginning in mid-December 1936 and continuing into the new year were so severe that Special Investigator Reddoch was prevented by snow-blocked roads from reaching Camp DG-44 in January to make his annual inspection report on conditions at the camp. Reddoch reported to ECW Assistant Director McEntee on January 22 that the road had been impassable since December 18, and that mail, food supplies, and coal could not be delivered to the camp. Reddoch learned that only one and one-half days of work had been performed in the field since late December due to inclement weather. In February McEntee in turn contacted Grazing Service Director F. R. Carpenter and asked for a report on the situation. Carpenter reported that the Arizona Strip had experienced unusual and unprecedented snows that winter, which reduced the days of fieldwork that were possible. Heaton's monthly report to Pinkley that month stated that the CCC camp officers were finally able to obtain snow removal equipment from the State of Utah by January 22 enabling them to clear the roads. While the coal supply was sufficient, much of it was buried under snow. Much to Heaton's chagrin, some of the CCC boys cut down 13 cedars and pines on the monument for fuel, to save themselves the work of shoveling snow off the coal pile.

At the same time the monument was shoveling out from under the snow, Associate Regional Geologist Vincent W. Vandiver was preparing a geological report on Pipe Spring National Monument in the regional office in Santa Fe. In addition to geology, the report included background history of the area as well as information about native plants and animals. The purpose of the report appears to have been to provide general background information about the monument that would be useful for administrative or interpretive purposes rather than information oriented toward legally establishing water rights. (It was published in February as *Southwestern Monuments Special Report No. 14.*) The report states that Moccasin Spring had a capacity of about 200,000 gallons per day, as contrasted with Pipe Spring's capacity of 65,000 gallons per day.

Weather improved enough by late February 1937 that Heaton had CCC boys working on grading several areas in preparation for grass reseeding.⁹⁷⁹ The camp commander informed Heaton in February that the west cabin was no longer needed for a classroom. At some point prior to this, however, some damage had been sustained as a result of the CCC boys locking a coyote into the cabin. The animal broke a window to escape. Heaton requested that the cabin be cleaned out, but to no avail. He finally tired of waiting and in March piled all the Army's things outside the cabin, removed electrical fixtures, and cleaned the cabin himself. He also obtained poplar logs in Moccasin to be used for making the campground tables.

A new crew of enrollees arrived from western Kentucky on April 15, 1937. Several areas of the monument were seeded: around the swimming pond, the parking area, and east of the fort (the site of the earlier campground). During April and May, the CCC boys worked on constructing picnic tables and the watering trough. The trough was hewn from a large cottonwood log; the picnic tables were constructed of cottonwood with cedar stringers. Additional cottonwoods were planted south of the fort. Hugh Miller, Al

Kuehl, and Park Service Engineer J. H. Tovrea visited the monument mid-April to inspect ECW work and to study proposals for the 1937 master. The Grazing Service agreed to set aside a monthly allotment for ECW jobs on the monument.

Heaton, who was seeking a way to get a National Park Service ranger's rating, met with Assistant Superintendent Miller during the April visit to discuss how this might be achieved. Heaton wrote later in his diary, "Was told that the Boss [Pinkley] was doing all he could to keep me in the service." The following month, Heaton took the ranger's exam in Cedar City, writing afterward in his diary, "Did not do so good in the mental test. Too many words I did not know, but believe I passed the practical test." As his status did not change, it is assumed he did not do well enough to earn the ranger rating and Civil Service status he sought.

In late April 1937, Heaton discovered a 22-bullet slug in the west door of the west cabin. Several had been fired against the rock wall, and one through a window of each room of the cabin. Boys who had already left the camp had carved two names into the walls of the east cabin. Heaton complained to the camp officers that the camp kitchen help was dumping meat waste in the monument's drainage wash, creating stink and flies. In June Heaton got after two boys for hunting birds on the monument, only to discover they were after them to feed an eagle they had captured and were keeping in camp. "DAMN it,"



80. Campground with poplar log tables and benches, late 1930s (*Pipe Spring National Monument, neg. 141*)

Heaton wrote in his journal, "I wish this camp would leave soon or the officers would be a bit more strict about the boys having guns in camp and about park rules." Problems continued as boys kept killing birds and other wildlife by means of guns, "flippers" (slingshots), or any other means they could find.

Several changes in the camp's Army officers and U.S. Forest Service personnel were reported during 1937. Lt. Wolfe left the monument in late April and was replaced by Lt. Beidinger. In May a new ECW foreman, Albert B. Chilton, arrived at Pipe Spring with his wife. On July 15, 1937, Lt. Carl A Wickerham replaced the camp's commanding officer, Capt. Hofler.

On June 1, 1937, the Mountain State Telephone and Telegraph Company laid an underground phone cable to the fort, ending 66 years of use of the old Deseret telegraph line poles. Heaton salvaged enough of the old poles and line from north of the monument "to reconstruct the line west of the fort within the monument as a relic of the past," he wrote in his journal. (This reconstruction work was done in August.) In mid-June Heaton took four weeks annual leave, leaving CCC enrollee Clarence Thomas in charge of the monument. When he returned on July 14, he "found things not as they should be." Thomas had gone home a week earlier and another enrollee was in charge. The trees were in need of watering and the new education adviser, Mr. Black, was making plans to turn the west cabin into a woodworking shop. Heaton opposed such a use, but later allowed the cabin to be used as a map room and office by the Grazing Service's range survey crew and then as a photography dark room. Photography dark room. Photography dark room.

Heaton also reported in July 1937 that the swimming pool was using too much water and the Army's tank frequently overflowed. After several months of badgering by Heaton and a letter from Pinkley, the Army officers finally installed a stop valve on their tank to avert wasting water. Heaton reported it did not work well, however, and he asked the new company commander, Lt. Wickerham, to address the problem. Meanwhile, as monument trees started suffering for lack of sufficient water, Heaton grew impatient and decided to take matters into his own hands. On July 24 Heaton wrote in his journal,

Have been putting rocks over the end of their intake pipe so that so much water will not go to waste. Must of [sic] shut off too much yesterday as the tank got dry and the new Lt. Wickerham jumped onto me red-eyed about shutting off the water and said that they about blew up the hot water tank and there would be a lot to explain if someone got killed just because the water got shut off. To this I told him that I had tried for nearly two years to get the Army to fix the float on their tank so that so much water would not be wasted and it has not been done as yet and I was a bit sore [about] the way I had been treated regarding it.... I am not going to have the trees die because there was water going to waste. ⁹⁸⁷

On July 27, 1937, Heaton reported the Army's float was finally working. Heaton wasn't the only one dismayed by water waste however. Reservation Agent Parven Church complained to Heaton in August that water was being wasted at the new drinking fountain and water trough. Heaton wrote, "He said there should have been an agreement between the Park Service and the Indian Service before the fountain and trough were put in, to which I told him that the public was to have the first use of the water before any division was made... [I also told him] that I shut off the water when I found it running..."988 Church also was upset that the CCC camp was using and wasting too much water. Heaton said he had done all he could in that regard and urged Church to do what he could about it.

The patience of Park Service officials with Camp DG-44 was wearing thin. Al Kuehl reported in late September,

The Pipe Springs camp continues to exist with no particular benefit being received by the National Park Service. In accordance with an agreement reached earlier in the year, the monument was to receive a pro rata share of the monthly camp allotment for monument jobs. No funds have been made available since July; consequently no progress has been made on jobs that require materials.⁹⁸⁹

In September 1937 Heaton reported he was thrashing out grass seed gathered by the CCC boys the previous June and planned for it to be planted on the east half of the monument in the fall.⁹⁹⁰ Heaton also planned to plant "a lot of pinyon nuts on the hill back of the fort this fall, as I would like to see a lot more trees growing up there."⁹⁹¹ In October Kuehl visited the monument and told Heaton he could plant all the grass and trees he wanted to. The following month Heaton reported to Superintendent Pinkley,

On Oct. 19th I gathered some two or three hundred pinyon seeds and planted them on the monument back of the fort, on the hill where some of the trees are dying and where some of the trees were cut for fuel last winter by the CCC camp when they ran short of coal.

I have some 20 lbs. of grass seed that is in the process of being cleaned and I hope to get [it] planted this next month. It is taking me longer to clean the seed than I thought, as each seed is covered with small cotton-like hairs that cling to the grass stems and is hard to shake out.⁹⁹²

In November 1937 Heaton reported, "On Oct. 26 and Nov. 15, I planted about 5 pounds of grass seed, collected on the monument, and 25 pounds of greasewood seed, on the southeast quarter of the monument which has in the past been farmed. I want to get a lot more seed planted on the bare spots this fall." Asking the CCC boys for help in ridding the monument of weeds was always risky, as their efforts were usually nonselective. Once when Heaton asked them to eradicate weeds, they cut down most of his rose bushes that had been planted at the head of the meadow. "Doesn't look like I will be able to grow anything there 'til the camp moves out," Heaton once lamented.

During the fall of 1937, the monument's first administrative buildings were constructed. In September the monument's old Dodge truck (transferred from the Bureau of Public Roads in 1936) was replaced with a new Ford pickup. In November Leonard Heaton's old board and batten sided barn, sited near the monument's south boundary, was remodeled into a temporary, shed-roofed garage to house the new truck. Work consisted of partitioning off one end of the barn, cutting in double doors, reroofing, and installing a flagstone floor, a workbench, and new windows. 995 At about the same time an oil and gas house, a 6 x 6-foot underground structure, was built about 40 feet north of the garage. 996 This dugout was constructed with stone walls, a sandstone floor, and pole and earth roof. It was large enough to store five drums of gasoline. Heaton and a small crew of CCC boys completed both buildings. Kuehl inspected the two buildings on November 24. Tools and gas, previously stored in the east cabin, were then moved to the new garage, and the east cabin cleaned out so it could be better exhibited along with the fort as a historic building. Heaton said the east cabin "had been used as a tool house and work room for about four years and very few got to see inside of it [during that time]." 997

It was during the fall of 1937 that the question was raised once again by Park Service officials about the usefulness of the CCC camp at Pipe Spring. Pinkley sent the monthly report for Pipe Spring to Acting Regional Director Herbert Maier in September, while pointing out that Grazing Service allotments of about \$50 per month for Park Service projects had only continued for a few months prior to June 30. Pinkley reported,

No such contribution has been made since that date and it is my recommendation that unless some practical benefit to the Park Service can accrue from the location of the camp on this small monument, the camp should be withdrawn... If the use of our land and our water are of no value to the camp and the Grazing Division is not willing to recognize the value they can have no logical objection to removing the camp from the monument premises.⁹⁹⁸

Pinkley would not object to the camp remaining, "if some satisfactory contribution to monument projects can be arranged," he wrote. Otherwise, he wanted them out. Maier forwarded Pinkley's letter to Director Cammerer, stating the regional office was "thoroughly in accord" with Pinkley's suggestion that some benefit should be derived from DG-44.999 The threat of being expelled from the monument worked. The Division of Grazing agreed on November 10 to allot a fixed amount of \$50 per month to purchase materials for approved ECW jobs at the monument. In exchange, the Park Service agreed to provide another truck to Heaton that would be shared with the Grazing Service. The same number of CCC enrollees were still to be allotted for monument projects, as in the past.¹⁰⁰⁰ The availability of a predictable source of money gave Pinkley new hope that the monument water system could soon be constructed thereby permitting other planned development to move forward. In December he requested that the Branch of Plans and Design prepare and submit preliminary plans for the monument's utility and residential areas. The development plans approved for the monument are shown on the monument's master plan. The location of existing CCC camp buildings and proposed monument developments are shown in dashed lines on the master plan (see figure 81).

In the early fall of 1937, an outbreak of typhoid occurred in Moccasin and on the nearby Kaibab Indian Reservation. Pinkley first got word of it when Heaton's monthly report for September stated that his 10-year old daughter, Maxine, had contracted the disease. U.S. Public Health Service Senior Sanitary Engineer H. B. Hommon got wind of this and directed Pinkley to find out from Heaton where the girl had been two weeks prior to having the illness. Heaton wrote Pinkley that she had been in Moccasin, where the whole family was living at the time, prior to her becoming ill. He added,

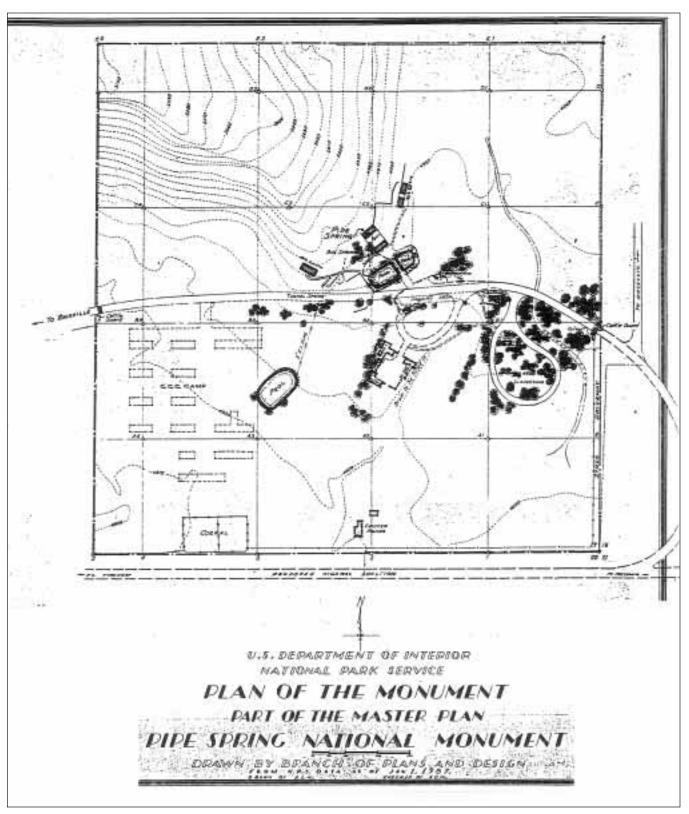
It was not until a week later that we had any idea as to where she might of contracted the disease, when it was reported by the Doctor that is in charge of the Indians of the Kaibab Reservation that three of them had typhoid. Also that there was two cases in Fredonia, Arizona.

Immediately samples of the water was sent off for testing and report came back that the drinking water was very badly contaminated and the drinking water was chlorinated. There is being a close check kept on the water supply at Moccasin.

My idea of the cause of the contamination was due to the recent storms or the rains that came prior to Maxine and the Indians contracting the disease, washing the soil and animal material into the head of the water system. It has been 12 years since we had any cases of typhoid here. I was the last [case] and don't know where I got it from. 1001

The outbreak appears to have gone no further at the time than these six cases. Such an outbreak of disease was, of course, exactly what Dr. Farrow had long feared and why he was so adamant about keeping domestic livestock and geese away from Moccasin Spring, the primary source of the Indians' culinary water. Three years later, during October 1940 and less than a weak after Leonard Heaton's family moved back to the monument, Heaton's four-year-old son Sherwin became ill with what was eventually diagnosed as typhoid. He most likely contracted the illness in Moccasin, as that is where the family was living just prior to moving back to the monument. Under the care of Dr. Marsh and the Heaton family, he recovered from the illness.

Emergency Conservation Work projects continued at Pipe Spring National Monument during December 1937. Three truckloads of clay were hauled in to be used to line the irrigation ditches in the monument. In addition, the road from the west pond to the west entrance was graveled and five silver-leaf cottonwoods were planted around the pond banks to replace trees that had died and been removed. The ECW blacksmith worked on making fireplace grills for the campground in late 1937, though the stone fireplaces had yet to be constructed. During the summer and fall, work on the drinking fountain, watering trough, and picnic tables was ongoing. These were all completed by late December. The 30-inch tall drinking fountain was made of red sandstone with a stone step on its south side to accommodate children. It was located on the south side of the ponds, just east of the steps of the walkway that passed between the fort ponds. The watering trough was carved from a 2.5 x 10-foot poplar log set on two rock footings. Its interior was lined with galvanized



81. Plan of the Monument, part of 1937 Master Plan for Pipe Spring National Monument (*Courtesy National Archives, Record Group 79*)

sheet iron. The trough was located south of the monument road and west of the fort ponds. The water was supplied to the trough and fountain through a one-inch pipeline from the main spring. 1002 During December the six new picnic tables and benches were put in temporary locations in the campground to leave new plantings undisturbed. (None of these features – drinking fountain, watering trough, or picnic tables – exist today.)

Thus by the end of 1937, Pipe Spring had a useable campground, complete with tables and irrigated landscaping. But where, oh where, were the visitors? Visitation figures for 1937 were 667, an all-time low.¹⁰⁰³ Although the ECW crews worked to improve the dirt road from Fredonia, its conditions were still as unpredictable as the weather. There was no doubt in anyone's mind that a better approach road was needed, preferably one that would entice tourists to come by way of Pipe Spring. Such a road was under consideration during the late 1930s and is discussed in two later sections.

1938

On January 18, 1938, a new crew of 65 CCC enrollees from Indiana arrived at Pipe Spring from Fort Knox, Kentucky. An official inspection of DG-44 was conducted on January 24, 1938. Officers serving under Lt. Wickerham at the time were Andrew F. McMeekin, Hugh H. Ditto (camp doctor), and Donald D. Dodd. One dozen technical personnel served the camp as supervisors or their assistants. The new education adviser was A. M. Akin, who arrived the prior December. Inspector Reddoch reported 153 enrollees were available for work and that "harmonious relations" existed between the Army and technical personnel. Eleven of the camp's 13 trucks were reported to be in very poor condition and in need of overhaul. Work during this period was being performed over a 2,400-mile area, reported Reddoch. Off-monument Grazing Service projects included the construction of Bullrush Truck Trail, Cottonwood Bridge, Sand Hill Fence, Chatterly Corral, and the cutting of 8,000 fence posts. Approved projects not yet started included construction of a state line fence, Seven Knoll Corral, Pipe Valley Truck Trail, and Sunshine Reservoir.

During the early winter months of 1938, Heaton and the crew of CCC boys planted cottonwood trees, mostly around the parking area and campground. ¹⁰⁰⁴ In February he brought 37 wild rose roots from Moccasin and set them out at the head of the meadow. Heaton also planted 13 plum trees at the head of the meadow where the older ones had died and planted others west of the meadow. That month, as it was too muddy to work on Grazing Service jobs, 50 CCC boys and five trucks were made available to Heaton to haul dirt to fill the drainage wash. That February Heaton also received approved plans for the construction of two pit toilets. ¹⁰⁰⁵ In March the Army built a new 20 x 80-foot education building west of the meadow pond to be used for classrooms, vacating the west cabin. In April Heaton reroofed the west cabin, which had deteriorated over the nine years since its reconstruction, and constructed the campground's second fireplace. A new crew of CCC enrollees arrived in April, making up the majority of visitors recorded for the monument that month. Heaton hoped the



82. A few of CCC Company 2557, Camp DG-44. From left to right: Chief Clerk Jack L. Harden, 2nd Lt. Paul C. Scollard, 1st Lt. Donald D. Dodd, 1st Lt. Howard Ditto, and A. M. Akin, March 1938 (*Pipe Spring National Monument*)

enrollees wouldn't spy the birds nesting on the monument, "For they just can't seem to leave the wildlife alone. They either want to kill it or catch it and make pets of them." 1006

Preliminary studies for a custodian's residence were prepared during the spring of 1938.¹⁰⁰⁷ While visiting Pipe Spring in late May for the purposes of planning a geology exhibit, Al Kuehl and Assistant Chief Rothrock also reviewed plans for the proposed residential and utility area. In June 1938 two new pit toilets were constructed, painted white, and erected just west of the campground among a row of plum trees. Heaton took two week's leave that month, leaving Ren Brown, a CCC enrollee, in charge of the monument.¹⁰⁰⁸ He checked on Brown about every other day to make sure that things were going well.

In July 1938 Al Kuehl requested that working drawings for a comfort station be prepared. No funds were available for its construction but he wanted the plans to be approved and ready to use if a special allotment of about \$500 could be obtained at the end of the fiscal year. On July 16, 87 new CCC enrollees arrived at Pipe Spring making the total work force 200. That month Heaton had several altercations with Army officers, once over their plans to modify the swimming pool (which was to involve tree removal) and another time over the Army's removal of all the greasewood bushes on the west side of the monument as a control against mosquitoes. Heaton feared they would

next take out the willow grove near the CCC camp area.

During the summer months, materials were purchased for the monument water system with the \$50 per month allotment from the Division of Grazing. In August 1938 work began on the installation of the new water system connecting the proposed residential and utility areas with the campground. Engineer J. H. Tovrea accompanied Al Kuehl to the monument on August 8 to inspect the site, stake out the water system, and plan other improvements. Kuehl recommended additional plantings in the vicinity of the proposed residential area, replacement of dead cottonwoods around the fort ponds, removal of the old pit toilet north of the road, repainting of the new pit toilets (green instead of white), and plantings made to screen them. Heaton was asked to replace the two 18-inch metal culverts in the drainage ditch with a 2 x 8-foot box culvert of rock and cement to prevent water



83. Custodian C. Leonard Heaton in dress uniform, 1938 (*Photograph by Natt Dodge, Pipe Spring National Monument, neg. 1299*)

running over the road as it previously had during heavy rains. Kuehl also noted in his field report the existing exterior woodwork of the fort was in need of replacement or repair and the balcony and stairway connecting the fort's upper and lower buildings needed "almost immediate attention." The CCC also worked on ditch elimination in the proposed residence area. 1010

During the installation of the water system, another altercation took place between Heaton and Lt. Wickerham. On August 23, 1938, without advising the camp commander, Heaton shut off water to the camp in order to install a water line. When Wickerham discovered the reason, he ordered Heaton to cease work and turn the camp's water on again. Wickerham later reported to the district commander at Fort Douglas, Utah,

He (Mr. Heaton) became indignant and told the undersigned that he would do as he pleased and that anyway we used too much water at this camp, saying that his 'boss' told him to cut in on the supply. He also stated that we were using over six thousand gallons per day.... When it was pointed out to him that only enough

water was being used to insure the health and safety of the men stationed at the camp he remarked that the cattle needed the water more than we. Exception was taken to that remark...¹⁰¹¹

Wickerham asked for the intervention of "a higher authority" to avert future "misunderstandings" with Heaton. The commander at Fort Douglas subsequently wrote Superintendent Pinkley and asked him to "advise Mr. Heaton that water service should not be disrupted until the camp commander is notified." ¹⁰¹² In early September Pinkley notified the district commander that Heaton had been instructed to provide notification prior to interrupting the camp's water supply. Pinkley took this opportunity to cast a few stones of his own, bringing up problems connected to the camp that had been reported by Heaton, as well as other Park Service officials:

We wish courteously to point out, however, that on many occasions the camp has been observed to waste water by permitting its supply tank to overflow...

There have, also, been many serious complaints against the operation of the camp in the area in that there appears to have been common disregard of National Park Service rules and regulations which have the full force and effect of law within the areas under the jurisdiction of the National Park Service. Many acts of vandalism on the part of the enrollees have, apparently, gone unchecked and undisciplined. Vegetation has been unnecessarily destroyed, contrary to one of the basic principles of Park Service administration.... A representative from this office will shortly make an inspection trip to Pipe Spring and while there will endeavor to reach a friendly understanding with the Camp Commander, leaving with him a copy of the standard Park Service rules and regulations...

It is sincerely hoped that satisfactory understanding will be reached and that the National Park Service will have no further cause for complaint. This office will, otherwise, have no alternative but reluctantly to recommend removal of the camp from the area. 1013

The solution ended up being less drastic. Heaton reported Lt. Wickerham was transferred out of DG-44 on August 28 and Lt. Dodd took over command of the camp. Assistant Superintendent Miller went to the monument in mid-September to establish a "workable understanding" with Lt. Dodd over Park Service rules and regulations. 1014 Miller later described the new commander as "reasonable and willing to cooperate." After inspecting recent monument developments, Miller later wrote to Pinkley,

You would like the little campground development, picnic tables, and fireplaces. The PG pit toilets are a great improvement over the old pit toilets, planting is doing well, maintenance is very good, and there is every indication that Heaton, as always, is doing his conscientious best.

I do think it is urgent that a member of the Education Staff should go to Pipe Spring to help him prepare presentable labels, reorganize the small but disorderly displays, and do what can be done with the materials and funds at hand (both very limited) to improve the impression given to visitors. No criticism of Leonard is implied. He is employed and paid as a laborer and we can hardly expect him also to be a museum preparator, show card writer, and erudite scholar as well.¹⁰¹⁶

On October 14, 1938, a new crew of 65 CCC boys arrived at the monument. During early October heavy rains caused the drainage ditch under the roadway to overflow, flooding the road and campground area. Engineer Tovrea made a formal proposal for a concrete culvert with wing walls, to be constructed with CCC labor and materials. 1017 Also during the month, Heaton asked Pinkley for permission to replace the four stone steps leading to the walk between the ponds with six six-inch steps, as elderly visitors had difficulty with the larger steps. Pinkley approved the work. The rock was obtained from Bullrush Wash and the work was done the following January and February (1939). In October Kuehl drew up plans for signage to be placed in the campground area. In November 1938 work accomplished included the cleaning up of weeds and planting of trees south and east of the meadow, around the residence area and road leading to it, around the two pit toilets, and where the wash had been filled in, just south of the parking area. Six Carolina poplar, 14 silver-leaf cottonwood, and 23 ailanthus were planted. 1018

As winter approached, Heaton asked Pinkley for permission to move his office quarters from the east room of the first floor, lower building, to the west room of the second floor (same building) where he had put "a bed, table, and other things" as temporary living quarters. He also asked if funds were available to purchase a heater, as the one loaned to him by the Division of Grazing the previous winter was no longer available. Due to cracks under the doors and around the windows, the old office space was hard to heat, Heaton explained. Apparently, Pinkley had no objections, for the office was moved and remained on the second floor until November 1940. 1019

When the east side of the fort ponds was cleaned out in July 1938, all the fish in it died. (It was not uncommon to have a loss of fish when the ponds were cleaned, sometimes a significant loss.) Heaton subsequently asked Pinkley for permission to restock the ponds. Of the 3,000 to 4,000 fish Heaton had stocked both ponds with in late 1936, only 500 to 700 fish remained after the east pond loss. Pinkley wanted to know Heaton's reasons for requesting the fish and asked to know the history of fish in the ponds. Heaton reported that the fish currently in the ponds were eastern brook and rainbow trout. Two old carp had been in the ponds since 1926. Trout could not reproduce in the ponds, he explained, and the ponds had to be restocked periodically. Heaton wrote,

I do not know just when the fish were first introduced into the ponds, and I have not been able to find anyone that knows definitely. But apparently it was some time in the late 80s or early 90s, as this was about the time that fish was brought into Moccasin. Who brought them I do not know. The first fish were carp, as they can be carried in any kind of water or no water at all for several hours and still live.

When the carp were finally all taken out, I am told, it was about 1903 or 1904. And it was not till 1926 before any more were brought back when I brought 12 in from Moccasin of which I have two still alive. 1020

Heaton reported that visitors liked looking at the fish on their way to the fort, particularly "if they have something to feed them, then it is a sight to see some half hundred fish fight over a piece of bread."1021 Heaton liked the trout to "keep down mosquitoes" and to keep the water free from water bugs and salamanders. He wanted carp to clean the ponds of weeds and mosses. He asked for 150 carp and 1,500-2,000 small trout for the east pond and additional, larger, four to five-inch trout for the west pond. He wrote that he introduced the first trout in 1927 with 8,000 he obtained from the government fish hatchery in Springville, Utah (Heaton reported in 1935 that this number was 5,000, not 8,000, fish). In 1929 he got another shipment of 6,000 fish for the meadow ponds. Any remaining in 1934 would have all died when the ponds dried up after the cattlemen's pipeline was constructed. In the fall of 1936, wrote Heaton, the fort ponds were stocked with 5,000 trout of which 1,000 remained by November 1938. 1022 (Heaton had reported in 1936 that he stocked the ponds with between 3,000 and 4,000 fish, not 5,000). In January 1939 Wildlife Technician W. B. McDougall (regional office) approved restocking the fort ponds but there is no record the ponds were replenished with trout until a number of years later. 1023 In August Heaton and a few CCC boys caught 17 catfish at Johnson Lake, four of which died. The others were put into the east pond. By October 1941 Heaton reported few fish remained in the ponds.

Keeping fish alive was not the only wildlife challenge at Pipe Spring. On December 7, 1938, 65 Gambel quail were brought to Pipe Spring as part of a reintroduction program. Junior Park Naturalist Natt N. Dodge delivered the 65 birds to Heaton at his home in Moccasin. Heaton planned to keep the banded birds in his hen house for the winter, fearing the CCC boys would hunt them down. (Dodge later reported to Pinkley that loose dogs belonging to camp foremen kept most wildlife out of the park: "It will be difficult to establish any wildlife until the CCC camp is removed from the monument." All the quail escaped from Heaton's hen house a little over one week later, tunneling out under the sand. He managed to recapture 25 of them over the following months. (Moccasin residents reported sightings of the others, and their descendants may yet be there today.) The 25 quail were eventually taken by Heaton to the monument and released. He about 1947 the number of quail "in and around" the monument had increased to about 100, Heaton reported.

When Dodge arrived at Pipe Spring National Monument in December 1938, he found Heaton replastering one of the ceilings in the fort. Dodge later reported to Pinkley that while the fort building itself appeared to be in very good condition, the roof shingles were curling badly and needed to be inspected to determine if they needed replacement. He also noted a large tree growing against the west wall of the fort that was pushing the wall inward. "This tree should be removed unless some other method of protecting the wall can be found," Dodge later advised Pinkley. He also informed Pinkley that it was

impossible to keep monument signage in good condition as signs were "the targets for many rocks thrown by CCC enrollees." 1029

At year's end, Heaton reported, "I set out 12 poplar trees south of the parking area and three cottonwoods along the path between the ponds the past month. Have about 15 more to set out and I think I will have most of the planting done... unless some of the landscapers want more trees somewhere else." 1030 The "greening" of Pipe Spring continued.

1939

J. C. Reddoch's annual inspection report of DG-44 on January 5, 1939, reported that the camp's commanding officer was Lt. Donald D. Dodd. Lt. Paul C. Scollard and Roy N. Eklund (camp doctor) were also listed. A. M. Akin continued to be the camp's education adviser. Eight men were listed as technical personnel, including Hamilton Draper who continued to be camp superintendent. The company strength was reported to be 140 enrollees. Work projects for the previous year consisted of reservoir and truck trail construction, and cutting of fence posts. Five of the camp's nine trucks were out of service and deemed "unfit for further use." Motion pictures were shown in the camp once a week for entertainment.

The new year started off with the discovery and unearthing by Leonard Heaton's children of an Indian burial in Moccasin on the land of his father, Charles C. Heaton. Heaton wrote in his journal on January 2, 1939,

While at Moccasin for dinner my children dug up three Indian pots, one bowl 6 inches across and 3 inches deep, decorated on the inside with black paint, one drinking cup 3 inches wide [and] 3 inches tall, one plug 6? inches at the middle, 3 inches opening and 5? inches tall. Also some skull bones were found with them. These were found on the south side of a sand knoll in the field of Moccasin on Charles C. Heaton land. 1031

When Superintendent Pinkley learned of the discovery he wrote Heaton, "... inasmuch as we are subjected to severe criticism if any of our men or their dependents excavate on their own or Government time, will you please write me a full report of the incident so that we shall have the information on file at this office." Heaton responded with the following account:

It has been common knowledge for some 50 years that there were Indian burials near Moccasin Springs and in particular on and around the sandy knoll which is in the center of the fields. The ground has been formed around this knoll for years and on the north and west sides, which are but gentle slopes, have been plowed and irrigated until at times pottery and human bones have been uncovered. I know of three that have been uncovered in the past.

About the find this past January, it came about this way. Last summer in straightening out the irrigation ditches, Charles C. Heaton had his workmen cut

into this knoll some 10 or 15 ft. at one place, on the south side, leaving a bank of clear sand about 6 ft. high.

The bank being easy to dig and on the south side protected from the winds, the children would collect from all over the ranch and spend many happy hours making roads and tunnels in the bank. This has been going on ever since the ditch was cut into the knoll.

On Jan. 2nd, there were some 10 or 12 boys and girls at play in the sand, digging holes and roadways all over the face of the bank, when there was a part of the bank caved off exposing two jugs or bowls. Immediately all interest centered on the Indian pottery, and in digging out the bowl it was broken into several pieces. When they dug the other one out they found a little jug [in] back of it.

This happened about noon and when I went home for dinner they (the children) brought the jugs over to me. I visited the place and could see no sign that would indicate that any more pottery could be found and the sand in which they were found was the same as elsewhere in the bank. Though there was a few bones found near these jugs, which I took to be skull bones.

The finding of these pots and jugs was accidental as the children were playing there, as they had done for the past 6 months or more and since that time nothing has been found. 1033

This report seems to have ended the matter, as far as concerned Pinkley. The children were to make additional discoveries one year later in the same knoll.¹⁰³⁴ Heaton's children weren't the only ones who got excited by archeological discoveries, however. Just a month before, Heaton had written in his journal that he had taken two boy scouts on an overnight hike on December 2, 1938. He recorded their discoveries:

Got interested in some ancient Indian ruins we found in the Bullrush Wash, some ten miles southeast of here [Moccasin].... Found one three gallon clay bottle, one bone about 8 [inches] long, in one place three other vertebrae or bones that had been dug out years ago, but got the following from two of the rooms of second one we visited: corn cobs, stem ends of squash, water wheel stubs, wild cane, bullrush reed, corn stocks, corn husks, corn leaves, cedar shiny knife, pieces of bark, which I think is this: Potsherds, several varieties, pipe stem, matted bark of cedar, yokes of some kind or other, also grass, and several other kinds of wood. Two pieces of flint, piece of coffin wood, one grind rock and matta [metate?]. Took several pictures of the place. We intend to place this material in a case and place it in a museum, probably here at the monument. 1035

The artifacts were donated to the monument, Heaton later reported. Heaton glued broken pots back together for display. In January 1940 Heaton completed an exhibit case in which he displayed the collection of about 26 Indian artifacts found in Bullrush Wash, referenced above. Over the next few years, in spite of Heaton's efforts to guard the collection, museum visitors stole some of the pieces unearthed in the area. 1036 The issue

of archeological materials arose again in the spring of 1941, when Heaton asked his superiors on behalf of a few local residents if bottles decorated with prehistoric potsherds could be sold as souvenirs to the public at the monument. The sherds were to be affixed to bottles with plaster of paris. Senior Archeologist Jesse L. Nusbaum took a dim view of the proposal (to say the least) and subsequently urged Heaton to encourage local people to produce souvenirs which related more to the arts and crafts from their "pioneering days." ¹⁰³⁷

To return to CCC projects for 1939, plans for the drainage culvert (Job 24) were modified in January 1939 from a concrete box culvert to one that had stone masonry sides and bottom, with a concrete slab cover. Excavation was authorized preceding receipt of revised plans. The CCC boys began excavating the rock for the culvert on March 6, 1939, and started laying the rock on March 22. Work on the culvert continued in April and May, and was completed on May 17. In addition to the installation of a larger culvert, a change in the associated diversion ditch was made. 1038 During this period materials to construct the monument's sewer system were being bought piece-meal with the \$50 monthly allotment from the Grazing Service. Al Kuehl and Regional Landscape Architect Harvey H. Cornell made a report after an inspection of monument projects on April 23, 1939. Construction of the entrance road culvert was under way, construction for a sewer system was to begin "in the near future," winter season planting was "coming along nicely," new stone steps were "very well done." 1039 When Kuehl made his field report, he again recommended that an effort be made to obtain funds for fort stabilization. "Old wall cracks are widening, woodwork is badly in need of replacement, and all stone work should be repointed," he wrote. 1040 Once the sewer system was constructed, Kuehl stated that the next highest priority was to build the campground comfort station. (The comfort station, however, would not be constructed for another 18 years.)

In late April 1939, Heaton learned that the Grazing Service was considering moving DG-44 to southern Arizona for the winter then back to Pipe Spring the following spring. He wrote Superintendent Pinkley to give a "heads up" and to let him know that he wanted to see several projects finished before the camp left, if indeed it was to leave. The monument still needed the sewer line, the geological and nature trail, and construction of entrance piers and signage, Heaton stated (this latter project was second under the comfort station on Kuehl's list of priorities). Pinkley's response was to inform Acting Regional Director Milton J. McColm of the rumor and request that if the camp relocated it not be allowed to return to the monument and that it be required to clean up and plant the vacated site. ¹⁰⁴¹ McColm concurred with Pinkley's recommendation.

Most of the work performed by the CCC on the monument sewer system took place over the summer of 1939. Twenty days were spent in stockpiling sand and gravel (both had to be hauled from a pit located 12 miles to the west). Excavation work began July 31; the concrete septic tank was poured at the end of August. Involvement by CCC workers ended September 9, with a total of 79 days having been spent on the job. 1042 The job would be left unfinished for Heaton to complete more than a year later.



84. View of Camp DG-44, looking south, 1939. Note the new education building just west of the CCC's "swimming pool." (*Photograph by Homer C. Smith, Pipe Spring National Monument*)

Meanwhile, monument work continued as the meager funds for materials allowed. Two stone fireplaces built by Heaton for the campground in October 1936 were rebuilt and four new stone fireplaces were newly constructed in May 1939. 1043 Five were placed within the campground road circle and one was placed east of the campground road next to the diversion ditch. 1044 Each fireplace was constructed of three big rocks, averaging 12 inches thick, 2.5 feet long, and 2 feet wide. The back rock stood on end and the two side rocks were laid flat. The sides and back of the fire box were lined with fire brick. Iron grills were placed on top of the firebox. (The grills were made of scrap iron by the Grazing Service blacksmith.) A 2 x 2.5-foot rock was placed beside each fireplace so that campers could sit beside it. None of these fireplaces remains today.

In July 1939 the CCC boys began preparing logs to make campground signs. The signs were to be constructed of peeled logs with routed and painted lettering. (Heaton later completed these during 1940.) They also worked on reconstructing the water channel though the spring room of the fort, work that was completed in August. Heaton reported that the reconstruction of the channel into the spring room made it like it was "about 1886, when it was taken from the fort and placed to the west side by Mr. Edwin D. Woolley." Some work was also done in August on the sewer system.

On October 15, 1939, Camp DG-44 was relocated to Ajo, Arizona, for the 14th period. It was expected it might return to the monument during the 15th period, but that was not to be.

The Aftermath of DG-44

1940

In February 1940 Superintendent Pinkley wrote Liaison Officer J. C. Roak, CCC 8th Corp Area, at Fort Sam Houston, Texas:

It is reported that the Army has been inspecting the old camp at Pipe Spring National Monument with view of rehabilitation or, possibly, reconstruction.... The area of the monument is very small and the presence of a CCC camp upon it does in fact do violence to those basic principles set up in the original Park Service Act. Should a new camp be built, it would be preferable from the standpoint of this office if it were not located on the Pipe Spring reservation. ¹⁰⁴⁵

Roak informed Assistant Superintendent Miller on March 14 that the new camp (G-173) was to be sited in Antelope Valley. The location was four miles south of the monument on Division of Grazing lands. "This, of course, solves your troubles," wrote Roak. 1046 Thus ended Camp DG-44's often trying and questionably fruitful four-year occupation of Pipe Spring National Monument. No one could have been happier to hear the news than Custodian Leonard Heaton.

When it was learned that DG-44 was not coming back, Al Kuehl came to the monument to discuss possible use of the salvaged buildings. One was to be retained and converted into housing for the Heaton family. Before Kuehl's arrival, Custodian Heaton took his wife Edna through a number of the buildings to see which she liked best. Then Heaton asked Kuehl if his family could live in the education building, which was located on the west side of the swimming pond. This building was larger and reportedly better constructed than other buildings and it was sited in an area with numerous shade trees. 1047 Kuehl was checking to see if Camp NP-12 at Walnut Canyon National Monument might furnish labor to construct the monument's residences during the summer of 1940 (the 1940 master plan called for two residences). No one knew quite how long it would be before the new residences would be constructed. Kuehl intimated that if Heaton adapted a CCC building as a residence, it might mean several more years delay before the NPS would build him a new one. But Heaton was anxious to live again on-site with his family. If the new housing couldn't be built by the summer of 1940, he told Kuehl, he wanted to move into a CCC structure.

No funds were available for construction of the residences. At this point, some Park Service political strategizing entered into the picture. At first Kuehl disapproved of using any of the CCC buildings for housing, fearing it would lessen the chances of getting funding in the future for new residences. While the matter was being decided, Heaton moved back into the fort without his family in order to provide protection during the summer months. Finally, it was agreed that a CCC building could be used, but *not* the

education building for it might well later be viewed as adequate housing. On the other hand, if the Heatons moved into an obviously inadequate structure, the Park Service would be pushed into funding the new residences more quickly, or so Kuehl thought. For this reason, Heaton was told he could use the Grazing Service's office, a one-room, 15 x 20-foot building, while awaiting construction of a new residence. Heaton asked if he could use the infirmary, a three-room structure. Heaton later wrote that Kuehl "objected to this building on the same grounds as the education building, [it] being too good a quarters and might delay the getting of a new residential quarters." ¹⁰⁴⁸ As it turned out - fortunately for the Heatons - the Grazing Service wanted the one-room office building. If Heaton wanted his family with him at the monument (a request Hugh Miller felt was quite reasonable), Kuehl reluctantly agreed to their moving into the 20 x 43-foot infirmary.

Heaton was given permission by Hugh Miller to occupy the infirmary on August 17, 1940. He worked from late August through early October converting it into a residence for his family. By the time he was finished, Heaton had converted the three-room structure into one with a living room, dining room, kitchen, bathroom, and four small bedrooms (a sleeping porch would be added later). After laying a sewer line, installing plumbing, and other interior work, Heaton had the residence ready for his family to move in. The immediate surroundings were barren. Will plant some trees around it this fall, Heaton wrote. In family moved into their temporary quarters on October 8-9. Leonard and Edna Heaton then had seven children. Three more would be born during the 1940s. Needless to say, quarters would be cramped. Storage space consisted of one tiny closet in the approximately 10 x 13-foot master bedroom. The monthly deduction for these quarters ("since they are incomplete," wrote Miller) was \$7.50.1051 It was to be their home for the next 20 years.

Just as the ending of the CWA program at Pipe Spring left Heaton with a host of unfinished projects in 1934, so did the termination of Camp DG-44 in the fall of 1939. While a number of incomplete CWA projects were completed by the CCC and a number of new ones undertaken (the campground perhaps being the most significant accomplishment), the most pressing development projects at the monument had yet to be addressed. The water and sewer systems were only partially constructed. The monument still lacked permanent quarters for staff and a comfort station. The fort was also in dire need of repairs, having received very little attention during the 1930s. During the next two years, the drive to attend to the structural needs of the fort took precedence, along with historical research activities aimed at transforming the fort with its hodge-podge of artifacts into a house museum that met National Park Service standards.

During the spring of 1940, preliminary budget estimates for fiscal year 1942 included an increase for buildings in the amount of \$3,000, all earmarked for fort repairs. The justification accompanying estimates provides a brief description of the fort's condition in 1940: "The old fort buildings are actually intact, but in a bad state of repair. Serious cracks have developed in the walls, complete plastering is required, exterior woodwork is rotting and dilapidated, interior floors and woodwork require expensive repairs." The fort roof, as mentioned earlier, was also in very poor condition. Funds available for FY 1941

were earmarked for removing deteriorated shingles from the fort and reroofing it with shakes. 1053 The estimates also called for \$7,500 for a custodian's residence. ("For many years, the custodian's family lived in rooms in the old fort itself, an indefensible situation." 1054) No funds were sought for the second residence, which was part of the 1940 master plan. When compared with the 1937 general development plan (shown earlier), it should be noted that the residential and utility areas were located farther from the fort in the 1940 master plan (see figure 85). Otherwise there is little difference between the two. (This plan contains an error: the education building, erected in early 1938, is not depicted.)

Over the winter Heaton worked on routing and painting lettering for monument signage, a project begun by the CCC. In January 1940 he built a display case for Indian artifacts, mentioned earlier.

On February 14, 1940, Heaton attended a custodians' conference at Southwestern National Monuments headquarters in Coolidge, Arizona. Between 30 and 40 custodians attended the meeting, called by Superintendent Pinkley. As "Boss" Pinkley was giving his opening address, he experienced a heart attack and died only minutes later. Heaton later wrote in his journal,

We of the S.W.M. have lost the most friendly Boss and Superintendent any man ever had and we will miss him terribly. But we are determined to carry on and build on the solid foundation that he laid for the S.W.M. After some discussion a meeting was called at 2:00 at which time it was decided to go on with our school as we thought the Boss would want it. So class continued at 2:30...¹⁰⁵⁵

Heaton felt honored to serve as one of the six pallbearers at Frank Pinkley's funeral, held on February 17, 1940. Pinkley's right-hand man, Hugh Miller, was appointed superintendent of Southwestern National Monuments on March 3, 1940, and held that position until June 30, 1942.

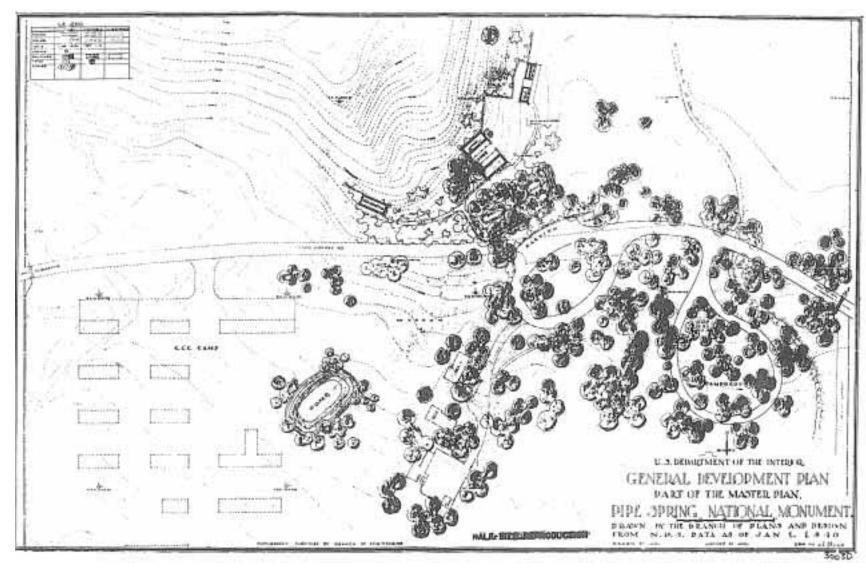
On March 27, 1940, Heaton discovered the catwalk over the west gate of the fort was unsafe due to deteriorated boards. He disassembled it that day and built a new walkway a few days later. Heaton took the month of April off as annual leave. Owen Johnson filled in for a few days then Park Ranger Edwin C. Alberts of Montezuma Castle National Monument took charge of the monument for the rest of the month. While there, Alberts catalogued all the museum articles in the fort. (Heaton was quite grateful for this work, as it was a job he hadn't wanted to tackle.) Alberts reported to headquarters that the southwest corner of the fort was showing alarming tendencies to settle and fall apart: "It is quite important that stabilization work be done on this part of the fort." When Heaton returned to duty on May 1, Alberts told him an historian was needed to determine just how the fort should be furnished so Heaton's artifact collection would better serve that end. Heaton favored this idea, but also saw the value of his taking whatever relics were offered to the monument, rationalizing "We can always give it to some other museum if we don't need or want it." The task of researching the fort's history and making recommendations fell in the summer of

1941 to research collaborator Arthur Woodward, who prepared "A Brief Historical Sketch of Pipe Spring, Arizona" in June 1941. Woodward never visited the monument, neither prior to nor during this research. (See later section, "Monument Interpretation during the Great Depression.")

During the first half of April 1940, two men working for the Historic American Building Survey (HABS), Southwest District, measured Pipe Spring fort and its two associated cabins. ¹⁰⁵⁸ Drawings and plans of the buildings were then made in the district office in Tucson, Arizona. In mid-May HABS Architect Trent Thomas and D. W. Dickensheets went to Pipe Spring and took photos to complete HABS documentation of the fort. Leonard Heaton provided historical data included in their narrative report. ¹⁰⁵⁹

Heaton learned in May 1940 that a CCC camp was to be temporarily housed at Pipe Spring for 30 to 60 days while Camp G-173 south of Pipe Spring was being constructed. "And I thought I was through with them on the monument," Heaton grumbled in his journal. 1060 A crew of 65 boys and their commanding officer, Lt. Sherman, arrived the evening of May 21. Two of the boys scaled the fort walls that same night and Heaton discovered them locked inside the fort when he opened up the next morning. "I think the boys were scared enough being caught and [by] what I told them, they will think twice before it occurs again."1061 Water was turned into the swimming pool (meadow pond) again so the boys could swim. In late June several CCC boys cut the wires in Heaton's reptile exhibit cage and changed the snakes around, trying to make them fight. Heaton decided to discontinue the exhibit until the camp was vacated. He was also quite unhappy about the amount of water being used by the camp, particularly the amount running continuously into the swimming pool, and the fact that the commander would allow the pool to be repeatedly drained and refilled. The summer was unusually hot and dry, and monument vegetation required extra water. "I guess I can put up with them for a few more weeks," Heaton wrote in his journal, anticipating their departure on July 15.1062

This crew of enrollees moved to Camp G-173 in Antelope Valley on August 8, 1940. 1063 A crew of 25 enrollees from Camp NP-12 at Mt. Elden arrived from Walnut Canyon National Monument on September 4 to complete salvage operations. The Grazing Service took only three buildings for CCC use: the garage, oil house, and office. The remaining 20 structures were transferred to the NPS for CCC use at Camp NP-12. 1064 The work was completed on October 2, and the work crew left the following day. "They have the place in as good a shape as they can get it without having a cat and plows to break up the road and packed ground," Heaton observed. 1065 In his monthly report to headquarters, he wrote, "It surely looks good to be able to look out over the country without having those old CCC buildings staring one in the face." 1066 Trucks from Mt. Elden continued to haul away salvage lumber over the next few weeks. During Camp DG-44's stay, the fencing along the southwest boundary of the monument had been removed to accommodate the camp's garage. Heaton reinstalled the fence in October. Even though there would no longer be a camp operating on the monument, Pipe Spring would still be impacted to some degree by the presence of three Grazing Service CCC camps in the area. They included the Fredonia



85. General Development Plan, 1940 Master Plan for Pipe Spring National Monument (Courtesy NPS Technical Information Center)

camp to the east, the Short Creek camp to the west, and the Antelope Valley camp south of the monument.

During the summer of 1940, most of Heaton's time was spent in cleaning irrigation ditches, watering vegetation, keeping the grounds maintained, working on park signage, and cleaning the fort. In June Heaton installed four underground garbage cans and two fire hydrants in the campground. He hired several men to do some repair work on the east and west cabins as well as some plaster work in several rooms of the fort's upper building, second floor. Visitors sometimes asked Heaton where the lime came from that was used in plaster and mortar during the fort's original construction. Heaton sent headquarters a sample of lime found at the old lime kiln west of the west cabin, along with a sample of original fort plaster, for analysis. It was determined by an agricultural chemist at the University of Arizona that the plaster sample was prepared from the type of limestone sent by Heaton, thus he was told he could tell visitors the plaster was made from local limestone. 1068

On August 15, 1940, Al Kuehl and Park Service architects George W. Norgard and Lyle E. Bennett visited the fort to assess its repair needs. New roofing was identified as the highest priority. Other concerns were deteriorated woodwork, dislocation of the west wall (caused by a tree), cracks in a wall indicating settlement from moisture problems, and several other minor problems. 1069 Kuehl asked Heaton to dig a trench along the west side of the fort so that the foundation of the fort could be examined when he returned a week later. Heaton got right to the job, later describing the work as "all rock and elm roots." After a week of digging, the trench was finished. Heaton described the conditions as he found them:

Finished up the trench on the west side of the fort and found the foundation of the fort is resting on a loose sand rock and black soil, also some heavier clay about a foot below the foundation. There is also a lot of elm roots between the rock and in the foundation and the mud used in the building has been forced out by root growth. The mortar is very soft in the wall up 2 or 3 feet above the ground. It might be the softening of the mortar and roots between the rocks that have caused the west wall to settle out instead of the floor footing under the foundation. 1070

While Heaton labored to complete monument projects, changes were taking place in the Washington office. The hectic years of the Great Depression had taken a heavy toll on the health of Director Cammerer, as had working for Secretary Harold L. Ickes. By 1940 Cammerer had developed heart trouble, which led to his resignation. Cammerer's successor as director was Newton B. Drury, who assumed his new role on August 20, 1940. Cammerer took a position as regional director at Richmond, Virginia, but died nonetheless on April 30, 1941. Historian John Ise described Cammerer as the second director "to give his life for the parks." 1072

Heavy rains in September 1940 strained the capacity of the monument's new culvert and drainage ditch, leading Heaton to conclude a new channel was needed below the

campground. Serious flooding on September 7 was particularly destructive in and around Moccasin. Many roads and bridges were washed out, leaving people stranded for days.

Camp G-173 south of the monument was being supplied with water from tunnel spring via the cattlemen's pipeline. The Park Service was not consulted prior to the construction of the camp, nor notified that water from Pipe Spring was to be used. When Superintendent Hugh Miller learned this in mid-July, he grew alarmed that the delicate balance achieved between the National Park Service, Indian Service, and stockmen might be jeopardized. He wrote to Liaison Officer Roak to express his concern and ask for information. Roak responded,

The Army authorities have leased water from the cowmen's one-third, and this lease was executed by Fred C. and Charles C. Heaton as of May 1, 1940. It provides for all the water necessary for the CCC camp with a minimum of 8,000 gallons, no maximum set. It is understood that certain water troughs are to be built along this pipeline.¹⁰⁷³

Roak offered to send Miller a copy of the lease, if desired. This may have satisfied Miller, for there seems to be no other correspondence on the matter. Tunnel spring water, however, would prove insufficient for the camp's needs. During October the Army complained of a water shortage at the new site and the camp's officer came to Pipe Spring and, according to Heaton, "turned about all the water" from the main spring into the tunnel. Heaton could see no problem in the tunnel and wondered if the pipeline was plugged. He reset the water valve to allow the camp six gallons per minute from the main spring, which was the amount the cattlemen were entitled to over and above what they received from tunnel spring. Whenever the new camp ran short, however, trucks were sent to haul water from Pipe Spring.

In early November 1940, Al Kuehl and Southwestern National Monuments Assistant Superintendent Charles A. Richey visited the fort and met with Heaton to go over plans for monument work to be accomplished the following spring. The most pressing projects identified were the reroofing the fort, replacing of the cornices and other deteriorated woodwork, excavation and waterproofing of the entire fort foundation (to stabilize footings), removal of the elm tree impinging on the west wall, addressing signage problems, digging and harrowing the CCC camp site, restocking the fort ponds, and planting trees around the proposed residential area. Richey reported that costs could be cut if crews from Mt. Elden's CCC camp could be assigned to carry out stabilization work. He estimated the fort work would require six weeks with a crew of three to six men. Heaton was "well-qualified" to act as supervisor, opined Richey, who planned to start the work about April 1, 1941. 1075

In September 1940 Heaton added a sleeping porch onto the infirmary to expand the family's cramped living quarters. The porch was enclosed in December. Heaton also rewired the CCC infirmary then - with his own funds - purchased and installed a 32-

volt Westinghouse light plant to furnish power to the building. Although its exact location has not yet been identified, the Heatons also used a CCC cellar for a time. 1076

One significant improvement occurred on the Kaibab Indian Reservation. In the summer of 1940, under the Office of Indian Affairs' garden tract program, \$2,000 of CCC funds was allocated for replacement of the pipeline on the reservation. The work proposed consisted of replacing 7,800 lineal feet of metal pipe with six-inch concrete pipe. The project was justified as follows: "The present pipeline has served its period of usefulness and is wasting a large percentage of the already inadequate water supply. The improvement will probably make possible the utilization of a few acres for subsistence gardens which are so badly needed to supplement the Indians' small income." The work began in late 1940 and continued into 1941 as Project 110. This pipeline replaced the reservation's water system constructed under Engineer Leo A. Snow's supervision in 1926.

1941

President Roosevelt was re-elected to serve for a third term in November 1940. The United States was increasingly being drawn into the war in Europe, particularly after the fall of France to the German Army in the summer of 1940. During 1941 Roosevelt's attention increasingly turned to matters of defense and military preparedness.

Planning for fort stabilization work began in early 1941. Superintendent Miller requested the fort work receive close field supervision from the regional office in Santa Fe. Regional Chief of Planning Harvey Cornell assured Miller the work would "receive every consideration" by his division.

From November 1940 to early January 1941, Heaton worked to complete the monument's sewer system, trenching, laying tile, and backfilling sewer lines. On January 9 Heaton was doing the last few days of work on the system. While trenching, he uncovered two skeletons lying side by side. On He immediately covered up the burial and made a full report the next day to Superintendent Miller. There was nothing in the shape of potsherds or flints in the graves I discovered yesterday. The area in which the graves are has been known to produce arrow points and has a lot of potsherds on the surface of the ground, also a few grinding stones have been found there. He reported. He asked if someone could be sent in the spring to Clook into these graves and the one at Moccasin on Mr. Charles C. Heaton's land. Headquarters responded by writing that someone would be sent to investigate the burials in May; no other reference to the burial occurs in subsequent records, however.

In March 1941 Heaton reported the local livestock market was "in excellent condition... some men have contracted their cattle for the best prices in 20 years." Heaton's spirits were high as well, as he looked forward to overseeing stabilization work on the fort. The application for Job 26, "Stabilization, Old Fort and East and West Cabins," was submitted in late March and was approved on April 17 by the regional office with the stipulation that all stabilization work be fully and accurately recorded. Assistant Superintendent Richey

asked Regional Director Minor R. Tillotson to assign someone from the regional office's Plans and Design Division to supervise the work. Architect George Norgard was the man assigned. He made a site visit on April 3 to review plans for stabilization to the buildings and prepare recommendations. On April 19 Norgard, Richey, Al Kuehl, and Zion's Assistant Superintendent John Davis visited the monument again to finalize plans. Officials assured Heaton someone from the Santa Fe office would visit every few weeks during stabilization work to oversee the project. In addition to fort stabilization work (described below) work on the east and west cabins was planned. The stabilization work was originally planned to be carried out by Camp NP-12 as Job 59, but when application was made to the Army, it arranged for work to be done by Grazing Service camps instead as Pipe Spring Job 26. 1083

Richey reported after a visit to the monument in April 1941, "The old CCC camp area has been cleaned up and the area plowed and graded by Mr. Heaton. It is believed that this area will soon grass over and completely obliterate itself." (Actually the work of leveling the CCC site was done in March 1941 by Carl Johnson with a horse and team.) The garage Heaton had constructed (out of his barn) was "no architectural prize," stated Richey, but it was "out of view of the general public area and will serve until a permanent building can be erected." 1084

Fort rehabilitation work began on April 24, 1941, with Heaton overseeing two hired local laborers. Two other local men would soon be hired. On April 28 six boys from the Grazing Service's Camp G-173 in Antelope Valley arrived to assist with work. Al Kuehl visited Pipe Spring on May 1 to inspect work progress and to go over fort needs. The job crew worked all of May. Excavating around the fort's foundation was the first project undertaken. On the east, west and north walls, excavation went down to bedrock or 10 inches below the foundation rock. A concrete footing was then poured under the foundation rock and extended out four to six inches. This was later tarred and backfilled. Heaton reported water seepage from the sandstone at the northwest corner of the fort complicated foundation repairs. 1087

One event worthy of mention occurred while the fort stabilization work was in progress. On May 13, 1941, at about 3:00 a.m. Saturday, a truckload of 30 CCC boys returning to their camp from a night of recreation in town, overturned 100 yards west of the monument. "Too fast driving on a turn seems to be the cause," reported Heaton. Sixteen of the boys required hospitalization, including four of Heaton's work crew. ¹⁰⁸⁸

In addition to attempts to waterproof the fort's foundations, other work was accomplished in May. The west wall that had been pushed in by an old elm tree was pulled back into place. Repairs to upper story porches were made as needed. The men also removed some of the roofing on the lower fort building and began preparing the shakes. ¹⁰⁸⁹ By mid-May reroofing of the lower building was completed. Roofing the north wing began on May 19. Heaton reported all the carpentry work on the porches and roofs was completed by May 26. By month's end, Heaton felt most of the work planned for the fort had been accomplished. He wrote in his journal, "I only wish that someone from the Plans and

Design Division could have come in at least every two weeks as I feel they would have found things needing done that I missed being so close to the work."¹⁰⁹⁰ No one from the regional office in Santa Fe or from headquarters in Coolidge had visited since May 1, missing the most critical phases of stabilization work. By June 13, the allotment for stabilization work had all been expended, so hired skilled and unskilled labor were terminated. Finally on June 14 Architect George Norgard made an inspection visit from the regional office, noting work accomplished, problems encountered, and work that still needed to be done.¹⁰⁹¹

Heaton still had the labor of the CCC boys at his disposal. The Grazing Service had committed a six-person crew to work at the monument for 90 days, beginning April 28. In June and July 1941, stone pointing was completed on the fort's exterior and some work was done on the fort's interior (wall replastering where needed) and rehabilitation work was carried out on the east and west cabins. These were reroofed with 45 pound rubber roofing paper, tarred, then covered with 2-4 inches of green shale. 1092 The boys also did a lot of maintenance work on the roads, the campground, and irrigation ditches. Dry grasses were a very real fire hazard during the hot, dry summer. The boys removed grass (mostly foxtail) along the roads and paths and from around the buildings. July 25 was the CCC crew's final day working at the monument. After the departure of the CCC work crew, Heaton was on his own again. He continued stabilization work on the cabins and plastering work in the fort. When Thomas Vint, Harvey Cornell, and Al Kuehl made a surprise visit to Pipe Spring in early August, Heaton reported with considerable relief that the officials "seemed pleased with what I had done in the stabilization work and monument in general." 1093

In early May 1941, Superintendent Miller turned down the Grazing Service's request to develop a swimming pool at the monument for use by their enrollees, saying it was "contrary to the purpose for which the area was reserved..." Miller was also concerned that Fredonia residents would start using it, thereby obligating the Park Service to permanently maintain it. The agreement to furnish water to cattlemen created a situation whereby the meadow pool was sometimes full and at other times dry, depending on the weather and needs of the cattlemen's stock (and the demands of the CCC camp south of the monument). Under "Boss" Pinkley, headquarters had tolerated DG-44's use of the pool for swimming because it expected to derive some benefit from the camp's presence on the monument. Once DG-44 was gone, Pinkley deceased, and Miller in charge, the headaches of maintaining a public swimming hole appear to have outweighed any gain there might have been. 1095

In late August 1941, Regional Director Tillotson sent a memorandum to Superintendent Miller (copied to Zion's Superintendent Paul R. Franke) proposing that the administration of Pipe Spring National Monument be transferred to Zion National Park. 1096 His primary reasons were that the historic site, one of only four among Southwestern National Monument's 28 sites, was not in any way connected with the interests of most of the other areas and that its geographic location was more accessible to Zion National Park. He asked for Miller's views on the idea.

Superintendent Franke was wildly enthusiastic about the proposal: "There is no question about the story of Pipe Springs National Monument tying directly into the historical story of southern Utah as represented by Zion National Park," he wrote Tillotson. 1097 Franke thought administration of the monument would be "a relatively simple matter" and that descendents of southern Utah settlers would be only too willing to donate historic furnishings which would enable the Park Service to transform the fort into the historic house museum long dreamed of. Franke copied his memorandum to Director Drury and Superintendent Miller.

On the other hand, Hugh Miller was convinced the transfer to Zion would be a terrible mistake. He feared that the monument's interests would not be sufficiently protected by a park superintendent, as opposed to being safeguarded by a group whose only function was to protect the interests of the region's monuments. "I believe," argued Miller in his reply to Tillotson, "there is a constant tendency to regard the monument under the park as a sort of step-child and that there is a danger, inherent in human nature, that the park superintendent will devote his best energies to his park and accord the monument only such attention as he has left over." Miller dismissed the issue of geographic proximity as important, arguing that ties to Arizona were more critical from an administrative perspective than ties to Utah. Miller also copied his memorandum to Director Drury, but not to Superintendent Franke.

Regional Director Tillotson informed Miller in a terse memorandum that his concerns would be given full consideration during the regional director's three-month tour of duty in the Washington office that was to begin October 1. Meanwhile, Drury responded to Miller's memorandum addressing several of the objections he raised to the transfer of Pipe Spring's administration to Zion. Drury liked the idea of having a coordinating superintendent at Zion, however, and Miller's views had not changed his feelings on the matter. ¹⁰⁹⁹ Still, he promised Miller he would talk it over with Tillotson and give the matter more consideration.

With the monument's fate weighing on his mind, Superintendent Miller decided to pay an inspection visit to Pipe Spring on September 29, 1941. His report of the recently accomplished work there and description of the monument's general condition – copied to both the director and regional director - were particularly glowing. There was still no interpretive program at the monument, Miller noted, but Heaton had made a laudable attempt to label and display the historic artifacts he had collected. To reduce the "confused" appearance of the displays, Miller suggested Heaton concentrate on furnishing a single room with his best examples, and storing the others in a locked room. His report stated,

It is emphasized that Heaton is in no sense to blame [for the inadequate displays]. He has taken care of the area and the fort admirably. If we were to expect more than that from him, the Civil Service Commission would have grounds to insist on a grade FCS-8 or 9 position instead of a position as laborer and caretaker in

grade FCS-5. It is questionable whether present or immediate prospective visitor use is of sufficient volume to warrant more than the present protective measures. Pipe Spring has a charming atmosphere and would be a perfect spot for a budding historian, yet under the defense economy perhaps not enough persons would benefit from a fine interpretive program to warrant the expense. In the meantime there is certainly no evidence of neglect of any essential at Pipe Spring.¹¹⁰⁰

In general, Miller reported that the fort and monument grounds looked "better than I have ever seen it," giving most of the credit to Leonard Heaton. It appears that no word had yet been breathed to Heaton about the proposed administrative transfer of the monument to Zion National Park. Having worked with the monument's custodian for many years (long before Pinkley's death), having known the Heaton family and how hard and consciously they all worked to keep up the monument, Miller may have felt concerned - and rightfully so - about how Heaton would fare under Zion's management.

Headquarters sent plans for a comfort station and custodian's residence (NM/PS-2025-A) to Heaton for comment in early October 1941.¹¹⁰¹ Heaton returned his comments asking, among other things, that the residence be constructed of stone (similar to the fort) and reoriented. In early November officials at Southwestern National Monuments asked regional office staff to make changes to the plans according to Heaton's preferences. On December 10 Al Kuehl and George Norgard visited the monument to show Heaton the revised architectural plans and to choose a site for the new residence. The site chosen was on the east side of the meadow. Heaton was very pleased with the site and the new building plans, so much so that his report of their visit on December 16 failed to mention the country was then at war.¹¹⁰²

The December 7, 1941, bombing of Pearl Harbor by the Japanese military and the United States' subsequent declaration of war on Japan, Germany, and Italy launched the country into World War II. Any possibility that either the long-awaited residence or much-needed comfort station would be constructed at Pipe Spring National Monument in the foreseeable future evaporated overnight. The impact of the country's participation in World War II and its aftermath on the monument will be the subject of the next chapter. First, as the development of roads had always impacted visitation at Pipe Spring (and would continue to impact it), it is worth considering what steps were being taken in the late 1930s and early 1940s to improve the approach roads to the monument. Two major initiatives were taken, both of which are described below.

The Fredonia-Toroweap Approach Road

In October 1936, with an allotment of \$5,300, the National Park Service authorized a reconnaissance study by the Bureau of Public Roads (BPR) for a road that would link Fredonia, Pipe Spring, and the Grand Canyon in Toroweap Valley. The road, if it met eligibility requirements, was to be financed by federal park highway funds. Fieldwork began in November 1936, was suspended for the winter, and resumed in May 1937. On November 9, 1936, Kuehl met with BPR Engineer W. J. Ward in Fredonia for a preliminary review of a tentative route. At Pipe Spring the two men agreed that the

existing monument road could not be followed as the distance between the fort ponds and "historic cottonwood trees" would only allow a 16-foot road width. A new route was proposed that would pass through the monument but 30 feet further south of the existing road, thereby leaving historic features and tunnel spring undisturbed.

When Superintendent Pinkley got word of the plans, however, he strongly objected to the new location for the road as it cut through the new campground and parking area. He wrote, "I cannot sacrifice the work which we have already expended at Pipe Spring in order to give it [the road] such an extra width across the monument." He recommended the new road pass just to the south of the monument's southern boundary instead. Preliminary sketches were later modified incorporating Pinkley's suggestion. In June BPR Engineer Ward prepared a report on the road study, recommending that the 65 mile, 24-foot wide, bituminous surfaced road that passed just south of the monument boundary. The monument was to be accessed from a spur road to Moccasin passing east of the monument. The cost of the new road was estimated at \$2,140,500.1106 Staking of the proposed route began in July 1937.

On July 20, 1937, a company of officials convened on the Arizona Strip to study the proposed Fredonia-Pipe Spring-Grand Canyon road. The group included Landscape Architect Charles A. Richey, Grand Canyon National Park Superintendent Minor R. Tillotson, Division of Grazing Director F. R. Carpenter, Al Kuehl, and two of the Bureau of Public Road's engineers. The route appeared satisfactory to those present and was being flagged. The following October another meeting was held in Kanab to discuss the road and inspect the proposed route. Attendees included Bureau of Public Roads Engineers McLane, Ward, and Brown; Dr. Farrow; District Engineer A. F. Space; and Landscape Architect Richey. At this meeting Dr. Farrow strongly opposed certain sections of the proposed alignment due to the way in which the proposed road subdivided reservation grazing lands.

As it turned out, Dr. Farrow's concerns were not what stopped the proposed road project from moving forward. It was determined from the 1937 survey that the road from Fredonia to the Grand Canyon could not qualify as approach road because 16.4 percent of the land was unpatented and state-owned. For an approach road to qualify for federal park highway funding, no less than 90 percent of its total length must be on land owned by the federal government. The Park Service came up with several alternative routes, which would have placed more of the route on state-owned "Indemnity School Land." In November 1937 Demaray asked Senator Carl Hayden for assistance in asking Arizona state officials if they would withdraw their application from the General Land Office for lands affected by the proposed road location, thereby allowing the Park Service to meet the government's requirements for qualifying as an approach road. The Congressional authorization for funding park roads and approach roads, however, expired at the end of FY 1937, so time was of the essence in Demaray's attempts to engage the cooperation of Arizona officials. 1108 Demaray's efforts proved unsuccessful. Once the Park Service learned the road could not qualify for federal park highway funds, hopes for a new approach road quickly dimmed.

All of the existing road from Fredonia to the monument (and for some distance further to the west) was located on the Kaibab Indian Reservation. While the Hayden-Cartwright Act of June 16, 1936, authorized appropriations of up to \$4 million each year for Indian roads in the United States for fiscal years 1937 and 1938, the Office of Indian Affairs requested only \$3 million for FY 1937 and \$1 million for FY 1938. Referring to the Office of Indian Affairs, Senator Hayden wrote to a Phoenix attorney in February 1938, "They seemed... to be more interested in increases for schools and for other services on the reservations than for roads." Hayden wanted Indian Service officials to ask for more road funds for FY 1938, but held little hope, pointing out they had in the past "been unenthusiastic about road work on the reservations." ¹¹⁰⁹ Because of the lower amount requested for FY 1938, men were to be laid off, equipment purchased in FY 1937 would sit idle and rusting, and roads would be inadequately maintained. This is one reason why much of the work of maintaining the approach road to Pipe Spring National Monument fell to the Division of Grazing's Camp DG-44. Since the hands of Park Service officials were tied, the road problem was ultimately left to the Indian Service, Mohave County, and the Division of Grazing to solve. Nothing of consequence would happen in the planning and construction of a new approach road until the summer of 1940. When that happened, however, it would be known as the Hurricane-Fredonia road, whose alignment bore little resemblance to the road proposed by the Park Service in 1937.

The Hurricane-Fredonia Road

In late January 1940, Heaton learned that the Indian Service was surveying a new road through the reservation. Two of the Indian Service's road engineers, District Engineer Norman B. Conway from Spokane, Washington, and Regional Engineer Alma Pratt from the Ouray and Uintah Agency, Ft. Duchesne, Utah, met with Leonard Heaton on January 27, 1940, to discuss the approach road alignment that was being considered. The proposed route would have traversed land below the monument's south boundary.

On February 23, 1940, when Heaton noticed the Indian Service's surveyors running a line through the archeological ruins south of the monument, he advised the engineer that they were staking the road through an important ruin. Heaton had only recently learned - at the custodians' conference in Coolidge - of his responsibilities regarding archeological sites on public lands. On February 26 Heaton made a sketch map of the ruin, gathered some archeological samples from the area, and sent these along with a report to headquarters about the Indian Service's plans to lay a road through the ruins. Superintendent Miller immediately sent a telegram to Regional Director Hillory A. Tolson in Santa Fe that said,

Custodian Heaton reports proposed new alignment by Indian Service of Fredonia to Short Creek to Zion highway transects extensive pueblo ruin on Kaibab Indian Reservation few hundred feet south of Pipe Springs Boundary. His random surface collection shows classic pueblo sherds. Urge immediate investigation by Nusbaum.¹¹¹¹

Tolson contacted the director's office in Washington, D.C., about the matter. (Soon after, on April 13, 1940, Tolson left the regional director's position so was no longer involved in the road issue.) Director Cammerer's office in turn discussed the matter with Office of Indian Affairs Commissioner John Collier. Associate Director Demaray then directed Regional Archeologist Jesse L. Nusbaum to meet with Indian Service officials for an investigation of the site. The meeting was held on March 19, 1940. Nusbaum brought with him 82-year old Santiago Naranjo of Pueblo Santa Clara, New Mexico. 1112 Engineers Conway and Pratt returned to the Kaibab Indian Reservation for this meeting in a very angry state. Furious about having to return and to change road plans (since Heaton had not raised the issue of the ruins in January), the engineers insisted the Park Service pay their travel expenses. To that, Nusbaum replied that the Inter-Bureau Agreement of December 26, 1939, called for each Service to cover its own travel expenses when such matters arose. Heaton said in his own defense that he had not been aware of his responsibilities regarding archeological sites until he attended the custodian's conference in February. Then Nusbaum learned that during Conway and Pratt's earlier visit the road wasn't staked to the monument's southeast corner and that Heaton only knew they contemplated surveying westward across the reservation, but did not know the specifics of the route. After the four men surveyed the Late Pueblo II site south of the monument, the Indian Service engineers proposed a solution which would have placed the center line of the east-west road right on the monument's southern boundary, partially using the route of the monument's stock driveway (drive).

At this point, it is necessary to interject the history of the monument's stock drive. At the time the monument was established, as well as long before, the old Kaibab Wagon Road which passed between the fort ponds and the fort (sometimes referred to later as the "old monument road") served as a stock drive. Nusbaum recalled that either Mather or Albright wished to terminate such use of the road but the Indian Service refused to provide any land for a stock drive that would bypass the monument. As a result, the Park Service created a 15-foot wide, fenced stock drive along its southern boundary (as well as for some distance along the east boundary) on its own lands. What the Indian Service engineers proposed in 1940 was that the Park Service donate this driveway plus an additional 17 feet of monument land for the north half of the road right-of-way. This would have resulted in the loss of 33 feet of Park Service land across the monument's entire width. In return, the reservation would give up 33 feet of reservation land for the road right-of-way (a total of 66 feet was required). Nusbaum reported, "This proposed location is satisfactory from the archeological standpoint. There is no surface evidence to indicate that any subterranean features, burials or structures, would be involved." 1114

In his report Nusbaum also made a brief reference to the suggestion (made on numerous occasions by others) that the archeological ruins become part of the monument through a formal expansion of its boundaries. "The inclusion of the mound... would be desirable but I am doubtful, in the light of past problems in the area and attitudes, if the Indian Service would favorably consider any proposal to incorporate this site as a part of the Monument area." Nusbaum's report on the March 19 meeting with Pratt and Conway was not written up and sent to the

Washington office until September 1940. By this time, Newton B. Drury had succeeded Cammerer as Park Service director.

Heaton reported in late August 1940 that he had learned that the Indian Service was not interested in any road improvements other than those for the road from Fredonia eastward, stopping just short of the monument, where it intersected with the road leading north to reservation headquarters, Kaibab Village. They did not intend to do any work on the road from the monument westward to the Utah state line. 1116 During August 1940 the Mohave County Commissioner visited the monument and told Heaton the county was furnishing cement and the Grazing Service's CCC camps were going to furnish labor to grade and gravel the road from Fredonia to the Utah line west of Short Creek, a length of 50 miles.

To return to the subject of Nusbaum's report and the Indian Service engineers' recommendations, Acting Chief of Planning Albert H. Good reviewed and commented on this report to the regional director in late September who, as of August 8, 1940, was Minor R. Tillotson. Good wrote,

With the vast area of desert type country surrounding the monument it would seem logical that a road location could be found to the south of the archeological site without the necessity of reducing the already small monument area and further, a road location along the south boundary of the monument would place all travel in close proximity to the proposed utility area with little opportunity for screening.¹¹¹⁷

Good requested comments from the regional office prior to a submission of his own recommendations to Director Drury. Tillotson was temporarily detailed to the Washington office. The response came from Acting Regional Director Milo F. Christiansen who informed Drury that the issue had been considered during a staff conference held on October 12, 1940. While they concurred with Good that a location south of the ruins would be preferable to one that required giving up monument land, "the Indian Service would probably voice serious objections," Christiansen wrote, all of which related to increased expense. Engineer Conway had already raised these objections during the March 19 meeting with Nusbaum. Apparently the Park Service was planning to construct an approach road which would eventually replace the "contemplated low standard Indian Service road," argued Christiansen, so why not proceed with recommendation of Nusbaum and the Indian Service engineers as a "generous gesture" of cooperation with the Indian Service? 1118

Neither Al Kuehl nor Harvey Cornell approved of this plan, but either were not consulted on the issue or were overruled. Both preferred to see the road follow the route proposed by the Bureau of Public Roads in 1937 that passed south of the archeological ruins, a route then opposed by Dr. Farrow. After more than 20 years of conflict with the reservation's superintendent, perhaps Hugh Miller had no desire to start a new "war" with Dr. Farrow over the road issue. He too preferred the road be moved south of the ruins, but in late

October he concurred with the regional office's decision to grant the Indian Service the proposed right-of-way along the monument's southern edge. 1119

By the end of October 1940, the Grazing Service had its three area CCC camps at work on the road from Fredonia to Short Creek. The completed road was to be 20 feet wide and gravel surfaced. 1120 Once the worst of winter weather set in, roadwork had to be suspended. When the roads began to dry out the following March, Heaton reported the three CCC camps went back to work on the road project. In addition, the Indian Service contributed a crew of 20 men and five trucks for hauling gravel. (Documentation suggests the Indian Service committed to grading and graveling a six-mile section of road east of the monument.) New bridges were also under construction in connection with the roadwork. Progress in roadwork by the Indian Service was hampered by a fluctuating work force. 1121 Still, Heaton hoped the improvements accomplished in 1940 and 1941 would increase monument visitation. In fact, it appears to have done just that, for visitation went from 1,141 in 1940 to 1,934 in 1941, an increase of 59 percent.

During Al Kuehl's inspection visit to the monument on May 1, 1941, he learned that the Indian Service was willing to discuss siting the road "in accordance with the wishes of the Park Service." (This may have been due to Acting Chief Engineer Brown's intervention.) Kuehl informed Miller of this turn of events on May 8. Miller wrote to the regional office the following week, suggesting that it might be just the time to push once more for locating the road further south rather than across the monument's southern edge. Miller had hopes that the Grazing Service camps could perform the roadwork. Regional Director Tillotson in turn contacted Director Drury about the matter in June. Miller had heard nothing by late August, so contacted Tillotson again. This time he suggested the Park Service could take responsibility for the short section of road, possibly in cooperation with the Grazing Service. Miller hoped that a crew could be assigned for the job as had been done for the fort stabilization work earlier that year. 1124

On October 21, 1941, a year after the National Park Service had conceded the monument's stock drive as a right-of-way to the Indian Service road engineers, now Chief of Planning Thomas C. Vint called a meeting in the Washington office on the road situation. Attendees included Regional Director Tillotson and Indian Service engineers Brown and Towle. Brown knew nothing of the road situation or of Nusbaum's visit to the area in March to meet with Conway and Pratt. He was not opposed to moving the road location to a place approximating the Park Service's 1937 preliminary study. Brown inquired if the location desired by the Park Service was connected with a desire to add the Indian ruins to the monument, and was told that its only concern was to achieve the best possible location for the road. 1125 Vint and Tillotson learned that the Indian Service planned only to finish the road to a stretch east of Pipe Spring and to run an all-weather road out to Moccasin. Their work would stop a mile or two east of the monument. (This was information Heaton had provided Hugh Miller in August 1940.) Vint later wrote,

The problem of the location around Pipe Springs National Monument will be dormant until the road is continued westward by the Park Service, the Grazing Service, or as a secondary road by the State of Arizona.

From this discussion we conclude that the Indian Service is no longer interested in where the road might be relocated with respect to the south boundary of the Monument and the nearby archeological remains. Apparently there would now be no objections to a location approximately 600 feet south of the monument, such as would bypass the mound.

There appears to be no further consideration necessary until such time as some agency proposes to construct the relocated road past the monument. 1126

This is where the road issue reached a dead-end. Since any improvements depended heavily on CCC work crews and as only the County or Indian Service could provide funding, there was little the Park Service could do. Besides, by the end of 1941, there was a war on.

Monument Interpretation during the Great Depression

During the years the Civilian Conservation Corps camp was at Pipe Spring, Custodian Leonard Heaton often gave educational talks to enrollees. Sometimes his presentations were about the fort's history and at other times they were about other parks and monuments in the Southwest. These latter talks were often supplemented with slides provided by Zion National Park, shown on a projector loaned by the CCC's education adviser.

For years, Heaton had relied heavily on his wife Edna to give guided tours of the fort when he was away or busy with projects. Once the family moved to Moccasin in February 1936, however, another backup plan was needed. Staff from other area parks and monuments was sometimes sent over to fill in when Heaton took extended leave. Professional staff was not always available, however. With permission from headquarters, Heaton turned to certain CCC boys he had confidence in to give tours when he was indisposed, or arranged for one of them to take charge of his monument duties when he was on extended leave. 1127 The public was not always happy with this alternative, however. On at least one occasion, a tour given by an inexperienced CCC enrollee prompted a formal visitor complaint to Heaton. 1128 In addition to his on-site talks, Heaton also gave talks to local public gatherings and organizations, such as the Church-sponsored Women's Relief Society of Moccasin.

Some headway was made during the 1930s in historical research and preparation of an official history of Pipe Spring National Monument. The first history written by a Park Service employee was prepared by Leonard Heaton and printed in April 1936 as a *Southwestern Monuments Report Supplement*. It was entitled "Some Early History of Pipe Springs National Monument." The same year Heaton also wrote "A Brief History of the Town of Moccasin."

At about the same time Heaton was writing a history of Pipe Spring, efforts were being made at the regional level in Santa Fe to research and prepare a scientific report that would guide interpretive planning. Associate Regional Geologist Vincent W. Vandiver first visited Pipe Spring on October 9, 1935, returning again in July and October 1936 with Regional Geologist Charles N. Gould. In late 1936 Vandiver paid a visit to the monument with Dr. Herbert E. Gregory of the United States Geological Survey. From the data he collected on these trips, Vandiver prepared a report in January 1937, entitled "Geological Report, Pipe Spring National Monument." (Vandiver's report was printed in February 1937 as *Southwestern Monuments Special Report Supplement No. 14.*) While this report focused mostly on the area's geology, it included a brief history of the monument, a description of the area (including Moccasin Springs and the Kaibab Indian Reservation), and lists of the monument's plants, birds, mammals, and reptiles. 1130

In November 1937 Superintendent Pinkley wrote Acting Regional Director Herbert Maier, requesting that a historical technician be assigned from the regional office to research the fort's history prior to undertaking a restoration of the fort's interior. Pinkley advised, "We have literally no organized information on Pipe Spring, so the technician, if assigned, would be starting from scratch." Pinkley later optimistically wrote Heaton "... we have started the wheels to grind slowly on a program of historical research which should eventually result in some good exhibits for Pipe Spring National Monument." Grind slowly they did, for it was another three and one-half years before Pinkley's request for research assistance at Pipe Spring bore any fruit.

Meanwhile, Heaton did the best he could to improve fort displays. In May 1936 Heaton asked Pinkley for some display cases so that he could exhibit some of the "relics" he had collected for the fort museum. In December that year he wrote Pinkley describing the manner in which he had arranged displays in the fort:

I have finally made a break [from landscaping work] to arrange the museum artifacts into groups, and have taken the east room, 2nd floor of the lower house for the ancient and modern Indian material. The middle room I will use as a geological and rock room, and the west room will be left for the telegraph office when we get the material to go in it.

The east room on the ground floor of the lower house I have part of it for my office and also have a few pioneer relics which will be assigned to other parts of the building when I get them worked out.¹¹³⁴

Hampered by lack of funds for display cases, Heaton took whatever came his way. In May 1937 Pinkley offered Heaton several open shelf museum cases that were being surplused by Casa Grande National Monument. In May 1938 Heaton drove 165 miles to Cedar City to pick up a skin study case, sent by freight train from the Park Service office in Berkeley, California. The case was used at Pipe Spring to exhibit botanical specimens and animal skins.

In March 1938 the monument had only a one-page, typed leaflet about the historic site. It gave the origin of the site's name (a story now regarded more as legend than documented fact) and a brief history of the site. It also described the area's geology and climate. The leaflet stated that the 40-acre monument

...was created May 31, 1923, to preserve the ruined old stone fort, a relic of pioneer days. In the early sixties the Mormons established a cattle ranch here, and the fort was erected as a protection against marauding Indians.¹¹³⁵

The leaflet described the monument's prime attraction,

... its wonderful spring of cold, pure water, flowing at the rate of over 100,000 gallons a day, its great cottonwoods affording abundant shade... [It] is a refreshing oasis and scenic accent on the way of the main-traveled road between Zion's colorful canyon and the mighty chasm of the Colorado. 1136

In May 1938 a coordinated effort was begun between the Washington office, regional office, and Pipe Spring to plan and design a geologic exhibit at the monument. On May 23 a planning meeting was held at the monument between Assistant Chief Rothrock, Grand Canyon's Park Naturalist Edwin D. ("Ed") McKee, Al Kuehl, and Leonard Heaton. The meeting was along the lines of a fact-finding and scoping mission and yielded only preliminary designs. The chief function of the proposed exhibit, to be located out-of-doors, was to interpret the Sevier Fault, the geologic feature that resulted in the natural springs which in turn, Rothrock wrote, "attracted the Mormon settlers to this oasis." In addition to the planned exhibit shelter, Heaton suggested to those gathered that "a nature trail could be worked in, leaving the fort going north and west to [the] observation point, showing the plant life and back by way of the old quarry road, to the west cabin, being about [a] one-quarter mile trail." Heaton, of course, had been trying to interest Frank Pinkley in such a trail for years.

Rothrock failed to mention the nature trail idea in his later trip report to Pinkley, but it appears to have been discussed with him at some point. Rothrock recommended that the regional office begin to assemble the exhibit right away for two reasons: first, in order to take advantage of the temporary assignment in the regional office of a geologist from the Washington office, and second, because of Heaton's enthusiasm for the project. Park Naturalist Dale S. King at Southwestern Monuments reviewed Rothrock's report. While concurring that a geologic exhibit and associated trail should be built, King wrote Pinkley, "Pipe Spring National Monument nature trail is far down in our priority list of needed projects in the Southwestern Monuments, but under the special circumstances, I am satisfied with the procedures outlined." 1141

The new exhibit and trail were to be constructed by CCC enrollees encamped at the monument. A job application still needed to be executed in order to utilize CCC forces toward the effort. The application could not be filed, however, until final designs were executed. On September 27, 1938, another meeting was held at the monument in order

to formulate the final plans. The meeting included (in addition to Custodian Heaton) Regional Geologist Gould, Wildlife Technician W. B. McDougall, Assistant Geologist Hawkins (Washington office), Park Naturalist Ed McKee, Regional Landscape Architect Harvey Cornell, and Landscape Architects Al Kuehl and Harry Langley. Gould filed a report, referring to the exhibit as a "wayside shrine." The location of the exhibit and interpretive material to be included were decided at this time. The site chosen for the exhibit was the crest of a ridge about one-quarter mile from the fort where "a very fine view is obtained of the various points of interest." McKee made a pencil sketch depicting the kind of the exhibit shelter to be built, which Hawkins submitted to Rothrock in Washington. The trail surveying project had to be abandoned, however, when Hawkins was ordered back to Washington, D.C., from Santa Fe. 1143 Neither was the geologic exhibit constructed. It appears that other development plans were more pressing during the remaining time Camp DG-44 was at the monument. The CCC's permanent departure from Pipe Spring in October 1939 dashed Heaton's high hopes for both a geologic exhibit and nature trail.

Heaton was active throughout this period locating and acquiring additional artifacts for the fort museum (either by donation or loan), yet there was still no exhibit plan. From the perspective of Park Service officials, fort exhibits did not measurably improve during the remainder of the 1930s. During Junior Park Naturalist Natt Dodge's December 1938 visit to the monument he commented on the condition of the fort's artifact collection and the manner of exhibition:

There are a number of parts of pieces of furniture, etc., which have been donated to the monument by pioneer families. These are so badly broken and so poorly arranged that they are far from satisfactory as a display. Mr. Heaton has collected a number of geological oddities which he has on display in one of the rooms, and he also has a number of Paiute as well as prehistoric artifacts. All of these items form a valuable collection about which a display might be built, but at present they are rather uninspiring.¹¹⁴⁴

Assistant Chief Rothrock again visited Pipe Spring on May 15, 1939, to gather more data for preparing the monument's geologic exhibit. In his trip report, Rothrock recommended a north/northwest boundary extension of the monument to "include an area containing added biologic interest and to clarify the geological story so intimately connected with the establishment of the fort." As a general observation, he remarked, "I was impressed with the narrow range of interest and limited use of this monument." 1146

Meanwhile, in cooperation with Hugh Miller at Southwestern Monuments, Mrs. George Shields of Kanab, Utah, spent more than a year compiling a list of names and addresses of "old-timers" who had either lived at Pipe Spring or who were familiar with its history. Miller still hoped for funds to hire a research historian for Pipe Spring so that formal plans for its museum could be developed. In December 1940 Miller (who earlier in the year succeeded Frank Pinkley as superintendent) sent a request to Regional Director Tillotson asking for funds to

hire a historian to conduct historical research on Pipe Spring. The oral history component was to be an important element of the research:

Inasmuch as Pipe Spring is the only national area set up solely to preserve and record the Mormon pioneering phase of the development of the West, it is felt that this project is of great significance and that a serious effort to obtain first-hand information from survivors of this era should not be longer delayed.¹¹⁴⁸

Miller opined that the "hearty cooperation" of the Church of Jesus Christ of Latter-day Saints might be secured once they were made aware that the Park Service proposed to record the history of "Mormon pioneering" in southern Utah and northern Arizona. No funds from the regional office were forthcoming, however.

In January 1941 Regional Director Tillotson sent Miller the draft text for the first edition of a two-fold leaflet for Pipe Spring National Monument with a request for some additional information.¹¹⁴⁹ In the final text, published in July 1941, only slight changes were made. The introduction stated,

The buildings at Pipe Spring National Monument... represent an important phase of the movement westward by the American pioneer. The Mormons who settled at Pipe Spring and other similar areas can be given much of the credit for the exploration, colonization, and development of this part of the Southwest. Under the leadership of Brigham Young, they were able to establish their culture in this land where many others failed. As an expression of the foresight, courage, vigor, persistence, and faith of the pioneer, and of the Mormons in particular, Pipe Spring is preserved as a monument, not only to those who settled the southwest, but to all who took part in the Westward Movement. 1150

The text also described the fort's natural setting and included the story of how Pipe Spring got its name. The history of Whitmore and McIntyre was recounted and the subsequent seizing and execution of "some Indians" wearing the clothes of the slain men. The text acknowledged that those executed were innocent, "peaceful Paiutes" having obtained the clothing in trade. "The real culprits, mostly Navahos and a few Paiutes, went scot-free," it said. The text also discussed Winsor's role in building the fort, improving the spring, and take care of the tithing cattle for the Church. The fort "will remain as a monument to the pioneer era," concluded the leaflet. Its author was Regional Supervisor of Historic Sites Aubrey Neasham. 1151

In May 1941 Superintendent Miller wrote Director Drury to ask if funds were available through the Branch of Research and Interpretation to hire a research historian. Miller estimated the research would require six months in the field in southern Utah as well as work in Salt Lake City. A historian "with affiliations with the Church of Latter-day Saints" would be preferred, Miller stated. The basic information provided would allow the park to proceed with the "interpretive rehabilitation" of Pipe Spring National Monument, Miller assured Drury, information that might even prove useful to Zion

and Bryce Canyon national parks. Miller pointed out that "much information is disappearing with the death of the pioneers in this region.... We regard the problem as urgent and it lies beyond the scope of our capabilities."¹¹⁵³

On May 24, 1941, Assistant Museum Chief Dorr G. Yeager, Western Museum Laboratories, wired Superintendent Miller that Research Collaborator Arthur Woodward (Western Museum Laboratories, Berkeley, California) could be assigned during a portion of June to work on Pipe Spring interpretive matters. While it was hardly the six months of research time that Miller had wanted, he jumped at the offer. On May 28 Miller sent Yeager a draft of the interpretive statement submitted for the monument's master plan, saying, "it still fairly well expresses our thinking." Miller said what was needed was "preliminary basic work which will result in rehabilitating Pipe Spring fort as a historic house museum." Miller wanted Woodward to focus on local history and/or material culture, whichever he could do most efficiently, and to set down his ideas about how Pipe Spring should be interpreted. Woodward was assigned from June 1 to 15, 1941, to research and prepare the first official narrative history of Pipe Spring National Monument, resulting in a 46-page report entitled "Brief Historical Sketch of Pipe Springs, Arizona."

Woodward's report was based exclusively on secondary sources, such as James H. McClintock's *Mormon Settlement in Arizona*, as well as Utah newspapers, periodicals, and historical journals. This history was, in many respects, consistent with earlier site interpretations by the Church and local Latter-day Saints, including Leonard Heaton. These included the story of the origins of the Church of Jesus Christ of Latter-day Saints, the persecution of Latter-day Saints in the East and Midwest, Brigham Young's establishment of the state of Deseret in Utah, and the southward moving exploration and colonizing efforts of missionaries. Woodward stated that the site's history was

... not merely the story of a single isolated spot in a barren wilderness. Rather it is a concrete reminder epitomizing the development of a great state by a courageous people. In a measure, the history of Pipe Springs is the tale of the ideals, the sufferings, the ambitions and the perseverance of a determined band of men and women who sought religious and economic freedom in an inhospitable land and who won out against great odds. Pipe Springs may well interpret the story of Utah and the fighting spirit of the Mormon Pioneers. 1155

This then was to be the monument's major interpretive theme for some time to come; it differed little from the one set in place during the 1930s. Woodward's report included "Recommendations for Development" (i.e., interpretation), in which he stressed the usefulness of Pipe Spring ("until a better site is found") as representative of the larger southwest region's history of white settlement. "All of the elements necessary to produce such a story are present at Pipe Spring," he observed. 1156

The story was to include a number of subthemes, listed below. Woodward suggested starting in a logical sequence, with the "primitive background." He recommended that the ethnography of the Navajo and Paiute be outlined, stressing the social relations and

contacts "between these hostile units," as well as their differences in material culture. Even the Hopi could be mentioned since Pipe Spring was the "jumping off place for Mormons" as they headed on their missions to the Hopi. 1157 Anther interpretive subtheme was the geography and geology of the area, under which the difficult struggle for existence (by both Indians and "pioneers") and the necessity of water were to be emphasized. The "Mormon hegira" was to be outlined without too much detail, advised Woodward, but the need for persecuted peoples to find a place where they could practice their religion freely and be economically independent should be stressed. The roles of Brigham Young, Jacob Hamblin, Dr. Whitmore, Bishop Winsor, and Joseph R. Young and his wives - going from the "guiding spirit" to the "rank and file" - were to be discussed, as well as the Latter-day Saints' relations with the Indians.

According to Woodward, the latter story was "the old story of the frontier," the clash between the white man and the Indian. The white man's need for farming and grazing land and for water sources was to be contrasted with "the need of the same terrain by the ever meat-hungry, semi-nomadic Indian hunters" and "the clash between the white prospectors and the Indians." Aside from their religious beliefs, settlers and their material culture were to be portrayed "like any other pioneer migrating to the frontier." The subtheme of exploration and settlement was to be illustrated with artifacts dating from 1830 to 1880, even home-made articles from the 1890s were acceptable, said Woodward; they need not have been brought to Utah by Latter-day Saints. Cattle raising, dairying, and cooperatives were another subtheme to be developed. The stories of the first telegraph station in Arizona and the construction of Winsor Castle were also to be told. Narrative text, maps, and antique artifacts (or, if need be, replicas) were to be obtained and displayed to illustrate all these subthemes. Woodward thought donations by Latter-day Saints would fill the monument's need for furnishings, if a "call was sent out through Utah." 1159

Yeager forwarded the Woodward report on June 19, 1941, to Superintendent Miller, who wrote,

You will note that this work also contains recommendations for the museum development of the area, suggested sources of material, and a rather extensive bibliography.... We feel that he is to be complimented on this job, and we believe that [the report] is sufficiently complete to form the basis for future interpretive developments at Pipe Spring National Monument. 1160

Heaton barely learned of Woodward's work before it was completed. On the same date, Yeager forwarded the Woodward's report to Miller, Heaton wrote Miller offering his assistance and making a suggestion: "I would like to suggest that if possible to have Mr. Woodward come to the monument, or to southern Utah, and contact what few men that are still living (and women too?) who can remember some of the things that were done in 1869 to 1880."1161

No oral interviews were conducted during the course of the two weeks of historical research. There is no evidence that Woodward ever even left Berkeley. Miller tried to console Heaton in his reply:

It is too bad Mr. Woodward's brief assignment was not long enough for him to actually visit Pipe Spring and do some of the field work you have so clearly indicated in many of your letters and in conversations with us. We realize that you are up against a difficult problem, and we are attempting to gain help to solve it.... Just as your letter arrived the enclosed paper by Mr. Woodward also came in.... Will you please read it and give us your comments?¹¹⁶²

Heaton responded back to Miller,

...[I] find that he has several facts that don't fit in with what I have been telling the public. I might say that most of the stories that I have gathered up came to me second handed [sic] or as some old pioneer can remember when was a boy about 5 to 12 years old. So I am not a bit surprised that some of my stories are not dated, as they should be. There are several parts that I would like to make comments on before anything is done to start gathering up any of [the] old relics, as I know where there are several of the original tools that were used at the monument during its construction.

The paper has also given me some good ideas on how to go about gathering some information that I had not thought of before. 1163

In August 1941 Park Naturalist Russell K. Grater, now at Zion National Park, forwarded his comments and recommendations on Woodward's report to Superintendent Miller. Grater advised against the monument's attempting to discuss the Hopi, as "other areas tell the story of the Pueblo much better than can Pipe Springs.... This is also true of the Piute [sic] and Navajo." Only local geography and "lack of water" should be interpreted at Pipe Spring, wrote Grater; the regional geology should be left to Grand Canyon, Zion, and Bryce Canyon national parks. The history of Mormon settlement efforts should focus on Pipe Spring, and "not attempt to cover all areas," Grater opined. The stories of Pipe Spring and Zion should supplement each other, to entice travelers to visit both sites. He urged a coordinated plan of interpretation for both areas.¹¹⁶⁴

Acting Superintendent Charles A. Richey sent a memorandum to Acting Custodian Russell L. Mahan at Arches National Monument in November 1941, discussing plans for the Pipe Spring interpretive program:

We are anxious to assist Mr. Heaton with the exhibits in the old fort, and study the interpretational [sic] program at Pipe Spring. December seems to be an excellent time to start the work. Associate Naturalist King plans to be at Walnut and Wupatki National Monuments November 3-29 and can continue on to Pipe Spring for several days. This matter has been discussed with him in some detail

and it is desirable that you meet Mr. King there, and remain at Pipe Spring during December. 1165

At this time, however, two things altered the course of events pertaining to the development of Pipe Spring National Monument's interpretive program. The first was the entry of the United States into World War II, which occurred shortly after Richey's above-communication with Mahan. The second was the transfer of the monument's administration from Southwestern Monuments to Zion National Park, which took place during February 1942. The impact of those events is described in the following chapter.

Part VI - The World War II Years

Introduction

The entry of the United States into World War II created critical management problems for the National Park Service. Congress cut park appropriations by more than 50 percent. Between June 30, 1942, and June 30, 1943, the number of permanent, full-time positions in the Park Service was reduced from 4,510 to 1,974, a cut of more than 55 percent. With the imposition of gas rationing, visitation fell dramatically; all travel promotion activities within the agency ceased. Even the railroads abandoned their policy of putting on special supplemental trains and reducing rates to the parks. Total visitation to national parks and monuments for 1942 (the first travel year after the country went to war) fell by 55 percent. 1166

For the previous decade, the Park Service had derived incalculable benefit from the labor of the Civilian Conservation Corps and other public works programs. All CCC camps were ordered closed by June 30, 1943 (as discussed in Part V, Pipe Spring National Monument lost its camp considerably earlier, much to Custodian Heaton's relief). The loss of CCC camps and their work crews from the National Park Service and U.S. Forest Service units was only slightly ameliorated by the Selective Service's establishment of Civilian Public Service camps, manned largely by conscientious objectors. Now, in addition to the cessation of these work programs, finding qualified or experienced men to hire became a difficult challenge because so many men joined the military or became otherwise involved in the war effort. In fact, some parks became so desperate that they - like private industry - began hiring women in positions previously reserved for men, as rangers and fire lookouts.

A minimal staff of engineers, landscape architects, and historians was retained in the Washington office and four regional offices in order to maintain certain basic functions and to continue the work of planning for future developments. Certain other activities, however, ceased to function at all during the war years, such as the Historic American Buildings Survey. To make matters even more complicated, the offices of the National Park Service, as well as two other services, were moved from Washington, D.C., to Chicago in 1942 to make room for military functions in the nation's capitol. They were not moved back until 1947.

Some parks were heavily impacted by wartime activities, particularly by military demands for their natural resources. Secretary Harold L. Ickes called on the various bureaus in his department for "full mobilization of the Nation's natural resources for war…"¹¹⁶⁸ Fortunately, Pipe Spring National Monument had absolutely nothing the military needed or wanted. Nonetheless, the war's impact was felt in a number of ways. The worst drop in monument visitation since the opening of the Zion-Mt. Carmel Tunnel occurred during the war years. Perhaps of even more significance to Pipe Spring was the transfer of the monument's administration from Southwestern National Monuments (Southwestern Monuments) to Zion National Park. Although Custodian Heaton then faced an

unprecedented number of official inspections, property inventories, and lectures on how to do things "right," he responded with his characteristic humility and desire to do whatever was asked of him. As in other park units, monument development plans were executed, reviewed, and commented on, to be put "on the shelf" until the war's end. Historical research continued, particularly as Zion officials asked new questions about the importance of the monument's historic landscape. Progress continued in transforming the fort into a historic house museum. Road issues continued to be debated during the war years, whether discussions centered on the monument road or the only sporadically maintained approach roads from east and west. Finally, the question of water rights at the monument was revived again, precipitated by a federal ruling in 1942 on water reserves and park units.

Otherwise, life at Pipe Spring went on pretty much as usual, with the local folk continuing to gather at the site to picnic in view of the old Mormon fort and under the shade of its many trees. There was another important attraction, of course. Now that the monument's water was no longer demanded by the Army for CCC camps, local Mormons and Indians alike were welcome to cool off in the meadow pool, an opportunity many took advantage of during the hot, dry summers that were characteristic of the Arizona Strip.

Monument Administration

The end to all CCC-related activity at the monument in 1940 left Heaton alone responsible for maintaining and protecting Pipe Spring National Monument. Park Service funds were scarce and visitation low in park units nationwide during World War II. Consequently, no major projects were undertaken at the monument. Only minor maintenance or stabilization work was performed on historic or other buildings. Most of Heaton's time was spent in performing routine maintenance and protection work - repairing fences, cleaning irrigation ditches, reducing fire hazards, tree pruning, and keeping the campgrounds in an orderly condition. Heaton's two oldest sons, Clawson and Dean, often helped with such work during the war years. 1170

Although development planning for the monument continued during the war years, no building projects were undertaken. Zion and regional office staff made studies for campground development at the monument. A number of NPS officials visited Pipe Spring during the war years, including Director Newton Drury, Regional Director Minor R. Tillotson, Regional Chief of Planning Harvey Cornell, Regional Architect Lyle Bennett, and Chief Landscape Architect Thomas C. Vint. 1171 The visits were made to inspect the monument and to plan post-war work on buildings and a parking area, residence, and utility area. Heaton wrote after their visit, "Promised to get the residence building, but I expect it to be some time." 1172

For the month of January 1942 Heaton reported, "Not a visitor this month. Looks like the ban on tires and cars will stop visitors to the monument an awful lot for the next few years." That was not to be the war's only impact on the monument. Southwestern Monuments' Superintendent Hugh Miller was still on his three-month tour of duty in the

Washington office. In early January Miller formally notified Chief of Operations Hillory A. Tolson of a change of mind:

You are familiar with my opposition to the transfer of responsibility for the administration of Pipe Spring National Monument from the Superintendent of the Southwestern National Monuments to the Superintendent of Zion National Park. Circumstances related to the war economy appear, however, to have changed the problem to such an extent as to warrant a change in my position with respect to it.

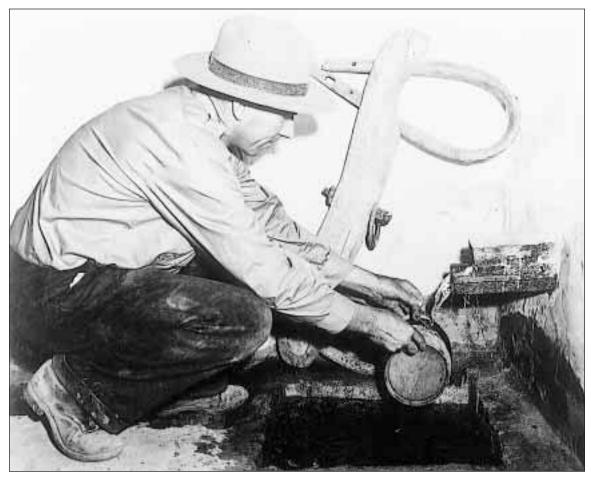
In view particularly of the necessity of restricting automobile travel it would now appear to be in harmony with the policy of the administration to place Pipe Spring National Monument under the Superintendent of Zion National Park and this memorandum expresses my concurrence in the proposal.¹¹⁷⁴

On January 24, 1942, Heaton received word from the regional office that the administration of the monument was to be transferred to Zion National Park. He described this news in his journal entry that day as being "a bomb in the mail." He wondered what changes would take place and how he would fit into the new organization. As Heaton waited to learn the date the transfer was to take place, he filed his last monthly report to headquarters in Coolidge:

For sixteen years I have been making reports to the Superintendent of Southwest [sic] National Monuments, and it is with no little regret that I think of having to make them to another. Not that I have anything against the other outfit, but I have been so long with the Southwestern Monuments and watched it grow from a traveling office in the old Ford with the Boss to the well-equipped building and staff of a dozen men at Coolidge. After 16 years living with such an outfit there are certain bonds of affection attached with it and friendship that has grown...¹¹⁷⁶

Director Drury issued the memorandum directing the transfer on January 13, 1942. The administration of the monument was formally transferred to Zion on February 16, 1942. 1177 (In addition to administering Zion National Park and now Pipe Spring National Monument during this period, its superintendent oversaw Cedar Breaks National Monument and Bryce Canyon National Park. 1178) After the transfer, Heaton's monthly reports to Zion's Superintendent Paul R. Franke took on a more formal and succinct format, rather atypical of Heaton's earlier "chatty" (and more entertaining) reports to Southwestern Monuments. 1179 The custodian described a day spent in the office typing out his monthly report as "my most tiring day's work." 1180

During the slow winter of early 1942, Heaton painted fort woodwork with linseed oil and worked on remodeling and making repairs to his residence. He received the preliminary plans for the approved new residence in February. It was to be a handsome, three-bedroom, stone residence located just a short distance east of the meadow pool. (This structure would never be built, but the plans must have given the Heatons a small ray of hope to hang onto.) On March 16, 1942, Heaton made his first official trip to Zion to meet with Franke and the other park staff. The trip via Short Creek was 50 miles; via



86. Custodian C. Leonard Heaton in spring room of the fort, ca. 1942 (*Pipe Spring National Monument*)

Kanab it was 61 miles. Either way, the one-way drive - just the first of many he would make - took two hours. 1182 On March 23 he went to Zion to discuss park business and to attend a weekly class. These were being held each Monday night in the rangers' building. 1183 Class that week was on the rating system. Afterward Heaton wrote in his journal, "I can see that I will have to keep on my toes and work up if I hold the rating given me by the Southwestern Monuments." 1184

Franke made his first official inspection visit to the monument on March 28, 1942, and spent two hours going over the site discussing problems and reviewing the monument's master plans. Among the proposals that Heaton and Franke talked about that day was planting part of the land back into orchards and gardens; cleaning the ponds and restocking them with fish; furnishing the fort rooms using some of Zion's museum collection; constructing a checking station and comfort station; and changing the location of service roads. Franke told Heaton he would try to visit once a month.

The war years brought a number of servicemen to Pipe Spring National Monument and other park units in the surrounding area. In his first annual report to the Secretary of the Interior since the beginning of the country's involvement in the war, Director Drury emphasized,

In war, no less than in peace, the national parks and allied areas have served as havens of refuge for those fortunate enough to be able to visit them. Proving an environment that tends to give relief from the tension of a warring world, the parks are being looked upon as a factor in a program of rehabilitation, physical and mental, that will be increasingly necessary as the war progresses.¹¹⁸⁵

While he had to report a significant decline in attendance to park units, Drury was obliquely making a strong argument for their "usefulness" to the war-effort. Perhaps to collect supporting evidence of park units as psychological havens for warweary soldiers, all parks and monuments were required to keep a record of visits by members of the U.S. Armed Forces during the war years. No such visits were recorded at Pipe Spring until December 1942, when 12 soldiers visited the monument. These men, like many others who either passed by or visited the monument during the war years, were sent on detail to the area from their military base in Kingman, Arizona, to remove the three area CCC camps. 1187 The men temporarily lived at the Fredonia camp while they completed taking down the Antelope Valley camp (G-173) in May and June 1943. The Short Creek camp was also removed about this time. It is presumed that the Fredonia camp was the last to be removed. When servicemen came to Pipe Spring, they nearly always toured the fort and often picnicked in the campground. This helped boost the monument's lean travel figures as well as brought young men into contact with a part of United States history they might never have otherwise been exposed to.

With the German Luftwaffe's aerial bombings of Great Britain in 1940 still fresh in people's minds (not to mention Pearl Harbor), the war had many in the country on edge. Some may have glanced skyward perhaps a little more often than usual for unaccustomed airplane activity. On April 9, 1942, Heaton reported something quite out of the ordinary:

Witnessed one of the most unusual sights in the sky at about 10:30. Heard an airplane flying from west to east, north of the monument. Shortly after it had passed, a white stretch of smoke or clouds started to form, beginning north of the monument and going east, something like the smoke writing from an airplane. But this was white like a cloud and stayed in some shape for 10 to 15 minutes, then small shafts and mists began to drift northward and it did not entirely disappear for at least 1? hours. It appeared to be like a ball being thrown through the air and one could see the clouds forming. At first we thought it might be a plane on fire, but not black enough for that. It is my opinion a cold shaft of air was hurled through the air that formed the cloud, maybe in the trail of the plane. The cloud or smoke turned out to be a flame.¹¹⁸⁸

The cause of the mysterious cloud in the sky is not known. Heaton enjoyed a much more familiar sight in late May, when he wrote in his journal, "Another of those hot dry, windy

and dirty days. About like old cattle days at the south side of the monument today. The Indians are branding the calves. With the bellowing of the cattle, shouting of the riders, and smell of burnt hair, makes one think of days gone by."¹¹⁸⁹ The old cattle corrals were still in use, only now by Indian stockmen. In December that year, Heaton reported the Indians held a bunch of calves at the old stock corrals.¹¹⁹⁰

The Heatons seemed to have gotten along well with their neighbors, Indian and Mormon alike. When anyone got in trouble or found others in that state, it was customary that whoever was closest helped out as much as possible. For example, when Custodian Heaton's truck became mired in the road one day, two Indians on horseback towed him out. Another time, eight-year-old Bill Tom was injured when the horse he was riding fell and Heaton gave him first aid. He then had one of his sons accompany the Kaibab Paiute boy home. 1191 Heaton's daily journal routinely reported such examples of mutual aid. 1192 The "neighbor" problem most often encountered at the monument was rabbit hunting. In June 1942 Heaton reported, "Stopped Joseph Jolmary, an Indian, from shooting rabbits on the monument this morning. The hunting of rabbits is my biggest trouble with the local people, especially the Indians, who make the rabbit one of their main dishes at the table and there are a lot of rabbits on the monument."1193 The rabbits, of course, knew a lush playground when they saw one. Besides, hunters hemmed them in on all sides, both Indian and non-Indian. Heaton reported several years later, in May 1944, "The rabbits are not much more than holding their own as the Indians and hunters are after them for their meat. This hunting is being done on the Indian Reservation."1194 Heaton also reported coyotes were being heavily hunted, considered a menace to the ranchers' lambs and calves.

Rabbits weren't the only furry animals abundant at the monument. Particularly during dry summer weather, a large number of squirrels, chipmunks, rats, and mice could be found at Pipe Spring, being attracted to its water and abundant vegetation. Porcupines, too, lived at the monument; their habits were harmful to certain trees. 1195 In spite of cattle guards, reservation horses and cattle also wandered onto the monument to graze or to water. Other monument residents were gophers. These animals were especially destructive pests in Heaton's eyes, as they damaged tree roots and wreaked havoc on his system of irrigation ditches. (Heaton attributed the monument's loss of several Carolina poplars in 1945 to gophers and disease. 1196) While gophers did all of their dirty work underground or at least out of doors, mice and rats munched away on antique furnishings inside the fort. In May 1944 Heaton wrote, "...sure need some rat poison as the mice and rats are so thick around buildings that they cover up all tracks with their running around and are building nests everywhere they can find a dark corner to get into."1197 There was one other pest that Heaton fought during the summer - ants. His customary extermination method involved pouring about a quart of gasoline into each ant bed then covering it with a sheet of newspaper. If all the ants were in their hole when this ritual was performed, Heaton reported, two applications usually did the job. Even wartime gas rationing didn't stop the monument custodian from using this tried-and-true method of pest control.

One good thing about the war years, now that all the area CCC camps had been abandoned, Heaton was free to refill the meadow pool. In mid-June 1942, Heaton had his sons clean out the pool so that the family and neighbors could cool off by swimming. That Fourth of July, 30 people came to spend the afternoon in the shade of the trees and to swim. Indian children also came from time to time to swim in the meadow pool. The pool was especially welcome that summer. Heaton reported in his daily journal, "It has been a number of years since we had so much hard west wind and so long. Everyone is on edge. I don't remember when I have been so tired and hate the weather as I have of this continual, hard, west wind. Never a day but what one has to fight the wind to get anything done." In spite of the unpleasant weather, Heaton managed to get a few things accomplished. During that summer the south wall of the west cabin was stabilized and monument boundary fences were repaired, along with other routine maintenance work.

In September 1942 Franke paid a surprise visit, bringing with him Landscape Architect John Kell from the regional office, introducing him as Al Kuehl's replacement. The men inspected the work Heaton had done on the west cabin and made recommendations for future mortaring work. Kell later filed a report to Harvey Cornell, suggesting ways the monument's master plan might be modified if a bypass road was ever constructed south of the monument. Kell thought development should be moved away from the fort in order to achieve a more natural setting for the historic buildings. "It was my impression," reported Kell," that there was an abundance of tree growth in the headquarters area." While he had no objection to the older "historic" trees being retained, Kell recommended removal of some of the smaller ones, especially those that had sprouted up along irrigation ditches.

Franke brought up the landscape issue again two months later in a memorandum to Regional Director Tillotson commenting on monument development plans. The superintendent referred to conversations he had during the summer of 1942 with Randall Jones, tourism booster of southern Utah and northern Arizona for nearly 40 years. Jones had questioned the Park Service's policy of "turning the area into a natural national monument by over-planting with trees and shrubs." Later Franke started asking questions of the old-timers and reviewing monument correspondence to learn what official policy was on the monument landscape. While there was no question that the Park Service was charged with the preservation of the historic buildings, Franke wrote Tillotson, no commitments had ever been made to preserve or restore the landscape as it was during the historic period. He proposed that part of the landscape be made to look like a typical pioneer ranch - what today would be called a "type" reconstruction, rather than an accurate restoration. Franke wrote,

What has happened to the rail fences, the orchards, gardens, and livestock pasture? Surely they were part of the ranching, dairying, and farming period of 1870 to 1890. In place of maintaining them we permit and encourage the area to develop into a false jungle of alien cottonwoods, willows, box elders, and other specie never part of the pioneer ranch, whose major objective was producing foodstuffs...

We concur in general with the plan giving location of proposed new developments. We suggest there be a general line of demarcation, providing to the east of this line an area for parking of cars, checking station, comfort station, and public campgrounds. To the west of this line we suggest that the landscape be returned to the ranching, farming, dairying, and fruit raising pioneer period of 1870 to 1890. 1203

Franke stated that in the western part of the monument Heaton should be encouraged to cultivate fruit trees, gardens, and grain fields. "The proposed residences and utility buildings should be architecturally designed to appear as outbuildings of the farmyard but not for public visitation," he added.¹²⁰⁴

This new plan would have required a complete redesign of the dignified stone custodian's residence (whose final plans had already been approved) into something resembling an agricultural outbuilding, or at least into something no visitor would ever be tempted to set foot in! What is also noteworthy about Franke's proposal - somewhat indicative of his ignorance of past planning decisions made at the monument - is that whereas the decision had been made in the early 1930s to distinguish the historic from non-historic areas by a north-south demarcation (with the monument road being the boundary), now Zion was asking for an east-west bifurcation of the two areas. The general area where Franke wanted to see the new parking area constructed, east of the fort, was the area where earlier planners excluded the campground in order to preserve the fort's historic setting.

In early January 1943, Tillotson wrote a lengthy response to Franke. "The general approach outlined in your memorandum of December 23 is undoubtedly the correct one," he wrote. 1205 Tillotson asked what historical evidence existed for installing orchards, gardens, pastures, etc.? In the absence of historical evidence, he saw Franke's policy as "largely one of type restoration or general period restoration, rather than exact reproduction..." Tillotson also expressed concern about the upkeep of such an agricultural operation and wondered if a "living museum" arrangement with farming and dairying activities carried out by people living at the place might be a solution. "This might or might not be considered desirable and practicable," he added. Tillotson remarked on the absence of a place for interpretive exhibits, supplemental to the period restoration in the fort. He added,

...we hope to be able to give this project the necessary time and historical research to carry out a development program along the general lines you have suggested in such a manner that it will be a credit to the Service and meet with the approval of all concerned, including the Mormon Church and the local old-timers. With this in mind, it will be of immense help if you will gather and assemble all the information and evidence possible as to the original appearance of Pipe Spring and the surrounding gardens, orchards, fences, fields, outbuildings, etc.¹²⁰⁶

Acting Supervisor of Historic Sites Herbert E. Kahler wrote Tillotson a few weeks later regarding Franke's proposal and Tillotson's response. In order that the interpretive

program be historically sound, Kahler recommended that a historical base map, an interpretive statement, and a detailed historical narrative be prepared and included in the next edition of the monument's master plan. 1207 Oddly, no one raised the question of water and how much would be needed to sustain an operation of the kind Franke was proposing.

At Franke's suggestion, Cornell held certain development plans in abeyance, "pending an investigation which may or may not lead to the inclusion of such features of historical significance as orchard, garden, hitching posts, rail fence and the like."1208 Franke, on the other hand, set about gathering (with Heaton's assistance) whatever historical information could be found on Pipe Spring's history. This effort included contacting anyone who could be found who had old ties to the site and interviewing them for information, particularly about early agricultural operations



87. Charles J. Smith, superintendent of Zion National Park from 1943 to 1952, undated (Courtesy Zion National Park, neg. 4287)

and the appearance of the landscape. This information was then forwarded to Park Service temporary headquarters in Chicago where it was passed on to the Branch of Historic Sites and Buildings for its use in the preparation of a historic outline.

Meanwhile, everyday life at the monument in the early war years went on. In the fall of 1942, Heaton took extended sick leave from October 6 until early November to undergo surgery. During this time his wife Edna was in charge of the monument. On October 24 the monument's trash dump caught on fire. On October 24 the monument's trash dump caught on fire. On October 24 the monument's trash dump caught on fire. On October 24 the monument's trash dump caught on fire. On October 24 the monument's trash dump caught on fire. On October 24 the monument's trash dump caught on fire. On October 24 the monument's trash dump caught on fire. On October 24 the monument's trash dump caught on fire. October 24 the mon trash dump caught on fire. October 24 the monument's trash dump

The monument received some good publicity with the publication of Jonreed Lauritzen's article, "Pipe Spring, A Monument to Pioneers" in the February 1943 issue of *Arizona Highways*. Lauritzen was a resident of Short Creek, Arizona, and the son of Short Creek's founder, Jacob Lauritzen. He obtained his dates and other facts used in the article from Leonard Heaton in May 1942. When they viewed the old fort at Pipe Springs, Lauritzen assured his readers, visitors would "think of men and the struggle they had to bring this wilderness under control." The monument "in its homely strength and simple dignity typifies the life and character of the early Mormon," the author wrote, a view shared by other descendents of 19th century Mormon settlers.

On June 13, 1943, Heaton learned that Franke was being transferred from Zion National Park to Grand Teton National Park. (Franke would return to Zion in 1952 to superintend it for the remainder of the decade.) While making a supply run to Zion a few days later, he learned Franke's replacement was to be Charles J. Smith, previously superintendent of Grand Teton National Park. Heaton met Smith and Assistant Superintendent Dorr G. Yeager at the end of the month when he returned to Zion for supplies. He wrote in his diary that night, "Both fine men and believe we will get along just fine." 1214 It would soon be made clear to Heaton that the new superintendent and his assistant intended to run a very tight ship.

During June and July 1943, Heaton hauled rock (probably from Bullrush Wash) and laid a rock floor in "Garage No. 2." The following year, he returned from Zion with an old gasoline-powered Delco light plant, which he set up in the garage. As the old monument truck seemed to be in constant need of repair, Heaton needed this lighted workspace. When he was unable to find and fix the problem, he took the truck to Zion mechanics; if it wasn't driveable, the park mechanic came to the monument. During the summer, the monument's custodian and regional office officials reviewed plans for the monument's public contact and comfort station. 1215 The building was to serve as the public contact station and custodian's office, and to provide public restrooms. Officials had long wanted to end any use of the fort, whether for living or office space, so that it could be converted into a house museum. The need for a modern comfort station was equally important, as old pit toilets were still in use at the monument. While the regional office approved the plans, concerns were expressed that the proposed building lacked room for exhibit space. 1216 The reason this building was never built, however, is the same reason the custodian's residence was not constructed: lack of funding.

In early 1944 Heaton lamented in his journal, "My hardest task on the monument [is] to tell where letters should be filed." ¹²¹⁷ That March Zion's Chief Clerk Carl Walker and an assistant spent a day inspecting Heaton's official files. The filing system must have left something to be desired by Park Service standards, for all of the monument's files were taken back to Zion to be organized. When Heaton picked them up from Zion a month later, he reported that the files were "...all arranged as they ought to be. Now if I can keep them up to date and in order." ¹²¹⁸ Office work was never a job the custodian enjoyed doing.

During the spring of 1944, Heaton laid 180 feet of two-inch irrigation pipeline from a point 200 feet east of the ponds to the north side of the campground. This was done to reduce water loss from the campground's open irrigation ditches. In July 1944 Heaton received a visit from Assistant Superintendent Yeager and Chief Ranger Fred C. Fagergren. The men brought along fire fighting equipment for the monument. Fagergren conducted the first official fire inspection ever made at the monument, Heaton later wrote. Fagergren identified several fire hazards, which Heaton worked to address soon after the men's departure. During the summer of 1944, an attempt was made to develop a combined departmental fire crew to be made up of men from the Grazing Service, Indian Service, and Park Service. Pas a precautionary measure, Heaton taught some of his family members how to use the fire fighting equipment on grass fires. "[I] want to hold several more classes 'til all know how to use [the equipment] and what to do in case of fire." 1220

Heaton always left family members in charge of the monument when he traveled to Zion or during short periods of leave from the monument. He took longer stints to work on the family farm in Alton, Utah. 1221 On those occasions, he was home in the evenings, but during the day his wife and older children tended to the needs of monument visitors. Heaton reported being in Alton from August 15-25, 1945, doing farm work. "During this time some members of the family were here at the monument and they seemed to carry on about as well looking out for the monument interests as if I were here," he reported to headquarters. 1222 Like earlier Southwestern Monuments officials, Zion officials apparently had no problem with this arrangement, partly because visitation was so low during the war years and partly because it saved Zion the trouble and expense of finding a replacement for Heaton. Of course, neither Edna nor the children were ever *paid* for rendering such services. Edna Heaton had been "filling in" on a regular basis for Leonard since his appointment in 1926. As their children grew up on the monument, they too were recruited for monument work, according to their age and abilities. 1223

The war in Europe formally ended on May 8, 1945, while Japanese surrender terms were signed on September 9, 1945. Between those two events, in July 1945, Heaton began to write a detailed history of the monument "as I have it in my head.... I thought I should get what I can remember on paper. Should I leave the place, there will be a record for the next fellow." 1224 This work went very slowly, usually only a page or two at a sitting. Heaton was still working on the project over a year later. 1225

Wartime Visitation

Fort visitation for fiscal year (FY) 1942 was the lowest ever in the monument's history - only 372 people - compared with 1,259 visitors the previous fiscal year. After gas rationing went into effect during the fall of 1942, visitation to Pipe Spring National Monument continued to drop. Only eight visitors came in October and only four in November 1942. 1226 In December travel figures were boosted to 20 by a visit of 12 men of the U.S. Army Corps of Engineers sent to the area to begin removal of the two CCC camps at Fredonia and in Antelope Valley, Camp G-173. (Demolition of the Short Creek camp did not begin until May 1943.) These pitifully low figures would never be revealed

by the director's annual report to the Secretary of the Interior for FY 1943, for on October 1, 1942, park units were instructed by Director Drury to begin a new system of counting visitors.¹²²⁷ Whereas up to this time Heaton had based visitation figures on those who came to what he called the "fort museum," under the new system he was to count all travelers using the monument road during daylight hours, whether or not they stopped.

The consequence of adopting this new system was that the travel figures for Pipe Spring for FY 1943 were so inflated that they are virtually meaningless. Heaton reported in March 1943 that about 97 percent of the cars that passed through the monument were local people going to and from their ranches or to nearby towns, yet these would have been counted in annual travel totals. A crew of 15 soldiers involved in the removal of Camp G-173 passed through the monument every day to go back and forth to work, thus Heaton was required to report travel of 338 soldiers to the monument that month. At the end of FY 1943, "official" travel for the monument was 6,310, compared to 372 for 1942. In August 1943 Heaton was directed by Zion officials to return to the old method of counting for FY 1944. Pipe Spring received 515 visitors that year. The last war year (FY 1945) visitation to the monument was 635. 1230

Gas rationing was lifted during the summer of 1945. Heaton was dismayed to report the following: "There has not been any noticeable increase in the travel here since the rationing of gas was lifted. The majority of the travel has been parties in the campground or to swim in the meadow pond.... a total of 54 people at the monument for the month of August." Heaton was encouraged the following month when he received 152 visitors. Visitation for FY 1946 increased to 1,193.

Weathering the Infirmary and Other Cold Places

The Heatons experienced first hand the drawbacks of inhabiting a CCC building over the winter of 1941-1942. Heaton reported to headquarters "that it is so hard to heat and keep warm during windy days. The wind comes in one side of the building and the heat all goes out the other, even though the stoves consume 100 to 150 pounds of coal and wood daily. (Thanks to the old CCC coal pile, by screening, we get enough to keep warm in the living room and kitchen.)"1232 The many cracks in the board-and-batten frame building - never designed nor constructed to be a permanent structure - let in as much cold as they let out heat. Fortunately for the Heatons, the closure of nearby camps resulted in the family having an additional supply of coal. In February 1943 Heaton built a coal bin to store coal picked up from the abandoned Fredonia camp. He placed the bin on the south side of the willow patch in an "old concrete and rock washing spot, built by the ECW when the camp was here..."1233 In September 1944 he picked up an additional five to seven tons of good stoker and large coal from one of the camps - enough, he estimated, to last about a year. By the fall of 1945, he ran out of salvage coal and had to start making trips to the coal mine in Alton several times a month to buy coal.

The coal not only heated the residence but also took some of the chill off of Heaton's drafty office in the fort. Working in his office a few days before Christmas 1943, he reported "...trying to keep warm with the little 2 x 4 heater. Have to stuff wood and coal

into it about every 15 or 20 minutes to keep the room warm enough to keep from getting cold. Feet always cold. Floor is rock and a bit damp most of the time." Poor Heaton had nowhere to get warm. Even the old monument truck had no heater in it, making winter trips to Zion an unpleasant affair. In January 1944 Heaton went to Zion for supplies in the pickup, writing later that the long trip was "one of the coldest rides I have had since about 1924 or "25." In December 1945 Heaton worked in the office filing papers and studying reports. He wrote, "Very hard to keep the place warm. Have to get up every five or ten minutes to stuff the stove with fuel to keep the chill out of the room. Still one's feet are always cold." 1236

The warmth of springtime was thus always welcome at the monument. By the spring of 1942, however, the Heatons could no longer stand the bare look of the old CCC infirmary's landscape. In early April Heaton transplanted lawn grass from Moccasin to the front of the family's quarters. The following spring he planted trees around the residence to create a windbreak. That fall, with no hope of a new residence being built, Heaton wrote, "...since it looks like it will be several years before a new residence building will get put up, I am going to improve the grounds around the residence building we live in now, plant lawns, trees, and shrubbery." The grass earlier transplanted from Moccasin apparently didn't transplant well, for in November, Heaton wrote in his journal, "Want to plant some lawn early next spring to make the place look like a home rather than a shack. [For] 18 years I and the wife have been at the monument without decent outside grounds and I am going to change this condition if possible." For a Mormon couple used to the well-irrigated surroundings of Moccasin, the natural desert vegetation of the monument (or at least what little of it remained) must have appeared terribly unattractive.

In May 1944 Heaton was informed that Zion had received a \$50 allotment for repairs to his quarters. In June 1944 Heaton went to Bullrush Wash for a load of flagstone rock to lay a path to his residence. In mid-month he excavated a new cesspool north of his quarters. He then filled in the old cesspool northeast of the residence and leveled ground in preparation for planting a lawn over it. During the war years, a number of cesspools associated with Camp DG-44 had caved in. Heaton filled these in with dirt.

Flood Problems

Floods continued to be a problem in the area, as they had been for many years. On August 9, 1942, the second most destructive flood in two years occurred in Moccasin. Crops and fields were covered with two feet of sand and water during the 40-minute storm. No significant damage was incurred at the monument. It was only a matter of time, however. In February 1943 Heaton cleaned out the diversion ditch north of the culverts while observing, "A lot of work needs doing at the upper end of the wash to keep the floodwater from running over and down through the parking area and campgrounds." That month he and his sons hauled seven truckloads of sand from the diversion ditch into the wash to cover up trash and debris.

On August 29, 1943, a flash flood in Two Mile Wash resulted in flooding on the monument, which damaged roads, the campground area, and fencing. 1240 Floodwater even

flowed into the cellar, garage, and over the Heatons' "victory garden." Floods also caused damage in Moccasin and along area roads. "This was the worst flood at the monument for some 10 or 12 years. I think it will take me 4 to 6 weeks to get everything back into shape and fixed up," wrote Heaton. The following day he made a detailed report of flood damages and listed the work required to make repairs, estimating between two and three months of labor. On August 31 Smith and Yeager visited the monument to inspect flood damages. After spending several months cleaning up the mess, Heaton borrowed a tractor and scraper from Grant Heaton to level and fill in around the residence to divert floodwater around from it and away from the cellar.

Near the end of 1944, Heaton contacted Reservation Agent Parven Church and asked if he could create a diversion for flood water at the northeast corner of the monument so that in case of heavy rains the water would run to the east of the monument instead of through it. Then, in late January 1945, Heaton modified the wash as proposed to Church, using a tractor to create the new channel. "Will help considerably in keeping the flood wash through the monument free of sand," he wrote. 1242 A few days later Heaton turned another drainage wash just north of the monument.

Museum Collection

Zion National Park officials dispensed more than advice to Pipe Spring National Monument the first year it oversaw the site. By December 1942 the park had loaned Pipe Spring a large collection of pioneer-era antiques from their collection. Custodian Heaton spent much of the winter cleaning and repairing artifacts, and trying to decide how and where to best display them in the fort. Heaton wrote in his journal that winter, "Worked in the fort most all day... taking care of relics, fixing them up. Having a tough problem deciding just what to do with all the pieces of museum articles. Need some display cases, shelves, and tables. Am starting on plans I would like seen put through to exhibit these articles." 1243

During December 1942 Heaton was given an Indian skull found in a dry wash bed some 10 miles southwest of the monument by L. J. ("Ren") Brown and Grant Heaton. Just the top part of the misshapen skull was intact. Heaton speculated that its original owner had been hit a hard jolt in the left temple, probably causing death. 1244 This may have been the skull that several Kaibab Paiute women elders reported in recent interviews having seen (and being frightened by) in the fort as young children. 1245

In September 1943 Zion staff made an official inventory of monument property. Heaton later wrote in his journal that this was the first property inspection the monument had ever had in all the years he had been there. Yeager also did some rearranging of museum articles and made recommendations to Heaton on how to improve the exhibits. I246 Zion staff also spent time this year assisting Heaton in rearranging the filing system and in advising him on clerical procedures.

In early May 1945, Heaton obtained the donation of an important collection of pioneer artifacts from Glendale, Utah. 1247 These once belonged to Bishop John Hopkins, carpenter

and blacksmith at Pipe Spring during the fort's original construction. Heaton had obtained part of this collection from Alvin Black in late 1941. He picked up additional artifacts on May 3, including many more tools. The following October, Heaton received a request from Mr. Black's daughter, Mrs. D. A. Smith of Glendale, that he return her father's carpenter and blacksmith tools. Heaton consulted with James Esplin in Glendale and was told that since the deal had been closed for some time, that Heaton was under no obligation to return them to Smith. The artifacts remained in the monument's collection.

Significant progress was made during the war years toward researching the monument's history and developing a furnishings plan for the fort (see "Interpretation" section).

The Ponds and Fish Culture

In April 1942 Heaton reported cleaning the fort ponds, an arduous job that took one man 8-10 days. He described the process: "shoveling [muck] into a wheelbarrow, wheeling it out up a runway and dumping [it] into the truck.... hauling the muck off and then scraping it out of the truck..." The ponds were then refilled by the monument's main spring. Heaton wrote that it "took about 50 hours to fill the 2 ponds" with water. It had taken 60 hours in 1933, he recalled. Heaton attributed the difference to the "new spring uncovered in 1941" at the fort's northeast corner. The custodian calculated this was the fourth time the ponds had been cleaned out since the monument's establishment. The first times were in 1926 and in 1930 (both times with the help of a horse team instead of a truck), and the third time was in 1937 (with the help of CCC labor). Heaton was finished with the 1942 cleaning, only 10 trout remained in the west pond; several hundred carp were in the east pond, most from 1.5 to 5 inches long. The two largest carp (more than 16 years old) weighed 15 and 17 pounds, Heaton reported. He put those in the meadow pond.

In August 1943 Heaton took four of his sons to pick up trout at the Utah State Fish Hatchery in Panguitch. He got 1,900 rainbow trout, about 3.5 inches long, and planted them in the two fort ponds. 1251 Prior to putting them in the ponds, he screened the pond outlets so the trout could not get out through them. In the spring of 1944, Heaton tried an experiment to reduce the usual fish loss associated with cleanings. He cleaned out the ponds in sections, reporting, "I am only doing part at a time as once I killed all the trout in one pond by cleaning it all out in one day." 1252 During the summer of 1944, Heaton reported, "Caught 2 little Indian boys fishing in the ponds by the fort this evening." 1253 (Apparently, Heaton only allowed this privilege to Park Service officials, like Harry Langley.) In May 1945 the custodian reported a number of fish died of unknown causes. "I am of the opinion that another planting of a 1,000 or 1,300 could be made this year," he later wrote, but there are no reports of the ponds being restocked with trout again until 1963. 1254

Leaving Their Mark

In May 1944 Heaton reported, "The other day my boys found some initials on some rocks... also pictures of trees, and one horse head, [and] other paint writings. Am not sure as to just what it is. Will make a more thorough study later. More Indian picture graphs

were also found on ledges west of monument. These were of human figures as well as snakes and bear tracks."¹²⁵⁵ The first group Heaton refers to were located about one-quarter mile northwest of the monument "in a heart-shaped canyon."¹²⁵⁶ The "picture graphs" reported west of the monument were located approximately 300-400 yards west of the boundary. From time to time, Heaton would take small groups to see the Powell survey marker monument, which was on reservation land.¹²⁵⁷ Now, with the "discovery" of the Indian petroglyphs, he added a walk to Heart Canyon (also on the reservation) to take visitors to see the drawings as well.

The following year Heaton learned that this ancient Indian art form was being kept alive (albeit in a more popularized form) by Kaibab Paiute children. On May 16, 1945, the fort gates were defaced by a group of them. 1258 "Made a copy of names and initials left by Indian children on the fort." The names belonged to F. Jake, Bill Tom, Elouise Drye, E. Sampson, K. Mcartes, Charlie Chassis, and Warren Mayo." 1259 The east big gates had names, initials, dates, and drawings (such as a heart), scratched on with either plaster, sticks, and/or rocks, thought Heaton. The office door on the south of the building had pencilled graffiti on it. The lower half of east gate and office door were "pretty well covered," wrote Heaton. Some time later he spoke to Parven Church about the Indian children leaving their names on the fort. Church told him he would try to have the children come down and remove their names.

The Stockmen's Two-acre "Reserve"

In 1943 Zion officials requested details from Heaton about the acreage and cost of land acquired for the monument, and asked for tax information. Yeager asked Heaton to provide the information, and in doing so, Heaton revealed quite a surprise:

The acreage of Pipe Spring National Monument under the original transfer to the National Park Service was 38 acres and the cost of the land, water and buildings subscribed to by private persons and concerns was \$5,000.... Two acres of land in the southwest corner of the monument, or the 40 acres, to be used as a place to handle cattle and the big corrals on the east side of the area. These corrals were moved on the east half of the two acres reserved by the stockmen in 1935, and have been in use since that date. I am not familiar with the status of the two acres at the present time tho' I have heard some of the stockmen say they still own them. 1261

This was certainly news to the Park Service, for the monument comprised 40 acres, not 38! In February 1945 Heaton wrote in his journal that he tried to get information from his father on the lease of two acres of the southwest corner of the monument to cattlemen. He copied letters and sent them to Zion as per their request, but no copies of that correspondence have been located. The answer to the mystery of these two acres would be revealed 26 years later, in 1969. (See "General Historical Research and Publications" section, Part X.)

Area Roads

Indian Service work on a section of the road from Fredonia continued in early 1942. The Indian Service began construction of a new road from a point 100 yards east of the monument to a point about six miles east toward Fredonia. Its alignment did not follow the Bureau of Public Roads (BPR) survey made in 1937 and some of the grades appeared overly steep to Heaton. The work was to be completed in two months. Heaton alerted Southwestern Monuments, sending a sketch map of the road's location. That office in turn alerted Superintendent Franke at Zion. Landscape Architect Al Kuehl opined the proposed location was in the general location of the BPR survey and had no objection to it. (It is presumed the work was completed.)

The Indian Service had no interest either in building or maintaining any road west of the cutoff to Kaibab Village. The dirt road toward Kaibab Village was not improved to the level of the road from Fredonia (it was not graveled) but was sporadically maintained by the Indian Service. Very little if any work was done on the road from Pipe Spring westward during the war years, and this was by far the worst section of the Hurricane-Fredonia route, as it had been prior to 1941. Heaton reported that in July 1943 the road from Pipe Spring to the Utah state line was in very poor and dangerous condition. Beyond the state line in Utah the road conditions improved. Washington County officials maintained that section of road to Zion. Apparently little attention had been paid to the section, either the portion which lay within and was maintained by the reservation or the larger stretch of road to the Utah state line which was the responsibility of Mohave County road crews to maintain.

In May 1943 the regional office in Santa Fe submitted two road-related project proposals in the monument's project construction program. One was to relocate the monument road (State Highway 40) to a location outside the monument boundary; the other was to construct a road from the relocated road to the monument's east boundary. It was noted in the proposals that there was no authorization for the expenditure of funds on lands administered by the Office of Indian Affairs, unless the roads were officially designated as approach roads. The two proposed routes were subsequently not recommended for designation as approach roads, so the proposals were eliminated from the program. Then in July the regional office proposed to combine both proposals into one as the "West Approach Road," hoping that this move would facilitate getting it designated as an approach road.¹²⁶³

The relocation of the monument road was too important an issue to let drop, particularly at a time when development plans for the monument were being finalized. How could Superintendent Smith's vision of a "living ranch" be realized with a highway cutting a swathe through the tiny monument? How could any of the fort's historic setting be recreated with the highway passing right in front of it? Assistant Director Tolson wrote to the Commissioner of Indian Affairs in 1943 that such traffic conditions were "very disturbing to visitors." Tolson informed the commissioner of the Park Service's plans to relocate the road outside the monument on reservation lands. If the plan met the approval of the Office of Indian Affairs, Tolson said the Park Service would request its

designation as an approach road for construction after the war. In response, the Office of Indian Affairs asked for a detailed map showing the proposed location of the road tied in with legal subdivisions (Tolson had sent only a rough sketch map). Upon receipt of the map, they intended to take the matter up with the superintendent of the Kaibab Indian Reservation. Tolson sent back the same map he had sent earlier with only township and range data and section lines imposed on it. "We are not in a position at this time to have more detailed engineering data obtained in the field," he wrote, adding that this work could be done only after the route was designated as an approach road. 1265 It appears that no further action was taken on the relocation of the road during the war years.

In April 1945 Heaton reported improvements in approach road maintenance. That month the Indian Service worked on the road east of Pipe Spring, and Mohave County crews worked west to Short Creek. The whole of the approach road was finally in good condition, Heaton reported. 1266 But good roads could change to impassable roads in a matter of days in the region. Frequent maintenance was required, given the low standard of the area's roads to begin with. By October 1945 Heaton reported rainstorms had made the roads very rough. Neither the Indian Service nor Mohave or Washington counties had done anything to improve them, he advised Zion officials.

The maintenance of roads on the monument itself was an ongoing activity, with the primary road requiring frequent regrading and graveling. The gravel pit was located 6.5 miles east of the monument and gravel was purchased from the reservation. 1267 A typical application on the monument road took about 20 truckloads of gravel. It was hard work but - as was so often the case - Heaton drew on the familial labor pool. On October 20, 1943, he wrote, "...got two loads of gravel and graded the roads using my 13-year-old boy as truck driver while I ran the grader." 1268 In addition to gravel, Heaton sometimes used coal screenings to surface the monument road. Heaton screened out the larger pieces to burn in the residence and fort office then spread the residual coal dust on the road.

Water Issues

Water issues once again emerged during the war years to challenge Park Service officials and lawyers. In early March 1942, Indian Service representatives Alma Pratt and Parven Church visited the monument to investigate the water situation. The men objected to a pipeline that carried water to the campground, hydrants, water trough, and residence directly from the springs without passing through the division weir. It was later determined by Franke why this was so. Apparently, while the CCC camp was at the monument, culinary water requirements had dictated that the Army take the water directly from the spring to eliminate the possibility of contamination. The Army had thus installed their own connection prior to the water entering the fort ponds. Some time after Camp DG-44 left Pipe Spring, Heaton connected up his main supply line to this same place. Heaton most likely did this for the same reasons as the Army, to have a clean source of water, thereby reducing the threat of typhoid in the family. It is unknown if this was authorized or sanctioned by Park Service officials. It certainly saved the Park Service from having to provide a chlorinating system for the Heatons' culinary water.

Heaton's arrangement meant that only the monument's open ditch irrigation system was being provided from pond water that passed through the division weir installed in 1934. Heaton was diverting all other water being used for Park Service needs prior to the division weir. 1269 If Heaton was aware this was a breach of the 1933 agreement, there is no indication of it in the records he left behind. The Indian Service's later discovery of this practice, however, reinforced their long-standing view that the extended Heaton family wasn't to be trusted when it came to water issues. 1270 It is hardly surprising then that the Indian Service officials were upset. The Indian Service had no intention of letting Heaton's modified system of water distribution and use of water at the monument go unchallenged. 1271

As serious as the situation was, this was not the only concern the Indian Service had at the time, however. The Park Service and Indian Service agreement in October 1940 to construct a road through the southern part of the monument and the adjoining portion of the reservation (discussed in Part V) would impact the Tribe's pipeline from Pipe Spring, as well as the associated reservoir and gardens. As these were located at the monument's southeast corner, the road relocation would have required abandonment of that area. Indian Service officials were looking at the possibility of piping the Indians' share of Pipe Spring water through the stockmen's pipeline which, after all, the Tribe had paid for and installed. If this was done, they would then move their gardens to the location a mile south of the monument boundary where the stockmen's water had been piped since the summer of 1934. 1272 It is unknown whether or not the Indian Service also contemplated a change in their eight-year-old arrangement with the stockmen. Fortunately, since neither money nor labor were available during the war years to construct the road, the arrangement southeast of the monument remained the same for many more years.

In mid-March 1942, the Indian Service's Superintendent C. C. Wright (administrator over Indians in southern Utah) traveled to the reservation to continue the discussions begun by Pratt and Church. Wright asked Heaton what correspondence he had in his files on the subject of the water division. Heaton later wrote in his journal, "I am afraid they are going to attempt a change in the setup here at the Monument that the Park Service will oppose pretty strongly." 1273 Heaton began to read through all the old correspondence he had on the water issue. In late March, during an inspection visit to the monument, Franke directed Heaton to avoid bringing up the water question with Indian Service representatives (to "not open up old wounds") until more information on what they wanted was known. 1274 In early April Franke requested any data that Southwestern Monuments had on water issues; the "Water Problems" file was immediately sent to him.

A ruling during the summer of 1942 by Acting Solicitor W. H. Flanery led to the reopening of discussions concerning Pipe Spring water rights among Park Service officials. In February 1943 Hydraulic Engineer A. van V. Dunn wrote Attorney Albert L. Johnson (both Park Service, Water Rights Section, San Francisco) a memorandum that not only describes important aspects of the problem not previously referenced in other reviewed documents, but also provides an excellent summary of events surrounding the

monument's water issue up to 1943. For these reasons, Dunn's memorandum is quoted in its entirety below.

This is to suggest that the water rights at Pipe Spring National Monument may need reconsideration.

We prepared to make a formal appropriation of these springs during 1937. By letter of March 12 of that year the Assistant Commissioner of Indian Affairs objected, or at least refused to concur in the Director's plan to authorize us to file a claim in Arizona.

The Indian Service was then in court to define its water rights in the Walker River Reservation, although the Commissioner did not so state, and the Park Service filing to include use for the Indians at Pipe Spring might have had disastrous effects. Since then, the Walker River case has been settled to the satisfaction of the Indian Service. However, I am not sure that the Walker River case gave the Indian Service any claim to rights at Pipe Spring, and I am quite certain that it did not provide any protection of the claims of the United States or the local stockmen.

On April 17, 1916, the area within one-fourth mile of the springs was proclaimed Public Water Reserve No. 34. The whole township was withdrawn on July 17, 1917, for the Kaibab Indians, and an adjusted interpretation of the water reserve was made by the Secretary on May 31, 1922. On March 3, 1920, Charles C. Heaton and the Pipe Spring [Land and] Live Stock Company filed application to locate Valentine scrip on the SE? SE? Sec. 17, which is the monument, and nominally also the water reserve since the springs are near the center thereof. This was rejected as being in conflict with the withdrawals, but a letter from the director to President [Heber J.] Grant of the Mormon Church, of Oct. 29, 1924, advises that the Secretary had just accepted a quitclaim deed from Mr. Heaton to cover the area. The area was proclaimed a national monument in 1923. By 1933 the local stockmen and Park Service were so dissatisfied with the meager amount of water they obtained after the Indian Service made its diversions that it became necessary for the Assistant Secretary to issue regulations to divide the water equally three ways. By decision approved June 15, 1942, Acting Solicitor W. H. Flanery ruled that water reserves were void when superseded by national parks or monuments. 1275

All of this suggests that if past correspondence and proclamations are intended to show Park Service water rights protected, the protection was supposed to be under the water reserve. However, the ruling of June 15, 1942, seems to nullify the basis for earlier contentions.

The present Arizona water code took effect in 1919. Any use initiated by individuals before that date are vested. On this basis, the stockmen and Indian Service might have vested rights, but the Park Service does not unless by the quitclaim deed to the United States from Charles C. Heaton in 1924.

In past correspondence the point has been brought up that no appropriation might be needed if the natural stream flow did not leave the Park Service area. This seems to need interpretation. A spring does not have to be formally appropriated in Arizona if its flow does not leave the claimant's land. On this basis, it would not have to be appropriated even if it left the monument area if it did not further leave the Indian and other adjacent federal land.

If you look at this Arizona statute from the practical side it says you do not have to file on a spring to which others do not have access because those others cannot introduce conflicts without your consent by providing access. At Pipe Springs the private access has been provided by a pipeline, a tri-party agreement and regulations by the Assistant Secretary. The stockmen may have a perfected vested right now, and if not, there seems to be nothing to prevent them from perfecting one by filing and proof unless there are implied bans in the agreement and regulations. Since the regulations seem to be based on the existence of a water reserve, they may not have any standing at this time. In that case, the agreement is a division of the property of a fourth party, the State of Arizona.

I feel that we should file on one, two, or three thirds of the flow to get title from the State for ourselves, and for the stockmen and Indians if necessary. If we file on all, we can state in the claim that the United States does not waive any rights which may accrue from past reserves or vested rights. We can also specify that the filing is merely to strengthen the tri-party agreement. 1276

At Dunn's request, Johnson transmitted the above memorandum to the regional office on March 4, 1943. Dunn was planning to be in Santa Fe on March 9 and wanted officials there to have time to think over the matter before his arrival. Johnson wrote to Regional Director Tillotson that the decision to abandon the Park Service's plan to file on the springs in 1937 had been explained by Associate Director Arthur B. Demaray in a letter of May 21, 1937. Johnson wrote,

Now Mr. Dunn sees a chance for revival on the theory of the opinion of Acting Solicitor Flanery of June 15, 1942, acknowledging the superiority of monument reservations to that of water reserves. [In] Mr. Dunn's memorandum you will note that he says 'the stockmen and Indian Service might have vested rights, but the Park Service does not...' I rather agree with Mr. Demaray in the last page of this memorandum of May 21, 1937, in stating his doubt whether the stockmen could acquire water rights and whether there was any vesting of water rights prior to the enactment of the [Arizona water] code. 1277 I feel that whatever rights are acquired by the Indian Service are acquired for the benefit of the United States, the same as when the Park Service makes an appropriation. 1278

Johnson was willing to proceed with filing if Tillotson or the Park Service chief counsel thought doing so would offer better protection of the Park Service's rights. The regional office sent Dunn's letter to Franke at Zion, advising Johnson they would not take further action without his comments. In addition, Dunn personally discussed the matter with Franke in Salt Lake City. 1279 Franke then wrote the regional office on March 20, 1943, requesting that the Water Rights Section prepare and submit to him "a complete and clear

outline of the problem and its suggested solution."¹²⁸⁰ Franke intended then to take the matter up with local Indian Service officials to see if an agreement could be reached. "If Field agreements are reached by these Interior Department representatives, later difficulties may be avoided," Franke wrote. While on the surface this may have appeared to be a reasonable managerial approach to the problem, Franke's suggestion revealed his utter lack of familiarity with the complexity of water issues at Pipe Spring and the long-standing enmity between the Indian Service, the stockmen, the Heatons of Moccasin, and the national monument.

In response to Franke's request, A. van V. Dunn prepared a nine-page report that he submitted to Attorney Johnson in April 1943. Dunn's report, which he described as an "analysis of conditions," drew heavily on the 1933 Robert H. Rose report ("Report on Water Resources and Administrative Problems at the Pipe Spring National Monument") for information. 1282 As previous decisions concerning Pipe Spring water had been made at the highest levels in Washington, D.C., Dunn strongly advised against Franke saying anything to local Indian Service officials or to the stockmen about the possibility of the Park Service filing on Pipe Spring water. A summary of Dunn's analysis follows, accompanied by pertinent excerpts. 1283

It seemed to Dunn that water had been used "fairly continuously" on the monument area since about 1863 while Arizona was still a territory. Any water rights established between 1863 and February 14, 1912 (when Arizona became a state), were in accordance with the territorial water code. Dunn wasn't certain, but thought this code "probably recognized rights based on physical diversion and use without requirements for filing." 1284 A system of county filings had been used in Arizona between 1912 and 1919. "So far as I know, no one had investigated the county records," wrote Dunn, recommending that this be done. 1285 It was unclear to Dunn that Pipe Spring was included in the October 16, 1907, withdrawal of the township for use by the Kaibab Paiute. 1286

If the monument was part of the Indian Reservation the case of Winters et al vs. United States (207 U.S. 564) could easily apply.... It is particularly interesting to note that the Fort Belknap Reservation... was established while Montana was a territory just as the Kaibab Reservation was established while Arizona was in the same status.

If we acknowledge that the Indians acquired a right to waters on their reservation we do not know yet whether the monument was part of this initial reservation or whether the Indians actually used water from Pipe Springs at that time...

...all land within one quarter mile of Pipe Springs was withdrawn as Public Water Reserve No. 34 on April 17, 1916 and [readjusted] on May 31, 1922. This was after Arizona became a State but before it adopted its present water code.

If we accept the Solicitor's opinion of June 15, 1942, to the effect that establishment of national monuments cancels water reserves we can also probably assume that no water reserve would have been necessary in 1916 if the area was

already on Indian Reservation – unless the water reserve was established to limit Indian use in the interest of the white public. At all events, using the Solicitor's opinion of June 15, 1942, would not the withdrawal of 1916 cancel any portion of the Indian Reservation within one-quarter mile of Pipe Springs?¹²⁸⁷

In Dunn's view, the July 17, 1917, withdrawal seemed to cancel out the water reserve, yet the water reserve had been adjusted on May 31, 1922, to cover the area of Pipe Spring (soon to become Pipe Spring National Monument). The fact that the Secretary of the Interior had made the adjustment, however, might be meaningless as it took an executive order of the president of the United States to establish a water reserve. The application filed by Charles C. Heaton and the Pipe Springs Land & Live Stock Company was rejected on April 15, 1920, stated Dunn, "as conflicting with the water withdrawal. Note that this was between the creation of the Indian Reservation in 1917 and the interpretation of the water withdrawal of 1922." The area of Pipe Spring National Monument comprised the east half of the amended water withdrawal of 1922. Its establishment on May 31, 1923, seemed - in Dunn's view - to nullify "any water withdrawal or Indian Reservation covering the same area." 1289

A few important pieces of information are missing from Dunn's account of the history to this point. Charles C. Heaton had appealed the rejection of his application and was denied again on June 6, 1921. As mentioned in Part II of this report, the second rejection came on the same date that Director Stephen T. Mather wrote Office of Indian Affairs Commissioner Charles H. Burke about his interest in making the site a national monument. Then Heaton filed a motion for a rehearing of his land case. It was during this waiting period that the monument was established. (None of the preceding information was in Dunn's report.) When Heaton executed the quitclaim deed to the Pipe Spring property on April 28, 1924, he withdrew his application. "Regardless of past claims," Dunn maintained, the United States government seemed to have clear title to the monument area under the supervision of the Park Service. He continued: "....any water rights existing when the present water code was adopted in 1919 were probably manifest only in use under territorial code. I wonder if the Arizona code of 1919 was subject to vested rights. I think the matter needs further investigation." 1290

It was Dunn's opinion that the tri-party agreement made on June 24, 1924, for the equal division of water between the stockmen, Indian Service, and Park Service was confirmed on November 2, 1933, by the Assistant Secretary Oscar Chapman's signing of the "Regulations for the Division of the Waters of Pipe Spring." Dunn was concerned about the fact that Heaton was allowing some local people access to water at Pipe Spring who were not among the stockmen who signed the 1924 agreement. "There seems to be a potential danger of private appropriation if any of the local people have access to the water," he warned. 1292 A right might be established even if only intermittent access was open to local people.

In addition, the question of whether or not the spring flow ever left the monument or the reservation was a critical one. Water had been impounded and used at Pipe Spring for so

long, Dunn noted, that "No one can now state how far the water would flow under natural conditions, but it is quite possible that it would reach Section 32 at times. If so, the ponds and other local use can be protested unless they are covered by a territorial right or by prescription. I think both may exist." Also, because the stockmen had been piping water off the reservation since 1934, Dunn thought that, under the 1939 water code, the stockmen might perfect a water right to cover their beneficial use, citing two sections of the code to make his case.

Under the 1939 water code, Dunn argued that a person might perfect a water right on the public domain superior to those perfected by a later entry-man, that he might evoke the right of eminent domain (except against the United States) to perfect a right, and the only way to lose it was by five years of non-use. "I wonder if we cannot also state that any use continuing since prior to 1907, 1916, or 1917, is vested and superior to Indian or water reserve claims," he added. If all this was true, cautioned Dunn, then the United States needed to either perfect or protect all its potential rights to the springs. Toward this end, Dunn prepared estimates of water demand by each of the three parties - Park Service, Indian Service, and stockmen. He based his estimates on the output of both tunnel spring and the main spring (what Robert H. Rose identified as two springs, "big spring" and "main spring," but which were in fact one). His calculations showed slight deficits for the Park Service and stockmen, and a considerable surplus for the Indian Service. 1295 According to Dunn's estimates, the Indians had a surplus that exceeded their demands by 25 percent. "Clearly, the Indian Reservation has not made use of more than 65 percent of its one-third of the spring flow since the pipe was installed, unless it hauled water or brought its stock onto the monument," wrote Dunn. 1296 His documentation indicated that Pipe Spring water supplied was then supplying the needs of three Indian families, 100 head of Indian-owned livestock, and a 3.11-acre irrigated garden. The stockmen's demands comprised 13 families and 1,582 head of livestock. The monument's demands included water for the custodian's family, tourists (based on an average year of 3,000), maintenance crew and rangers, 10 families west of the monument, livestock, and the irrigation of 4.39 acres of monument land. 1297

Dunn raised four questions whose answers would bear on the water issue: 1) Do the Indians have the valid right to more water than they now use when they care to divert it? 2) Is the Indian population likely to increase to justify more demand? 3) Would their potential increase in living standards and occupation require more or less water? and 4) Since the Office of Indian Affairs built the pipeline for the stockmen, does the pipeline establish a right-of-way across the monument and reservation land for perpetual access by the stockmen? Dunn argued that if the Park Service could use the Indians' (and possibly the stockmen's) "surplus" water (by his calculations), then additional monument acreage could be irrigated. Instead of the 4.39 acres then being irrigated, somewhere between 6.25 and 8 acres could be watered, he estimated. The "surplus," as Dunn interpreted water law, was unappropriated and therefore subject to appropriation. 1299

Dunn recommended that someone research what the water codes were prior to 1919 and the status of the codes after the Arizona water code of 1919 went into effect. "We should

also find out how the quantity of water in these early rights is now determined."1300 Dunn doubted that the full spring flow was used prior to 1919 on the monument area and Indian Reservation. 1301 If this was the case, then some may have been unappropriated and thus would be subject to appropriation "at the present time." While there was no reason the stockmen couldn't file their own application for water rights, stated Dunn, "this might result in complicated joint interest in pipeline and right-of-way across the federal land. It would seem better for the United States to perfect such rights as are necessary, including those to deliver such water to Section 32 as may be required by present or future agreements." 1302

Dunn could see no reason why the Indian Service and Park Service couldn't arrange proper agreements for full use of the water not needed by the stockmen "and keep State claims as a unit." The tri-party agreement of 1924 had "much the status of a decree," wrote Dunn. However, he wrote,

The meeting at which it was signed was an informal adjudication. We might be able to have it recognized by the State without the use of normal application, permit and license, but it is weak for such recording because it does not show that all potential claimants are parties, and it might fix allocations to the three parties enough to complicate future amendments. 1303

Dunn had been the author of the application drafted in 1937 then set aside by the director. Having noted the Office of Indian Affairs' objections made at the time, he offered several new paragraphs that he felt would address their concerns. He recommended that any final draft of the application should be worked out between Indian Service and Park Service engineers with more complete data.

A week later, in a letter to Regional Director Tillotson, Attorney Johnson seconded Dunn's view that Franke should say nothing to Indian Service representatives until the matter had been placed again before the Park Service director. Johnson had a few points of his own to add to Dunn's analysis of the Pipe Spring water situation. Arizona's constitution of 1910, contained two relevant provisions, he wrote. They were Article 17, Section 1: "The common-law doctrine of riparian water-rights shall not obtain or be of any force or effect in the State;" and Section 2: "All existing rights to the use of any of the waters in the State for all useful or beneficial purposes are hereby recognized and confirmed." He also referenced the case of *Boquillas Co. v. Curtis*. With regard to some of the queries raised by Dunn, Johnson opined that he did not believe the Indian Reservation was affected by the water reserve withdrawal of 1916. With regard to a territorial code, he knew of none, only of general statutes until the time of enactment of the State's 1919 water code. Any change in the June 9, 1924, tri-party agreement, Johnson wrote, would have to be taken up again with the Office of the Secretary of the Interior, as would any change to the 1933 agreement. Johnson concluded,

The [appropriative] procedure seems to be one that should be settled by the Chief Counsel of the National Park Service and the Chief Counsel of the Office of Indian Affairs, particularly considering possible amendments of the interbureau agreement to conform more specifically with actual conditions and to determine the matter of making an appropriation. We suggest, therefore, that in transmitting copies of this report to the Director you include an extra one, which he may present to the Commissioner of Indian Affairs. The other copies are for distribution to the Coordinating Superintendent and the Acting Custodian if you see fit. As a word of caution, however, note that the Acting Custodian is apparently a relative of the Heatons in the local stockmen's association and may, in fact, have a partial interest in the association...

I suggest that the entire matter be referred to the Director and the Chief Counsel for declaration of policy. 1306

On May 22, 1943, the director's office put the matter of a federal filing on Pipe Spring waters once again to rest. The tri-party agreement was meeting the monuments needs, Assistant Director Tolson wrote in a memorandum to Tillotson, and the other two parties appeared satisfied with the arrangement.

While Mr. Dunn has suggested there is a potential danger of appropriation by private interests, no evidence has been submitted indicating that any such action is imminent.

In the circumstances, we consider it inadvisable to initiate any action affecting the present arrangement. 1307

Park Service officials apparently felt safest letting sleeping dogs lie. For the moment, so did everyone else.

The Indian Service, however, was always on guard for any possible action taken by the Park Service that would impact water use on the monument. They knew Park Service officials wanted to revive the monument's development program as soon as possible after the war's end. Indian Service representatives believed that some of the original pre-war proposals could potentially impact the Tribe's water supply. In October 1945 Heaton got a phone call from Parven Church and another Indian Service official. The two men had been going over old Park Service proposals dating back to the CCC era and asked Heaton about the water tank that had been proposed at one time to go on the hill above the fort. Such a development would require a renegotiation of the water agreement, they intimated to the monument's custodian. Heaton told them that those were early plans, which had been abandoned as far as he knew. Nothing had taken place in developing a water system that required a change in the agreement, he told them. 1308 This was quite true. While the monument had finally gotten a sewer system (thanks to the initial efforts of CCC crews and later Leonard Heaton), its water system had yet to be developed. As things turned out, the Indian Service had little reason to fear that development would immediately impact water use at the monument, for none took place there for more than another decade.

Interpretation

While the war years called an abrupt halt to physical developments at Pipe Spring, efforts to develop the monument's interpretive program continued. After the monument's transfer in February 1942 to Zion National Park, Park Naturalist Russell K. Grater was put in charge of the fort museum's development plan. Southwestern Monuments' Acting Superintendent Charles A. Richey suggested to Superintendent Franke that Grater contact Mrs. George Shields, who had long been "very enthusiastic" over plans to develop a museum at Pipe Spring and who could put him in touch with Church leaders, "whose assistance should be most helpful." George Albert Smith, Trails and Markers Department, Church of Jesus Christ of Latter-day Saints, and Andrew Jensen, Church historian, were listed as important contacts, along with Charles C. Heaton of Moccasin. Richey added,

We hope that this information may be of assistance to Assistant Naturalist Grater in developing a complete museum of Mormon pioneer activities in the Southwest. This is a project which has been close to the hearts of interpreters at Southwestern National Monuments, and we are very glad that a capable man like Assistant Naturalist Grater is in a position to carry forward aggressively this project.¹³¹⁰

In late March 1942, Grater sent a request to Southwestern Monuments asking for copies of any museum development plans that existed for Pipe Spring. The response received from Richey was not encouraging: "No exhibit prospectus or plan has ever been drawn up for Pipe Spring; it is still a virgin." ¹³¹¹

Meanwhile, Senior Archeologist Jesse L. Nusbaum wrote George Albert Smith seeking his review and comment on the first edition of the monument's two-fold leaflet, which had been published without any input from the Church. Nusbaum asked Smith to provide "Church data," such as the origin of the site's name, the time of Bishop Winsor's arrival, the date of the buildings' completion, and to make "any other suggestions that you would like to have considered" in a future edition of the leaflet. Smith replied with information provided by Assistant Church Historian A. Wm. Lund from Church records. In October 1942 Acting Regional Director Milton J. McColm submitted corrections to the Pipe Spring National Monument leaflet to Director Drury. The changes included corrections provided by Church officials the previous February, corroborated by Arthur Woodward's historical research. In the brochure was reprinted in 1943. At the time he received 10,000 copies of the revised leaflet, Heaton still had an estimated 7,000-8,000 copies of the 1941 edition. Not wanting to be wasteful, he continued giving out the 1941 leaflet for the rest of the decade.

Assistant Superintendent Dorr G. Yeager visited the monument on September 15, 1943, to provide assistance to Heaton with the fort exhibits. (Before coming to Zion, Yeager was formerly Assistant Museum Chief, Western Museum Laboratories.) This was Yeager's first visit to Pipe Spring. Up to that time, Yeager later reported to Superintendent Smith, the "spring room" had been used for storage and had not been open or exhibited, although Yeager regarded it as "the focal point of the entire fort." Yeager decided items

pertinent to the site's dairy operations should be displayed in this room - churns, cheese-making equipment, meat grinders, milk pails, several chairs, a table, and a bench. ("While not spectacular, these pieces give authenticity to the room," he reported.¹³¹⁷) Some of the artifacts found unsuitable for the fort display, either because they were in poor repair or were duplicative, were stored in one of the fort's upstairs rooms. Tools, old harnesses, and the like were moved to the "structure below the fort" (the west cabin) which Yeager wanted set up as a workshop exhibit.

Yeager was very enthusiastic about the interpretive potential of the fort:

It is definitely a spot for a historic house museum and I am convinced that with careful planning and additional accessions, it can be made one of the outstanding historic house museums in the west. A large amount of the material is already on hand. More items must be procured in order to round out the exhibits and give a complete picture of the life at the fort in the early days, but we have the basic pieces. ¹³¹⁸

Considering that most of the physical changes made to the fort during the Woolley period of occupation would be reversed by the Park Service in 1959, the following comment by Yeager is noteworthy:

There will be need, eventually, to establish a definite date beyond which we will not go in renovation. After the original structure was built a number of changes such as doors and windows were made. Most of these appear to have been done during the '80s and it is my belief that they are all sufficiently old [enough] to be retained.¹³¹⁹

(The 1880's changes would not be retained. See Part IX, "Historic Buildings, The Fort" section.) Yeager emphasized the need to construct a custodian's office so that "this foreign element" could be removed from the fort, and he commented on plans received from the regional office. After his departure, Heaton diligently carried out Yeager's directives regarding changes in the fort displays. The custodian remarked in his monthly report for September 1943,

... several changes were made in the exhibits of the museum articles at the fort and further work is planned this winter in labeling those that are on display. There is much work to the museum display [needed] before the fort is equipped as it should be to represent the early pioneer life of the 1870s. 1321

The reprinting of the monument's brochure in 1943 resulted in a spirited correspondence between brothers H. E. ("Bert") Woolley and Judge Dilworth ("Dil") Woolley, sons of Edwin Dilworth ("Dee") Woolley, Jr., superintendent of the Church's cattle herds at Pipe Spring in the late 1880s. At the time of the correspondence, Judge Woolley was a lawyer residing in Manti, Utah. H. E. Woolley was employed by the Department of the Interior's General Land Office (GLO). H. E. Woolley's GLO position allowed him access to official records in Washington, D.C., which he used to research the Pipe Spring land title. Judge

Woolley was already in the process of gathering material for a family history when he received the new Pipe Spring brochure from H. E. Woolley in August 1943, along with information on the history of the Pipe Spring title and their father's homestead claim in Upper Kanab. Judge Woolley took exception to some of the information contained in the brochure, including the statement that the fort was constructed directly over the main springs. (In one letter Judge Woolley wrote the main spring was located "about 15 feet outside of the south building" and in another, written less than two weeks later, he stated the spring was "about 30 feet" west of the fort's west gate. (1323) H. E. Woolley later furnished Associate Director Demaray with copies of the brothers' correspondence in hopes the Park Service would use the information when next revising the monument's brochure. The Park Service later forwarded copies of the Woolley correspondence to Leonard Heaton who in turn began corresponding with Judge Woolley. "I surely welcome your letters," Heaton wrote, "as they give me some valuable information that I have wanted to know for along time..." 1324 He went on to write about what he knew of some of the points raised by Woolley.

There was still much work to be done at Pipe Spring in the years ahead. The question "what (and whose) story should be told?" would come up again and again in the decades following World War II.

Part VII - The Calm Before the Cold War

Introduction

The relative quiet that Pipe Spring National Monument experienced during World War II continued for the remainder of the decade. This chapter focuses on the events that took place at the monument from January 1946 to January 1951, when the United States government began aboveground testing of atomic weapons in Arizona's neighboring state of Nevada. While the post-war years are also part of the Cold War era (described in the introduction of Part VIII), impacts of the Cold War would not be directly experienced at Pipe Spring until 1951. The highlights of this period at the monument include completion of the master plan, the installation of the Bishop Hopkins collection in the west cabin, Custodian Leonard Heaton's acquisition of a new truck, and the Kanab celebration of Utah's Centennial (all in 1947); replacement of the fort's kitchen and parlor floors (1948), its big gates (1949), and catwalk (1950); stabilization and repairs to the west cabin (1950); and a community barbecue attended by Arizona Governor Daniel E. Garvey and other officials (also 1950). Also worthy of note were two reservation fires, one in 1948 and the other in 1950. The April 1948 Indian School fire - which Leonard Heaton and Moccasin residents helped to fight - was the far more destructive of the two. Finally, significant improvements were made to the Heatons' residence during 1948, in part to make the temporary structure more livable, but also to accommodate a growing family.

Conspicuously absent from these years is any dispute over Pipe Spring water between the Indian Service, Park Service, and those cattlemen entitled to a share. In the absence of contrary evidence, it can only be presumed that all parties found their needs being sufficiently met by the existing arrangement.

Monument Administration

During the 1940s, Leonard and Edna Heaton's growing children provided increasing assistance to their parents in carrying out everyday chores, both with personal and monument work. One of the more notable aspects of the post-war years, in terms of day-to-day work, was Heaton's frequent references to help given him by his sons. By the second half of the 1940s, six of the boys - Clawson, Dean, Leonard P., Lowell, Sherwin, and Gary - were of sufficient age and size to help him with many routine maintenance tasks and projects around the monument. Heaton reports in his journals during these years that the boys assisted him with the following kinds of work: dragging the monument roads, hauling cedar wood from the area sawmill for campground and residence fuel, cleaning the fort ponds, cutting up dead limbs, painting monument signage, digging up and cleaning out irrigation pipes, hauling and spreading gravel on monument roads and walkways, and other types of maintenance work. 1325 In addition, all but the very youngest children were pressed into guide service for the fort during Leonard's absences. His son Gary was only nine years old when Heaton left him "in charge of the fort" for two days while he took annual leave to tend to his fields in Alton, Utah. 1326 Edna Heaton, of course, would have remained on site when Leonard was away, but had much work of her own to do. In addition to her other domestic responsibilities, she took care of three new children born between 1942 and 1947.

Frequently, Leonard Heaton had to be away from the monument. The custodian was required to make two trips a month to Zion National Park to attend staff meetings. Heaton usually picked up supplies at the same time or had repairs made to the truck or generator. He was also expected to attend certain in-service trainings at Zion. In addition to work-related absences, Heaton often spent holidays and annual leave tending to his wheat farm in Alton. His usual days off were Saturday and Sunday, although this schedule sometimes changed to accommodate increased summer weekend visitation.¹³²⁷ (Heaton preferred having Sunday off to attend church and to perform church service work. 1328) Trips made to get coal in Alton or wood from the area sawmill took him away from the monument, sometimes for the entire day. A typical winter trip to the Alton mine might require waiting in line for four or five hours in an unheated truck, picking up a ton of coal, then having one or more flat tires coming home with the heavy load. 1329 During all these absences - including weekends – Edna Heaton and the older children made themselves available to guide and assist monument visitors. For example, in April 1946 Heaton went to Zion for a five-day fire school, leaving his family in charge. He then took leave to tend his farm in Alton. He wrote after his return, "Back in the job after a week's annual leave. Mrs. Heaton has done a very good job of looking after the monument and visitors have been out."1330 As in the past, all work performed by Heaton's immediate family members during this period was unpaid.

The Challenge of Living in Post-war Rural Arizona

The early post-war era was a time when many homes in cities and small towns were becoming equipped with such conveniences as electric stoves, refrigerators, and washing machines. Rural areas, however, often lacked commercial electricity for such luxuries. While small gasoline-powered electric generators were not uncommon, such as the one used by the Heatons at Pipe Spring, they varied in how much power they could produce. While Kanab had commercial power from the early 1930s, it would be another 27 years before Moccasin residents enjoyed such service. 1331 This wasn't for lack of interest, however. In 1946 the community of Moccasin attempted to get government assistance in bringing electric power to their area by arranging a meeting with a representative of the Rural Electrification Administration (REA). The REA was established by executive order on May 11, 1935, under powers granted President Roosevelt by the Federal Emergency Relief Appropriation Act. Its purpose was to formulate and administer a program of generating and distributing electricity in isolated rural areas that were not served by private utilities. The REA was authorized to lend the entire cost of constructing light and power lines in such areas, on liberal terms of three percent interest, with amortization extended over a 20-year period. The Moccasin REA meeting was held on September 27, 1946. Among its attendees was Leonard Heaton. Heaton wrote later that the government representative at the meeting "felt there was not enough homes or users to justify a new setup at this time..."1332 (Presumably, Kaibab Village did not have electricity either, other than that produced by generators.) In 1949 Heaton reported, "Some REA Government men were out signing up for a power line through this area. Hope we get the power

soon."¹³³³ As with many such hopes, patience on the Arizona Strip was a virtue. Moccasin, Kaibab Village, and Pipe Spring National Monument would not get commercial power until April 1960.

One convenience the Heatons did have was a telephone. On numerous occasions, the Heatons received calls at the monument and communicated urgent messages to their neighbors who didn't have phones. 1334 One other "improvement" came to the monument in 1946: a new product for controlling insect pests called "DDT." 1335 While Leonard Heaton did not entirely abandon his old method of pouring gasoline on ant beds he, like millions of his countrymen, now also sprayed them liberally with DDT. A later caterpillar infestation in the willow patch in the spring of 1949 was also treated several times with DDT. Heaton even found this chemical cocktail to be effective against bedbugs when sprayed on the family beds. (Use of DDT was banned in the U.S. in 1972.)

Being some miles off the beaten track (in this case, U.S. Highway 89), official visitors to the monument often dropped in without warning, usually en route to or from southern Utah parks and the North Rim of the Grand Canyon. As Park Service staff worked to finalize the 1947 master plan and prepared to make use of the "on-the-shelf" drawings executed during the war years, Heaton received numerous unscheduled visits from landscape architects, planners, or other officials stopping by to review development plans or to familiarize themselves with the site. As in earlier years, Heaton was quite embarrassed during such unannounced visits, particularly if he was in the midst of an arduous maintenance project and in dirty work clothes. He would later write in his journal comments like, "Enjoyed their visit very much but wish they would notify me when they were coming in so that I would be somewhat prepared to meet them."1336 Surprise visits by Park Service officials continued to be a bit unsettling to Heaton throughout his tenure at Pipe Spring, for he always wanted them to see the monument - and its custodian - at their very best. At a staff meeting Heaton attended in March 1947, he learned that he would have to get a new uniform that summer and that his efficiency rating would include personal appearance. Heaton became all the more worried about impromptu official visits.

Buffalo Hunts, Rat Roundups, Monstrous Moccasins, and Dinosaur Tracks
Every once in a while, something out of the ordinary would happen in or around Pipe
Spring. On May 1, 1947, Heaton reported two rather unusual events. The first
happened in the sky: "Twenty large planes passed over the monument today. Seventeen
Army 4-engine bombers going south." The second odd happening was on the ground:
"Report came in that a buffalo was seen in Pipe Valley yesterday." Over the next
few days, an exciting chase for the buffalo ensued. Heaton wrote in his journal,
"Arizona State Deputy Game Warden and others are out trying to find the buffalo. [A]
\$30 reward for getting him. Hunt going on in cars, trucks, and planes." 1338

Heaton conducted spontaneous hunts of his own at the monument, although they were for critters much smaller than buffaloes. Despite his continuing to set out poisoned corn and wheat as bait, and his sparing of all monument snakes but rattlers, rats continued to be a problem in the fort and a threat to its antique furnishings. In early August 1947, Heaton

reported to headquarters that a "plague of wood rats moved into the fort and did considerable damage to the woodwork and some museum articles before they were caught and driven out." (He attributed an increase in rodents and rabbits to the widespread killing of coyotes and cats that took place the previous winter.) Heaton referred to this particular incident in his journal as a "rat roundup." No details were offered on how Heaton spoiled the rats' foray into the fort. (Hopefully, the "roundup" offered the custodian a temporary diversion from the mundane office work he abhorred!) Ridding the fort of rodents was to be a never-ending battle however. Heaton reported in October 1950, "Seems every fall we have a moving day from hills and valleys into the fort building of these pests." 1341

On June 12, 1947, the nearby town of Kanab, Utah, celebrated the 100th anniversary of the Mormon immigrants' arrival to the Great Salt Lake Valley. 1342 Heaton was elected chairmen of a committee of Moccasin citizens whose purpose was to plan and construct "a Pipe Spring float" for a parade being held as part of Utah's centennial program. "Plans are now to combine the float, making a moccasin of the bottom of the truck, and [commemorating] the naming of Pipe Springs by Jacob Hamblin's party in 1858," he wrote. 1343 Heaton worked for four days on this project. On the day of the event, Heaton described the results of his committee's efforts:

By 10:30 [a.m.] the float representing Moccasin and Pipe Spring was finished and I drove the truck which paraded up and down Main Street in Kanab 3 times. Some 20 floats were there showing history and life in Kanab Stake area. Our float won honorable mention for its flowers that covered the front and edges. The plan was a canvas moccasin covering the entire truck, with scenery and characters on the back showing the naming of Pipe Springs by Jack [sic] Hamblin and party in 1858. It showed the spring coming out of the rock and meadow, the silk handkerchief and pipe, old guns, camp outfit. Lorenzo Brown as Jacob Hamblin, Leonard P. Heaton as Bill Hamblin, the shooter, and Landell Heaton, a member of the party. During the Centennial Program, Pipe Spring was mentioned a number of times... The street is the street of the party.

Heaton added in his monthly report that boy scouts from the Moccasin troop represented the "early pioneers" on the float.

While not extremely rare, the discovery of human remains in and around the monument was also an event considered out-of-the-ordinary. One such find took place in June 1947, when Heaton's children discovered an Indian burial in the wash south of the monument. "Upon investigation," Heaton reported to headquarters, "it was found that the winds had uncovered the burial of an Indian of several hundred years ago. The children have been instructed not to disturb it as it might prove of some worth to the Monument and early Indian history." ¹³⁴⁶ In July Heaton reported, "Made a trip to where the children found the burial and paint. Part of the head and arm and ribbons exposed and being scattered, so gathered them up and brought them to the fort. Head to the southwest, no artifacts. Noticed a rock at the head, laid out straight." ¹³⁴⁷ (The presence of ribbons in the burial

raises a question as to the accuracy of Heaton's estimate that the burial was made "several hundred years ago.")

In 1949, while local Moccasin residents were excavating clay and gravel on the reservation at a ridge just south of town to make area road repairs, two Indian burials were uncovered. Heaton reported to Superintendent Charles J. Smith that once the burials were recognized they were left alone, "as the older people have been told about the penalty of molesting Indian burials." Two other burials had been found in that area several years earlier, Heaton reported to Smith. "There has [sic] been a number of Indian burials found in and around the town of Moccasin over the past 30 years," he added. "Some pottery was found, most of which is now in the museum here at Pipe Spring National Monument." In March 1950 while Heaton, Assistant Superintendent Art Thomas, and Park Naturalist Merrill V. Walker were looking at "some old Indian relics south of the park," Heaton reported they found yet another burial.

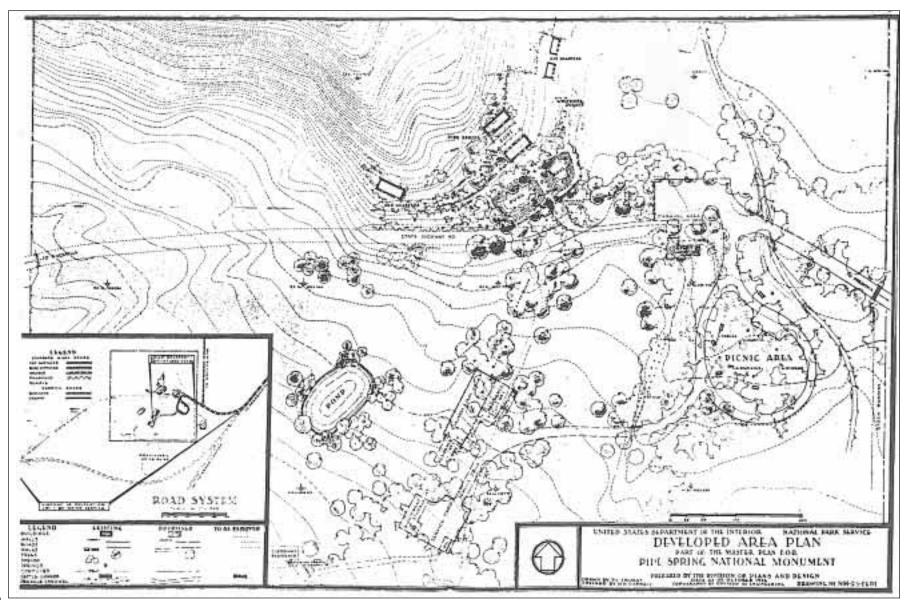
Indian burials were not the only subject of scientific interest during these years. On July 20, 1949, Heaton spent several hours with two visitors, Dr. Edward H. Colbert of the American Museum of Natural History and another man named Von Frank, hunting for dinosaur tracks six miles north of the monument. Heaton later wrote, "Did not find the first tracks but located another set in the canyon west." In October Merrill Walker came over from Zion to look for the tracks with Heaton in the same area. Heaton reported, "Found a number, got one and brought it home.... Walker took some pictures of the track here at the fort. He will write Dr. Colbert over findings." The following summer, Heaton spent time with Dr. Charles L. Camp, a geologist from University of California, looking at the same dinosaur tracks. In addition to paleontological and geological interest in the Pipe Spring area, a number of botanists visited the monument through the years to study the monument's desert plant life, some from the Desert Botanical Garden in Phoenix, Arizona.

Planning and Development

After the war ended, Park Service officials in Washington, D.C., expected increased interest in and visitation to the nation's parks and monuments. In late 1945 Director Newton B. Drury sent out a letter to all park units asking park administrators to answer two questions: 1) What is the national significance of the area I supervise? and 2) How can it be made to provide the greatest service to the nation? To the first question, Custodian Heaton replied that Pipe Spring National Monument "stands for the hardships, trials, sorrows, joys, deaths, battles, and successes the pioneers passed through to establish the rights of free people in the Rocky Mountains and our present civilization." ¹³⁵⁴ It was one of the few western forts constructed for protection of settlers still standing, thus its importance increased through the years, he wrote to the director. To the second question, Heaton opined that the buildings should be restored "to give the visitor a feeling of what the pioneers passed through." ¹³⁵⁵ They should be refurnished with antiques of the period and interpreted by persons well acquainted with the history of the region and the west, a person who also had a sincere desire to serve the public, he added. "Better roads" were also needed, Heaton wrote the director.

The monument still limped along with insufficient funds to fully carry out the goals Heaton described. It was unlikely that money would be found for furnishing the house museum, however, when allocations of the period did not even cover some other basic administrative needs, such as personnel and equipment. During the war years, insufficient allocations for Pipe Spring had required occasional transfers of funds from other areas. When Superintendent Smith submitted his preliminary budget estimates for Pipe Spring National Monument for fiscal year 1948, he pointed out to Regional Director Minor R. Tillotson that the estimate of \$3,924 represented an increase of \$1,723 over fiscal year (FY) 1947. About one-half of the requested budget increase was needed for equipment (a refrigerator for the residence, a new generator, and a two-way radio). Most of the remaining increase was to be used to hire someone to relieve Heaton during his days off and when on official absence from the monument. Smith also wanted to upgrade Heaton's position at an additional cost of \$66 for the year. Apparently, the monument did not get the increased funding requested by Smith either for FY 1948 or for FY 1949, for Edna did not get a refrigerator nor Leonard his raise until 1950; the monument didn't get a two-way radio until 1951; and the Heaton family continued to provide guide service during the custodian's absence until 1953 when a seasonal laborer was hired.

During the fall of 1946, the Western Office, Division of Plans and Design (WODC), collected field data for preparation of the monument's 1947 master plan. Perhaps the most significant change between this plan and the earlier one developed in 1940 was the change in location of the parking area. The 1947 plan called for the parking area to be located directly north of the campground and picnic area and for the old parking area, built south of the fort during the 1930s, to be obliterated. Like the 1940 plan, the 1947 plan called for relocation of the monument road to a point south of the Indian ruins (previously investigated by Jesse Nusbaum and others); all traces of the old road, except for a small section at the east entrance, were to be obliterated. (The one-mile detour section was proposed to be constructed by the Indian Service.) The inadequate slab culvert at the east entrance was to be replaced with a larger concrete box culvert to alleviate flood problems. New buildings proposed included a contact/comfort station, two staff residences ("of Mormon-type stone masonry"), an equipment storage building, and fuel storage house. Additional flagstone walks were proposed to access the historic buildings with the proposed new developments and 18-inch high stone walls were to be constructed in the utility and residential areas. A bituminous-surfaced nature trail was also proposed which would lead to a ridge one-quarter mile northwest of the fort. The plan also called for a restoration of the fort's interior furnishings so that it could be used as a historic house museum. The plan for utilities included construction of one 20,000-gallon reservoir on the hill northwest of the fort and replacement of the gravity flow water system with the installation of a pump. The installation of two five-kilowatt generating plants was proposed to service the electrical needs of the monument's new buildings. The master plan received formal approval on May 15, 1947. (Zion officials gave Heaton a copy of the monument's master plan about five months later.) While project construction program proposals were submitted to fund developments as outlined in the 1947 master plan, the only one of these projects funded and completed between 1946 and 1950 was the one to prevent monument flooding.



88. Developed Area Plan, 1947 Master Plan for Pipe Spring National Monument (Courtesy NPS Technical Information Center)

On May 24, 1947, Superintendent Smith, Park Naturalist Merrill Walker, Chief Ranger Fred Fagergren, and Regional Chief of Planning Harvey Cornell met at Pipe Spring to inspect the monument and discuss the rehabilitation program for the fort. The men spent several hours considering changes to the flood washes and repairs to the fort. The monument's custodian must have taken it as a hopeful sign. "This is the first visit from park officials for nearly a year," Heaton later recorded in his journal. 1356

Returning from a long lunch break on July 22, 1947, Heaton was disappointed to learn from Edna that he had missed the visit of some important Park Service officials. Past Director Arno B. Cammerer and NPS engineers Sam D. Hendricks and A. van V. Dunn had stopped at Pipe Spring, accompanied by Merrill Walker. As usual, Heaton had received no notice of their intended visit. Heaton bemoaned having missed them in his journal that evening, "Just because I took an extra hour off at noon, I missed seeing two park men on roads.... It seems like if I stay around waiting for people to come, they never get here, but sure as I leave or [am] in dirty clothes, I always get some visitors." Heaton was so weary of this sort of thing happening that he finally requested in the September 1947 staff meeting that he be given advance notice of official visits. The truth was, high officials rarely came to Pipe Spring, but when they did Heaton hated to miss them or be caught unprepared.

In August 1947 Heaton reported something serious was threatening the monument's elm trees. During the summer all but two or three of the elms planted by the CCC in 1937 either died or looked as if they were about to die, Heaton reported. Water did not seem to be the problem, he wrote, but woodpecker holes in the trunks suggested insect infestation. Even three of the old trees by the fort showed signs of dying. In addition to the elm problem, a few poplars suffered from insufficient water. In the spring of 1950, Heaton reported the willow patch and Carolina poplars were insect-infested. Later investigation determined the poplar problem was "leaf miners and rollers," which almost denuded some of the trees. Superintendent Smith proposed at year end that funding be budgeted for annual spraying of the monument's deciduous trees in the early spring. Wildlife, on the other hand, was proliferating. The flock of Gambel quail living in and around the monument was estimated in 1947 at 100.1358 In the fall of 1950, Heaton reported that quail were still "plentiful" in the area.1359

The 1937 Ford pickup that Heaton had been driving at the monument had been in need of replacement for many years. Finally in September 1947, much to Heaton's surprise, he was told after a staff meeting at Zion to exchange the old truck for a new 1947 International pickup. "Runs fine," he reported, although it didn't have a heater in it. Given that the custodian's journal for the preceding years is replete with entries about frequent breakdowns and repairs to the old truck, receiving the new vehicle must have been a very welcome event. 1360 In March 1949 he exchanged the International for a 4-speed Dodge truck. Before winter Heaton even got a heater installed in the truck.

From October 1947 through mid-March 1948, Heaton was involved in preparation for and repair work in the fort's kitchen, in particular the replacement of its floors. When this job

was completed, Heaton and his brother Grant Heaton commenced work on replacing the parlor floors, and work finished in early April. Heaton also did some preliminary work in preparation for replacing the fort's big gates during the summer of 1948, but did not build the gates and install them until the summer of 1949 (see "Historic Buildings" section for details on these projects). Throughout 1948 Heaton and his sons also did considerable work to improve the family's residence (see "The Heaton Residence" section).

Perhaps the biggest story in 1948 was the Indian School fire that took place the afternoon of April 29. Custodian Heaton recorded the event at the end of the day:

Got a call for a fire at the Indian School at 3:40 [p.m.]. Took all my fire fighting equipment up, but was too late to do much good on the second building, but helped save the third. The fire started about 2:30 in the schoolhouse, either from a defective flu or children playing with matches in a playhouse on north side of the building. By 3:00 this building was falling down. The house north caught fire but was put out once, then the southwest wind carried the flames from the 1st building and fire broke out along the eaves and got in under the roof. When I got there and no chance to get at the fire. It was believed if the park equipment had been there at 3:00 the 2nd building could have been saved. The 3rd building to the east caught fire several times but with tubs of water and extinguisher the fire was kept under control. Very little was saved from the schoolhouse, but practically everything that could be moved was gotten out of the 2nd house. Sparks were blown 100 yards and started [a] fire on the roof of an Indian home and 200 yards to a pile of posts which was charred before the fire was put out. Five men from Moccasin arrived at the fire call first, then several others arrived later. The women folks did a fair job in helping move things out of the house and taking care of them afterwards. By 4:30 or 5:00 both houses had burned to the ground leaving only 3 flues standing. It was all Government property that was lost in the fire. 1361

Heaton did not report on ensuing events with regard to the replacement of the burned buildings. Later that year, the monument had a little fire scare of its own. "Had a fire in the wash this morning at 4:00 a.m. caused from dumping hot ashes. No damage was done, just burned trash and garbage."¹³⁶² This was the same way the 1942 monument fire had started.

During April and May 1948, Heaton worked on improvements to the monument's drainage system, to prevent future floods, and to its irrigation system (see "Flood Diversion, Irrigation, and Pipelines" section for details). In May Heaton received a visit from Assistant Superintendent Art Thomas, Dell Campbell, and Regional Archeologist Eric K. Reed. The men spent most of a day inspecting the buildings and gathering information about the monument's history and restoration work. 1363 Reed later described the repair work Heaton had done on the fort as "excellent." In June Chief Ranger Fred Fagergren made a fire inspection at the monument. "Found things in pretty poor shape," reported Heaton. 1364 Fagergren's report after this inspection recommended that a generator house be built. Heaton built a small generator house during the last two weeks of July 1948. The structure was located "at the southeast corner of the willow patch, halfway between

the residence and Garage No. 2," Heaton reported. ¹³⁶⁵ In May 1950 Heaton installed a 55-gallon underground fuel tank to store gasoline for the generator.

Heaton was disappointed to learn at a staff meeting in late June 1948 that he was not going to get a long-awaited pay raise. A few weeks later after the next staff meeting, he met with Thomas "about why I didn't get the raise in pay but doesn't look like I will get one, yet all the other fellows have in the ungraded class." In September he once again discussed the lack of raise with Thomas: "Talked with Art Thomas about my wages and found out the reason some were not raised is that Pipe has a spindly allotment and not enough to pay the next grade rate of \$1.25 so until someone turns loose some more money I am stuck with \$1.00 an hour rate." Considering the Park Service benefited from the unpaid labor of at least half of Heaton's large family, they were getting quite a bargain indeed! The following summer, in August 1949, Heaton took the park ranger's exam in Cedar City, Utah, for the second time. (He had first taken this exam in May 1937. At that time, and presumably in 1949 as well, a college education was still required to attain this position.) There was no report of the results by Heaton.

Some days were more tedious for Custodian Heaton than others at the monument. One can imagine his feelings when, after a hot August in 1948, he wrote in his journal, "Washed the windows in the three fort buildings, 309 separate window panes in the windows, 618 sides to wash. Takes three good hours to go over them." 1368 In early October Heaton decided to relieve a different kind of tedium by taking his wife and 15-month-old baby with him to attend the four-day Superintendents' Conference in Grand Canyon National Park. Heaton's 14-year-old son Lowell was left in charge during the couple's seven-day absence. The meeting was attended by 200 park managers and presided over by Director Drury, Associate Director Demaray, and Assistant Director Tolson. By the last day of the conference, Heaton wrote, "Everyone worn out and nerves on edge. Glad the conference is over." 1369 The Heatons returned to Pipe Spring on October 9 by way of Lee's Ferry. Shortly after his return, Heaton constructed a new coal storage bin from salvaged materials. It was located at the northeast corner of the old cattle corral, south of his residence. "Some job using old scrap lumber and rusty nails," he wrote. 1370

The winter of 1948-1949 was an unusually severe one on the Arizona Strip. On February 7, 1949, Heaton reported "a lot of cattle are dying of starvation and cold." Heaton wrote four days later,

A lot of cattle are being driven into the pasture just outside of the monument for feeding and warm water and they are getting into the monument across the cattle guard and gate being left open.... Quite a lot dead cattle being found in different parts of the range. Considerable trouble is being had with different stockmen because they think they are being hit the hardest and want all the snow equipment to work on their place first. Heard that it was all being called off because of the selfishness of two or three men who won't cooperate with the other stockmen.¹³⁷²

On Valentine's Day 1949, the temperature dipped to 12 degrees below zero. Drifting snow blocked roads and mail delivery was infrequent and unpredictable. So many trucks passed over the road hauling hay and feed to suffering livestock that winter that the road through the monument had 18-inch wide, 12-inch deep ruts in it. Heaton's truck became mired on at least one occasion; he towed others out of mud holes when necessary. In addition to truck damage, between 40 and 60 head of cattle got into the monument over cattle guards frozen with snow. He tried his best to fill in the road ruts with sand, predicting "one dirty mess" once spring arrived. On February 22 Heaton's sons reported the ice on the meadow pond was 13 inches thick; the east fort pond was covered with nine inches of ice.

In spite of road problems that always arrived with melting snows, the harsh winter was followed by a glorious spring. Easter visitors came, as they usually did, to celebrate the holiday amidst the monument's budding vegetation. Heaton wrote in 1949,

Easter Sunday, had a large crowd out today. Made no effort to conduct parties through the fort as they keep coming in and out all the afternoon, so just wandered about answering questions and giving information. About 20 cars and 70 or more people out to picnic and outing.... One of the visitors was Mrs. Elvira Winsor Jahovac, great great granddaughter of Bishop A. P. Winsor who built the fort in 1870.1373

Heaton reported that April that plum trees on the monument were blooming and swarms of butterflies were attracted to their fragrant blossoms: "Hundreds of small red-spotted butterflies are on the plum blossoms now, the most I have ever seen at this monument." Only three days later, Heaton wrote, "The small red butterflies have about all left... but there are thousands of white moths, or millers, at night now." These moths were responsible for the caterpillar infestation on the willows that Heaton had to spray with DDT.)

During the summer of 1949, Heaton constructed 9 x 6-foot book shelves for his office, which was still located in the fort's lower building, southeast corner of the ground floor. The custodian spotted three or four horned owls living at the monument that summer, roosting during the day among the campground trees or among those near the fort. Two golden eagles were also seen. In August Jay Ellis Ransom, from *Desert Plant Magazine*, visited Pipe Spring to prepare an article. Natt Dodge (regional office) also stopped by on his way to Zion to visit with Heaton and take pictures of the fort. At the end of the travel year (FY 1949), Heaton reported 1,381 visitors, adding,

This is the largest figure for several years. I am sure if there was a guide on duty all the time we would double our figures, as I am away about half the time, two days Saturday and Sunday, one day every two weeks to Zion, annual leave and holidays and other Government duties, that take me away. Would average only four days out of the week [that] people could have guide service. 1376

Heaton found himself in a bind. He wanted to welcome as many visitors as he could but had to frequently leave the monument for legitimate reasons. Of course Heaton knew that visitation numbers were important to those in Zion and Washington, D.C. This could have been one of a number of reasons his family members were so willing to offer guide service during Heaton's periods of absence from the site. Had the fort actually been locked up during all the times Heaton was away, visitation figures would have fallen significantly. On the other hand, Heaton's journal and monthly reports document his family's sincere desire to accommodate visitors to this remote site as a simple act of courtesy, thus it would be inaccurate to construe they only helped out to boost travel figures. The monument's custodian had wrestled with the problem of meeting visitors' needs right after the war. In June 1946 Heaton reported,

There has been a question as to just what should be done here at Pipe Spring National Monument now that we are getting visitors every day of the week, especially when they come so many miles to see the fort, and then not be able to get in, or have someone here to tell them the history. The custodian has talked it over with his family and it is agreed that some one of us will be at the monument to show visitors about every day of the week, regardless of compensation we might receive. In this way someone will be here for fire and other protection measures, as well as [for] guide service. 1377

Zion officials (just like Southwestern National Monuments officials before them) seemed to have no objections to the Heaton family's solution to the problem. Until funds could be found to hire an assistant for Custodian Heaton - a pipe dream indeed! - there seemed to be no alternative to the family but for them to volunteer their services.

It was mentioned in an earlier chapter that Heaton sometimes captured a deer fawn or two, raised them in the meadow, and later sold them to the U.S. Forest Service. Although this practice seems to have been discontinued in the 1940s, Heaton's deer tending days weren't quite over. During the summer of 1949, some reservation Indians found a fawn and brought it to Heaton. A few months later, Heaton wrote of the deer, "The tame deer is getting to be a pest and [we] will have to get rid of it before long. It is bothering the children and may hurt them."1378 He waited until the spring of 1950 to cart the deer away, which evidently soon became homesick: "The deer we raised and was taken off five weeks ago is back again," he reported in late May. 1379 The deer wasn't the only intruder. Heaton reported in October 1949 that "four or five head of horses keep coming into the monument at night and [are] out before morning, crossing the cattle guard."1380 These were horses (owned by the Kaibab Paiute) that were attracted to the lush grazing at Pipe Spring. It appears that Heaton's earlier practice of driving them out when he discovered them in the morning had "trained" them - he believed they now left voluntarily before he arose! In September 1950 he reported that Indians' horses "forgot [to leave] and stayed 'til 7:00 [a.m.]. Got in the truck and chased them out two miles."1381 A few horses continued their practice of grazing on the monument at night, in spite of Heaton's efforts to keep them out. In 1952 he reported chasing trespassing horses out of the monument "with a gun and car." 1382

In November 1949, at the encouragement of Superintendent Smith, Heaton filled out employment papers for the Washington office to see if could attain a permanent custodial appointment at Zion National Park under a Civil Service grade. In February 1950 Heaton wrote in his journal, "Went to town to get some Civil Service examination papers for a maintenance man position at Zion Park. Got word that I should try for it to keep my job here at Pipe. It doesn't make me feel any too well. I am wondering if it would not be better for me to try and get a farm to work." Heaton had by then been overseeing the monument for 24 years and was still an ungraded Park Service employee making only \$1 an hour. Finally, Heaton was given "competitive status" under Executive Order 10080 in May 1950. He did not get the position he applied for at Zion but in August 1950 he learned that he would receive a modest raise of 17.5 cents per hour. He wrote in his journal, "Beginning August 6, 1950, will receive \$100.66 each two weeks in place of the \$81.50." 1385

The winter of 1949-1950 was another very cold one. Heaton reported a few days before Christmas 1949, "Another very cold night and day, 6 below zero this morning.... Spent the day in the office taking care of papers, writing letters. Feet freezing. Keeping up the fire in the old pot-belly stove which doesn't give out enough heat to reach the desk." 1386 In the midst of sub-zero temperatures, poor road conditions, and no visitors, Heaton received one encouraging word at the start of the new decade: "Electric power lines ready to go as soon as the Government gives the go ahead sign. Contracts let to several companies." 1387 The prospect of power lines coming to the area was probably as welcome to Heaton as the acquisition of his new truck in 1947. The two electric generators at Pipe Spring seemed to have required as much time for repairs (and caused as much aggravation) as the old truck had. Once again, however, his vision of electric power lines was premature.

When Heaton attended staff meeting on March 1, 1950, he was directed to make a name change: "Got instruction to change the name of Pipe Spring National Monument to Pipe Spring National Historic Park. It is OK with me, if I can get the wage and money that goes with a Park name." No further mention was made of a name change, which was never carried out.

During an inspection of the fort by Zion officials in the spring of 1950, it was learned that several trees very close to the fort had been struck by lightning in previous years. Heaton told the men that lightning had never struck the fort but that lightning storms had struck violently on Rocky Point, just behind the fort. Superintendent Smith later wrote Regional Director Tillotson,

It occurs to us that with the lack of fire protection facilities at Pipe Spring, a lightning protection system should be installed on the fort itself. It would seem possible that some time lightning may strike the fort itself and set a fire which would be hard to cope with. Although we cannot accomplish it with funds available this year, it is believed that a lightning system should be designed and



89. Crowd gathered in meadow for the community barbeque at Pipe Spring, April 29, 1950 (*Photograph by Merrill V. Walker, Pipe Spring National Monument, neg. 396*)

installed on the fort in the near future. We will want the advice of Regional Architects and Engineers before going ahead with the lightning protection plan. 1389

The subject of lightning protection came up every few years after Superintendent Smith wrote this memo to Tillotson, but it appears that costs prohibited further action until June 1956 when five lightning rods were finally installed on the fort. In addition to lightning protection, Zion officials recommended in 1950 that future budget estimates include funds for the purchase of a Pacific-type fire pumper and 500 feet of hose, to be located near the fort ponds for protection of the fort. The monument obtained this fire protection equipment in 1953.

Unquestionably, the biggest event in the spring of 1950 was a barbecue held on April 29 for Governor Daniel E. Garvey. The fete was planned to convince the governor and other high officials of the need for an all-weather Hurricane-Fredonia road. Heaton cleaned all the fort's windows and had a couple of his sons help him clean the meadow "for the big eat," as he described it. On April 22 Heaton started building the fire pit for the barbecue. On the 25th, he fussed with the arrangement of museum articles ("for the crowd," he wrote) and on the 26th picked up two additional pit toilets at Zion. On the evening of the 28th, the custodian prepared the meat for cooking, putting it in the pit at 6:00 a.m. the day of the big event. The meat cooked for 10 hours until about 4:00 p.m. Meanwhile the huge crowd began arriving at 12:30 and by 2:30, Heaton wrote, "we had the place full. Used

the parking area, 3 rows of cars on east and south of the meadow, 216 cars with 816 people visiting the monument."¹³⁹¹ Art Thomas, Fred Fagergren, Merrill Walker, and two Zion rangers helped with parking and guide service.

The program that day was at 2:00, and "eats" at 4:00, held on the meadow. Among the dignitaries were Governor Garvey, Mr. and Mrs. Dudley Hamblin, Dr. and Mrs. Herbert E. Gregory, officials from Zion and Grand Canyon National Parks, and Forest Service and Indian Service officials. Heaton reported that county supervisors from Mohave and Coconino counties in Arizona and from Washington, Iron, and Kane counties in Utah attended the event, along with representatives from Fredonia, Flagstaff, Moccasin, Short Creek, Kanab, Hurricane, St. George, Cedar City, "and several other places" also attended the barbecue. Heaton later reported "everything was just fine, the crowd was very well-behaved and after it was over very little cleaning up to do for such a large crowd." 1393

Heaton later reported it was the largest crowd at the monument "since about 1929 when we had several large tours stop here on their way from Zion to Grand Canyon National Parks." Only one unfortunate occurrence marred that day's festivities: Heaton's seven-year-old daughter Olive fell from the railing of the speakers' stand and hit a sharp board, cutting a four-inch long, one-inch deep gash in her right leg, below the knee. The wound required 12 stitches to close. Of all Heaton's children, little Olive seems to have been the most accident-prone (see the section, "Births, Deaths, and Accidents").

Heat and drought seemed to arrive early on the Arizona Strip in 1950. Heaton reported that month, "Stockmen have been moving a lot of cattle this past week by the monument to their summer pastures. Also hauling some water from the monument to tide them over 'til rain comes." In early June he reported, "More stockmen hauling water to supplement the shortage of water in their wells." Otherwise, the summer was not very eventful.

Fires were always a special danger during the hot, dry summers. On June 26, 1950, a fire broke out at Kaibab Village. Unlike the 1948 Indian School fire, this time no buildings were destroyed. Heaton reported,

Was called to a fire at the Indian Village at 11:30. The fire started in some weeds at the corrals. Burned one stack of lumber. With four of my boys, took park fire extinguisher, shovels, and helped in confining the fire to the pile of lumber. Another pile of lumber caught fire next to a barn but with our equipment [we] stopped it before it got to burning. There was only women folk and children on the place. In about 1? hours the fire was out except some hot coals buried deep in the sand and wet ashes.¹³⁹⁷

Summer heat guaranteed more visits by area residents to Pipe Spring National Monument, children in particular. In July and August 1950, Heaton reported the majority of "travel" to the monument was by local folks coming to swim in the meadow pond.¹³⁹⁸ What seems

remarkable is that no visitors were ever involved in swimming accidents during all the years the meadow pond was used recreationally. Diving into the flagstone-lined meadow pond did have its hazards, however, as discovered by one of Heaton's sons in 1949 (see "Births, Deaths, and Accidents" section).

In the spring of 1950, Heaton received a request for a list of plants that grew on the monument from Pauline Patraw of Santa Fe, New Mexico, who was compiling a publication on Upper Sonoran Zone plants for the Southwest Monuments Association. In response, he compiled a list of cactus, other flowering plants, trees, shrubs, and bushes and sent it to her in July. 1399 In early September 1950, Heaton received a visit from former Superintendent Paul R. Franke (now in the Washington office) and Natt Dodge. Franke suggested Heaton get some geese or more ducks as well as more fish for the ponds, and for him to plant an orchard "where the old one used to be." The men promised as soon as monument visitation picked up they would help get Heaton more money to fix up the museum.

Post-war Visitation

While visitation figures had risen the first post-war year from 635 to 1,193, it declined again in 1947 (760) and 1948 (839). 1400 Travel increased in 1949 (1,290) and again in 1950 (2,352), although the latter jump in visitation is attributed to high attendance at the barbecue held in April 1950. 1401 As in years past, school children of all ages visited the site, especially near the end of the school year. In May 1950 an outing of 50 Dixie College students interrupted Heaton as he undertook stabilization work on the west cabin's south wall. While Heaton was on annual leave that month Edna Heaton took charge of tours for school children from Alton, Orderville, and Glendale, Utah. Also in May a group of 49 students from Fredonia High School camped out at the monument. Kanab seventh graders also came to Pipe Spring on an outing that month. This kind of school activity was fairly typical for the monument in late spring.

In addition to school outings at Pipe Spring, the monument received visitors associated with Church-sponsored organizations. Heaton reported in May 1946 that a party of "72 young men and boys gathered here for an outing from Kanab Stake under the direction of Edward C. Heaton, chairman of the Aaronic Priesthood, a Church group. Lunch and ball games were enjoyed." ¹⁴⁰² In March 1947, while Heaton was making a trip to Zion for a staff meeting and supplies, a group of 60 to 70 students from the Utah Seminary visited the monument. Heaton family members gave them a guided tour through the fort. In May 1949 Heaton guided a groups of 60 Kanab Stake Beehive Girls through the fort. After this outing, Heaton reported, "Gave first aid to one girl that was stung by a wasp. Killed a rattler the girls discovered at the southwest corner of the fort." ¹⁴⁰³ In addition to many such groups visiting the monument, Heaton was frequently asked and agreed to give talks on Pipe Spring and on other southwestern parks and monuments to adult groups in Kanab, Moccasin, and Fredonia. In May 1949 Edna Heaton gave several artists a tour through the fort: Ivan House (Portland, Oregon), Avard Fairbanks, and Elbert Porter (both from Salt Lake City). Indian Service officials also made a few visits to the monument during this period.

As in earlier years, the fort was a favorite destination for descendents of the early Mormon settlers of Utah and Arizona or for others with family connections to Pipe Spring. Only a few of them will be mentioned here. In August 1946 a man named Heber Monair came by the monument and told Heaton he had once worked at the ranch when it was owned by David D. Bulloch and Lehi W. Jones. Monair said he had been the ranch foreman in 1895-1897. As he did with many others who had once lived at Pipe Spring, Heaton questioned him about the period and later made notes of their conversation. 1404 In August 1947 visitors to the monument included some great-grandchildren of Bishop Anson P. Winsor. On a Sunday afternoon in September 1949, Heaton reported, "A group of Sons of Utah Pioneers organization stopped for lunch and to see the fort." ¹⁴⁰⁵ On Easter Sunday in 1950, visitors included more descendants of Anson P. Winsor, including 86-year-old Joseph Winsor, who provided Heaton with information about how the east and west cabins were originally used. 1406 Mrs. Sarah Terry Winsor was also among the Easter visitors. She lived at Pipe Spring in 1874-1875 and operated the telegraph office. In April 1950 visitors included the children of Luella Stewart Udall, the first telegraph operator at Pipe Spring. In October 1950 Heaton reported that Mrs. Parsellow S. Hamblin Alger, daughter of William (Bill or Gunlock) Hamblin and members of her family visited the monument. This was the Hamblin whose marksmanship, according to Heaton, "gave Pipe Spring its name in September 1858." 1407

From time to time, Heaton received unexpected after-hours visitors at the monument, such as one he reported entered on a Saturday night in December 1948: "An Indian woman walked in last [night] about 10:30. There must have been a drunken party in town. Took her home." 1408

In addition to the events described above, the following sections describe events from 1946 through 1950 as they relate to specific areas of interest.

Births, Deaths, and Accidents

Living on the remote Arizona Strip posed certain risks, particularly years ago when driving over miles of rutted dirt roads was an ordeal in and of itself. One had to travel to Kanab to see a doctor or to reach a hospital. (For serious medical conditions or operations, the Heatons went to the hospital in St. George). Farm and ranch work have always had inherent hazards. What is surprising is the low number of accidents Heaton reported. Most accidents or injuries involved either him or his family, rather than visitors, and these (judging from Heaton's journals and monthly reports) did not occur frequently.

Accidents near the monument were often road-related, such as the one Heaton reported in 1946:

At 2:00 a.m. [on] May 23rd, a truck driven by Mr. A. Jesup of Short Creek, Arizona, driving west on the road just east of the monument failed to make the sharp turn about 500 feet east of the monument and overturned. In it with Mr. Jesup were two women, three children, and an elder man. No one was seriously injured and after an hour and one-half, with the help of the custodian and

members of his family, the truck was righted and the people cleaned up.... This turn should be fixed before someone is killed or maimed for life. 1409

It appears that nothing was done to remedy this particular road problem. Area residents had a hard enough time just keeping the approach roads maintained in driveable condition, much less redesigned for safety (see "Area Roads" section).

What stands out most about accidents reported in Heaton's journal was the recurrence with which his daughter Olive was involved in them. Her fall from the railing of the speakers' stand at the April 29, 1950, barbecue has already been mentioned. That was not the first time she had suffered serious injuries, however. On a Tuesday in early January 1947, Heaton reported. "...when returning from taking my 3 boys to school at Moccasin the rear door of the car came open and pulled my 4-year old girl Olive out and injured her very seriously. Bruising her on the left side and back, sending her unconscious 'til 6 or 7 a.m. on Wednesday morning." Heaton took Olive to the family doctor in Kanab the day after the accident (Wednesday). After checking her, the doctor told the concerned father that everything was all right, except for the bruises and shock. The following year, in May 1948, Heaton reported that he "...had to take my 5-year-old daughter Olive to the hospital for an appendix operation. It was in the last stages before it would have ruptured. She was resting well last night." The little girl also was involved in a very serious farm-related accident a few years later (see Part VIII).

From time to time in his journal, Heaton reports area searches for missing persons. On May 26, 1947, Heaton joined a search party of between 75 and 100 men to hunt for his missing uncle, Lynn Esplin. Esplin, according to Heaton, "through worry and sickness wandered away from his sheep camp." ¹⁴¹² It was discovered that he had fallen from a 300-foot ledge in a side canyon of Orderville Gulch, northeast of Zion. Heaton and other men carried Esplin's body out of the canyon on foot, then took it by horseback to the nearest road, all together a two-hour ordeal. ¹⁴¹³ Returning from a trip to Zion on May 28, Heaton stopped in Orderville to attend the funeral services for his uncle.

Oddly, with the frequency that rattlesnakes had been spotted at the monument in the 1930s and 1940s, no venomous snakebites were ever reported by Heaton. While swimming at the monument was very popular, only one swimming-related accident was recorded during these years and it involved one of Heaton's teen-aged sons. In the summer of 1949, Heaton reported, "My son Dean had an accident while swimming. Dove too straight into the pond and hit his face on the side, cutting a wound on the bridge of the nose, a hole through the upper lip, skinning the chin and breaking the inside corner of his two upper teeth. Had to have the doctor take two stitches in his lip; also wrenched his neck a little." 1414

More common than accident reports at the monument was Heaton's news of a birth or a death. Pregnancies and births among the extended Heaton family appear to have been so common that such experiences by his wife provoked little comment in Heaton's journal. One has to make some effort to discern when they occurred. For example, on May 20,

1947, Heaton wrote, "Took Mrs. Heaton to the hospital, nothing much to report today." About two weeks later he mentioned, "Brought Mrs. Heaton and baby home feeling pretty good." It is unclear if the trip to the hospital was for a check-up or for the baby's delivery.) Just a few of his children's births are mentioned in his journal. Only one of a number of funerals attended by Heaton during this period will be mentioned here. In 1948 Heaton attended funeral services for Fred Bulletts, a Kaibab Paiute man. Heaton wrote in his journal, "A large crowd of Indians and whites [were] there." 1417

Historic Buildings

The Fort

No restoration or repair work was done to the fort in 1946 and 1947, except for Heaton's efforts in April 1947 to clean tree roots out of the pipeline that led into the spring room. ¹⁴¹⁸ In September that year, Heaton visited a blacksmith in Kanab to make arrangements for making the big locks for the fort gates. During October 1947, Heaton planed lumber to be used as new floorboards in the fort's kitchen. In late November he removed the old kitchen floor (not the original). He reported during this process, "Worked all day taking up the floor of the kitchen of the fort. Found the boards very rotten and hard to get up. Broke most of the floorboards getting them up as the nails were rusted and the boards rotten. The floor joists were about 1/2 rotted away. Those in the west end were the worst, two or three of the east end fairly good, where there was more ventilation and less seepage of water. The back part is very damp and wet." He finished removal of the deteriorated kitchen floor in early December. While removing the floor, he made a discovery of some original flooring: "Finished cleaning out the kitchen rooms of the fort. Found a small section of the original floorboards. They are 1 full inch thick, 4½, 5, 5½, and 6 inches wide and tongued and grooved, nailed with the old square-cut nails to a 2 x 6." ¹⁴²⁰

Several other discoveries were made during Heaton's work on the fort's floors. Before the new floor joists could be installed, the kitchen's two cupboards that flanked the fireplace had to be removed. Under the north cupboard Heaton found "a teaspoon of a plain 'Roger Nickel Silver.' Under the south cupboard a small, very flat case with a flowered handle silver coated 'Standard,' also at the edge of the hearth stone an iron handle of some tool. Too rusty to determine just what it is."1421 Work was suspended for several weeks while Heaton waited for Assistant Superintendent Art Thomas to come and inspect the project. Thomas approved the work at the end of December and Heaton proceeded with installing the joists and floorboards in January 1948. He poured cement along the kitchen's back wall and around the fireplace for the floor joists to rest on, and also braced the staircase. Unlike the first time the floor was replaced in 1926, this time an effort was made to make the replacement floor more rotresistant. The joists were painted with hot linseed oil and wood preservative; more subfloor ventilation was also provided. 1422 A large rock that lay beneath the center of the kitchen floor had to be chipped down to accommodate a 6 x 7-inch concrete strip centered beneath the floor to support the new joists. Toward the end of January, Heaton began relaying the kitchen floor, completing this job in early February. In March he repeated much the same process in the parlor (west room), only this time with the help of his brother Grant Heaton, hired as temporary laborer. The parlor floors were

replaced by the month's end. Other work in the kitchen and parlor at this time included woodwork, plastering, and painting. 1423

In mid-January 1949, Zion officials asked Heaton to make up a report on all stabilization work that had been done to the fort since 1942. He completed his report on February 1, 1949, recording the information on a Ruins Stabilization Record. (It is believed that no photographs were taken during any of the work.) Erik Reed later transferred this information to a copy of the earlier HABS (Historic American Building Survey) drawing of the fort.¹⁴²⁴

The next big project at the monument was reconstruction of the fort's big gates. The first replacement gates were built and installed by Heaton in 1928, but these apparently weren't authentic enough for later Park Service officials. The new ones were to be replicas of the originals. 1425 In June 1948 Heaton prepared the lumber for the job by tonguing and grooving it with a plane borrowed from William C. Bolander of Orderville, Utah. No more work was done on this job until almost a year later. In April and May 1949, Heaton built gates for both ends of the fort, using square nails in the construction of one if not both sets of gates. 1426 In early June he put in a new sill for the west gate. When he and three of his sons tried to hang the west gates they discovered that they didn't fit, so they had to be cut down in size. Heaton wrote that he "painted the sill timber of the west gate with old motor oil, creosote and wood preservative and termite poison. Hope it will last 30 or 40 years." 1427 In mid-June the east gates were taken down. Heaton reported, "Found the sill log almost rotted away under the door frame uprights. Cut the door frames off about 2 inches to get [to] the solid wood. Replaced the sill timber and painted it with preservative. Bored some holes in the door frames about 12 inches up from the bottom to fill with preservative to keep out termites and rot."1428 The east gates were hung on March 14 and 15 with the help of Heaton's teen-aged sons, Dean and Lowell. Heaton cemented around the frames of the gates, reset the top and middle hinges, and installed new locks. No other work worthy of note in the fort took place until July 1950. A considerable amount of plaster had fallen from the walls of the spring room and there were signs of stone deterioration. Zion officials recommended in April that Heaton install a few drains and replace the plaster with water-resisting cement to retard capillary action and preserve the room's walls. Heaton carried out this work in July. 1429

In October 1950 Heaton removed and replaced the deteriorated catwalk near the fort's west gates. 1430 The fort's north balcony was in such poor condition, that in September 1950 Heaton installed three braces beneath it. "They don't look too good but [were] put up as a safety measure," he wrote. 1431 On November 18, 1950, the monument had a visit from Regional Architect Kenneth M. Saunders and his wife. Saunders returned the following day to inspect the fort and cabins. Heaton wrote, "Mr. K. M. Saunders called again about noon to see the fort. He is quite taken up with it. Wants to see it fixed up. Is going to try and get some money for repairs on the porches and southwest corner [of the west cabin]." 1432 Regional Director Tillotson later transferred \$500 of ruins stabilization funds to Pipe Spring to enable additional work to be done to reinforce the fort's balconies during fiscal year 1951 (see Part VIII).

The West Cabin

The west cabin was in dire need of stabilization work by the end of World War II. In November 1946 Heaton noted in his journal, "The west cabin is again settling on the southwest corner, causing a large crack to come over the west door and west end of the building."1433 Heaton thought spring water behind the west cabin was causing the building to settle. He called Art Thomas' attention to the problem during his and Erik Reed's visit of May 1948. In early April 1950, Superintendent Smith requested ruin stabilization funds for the west cabin from the regional office and submitted an outline of proposed work. The sinking of the cabin's southwest corner had caused a large crack from floor to ceiling on the cabin's west side. An old spring developed by early settlers on the hill above the building had become choked with weeds and grass, causing water to spread downward toward the cabin, Smith reported. Moisture under the foundation was causing slippage of the shale beneath the cabin. Smith's plan was for Heaton to install gravel drains to divert the spring water away from the cabin and to pull the cabin wall back into place with steel rods and turnbuckles. After the wall was back in place, Heaton was to reinforce the foundations with concrete footings and repair the cracked portions of the wall.¹⁴³⁴ It is presumed the funds for materials were received, for Heaton carried out the work as outlined by Smith from April to June 1950, at times with the help of his sons Leonard, Lowell, Sherwin, and Gary. 1435 Heaton then relaid those portions of rock walkway that had been removed in front of the cabin prior to stabilization work.

Monument Walkways

The monument's sandstone walks laid during the 1930s began to look a bit worse for the wear by the post-war years. Heaton blamed badgers for undermining about one-third of the walkway to the west cabin; this much he replaced in the summer of 1947. In 1949 Heaton was given permission to remove the stone walks that linked the fort and east and west cabins and to replace them with stone-bordered gravel walkways. This work was accomplished in July.

The Heaton Residence

On March 13, 1946, Zion's Assistant Superintendent Dorr G. Yeager, Chief Ranger Fred Fagergren, and a clerk ("Mrs. Russell") came to the monument to appraise the value and take pictures and measurements of the Heaton family's monument residence, the old CCC infirmary. (Fagergren came along to check the monument's fire extinguishers.) Heaton got the impression the men were making plans for disposal of the building, pending construction of the new residence. Heaton wrote optimistically in his journal, "Well, I think this summer will be our last here as a family." ¹⁴³⁶ That was to be a highly inaccurate prediction. The appraisal of quarters was for the Government Accounting Office. The appraisal reported the residence had five rooms with bath, kitchen, and two sleeping porches. ¹⁴³⁷ A small gasoline generator furnished electricity and a coalcirculating heater heated the residence. The family used a coal-burning cook stove with an attached hot water heater. There was no refrigerator or cooler and the grounds were not landscaped, the report stated. "All space is decidedly below average and is so situated that the custodian is subject to continual interruption by visitors." ¹⁴³⁸



90. Custodian's residence (old CCC infirmary), 1946 (Photograph by Russell K. Grater, Pipe Spring National Monument, neg. 372)

In September 1946 Heaton wrote Zion to say that because the stoves were located on the east end of the residence the west part was nearly impossible to heat. Heatons asked Zion officials if he could dig a basement of sorts under the west part of the house and install a furnace there, but they turned down the request. So the family continued, as they had in the past, to heat the uninsulated wood frame building with coal and wood. After the war, the little 32-volt electric generator the Heaton family had relied on for electricity since 1940 began giving constant problems. "Sure wish we could get a 110 V motor for the washer as I spend 2 to 4 hours each week to get the 32 V [volt] plant to running."1439 When Heaton couldn't solve the problem, he had to drive it to Zion for repairs and was given a temporary generator in its place. Even when it was working the little generator could no longer meet the family's needs. (They could use a washing machine or they could have lighting, but apparently not both at the same time.) In early December 1946, Heaton installed a 110-volt light plant provided by Zion. He then changed the electrical wiring so he could use either the 110-volt or the family's old 32-volt light plant. The family planned to use the 32-volt plant to run the washing machine and for late night use and to use the 110-volt plant for evening, when lighting demands were heaviest.

In January 1947 a windstorm removed part of the residence roof. While Heaton did some repairs that month, he and a few of his sons did most of the repair work the following April. In December 1947 Heaton received word that an allotment of \$600 was being given the monument to make improvements to the old CCC infirmary where his family had

resided now for six years. To Heaton, it seemed a waste to pour money into such an old and temporary building, particularly since the plans for a new residence had been finalized. The building was cramped year-round and very cold in the winter. The best use of the funds, he thought, was to build on an addition to the residence and to insulate it. After discussing the matter with Edna Heaton and drawing up a sketch plan, he went to a Zion staff meeting with Mrs. Heaton in tow. The couple met to discuss their proposal with Zion officials. Their plans were approved in December.

Work on the residence took place during all of 1948 and proceeded slowly as Heaton's other monument responsibilities took priority. In February 1948 Heaton and four of his sons first raised the ceiling of the residence a foot, then used 68 sacks of rock wool to insulate the walls. In May and June, several interior walls of the residence were changed and the southwest corner room was enlarged, adding about 56 square feet of living space. Two fire hydrants were installed for fire protection, one 20 feet north of the residence and one 15 feet to the south. In July Heaton and two sons reroofed the garage. Work continued in the fall on plumbing, sewage, and interior painting. Heaton decided in December to change the cesspool for the residence to the south of the building, some 40 feet to the old CCC drain and sump hole. This required constructing a new cesspool and putting in a new sewer line to his house. Finally, as they appear to have done at the onset of each winter, Heaton and his sons boarded up the porch of the residence and around its foundation to keep out wind and snow.

When spring came in 1949, Heaton and his sons leveled up the ground on the south side of the house to plant lawn, trees, and shrubbery. His efforts to plant and grow a lawn continued throughout the summer. "All the area to be planted," he wrote. 1440 Heaton also picked up 400 bricks at Zion to rebuild the flue for the heater in the residence, a job he worked on the following September and October. At year's end, Heaton installed a hot water heater in the residence kitchen. In January 1950 Heaton and two of his sons, Clawson and Dean, put in a new sewer system which consisted of two 50-gallon iron tanks and just under 100 feet of open-end drain tile. The tile was buried about 2.5 feet with gravel around it. That August, Heaton laid new linoleum in the residence dining room and kitchen. Edna Heaton finally got an electric refrigerator in May 1950 from Zion. 1441 Compared to what they moved into 10 years earlier, the Heatons were now practically living in the lap of luxury!

During the summer of 1950, a fire inspection was made of the monument. In his report to Regional Director Tillotson, Superintendent Smith stated that even with all the improvements to the residence made by Heaton,

... it remains a virtual firetrap, tinder dry most of the time with winds across the area that this spring reached a velocity of 40 m.p.h. It would take but one small spark to wipe out the only government quarters in the area and all of the personal belongings of the ranger and his family. This building should be replaced with a modern residence as soon as possible. 1442

The only other work to the family's quarters during this period was in November 1950 when Heaton replaced the old battens on the building with new ones. All the family's efforts to improve the residence, as it turned out, would be very worthwhile for the Heatons lived in the remodeled CCC infirmary for another 10 years.

Fish and Ponds

The meadow pond was the focus of much activity in the post-war years. Heaton began draining it in May, an event he later reported several local children took advantage of: "Some little Indian boys raided the meadow pond I was draining to clean out and took all the camp fish, including the old carp I had here since the spring of 1926, weighing about 17 lbs. and 30 inches long." 1443 Once the pond was drained, Heaton's sons and some of their Moccasin friends cleaned out the trash so that it could be refilled and used for swimming. By early August, Heaton reported, "A lot of swimmers are coming out to cool off." 1444

The fort ponds were drained and cleaned again in July 1947. Heaton reported, "Ponds drained this morning. It looks like most of the trout died because of circulation of water in the ponds.... My boys got into the ponds and caught 9 big carp and 50 or more trout which I had them put into the meadow pond, while we clean out these by the fort." Heaton's sons, Clawson and Leonard P., cleaned muck and trash out the fort ponds. Heaton replaced an old wooden culvert with an eight-inch metal culvert, then refilled the fort ponds. He reported it took three days to refill them. There are no reports of restocking the ponds with fish during this period.

In July 1948 Heaton noticed some unusual coloring in the fort ponds, which he later reported at the August staff meeting. His monthly report stated,

One of the most unusual sights at the monument is the red coloring that appears from time to time on the bottom of the west pond by the fort. At times it gets to be a bright red and covers large areas between the weeds that grow in the ponds, some times hanging low on the bottom and at other times rising in small clouds several inches above the bottom. 1446

In September Botanist Lyman Benson of Pomona College, Claremont, California, inspected the ponds. Heaton gave him a sample from the ponds to analyze, but he was unable to identify what was producing the odd color. The following May 1949, Heaton reported, "The purple coloring in the west pond is spreading and seems to be killing out all the plant growth where it is." Perhaps to try to solve the problem, the fort ponds were cleaned out in August 1949 and again in April 1950.

Flood Diversion, Irrigation, and Pipelines

In an attempt to prevent future flood damage on the monument, changes were made in 1948 to the drainage wash and culverts. The work for flood diversion plans was outlined during the May 24, 1947, visit of Smith, Fagergren, Walker, and Cornell, referenced earlier. Zion officials returned in October to look over the wash and culvert situation.

Work undertaken in April and May 1948 consisted of modifying the wash and installing a new 36-inch culvert and headwalls near the campground area. Two of Heaton's brothers, Grant and Sterling Heaton, assisted with this work. The new flood diversion arrangement required a change in the irrigation pipeline to the campground and to the trees by the east entrance. The culvert headwalls and changes to the irrigation system were completed by mid-May.

In addition to relocating some irrigation pipeline, Heaton was frequently faced with the need to unclog existing pipelines. 1448 In June 1948 Heaton reported, "The 2-inch pipeline to the Indian ponds to the east of the monument are almost completely plugged up. Tried to find the stoppage but it will necessitate digging up several lengths of pipe to get it cleaned."1449 In August the spring pipeline in the fort became clogged again with tree roots, requiring Heaton's attention. 1450 In September he was still working to unclog pipelines, only this time the stoppage was in the lines coming from the ponds. Heaton used a hydromatic air pump to clean out the pipeline on this occasion. From time to time, the custodian pondered ways he might improve the water system to reduce such demands on his time. In January 1948 he wrote, "Spent the day in digging up the 1-inch pipeline to water trough. Had to take up two lengths to get it cleaned out so decided to change it over to the main water line to campground area. Will have to get a few fittings to make the connections. Will do away with the 1-inch line from the spring and will take that line up this spring."1451 In addition to clogged lines, at times Heaton had to dig up and replace pipelines that froze and burst over the previous winter. As with many maintenance chores, Heaton's sons were often recruited to help him with such jobs.

Floods

In spite of the improvement work of 1948, Pipe Spring National Monument had not seen the last of its floods. On August 11, 1950, Heaton described what was by now an all-too-familiar scene:

At 3:15 [p.m.] a heavy storm of hail and rain hit the monument. By 3:30 water was running everywhere, leaves and small twigs being knocked off the trees and plants. The ground was white with hail in 10 minutes. The heaviest hail was to the south of the monument about 2 miles. The ground stayed white till after dark. By 3:45 p.m. a flood came down the wash which was almost twice too large for the culvert and again as in 1942, the camp area, road, parking area and south was flooded, leaving piles of trash and sand over the area which will take several days to clean up. There was so much trash and hail in the flood that it built its own bank as it went along in places, 2 feet high. Very little washing was done because of the weeds and plants. The roads were blocked by washout and sand drifts across the road southwest and east and north. 1452

Heaton described the event as "not quite as large a flood" as the one in 1942. Still, the flood deposited an estimated two to 18 inches of sand on the road from the parking area south of the fort to the east cattle guard and on the north side of the campground, and washed trash into monument trees and brush. Heaton hired Kelly Heaton to remove the



91. Monument campground and picnic area, June 1950 (Pipe Spring National Monument, neg. 8)

sand from the monument road and campground area with a tractor and scraper later that month. Heaton then hauled in clay and several loads of gravel to build up the road where sections of it had washed out.

Soil Conservation

On August 21, 1947, Soil Conservationist Paul L. Balch (regional office) made one of at least three visits to Pipe Spring during the post-war years. During this visit he inspected the monument's vegetation with Grand Canyon National Park's Ranger Art Brown and checked it for erosion conditions. While noting the climax grass in the area was Galleta (*Hilaria jamesii*), it had been almost entirely eliminated by overgrazing and now was replaced by cheat grass (*Bromus tectorum*). Although grazing in the monument was no longer allowed, wind erosion had caused blowouts and sand dunes. Sheet and rill erosion was present, but no active gully erosion was observed. Balch noted that erosion conditions within the monument were worse than on the reservation's grazing lands located just outside its boundaries. He recommended reseeding the monument with native Galleta grass to deter further wind and water erosion. 1454

On June 21, 1948, Balch returned to Pipe Spring in the company of Regional Forester Harold M. Ratcliff and Chief Ranger Fagergren to check the monument for reseeding and vegetation growth. Nothing in the way of natural revegetation had been done since his previous visit but foxtail, cheat grass, and annual weeds were providing a little more protection from erosion, he observed. He recommended that 25 acres be reseeded with Galleta grass. "The availability of seed will be the limiting factor," he noted. 1455 Balch

again returned in October of that year with Assistant Director William E. Erdersbee, Soil Conservation (Washington office).

Museum Collection

In 1946 Heaton worked on cleaning up some of the museum artifacts loaned to the monument for display by Zion National Park the previous year. He borrowed a display case from his father to put some of the monument's "relics" in. Park Naturalist Russel K. Grater visited the monument on June 26, took pictures, and familiarized himself with some of the museum's collection. 1456

In the fall of 1946, Heaton picked up the grinding stones that had come from the gristmill in Long Valley. 1457 The two stones were found in two different locations, Kanab and Glendale, and were donated by two different men, Homer Foote and a Mr. Black, respectively. Each stone weighed about 1,500 pounds. 1458 Heaton first displayed the stones inside the fort courtyard under the north porch but moved them outside near the southeast corner of the fort in 1950. In late 1946 Heaton's journal records he was trying to pick up a collection of Woolley family materials from a Mrs. Mace at the Kanab library. (It is unknown if or when he got these.)

An advance was made in monument exhibits when, in November 1946, Heaton placed the Bishop Hopkins collection of carpenter and blacksmith tools on exhibit in the east room of the west cabin "as at one time this room was used for the blacksmith shop," he reported. He also made tables and benches for this display. In April and May 1947, Heaton continued to work on the west cabin display as well as one in the east cabin. His efforts to display artifacts was handicapped by a lack of shelves and cases: "Spent the day in arranging museum articles.... I need to make or get several shelves and cupboard to display the museum articles better." Heaton During the winter of 1947-1948, Heaton built some display shelves for museum articles housed in the lower building of the fort, second floor, resulting in the rearrangement of artifacts to "make the museum more attractive to visitors." In May 1948 Regional Archeologist Erik Reed made his first visit to the monument, later commenting to Superintendent Smith favorably on the repair and restoration work Leonard Heaton had done.

In August and September 1948, Heaton spent time inventorying, marking, and cataloguing museum articles loaned by Zion. As some artifacts had the same numbers, Heaton used the letters Z and P to indicate whether they belonged to Pipe Spring's or Zion's collections. After he completed cataloguing Zion's pieces, he began working on Pipe Spring's collection. Heaton also made card labels to place with museum artifacts and placed a few more out on exhibit. He continued the cataloguing project over the winter months. The Hopkins collection alone consisted of about 100 objects.

In August 1949 Heaton drew up some plans for museum exhibit cases. In April 1950 he rearranged museum articles in the fort in attempt "to make it more of a self-guide to people who came while the Guide is busy elsewhere," Heaton reported to Smith. 1462 During October 1950, Heaton obtained parts of an old shingle mill from Fred Majors'

ranch in Utah. 1463 He temporarily exhibited the shingle mill parts in the west cabin. That month, he asked Edna Heaton to help him survey the museum's collection and to suggest how the fort exhibits could be arranged better.

Historical Research

In the summer of 1945, Leonard Heaton began writing a detailed history of Pipe Spring "as I have it in my head.... I thought I should get what I can remember on paper. Should I leave the place, there will be a record for the next fellow." 1464 (An early product of his efforts, "Some Early History of Pipe Spring National Monument," was printed as a *Southwestern Monuments Report Supplement* in April 1946.) The laborious task of collecting all the information he could and writing the report would take him a good four years, however. A year after beginning this project, Heaton wrote in his journal, "Worked in the office all day typing the history of the monument. Begin to see why it takes so long to write a book, to get the materials all assembled in the right order." 1465 The final report, titled "Historical [sic] and Facts Pertaining to Pipe Spring National Monument, Arizona," was completed in 1949 (hereafter referred to as "History and Facts Pertaining to Pipe Spring National Monument, Arizona"). 1466

During 1946 Erik Reed prepared an interpretation/historical section for Pipe Spring National Monument's master plan. 1467 A draft of this section was forwarded to Superintendent Smith in November for review and comment. Superintendent Smith's only objection to Reed's history pertained to references to the Dominguez and Escalante expedition. Smith, along with others, was convinced that the Spanish expedition camped at Pipe Spring and not 12 miles further south, as Reed had written. He argued in his comments to Regional Director Tillotson that there was more reason to state that Escalante "did stop at Pipe Spring than to say definitely that he did not."1468 Part of Smith's reasoning was based on his belief that "Santa Gertrudis" (named by this expedition) was the same as Pipe Spring. He asked that Reed's statements be revised to say that on October 20, 1776, the expedition camped "at a spot believed to be Pipe Spring." 1469 Reed countered that he had given more weight to the opinion of H. E. Bolton, author of "Escalante in Dixie and the Arizona Strip" (New Mexico Historical Review, No. 1, January 1928), than to the source Smith analyzed, Herbert S. Auerbach's article, "Father Escalante's Journal with Related Documents and Maps" (*Utah Historical Quarterly*, Vol. XI, 1943). In a 1947 letter to Jesse Nusbaum, Dr. Bolton indicated he was still of the opinion that the expedition did not stop at Pipe Spring and that "Santa Gertrudis" was located 12 miles to the south. 1470 Reed thus decided not to make the change Smith had requested.

Although Arthur Woodward's earlier "A Brief Historical Sketch of Pipe Spring, Arizona" was useful, it failed to meet all the needs of regional planners. Five years after Woodward's 1941 history was written, Reed proposed that a more in-depth study be undertaken. Reed felt more historical research on southwestern Utah and the Arizona Strip was needed to provide the basis for an interpretive program at the monument. In June 1946 Reed wrote Superintendent Smith about planning historical projects in the regional office:

... the major present need would appear to be thorough historical research on the early Mormon occupation of southwestern Utah and the Arizona strip, and southern Nevada, with special reference to Pipe Springs National Monument and to the old Mormon settlements in the immediate vicinity of Zion National Park and those now covered by Lake Mead. 1471

Reed thought that such a study would be desirable, when feasible, to provide the basis for the interpretive program at Pipe Springs and for one phase of the interpretive programs at Zion National Park and Boulder Dam National Recreation Area. He recommended that the project be carried out by a full-time historian, assigned or engaged for the purpose for one year and duty-stationed at Zion. No action was taken on this recommendation. It would be another 10 years before a seasonal historian was assigned to Pipe Spring (in 1956) and another two years before the monument had a permanent historian.

In October 1948 NPS Historian Herbert E. Kahler (Washington office) and another official (Harold Waters?) visited the monument. They discussed the monument's history at length with Heaton and talked about ways he could best obtain accurate facts and dates. Ahler also inspected the fort and questioned Heaton about changes to it. The following summer Heaton conducted a two-hour interview with Mrs. Min Adams in Kanab. She and her husband, John Quincy Adams, lived in 1888-1889 at the fort during the polygamy raiding period. Getting a lot of valuable information about the fort and family life carried on at that time, wrote Heaton. As his other duties allowed, Heaton continued his historical research and writing of the monument's history.

Area Roads

Heaton was convinced that low visitation to the monument was the result of the often deplorable condition of the approach road, State Highway 40. Most visitors came by way of Fredonia (off U.S. Highway 89) and Heaton received numerous complaints from them about road conditions. He wrote in April 1946, "If the roads to Fredonia were good there would be lot more travel. The roads are about as rough and cut up as I have ever seen them."1474 Heaton reported to headquarters at the end of November 1946, "The roads to the monument from the west, north, and east are in the worst condition that the custodian can remember, being cut up with travel during the storms and nothing being done to keep them up or even to drag full the ruts."1475 It appears that Mohave County road crews did a fair job of maintaining the road west of the monument while maintenance of the road east of the monument to Fredonia fell under the Indian Service. (Repairs to the road to Moccasin and Kaibab Village appear to have gone back and forth between the two.) Heaton frequently complained that little work was done by the reservation to maintain the road to Fredonia. Once, Mohave County crews attempted to grade the road east of the monument toward Fredonia. Heaton was later told "that Mr. Parven Church, local Indian agent, stopped the Mohave County power grader from going over the Indian Reservation roads to fix them up. I sure wish there was some way to get these roads repaired from Pipe to Fredonia."1476 In early December 1946, the Mohave County road crews again graded the roads west and north of the monument. Soon after the Indian Service graded the road to Fredonia.

After his visit to the monument in May 1947, Regional Chief of Planning Harvey H. Cornell sent a memorandum to Superintendent Smith about road conditions in the area of Pipe Spring. Heaton told Cornell that the roads were so bad at times some visitors would start toward the monument from Fredonia and then turn back. Cornell suggested that Smith put together a report with photographs so that a case could be presented to Director Drury to prod the Indian Service in Washington, D.C., into more action. While there is no indication Smith followed up on this suggestion, the superintendent wrote Regional Director Tillotson in early August to ask for assistance in getting the Indian Service to maintain the road from Fredonia. Smith wrote that road conditions that summer were so bad and local road users (presumably non-Indian) became so incensed that on July 9 that they used their truck and "borrowed" (i.e., commandeered) the Indian Service grader to smooth about six miles of road east of the monument. 1477 The rest of the 13-mile road was in such bad condition, the equipment on hand was inadequate for the job. "Anything you can do to improve this situation will be appreciated," wrote Smith to Tillotson. 1478 Then Eivind T. Scoyen of the regional office sent a letter to the superintendent at the Uintah and Ouray Agency at Fort Duchesne requesting that the Indian Service grade or blade the remaining seven miles to Fredonia. He learned by the reply of August 15 that Forrest R. Stone was in charge at the agency, someone Scoyen had dealt with while superintendent at Glacier National Park. Stone reported that the Indian Service had in mind improvements for the road, but that the year's allotment permitted addressing only "the most urgent needs."1479 Scoven then advised Smith that Stone was "a top-flight cooperator" and that if anything could be done on the road situation, he was sure Stone would do it.¹⁴⁸⁰

On August 18, 1947 (perhaps in response to Scoyen's letter), three Indian Service inspectors from Phoenix, Arizona, came to the area to inspect the roads within the Kaibab Indian Reservation, giving Heaton hope that roads might be improved. At the end of the month he learned that the Indian Service planned to rebuild the road to Fredonia. In the meantime, more efforts were made in maintaining it. In September Heaton reported, "The Indian Service has made a fair attempt to smooth up the rough road east of the monument. Very dusty but the ruts and bumps are filled or taken off." 1481 In October 1947 Heaton reported two "Arizona State Highway inspectors" came to the area and told him the "Federal Road Service" (most likely the Bureau of Public Roads) planned to soon rebuild the road from Fredonia.

In January 1948 Superintendent Smith wrote the regional office again about the approach road from Fredonia. With the local Indian Service's resources being limited, Smith expected them to provide little more than infrequent maintenance to the road. He asked if consideration could be given to designating the road as a monument approach road so that federal funds could be applied for to improve it. Good roads would mean increased visitation and that might even lure Utah Parks Company into including it on their regular tours again, he argued optimistically. Perhaps Smith was unaware that this avenue had already been investigated during the war years, only to reach a dead end.

As winter snows melted, roads became almost often impassable. Heaton reported in February 1949, "Went to Alton for a load of coal, 2,050 lbs. Roads getting very soft between the monument and town [Fredonia]. Took an hour to travel 5 miles.... With all the snow on the roads we are going to have terrible traveling this spring." A few days later, he wrote in his journal, "Lot of trucks over the road hauling hay and feed to the livestock and they are cutting up the road so that cars will not be able to get over them." At one point, in March 1948, Mohave County took over maintenance of the road from Fredonia to the monument from the Indian Service. This appears to have been only a temporary arrangement, however. Again in September 1948 Arizona State Highway Department officials came out to look over the road situation.

Monument roads were also a mess when winter snows began to melt in February 1949. In addition to damage done by vehicular traffic, cattle that had wandered in over the frozen cattle guards had also done considerable damage to the roads and grounds within the monument. Heaton and his son Clawson hauled sand in February to make temporary repairs, filling in ruts in some places up to 18 inches wide and 12 inches deep. Extensive road repair work was done in March, with Heaton borrowing a grader from a Moccasin resident to smooth the road through the monument, and a heavy dump truck from Zion to haul clay, gravel, and sand for the road repairs. Heaton and Clawson repaired the monument road, campground roads, and residence road that month. In March 1949 Heaton learned at a staff meeting that the U.S. Forest Service was lobbying for a new road from Fredonia to Hurricane so that lumber from the Kaibab National Forest could be transported to western markets.

The following May (1949) Heaton reported, "The State Highway Department has a bunch of traffic counters out along the road from Fredonia to Short Creek. Also report that a State Road Engineer has gone over the road to Hurricane and left word that as soon as the road was surveyed the [contract] would be let to build an oil road." From July until at least the year's end, Mohave County contracted with several construction companies to keep the approach road graded, including the section to Fredonia. (It appears that Sterling Heaton kept the Moccasin road graded during this period, possibly working for the county.) In December 1949 two engineers from the Arizona State Highway Department visited the area to inspect roads from Fredonia to Pipe Spring and to Toroweap.

During 1950 area efforts to have the roads improved intensified. The Indian Service began road improvements, grading and leveling the road from Fredonia in February. On March 2 Heaton reported, "Attended a Booster Club meeting at Fredonia last night in connection with the Fredonia-Hurricane Road. They are going right after it and not leaving anything undone that can possibly be done to get the road. I was officially informed that I was on the barbecue committee for a party for Governor Garvey some time this spring.... The Indian Service has about completed grading the road. It is a lot better but needs some rain to settle the dust." Supervisor Lee Stevens came to the area to look over the road situation. On March 14 Heaton attended a meeting in Moccasin with representatives from Fredonia, Short Creek, Cane Beds, and Moccasin present. They formed an organization "to promote

development of roads, lights, [and] local projects for betterment of our communities." Leonard Heaton was named vice-chairman.

In May 1950 Heaton reported, "The Arizona State Highway engineer was up the last 2 days looking over the new road from Fredonia to Short Creek. He says it is an [easy] road to build and that we need it. Talked like it was a sure go." Nothing more was done on the road that year, however, except for routine maintenance.

<u>Interpretation</u>

Much of the historical research and preparation of written histories undertaken during this period was done for the purpose of improving the monument's interpretive programs and exhibits (see earlier section, "Historical Research"). Probably in the late 1940s, Leonard Heaton prepared a 12-page report entitled "Guide for Lecture to Visitors." 1489 This guide provides perhaps the best idea of what Heaton talked to visitors about during the post-war period and into the 1950s. It appears neither to have been heavily influenced by nor patterned after Woodward's 1941 report, although the latter was referenced. Heaton's guide included many anecdotal stories from "oldtimers," along with other historical data. (In June 1948 Erik Reed had stressed to Superintendent Smith the importance of Heaton writing down the stories told him by "old-timers.") The guide is a valuable record, particularly with regard to landscape changes. It discussed the history of the fort's construction; changes to the fort and associated cabins since the monument's establishment; location and use of the site's springs; the area's geology; current use of water from springs; history of the fort and meadow ponds; the Whitmore-McIntyre dugout; the location of corrals, fencing, road, fields and gardens; origin of building materials for fort; the pioneer method of making shingles; and the Deseret Telegraph Line. The section on the telegraph line included a lengthy narrative about an incident in which the telegraph system saved the horses (and what is also implied, the lives) of those at the fort in the early 1870s from the Navajo. The story, told in great detail, described the Navajo as war-like, blood-thirsty, superstitious horse thieves outwitted in a particular incident by Anson P. Winsor and the Utah Territorial Militia, with thanks to the telegraph system. 1490 It is easy to imagine Leonard Heaton telling such a story to enthralled monument visitors!

While there is no real change in the interpretive themes at Pipe Spring National Monument during the 1940s, the Park Service began to internally express its desire to use the site to tell the larger story of Euroamerican settlement in the arid Southwest. Many Park Service officials viewed the Mormon aspect of the history as secondary. On the other hand, Latter-day Saints saw a much more people and place-specific story. For them, Pipe Spring's significance was its role in Mormon history, and the purpose of interpretation was to commemorate the sacrifices and successes of the Mormon people *in particular* in the broader history of western settlement. The site was also useful to illustrate distinctive Mormon systems, as conceived of and directed by the Church leadership: the cooperative, polygamy, the colonizing, evangelizing, and civilizing mission of settlers. As long as the Park Service let this story be told - the way

those of this tradition wanted it told - then harmony was maintained. Tension developed later, however, when the Park Service partially succeeded in shifting the emphasis from the "Mormon story" to the more "generic" western story of settlement and cattle ranching.

Part VIII - The Cold War on the Arizona Strip

Introduction

The year 1951 quickly ended the peace and quiet of the early post-war years at Pipe Spring National Monument. Atomic weapons testing at the nearby Nevada Test Site, as well as activity associated with uranium and oil exploration and mining, signaled that a new era had arrived on the Arizona Strip. This chapter deals primarily with events transpiring in and around the monument during the period from January 1951 through December 1955. The highlights for these five years include the observable impacts of weapons testing and mineral exploration and mining; administrative changes at the Washington, regional, and monument levels; the monument's acquisition of a two-way radio (1951); stabilization work to the fort's balconies (1951), exterior painting of the fort (1952) and restoration of the spring room (1953); destruction of the barn/garage by fire (1951) and construction of a new utility building (1952-1953); acquisition of a pressure fire pump and accessories (1953); installation of a new generator and construction of its housing (1954); installation of new highway and park signage (1954-1955); and filming of the first movie at Pipe Spring (1955). The early 1950s also was a time when evidence was being gathered for an important legal case, Arizona v. California, in which the United States asserted claims to water in the mainstream of the Colorado River on behalf of five Indian reservations in Arizona, California, and Nevada. Outside the monument, perhaps the most memorable event among local residents was the Arizona law enforcement officials' raid on the polygamous settlement of Short Creek in July 1953. Finally, during this period Custodian Heaton acquired seasonal part-time help for the first time.

In addition to the *Arizona v. California* case, one other important historical event took place during the early 1950s that particularly impacted American Indians. On August 1, 1953, Congress passed the Termination Resolution, adopting a policy of discontinuing federal controls, restrictions, and benefits for Indians under federal jurisdiction. Between 1954 and 1960, federal services or trust supervision was withdrawn from 61 tribes or other Indian groups, until opposition caused a deceleration of the program. Many tribes and Indian organizations, such as the National Congress of American Indians, condemned termination, advocating instead self-determination and a review of federal policies. Depending on where they lived, Indian tribes were impacted differently by the Termination Resolution. While the Paiute in the state of Utah were officially terminated, bands of the Southern Paiute Nation living in Arizona and Nevada were not, although the threat of termination of their reservations loomed over these years.

Several important administrative changes took place in the Washington office, the regional office, and at Zion National Park during the early 1950s. On April 1, 1951, Arthur B. Demaray succeeded Newton Drury as Park Service director. He held that position only until early December when Conrad L. Wirth succeeded him on December 9, 1951. Wirth remained director until early 1964, overseeing the Park Service in the years leading up to and during a most important period in the agency's history known as Mission 66. At Zion National Park, Paul R. Franke succeeded Charles J. Smith as superintendent on June 1,

1952, and served in that position until the end of 1959. This was Franke's third and last time serving as Zion's superintendent. During 1953 the National Park Service reorganized, both at the national and regional levels. In addition to the pre-existing Division of Design and Construction, two new divisions were created: the Division of Interpretation and Division of Cooperative Activities. The four regional offices were delegated some authority previously exercised by the director. On March 1, 1955, Regional Director Minor R. Tillotson died. He was succeeded by Custodian Leonard Heaton's old friend from Southwestern Monuments, Hugh M. Miller, who remained in the position until late 1959.

Cold War Background

By the end of World War II, the United States and the Soviet Union emerged as two superpowers, each championing opposing ideologies. A continuous pattern of confrontations was set into motion between the "Free World" and "Communist Bloc" that continued to feed on itself. The United States' first use of atomic weapons against the Japanese forever changed the nature of war, challenging later political leaders to keep conflict to conventional, pre-atomic levels. The resulting tension and political posturing between nations is known as the "Cold War." Its effects span three decades, by the reckoning of some historians. 1493 The foreign policy groundwork for the Cold War was laid between the end of World War II and 1952, by which time the United States was vigorously engaged in the above-ground testing of atomic weapons and in supporting the exploration for and mining of uranium sources. Both activities would have significant impact on parts of Utah and Arizona during the early 1950s, not only because of these states' physical proximity to and location downwind of the Nevada Test Site, but because areas within these and other southwestern states became the prime targets of uranium prospectors. The Nevada Test Site is located in south central Nevada, surrounded on three sides by Nellis Air Force Range. Its southern boundary is about 63 miles northwest of Las Vegas, Nevada.

President Dwight D. Eisenhower, elected to office in 1952 and reelected in 1956, led the country during this period. While the early Cold War environment set the political stage for the Korean War, the communist "witch hunts" of the McCarthy era, the Cuban Missile Crisis, and the war in Viet Nam, this chapter will only address ways in which its effects were experienced in the area of Pipe Spring National Monument during the 1950s. While these effects were arguably only tangential to the everyday management activities of Custodian Heaton, they provide a rather unsettling backdrop to his day-to-day activities, and to those of predominantly Mormon and Indian families in surrounding communities, which is unique to that particular place and time.

In the introduction to Carole Gallagher's *American Ground Zero, The Secret Nuclear War*, Keith Schneider wrote,

Minutes before the first light of dawn on January 27, 1951, an Air Force B-50 bomber banked left over the juniper and Joshua trees and dropped an atomic bomb on the desert west of Las Vegas. The flash of light awakened ranchers in northern

Utah. The concussion shattered windows in Arizona. The radiation swept across America, contaminating the soils of Iowa and Indiana, the coastal bays of New England, and the snows of northern New York.

Thus began the most prodigiously reckless program of scientific experimentation in United States history. Over the next 12 years, the government's nuclear cold warriors detonated 126 atomic bombs into the atmosphere at the 1,350 square-mile Nevada Test Site. Each of the pink clouds that drifted across the flat mesas and forbidden valleys of the atomic proving grounds contained levels of radiation comparable to the amount released after the explosion in 1986 of the Soviet nuclear reactor at Chernobyl. 1494

On April 6, 1953, an 11-kiloton atomic bomb nicknamed "Dixie" was dropped from a B-50 bomber onto Frenchman Flat, a dry lake bed at the Nevada Test Site. The drop was part of a secret mission, called "Operation Upshot-Knothole." When Utah sheepherders conducted their spring roundup that year, they found their ewes and lambs with unsightly burns, lesions in their nostrils and mouths, and so sick many could barely stand. At the lambing sheds, ranchers witnessed the births of spindly, potbellied lambs that lived only a few hours. Of the 14,000 sheep on the range east of the Nevada Test Site, roughly 4,500 died in May and June of 1953. Convinced that the losses were due to radiation from atomic tests, the ranchers filed suit in Federal District Court in Salt Lake City in 1955, seeking compensation from the federal government. They lost the suit in September 1956. 1496

It was only in 1978, when President Jimmy Carter ordered the Atomic Energy Commission (AEC) to make public its operations records that the truth began to emerge about the costs of the country's defense and foreign policies during the Cold War's early years. In 1980, 24 years after the Utah ranchers lost their case, the House Committee on Interstate and Foreign Commerce investigated the sheep deaths and concluded the AEC had engaged in a sophisticated scientific cover-up aimed at protecting its testing program. It is only with hindsight that we can now appreciate the grave dangers posed by the testing of atomic weapons in Nevada, particularly to the residents of Utah and Arizona. Representatives of the federal government told everyone that the tests posed no threat to their well being and many people believed them.

The above-ground atomic tests of the 1950s and early 1960s then, along with their more observable effects - tremendous noise, earth-shaking vibrations, unusual cloud formations, and weather changes - became objects of curiosity, something to be noticed or written about in one's daily journal, as well as a completely novel topic of conversation. During these years, Custodian Heaton gives us just a glimpse of what it must have been like to live on the Arizona Strip at that time through his faithful daily recording in the journal he kept for the monument. What is impossible to gauge is what (if any) level of fear or worry lay beneath the surface of Heaton's observations or those of others like him. Residents of the Arizona Strip went about their daily work of tending crops, minding sheep and

cattle, and raising a new generation of children. Such testing would not end until 1963, when tests started being conducted underground.

Pipe Spring and Weapons Testing

On January 27, 1951, Leonard Heaton wrote in his journal, "At about 6:30 this morning I heard what I thought was two distant dynamite blasts or rocks rolling. Later while in Kanab and Orderville [I] learned of atomic bomb blast in Nevada at about that time, so believe it was atomic blasts." The next day, he reported,

Sunday, day off from work. Atomic flashes and blasts were seen and heard at Moccasin and Kanab this morning at about 7:00. Homes were reported as being shaken by the blasts at Moccasin. Carl W. Johnson reported seeing the flash of light Saturday morning at Pipe from the Atom Bomb. Cloudy and stormy looking. 1498

Below are additional excerpts from Heaton's journal (HJ) and monthly reports which chronicle Heaton's experience of some of the weapons testing that was taking place to the west between 1951 and 1957:

Saw the flash of the atomic bomb and heard the blast this morning. Seems to have been the biggest yet. (HJ, February 6, 1951)

Heard the atomic explosion again this morning. Not so hard as last several, I guess. (HJ, November 5, 1951)

Some of the folks heard and felt the Atom Bomb this forenoon [a.m.]. (HJ, April 22, 1952)

The A bomb of April 22 was heard and felt here at the monument which shook the building considerable. Also the one of May 1st was heard and felt. (L. Heaton, monthly report, April 1952)

There were two light storms during the month and these came three days after the Atomic blast. It has been said the Atom bomb was the cause of the storms here. (L. Heaton, monthly report, March 1953)

Atom bomb set off this morning. Was felt rather hard too. The flash was very bright. It lit up the country like daylight. (HJ, June 4, 1953)

Felt the two atomic blasts set off in Nevada today at 6 a.m. and the other at 11 a.m. Rattled windows and doors. (HJ, March 29, 1955)

Heard the atomic blast this morning. The atom cloud seemed to go southeast today. Lots of jet trails in the sky. (HJ, October 7, 1957)

About 4 p.m. on March 5, 1951, after at least three atomic bomb tests in Nevada, an earthquake occurred at Pipe Spring, "going from west to east," Heaton reported,

rattling windows and dishes at the monument. Another earthquake was felt on February 16, 1953. While there may be no connection between the tremors and the testing, it must have added to the area's general climate of uneasiness, as Heaton and others had already linked sudden weather changes to the testing. Heaton does not expound in his journal on his thoughts or feelings (or those of his neighbors) about the weapons testing in Nevada. He only reports seeing or feeling its physical affects. The invisible affects would not manifest for some time, but could possibly be linked to an unusually high number of Fredonia children diagnosed with leukemia between 1963 and 1967. (See Part X.)

<u>Uranium and Oil Exploration</u>

During the Cold War climate of the early 1950s, the Atomic Energy Commission encouraged the exploration and milling of uranium through a system of price supports and other incentives. This touched off a uranium boom, particularly on the Colorado Plateau. In southern Utah's Capitol Reef National Park, for example, the Department of the Interior attempted to prevent uranium mining and exploration, but the AEC cited national security as warranting full development of domestic uranium sources and pushed for prospecting in any potential uranium-bearing formations within public lands. In February 1952 a special use permit was signed between the AEC and the Park Service that opened Capitol Reef's lands to uranium miners. 1500 While no such action was taken at Pipe Spring National Monument, a considerable amount of exploration for uranium and oil took place on surrounding lands, including some on the Kaibab Indian Reservation.

During September 1952, Heaton began to report that a number of people camping on the monument were prospectors for oil and minerals: "Government men out looking for oil on Indian Reservation and will start drilling in a few weeks." ¹⁵⁰¹ That month 46 people camped for one or more nights at the monument, with a number of prospectors using the campgrounds as a base for their activities. It was reported at the Zion staff meeting in early November that drilling on the reservation by oil companies was to begin as soon as equipment could be set up. In March 1953 more oil prospectors were conducting oil exploration on the reservation.

Prospecting activity noticeably increased from June through October 1954, with concomitant use of the monument's campground. ¹⁵⁰² In early July Heaton reported,

There have also been a lot of prospectors going and coming through the monument hunting for that rare metal, Uranium. Instead of traveling with the lowly donkey (the Desert Nightingale) and pick and shovel, they have the high-powered gas wagons and geiger counters. Several hundred acres have been staked to the west and southwest of the monument. 1503

In August 1954 Heaton reported, "More oil and uranium activities starting in the area." ¹⁵⁰⁴ Heaton reported that mining and drilling had begun in the area "and the roads are kept busy with workmen driving to and from their work." ¹⁵⁰⁵ In early September he wrote, "Quite a large outfit for core drill for uranium passed, going west. Report 40 or 60 300-foot holes are to be drilled." ¹⁵⁰⁶ In October Heaton wrote, "Uranium drillers are here.

Pulled in last night. [They are] working some 10 miles to the west of the monument."¹⁵⁰⁷ There were no reports of rich finds. Several oil companies were trying to close leases on private lands so that they could begin drilling that winter. Heaton also reported a new user of Pipe Spring water: "Uranium mines are hauling quite a bit of water from the monument to use in their drilling operation."¹⁵⁰⁸ Area mining operations closed down over the winter of 1954-1955, except for a few claims staked by private individuals. In January 1955 Heaton reported, "The Mineral Engineering Company of Pueblo, Colorado is doing some core drilling for uranium on the cedar ridge 10 miles west of the monument. There was some drilling before but could not make any good test because of moisture and water in the ground at about 60 to 80 feet."¹⁵⁰⁹

Monument Administration

Activities at the Nevada Test Site did not impact day-to-day activities at Pipe Spring National Monument, but they did give Heaton something out of the ordinary to report at Zion staff meetings. Heaton's wife and children continued to help give guide service and to assist with monument maintenance work during the early 1950s. After a January 1951 staff meeting at Zion, Heaton was given a new heater for his office in the fort. The heater, he later reported, "Keeps the room at a workable temperature, except draft on the floor." 1510 The next staff meeting he attended was on February 7, 1951, just one day shy of Heaton's 25th anniversary of working for the Park Service at Pipe Spring. Regional Director Tillotson sent Heaton a letter of commendation for his service.

The Rainmakers Cometh

Experiments in cloud seeding were carried out during the spring of 1951 in southern Utah parks and in the area of Pipe Spring National Monument. Superintendent Charles J. Smith described the activity in his monthly report for March to the director:

What could be very significant to the national parks of this area is the projected rainmaking venture, which has been instituted in southern Utah this spring. Seven counties in this area have contracted with a California firm to set up and operate ten stationary generators for cloud seeding from April 1, 1951 to April 1, 1952. The backers of the venture hope to double the annual rainfall in this part of the country and say that in many cases they even triple and quadruple it. If successful in bringing additional moisture to desert range lands, the 'cloud milkers' have visions of causing large amounts of snowfall to accumulate in the high mountains for use for power and irrigation. It is too early to hazard a guess as to what success this venture will meet with. Whether or not the venture is successful, we will watch it with great interest. In the event the project is successful, we can foresee the possibility of the most profound effects on our national parks.¹⁵¹¹

A few days before the experiment was to begin, Heaton received a visit by two "rainmaker men" who left one of their machines in the area for testing. 1512 The Water Resource Development Company owned the machines, and its field representative was a Mr. Noble of Provo, Utah. The job of operating the machine at Pipe Spring, keeping records, and making reports was given to Heaton's son, Lowell, for which he was paid \$1

per hour while operating the machine. Leonard Heaton commented, "Very simple thing. Burns charcoal with silver iodide in it." Apparently the "rainmaker men" would phone the monument with instructions to turn the machine on (it seems this was done when potential rain clouds could be seen approaching the area). Occasionally the men would stop by to check the generator and leave supplies for the machine.

Testing of the machine at Pipe Spring began in early April and continued into the summer. In April Heaton reported to Superintendent Smith that the silver iodide generator was run for 80 hours late in the month. He gave the invention credit for producing storms that generated 2.5 inches of rain during that time. No other weather affects were attributed to the machine in Heaton's later reports. On August 10, 1951, Heaton reported, "Mr. Noble, district supervisor for the rain making machines, was in and moved the generator from this area because of poor telephone service. Will likely be placed in Fredonia." ¹⁵¹⁴ In December of that year, Heaton reported to Zion that he received a call from Noble about putting the rain generator at the monument again. Then nothing more was written about the machine, the "rainmakers," or the outcome of their attempts to control the weather.

This is Station KNKU20

In May 1951 Pipe Spring National Monument took a modest leap forward into the world of modern telecommunications with the acquisition of a two-way radio. Heaton got permission to get two, 50-foot pine poles from Kaibab Mountain to make



92. Leonard Heaton with "rainmaker machine," April 1951 (*Photograph by Fred Fagergren, courtesy Zion National Park*)

a radio aerial. On May 11, two of Leonard Heaton's brothers, Grant and Kelly, helped the custodian erect the two aerial poles at the monument residence. On May 16, Heaton attended the Zion staff meeting, returning to the monument with the radio transmitter (Call KNKU20). The following day, Chief Ranger Fagergren and Chief Clerk Fred Novak came out to set up the radio at the monument and to inspect monument files. While the radio receiver worked, the two men had trouble getting the transmitter to work. Toward the end of May, two staff from Bryce Canyon National Park came out to fix the radio set, which turned out to be only a microphone problem. Heaton borrowed a microphone from the Moccasin Church to test out the set and managed to get the Chief Ranger at Zion on the radio that afternoon at 1:40 p.m. "Another milestone in communications at Pipe Spring National Monument," wrote Heaton in his journal, referencing Pipe Spring's 1871 telegraph office and later advances in communications. 1516 The radio enabled Heaton to communicate with park sites in southern Utah and northern Arizona.

The Monument Fire

A serious fire occurred at the monument on Saturday, July 7, 1951. On that date the 36 x 20-foot, wood-frame, combination barn/garage burned down. 1517 The fire was discovered about 5:00 p.m. by one of Heaton's children, who saw smoke and told Edna Heaton. Custodian Heaton was not on duty that day and was away; only Edna and two young children were home when the fire broke out. 1518 The burning building was located about 150 yards northeast of the residence, immediately adjacent to a cellar in which a large amount of fuel was stored for the electric generators. This added considerably to the situation's danger. Edna tried to call Moccasin for help but discovered the telephone wasn't working, which delayed getting help to the scene. While one of the children was left trying to make phone contact with Moccasin, Edna Heaton moved the government truck and then fought the fire with a carbon tetrachloride, "bomb type" extinguisher. The water tap near the building could not be used as it was too close to the flaming building. Edna fought the blaze for about 15 minutes before help arrived. "Help" at that moment consisted of eight youths under 16 years of age, who attempted to put out the fire with carbon tetrachloride and soda acid extinguishers. Edna Heaton prevented the youth from approaching too near the fire because of the danger of the fuel storage cellar igniting and exploding. About 15 minutes later, area ranchers arrived with a pressure pump and portable stock watering tank. While there was little left of the garage or its contents by that time, the men averted a potentially far worse disaster. The exposed roof rafters of the fuel storage cellar had ignited and the ranchers were able to extinguish the flames preventing much worse destruction at the monument.

Heaton returned home to the ruins of the fire that evening about 7:30 p.m. The custodian worked to put out the fire for another three hours, then kept a stream of water running on the smoldering ruins all night. The building was destroyed as well as its contents: four to five tons of hay, a chicken, a tractor and trailer, and many of the monument's hand tools. The following day, Heaton notified Assistant Superintendent Art Thomas by phone and reported the fire. The custodian thought the cause of the fire was spontaneous combustion from new bales of hay stored in the barn the previous Tuesday. On Monday, July 9, Chief Clerk Novak and a ranger came to the monument, took pictures of the fire damage, got a list of government and personal equipment lost in the fire, and interviewed Edna

Heaton. Losses were later estimated at \$1,100 for the building, \$1,090 for Heaton's personal property, and \$286.55 for loss of government property. 1519

Heaton later cleaned up the mess from the monument's most destructive fire, hauling away five truckloads of burned materials. The fire also damaged about 200 feet of monument boundary fence, which Heaton replaced in August. In the fall he dug up about 300 feet of 3/4-inch pipeline that ran from the meadow to the garage site as it was no longer needed. In January 1957, using cinder blocks left over from the comfort station construction project, Heaton built four-foot high walls on the north and west sides of the old garage's rock floor "to have a place to park [the] truck and store things." 1520

On August 30, 1951, Heaton answered a fire call in Moccasin at Chris Heaton's residence, taking with him nearly all the monument's fire fighting equipment (adequate to equip an eight-man crew). By the time he arrived, the fire was under control, he later reported.

Other Events, 1951-1952

In mid-June 1951, Heaton attended an Arizona Strip Community Association meeting where the decision was made to erect a large sign for the benefit of motorists on U.S. Highway 89.¹⁵²¹ The sign was to depict the main roads and towns of the Arizona Strip. During August 1951, Regional Forester S. T. Carlson made his first visit to Pipe Spring National Monument. He later recommended to the regional office that early attention be given to installing a lightning protection system on the fort and to taking measures to protect the fort and residence from fire. (In this regard, his recommendations echoed those made by others in 1950.) He pointed out that while the monument had "copious amounts of water," there were no distribution lines or pressure system to provide for fire suppression. Carlson also recommended that monument trees be sprayed to control insects as an annual maintenance project.¹⁵²² (Correspondence and later reports suggest an annual tree-spraying program was initiated in 1951.) In November and December 1951, as a fire protection measure, Heaton and four of his sons dug a trench and laid a pipeline to supply water to fire hydrants at the residence. It would still be some time before the fort received protection from lightning and fire.

Shortly after the July 9, 1951, monument fire, Heaton discovered someone had stolen a box of arrowheads from the Indian relic showcase. The thief had left the empty box in another room after removing the arrowheads. At this point, Heaton, was rather discouraged: "Makes a fellow pretty low to have things happened as they have to me the past month. First my girl getting hurt, fires, and things taken from the fort." Another theft was discovered by Heaton after the August 31, 1951, Winsor family reunion. The custodian reported that a small brown crockery jar recently donated by Maggie Heaton, Leonard's mother, was stolen from the museum during that event.

January 1952 was a difficult month for travel in the area, with not all problems attributable to local road conditions. On January 8, Leonard and Edna Heaton ran out of gas driving to Zion National Park for the staff meeting and a supper and party to be held

afterward. (The fuel tank register didn't work on the truck.) The temperature was four degrees below zero. The couple finally arrived at the park at 10:00 a.m. A week later Heaton received a call from two regional office staff (one of whom was Regional Architect Kenneth M. Saunders) whose car was stuck in a snow bank on Kaibab Mountain. The two men were not bound for Pipe Spring at the time. The trip to assist them took Heaton three and one-half hours. While he didn't mind helping, what seemed to bother the custodian most at the time was that he had been waiting for some time for Saunders to come and inspect the work he had been doing on the fort. Money had been allotted to the monument (\$500) for repairs to the fort, acquiring additional antique furnishings, and display cases. The monument also had an allotment of \$700 to replace the burned-out garage with a new utility building. Heaton felt he needed some direction in planning the work that was to be accomplished with the money and was anxious for guidance that would enable him to plan out his work for the year. In the interim, Heaton completed some grounds-keeping chores over the winter, removing dead trees from around the fort ponds, digging up tree suckers from the meadow and campground, and thinning out willows growing on the banks of the meadow pond.

Superintendent Smith retired from his position at Zion National Park on April 30, 1952, and was succeeded by Paul R. Franke on June 1, 1952. After Heaton attended a staff meeting run by Franke, he reported, "Mr. Franke is making quite a change in our staff meeting procedures and it is not taking too well with the rest of the fellows. So it looks like our reports will be somewhat shorter when we get on to what he wants." ¹⁵²⁴ Assistant Superintendent Art Thomas remained at Zion and Heaton usually dealt with him on monument issues.

During the summer of 1952, as in summers past, Edna Heaton was in charge of the monument during Heaton's absences from the site, often handling a considerable numbers of visitors. After more than 25 years of family members doing this *pro gratis*, either Edna and/or Leonard Heaton must have decided enough was enough. In July Heaton wrote in his journal, "Am going to see the director on the 21st about having her paid part-time employment for the two days I am away." Director Conrad L. Wirth and Assistant Director Ronald F. Lee visited Zion on July 21, when a party was held at the park. While Heaton attended the affair, it is unknown if he asked about possible employment for Edna Heaton at that time. During Heaton's absences, Edna continued providing year-round, unpaid guide service at the fort until the 1953 travel season.

In October 1952, when Heaton took two week's annual leave, Edna was in charge of the monument for the entire time. Again in early April (probably Easter weekend) Edna was left to oversee the fort and its visitors. A Fredonia community outing brought 212 people that Saturday, followed by another 340 people on Sunday. 1526 A few weeks later the decision was made that the family would spend the following summer at their farm in Alton, perhaps fueled by Edna's weariness with being left to manage the monument on her husband's days off or with the lack of privacy attendant with living on the monument. Of the decision, Heaton wrote in his journal, "Sure don't know what to do about the place this summer during my two days off from work with the family being

away most of the summer. There will be no one at the monument to look after things during the day. Will work to try and get [a] hired laborer 2 days a week. Cost about \$21 per week."1527 The decision that the family move to Alton for the summer was made prior to Heaton obtaining Zion's permission to hire someone to fill in for him. This strongly suggests Edna (probably with Leonard's backing) may have in effect gone "on strike," serving Zion with notice they must find an alternate for Leonard Heaton on his days off.

On July 27, 1952, Franke paid an inspection visit to Pipe Spring, bringing his wife along. Franke discussed a number of topics with Heaton: getting park signage, trimming trees back so the fort was more visible, furnishing the fort, restocking the ponds, replanting orchards, and other work toward implementation of the monument's master plan. Franke was not pleased with the site proposed for the new utility building. Still Heaton seemed grateful for Franke's visit, his criticism, and direction. "It looks like I will get more attention from Franke than I got from Smith," he wrote in his journal. "Makes me feel that I am part of the organization rather than a necessary evil the park was putting up with and didn't want." This was a sentiment never expressed by Heaton when the monument was under the supervision of Southwestern Monuments. It seems he felt more like the "odd-man out" once Zion took over its administration.

In August 1952 Heaton confided in his journal that Franke's administrative style was rankling a few people: "Things don't set too well with Supt. Franke and the rest of the fellas. He seems to be too critical of things for them, being new in the place. He sees changes needed." ¹⁵²⁹ In September he wrote in his journal, "The men are getting tired of the way Supt. Franke is running them. Don't have much to say," implying Franke had a rather dictatorial style. ¹⁵³⁰ What was worse, Heaton complained that Franke's "short and snappy meetings" were getting longer and more tiresome. "Instead of an hour length they stretch out to two and one-quarter hours," he wrote. ¹⁵³¹ Long staff meetings (up to six hours) soon became the rule and Heaton began to dread them. In the days when cigarette smoking was in vogue, the meeting room was always filled with smoke. A non-smoker, Heaton frequently returned home with what he called a "sick headache" from these meetings. ¹⁵³² His journal has numerous references during the early 1950s like the following description of a staff meeting: "Took most all day. Seems like there is a lot of waste of time talking about little things, not of any value to most of the men." ¹⁵³³

Getting Power to the People

Arizona Strip communities continued to push for commercial power in their areas in the early 1950s. In September 1952 Heaton reported the Arizona Strip Community Association was pushing for Rural Electrification Administration (REA) to supply electricity to the communities of Moccasin, Fredonia, Short Creek, Jacob Lake and area ranchers (see Part VII for background on the REA). The group had decided to join the Kingman REA Corporation of Kingman, Arizona, in the hope of saving time and cutting through bureaucratic red tape involved in obtaining REA assistance. A meeting was held in Fredonia on January 5, 1953, to discuss the REA establishing a power line from GarKane Power Company's line at Mt. Carmel Junction to Arizona Strip communities. It was later reported that the REA program to the Arizona Strip hinged on the possibility

of buying power from the Whiting Brothers Sawmill in Fredonia. Another community meeting in Fredonia held in February left Heaton optimistic about the area soon getting commercial power: "The prospects look good at this time," he later reported to Zion officials. ¹⁵³⁶ But commercial power would be delayed years more.

Other Events, 1953-1955

An inspection of the boundary fence in February 1953 revealed that about 50 percent of the cedar boundary fence posts needed to be replaced due to deterioration. Except for a small segment replaced by Heaton after the 1951 fire, the monument's boundary fence was the same one installed during the winter of 1933-1934 under the Civil Works Administration program. Heaton made some repairs to the fence during October 1953.

Assistant Director Hillory A. Tolson attended the Zion staff meeting on April 1, 1953. Heaton later reported, that Tolson "told us to obligate all the money as soon as we get authority to do so, then ask for more. It seems like the Service still hangs onto the New and Fair Deal Policies of the Democratic Party of spend and spend and ask for more." The monument was to benefit from that approach during the year. Two longneeded advances occurred during 1953 at the monument. That summer the monument received a new fire pump, reel, and fire hose. 1538 Heaton constructed a housing for the pump near the fort ponds in July. Finally the fort had fire protection. Heaton quickly discovered the new pressure pump was a great aid to him in cleaning out clogged pipelines and trash-filled cattle guards (rather creative uses of the system, but ones that fire protection rangers later frowned on). In 1955 the monument's carbon tetrachloride extinguishers were replaced with six new carbon dioxide fire extinguishers.

The other important expenditure of funds in 1953 was for hiring a laborer for the monument. On May 1, 1953, Heaton to attended a marathon five and one-half hour staff meeting at Zion. Edna Heaton was left in charge at the monument, tending to 225 students from Short Creek and Fredonia schools on a May Day outing. Heaton came home with welcome news: Zion gave him permission to hire a seasonal, part-time laborer on the two days a week he was off-duty. Edna and the children moved to Alton for the summer three days later. The laborer was Leonard Heaton's youngest brother, Melvin Kelsey ("Kelly") Heaton, who began work on May 14, 1953. During the summer Leonard Heaton worked Friday through Tuesday. Kelly Heaton worked Wednesday and Thursday. In the fall, when Leonard Heaton's tour of duty reverted back to Monday through Friday and Edna and the children returned to the monument, the laborer was let go. From about October to May, the fort was officially closed on Saturday and Sunday, but Heaton reported "most of the time someone is at the monument and can let people in."1539 (That "someone" of course was Edna Heaton who continued to fill-in for the custodian during the off-season until 1957.) Word also arrived at the monument in June 1953 that Heaton was to get a pay raise to \$1.73 an hour. 1540 That was good news, particularly since the rent for his quarters was raised a few weeks later to \$17.50 per pay period. For the increase, Heaton would get a new heater and electric bills would be included. Zion officials promised several other improvements. Still, with the rent increase, Heaton wrote in his journal, "I am not much better off than before the raise." 1541

Assistant Director Ronald F. Lee visited the monument on July 13, 1953, accompanied by Superintendent Franke. Lee was perturbed about the lack of monument signs at Pipe Spring, there being no visible indication that it was a national monument. Otherwise, Lee was impressed with the area and with Heaton's operation of the historic site. 1542 In the fall the Arizona Strip Community Association echoed Lee's request for monument signage at Fredonia, at the junction of the road to Hack Canyon (to the south on the Arizona Strip), and at the monument so people could find their way to the site. The lack of signage at the monument and at highway junctions had long been an identified need. Sign plans had been requested from the regional office but had not been received. In March 1954 Heaton called on Arizona State Highway Department officials to request directional signage to the monument be placed at the junction of State Highway 40 and U.S. Highway 89 in Fredonia. They agreed to this request and the new sign was placed in the summer of 1954. Finally in February 1956, new directional signs were received from Zion to replace the deteriorated wooden signs made in 1939 and 1940. These were placed along paths and in the campground area in March. New informational signs were installed in April. The installation of the large entrance sign delivered from Zion was delayed until Heaton found someone to help him erect it.

Kelly Heaton's appointment ended by mid-July 1953, leaving Heaton again without guide help until his family returned from the Alton farm. In mid-August he wrote, "There are a lot of people coming out to the monument during my day off that don't get to see inside the fort, but it sounds like I will not be able to hire anybody this year because of the economy drive in the government." ¹⁵⁴³ In September Heaton asked Zion officials if Edna Heaton could be hired as a part-time employee while he was on annual leave. Correspondence suggests that the main objection officials had in hiring Heaton's wife was that she did not meet the qualifications of a laborer under which both Leonard and Kelly Heaton had been hired. A person was needed at the monument who could perform heavy physical maintenance work as well as provide guide service. Edna had only performed the latter work, so this may be one of the reasons Zion officials would not consider hiring her. The fear of charges of nepotism was probably not a factor in Zion's decision, for other close family members had been hired on a temporary basis to work at the monument. Unlike the wartime years, the Park Service during the post-war era generally considered hiring women only for clerical positions.

Other than Heaton's guided tour, the primary source of information about Pipe Spring available to visitors at the monument was a Park Service brochure. Heaton ran out of monument brochures during the summer of 1953. In May Zion officials asked for a reprinting of 10,000 copies but asked the regional historian to revise the brochure. There was some debate over the format and content, which held up its republication. Meanwhile, Heaton sold some reprint leaflets that were available from Southwestern Monuments for 10 cents each. The monument leaflet was reprinted in 1954, reduced from a four-page to two-page format. 1544

Events of late July 1953 serve as a vivid reminder of the northern Arizona's Mormon 19th-century legacy of polygamy, which survived into the 20th century and, no doubt, will

continue to be practiced by some into the 21st century.¹⁵⁴⁵ On Sunday July 26, at about 3:00 a.m., under orders of Arizona's Governor Howard Pyle, law officials conducted a raid on the town of Short Creek, located 15 miles west of Pipe Spring. Many of its residents were living in polygamous households.¹⁵⁴⁶ Heaton wrote in his journal that day, "Very active day. Lots of cars going coming past the monument as the Arizona officers, about 100 strong. Went into Short Creek, Arizona and arrested every man, woman, and child. A number of charges of conspiracy and white slavery and other state charges. Some 50 men and women were held and taken to Kingman to await trial August 27. It is a very sorry mess to be handling."¹⁵⁴⁷ The next day, Heaton wrote, "A lot of cars going by the monument but not many stopping. [In] Short Creek more arresting." And on the 28th, "Quite a few visitors, also a lot of traffic to Short Creek."¹⁵⁴⁸ Heaton reported that state officials moved the children from Short Creek to Phoenix in four large buses. "I suppose [there were] 26 cars and buses in their caravan, by here at 4 p.m.," he wrote on August 1.¹⁵⁴⁹ Husbands and wives without responsibility for children were jailed and children were sent to foster homes, accompanied by their mothers.¹⁵⁵⁰

The raid was headline news in Arizona papers, which continued to cover the story for some time; it received considerably less press coverage in Utah. Ultimately the polygamists plea-bargained, pleading guilt to a charge of conspiracy. On December 7, 1953, 26 accused polygamists were sentenced to one year's probation and released. The raid did little to alter the Short Creek families' commitment to the institution of plural marriage. The Short Creek raid and associated publicity temporarily boosted visitation figures to Pipe Spring National Monument. The event also played a part in the town changing its name to Colorado City in either 1962 or 1963. Short Creek straddled the Arizona-Utah border. The Arizona side was named Colorado City and the Utah side was named Hilldale; the latter incorporated on December 9, 1963.

The monument received another boost in visitation when in August 1953 *Westways* magazine published "Refuge at Pipe Spring," an article by Jay Ellis Ransom. Its author praised the monument's campground as "one of the finest overnight refuges for tired travelers in all western America. It includes a marvelous open-air, natural-rock swimming pool and a two-acre 'bowling green' of virgin grass, formerly the old parade ground fronting the fort."1553 There is no historical evidence that the monument's grassy meadow to which this author refers was ever a military "parade ground," but such fanciful bits of information were not uncommon in magazine articles and reinforced the popular idea of the fort as a military garrison, a remote outpost against "hostiles," rather than as the Church's cattle ranch. Heaton said the photos and information in it were out-of-date but he thought the article increased the monument's visitation. 1554 In July 1954 a reporter and photographer from the *Arizona Republic* newspaper visited the monument.

In January 1954 Heaton got the impression from reading circulating correspondence that officials were discussing the possibility of turning the monument over to Arizona State Parks or abandoning it altogether. Unrelated to that, during that month he began changing his official records over to a new filing system. Looks like it will take me all summer to get them changed over, he reported in late March. In his monthly report for

January, Heaton called Zion officials' attention to the fact that February 8, 1955, marked his 30th anniversary at Pipe Spring National Monument. He wrote, "During that time there have been no serious injuries to monument visitors. No one lost. Very little vandalism has taken place to mar the historic features of the monument." Actually, Heaton was a year off - 1955 marked only his 29th year at Pipe Spring. (Heaton was already thinking about retirement and perhaps was a little over-anxious to see the years fly by.)

Zion officials planned to hire Kelly Heaton to take over on Leonard Heaton's days off in May 1954, but Kelly became ill and was hospitalized at the time. 1557 Until they made their summer move to Alton on May 18, the family filled in at the monument. Heaton was able to get Zion officials to let him hire his son Sherwin on his days off until Kelly Heaton was released from the hospital. Sherwin ended up with the job for the entire summer. 1558 After the family returned from Alton on August 31, Edna once again took over the job, covering for Custodian Heaton while he took two weeks' annual leave that fall. Even on his days off, if he was on the monument, Leonard Heaton would often give tours of the fort. He wrote in his journal that September, "Just can't turn anyone away that calls at the house to be shown the fort." 1559

In May 1955 Zion told Heaton that he could hire a seasonal laborer for up to 30 days for the rest of the fiscal year. He hired Sherwin that month but his son soon quit to take a full-time summer job. Then in June, Heaton's son Lowell took over. He also quit a few weeks later to accept a permanent job at the Grand Canyon. On June 21, Heaton hired Robin Grant Brown as laborer. Funds allowed him to keep Brown working five days a week for the summer season. This allowed Heaton to get a lot more projects completed that summer. In June all the monument trees were pruned and the west end of the west pond's rock wall was rebuilt.

During the second week of August 1955, several men inspected the monument to see if it would be suitable to film an Indian scene for the popular television program, "The Lone Ranger." Movie makers were also interested in the fort as a setting. On August 25, 1955, Heaton reported,

The Bel Air Movie Company came in about 6:30 a.m. today to start filming part of the western picture, 'Frontier Scout.' 1560 There was two large trucks of equipment, several smaller ones and under the direction of Howard W. Kock. Started filming by 8:30 a.m. There was a cast of about 24 whites and Indians. Filming [was] done in the courtyard and east side. There was also a number of visitors and local people coming to see the filming. Better than 125 people here. 1561

On August 26, Heaton wrote,

More filming of horses and Indian fights around the outside of the fort. The filming completed and all property moved out by 3:30 p.m. Very little damage

was sustained at the monument, just the trampling down of weeds and a few bushes and packed ground. No damage to building that I have been able to detect. The place was left pretty clean of litter. A lot better than I expected. I would not want to have any larger filming done here as it could do a lot of damage.... Filming these two days brought in more than 250 people. ¹⁵⁶²

So it was that in 1955 there finally was a "battle" between Indians and settlers at the old Pipe Spring fort! This would not be the last movie filmed at the monument.

Laborer Robin Brown's temporary position at the monument ended when the summer travel season was over. During September 1955, Heaton took several week's annual leave and was away from the monument the entire time. Edna Heaton and some of the children remained at the monument conducting visitors and school parties through the fort.

The "Neglect" of Pipe Spring National Monument

During May 1955, Heaton received a performance rating of "satisfactory" from Superintendent Franke. Heaton was disappointed, writing later in his journal, "He gave a satisfactory rating without seeing what I am doing at the monument for about a year. I wish they would come out more often." ¹⁵⁶³ In late May 1955, Sherwin Heaton wrote to Superintendent John M. Davis, Southwestern Monuments, to request that the administration of Pipe Spring National Monument be transferred from Zion National Park back to Southwestern Monuments. On June 17, Davis responded to Heaton's letter. Judging from the response, it appears that Sherwin Heaton either insinuated or stated in his letter that the career of Custodian Leonard Heaton was not advancing as it should under Zion's administration. Davis replied that Leonard Heaton's advancement "is dependent entirely upon his capacities and his performance on the job" and that it made no difference who was overseeing his work. Davis added that he saw no need for the monument's supervision to be returned to Southwestern Monuments and would in fact advise against it, if it were proposed. ¹⁵⁶⁴

Judging by later events, Davis must have copied the correspondence to the regional office. At the time of this correspondence, Hugh M. Miller was serving as acting regional director in Santa Fe. Miller was concerned about what had led to Sherwin Heaton's letter. He copied it to Assistant Superintendent Art Thomas at Zion with a memo that stated.

I am, of course, convinced that Leonard Heaton knew nothing of this and I do not know who Sherwin is. Also I do not want to make any fuss about this matter, but I should like to have your comment and any information you can give us, particularly as to the sources of dissatisfaction of the administration of the monument by the Zion staff. 1565

Thomas responded to Miller by memorandum to July 12, 1955:

I agree with you that Leonard had nothing to do directly with the correspondence of which you sent me copies.... There is, however, a growing feeling in the communities surrounding certain areas which we administer from this office that the areas are neglected. It is a problem with which we seem powerless to cope. The sad part of it is that there is considerable truth in the charges that the areas are neglected.... Inquiries reveal that the citizens of Kanab and Fredonia are dissatisfied with the treatment that Pipe Spring is receiving; Mr. Sherwin Heaton is a relative of Leonard's and [is] acting as spokesman for citizens of that area. 1566

Thomas went on to say that Pipe Spring area residents knew that Capitol Reef National Monument had gone from no appropriation and an unpaid custodian in 1951 to having a GS-9 superintendent, seasonal ranger, and appropriation of \$14,860 in 1955. Pipe Spring, on the other hand, had an annual appropriation of only \$5,857, no seasonal help, and an ungraded employee as custodian. Moreover, Thomas said, Director Stephen T. Mather had promised Leonard Heaton at the time Heaton took over the monument that he would make every effort to get funding for a custodian's residence. "Ever since that time Leonard has been hoping to see that house," Thomas wrote. "Persistent justifications" by Zion officials for increased appropriations for Pipe Spring, Cedar Breaks, and Bryce Canyon parks "got nowhere," Thomas stated, inferring the problem was at the regional office level. Thomas made the recommendation that Pipe Spring be given a GS-7 superintendent, that funds for a six-month ranger historian and for seasonal laborers be provided, and that a residence or two and an administration building be built. "That would be a beginning," Thomas wrote. 1567

All correspondence was copied to Superintendent Franke, a man with considerable historical perspective on the problem. Franke prepared an eight-page handwritten letter to Hugh Miller, which adds historical perspective to the problem. Most of it is quoted below:

I have read Art Thomas' reply to your inquiry as to what is wrong with the administration exercised by Zion over Pipe Spring National Monument. Frankly, there is nothing wrong that sensible personnel management and a little money couldn't cure readily. I heartily agree with Art in his recital of the difficulty of trying to pull constantly on our own bootstraps to get a little somewhere. In addition [to] the general picture which has been presented, I would like for you to get a little of the more intimate phases of the problem.

It develops into two distinct problems, each of which is an irritant of the other. Long festering, we have been unable to do anything about it.

The first problem is the Heatons. Some quarter of a century ago the NPS encouraged and took pride in the participation of family members of custodians in interpretive and protective activities. We bragged about the Honorable Custodians ___ and ___. Soon it was frowned upon and changes made everywhere (except Pipe Spring). Here through penury doling out of funds for management, we must continue through the years to demand from the employee the annual tribute of the pound of flesh. True, it is bloodless and paid to the government by family members (women and children) in the form of uncompensated services. Do you for one minute believe that such services are forever given willingly in the Spirit of everything for the National Park

Service, but nothing for this family? All around them, progress has taken care of similar situations and loyal hard-working employees are reclassified or given a chance at more remunerative employment. Not so at Pipe Spring. The funds allotted don't even keep pace with wage board increases.

Leonard is a man with a pretty fair education, which includes several years at B.Y.U. Married early, he starts a big family early, in a locality where transportation, communication, and wages are probably the nation's worst. An injury cripples his hand so only one and part of another's fingers are usable. The 'Boss' [Pinkley] employs Leonard when Pipe Spring is removed from the Zion-Bryce-Grand Canyon travel route. The salary offered at the time is excellent when compared to what local cowboys and Indians were making. There is promise of a house, of help, and other improvements.

The employee is entered on duty and attacks his work with all the spirit we had in those days. He must do everything: build roads, ditches, irrigate, keep the pit toilets clean, dole out the water to the stockmen and Indians, clean campgrounds, maintain the buildings, and above all, interpret the historic fort and guide visitors. When in the midst of a messy job, his wife or one of the children took care of the interpretive and guide work. He only gets paid for 40 hours a week, yet his daily toils cover 12 hours and Saturdays and Sundays he stays on the job or assigns a member of the family. If by chance the food supply is so low that the head of the family must go to town for supplies, he must leave someone behind to watch the fort. He is still looking for that house, for some help, and the 40-hour week.

Amongst his duties is the monthly report. An ordeal, as he pounds away on the typewriter and the crippled hand misses the proper letters on the keyboard. The report passed around is considered 'cute,' 'unique,' and 'amusing.' He must continue to write it for the Brass in the National Park Service must be amused. The job, the man, the duties, become more demanding but the NPS each year in its allotments doles the edict: Pipe Springs National Monument shall not grow for we must keep the Heatons 'status quo.'

In spite of the great desire of our people to keep this area and its people as it was 25 years ago, the Heaton Family has grown, not only in numbers, but in stature. I doubt there is an employee in the National Parks like Leonard Heaton and family who have, without complaint, put up with poorer living conditions, yet have through the years contributed as much uncompensated time. The children have grown, attended school, graduated from high school, contributed their time and blood to the world conflicts and our Armed Services. Today the older ones have graduated from college, some are on missions, some are teaching, others in business, all fine members of their respective community. Dad continues to be a maintenance man doing the same chores, trying to blanket with his 40 paid hours the protection needs [which] are about 70 hours a week. He prepares the same report over which we smirk and laugh. Cute?

One can only surmise what the grown-up, educated children think of this Dad and the opportunities he passed up to join the higher paid laborers so much in demand in the growing communities of Fredonia and Kanab. Perhaps we get a

look into the family thinking. Not a single youngster expressed a desire to go to work for the National Park Service. Why? True, we have occasionally found a few dollars by which we could hire for a few days one of the boys for laborer. Recently there is a more definite action. Some time ago the family negotiated for a large ranch up near Alton, Utah. This is just under Bryce Canyon. The family now goes there on Leonard's days off. No longer is a CWOP [Civilian Without Pay?] left to guard Pipe Springs and provide interpretive services to visitors. Perhaps the Region and Washington office will consider this as neglect on the part of the Heatons or this office.

You folks may ask what is wrong with Zion's supervision over Pipe Springs National Monument. My reply: I believe the Secretary's office could well take the Heaton case as a fine example of 'Personnel Mismanagement.'

Now what's wrong with the People of Fredonia? They have been waiting for us to do something for a long, long time. It's easy to jump at conclusions that Superintendents don't know what's going on. This one does, for with Leonard, I every once in a while attend meetings at Fredonia's Booster Club. I may sound optimistic to them at first, but they soon grow tired of the do-nothing attitude. We talked of signs. There is not one identification on the monument that this is a National Monument. The old sign at Fredonia, designed by Chuck Richey, is in ruins. I told the Fredonia people I would try and get some signs. We dragged the bottom of the purse and made them here at Zion. Fredonia donated a piece of ground to erect a sizable marker along U.S. 89. This [was] about two years ago, yet we haven't been able to finance their erection to this date. Meantime, some Washington officials come in [and] find living conditions so deplorable that they immediately allot a power plant and powerhouse. The original estimate and allotment was OK and we could have put the plant and supply lines in. However, as you recall, Region cut the Pipe Springs money, telling us we should be able to put this in at less cost than at Cedar Breaks. So last year and this year we use what little road money there is [to] try and complete this installation. The signs must wait and eyebrows raise among the Fredonia Boosters.

Time and again Fredonia people complain that visitors are directed out to the monument and no one is there or someone comes out of a deep ditch, plastered with mud, and volunteers to show them and explain the area. It's not an encouraging picture for Fredonia. What do we have? You look at the appropriation. We used to have some rehabilitation funds, which enabled us to meet Leonard's salary. Damned little rehabilitation was done and you all know it. With reorganization, the rehabilitation money is out and very little is added to the 200 accounts. The light plant costs more to run, supplies are increasing, and the margin between Leonard's salary and the necessary transportation, supplies, and repairs shrinks yearly, leaving constantly less for relief employment. The squeeze has continued for a quarter of a century. We no longer have the CWOP outside the 40-hour week.

We have by word, letter, and estimates urged that something be done. Promises galore, but negative results. We urged the control of tunnel traffic through Zion to divert more attention to fixing the Fredonia-Hurricane Road.

Enthusiastically endorsed by folks in the 'Strip' they worked to prove the need of this highway. However, the project died in birth. More and more huge trucks through Zion and less need of going via the Pipe Springs road. I wrote Senator Hayden that \$700 annually would enable us to establish interpretive services at Pipe Spring and do much for increasing the travel and improve the economy of the community. 'It would also permit us to put on the payroll a young man recommended to him for employment.'

However, we caught no fish. What is wrong with the Service when it fails to give just a few dollars to small areas badly in need and then jumps on the Superintendent when someone pops off about the condition of the area? 'We in practice continue to give to him who has and take from him who has not.'

If S.W. Monuments can do something for Pipe Springs, for goodness sakes, let them do it...¹⁵⁶⁹

Before he had received Franke's letter, Miller drafted a response to Art Thomas' letter of July 12, acknowledging the assistant superintendent's "good straight talk relative to the alleged neglect of maintenance and development of Pipe Spring."1570 Miller, however, encouraged an attitude of looking toward future solutions rather than hand wringing over past omissions. While Miller knew it would be no consolation to local monument boosters, the logical explanation for the neglect of Pipe Spring was that other park areas simply had commanded preference. Visitation was always a factor when funds were being applied for and the very low visitation to Pipe Spring "can scarcely be overlooked as a factor," Miller pointed out. Where visitation was greatest, demands for funds were more urgent and more likely to be accorded attention first. Zion officials, of course, could increase the likelihood that Pipe Spring construction projects would be funded if they placed them higher up on their priority list (the Pipe Spring residence, for example, was listed as priority 40 on a list of 96 projects for the fiscal year 1957 construction program). The monument's preliminary estimates for that year included full-time positions for a superintendent and maintenance man. If a superintendent was hired, wrote Miller, he should be picked "as much for his manual dexterity as for this administrative ability." 1571

Apparently Miller never sent this memorandum, for just after he drafted it he received Franke's letter of July 18. Taken aback by its condemnatory tone, Miller had the draft filed away and responded instead somewhat curtly,

I have read your longhand letter of July 18 with some dismay. My memorandum of June 28 about administration of Pipe Spring was intended to be merely a casual request for comment, which I could use in replying to the letter from Sherwin Heaton to John Davis.

I hope to talk the whole situation over with you to see just [what] we can should do now regardless of what the failures were or whose failures they were in the past. In the meantime, you might be getting your own ideas together, as to whether we are in fact ready to develop Pipe Spring; just how far we should go; and how we should staff it. Somehow I had failed to realize that Leonard Heaton is bitter or that we have neglected or imposed upon him.¹⁵⁷²

Hugh Miller soon made an inspection visit to Pipe Spring with Art Thomas on August 31, 1955. He noted the need for lightning protection for the fort, a campground comfort station, and a custodian's residence. He inspected and approved the new utility shed, power plant, and fire pumper. With regard to personnel issues, Miller agreed to a three to four-month seasonal ranger historian position to help out with guide service during the busy summer months and to conduct historical research for use in an interpretive program. Miller also agreed that an effort should be made to create a GS-7 position and have Heaton put in it as acting superintendent. 1573 Zion and regional office officials set about trying to find a way to fund the two new positions. (An additional \$950 was needed to hire a seasonal ranger historian and \$220 more per year was required by Heaton's promotion. It appears that the regional office eventually "coughed up" the \$1,170 so that the personnel changes could take effect in fiscal year 1957.¹⁵⁷⁴) Franke later pointed out to Miller that the ranger historian was needed not only to provide guide service and to conduct research, but also to provide security for the site when Heaton was not on duty. Since the highway passed through the monument, Franke thought Pipe Spring was particularly vulnerable to vandalism. 1575

On December 15, 1955, after almost 30 years of service at Pipe Spring National Monument, Heaton received a promotion from maintenance man, ungraded, to acting superintendent, GS-7. Six months later, the monument hired its first seasonal ranger historian. During the next period of the monument's history - Mission 66 - Pipe Spring advocates would have much less cause to accuse the Park Service of neglecting the site.

Visitation

Visitation figures for Pipe Spring National Monument show a gradual increase during the early 1950s, rising from 2,104 in 1951 to 4,641 in 1955. 1576

Easter weekends continued to be a busy time at Pipe Spring. Perhaps because weekends were his usual days off (except for the summer travel season), Heaton was away for the Easter weekend of March 24 and 25, 1951. "My children were in charge of the place," he later reported. Sons Lowell and Leonard P. provided guide service that Easter Sunday and looked after the crowd of 163 people who came for their holiday outing. 1577 Visitation during the Easter weekend of 1952 was high. Fredonia had a community outing at the monument on Saturday, April 12, with 215 attending. On Easter Sunday, another 84 visitors came. School outings that month brought the monthly total to 449 people, about one-fifth of the year's total. In 1953 the Easter weekend once again brought a large number of monument visitors. Warm weather and good road conditions probably contributed to the combined crowd of 552 who came that weekend. The Easter holiday (April 17 and 18) in 1954 brought 632 people to the monument. An all afternoon ball game was held in the meadow that Easter Sunday. On May 15, 1954, a single group of 350 people from St. George came to visit the monument.



93. Joseph Frank Winsor, age 88, taken August 31, 1951 (*Photograph by Leonard Heaton, Pipe Spring National Monument, neg. 489*)

For the first time, Heaton got official permission from Zion to hire help for the Easter weekend of 1955. Heaton hired his son Sherwin to help with the expected crowds. That weekend (April 9 and 10) brought 721 visitors to the monument. The fort was open for people to come and go through at will; no guided tours were offered. At about 4:30 p.m. on Easter Sunday, a large cottonwood on the west side of the path between the ponds blew down, having been loosened the previous week by high winds. Fortunately, no injuries occurred. A few days later, Leonard and Edna Heaton worked two days cutting up the tree, hauling away the wood, and removing the stump.

During August 1951, two family reunions were held at the monument, the Parker family reunion on August 25 (61 people) and the Winsor family reunion on August 31 (65 people). Joseph Frank Winsor of Enterprise, Utah, the only living child of Bishop Anson P. Winsor, attended the latter gathering (see figure 93). Heaton pumped him for historical facts and reported later, "I

got many good bits of information on things at the fort, as to how they built and uses made. Will get them written down ..." The reunion also appears to have prompted the donation of Bishop Winsor's 1848 muzzle-loading shotgun to the monument at this time or shortly thereafter. The evening after the Winsor reunion, Heaton hosted 80-90 Kanab Stake primary school girls who came to the monument for an evening supper. 1578

Other Winsor family members visited the monument during the 1950s, including Ellis Hatch, (grandson of Bishop Winsor) and his wife on February 8, 1953, and other unidentified Winsor family members on August 21, 1953.

On June 2, 1951, the annual Arizona Strip Community Association barbecue was held at Pipe Spring National Monument. The event was attended by 310 people from Fredonia, Moccasin, Short Creek, Hurricane, Kingman, and LaVerkin. The crowd included some local officials, including Senator Clyde Bolenger of Mohave County, the mayor of

Hurricane, Asa W. Judd, as well an Indian Service official, Superintendent Forrest R. Stone (Uintah Indian Reservation). "All seemed to have a good time and plenty to eat," Heaton reported. 1579

A number of college student groups from California visited the monument during 1954. On April 11, 1954, Heaton had a party of 24 from Reedley College (Reedley, California) camp in the campground. On April 14, 38 cars and 110 students from Pasadena College arrived to camp at the monument. Also in 1954, a large group of fathers and sons of the Aaronic Priesthood, St. George Stake, visited the monument. The group was there for only three hours to picnic, but they brought 60 cars and 305 people. Heaton was challenged, he later wrote, in keeping the boys "from tearing the place down" since they were poorly supervised by their fathers. Some damage was done and a carpenter's plane was stolen. ¹⁵⁸⁰

Security of the historic buildings and their displays was always one of Custodian Heaton's concerns. On the weekend of September 9-11, 1954, Fredonia High School brought 50 students to the monument for an outing. Several of the boys broke the door in and others scaled the fort walls. Upon later inspection, Heaton could find none of the collection disturbed. "They should have asked to be shown in by some member of the family," Heaton later wrote. "We always have our trouble with the local people." 1581

In March 1955 Heaton entertained a troop of 27 boy scouts from Cedar City, Utah, on a three-day outing to the monument. He spent time each day with the troop, joining them on Pipe Spring area field trips and giving them campfire talks. In late July, 186 primary school students from Kanab Stake had an evening outing at Pipe Spring. Heaton took part in a program for the children in which he assumed the role of an Indian chief. 1582

On Labor Day weekend in 1955, the Heaton family held a family reunion on the monument. A total of 85 cars brought 521 members of the Heaton family for the event, described by Leonard Heaton as "an all day and evening affair." Heaton wrote in his journal that evening, "There were five Heaton brothers who settled in Orderville, Utah [in] 1879 and [these men] were very prominent in building this country." ¹⁵⁸³

Historic Buildings

The Fort

The primary project undertaken in 1951 was to reinforce the fort's two balconies. In February Regional Architect Kenneth M. ("Ken") Saunders and Assistant Superintendent Art Thomas inspected the fort and discussed with Heaton supporting the fort's balconies with angle iron and timbers. Stabilization plans for the balconies were dropped off by regional office staff on March 17, when Heaton was away. (He later complained in his journal, "I wish I would be notified when such men are coming, but maybe this monument doesn't rate notices." On April 10, Thomas inspected the proposed plans for repair work on the fort. Heaton began work on the balconies on May 3 and completed the job on June 26, 1951. Other work on the fort in 1951 included replacing broken windows, painting exterior woodwork, repairing balcony railings, and cleaning out the

spring pipeline which, whenever it got clogged with tree roots, seemed to cause water to seep under the foundation of the northwest corner of the building.

During January 1952, Heaton removed loose plaster from several of the fort's rooms and prepared them for replastering. Freezing temperatures prevented him from completing the plastering work for a while. Heaton spent much of February and March painting the exterior woodwork and interior rooms of the fort. Light gray paint was used on most of the exterior wood except for the porch balusters, which were painted green. ¹⁵⁸⁶ The porch railing was painted red. ¹⁵⁸⁷

In the spring of 1953, Heaton worked on restoring furnishings in the fort's spring room (milk and cheese racks and a cooling trough for milk) and replacing worn out flagstone in the room's floor. Heaton carved a trough out of a log, which he and Kelly Heaton installed in the spring room on June 23.1588 On July 18 he turned the water back into the spring room which flowed through the wooden trough. The room was now restored "as it was when the fort was first built in 1870," Heaton observed proudly.1589 He continued to work on furnishings for the room, working on the milk racks in November and December 1953. During the fall of 1953, a Kanab cabinetmaker, Mr. Pope, made reproduction doors for the fort's interior, based on an original door that Heaton took him. These were built of native pine. In November and December, Heaton replaced four doors in the fort that he had made 20 years earlier, which, like the fort gates, were not adequate as reproductions. As door frames were not square, he had to plane the doors to fit.

Other Rehabilitation Needs

In a March 10, 1953, memorandum to Regional Director Tillotson about monument rehabilitation needs, Superintendent Franke listed a number of projects with cost estimates. Among the list, he reported the southwest corner of the fort's lower building needed reinforcing. (A crack had developed from ground to roof and the wall leaned at the top about three inches.) Both the east and west cabin needed repointing and other minor work. The retaining walls around the fort ponds were crumbling and sloughing away and needed to be rebuilt, by far the most expensive of the proposed projects. Funds were also requested for purchasing period floor, wall, and bed coverings for the house museum, and for other period furnishings. Franke also listed the need for a new cesspool with septic tank and disposal trench for the Heatons' residence. Later reports by Heaton suggest that only the latter project was funded and completed during the early 1950s.

Monument Walkways

Some time prior to February 1951 the decision was made to convert the monument's gravel walkways to asphalt-surfaced walks.¹⁵⁹¹ That month Heaton worked on drawing up plans and figures for the proposed walk improvements, which called for surfacing seven sections of walkways with "blacktop mulch." He completed some of this work in September and October, beginning first with paving the walkway between the fort and ponds, then paving the walk to the east cabin. The walkway project continued into 1952 and 1953, usually during the months of April and May. Heaton's sons and Kelly Heaton assisted with walkway resurfacing in 1953.



94. Custodian's residence, April 10, 1951 (Photograph by C. A. Thomas, Pipe Spring National Monument, neg. 433)

In May 1954 Heaton hired three Indians as laborers to help him resurface the walk to the west cabin, doing all the work by hand. The workers also helped him clean the monument ponds.

The Heaton Residence

Heaton continued to make modest improvements to his family's residence in February and March 1951 when he painted the old CCC infirmary with a coat of linseed oil, then two coats of white paint. Until that time, the structure had been unpainted. Then Heaton worked to prepare the ground in front of the house for grass seed, still trying year after year to get a lawn to grow. In April he painted the interior of the residence. During July through September 1951, Heaton laid wood floors in the residence.

Even with improvements undertaken in 1948, the building still had its problems. An unsigned housing inspection report to Franke dated November 24, 1952, stated that the two biggest deficiencies in the custodian's quarters were lack of storage space and inadequate heating. Living so far away from stores, the family needed space to store food (much of it home-canned) and other supplies. The cook stove and a wood stove in the living room (both on the east end of the building) were the only sources of heat. The rock wool insulation installed in 1948 wasn't sufficient to keep the house warm nor could it compensate for the problem of ill-fitted windows and doors. Given the size of the Heaton family, the small size and number of rooms the building had was also highly inadequate.

During October 1953, Heaton constructed a new concrete-lined cesspool for the residence. It was located just west of the residence lawn and south of the old cellar. In March 1954 a windstorm blew off about 100 square feet of the residence's roof, requiring immediate repairs. In September 1954 Zion finally approved an old request of Heaton's and gave him a new oil heater, which he installed in the residence. The custodian soon discovered the heater was an expensive luxury. It used almost six gallons of oil per day, at a daily cost of \$1.10. Heaton wrote in his journal, "This is going to cost us more than we can afford to pay so we may go back to the old coal and wood heater, unless we get another raise." 1593

In January 1955 Heaton was told at a staff meeting to cut down on running the light plant for the residence as it was costing the government too much. He decided to turn it off at night after the family went to bed. He later remarked, "The stopping of the power plant is quite a job but very saving on fuel. By keeping the doors shut in the evening, the plant stays warm all night and [is] not too hard to start. Have to bleed the injection pump of air each time." ¹⁵⁹⁴ In spite of his cost-cutting efforts, when he attended the February staff meeting, he was informed that \$5 per month would be deducted from his wages for fuel oil and that a rent raise was anticipated.

Planning and Development

Plans for a new utility building to replace the combination barn/garage destroyed in the July 1951 fire were prepared later that year. In March and April 1952, Heaton obtained building materials, excavated for the new building, and completed the forms for the foundation. The new building was sited on the spot where the barn/garage had been. The foundation was poured in May, the frame erected in June, and celotex siding added in July. The roof was shingled and windows added in August. Heaton also laid a water line to the new structure. Heaton's sons helped him with much of the construction work. Heaton continued finish work on the building into the fall and winter. (On New Year's Day 1953, he spray-painted the utility building using an electrolux vacuum cleaner! "Did a pretty good job," he observed. 1595) When completed, it provided much-needed storage space for equipment, supplies, and records that had previously been kept in the fort, residence, and other places. "This is a building that has been needed at the monument for 26 years," Heaton stated in September 1952 when much of the construction had been completed. 1596 (The building has also been referred to as a garage and workshop.) That month Heaton also did some repair work to the old CCC cellar as deteriorated boards were allowing water to seep into the underground structure. Additional repairs were made in May 1953 where sections of the cellar walls were caving in.

Planning for a proposed self-guided nature trail continued in the early 1950s. In August 1952 Zion's Park Naturalist Merrill Walker visited Pipe Spring to investigate the proposed trail at the monument. On April 23, 1953, Naturalist Natt Dodge also scoped out the area northwest of the fort to the Powell monument and to the Indian petroglyphs. Dodge later reported that he was in favor of the trail route proposed by Heaton, but that it would require "considerable pick-and-shovel work" to construct. Is In mid-May Heaton had his sons cut some trail stakes and a week later marked the proposed nature trail in back of

the fort that Dodge recommended. He wrote a memorandum to Superintendent Franke in late May describing the trail route:

Beginning at the spring west of the fort, then up the hill back of the fort, through the cactus beds, to the old rock quarry, then west to the high point in the monument, [then] drop off under the ledges on west to the Indian writings (outside the monument boundary), then back along the hillside to another rock quarry and follow the old road to the west cabin, and back to the fort, being a little over [a] one-fourth mile trail.¹⁵⁹⁸

Heaton calculated that he had \$100 left in his trails and walks account and asked headquarters if he could have his seasonal laborer begin work on the trail. At the June staff meeting, however, Heaton was told his accounts were too low to permit constructing the trail that year. In late August 1953, Chief Naturalist Raymond Gregg (Washington office), traveled to the monument to discuss development of the nature trail and other planned developments. "With a few more visits from [the] Washington office, we may get more done here at the place," Heaton wrote in his journal.¹⁵⁹⁹

On October 2, 1953, on one of Heaton's day's off and when Edna Heaton was in charge of the monument, a large cadre of Park Service historical architects visited the monument. The men included Charles W. Anderson and George W. Norgard (Region IV); Robert E. Smith (Region I); Charles R. Siglor, Ken Saunders, and Lyle Bennett (Region III); Charles S. Gross (Blue Ridge Parkway); and Dick Sutton (Washington office). Heaton raised a now-familiar lament in his journal that night: "I wish these fellows would let a man know when they are around and expect to visit an area." 1600 One positive outcome of the men's visit was that during their visit Edna had told them they were having continual trouble with the light plant. This must have been reported to the regional office, for Zion officials soon called and said they would attempt to get another plant for the monument.

In April 1954 Superintendent Franke and Architect Glen Hendricks of the regional office visited the monument to assess signage needs and to discuss future developments. They returned in late May to select a site for the new generator house. In June Heaton began excavating the foundation for the concrete power house. Zion maintenance men Harry E. Brockmeier and Ward Axtel brought a cement mixer out to the monument for the building's foundation and stayed to help with construction. Heaton hired Darrell L. Heaton to work on construction as well. The foundation was poured on June 18. Trenches were dug for underground cable and a hole was excavated to hold a 500 gallon gasoline fuel tank. The house was roofed by June 28 and work completed on June 29, 1954, except for installation of the doors and underground cable, which had not yet arrived. Heaton finished up much of the work except for the wiring, which was done by an electrician in July. The new Witte diesel power plant 7.5 KVA was delivered and installed on August 9. An electrician wired the power, plant, utility building, and residence later that month and the plant was put into use on August 27. Heaton reported the new plant was a great improvement over the old Kohler light plant that had to be started and stopped several times a day. The expense of purchasing the new light plant, constructing the generator

house, and paying the electrician, Heaton later reported, "just about broke the monument for 1955 funds." Run continuously, operating expenses for the plant ran \$1.48 per day. Franke soon requested Heaton turn off the generator at night, which resulted in a considerable fuel savings, from 8.14 gallons per day to 6.4 gallons per day.

In late August 1955, newly appointed Regional Director Hugh Miller and Assistant Superintendent Art Thomas spent an hour at the monument going over its problems with Heaton and discussing development plants. Some of the projects discussed were getting a comfort station and residence, better signage, repairs to the fort, museum improvements, and the need for a full-time ranger or historian. Heaton was grateful for Miller's visit and confident the new regional director would be an advocate for the monument: "Was glad to have Miller call in as it will help the people in the region know my problems," Heaton later wrote in his journal. 1603 At the end of 1955, Franke reported to the director that the pit toilets at Pipe Spring needed to be replaced. These had been in continuous use since the 1930s. "Where the money is coming from is uncertain, but health demands will not tolerate the old toilets serving another season," wrote Franke. 1604 They continued to be used until April 1957.

The Ponds, Fish, and Fowl

The Fort Ponds

In late March 1951, Heaton and several of his sons cleaned three truckloads of muck and trash out of the ponds, a six-hour job. They cleaned out the fort ponds again on May 27, 1952. The job took six hours with four loads of muck and trash hauled away. After Kelly Heaton was hired as laborer in mid-May 1953, he helped the custodian repair the deteriorated stone walls of the fort ponds. Repairs were made with cement that month. Three Indian men hired for the job cleaned out the ponds again in May 1954.

The cottonwood tree falling at the ponds on Easter weekend in 1955 prompted Heaton to assess the condition of remaining trees. In May Heaton and three of his sons (Sherwin, Lowell, and Gary) removed three big trees around the pond, described by Heaton as either dead or "out of place." Lowell fell into the pond in the process, but was uninjured. Heaton then drained the ponds for cleaning, which he and Sherwin accomplished on May 12, 1955. The job took the two men all day, with the second day needed to clean up the mess around the pond. In June Heaton cleaned out the meadow pond as well as rebuilt a section of the west pond's wall.

Fish and Fowl

Heaton had a problem during the winter of 1952 protecting the ducks that lived on the ponds. One or more wild cats made meals of the fowl whenever they had a chance. The footprints of one cat were so large, Heaton speculated that it was a lynx. In July 1955 Heaton reported, "Caught the old bobcat that has been taking the ducks at the fort." ¹⁶⁰⁵ There are no reports of Heaton restocking the ponds with fish between 1950 and 1955. In June 1951 Heaton reported at staff meeting that the Indian Service was willing to donate bass and bluegill fish to the monument, but there is no record that he ever received the fish.

The Meadow Pond

Heaton makes no references to visitors swimming at the fort during the summer of 1951, and it appears (at least for some period of time) the meadow pond was empty. At the August 8, 1951, staff meeting, Heaton reported that local people requested the swimming pool at the monument be filled. Recall from Part V that this was exactly the kind of problem that Hugh Miller hoped to avoid when, in May 1941, he refused to let the Division of Grazing develop the meadow pond into a swimming pool. Once the monument came under Zion's supervision in 1942, however, officials had no opposition to the pond being used as a public swimming place. This policy seems to have reversed about 1951, but exactly why and when is not known.

Flood Diversion, Irrigation, and Pipelines

One of the maintenance tasks at Pipe Spring was to haul and dump dirt into the drainage wash. In March 1951 Heaton used his Ford tractor with front-end loader to deposit dirt into the wash and trash pits with the help of his sons Leonard P. and Lowell. Lowell and another of Heaton's sons, Sherwin, drove the dump truck to haul dirt for the wash.

The stockmen's pipeline became obstructed near the tunnel end of the pipe in June 1952. Heaton had to dig up 20 feet of pipe to get at the blockage, running a 1/2-inch pipe through the two-inch one to clear it. In June and July, Heaton installed some four-inch cast iron culverts across the service roads to the campground and residence; he also laid three more irrigation pipelines to the campground. In December 1952 the pipeline to the Indian's reservoir got clogged with leaves and needed to be cleaned out.

In January 1953 Heaton also had to dig up a number of irrigation pipes to clear them. He then placed a 1/4-inch sheet iron cover over the division box to keep leaves and sticks from flowing into the lines. During that summer Heaton dug a new irrigation ditch to the lower end of meadow. In November 1953 Heaton spent some time trying to unclog pipelines to the meadow (clogged again with leaves) and made repairs to the pipeline to the campground. In April 1954 lines and culverts were again clogged and had to be cleaned out.

In September 1954 Heaton and his son Sherwin dug up the two springs by the fort. Heaton reported, "Roots plugged up the drain pipe at the northeast corner. I hope it will be OK now for another four years. The spring through the fort has stopped. Haven't been able to get it back. The opening outside must have enlarged so that it drains the water off, running in the fort." 1606 In November 1955 Heaton discovered that the tunnel spring outlet pipe was clogged with roots that had filled the tunnel. The water was seeping out through the shale and clay about 100 to 150 feet west along the road, making it very wet and soft in spots. Heaton realized the road over the tunnel could completely cave in if he didn't keep a close eye on the stockmen's pipeline. 1607

Floods

Over the years, Heaton learned that he could sometimes avoid monument floods by "working" with the heavy rainstorms. His technique was to keep a close eye on what was

happening and to immediately clear out the drainage culverts when they started to clog up with debris washed into them during a downpour. Through such attentiveness, he avoided floods that might have resulted from two heavy rains in early August 1951. No doubt the 1948 addition of a larger culvert and reworking of the drainage system also helped prevent monument flooding.

On September 12, 1954, a hailstorm and heavy rain brought floods that covered the campground and washed out roads to Moccasin, Fredonia, and Hurricane. All roads leading to the monument were washed out leaving 15 people stranded at the monument. It was not until about 11:00 a.m. on the 13th that travel could resume. Some damage was done at the campground where floods ran over the banks of the wash depositing sand and debris. Most damage took place at Kaibab Village, where the storm was heaviest. ¹⁶⁰⁸ The following day Heaton helped to get the storm-damaged road open for travel, using hand tools.

Museum Collection

In addition to the 1951 donation of Anson P. Winsor's gun, mentioned earlier, in March 1952 the monument received a small picture of William (Bill or Gunlock) Haynes Hamblin from his great-granddaughter, Velma L. Jepson of Alpine, Arizona. During the same month, Heaton reported that he went northeast of the monument with Ralph Castro and "found an old Paiute Indian burden basket at an old campsite. Took some pictures as we found it in a cedar tree. The basket is pretty well broken up." ¹⁶⁰⁹ In March 1953 Maggie Heaton (Leonard Heaton's mother) donated some antique English china and an oil painting of the Toroweap area of the Grand Canyon, approximately 30 x 18 inches in size. ¹⁶¹⁰ The artist was Loren Covington and the painting (in 1953) was believed to be about 35 years old.

In April 1954 Heaton took a box of iron objects from the museum collection to Zion to be sent to Washington for conservation treatment. These were returned in November 1954. Heaton worked during the fall of 1954 cleaning and repairing wooden artifacts in the museum's collection. In January 1955 Zion officials gave Heaton three museum cases to take back to Pipe Spring. He placed one of them in the east upstairs room of the north wing of the fort and filled it with "old guns, shells, slugs, bullets molds, and loaders." ¹⁶¹¹ The materials were identified with typed labels. In November 1955 Heaton received a museum donation of a roll-top desk, used in Orderville, Utah, in the 1870s. ¹⁶¹²

Heaton sometimes prepared snake skins for the museum's display. On May 23, 1955, he reported, "Killed a large rattlesnake just east of the fort. Skinned it for museum. Placed the king snake skins on exhibit in the fort." (Heaton noted in his monthly report for May 1954 that snakes and lizards tended to make their appearance at the monument in July and August, "during the hottest weather.") It appears that Heaton's popular caged reptile exhibit was no longer on display during the 1950s, as he makes no mention of it.

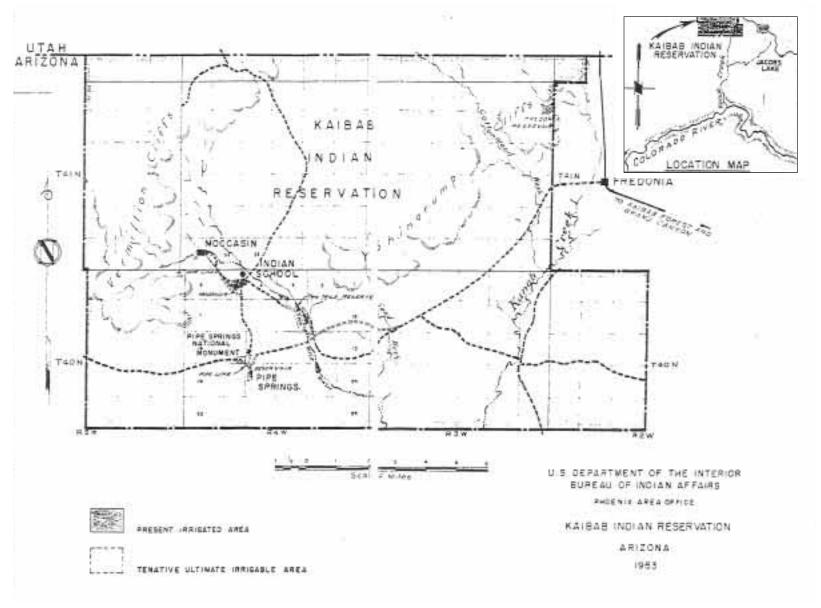
Water Issues and the Kaibab Indian Reservation

Area ranchers still depended on Pipe Spring water in times of drought, which appears to have occurred several years in a row in the early 1950s. The stockmen's hauling of Pipe Spring water was irregular and occurred only as a temporary measure to provide temporary relief during drought conditions. In May 1950 Heaton reported, "Stockmen have been moving a lot of cattle this past week by the monument to their summer pastures. Also hauling some water from the monument to tide them over 'til rain comes." ¹⁶¹⁴ In June more stockmen hauled water from the monument to supplement the shortage of water in their wells. In the spring and early summer of 1951, a drought forced stockmen to haul water from Pipe Spring to a point about 15 miles south. In June the stockmen moved their cattle to other pastures and discontinued hauling water from the monument. ¹⁶¹⁵ In October 1951 Heaton reported, "Mr. Roland Esplin hauled 4,000 gals. of water from the monument for sheep." ¹⁶¹⁶

Area stockmen became worried about the unusual lack of rainfall in August and September 1952, concerned about the effects this would have on their winter pastures. In March 1953 rancher Rulon Langston hauled water from the monument for his cattle. In May Heaton reported, "Two stockmen are hauling water from the monument as their windmills have failed to provide water for their stock." During an usually hot summer in 1953, Heaton reported to Zion officials there was no appreciable moisture at Pipe Spring, although some storms occurred in the surrounding area. Two trucks hauled water from the monument to cattle in July, as area wells dried up. That fall stockmen drove their cattle past the monument, moving them to winter range. Heaton had trouble with the cattle crossing the cattle guards and coming onto the monument, until (at his father's suggestion) he painted the cattle guards white. This seems to have solved the cattle problem, but did nothing to dissuade reservation horses from entering the monument. Another drought in May 1955 forced many stockmen to drive their cattle to Idaho and Wyoming. Some others were hauling water from Pipe Spring as their ponds and wells had gone dry. 1618

In 1952 an important legal case was being prepared which would not be settled by the Supreme Court until 1963. In *Arizona v. California*, the United States, on behalf of five Indian reservations in Arizona, California, and Nevada, asserted rights to water in the mainstream of the Colorado River. Water projects by the Bureau of Reclamation, Bureau of Indian Affairs, and Fish and Wildlife Service prompted the suit. The Attorney General advised the Acting Secretary of the Interior on September 29, 1952, that the National Park Service might also have interests that were not then being presented. It was decided in November that a list would be prepared of present and ultimate water uses in the areas of the Lower Colorado River Basin administered by the Park Service. The list was compiled by Chief A. van V. Dunn, Water Resources Branch, and submitted to the director under cover letter of November 28, 1952. 1620

In December 1954 the Bureau of Indian Affairs prepared the report, "Factual Data in Support of Claims for Indians and Indian Tribes to Uses of Water in the Lower Basin of the Colorado River in the States and Arizona and California," Vol. XVIII, Kaibab



95. Map of Kaibab Indian Reservation, 1953 (Courtesy Bureau of Indian Affairs)

Reservation (Claim No. 19). The lands irrigated on the reservation were described in this report as including 25 acres irrigated by Moccasin Spring, a 3.3 acre-tract supplied with water by "the SMC reservoir," a 19.2-acre tract supplied with water from Two Mile Reservoir, and 4.2 acres irrigated with water piped from Pipe Spring. Total acreage under irrigation was 84.6.1621 The report stated the distance from the reservation to the main stream of the Colorado River was almost 50 miles and that "there remains the very remotest possibility of any of the present water supply of these Indians reaching or effecting any lower diversions." 1622

The 1954 report included extracts from "Indians of the Southwest," Bureau of Ethnic Research, 1953, which provides a general overview of reservation conditions in the early 1950s. (The information in the extract pertained to 1952.) While the range had an estimated carrying capacity of 900 head, only 463 head of cattle and 27 horses were being kept on the reservation in 1952. "Farming is of little importance with only 60 acres being used for gardens and pastures by individual families," the extract stated. A government loan of \$50,000 in 1952 was obtained to finance a tribal herd. The tribe hoped to overcome the lack of a good water supply for range cattle by drilling additional wells and constructing new reservoirs. The population of the reservation in 1952 was 96, consisting of 17 families, nine of which were self-supporting. Two families were engaged in farming and livestock raising; seven families were engaged in wage labor; and eight families were receiving welfare. The median annual income from agriculture was \$1,000; the median income from wage work was \$900. The estimated annual family cash income of non-Indians in the area adjacent to the reservation was \$3,927.1623 A 1953 map was included in the 1954 report that showed the reservation areas under irrigation and its three primary reservoirs at Moccasin, Pipe Spring, and Two Mile Wash. 1624

Also prepared in connection with the *Arizona v. California* case was a statistical table that showed population, number of families, and area irrigated from 1910 to 1955. This table is included for general reference as Appendix XI.

Accidents, Deaths, and Heaton Family Matters

Accidents

On Monday, March 12, 1951, Heaton joined a rescue party searching for a downed F-80 jet plane from Las Vegas that crashed and burned two miles northwest of Moccasin. Heaton and some of his children witnessed the event. The pilot bailed out, was unhurt, and walked into the monument about 10:00 a.m. while the search party looked for him on the top of the hills back of the monument. Mrs. Heaton and daughter Maxine were home when the pilot arrived. Heaton said that with all the excitement, "it was impossible to hold school in [the] afternoon so the teacher, Mr. Piper, had a school hike to the scene of the wreck." A few days later, Air Force inspectors completed the investigation of the wrecked jet, determining the cause of wreck was a cut fuel line near the starter.

In earlier years, Leonard and Edna Heaton's daughter Olive had been hurt in several minor mishaps. By far the worst accident involving Olive occurred in June 1951. Then, at age 8, Olive's right foot was accidentally run over by a mowing machine driven by her

father. In a recent interview, Leonard's brother Grant Heaton recalled the incident. ¹⁶²⁶ Grant said that Leonard Heaton and Olive were riding together on a power mower cutting hay (in Moccasin, he thought). Olive got down and ran off. Her father thought she had gone off to a relative's. In fact, she had laid down in some hay and fallen asleep, Grant Heaton recalled. This is how Leonard Heaton ran over her foot with the power mower. She was taken to Kanab Hospital and treated by the family physician, Dr. George R. Aiken. The injury was so severe, Leonard Heaton later reported, "that the doctor had to take the front half of the foot off just in front of the ankle. She will have use of the heel." ¹⁶²⁷ (This unfortunate incident happened less than one month prior to the fire that destroyed the combination barn/garage, described earlier.) In February 1953 Heaton took Olive to what he called the "crippled children's clinic" in Kanab. The following April he took her to Salt Lake City for an artificial foot. ¹⁶²⁸

One other injury accident occurred in 1951. While Heaton was attending a big barbecue in Fredonia to celebrate the opening of Whiting Brothers Sawmill on October 27, 1951, Edna Heaton slipped while chasing a calf that had escaped from the corral. She was "hooked" and "trampled" by the old brown cow, Heaton reported, breaking some ribs. Upon his return from Fredonia, Heaton took her to the hospital where she remained for several days. ¹⁶²⁹ In February 1954 Heaton cut his thumb with a power saw and required several stitches.

Deaths

Heaton reported three area deaths in the early 1950s. On July 5, 1951, he attended funeral services for Levi John, a Kaibab Paiute man, and was asked to take part in the program by John's family. He reported in March 1952 the death of Z. Knapp Judd, an "old pioneer of 1870 and dispatch rider from Kanab, Pipe Spring, St. George in the 1870s." ¹⁶³⁰ In June 1955 Heaton took annual leave to attend the funeral of Alvin Black, "an old man whose father settled here in the 1870s." ¹⁶³¹

Heaton Family Matters

The early 1950s was a time a number Leonard and Edna Heaton's children "left the nest" and Pipe Spring National Monument. In May 1951 Heaton's daughter, Maxine, left for training at the Oak Ridge, Tennessee, atomic plant. Soon after, she was sent to the Arco atomic plant in Idaho to work, presumably for the Atomic Energy Commission. 1632 On September 17, 1952, Maxine married a native of Idaho and moved to that state. 1633 In January 1952 Heaton's son Dean left on a mission for the Church. In April 1952 his son Clawson returned from a two-year Church mission in Canada. The following September, Heaton reported Clawson was inducted into the military. In April 1953 son Lowell received a call for his physical examination for military service. He entered the Army on June 24 and served two years overseas, just after an uneasy truce was declared at Korea's 38th parallel. Clawson also spent two years in the service, including a one-year tour of duty in Japan. On May 31, 1954, Heaton's son Leonard P. left for his two-year Church mission. In May 1955, shortly after Lowell's discharge from the Army, Heaton's son Dean was called up by the military for his physical.

Alcohol and Law Enforcement Problems

During the 1950s, Heaton makes increasing reference to dealing with drunkenness on the monument grounds or on nearby reservation lands. A rising number of road accidents were being linked to drunken driving in the area. A devout Mormon, Heaton abstained from drinking. A few of his journal entries (HJ) are as follows:

Was up part of the night getting drunken Indians off the monument. (HJ, December 23, 1954)

Having trouble in this area with Indians getting drunk and running into things and livestock there. Sure is a need for law officers to handle them on the reservation. (HJ, April 16, 1955)

Went out with Arizona Road [Highway] Patrolman to quiet down some drunken Indian this evening. (HJ, April 17, 1955)

Not all of his references to drunkenness were associated with his Kaibab Paiute neighbors. On May 18, 1957, about 125 Kanab high school students had an outing at monument. According to Heaton, the youngsters were boisterously

... celebrating their graduation and closing of their school. How they did carry on! Pop, beer, and hard drinks and lunches. Some so drunk they could not walk. Was up around the fort and area trying to keep them a little bit under control. This morning papers, bottles and cans everywhere in the picnic area and along roadways. Of all the picnickers that visit Pipe the Kanab people are the dirtiest and [most] unruly of them all. 1634

Area Roads

The condition of the approach road to and through the monument (State Highway 40) varied widely during the early 1950s. In general, Mohave County road crews continued to maintain the road from Pipe Spring to Short Creek while the Indian Service was responsible for the road from the monument to Fredonia. In May 1951 Heaton reported at the Zion staff meeting, "[The] road conditions east and west of the monument [are the] best in years. In May 1951, the approach road was rutted and muddy. Near the end of that month Heaton spent one-half day helping to extricate a mail truck from the road mire.

Again, when snows melted on the Arizona Strip in mid-January 1952, area roads became muddy. About that time, Heaton spent most of his Saturday off "digging cars out of the mud in and near the monument. Ten today; had three of my own stuck, six Indian cars. Roads as soft as they can get. Snow about gone." Fortunately, county and Indian road crews were out at the end of the month to grade and smooth the approach road. Heaton wrote, "There is a report that the Indian Service plans to start graveling the road from Fredonia, Arizona through the reservation past the Monument five miles west. This work is to start within the next two or three weeks." ¹⁶³⁸

In mid-May 1952, road equipment arrived at the reservation for the graveling project and work began soon after. By mid-June, the Indian Service was hauling water from the monument "faster than it runs into the ponds," reported Heaton, to wet the roads down and reduce dust. ¹⁶³⁹ In early September Heaton wrote, "A lot of electioneers out for jobs and votes. The Indian road will end today if no more funds are had and it is only half done. Most everyone is very disgusted with the way the roadwork has been done and money wasted." ¹⁶⁴⁰ In mid-September, Heaton reported the Indian Service had to close down construction activities for lack of funds: "The roadwork has closed down on the Fredonia and Hacks mine project with the road about half completed. I would say a very poor management of road building. I hope [the] next allotments of money will be given to a contractor." ¹⁶⁴¹ In October 1952 the Mohave County road crew put a new decking on the Short Creek Bridge. One road crew burning weeds along the section between the monument and Fredonia set a bridge on fire and burned it out, requiring visitors to detour for a while. ¹⁶⁴²

On February 17, 1953, three men from the Mohave County Board of Supervisors visited the area to inspect road conditions on the Arizona Strip. Soon after their visit, a bill was passed by the Arizona Legislature recommending the development of an all-weather highway from Fredonia, Arizona, to Hurricane, Utah, via Pipe Spring National Monument "for the benefit of the Indians and others residing in the area and the people of the United States." 1643 The House of Representatives passed House Joint Memorial No. 2 on March 3, 1953. No appropriation was attached to this bill. The bill passed the Senate on March 21, 1953, and was sent to the National Park Service, the Bureau of Land Management, Office of Indian Affairs, and Bureau of Public Roads. In addition the bill requested that the Grazing Service office be transferred from St. George, Utah, to Fredonia, Arizona, to "simplify the payment of taxes and fees and eliminate much existing dissatisfaction with the handling of matters pertaining to grazing in this area." 1644

A day after the bill was passed by the House, Superintendent Franke made an inspection visit of the monument and discussed signage with Heaton. The two men then went to Fredonia where Franke made a presentation at a Fredonia Booster Club meeting. The superintendent talked about prospects for a new road and about future area developments. "People enjoyed it very much and [the talk] gave them some encouragement on getting a road through this way," Heaton later wrote. Heaton as had always been the case, the Park Service's hands were tied with regard to improving State Highway 40. Director Wirth wrote Arizona Governor Howard Pyle regarding House Joint Memorial No. 2 in April 1953,

The road improvement program is a desirable one and we wish to assure you that this Service is always anxious to cooperate with other Federal agencies and the States in the planning and construction of a highway such as proposed in the legislative body of your state.... However, our only present authority to construct or maintain roads outside of the boundaries of the areas we administer is limited to certain specific [qualified] approach roads...

We are of course, very much interested in all roads leading to the areas of the National Park System, and we would like since to work towards a road improvement program that would bring visitors to those areas safely and pleasantly. However, since the road in question between Fredonia and Hurricane, except for the portion within the monument, is not under our jurisdiction, the expenditure of funds by this Service even if they were available, is prohibited by law to improve this road. 1646

In May 1954 Heaton reported the Fredonia Booster Club was vigorously promoting improvement to the Hurricane-Fredonia road. A year later he reported, "There is a movement underfoot for the transfer of the roads through the Indian Reservation to the County of Mohave, which if done will aid a lot to the proper maintenance of these roads." ¹⁶⁴⁷ In December 1955 Heaton reported the Fredonia Booster Club passed a resolution to use their influence with the Coconino and Mohave counties' boards of supervisors to get the Hurricane-Fredonia road approved by the Arizona State Legislature in 1956. Pressure on county and state officials to improve the Hurricane-Fredonia road continued in the late 1950s and early 1960s. The new road would be a very long time in coming.

Part IX - Mission 66

Introduction

Mission 66 was a service-wide, 10-year conservation program initiated by the National Park Service in 1956. In the words of Director Conrad L. Wirth, "Its whole purpose was to make possible the best and wisest use of America's scenic and historic heritage." 1648 Accomplishment of the program required a great deal of new development and construction, but this activity was seen as the necessary means to achieve conservation objectives. Approved by President Dwight D. Eisenhower and Congress, the program was launched with an increase of \$19,153,700 in the Park Service's appropriation for the 1957 fiscal year. In response to increasing demands of the motor touring public, parks across the country endeavored to improve their physical plants, roads, campgrounds, and visitor services. Mission 66 made funds available for new developments at Pipe Spring National Monument, some of which had been needed and planned since the 1930s. While the national program formally lasted until 1966, most of its impacts on Pipe Spring were experienced between 1957 and 1961. During Mission 66, a modern comfort station was erected (1956-1957); the monument's first permanent residences were built (1959); new walkways were constructed and old ones repaired (1959-1960); a new parking area and service roads were built (1960); restoration work on the fort and rehabilitation work on the cabins was carried out (1959-1961); and the museum displays in the fort and two cabins were greatly improved (early 1960s). Two other significant advances at the monument during this period were the hiring of a seasonal park historian in 1956 (replaced by a permanent park historian in 1958 and his successor in 1960) and the long-awaited arrival of commercial power to the area in 1960.

Overshadowing all other events in the region and of significant impact to the monument's development was the construction of one of the world's highest dams at Glen Canyon. The building of the dam was authorized on April 11, 1956. While the prime contract was awarded in April 1957, related construction projects began during the fall of 1956. The most important of these was the construction of the Glen Canyon Bridge, built between February 1957 and August 1958. (Prior to the construction of the bridge, people in Utah had to drive all the way around to Lee's Ferry and cross over the Navajo Bridge in order to get to Page, Arizona, a trip of 200 miles.) The first bucket of concrete was poured for the dam on June 17, 1960; the final bucket on September 13, 1963. The dam's construction finally brought about improvement to area roads, including to the long-neglected Hurricane-Fredonia route.

This chapter chronicles events from 1956 through December 1963, to include the retirement of Acting Superintendent Leonard Heaton and the transition to Management Assistant Hugh H. Bozarth.

Monument Administration

1956

In February 1956 Heaton learned that Pipe Spring National Monument would be allotted

\$300 to hire a park historian for that summer's travel season and that \$3,000 was available to construct a comfort station. (See "Planning and Development" section for details on the latter.) Regional Chief of Operations David H. Canfield made an impromptu visit to Pipe Spring on March 27, 1956, en route to Zion National Park. Heaton learned from him that the monument might soon get two new residences. In a memorandum to Regional Director Hugh Miller, Canfield described Heaton's residence as "in rather miserable condition." He also stated that the pit toilets were in "pretty bad shape in every respect." (There were four there at the time.) Canfield recommended that lightning rods be installed on several tall trees near the fort rather than on the fort itself. "There is a faint hope that some day commercial electrical power will be available, but that day seems very indefinite," Canfield reported. He recommended that Heaton be given a backup generator, as the monument only had one. (When the monument's sole generator ceased functioning six months later, the family still had no backup plant on site.)

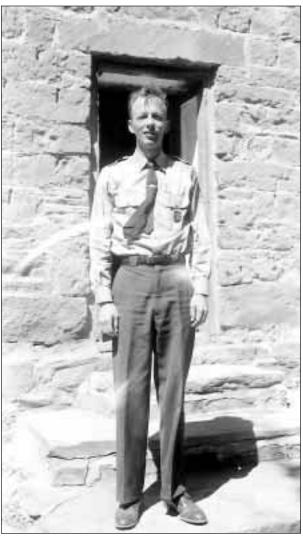
The new summer park historian was appointed in May 1956, Lloyd Snow Sandberg of Hurricane, Utah. On May 12 Sandberg stopped by the monument and found Heaton hauling gravel to the site of the new comfort station and assembling other materials for its construction. Although construction on the comfort station began May 18, 1956, the building would not ready for use until April 1957. A house trailer was delivered from Zion on May 25 for Sandberg's living quarters. It was located at the southeast corner of the meadow where it could be hooked up to lights as well as water and sewer lines. Heaton spent three days getting it ready for the new employee. Meanwhile, Edna and Olive Heaton washed all of the fort's windows, helping to get the place "spiffed up" for the upcoming Establishment Day.

On May 31, 1956, the monument celebrated Establishment Day, recognizing the establishment of Pipe Spring National Monument on May 31, 1923. The "Hepworth boys" played old time music at the event, attended by 75 people. A program was presented under the trees on the east side of the meadow and a number of old-timers shared their memories. Loren C. Little, Kumen Jones, several Winsor family members, and Charles C. Heaton all spoke about the history of the site. ¹⁶⁵² (Kumen Jones, resident of Cedar City, was the son of Lehi W. Jones, part owner with David D. Bulloch of the Pipe Spring ranch, 1895-1902. Kumen spent his boyhood at Pipe Spring.) Superintendent Franke outlined plans for the monument under the Mission 66 initiative. Bryce Canyon's Superintendent Glen T. Bean and Chief Naturalist Carl E. Jepson attended, along with their wives.

Lloyd and LaNorma Sandberg and their three children arrived at the monument on the evening of June 7, 1956, and moved into the trailer house. On June 8 Sandberg entered on duty as the monument's first seasonal park historian. Heaton was impressed with the young man, and wrote in his journal that night, "It is evident he has been studying all the literature... as he is able to conduct visitors like an old hand through the fort explaining the history and the like.... He should do an excellent job as park historian." Sandberg received a belated Arizona Strip-style welcome to Pipe Spring on July 9 when he discovered a large rattlesnake in the upstairs of the fort. With Sandberg's hiring, the monument could

now officially be open to visitors seven days a week. In addition to giving guided tours, Sandberg spent a good deal of his time conducting research on the history of Pipe Spring. During the summer of 1956, his research activities included interviewing old-timers in Kanab, Moccasin, and St. George. In July Sandberg began compiling a historical handbook for the monument, whose first draft was completed in 1957.¹⁶⁵⁵ On July 17, 1956, Sandberg moved his family to Hurricane where his pregnant wife could be closer to the hospital and a doctor's care as her due date approached. On August 11 a baby girl, named Lucinda, was born to the Sandbergs. Lloyd Sandberg's tour of duty at the monument ended that year in early September. (He taught school in Hurricane during the school year.) On August 30, as an appropriate sendoff, Heaton reported, "Killed a large rattlesnake at the back door of the fort this evening."1656

Plans for installation of a lightning protection system on the fort were received in March 1956 with an allotment of \$400 for the installation. Finally, during the summer of 1956, the fort was given lightning protection. On June 14 and 15, five lightning rods and cable were installed on the building by



96. Park Historian Lloyd S. Sandberg, 1957 (Photograph by Leonard Heaton, Pipe Spring National Monument, neg. 19)

two Zion staff and a hired laborer. While they may have afforded increased protection against lightning, they created a security problem, as will be referenced later.

The monument's budget for fiscal year 1956 could not cover the cost of both the lightning protection system and the completion of the comfort station. The comfort station thus had to be built in several stages over more than a one-year period. Heaton must have expressed some frustration over Zion officials' handling of the project, for on August 1, 1956, he reported that, while at Zion for a staff meeting, Assistant Superintendent Art Thomas "gave me a bawling out about my critical comments about the comfort station and how it was planned and materials got. Guess I was a little outspoken, but it looks like I could

be considered a little more on what is planned and work projects for this area and [I] sometime wonder if they would like me out." ¹⁶⁵⁷

In early August 1956, construction worker Wayne Simms asked Heaton if he and his crew could camp on the monument for about six weeks with three trailers while doing some reservoir construction work on the Kaibab Indian Reservation. Heaton agreed to the arrangement, but there were five trailers instead of three. On August 17 Heaton went to Zion and met Park Service Director Conrad L. Wirth. He learned on this trip that the monument would be getting an increase of \$1,170 in management funds for fiscal year 1957, which would enable him to hire a laborer for a month. Heaton stayed for a party thrown for Wirth during which - abstinent Heaton observed - some men "got more [drinks] than was good for them." 1658

Heaton found himself in hot water again when, on August 24, 1956, the monument received an inspection visit from Washington and regional office officials. He wrote in his journal that evening, "Don't think they liked what they saw, that I was using the fire hose and pump [to clear pipelines]. Also critical of campers and Simms and lightning rods on the fort. Need to put one on the flagpole. Also the little dog Plundy was a sore spot. Will have to keep her away as a little girl got scared of the dog. So I guess I am in the dog house again." ¹⁶⁵⁹

When Heaton attended staff meeting in early September 1956, he was told that Director Wirth did not approve of Heaton's acting superintendent title, "so may get a new title soon," he wrote. 1660 (His title was viewed as an anomaly because Pipe Spring had no superintendent, thus how could there be an "acting"? Nonetheless, Heaton's title was left unchanged. After he retired in 1963, however, his successor's title became "management assistant.") Heaton was given permission to hire a laborer to cover for him on weekends during the early fall. After that time Edna Heaton and the children volunteered their services again until the next summer when they left for Alton. During September the monument's only generator broke down. The following day, a backup plant was brought up from Zion for the family's use and the main plant was taken to Zion for repairs. The backup generator played havoc with the family's lighting and appliances, burning out the Heaton's deep freezer. The repaired plant was reinstalled 10 days after its initial breakdown.

On September 17, 1956, regional officials visited the monument to inspect the fort and to make notes for improvements and repairs. The officials reiterated the need for stabilization of the fort's southwest corner. They objected to the manner in which lightning rods were placed on the fort. The men identified needed work on the east and west cabins and recommended that the monument get new tables for the campground (the old CCC-era log tables were still in use). Heaton was told during the officials' visit that if Congress approved, a permanent park historian would be assigned to the monument in July 1957.

The Zion staff meeting for October 3, 1956, was notable for its brevity. Heaton reported, "Was the shortest Supt. Franke ever held and [he] let the fellows go listen to the baseball

game."¹⁶⁶¹ Due to drought conditions, the month was a hard one for stockmen on the Arizona Strip. Heaton reported that cattle were being moved to mountain pastures; some were in very poor condition. "Some very poor heads being sold as the owners do not have any winter feed and can't afford feed for their stock," Heaton wrote in his journal. ¹⁶⁶² Work began in October on modernizing the monument's telephone system. The new dial telephone required the line be changed over from underground to overhead. (Heaton reported the underground cable had become "shorted out too much" for dial system use.) The work was not completed until March 7, 1957, when Heaton reported, "The last of the work in changing from the old crank telephone to dial phone was completed today. The dial system went into operation Saturday at 12:10 p.m. The monument number [is] MI-3-5505."¹⁶⁶³

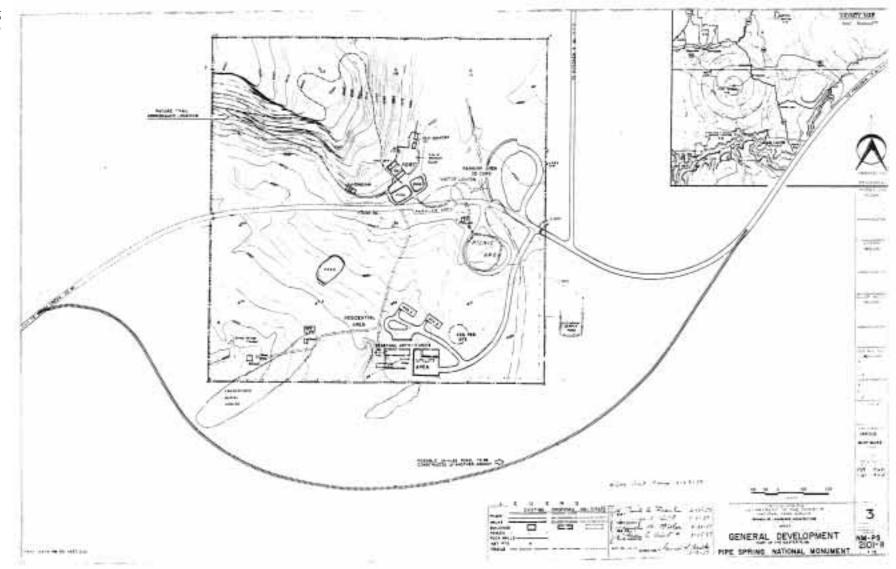
In April 1956 Heaton asked Zion officials for permission to remove the old cattle corrals located at the monument's southwest corner. These were the last of the corrals at the monument associated with cattle ranching operations. Heaton wrote Superintendent Franke,

This corral is not being used to any great extent now that most of the cattle are trucked from one pasture to another. I would recommend that this old cattle corral be taken down. The material in this corral was once used where the camp area is now located, built by owners of the springs about 1888 or 1890. 1664

There were once corrals in the area southeast of the fort in the area of the old campground. These are the ones that Heaton refers to above as having been built. From Heaton's statement, it appears that the southwest corner corrals were built in the 1920s of salvaged materials resulting from Pinkley's efforts to clean up the landscape after the site was made a national monument. Heaton added that a new boundary fence would need to be installed in the area of the corrals once they were removed. In November 1956 Heaton hired his son Leonard P. to clean out the cattle guards at the east and west entrance, to rebuild one-quarter mile of boundary fence, to remove the old cattle corrals, and to cut up the salvaged wood for campground use. All this work was completed in December 1956. Enough human remains were encountered during the removal of the corrals that Zion officials later suspected the area was a burial ground. They asked that it be depicted on maps included in the monument's 1959 master plan. 1665 (See figure 97.)

1957

The Colorado River Storage Project Act of 1956 authorized the construction of Glen Canyon Dam, located just south of the Arizona-Utah border. The dam project was supported by some of the same conservationists who successfully defeated the proposed Echo Park Dam at Dinosaur National Monument. The dam was 710 feet high, described by historian Donald Worster as "a chalk-white arch wedged between dark red stone canyon walls." Construction work began in 1957 and was not completed until 1963. (Glen Canyon National Recreation Area was established on April 18, 1958.) Work on the Glen Canyon Dam resulted in an enormous increase in traffic over area roads, much of which passed over State Highway 40 and through the monument. The construction of Glen



97. General Development, 1959 Master Plan (Courtesy NPS Technical Information Center)

Canyon Dam led to population growth in Kanab and Fredonia and to increased visitation to Pipe Spring National Monument. Travel along area roads dramatically increased due to the construction project and the need for improved roads was suddenly urgent. (See "Area Roads" section.)

The impact of the Glen Canyon Dam project on area traffic became evident to Heaton by early 1957. In his monthly report for February, Heaton wrote, "There is considerably more travel coming out on the weekends from Kanab and Fredonia, people that are in this area because of the Glen Canyon Dam project." Heaton had sufficient operating funds in 1957 to keep a laborer on at the monument for two days a week from April until late July. In March Heaton hired Carl Johnson for the position. Beginning April 20, Lloyd Sandberg went on part-time duty, working weekends until June 1 when he switched to full-time. This enabled the monument to be open seven days a week a few months prior to summer and ensured protection for the site during Heaton's absences. (Sandberg came on duty to help with the Easter weekend crowd, but did not return to full-time work until the last week of May.) Heaton observed about this time that most visitors came in the cooler months of spring or fall. Those who came in the summer often came between 3:00 p.m. and sunset, requiring Heaton or Sandberg to give tours many days until 7:00 or 8:00 p.m., particularly on weekends.

Heaton was told at the May 1, 1957, staff meeting that Regional Director Hugh Miller and Associate Director Eivind T. Scoyen might visit the monument on May 10, 16, or 17. Meanwhile, Heaton had Johnson paint the new comfort station and haul in gravel for walkways. Blacktopped walkways were laid around the comfort station, to the fort, and to the east cabin on May 8 and 10. Everything was in top shape by May 10. As the 10th, 16th, and 17th came and went, the expected officials failed to appear. On the evening of May 17, a dejected Heaton wrote in his journal, "No visitors from the NPS office as expected. Guess I don't rate very much with them." 1669

In 1957 the Establishment Day celebration at the monument was held on May 30 to coincide with Memorial Day. The program included two grandsons of Benjamin Knell (Rulon and Ray Knell), along with Kumen Jones. Superintendent Franke, Carl Jepson, Leonard Heaton, and Lloyd Sandberg also participated in the program. As in the previous year, Franke spoke about the goals of the Mission 66 program and plans for the monument. The number of participants was "a little disappointing," Franke later reported to Miller (so much so that the numbers weren't even cited in either Franke's report or Heaton's journal).

On June 1, 1957, Heaton received a surprise visit from Chief Landscape Architect Merel Sager, (Washington office), Park Landscape Architect Robert G. ("George") Hall (San Francisco office), and Assistant Superintendent Art Thomas. The purpose of the visit was to inspect the site and discuss developments to be made under the Mission 66 program. The men told Heaton that Regional Director Miller would visit the monument some time that summer and advised Heaton to get the place cleaned up a little more. Miller did not visit the monument again until August 30, 1958.

When Heaton attended the Zion staff meeting on July 10, 1957, he was upset to learn that some fiscal year-end money shuffling had transpired: "Found that Zion had taken the money allotted for Pipe for their use, almost \$500. It is not going to happen again if I can help it. Plan to use it as it comes available. Also learned that I would not get any new construction until 1960 or later. They had not ordered any of the supplies or materials I requested before the first of the month to be paid in last year's money." These incidences, hardly surprising in the federal bureaucracy, frustrated a man with Heaton's background and made no sense to him whatsoever. But, as always, life went on at the monument while Heaton did his best to roll with the punches. Laborer Carl Johnson was temporarily laid off in late July 1957 (to comply with personnel regulations) then was rehired in early September, along with Kelly Heaton who filled in while Leonard Heaton took annual leave. In October 1957 Superintendent Franke started the necessary papers to hire a permanent park historian at the monument. Heaton was authorized in the interim to hire Lloyd Sandberg for weekends the rest of the month and was given permission to employ laborers during October and November. 1673

On November 7, 1957, Heaton answered a fire call from the Moccasin school. The fire was put out before too much damage was done. He took a day's annual leave on the 8th to help repair the damages at the school building so classes could resume the following week. Later that month Heaton hired Carl Johnson and Kelly Heaton as laborers to help complete a number of maintenance projects. The two men first installed a water line to the generator house, using salvaged pipe. Then in December they made repairs to the two historic cabins and to the fort. (See "Historic Buildings" section.) In January 1958 Johnson resigned to take a permanent job and Kelly Heaton experienced a lengthy illness. When Johnson resigned, Heaton hired his son Gary to work as laborer. Kelly Heaton returned to work toward the end of February.

The fact that most laborers working for any length of time at the monument during the 1940s, 1950s, and early 1960s were either related to Leonard Heaton or were local Kaibab Paiute men is not surprising, given the remoteness of the site. Until the Hurricane-Fredonia road was rebuilt, getting to the monument from other towns was difficult. The only two communities of any size were Moccasin (where practically everyone was related to the Heaton family by blood or marriage) and Kaibab Village, so these two areas furnished the majority of men given seasonal or part-time jobs at Pipe Spring. Occasionally, when short-term restoration work required special carpentry, masonry, or other skills, Heaton hired men from Fredonia, Kanab, or Short Creek.

Beginning in 1957 and continuing through 1958, historical research was conducted to prepare plans for furnishing the fort as a historic house museum. On January 18, 1957, Regional Chief of Interpretation Erik K. Reed notified Arthur Woodward of Altadena, California, that funds were available to undertake interpretive planning at Pipe Spring. He hired Woodward to prepare a museum prospectus and a detailed, illustrated plan for historic furnishings for the fort. (Woodward was a research collaborator in the Park Service office at the University of California, Berkeley. He researched and wrote one of the early histories of Pipe Spring in 1941, referenced in Part V. Woodward was also

the former curator of history at the Los Angeles Museum.) Reed also asked Woodward to research and prepare recommendations for exhibits and interpretive plans at Fort Union National Historic Site during the same time period. Woodward did much of his research during October 1957, when he first visited Pipe Spring National Monument.¹⁶⁷⁵

On October 12, 1957, which happened to be Heaton's day off, Woodward called at the fort to look at its exhibits. Since her husband was away, Edna Heaton spent an hour with the researcher going over the house furnishing plans that he was working on. Woodward made a number of suggestions to her regarding changes that would improve the display. Later, Heaton was disappointed to learn he had missed Woodward's visit, but had gotten no advance notice of it. During February 1958, Heaton tried to rearrange the museum articles in the fort to make a better display, presumably based on information Woodward had passed on to Edna during his visit.

The fort's displays and interpretive program had much room for improvement. Regional Archeologist Charlie R. Steen visited the monument with Historian Robert M. ("Bob") Utley on November 22, 1957. It was Utley's first visit to the monument. The two men went through the fort which Steen described as "neat and clean" with authentic pieces on display. "Still," Steen commented in a memorandum to Erik Reed, "the fort does not come to life and portray an era." ¹⁶⁷⁶ The two men visited Cove Fort a few days later, and Steen could not help comparing the site with Pipe Spring. He later wrote Reed,

The contents of the rooms at Pipe Spring suffer because they are mostly odds and ends, which have accumulated during the years, and no room is truly furnished. It would be best to cease our feeble attempts to show the entire post as a furnished historic house. If it is thought possible to acquire enough items used at the fort, or in the Moccasin community, during the period of the fort's importance which can be used to furnish one or two rooms then let us furnish those one or two rooms adequately. One other room could readily be utilized for formal exhibit panels to describe the history of the fort. I will even go so far as to suggest that we close the second story to visitors. 1677

The transformation of the fort's interior into a historic house museum by the careful selection and placement of historic furnishings would mostly take place in 1959 and the early 1960s, after receipt of Woodward's report and as funds were allotted to the monument to buy period furnishings.

1958

Heaton was informed by Superintendent Franke in December 1957 that the monument's first permanent park historian had been selected for Pipe Spring National Monument. Heaton spent several days in January 1958 fixing the house trailer for the new employee, James C. ("Jim") McKown, who reported for duty at 5:00 p.m. on February 10 and moved into the trailer house. ¹⁶⁷⁸ McKown had grown up in California and had a degree in history. Prior to coming to the monument he worked six summers as a seasonal ranger at Yellowstone National Park. The day after McKown's arrival at Pipe Spring, Heaton gave



98. Park Historian James C. McKown with handcranked wood lathe, fall of 1958 (*Photograph by Jim Digby, courtesy James C. McKown*)

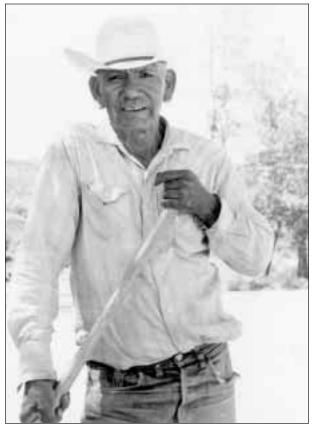
him a tour of the fort and the area, then informed Zion officials of his arrival. Superintendent Franke told Heaton he could keep McKown at Pipe Spring only until February 24, when he was to report to Zion for several months.¹⁶⁷⁹ As Kelly Heaton was still unable to work due to illness, most of the work McKown was given his first few weeks at the monument was maintenance work, assisting Gary Heaton rake and haul leaves and cut up wood in the campground. McKown, a Catholic, attended church in Kanab shortly before leaving for Zion. When McKown returned to full-time duty, Heaton arranged his work schedule so that McKown could take several hours off on Sunday mornings to attend mass.

Gary Heaton worked several days in late February repairing the old stone fireplaces in the campground, which were often damaged by

campers' vehicles. Near the end of the month Kelly Heaton returned to work and, with Gary, worked in the fort cleaning museum articles and outside on maintenance tasks. Gary worked alone as laborer in March and April 1958.

In early March 1958, Heaton attended a staff meeting and later went over Mission 66 plans for the monument with Zion officials. To his disappointment, Heaton learned that McKown was to be kept at Zion for another three weeks. On March 9 he received a visit from Regional Curator Franklin G. Smith who went over the museum's records. They must not have met his approval for Heaton later wrote in his journal, "As soon as Jim McKown gets back will start him on our records. We need to get Woodward's report on historic display so we can get going." 1680 On March 25 Heaton called Zion officials to ask if he could hire a historian to work weekends. He was authorized to hire Ortho Christensen to begin April 5 and to work weekends until McKown returned from Zion. Heaton appeared to be wearing thin under Zion's supervision. He wrote in his journal that evening, "A bit out of patience and sore because Supt. Franke is keeping McKown down there so long just to help Zion out. More disgusted with my job all the time. Feel like quitting." 1681

The lightning protection system installed on the fort in 1956 created a new security problem for Heaton to deal with. On April 26, 1958, a number of Kanab High School students were picnicking on the monument. Heaton later reported that some of the boys "climbed over the back of the fort by lightning rod cable and opened up the fort after dark. I have been afraid of this ever since the cables have been put up."1682 Heaton speculated access had been gained to the fort on other occasion via the cable. The idea of scaling the fort walls by various means was not new - it had occurred to some of Camp DG-44's CCC enrollees in the late 1930s and to others since that time, only trees had previously been used to surmount the walls. The concept of penetrating the defenses of a fort originally designed to withstand enemy attack appears to have been just more temptation than some adolescent boys could resist!



99. Ray Mose, undated; probably late 1950s or early 1960s (*Pipe Spring National Monument*)

On April 28, 1958, Heaton learned

that the tunnel on the Zion-Mt. Carmel Highway had caved in at 6 p.m., forcing the temporary closure of the road. Travel along the Hurricane-Fredonia route significantly increased with many stopping to see the fort, but ended as soon as the tunnel was repaired and the Zion highway reopened. At a staff meeting on May 7 Heaton picked up the new Mission 66 master plan for the monument and learned that an order he had placed for 10 picnic tables and five cement fireplaces would soon be filled. He was given permission in April to hire another laborer (in addition to Gary Heaton) to do work at the monument. By May 19 he hired a Kaibab Paiute man, Ray Mose, whose Paiute name was *Saxaivaw*, meaning "blue-green water." Mose's first big maintenance project was to stabilize the fort pond walls by repointing exterior stonework. (See "Ponds, Fish, Fowl, and Springs" section.)

On May 12, 1958, Jim McKown returned to the monument from his Zion detail and Ortho Christensen was released from weekend guide duties. Still miffed about Zion's absconding with his new employee for three months, Heaton wrote in his journal upon McKown's return, "He is back from Zion Park now and [I] hope he will be left here." Heaton had much for him to do - above and beyond guide work - for Establishment Day was fast

approaching. Heaton liked McKown's ideas for making the fort displays more attractive and allowed him to rearrange the museum's display that month. Heaton was quite pleased with the results. McKown also cleaned the artifacts on display, then he was assigned the less creative task of washing all the fort's windows! On May 28, 10 new picnic tables and five cement fireplaces for the campground were delivered from Zion, along with a gas-driven mower. 1686 McKown put together a self-guided leaflet for the fort and nature trail then took it to Zion to run off on a mimeograph machine so it could be used by Establishment Day visitors.

That year Establishment Day was held on May 30, 1958. The event was made even more memorable because that year marked the 100th anniversary of Jacob Hamblin's party's stop at Pipe Spring (October 30, 1858) and the 35th anniversary since the monument's establishment. The program was held in front of the fort and included a welcome address given Leonard Heaton, a reading of the poem "Call to Dixie" by Olive Heaton; an accounting of Hamblin's work among the Indians by Mrs. Helen H. Burgoine, great-granddaughter of Jacob Hamblin; a recounting of events leading up the monument's establishment by Charles C. Heaton; and remarks by Superintendent Franke and by Carl Jepson, who brought the new mimeographed leaflets along with him.

Once the big event was over, the work routine returned to normal for Heaton and McKown. Unlike his predecessor Lloyd Sandberg, who was Mormon, McKown did not fit into the local white community. Besides, McKown had a sincere interest in making friends with the Kaibab Paiute and in learning about their culture and language. He spent a lot of time with Ray Mose and recently recalled that Mose "had a tremendous sense of humor. He taught me a lot of Paiute words." 1687 From time to time, McKown was invited into the homes of his Indian friends and they in turn visited him in his trailer, often in groups. In a recent interview, McKown recalled being somewhat surprised that one Kaibab Paiute woman friend asked to take his picture, since it was typically the white folks who took pictures of the Indians! "I was one of the few white people the Kaibab Paiute trusted and opened up to," McKown remembered. "They knew I was interested in them and their language."1688 McKown was also deeply moved by the alcoholism that wrought havoc in the lives of many of his Indian friends. He recalled that the attitude expressed by many local whites toward the Indians at that time was "condescending." Leonard Heaton, however, "had a better attitude. Just like he accepted me as Catholic, he accepted them as Paiutes. And that was why they trusted him and went to his house.... He accepted the Paiutes as human beings."1689 Heaton, said McKown, "was great, the nicest person I ever worked for, and Edna after a while warmed up to me and brought me freshly baked bread every week."1690

Heaton still had to contend with monthly trips to Zion. After returning from the June 5, 1958, staff meeting, Heaton wrote in his journal, "The trip to Zion just about does me up, nervous tension and tobacco smoke in the staff meeting rooms. Heard over the radio today that all Civil Service white-collared workers get 10 percent raise. Should get about \$20 [per] pay period if it is true. Sure will help a lot." That June, Heaton and McKown worked well together as a team, discussing changes in the fort display and improving their

methods of visitor contact. Whereas tours used to always start at his office in the fort, they now started at the fort ponds, went through the east gate into the fort, through the fort, exiting through the office last. They also decided to remove more from Heaton's office (to make it less crowded) and to remove furnishings in the fort that were not appropriate, even if it meant leaving the rooms looking a little bare, until the "right" furnishings could be acquired. They removed anything broken from display and agreed not to put it back until repairs had been made. Finally, they decided to make a registration booth and box for self-guided leaflets for visitor use.

Ray Mose was the only laborer kept on during the summer of 1958. Heaton had him work on a variety of maintenance and grounds-keeping projects around the monument. He covered over an old trash dump in the monument and rebuilt the rock ditch that led from the spring to the ponds. In late July Mose demolished an old garage/woodshed located at the southwest corner of the monument. In August he removed the rock floor from the garage site, using the stone to line the walkways to the comfort station. He also repointed the rock walls east and west of the fort with colored cement. Mose was laid off for the season in mid-September.

In early July 1958, approval was given to construct two residences at Pipe Spring during fiscal year 1959 (see "Planning and Development" section). McKown was left in charge of visitors that Fourth of July, the first such holiday Heaton had ever been able to leave the monument. Shortly after, McKown moved all the display case exhibits out of the upstairs rooms of the fort in preparation for switching to exhibits more in keeping with a historic house museum. On July 25, 1958, McKown reported to Heaton that a group of boys from Kanab had been pot hunting the previous night in the Pueblo ruins south of the monument and had found several pots. Heaton later reported that he went to Kanab the evening of July 25 and obtained from Wendell Heaton and other boys the broken pottery they dug up from the Indian ruins south of the monument. "There were six dug up. Got five broken ones, most of which were broken while digging them up and they were very nice ones, if whole," Leonard Heaton wrote in his journal. 1692 On July 26 Carl Jepson and another ranger from Zion visited the monument to go through the fort and provide ideas on how it should be furnished. The decision was made to display Indian material in cases in the north room of the east cabin. Heaton padlocked the room's door to secure the collection. 1693

In early August 1958, Heaton learned that \$20,000 had been allotted for repairs to historic structures, but he had not yet been told how the money could be spent. At Franke's request, Heaton worked up a long list of possible projects and forwarded it to the regional office. That month Zion's electrical engineer came to assess the monument's needs and to lay out its electrical system. In early August Jim McKown worked on preparing a new self-guided tour pamphlet. It then went to Zion for Carl Jepson's review and approval and for printing. When McKown picked up the printed leaflets later that month, he discovered 20 or more mistakes included, thanks to Jepson's editorial revisions.

On August 30, 1958, Regional Director Hugh Miller made an inspection visit at the monument. He later described the rearranged fort display as "greatly improved" since he had last seen it. He also agreed that the archeological materials and blacksmith and carpenter tools in the "old quarters" (east cabin) deserved to be included "in some form" in the monument's interpretive program. ¹⁶⁹⁴ He noted a lack of museum storage space on the monument, but expected that to be corrected with the building of a new visitor center, which was included in the Mission 66 plan. Miller went over the monument's development plans with Heaton, who had only one objection and that was to the relocation of the utility area. Heaton wanted it to remain where it was. In his later inspection report to Director Wirth, Miller had the following to say:

The primary function at Pipe Spring is the protection of the old fort and the interpretation of its history to monument visitors. The area elicits real visitor interest.... However, we have a long way to go here. How far we should go and can succeed in developing the fort as a house museum is open to question. I am inclined to like Mr. Steen's suggestion that we furnish a few rooms carefully as a starter and withhold the rest of the fort from the public, opening it only as really adequate furnishings can be provided.... I know this matter is being studied both by officials of Zion National Park and in the Regional Office and that progress will be made. It has remained quiescent as a project far too long except for Acting Superintendent Heaton's indefatigable efforts to accumulate authentic historic objects.... Mr. Heaton's interest is genuine and enthusiastic.

Pipe Spring is an oasis in the desert which it would be a pleasure to visit even if it had not history. With the delightful story which can be presented there, it seems to me that it cannot fail to become increasingly popular. Its future will be affected also by the construction of the road from Hurricane to Fredonia... which we expect to be built within the next three years. 1695

Assistant Superintendent Art Thomas was appointed superintendent at Mesa Verde National Park, effective September 1, 1958. His replacement was Charles E. Humberger. On September 6, 1958, Landscape Architect Ronald Mortimore, and Engineers Paul J. Garber and Ralph Stratton (all Western Division, Office of Design and Construction, or WODC) arrived at the monument to make plans for surveying the monument for development purposes. A Park Service engineer also arrived two days later to look over the proposed alignment for the new bypass road south of the monument. On September 19 the monument received a visit from Utah State officials, Senator Arthur V. Watkins and Governor George D. Clyde. On September 30 Engineers Stratton and Mortimore returned to the monument with Park Engineer Ed Bossler. The men spent three days conducting surveys for utilities, service roads, and buildings.

On September 13, 1958, the monument's diesel generator broke down. A Zion mechanic tried to fix it but was unable to. While waiting several weeks for parts for the diesel plant, the Heatons and McKown used a noisy, gasoline-powered backup plant. The backup plant's motor fluctuated so much that it burnt out light bulbs and nearly burned out the

motor on the Heaton's refrigerator. Heaton worked on the diesel plant for over a month trying to locate the problem.

Heaton went to Zion for the staff meeting and supplies in early October 1958 and later wrote in his journal, "It was cut short so the fellows could listen to the World Series baseball game. Wish there was such a game every staff meeting." ¹⁶⁹⁶ Architect Wilkenson (WODC) and Park Engineer Bossler came out to the monument on October 10 to go over development plans for monument. McKown worked during October and November on cataloguing additions to the museum's collection. (In the spring of 1959, Regional Curator Franklin G. Smith lauded McKown's accessioning as "a model for museum records.")

On November 2, 1958, Regional Architect Ken Saunders, Regional Archeologist Charlie Steen, and Assistant Superintendent Humberger visited the monument to discuss the fort's rehabilitation needs. The monument was authorized to spend \$16,700 on projects and the money had to be spent by June 30, 1959. Steen was assigned the task of preparing a priority list. Heaton began work on locating carpenters, masons, and laborers to do the work. Ray Mose was rehired in December. Heaton also arranged that month for carpenter Clair Ford of Kanab to work on the upcoming fort restoration project and agreed to hire Wesley McAllister by the hour to make repairs to antique furnishings. He planned to hire additional laborers as needed from Moccasin.

1959

Some of the most extensive restoration and repair work on the fort was conducted during the first six months of 1959. (See "Historic Buildings, The Fort" section for details.) The fort's windows and south door were rocked up so that the fort would appear as it did shortly after construction. A great deal of interior work was done as well, including replacement of the wood floors in the parlor and kitchen. In addition to fort restoration work, in February and March work was done to try to locate the spring source and redirect its flow into the spring room. (See "Ponds, Fish, Fowl, and Springs" section.) Repair work on the rock walls flanking the fort and surrounding the fort ponds was also completed during the summer of 1959. The closing up of the windows required the later installation of a lighting system. Funds were also used to have fort furnishings repaired and to start purchasing additional pieces for the collection, an effort that continued into the early 1960s.

In January 1959 Arthur Woodward completed his research on Pipe Spring and period furnishings and submitted his 28-page report entitled "Details for Furnishing House Museum at Pipe Spring National Monument." The report provided a room-by-room inventory of the museum collection on display in the fort. At the time, the east room of the lower building's second floor was described as a "catch-all" for a display of Indian materials (basketry and a small assortment of archeological artifacts). Woodward recommended that the majority of these materials be removed to the east cabin, with a few left as "curios" on corner whatnot shelves in the house. One of the rooms in the east cabin contained a loom which Woodward thought should be disposed of (the Hopkins blacksmith tool collection was displayed in the other room of the cabin). Woodward made no



100. Panoramic view of Pipe Spring National Monument, February 5, 1959 (Pipe Spring National Monument, negs. 2780-A and 2780-B)

reference to the west cabin, suggesting that it may not have been used at the time for displays of any kind. Woodward suggested that "Mrs. Heaton" (probably Leonard's mother, Maggie Heaton) and some of the other local Mormon women should be allowed to arrange some of the furniture in the rooms. 1697 Except for the spring room and telegraph room where Woodward was more specific about furnishings, the report provided general suggestions for furnishing the rooms in a manner that would have been typical for the period and place. It argued most strongly for the removal of "extraneous material, tools, broken objects, minerals, etc." and for the purchase of other objects more appropriate as furnishings.

In March 1959 Charlie Steen visited the monument and critiqued the monument's use of self-guided leaflets. In a memorandum to Regional Chief of Interpretation Erik Reed, he wrote, "The monument staff is currently experimenting with a self-guiding leaflet for visitors. The nature of the exhibits is such that I believe we should stay away from the self-guiding business at Pipe Spring.... I wish to urge that if it is decided to continue with any form of self-guidance that the leaflet be rewritten. It now consists principally of a series of descriptions of objects which are on display and has too little concerning the building or its history." The leaflet was revised and reprinted in 1960. While self-guided tours posed a security risk for museum objects, they were often seen as necessary by monument staff due to a shortage of personnel.

In the spring of 1959, both Zion and Pipe Spring staff began a concerted effort to locate and purchase some additional historic furnishings for the fort exhibit. On May 4, 1959, Superintendent Franke, Leonard Heaton, and Charlie Steen went to Salt Lake City to tour the Daughters of Utah Pioneers' Museum and Pioneer Village to see what types of furnishings should be purchased for the fort. During the summer and fall, Lloyd Sandberg and Carl Jepson purchased additional furnishings. 1699 The pieces were placed in the fort as soon as they were delivered. In October the coal oil lamps were converted to electric, for the first time running on power from the monument's diesel plant.

After the fort's windows were infilled in January 1959, Heaton's office space was so dark he remarked in his journal that he needed lights in order to see his work. 1700 He was soon to have his office relocated away from the fort, however. Zion officials thought it would be three or four years before the new visitor center was built. On March 12 Zion maintenance worker Ward Axtel brought in what Heaton described as "an old beat up trailer house" from Zion to be used as the new monument office. 1701 An estimated \$300 was needed to fix it up. It took several months of repairs before the trailer could be occupied.

Jim McKown was away from the monument from February 1 until May 5, 1959, attending the Park Service's Training Center in Yosemite National Park. Kelly Heaton filled in for McKown on Heaton's two days off while the ranger was in training. McKown returned just in time to help Heaton get the monument ready for Establishment Day, held again on May 30. (Shortly after his return, Kelly Heaton died. See "Accidents, Deaths, Missing Persons, and Heaton Family Matters" section.) A week prior to the event,



101. Leonard Heaton in front of the office trailer, August 20, 1959 (*Pipe Spring National Monument, neg. 15,299*)

McKown washed all the windows of the fort and cabins; Mose cleaned all the furnishings and floors; Clair Ford and Harvey L. ("Harry") Judd finished renovating the trailer office; and Heaton completed restoring the old telegraph line. The trailer was moved to a location south of the old parking area (below the fort and monument road), facing north. On May 29 McKown and Heaton moved all the equipment, books, and papers that would fit from the fort to the new office. What wouldn't fit was stored in the garage. The small trailer served as office space for both Heaton and McKown. Heaton's old office had been in the fort for 33 years.

On Establishment Day in 1959, there was more than the usual activity on the monument. The program included Superintendent Franke, Jim McKown, Carl Jepson, Kumen Jones, and Charles C. Heaton. A crowd of 250 attended the event, with numbers considerably boosted by the Kanab Stake Beehive girls - between 75 and 100 in number - who were holding their "award and swarm day" in the picnic area that day. The speakers delivered the program in front of the newly restored fort. Jepson spoke about monument's efforts to restore the fort's interior rooms to the 1870s period. Franke described fort restoration activities undertaken as part of Mission 66 and talked about future development plans. He showed the crowd the 1940 Historic American Building Survey drawings and photographs of the fort upon which restoration work was based, thereby generating a great deal of interest and

promises of furnishing donations. Once the event was over, McKown used his spare time to research and write the monument's historical handbook, a project initiated by Lloyd Sandberg. He continued working on this project the following year.

In early June 1959, a reporter from the *Salt Lake Tribune* visited the monument to write a story on the recent restoration activity. Heaton later noted that the man took a lot of pictures of the fort and ongoing restoration activities (both movie and still photography). The reporter told Heaton his article would be published in several magazines during that summer and fall. On June 17 Heaton attended staff meeting in Zion, where he learned that McKown's transfer application was in the regional office for action. That day, he reluctantly turned back to Zion about \$2,000 of unexpended rehabilitation funds, vowing later in his journal to spend it faster the next time!

By the end of June, all the interior fort work had been completed. Heaton terminated Harry Judd's employment, but kept Ray Mose and Clair Ford on as laborers. He also hired Allen Drye, a Kaibab Paiute man, in July. During July construction of the two new residences began (see "Planning and Development" section). Carl Jepson brought more furnishings for the fort as well as a tape recording of the first telegraph message sent over the line from Pipe Spring. The recording was to be used in the telegraph exhibit. Mose and Drye worked on laying a new sidewalk from the fort to the office trailer. McKown continued work on the historical handbook and on museum cataloguing, projects he did whenever he could find the time. On July 12 Landscape Architect Al Kuehl, (WODC) came by the monument for the first time since 1940. Kuehl was heavily involved with Pipe Spring development during the 1930s. Heaton expressed pleasure in seeing Kuehl again after 19 years. The two men discussed the landscaping of residence area, roads, walks around the fort, and future developments. From time to time (according to Heaton's journals), Camp DG-44 veterans would also stop by the monument to reminisce.

On July 21, 1959, at 10:40 a.m., a strong earthquake shook the area. The quake was felt and heard over a wide area in northern Arizona and southern Utah. Heaton later reported, "Ray Mose, Allen Drye, and myself were just outside the fort, southeast corner, and felt the quaking of the ground.... On investigation we found some 30 or more new cracks in walls and ceiling [of the fort] both inside and out. Some plaster knocked off walls. The spring ran dirty water for five to seven hours."¹⁷⁰²

In the last few days of July 1959, Clair Ford restored an old flour bin for the fort's kitchen and built racks to hold garbage cans; Ray Mose and Allen Drye completed the walkway to the office. On July 28 Drye was arrested and taken by the sheriff for burglary, abruptly ending his employment at the monument. On the same day, Assistant Regional Director H. L. Bill made an inspection of Pipe Spring National Monument. In his report to Regional Director Miller, he stated, "The appearance [of the monument] is now better than I have ever seen it. I would think those visiting the fort would gain a great deal more from a visit now than would have been the case several years ago. Of the various areas visited on this trip, the greatest improvement has taken place at Pipe Spring." 1703



102. Excavation of Whitmore-McIntyre dugout, undated; probably August 1959 (*Courtesy NPS Intermountain Region, Denver*)

In August 1959 Heaton made several trips to the sawmill to pick up lumber for use in the east and west cabins. All restoration and furnishing efforts up to this time in the year were focused on the fort. Now the east cabin was to be furnished as a stable, blacksmith and carpenter shop, and the west cabin as a barracks "bunkhouse," as it came to be known. During August Clair Ford built a carpenter's workbench, tables, and chairs for the east cabin, then worked on furnishings for the bunkhouse. In September Heaton began to set up the east cabin display. That month Ford made three bunk beds that were placed in the west cabin. He also made a new water trough to replace the old one at the fort.¹⁷⁰⁴ In October Ford and Mose installed the new trough as well as a fireplace hearth in the west cabin. In late November and December. Ford built a blacksmith forge, workbench, and box for the east cabin.

McKown took two week's annual leave in September, during which time Edna Heaton assisted with fort tours. (In the recent past Kelly Heaton had filled in during McKown's absences, if it was on one of Leonard Heaton's days off. Since Kelly's death, however, Heaton had found it "too much red tape" to hire someone else quickly.) During the month, work on the new residences progressed, but Heaton was none too happy with what would be his family's new home. Unlike in the 1930s and 1940s, when Heaton was encouraged to give input in the design process (and listened to), it appears that he wasn't shown plans for these residences until they had been finalized and approved. As his long-awaited residence took shape, Heaton complained in his journal, "Finding more things I don't like about the building. Too small [a] bathtub, hot water tank, and furnace; too cramped quarters. Bedroom windows too large and low down." Perhaps, after waiting for so many years, the Heatons were hoping for something nicer, but Zion officials were forced to keep costs below \$20,000 per residence.

On August 5, 1959, Regional Archeologist Zorro Bradley and a crew of two excavated the Whitmore-McIntyre dugout, the site of the first structure built by white settlers at Pipe Spring, which was discovered in 1936 (see Part I for history). During the previous June, Assistant Superintendent Humberger had requested assistance from the regional office to excavate the dugout. Zion officials hoped that it might contain evidence that would be helpful in furnishing and interpreting the fort. Excavation work began on August 5 and ended on August 15, 1959. Ray Mose assisted Bradley in the work, doing much of the digging. Unfortunately, in Bradley's words, "very little artifactual material was recovered." 1706

Whitmore's descendants and Leonard Heaton, for example), the decision was made to backfill the site. Heaton had placed reconstruction of the dugout as his first priority for work in 1959. Erik Reed, however, recommended backfilling to afford the best protection to the dugout because, he said, "The dirt and clay walls, as well as the remaining crude masonry walls would be almost impossible to maintain." Reed suggested locating surface markers and an easel exhibit at the site. Superintendent Franke concurred with his recommendation, which must have been quite a disappointment to Heaton. Mose backfilled the dugout in December 1959. In September 1961 the grandson of James M. Whitmore, Junius L. Whitmore of Redlands, California, wrote Secretary of the Interior Stewart Udall requesting the Department of the Interior restore the dugout and erect a monument marker there. Zion's Superintendent Francis R. Oberhansley turned down Heaton's request to restore the dugout again in August 1962. A plaque was eventually erected near the Whitmore-McIntyre dugout in April 1963.

Superintendent Franke and Historian Bob Utley visited the monument on September 18, 1959, to review construction and maintenance work. Utley sent a report to Erik Reed describing the visit and his impressions. He noted that "there is almost no documentary source material on which to base the approach to the problem [of furnishings]."1709 While Woodward's report made recommendations on how a typical Utah or Arizona pioneer home of the period would be furnished, it provided no information specific to what the Pipe Spring fort actually had. Accounts by old-timers indicated early furnishings would have been very crude, but that later furnishings would have been more refined. Utley approved of a mixture of the two, "the crude and the civilized," which was the approach being taken at Pipe Spring. Utley did not think it feasible to represent Pipe Spring "in its earliest pioneer state," both because the artifacts could probably not be found and because the result would produce "severely bare and uninteresting rooms." The compromise reached was to furnish the fort as it probably appeared during the "transitional period" (ca. 1879-1882), when some refinements had been introduced yet the pioneer furnishings were still very much in evidence. Utley commended Heaton and McKown for the aged finishes on reproduction furnishings, some "worthy of a professional museum technician," he thought. (Such work was not done by either Heaton or McKown but most likely by Harry Judd, who seems to have been the local expert on finishing furniture to make it look old.) He ended his report by stating, "I believe Pipe Spring is making large strides in the

right direction. The contrast between the appearance of the fort now and when I first visited it two years ago is very striking."¹⁷¹⁰

In the fall of 1959, McKown made several trips to St. George to continue research for the monument's historical handbook. In November Heaton worked on an article for publication in a book on Kane County entitled, "A Brief History of Moccasin."

1960

Superintendent Paul R. Franke left Zion National Park at the end of 1959.¹⁷¹¹ His successor was Francis R. Oberhansley, who came on duty January 1, 1960. Oberhansley appears to have had a habit of dropping by the monument to inspect it or to see Heaton unannounced. On a number of occasions, it was Heaton's day off and Heaton would be away on personal business, which always seemed to annoy Oberhansley. Heaton's journals frequently refer to Oberhansley as being rather critical, usually related to matters of neatness, either of the facilities or of Heaton's personal appearance. The new superintendent expected him to be always clean and in full uniform. Heaton wondered how he was supposed to always look clean and well-pressed when in fact he still had to do much maintenance work around the monument.

In March 1960 Jim McKown submitted a draft of the Pipe Spring National Monument historical handbook to Zion and regional office staff for review. He then began working on the history narrative for the Mission 66 master plan. Probably the high point of the spring was the arrival of commercial power to the monument in April which enabled the Heatons and McKown to move into the new residences (see "The Final Push for Power" section). For a time, Heaton used the old residence for temporary storage. Ray Mose and Grant Heaton were on duty the most as laborers during 1960, with Harry Judd and Clifford K. Heaton hired for short-term projects. That summer Ray Mose worked on peeling 100 cedar posts and replacing deteriorated posts in the monument's boundary fence. Landscaping of the new residences and construction of walkways, a new visitor parking area, and service roads were also completed in the late summer and early fall. (See "Walkways" and "Planning and Development" sections.)

On August 24, 1960, during construction work on the monument's new parking area and service roads, two fire pits were unearthed. They were described as about 18 inches square, at a depth of two feet. Potsherds and a broken projectile point were also picked up in the area.¹⁷¹² On September 19 Assistant Superintendent Humberger made an inspection visit to check on the construction work. While he was there the drainage wash was being changed near the site of the new parking area. The construction crew ran into an old CCC retaining wall on the west side of wash and the men became quite excited thinking they had discovered an old wall, perhaps of the fort's era. Heaton of course, knew otherwise, as he had been there when the CCC boys worked on the flood diversion project in 1939. (The "stone wall" was most likely a remnant of the stone box culvert constructed then.) Later Heaton wrote of the incident in his journal, "There are a lot of things on this monument no one but me knows anything about. They were put in just temporarily and were not located on maps and plans." ¹⁷¹³

Heaton was on sick leave a good deal in May 1960 with back problems from a pinched nerve. He saw a specialist in Mesa, Arizona, about the problem. On May 30, Establishment Day, the program of speakers included Superintendent Oberhansley, Anson P. Winsor III, Jim McKown, and Leonard Heaton.¹⁷¹⁴ On June 15, 1960, Charlie Steen visited the monument to see how the fort looked after the restoration and furnishing work of 1959 and early 1960. He commented in a report to Erik Reed, "The buildings at Pipe Spring no longer look as though the Monument were an unwanted orphan. With the Art Woodward report as a guide the monument staff, with assists from Zion, have created a most attractive historic house exhibit."¹⁷¹⁵ He noted that rooms were lighted by concealed spotlights and was pleased to see no labels on furnishings. Steen's primary recommendation was that some replicas of equipment used in the cheese room be added to make it appear less barren, and that labels be used in this room only, as most visitors would not be familiar with such equipment.

McKown had asked for a lateral transfer to a protection division of a larger park in May 1959. He was unhappy working at Pipe Spring ("Too lonely" for him, Heaton wrote in his journal. A later entry says that the park historian was "mostly lonely for his girl who won't come down here to live. Would like a transfer to get away where there is more activity and people."¹⁷¹⁶) McKown really longed to return to Yellowstone. He turned down a transfer to Bandelier National Monument in August that year, saying it wasn't a large enough park. Finally, a position opened up at Grand Canyon National Park. McKown was transferred to the South Rim on June 30, 1960, after two years and five months at Pipe Spring.¹⁷¹⁷ Heaton later wrote in his journal that he thought McKown did good work, but that his being Catholic placed him at a disadvantage when it came to talking about Mormon history at Pipe Spring.¹⁷¹⁸ (In late August 1999, Jim McKown, at age 71, returned to Pipe Spring to see the site and to reminisce about his time there, 40 years earlier. He is now living in Missoula, Montana. He characterizes his time at Pipe Spring as "a long, lonely two and a half years, which now oddly seems somehow central to my life."¹⁷¹⁹)

It took about six weeks to hire another park historian, during which time Leonard P. Heaton (paid) and Edna Heaton (unpaid) assisted with tours. On August 22 McKown's successor, Max P. Peterson, arrived at Pipe Spring, accompanied by a wife and child. Heaton wrote of them in his journal: "They are nice people and just out of college last spring in Logan, Utah." After a week of training at Zion, Peterson assumed the duties of park historian at the monument on August 29. When he attended a staff meeting in September, Chief Ranger Jim Felton told the park historian (in Heaton's words), "that Pipe Spring National Monument should never have been established in the first place, [it was] just an accident, but now that we have it, we have to paint it red so people will like it and to justify our spending money on it. Felton is a Mormon hater and can't see any good in anything they do or have done." This could only have heightened Heaton's sense of the monument being an unwanted "step-child" in the eyes of Zion officials.

In addition to giving tours of the fort, that fall Max Peterson worked on the Mission 66 master plan outline and catalogued museum artifacts and library books. In his Annual

Report on Information and Interpretation for 1960, Peterson reported a new method of counting visitors was being used that excluded through traffic, which had been previously counted. Thus while visitation showed a decline from 1959, the figures in fact gave a more accurate picture of visitation to the monument. All interpretive services were by personal contact, but the use of a self-guiding leaflet was being considered for times when guides were unavailable. The self-guided nature trail and associated geologic display, first proposed in 1938, had yet to be constructed as well as the visitor center and water system. The year's most important accomplishments were the completion of the draft historical handbook and the restoration and furnishing of most of the fort rooms and the cabins. The two upstairs rooms in the north building had yet to be furnished. 1722

At the end of 1960, Heaton confided in his journal that while he had "gotten use" to the family's new home, he didn't much like the overhead heating that left the floor always cold. He looked forward to spring when he could do more landscaping around the residence. Perhaps most of all, Heaton hoped Max Peterson would like his new position at the monument as park historian and not get bored or lonesome, the way McKown had. Heaton envisioned Peterson taking over for him when he retired. He ended his journal entry for December 31 on a somewhat pensive note:

So ends another year, making almost 35 years I have lived at the monument, spending hundreds of dollars of the government to preserve and interpret the western pioneer life of this area to thousands of visitors, most of which I believe were pleased with their visit. Three more years and I will have 30 years of retirement service so I will quit and do something, visit other areas.¹⁷²³

1961

On February 8, 1961, the 35th anniversary of his coming to work at Pipe Spring, Leonard Heaton reminisced in his journal (as he often did at such times) about all the progress that had been made since 1926. Gone were the cattle, the cowboys and horses, the chuck wagons. No one had lived in the fort for 25 years. He was rightfully proud of all that had been accomplished under his tenure, particularly all the Mission 66 developments. He noted that annual allotments for the monument's administration had gone from \$300 when he first came to \$20,000 in 1961. With the completion of the Hurricane-Fredonia road anticipated, visitation would soar from 10,000 perhaps to as high as 60,000 in five years, he speculated.¹⁷²⁴ As it turned out, visitation only increased about 50 percent, from 10,465 in 1961 to 16,181 in 1966.

Furnishing of the fort continued, as Heaton and Peterson (and later his successor) did their best to acquire and arrange displays in ways that were appealing and conveyed information about the area's early history. Early in the year, Heaton made trips to Panguitch, Enterprise, St. George, Cedar City, Kanab, and other towns hunting for and purchasing "old relics" for the fort.

Shortly after the new residences were constructed, Heaton was contacted on several occasions with requests from the Kaibab Paiute to buy the old residence for reuse. He



103. Seven Zion National Park superintendents, assembled at Zion for the dedication of its new visitor center, June 17, 1961. From left to right: Frank R. Oberhansley, Paul R. Franke, Charles J. Smith, Preston P. Patraw, Thomas J. Allen, Eivind T. Scoyen, and Richard T. Evans. (*Courtesy Zion National Park, neg. 3332-A*)

decided in November 1960 to let it go.¹⁷²⁵ On April 26, 1961, the old board-and-batten infirmary that the Heatons had lived in since 1940 was partially dismantled by Kaibab Paiute men to be moved to Kaibab Village. By May 10 it had been taken out in four sections.¹⁷²⁶ Heaton reported during the moving process, "Some very tight squeezes getting [it] out of the monument."¹⁷²⁷ The previous year (in May 1960) Ray Mose had removed the underground fuel storage tank, the 3/4-inch copper pipeline, and the underground electric cable associated with the old residence.¹⁷²⁸ In June 1960 Mose dismantled then filled in the old CCC-era storage cellar used by the Heatons for storage. By this time, there was little evidence of the monument's first residence.

No Establishment Day celebration was held at the monument in 1961. In May 1961 Clair Ford built 10 new wooden picnic tables and benches while Ray Mose cut up the five remaining old CCC poplar log tables for firewood. The new tables were placed in the campground in July. The main project undertaken in June was the construction of the east entrance sign (see "Planning and Development" section). On July 5, 1961, Heaton received a 30-year service pin at the Zion staff meeting. On the same day, he drove back

to the monument in a new green Chevy pickup truck, having traded in the old 1952 Chevy pickup.

Rattlesnakes seemed more abundant than usual at the monument in August 1961. Seven were killed on the monument just during the first half of the month, some near the residences and office trailer. Superintendent Oberhansley made an inspection visit on August 10, 1961, while Max Peterson was on duty. It was a week-day and Heaton's day off. Heaton received a letter the following week directing him to take his day off during the weekend and chastising him for Peterson's evaporative cooler being out of order and for the restrooms not being clean. Oberhansley also objected to the messy barn area and animals there (cows and sheep) and to some of the kinds of work Heaton had Mose doing.

Leonard and Edna Heaton were both upset by the tone of the letter. Heaton later wrote in his journal, "It looks like the Supt. Oberhansley is trying to find something to get me out before I retire. I know that a lot of men would like to see this monument abandoned just because it is Mormon history and such. If I have 30 years of service in by the time spring comes around they can have the place as I will be 60 years old and eligible for retirement, which I will take." Heaton had been taking his days off during the week so that he could cover the monument on weekends, when the park historian was off-duty. By shifting his days off to the weekend, the monument was left with no one on duty, a situation Heaton found appallingly insensitive to the needs of visitors. On August 20 he wrote in his journal, "Beginning today, by orders of the Supt. [of] Zion Park, my free day will be Sunday and Saturday, so officially I am not on duty or the fort open. But [out of] common decency to the visiting public I opened the fort and had some members of the family [there] 2 hours and I was here on duty 7 hours, having 56 visitors. Someone here practically all the time." The following spring Heaton asked Zion officials for permission to hire a seasonal guide for the weekends but his request was turned down.

To make matters worse, Max Peterson resigned his park historian position at the monument on August 19, 1961, to teach school in American Falls, Idaho. Peterson told Heaton he and his family didn't care for the remoteness of the site and felt his job lacked advancement opportunities. Heaton was disappointed to lose him and later mused in his journal, "I know it is harder for young people these days of fast activities than when I came here at the beginning of auto days. I was in hopes they would stay to take over when I leave."1731 Peterson had been at Pipe Spring just short of one year. His successor, Robert ("Bob") W. Olsen, Jr., began duty as park historian on August 28. Olsen was from Salt Lake City, where his wife and four children remained. 1732 From time to time, Olsen's wife would drive down with the children, or Olsen would bring his wife and children (or sometimes just the children) to the monument for brief visits. During the last two weeks of September, Olsen was in Zion for orientation training. After returning to the monument, in addition to providing guide service, Olsen engaged in historical research. His initial research included reviewing old diaries and the John Wesley Powell journals (which appeared in *Utah Historical Quarterly*), and locating suitable pictures for use in the historical handbook.¹⁷³³ Olsen noticed right away that visitors to the monument were often curious about the local Indians and their history, so he began preparing an outline on that topic along with making a study of early trappers and Mormon settlers of the area.¹⁷³⁴

On October 19, 1961, during one of his research trips, Bob Olsen had an auto accident in Johnson Canyon. The Park Service truck he was driving left the road and rolled over into a wash. He was uninjured, but the truck sustained \$410 in damages. Several Zion officials came out on October 25, one to question Olsen about the accident and visit the scene where it occurred, and another to talk with Ray Mose about the permanent caretaker's position that was to be funded. Heaton wanted to hire Mose for the position, but feared Mose's lack of electrical and carpentry skills might prevent him from meeting the position's requirements. 1735 At the end of the year, Zion informed Heaton that because of the monument's low visitation, there wasn't enough work there to justify hiring a permanent caretaker. None was hired in 1962 or in 1963. Ray Mose continued to work as a seasonal, part-time laborer at the monument during those years. Other laborers employed part-time or seasonally during the early 1960s included Grant Heaton, Sherwin Heaton, Clifford Heaton, Clair Ford, and Harry Judd. Leonard P. Heaton was hired from time to time to provide guide service. Not infrequently, Edna Heaton and son Claren were also pressed into guide service.

Bob Olsen prepared the 1961 Annual Report on Information and Interpretation, reporting an increase in visitation that was attributed to improved roads. Plans were still being made for the nature trail along the old quarry trail, but no funds were available for its construction. Olsen reported that visitors, especially those from outside the area, found that "... the Indians are as interesting as the pioneers. We are looking forward to the time when we will be able to [do] a better job of interpretation by a display of Indian artifacts in the projected visitor center." ¹⁷³⁶

The flock of Gambel quail introduced to the monument in 1938 was still in evidence more than 20 years later. Heaton reported in November 1961 that about 100 of them were at their "old roosting place," the willow patch at the monument's southwest corner. Coyotes and bobcats were still quite common, and Heaton reported that coyote howls could often be heard in the morning and evening at Pipe Spring.¹⁷³⁷

1962

The new year started off on an unusually climatic note in 1962. On January 4 Heaton reported,

At 7:45 a.m. had a baby tornado hit the monument. A heavy mass of clouds passed from northwest to southeast over the area and with it and the winds, blowing in every direction. At the same time [it] picked up dust, tumbleweeds, trash, and small loose material whistling through the trees, around buildings. A narrow streak of dust would be going in one direction then suddenly change and take off in another direction. Whirlwinds everywhere.¹⁷³⁸

No damage was reported. On February 15 the area experienced several earth tremors, but no visible damage occurred.

In late January 1962, Carl Jepson and Harvey Davis came from Zion to inventory and assess the value of the monument's collection. Heaton had not included values for items under \$50 in his previous inventory, so Jepson and Davis spent some time assessing the value of those items. On February 20 while updating museum records, Heaton and Olsen worked in the office trailer and listened to the newscast of John Glenn's orbit around the earth. A week later, Heaton contacted Ray Mose to rehire him for the following month as seasonal laborer. After business was taken care of that day, Mose told Heaton the story of where the Paiute came from:

Old Grandma living along on the west coast sent for an old Indian from the east coast to come to her as she had something for him to do. When he got to her, he had a big cotton bag tied tight with a string and [she] told the old man to take the bag on his back and go as far north as he could and if he heard any singing, talking, or noises in the sack, not to open it. The old man put the sack on his back, [it was] very light, not heavy to carry a long way. After he had gone quite a way, [he] heard singing and talking in the bag, so he set it down [and] decided to see what was in the bag. So he started to untie the string and just as soon as it was loose, the bag flew wide open. And before he could close it, a lot of Indians jumped out and scattered all over the country. He finally got it tied again and went on his way but when he got into this country he got tired and untied the bag and dumped all the rest of the Indians out and they were the Paiutes. 1739

On March 13, 1962, Assistant Regional Director George C. Miller visited Pipe Spring. Heaton discussed with him several ideas to restore the historic landscape. Heaton had three projects in mind: 1) reconstruction of a corral at the north end of the east cabin, using old cedar posts; 2) reconstruction or repairs to the old lime kiln, located just west of the west cabin; and 3) reconstruction of a stake-and-rider fence from the west cattle guard to a point 400 feet east (south of the monument road), using old materials. ¹⁷⁴⁰ A few days later, Heaton wrote to Rulon Langston in Hurricane to inquire if there was an old corral or fencing on his property or in his locale that could be obtained for that purpose. On March 26 Heaton met with Oberhansley and Humberger at Zion and brought up the proposal to them. They requested a sketch map and cost estimates for the projects, which he submitted soon after. Heaton had \$3,000 in monument funds he wished to spend on these projects that spring, knowing the money would otherwise revert back to Zion's coffer. While awaiting final approval, Heaton located several ranchers in Rockville and Hurricane willing to give or sell him old fencing. Heaton reported the first federal audit to take place at the monument was completed on March 16.

Meanwhile, Oberhansley forwarded Heaton's proposal and cost estimates to the regional office in early April 1962 and asked for their recommendations. Regional Director Thomas J. Allen had little enthusiasm for Heaton's proposal, opining that the construction costs plus future maintenance would be better spent on other projects. "It does not seem

to us that these reconstructed features would add much to the area," he wrote Oberhansley. Allen also stated, "We shall not, however, offer any serious objection if you wish to proceed with the project." Oberhansley forwarded Allen's response to Heaton with the suggestion that Heaton erect interpretive signage in lieu of reconstructing the landscape features, and offered Zion's assistance in preparing the signs. Heaton was no doubt disappointed, but soon after he retired his fencing proposal was implemented.

Olsen was the first park historian to file monthly narrative reports to Heaton, beginning in 1962. They were quite detailed, including visitation figures, notable visitors, and research and interpretive activities. Olsen worked in the spring of 1962 on a self-guiding tour leaflet for visitors to the monument, for those occasions when staff could not accompany them through the fort. He completed the leaflet in May, in time for the summer travel season. The "Self-Guiding Tour of Pipe Spring" pointed out the most significant artifacts in rooms and described their function. The leaflet also included some background history of the site. Also in May Olsen located the Powell survey baseline that ran from Kanab to about three miles south of Fredonia. 1742 In June Olsen tracked down two Powell survey markers in the area, one at Lamb Point, five miles east of Pipe Spring, and one on a ridge north of Navajo Well, 20 miles east of Kanab. In September he located two more, one three miles east of Fredonia on Lost Spring Cliff and one three miles south of Fredonia. 1743

During August 1962, Regional Curator Franklin G. Smith visited the monument to inspect the collection and discuss preservation, acquisition, and record keeping with the staff. Smith later reported that the exhibits were well-arranged, the area neat and clean, and the "enthusiasm of the staff infectious." 1744 The monument also had a visit from Regional Historian Bob Utley in late September. It had been three years since Utley had seen the fort's displays and he was favorably impressed with the changes that had taken place. "The presentation of the Pipe Spring story has been improved vastly since my last visit," he reported to George C. Miller. "A tour of the fort is now a much more meaningful experience than it was before."1745 Utley recommended "a labeling scheme... to identify the more prominent specimens, and also to give a brief historical explanation of each room."1746 A guidebook was suggested as either an alternative or supplement to labels. Utley noted that Olsen had a real interest in research and encouraged him to work on revisions to the draft historical handbook prepared by his predecessors. Olsen's research continued that summer and included trips to the Church historian's office and Utah Historical Society in Salt Lake City. Utley also suggested that funds be found at Zion to send Olsen to Denver to investigate uncatalogued Powell survey photos in the United States Geological Survey's (USGS) collection. (It is unknown if this work was ever done.)

An increase in visitation to Pipe Spring was reported at the staff meeting of July 5, 1962, as construction on the Hurricane-Fredonia road progressed. The influx of visitors led to increased pot-hunting in the ruins south of the monument. Bob Olsen even found officers of the Pacific Coast Archaeological Society hunting for relics there for their museum in California. He directed them to the Tribe, which granted them permission to collect

materials from the surface. In June Olsen suggested to Ray Mose that he make a sign to warn people away from the mounds south of the monument, which he did.¹⁷⁴⁷

Visitors to the monument, as in summers past, frequently came between the hours of 4 p.m. and 8 p.m. Continuous standing was often required of the guides. During the spring and summer of 1962, Heaton had difficulty standing and giving tours due to considerable pain in his legs. ¹⁷⁴⁸ By summer's end, he agreed to have surgery in hopes it would increase the circulation in his legs. He underwent the operation in early October. While he took nearly six weeks' sick and annual leave to recuperate, former park historian Lloyd Sandberg came over from Hurricane and provided monument guide service on the weekends. Sandberg also filled in when Olsen took annual leave.

1963

Olsen's research efforts continued during 1963, beginning in January with an attempt to track down the accuracy and source of the legend about the Pipe Spring name. 1749 In late February Olsen conducted research at Dixie Junior College in St. George, where he discovered several ledgers, one containing entries about the Winsor Stock Growing Company, with entries dating 1873-1880, and two minute books of the Board of Directors of the Canaan Cooperative Cattle Company. He returned several times in March to examine the records in more detail. In February Olsen typed transcriptions of letters handwritten by early settlers during the 1930s (at Heaton's request), telling of their experiences at or near Pipe Spring. He also typed interviews with early settlers conducted by Heaton, presumably using Heaton's notes. Olsen continued historical research in St. George and Salt Lake City in March. He returned to St. George twice in May to work with two ledgers at Dixie Junior College. Olsen also located documents related to the purchase of Pipe Spring from B. F. Saunders by David D. Bulloch and Lehi W. Jones, and the sale between Bulloch and Jones to A. D. Findlay (these would later be useful in documenting the chain of ownership). On a more personal note, during May Heaton wrote in his journal that Olsen was in the midst of a divorce, which was finalized before the end of the summer.

In June 1963 the U.S. Weather Service selected Pipe Spring as a site for a weather station and installed equipment there. The month prior, in May, Heaton began constructing a new home for his family in Moccasin, using up his annual leave during the summer to work on it. In early June Heaton informed Zion's Assistant Superintendent Russell E. Dickenson of his intent to resign. Later that month, Superintendent Oberhansley visited the monument and asked Heaton if he wouldn't stay on longer. Heaton later wrote in his journal, "I said if he would give me a raise in pay and put a fireplace in the house I might consider staying a year or so. 'OK, we couldn't do that,' he said, so out I go Sept. 15th.... The Supt. did not know where he was going to get someone to take my place, but that is not my worry." According to Heaton, Olsen was despondent over the thought of him leaving and was not looking forward to taking care of the fort on his own nor working for someone new. He began talking of a transfer or changing professions. Meanwhile Heaton prepared for his family's move. He tore down the last remaining barn and corrals at the monument at the end of July.

In August 1963 Natt Dodge of the regional office visited the monument. Dodge planned to retire the following January. Heaton learned from Dodge that Zion officials planned to recommend the monument be made a separate unit after Heaton's retirement. "Guess they figured I was not capable of handling such a job," he later wrote in his journal. The administrative change Dodge alluded to did not take place, but the remark reinforced Heaton's feelings of being held in low esteem by his superiors.

On August 3, 1963, a bolt of lightning struck at the head of the meadow, cutting the telephone line and breaking a coupling in the culinary pipeline one foot under ground. Almost three weeks after this event, a retirement picnic and award ceremony was held on August 24 at the monument in honor of the Leonard and Edna Heaton. The Heatons both received a life pass to national parks and monuments. Leonard Heaton also was given a citation for 35 years of commendable service and a bronze metal. "Not much speech making," Heaton later wrote in his journal.¹⁷⁵² The Heatons moved out of the monument residence at the end of August in order for it to be readied for his successor. Heaton spent his last day on the job (September 14) helping to dig campers out of the sand that had flooded into the campground after heavy rains the night before. In addition to the campground, flooding reached the comfort station and came within just four feet of the new residences. Four of Heaton's sons helped remove all the rest of the family's belongings from the monument that day while Edna and Millicent cleaned the residence. Referring to the scene that day, Heaton later wrote, "I was in hopes that monument would be in excellent condition for the new Supt., but with the flood damage [it's] a sorry mess to come to."1753 In his final monthly report to Zion, Heaton wrote,

At the close of 37? years of work at Pipe Spring National Monument, I can say Mrs. Heaton and I have enjoyed our stay and the experiences we have had in meeting the visiting public. It has been rich.... From our first director, Mr. Mather, and Boss Pinkley, we feel we received our greatest training and goals in the Park Service. That our first concern was the visitor that came to see our area, all else was secondary. As the saying [goes,] 'Let me live by the side of the road and be a friend to man.' 1754

It was truly the end of an era at the monument. The local communities would never again have one of "their own" overseeing its operations, nor would anyone spend their entire Park Service career at the site. The personal inconveniences and sacrifices that the Heatons made to care for the site and its visitors over so many years were considerable and probably will never be equaled. Such was made possible by a certain love of the old fort and its site and the couple's deep sense of its importance in American history. The Heatons retired to live in Moccasin, Arizona.

On September 3, 1963, Joseph ("Joe") Bolander entered on duty as the monument's permanent caretaker, shortly prior to Heaton's retirement.¹⁷⁵⁵ Heaton was genuinely disappointed that Ray Mose wasn't chosen for the position, but Bolander had scored 100 percent when his job application was rated earlier that January. Bolander was a rancher and native of the area. The monument continued to employ Mose as a temporary laborer

for several more years. The same day that Heaton retired, Bob Olsen left for the Albright Training Center in Grand Canyon National Park, remaining there until school ended December 7, then took annual leave. In October Heaton's prior GS-7 acting superintendent's position was converted to a management assistant, GS-9. Hugh H. Bozarth was hired to fill the position and reported for duty at Zion on October 14. Bozarth transferred from Death Valley National Monument where he had been a supervisory park ranger, GS-8. In December Bob Olsen's position was reclassified as a GS-7, resulting in a promotion for him. That month the community of Moccasin held a welcome party and dinner for Hugh Bozarth and his wife Lenore at the local Latterday Saints church.

The Final Push for Power

In December 1956 several public meetings were held in Moccasin with representatives from Rural Electrification Administration (REA) and GarKane Power Company to discuss the possibilities of bringing a power line from Mt. Carmel to the area. Heaton learned later that GarKane was willing to bring a power line into the area if it could sell power to Whiting Brothers Sawmill in Fredonia. On January 9, 1957, Heaton reported two GarKane officials were out "to look over the area, to get acquainted with the land. They feel very sure the power line will be built. They are meeting with Jay Whiting. Power needed at their sawmill operation..." Negotiations dragged on with the sawmill owners. In February 1959 Heaton talked with a REA board member in Mt. Carmel about power and later wrote, "Was told the survey was made to Fredonia. The money had not been released because the contract with Whiting Sawmill had not been signed." The sawmill owners were in disagreement with GarKane over the amount of power they would commit to use (and pay for) monthly.

Still, in May 1958 GarKane Power Company official Reed Burr was in the area getting other membership applications for REA approval. Heaton reported, "A line will be built from Fredonia to Pipe [and] Moccasin. Power will be furnished from Whiting sawmill till power can be brought in from the Boulder [Utah] power plant next year or so." In August 1958 Burr assured Heaton that work would soon start on the power line from Fredonia to Pipe Spring and Moccasin. "Should have it in this winter," Heaton wrote, rather optimistically. When Zion's electrical engineer contacted Burr, he was told the application was in Washington, D.C., awaiting approval. GarKane expected to put in a 7,200 volt line from Fredonia to Pipe Spring and Moccasin.

On April 10, 1958, Heaton attended a meeting in Kanab to discuss getting commercial power to Fredonia and Moccasin. GarKane wanted to add a clause in its REA contract that would allow the company to withdraw power from the area if it had a greater demand elsewhere. This was unacceptable to local residents. On December 2 Heaton was informed by Burr that a telegram from Senator Watkins informed the company that the application and power load had been approved for REA to furnish power in five southern Utah counties and two northern Arizona counties, to build a three-unit on the Boulder project, and to construct 189 miles of transmission line.

In March 1959 Heaton learned that Kaibab Lumber Company had signed a contract with REA for power so he was hopeful that commercial power would reach the area by summer, but that was not to be. In mid-April Theodore Drye, Chairman of the Kaibab Paiute Tribal Council, told him that the Indians had granted the right-of-way for both commercial power and roadways over the Kaibab Indian Reservation. On August 18 a contract was signed with REA for a power line to Pipe Spring National Monument.

On August 30, 1959, the monument's diesel power plant broke down. The backup gasoline-powered plant could be used to operate lights only. The Heatons were without hot water and refrigeration for five weeks, cooking on a little tin camp stove and heating water outside in an iron barrel. ("Fun. NO." wrote Heaton in his monthly report. [1761] GarKane Power Company conducted its area survey and began placing poles and stringing wire for the REA power line from Fredonia to the Monument and Moccasin in October. By late October, the power line crew had strung the line to Moccasin and was on its way to Short Creek. Heaton wrote, "Should have power here in another month." [1762] Weary after 33 years of dealing with faulty or failing generators, the Heatons could hardly wait!

On December 31, 1959, GarKane Power Company's transmission lines were strung to the monument and town of Moccasin, but then followed an interminably long delay in getting power lines to individual homes. Heaton and McKown had to wait through the winter to move into their new residences (completed in December) as the park's diesel plant did not generate sufficient electricity to power them. In the meantime, the homes were landscaped (see "Planning and Development" section). Commercial power was finally turned on in the area on April 8, 1960, although the switch from diesel generator to REA power was not made at the monument until April 18.¹⁷⁶³ The Heatons and McKown moved into their residences on April 11 and 12. The house trailer was returned to Zion the following week and the diesel generator was returned in early May. One bit of good news for Heaton was that his rent did not go up, but remained \$10.50 biweekly, not including electricity and fuel oil. In September 1960 the old generator house was razed.

Visitation¹⁷⁶⁴

Visitation figures for the monument grew from 6,746 in 1956 to 17,138 in 1963 (see Appendix VI, "Visitation, Pipe Spring National Monument" for annual figures). Two factors that contributed most to the growth were the construction of the Glen Canyon Dam and gradually improving area roads. Heaton also attributed the increase to improvements in the fort exhibits, made possible by Mission 66 funding.

The 1956 Easter weekend (March 31 and April 1) brought 250 visitors on Saturday, when Fredonia had its annual spring outing there, and 347 on a cold, stormy Easter Sunday. Edna Heaton helped her husband with the crowd that day. In April 1956 Heaton was directed to count all travel through the monument. "If I send in such figures my travel count will go up 100 percent for the year," he commented in his journal.¹⁷⁶⁵ His travel figures distinguished those just passing through and those who visited the fort, picnicked, or camped. The only other large gathering in 1956 was on September 22 when Heaton had

a crowd of 200 people for the Moccasin community barbecue. The group used the west side of the meadow for their gathering.

The 1957 Easter weekend brought 668 visitors to the monument. Heaton reported, "Lloyd Sandberg came out to help with the Easter crowd for today and tomorrow. The Fredonia city had its annual Easter outing here at the monument again, some 250 in attendance even though the weather was cold." One of James M. Whitmore's grandsons visited the monument that weekend. On May 18 a group of 140 men and boys from Zion Park Stake visited the monument and were given a tour by Lloyd Sandberg. That summer, Heaton commented in his journal that quite a lot of people were using the meadow for recreation activities.

For the first time in years, Easter weekend attendance at Pipe Spring for 1958 was rather low, with only 100 visitors. Heaton attributed the decline to "too much cold wind, muddy roads, and bad weather." On May 4, 1958, Heaton reported, "Community church services were held in the picnic area at noon." It must have been a lovely setting. The plum trees were in bloom, producing a very fragrant odor. So much cotton from the silverleaf cottonwoods filled the air and rooms in the fort, that Heaton wrote, "At times [it] looked like a snow storm." This is the only time that Heaton made a record of a church service being held on the monument, aside from regular services held in Camp DG-44 during the late 1930s. At the end of the 1958 travel season, Heaton reported a steady increase in visitors from other countries.

On March 24, 1959, Junius L. Whitmore, grandson of James M. Whitmore, visited the fort. He donated pictures of his grandfather and father, who was the 11-year-old boy left in the dugout when Whitmore and McIntyre set off to find the sheep rustlers. Whitmore told Heaton that his records showed McIntyre was not a brother-in-law, but a hired hand about 20 years of age. 1770 Easter weekend that year fell on March 28 and 29. Heaton hired Kelly Heaton at the fort to help with the Easter crowd. Attendance for the two days was over 400 people.

Leonard Heaton continued to be active in his support for the Boy Scouts of America during the 1950s. It was not unusual for large outings to be held at the monument. On April 13, 1957, Heaton reported, "Sixty-five boy scouts and leaders from Kanab District camped on the monument last night and today took part in the raising of the flag over the fort. Day spent in first aid instruction by Arizona State Patrolmen LaVar Johnson, 22 rifle practice and on handling of guns by Eldon V. Johnson. I took the boys on a 1? hour nature hike back of the hills." [Even though no formal nature trail had ever been constructed, Heaton occasionally charted one of his own for such groups.) On the evening of August 28, 1959, five busloads of Alton boy scouts and their families had a camp fire program at the monument, with about 150 people attending. Between 1956 and 1963, other outings were held at Pipe Spring with boy scout troops from Cedar City, Yuma, Salt Lake City, and the Kanab District, with numbers ranging from 33 to 175 per group.

The Heatons and Jim McKown moved into their new residences just a few days before Easter weekend 1960. As usual, it was a busy time. Visitation that Saturday and Sunday (April 16 and 17) was an estimated 1,200. Easter weekend in 1961 brought 1,100 visitors and the same holiday in 1962 brought 1,250. (Bob Olsen reported that many who visited the monument that weekend also went to see Pink Coral Sand Dunes, a Utah state park 10 miles north.) During Easter weekend in 1963, 1,078 visitors toured the fort. (The reduced number was attributed to cold, windy weather.) Olsen reported, "Most of the visitors not only visit the buildings and picnic, but they play ball, pitch horseshoes, and in general have a good time." 1772

On September 1, 1961, Arthur Woolley and his sister Elizabeth Jensen (children of Edwin G. and Flora Snow Woolley) visited the monument and told Heaton they were getting together some of the Woolley relics to put in the fort. They also told him that they were compiling a history of the fort associated with the Woolley period of occupation.¹⁷⁷³ Louise L. Udall, mother of then Secretary of the Interior Stewart Udall, visited the monument on September 4, 1962, in the company of her daughter, Elma, and three descendants of Jacob Hamblin, including Rella Hamblin Lee of Downey, California (the only living daughter of Jacob Hamblin).¹⁷⁷⁴ On November 14, 1962, Assistant Secretary of the Interior John A. Carver, Jr., and his wife and parents, of Pocotello, Idaho visited the monument. On October 12, 1962, LeGrand Woolley of Salt Lake City visited Pipe Spring. He was another of Edwin G. Woolley's sons.

Reunions continued to be held at Pipe Spring during the early 1960s. On May 28, 1961, Heaton reported that the Black family, descendents of 1870s settlers in the area, held a reunion. The Winsor family held its family reunion for three years in a row at Pipe Spring, during the summers of 1961-1963. The last two years it was a two-day affair. The Woods and Bunting families also held reunions at the monument in 1962 and 1963, respectively.

In addition to reunions, Church groups and officials (both Church and State) continued to visit the monument. In February 1963 Harold Fabian, vice-chairman of the Advisory Board on National Parks, Historic Sites, Buildings and Monuments, and his wife visited the monument with Rudger C. Atkin, president of the St. George Stake of the Church. On April 20 Superintendent and Mrs. Oberhansley visited the monument with Dr. and Mrs. Everett Cooley. Dr. Cooley was director of the Utah Historical Society. On May 18 and 19, 1963, Aaronic Priesthood groups from Latter-day Saints churches in Moccasin, Hurricane, and Panguitch visited the monument.

Historic Buildings

The Fort

In December 1956 Park Engineer Wilcox made a test hole at the southwest corner of the fort to inspect the fort's foundation at that location. He checked the soil at the southwest corner of the fort with a seven-foot auger, hitting shale at a depth of about two feet. At five feet, the soil was quite dry and hard; at about seven feet he hit water that came up in the hole at a rate of five feet in two hours. Heaton later wrote, "So we have big problem to

stabilize the southwest corner of the fort."¹⁷⁷⁶ In February 1957 Wilcox returned to make further tests. Heaton later reported, "We drilled a 17-foot hole on the southwest corner going through clay and some shale and water at about 3 or 4 feet. At 17 feet there was some quite hard shale. Mr. Wilcox took an instrument reading on pond water level and ground [level] at the fort. [There was a] three-foot difference so we may have water seepage from the pond back to the fort rather than [from] spring water."¹⁷⁷⁷ The drilling showed that the material to a depth of 17 feet was largely a reddish brown clay with varying moisture content. It was thought that at a depth of about eight feet the material would support a spread footing for the building corner.

After Wilcox's second investigatory trip, Superintendent Franke described the problem in a memorandum to Regional Director Hugh Miller. The cost of needed stabilization work was "beyond the reach" of Zion's available maintenance funds, Franke stated. He asked for Miller's ideas on how to obtain funding to accomplish the work. Regional Chief of Operations David H. Canfield wrote Franke that constructing the footing at a depth of six feet was adequate. He suggested providing tile drains beneath the new footing surrounded by crushed gravel. Canfield requested cost estimates for the work. Franke responded that construction costs to stop the settling of the fort's southwest corner would be \$936, \$500 of which they had in their historic buildings account. The regional office agreed in March to make up the \$436 deficit so the project could move forward.

Wilcox visited the monument on March 18 and March 25, 1957, to make plans for stabilization work on the fort. On March 25 Wilcox made arrangements for two laborers and told Heaton what materials would be needed for the work (sand, cement, and mixers). Heaton bought 40 bags of cement from Kanab Construction Company then arranged for his brother Grant Heaton to haul three loads of gravel to the monument. Heaton also drained the fort ponds so water would drain out from under the building.

On April 1, 1957, Wilcox and Ward Axtel arrived to work on the fort stabilization, remaining on site for the duration of the project, and camping in a trailer. Work on the fort commenced on April 2 with a crew of four or five men (Leonard P. Heaton was hired to assist with part of the work; laborer Carl Johnson was also involved.) On the first day, the men excavated three 2 x 5 x 6-foot holes around the fort's southwest corner. No water was encountered, leading Heaton to speculate that the seepage Wilcox encountered had come from the ponds, which were now temporarily empty. A fourth hole was dug, then reinforced concrete footings were poured. Stabilization work was completed on April 9. Johnson cleaned up the site and refilled the fort ponds.

During December 1957, two laborers, Carl Johnson and Kelly Heaton, were hired to repair the fort's walls and ceilings, paint the floors with linseed oil, and to white wash the walls. That month the men painted the east and west walls with a mixture of water and dirt. They continued working in the north building until the end of December, replastering the kitchen walls with cement as a base and regular plaster as the surface, as well as painting, cleaning, and other work. During that month Heaton made several trips to area



104. Scaffolding erected on south side of fort, January 19, 1959 (*Photograph by Leonard Heaton, Pipe Spring National Monument, neg. 51*)

towns to locate carpenters and other men for restoration work on the fort and furnishings as programmed for early 1959.

Regional office staff Ken Saunders and Erik Reed were assigned to supervise the FY 1959 restoration work. Reed reviewed a list of suggestions prepared by Heaton, then submitted a list of his 10 "high priority" and two "second priority" projects to Superintendent Franke on November 24, 1958. High priority projects were repairing and purchasing old furnishings for the fort; hiring carpenters to repair all woodwork in the fort; painting all woodwork; wiring the building; closing up all exterior openings not original to the fort and reconstructing gun ports in outer walls; replacing flooring in the lower floor of the upper building; reconstructing the ladder to the trap door; making repairs to plaster and floors; getting the spring water running through the fort; and making shutters for two windows on the lower building's first floor. Of lower priority were rebuilding the telegraph line and replacing the fire cranes in the fireplace.

Restoration work on the fort began on January 12, 1959. Locating local sandstone to infill the fort's windows and south doorway was the first challenge. Ray Mose and Clair Ford scouted around Heart Canyon and finally located some stone the right color. They spent several days quarrying then dragging pieces to the monument with a tractor rented from Grant Heaton. There Clair Ford worked the stone into the proper shapes. Scaffolding was erected on January 16 and 17, then work began on rocking up the fort's exterior windows. One of Leonard's sons, Sherwin Heaton, was hired to assist with this work for two

months. At times the weather was so cold the mortar froze to the trowel. On January 22 Assistant Superintendent Charles Humberger, Regional Architect Ken Saunders, and Park Engineer Ed Bossler visited the monument to inspect work progress. The last opening was rocked up on January 29. Mud stain was used to "age" the new infilled areas and gun ports were created during the infilling work. While Ford and Mose were at work, a contractor from Hurricane Electric Company had a crew trenching and laying conduit to wire the fort, completing work on the 24th. 1778 Charlie Steen visited the fort in late February and later reported, "The new work blends very well with the old walls and the south aspect of the fort is vastly improved." 1779

Replacement work on the upper building's deteriorated parlor and kitchen floors began on January 30, 1959, and was completed in April. (This was the third time these floors had been replaced, the most recent being 1948.) Five screened, external vents were added beneath the floors to reduce moisture problems and all materials were treated to resist moisture, decay, and termites. 1780 Work to restore the spring flow to the spring room was undertaken in February and completed in March. (See "Ponds, Fish, Fowl, and Springs" section.) The stone walls of the fort, the cabins, and the walls flanking the fort and around the fort ponds were all repointed as needed by June. In the upper level of the lower building, interior work included removal of old plaster from walls and partitions, followed by replacement with cement on the rock walls and gypsum plaster and lime on the partitions. Some patch work was also done in other rooms. In March Sherwin Heaton resigned and Ivan A. Goodall was hired to clean furnishings and assist with other interior work. Grant Heaton was also hired as a laborer in early March. Clair Ford did repairs to the woodwork throughout the fort's interior, repairing and replacing loose or broken boards. Interior painting was done where needed. Grant Heaton and Ivan Goodall were laid off at the end of March and Harry Judd was hired as a painter. Judd, Ford, and Mose continued working on the fort into the summer months. In May Grant Heaton worked on restoring the old telegraph line to the fort, replacing the old poles with new ones.

In September 1959 Superintendent Franke and Bob Utley visited the monument. One of the things discussed was the lighting system inside the fort. Franke did not like the floodlights that had been installed in rooms and wanted electric lights put in the old lamps and lanterns instead.

In the fall of 1962, linseed oil was painted onto the roof of the fort and on woodwork under the eaves of the porches as a preservative, following a recommendation made by Western Museum Laboratory staff.

The East and West Cabins

In March 1957 Heaton rebuilt the chimney of the east cabin and patched roofs of both cabins with blue clay which he wetted down with the fire pump and hose. ¹⁷⁸¹ In late July laborer Carl Johnson worked on the east cabin foundation, putting in a concrete footing and cementing up cracks. In November Johnson and Kelly Heaton removed deteriorated mud mortar from the wall of both cabins and repointed the stones with cement. They then painted the walls with water and mud to take off the "newness" of their work. The two-

week job was completed in early December 1957. That month Heaton removed planking from the west cabin middle doorway so that he could use both rooms of the west cabin for a museum display.

In late April 1959, the east and west cabin foundations were treated with a termite repellant ("pendane"). During the fall a great deal of work was done to outfit both cabins with a mixture of reproduction and authentic furnishings for display purposes (see "Monument Administration, 1959" section). Other than routine maintenance, no other work was done on the cabins in the early 1960s. In May 1962 concern for the security of collections in the cabins led to the erecting of barriers, which allowed visitors to view displays from just inside the doorways.

The rehabilitation work begun in January 1959 on the fort and cabins continued until June 1961, when the account was finally closed out. As the funds included the purchase and repair of historic furnishings and the completion of room exhibits, this latter aspect of the project took a longer period of time than work on the buildings, most of which was accomplished in 1959.

During November 1963, the roof of the west cabin was patched with mud and bark.

The Lime Kiln

Heaton and Olsen shared an interest in the site of an old lime kiln, the kiln having been used during the construction of the fort and west cabin. The kiln burnt lime that went into plaster and the mortar for stonework. Olsen reported the kiln was located 200 feet west of the west cabin, "about 20 feet from where the road is now" (referring to the old monument road, State Highway 40). In 1964 the kiln was a mound of rocks, sand, and dirt, measuring four to five feet high by 15 to 20 feet wide. Heaton wanted to reconstruct the kiln, but the request was denied by his superiors.¹⁷⁸²

The Heaton Residence

No improvements were made to the old custodian's residence (CCC infirmary) during the late 1950s as construction of the new residences was imminent. The only request Heaton made was on July 10, 1958, when he called Zion to ask for an evaporative cooler for the residence. It was so hot inside that his daughter Millicent had fainted from heat exhaustion. (McKown's trailer had a cooler.) See "Monument Administration, 1961" section for reference to the building's removal.

<u>Planning and Development</u>

1956-1958

An amount of \$3,000 was allotted on April 21, 1956, to build a new comfort station at the campground, which was constructed in two parts. The first \$1,731 contract was awarded to Clifford Heaton of Kanab, Utah, who began construction of the 10 x 14-foot cinder block and frame structure on May 18, 1956, and finished his part on June 21. The building was sited just east of the east end of the old parking area at the campground entrance. Heaton and a hired laborer worked the remainder of June and part of July



105. Comfort station, ca. 1957 (Photograph by Leonard Heaton, Pipe Spring National Monument, neg. 3274)

installing the water and sewer lines to the comfort station. It could not be used, however, for none of the plumbing fixtures could be purchased or installed due to insufficient funds that year.

In late September 1956, Regional Architect Ken Saunders inspected the comfort station and said he would try to get more money to complete the building and to repair the fort. A second allotment for the comfort station was received on December 12, 1956, allowing the purchase and installation of fixtures, wiring, and other finish work. In late December the contract was awarded to Heaton's son Leonard P. Heaton for \$395 for installing the fixtures, painting the building, grading the area, and building walks. Work began on December 27, 1956, and was finished on January 25, 1957, with a cost of \$4,200. In his final report, Acting Superintendent Heaton stated, "The completion of this building marked a highlight in the development of Pipe Spring in that it marks the first structure of any kind completed with construction funds allotted specifically for the purpose... It serves a great public need." 1784 Laborer Carl Johnson graded and landscaped the building site in March and April 1957. 1785 Johnson also tore down the four privies on April 27; the salvaged lumber was used for firewood. In early May 1958, laborer Gary Heaton removed the old walkways to the pit toilet sites.

In late July 1957, Heaton got word that the Mission 66 building program had been approved for Pipe Spring but that it would be two years before any construction work

would start. Superintendent Franke and Landscape Architect Ronald Mortimore, Western Office of Design and Construction, visited Pipe Spring on September 26, 1957, to go over Mission 66 plans for the monument.

Superintendent Franke submitted the monument's general development plan (NM/PS-2101A) to Director Wirth for approval on April 30, 1958. Final approval was held up due to the uncertainty of the Park Service gaining permission from the Kaibab Paiute Tribal Council and Bureau of Indian Affairs to relocate the bypass road south of the monument (see "Area Roads" section for details). On June 12, 1958, Leonard and Edna Heaton and Jim McKown met with Associate Director Scoven and Regional Director Miller in Zion. Miller told Heaton that unless the Washington office opposed it, the two new residences for the monument were top priority for fiscal year 1959. On July 5, 1958, Heaton was notified that the project for the new residences was formally approved. Implementation of the master plan for the monument, however, hinged on relocating the through road outside the monument's boundaries, meaning the construction of a bypass road. There was some opposition to building such a road by the Kaibab Paiute Tribe, which delayed the director's approval of the final master plan. Hugh Miller unsuccessfully tried to push through finalization of architectural plans for the residences and the director's approval of an interim master plan so that construction could begin that winter on the residences.¹⁷⁸⁶ They would not be started until the summer of 1959.

Meanwhile, in late 1958 Heaton put in a last minute plea that his new residence have ample storage space ("to store all the several hundred cans of fruit, jellies, jams, meats, dried produce my wife puts up each fall") and a flue somewhere in the building. The latter was desired in case the family needed to set up a wood or coal stove for either heat or cooking. Heaton had too much experience with failing generators to put all his faith in electricity, even from a commercial company. No flue or fireplace was included in the construction, a situation Heaton later fumed over whenever the area's power failed and the family was left without a source of heat.

1959-1963

In the spring of 1959, a number of questions were raised by the Western Office, Division of Design and Construction (WODC), and the Water Resources Section regarding the impact that new monument development would have on water use, since the Park Service was limited to one-third of the spring flow, as per the 1933 agreement. (See "Water Issues" section for background.)

On May 10, 1959, Thomas C. Vint, Chief of Design and Construction (Washington office), George Hall (WODC) and Superintendent Franke visited the monument to discuss development plans. On May 17 Architect Cecil J. Doty (WODC) visited the monument to become acquainted with its development plans and to look over the site for the proposed visitor center.¹⁷⁸⁸ A number of Zion and regional office officials frequently visited during the first six months of 1959 when most rehabilitation activity took place.



106. New staff residences and parking, October 1960 (*Photograph by Leonard Heaton, Pipe Spring National Monument, neg. 170*)



107. New east entrance sign, 1961 (Photograph by Leonard Heaton, Pipe Spring National Monument, neg. 160)

While Assistant Regional Director H. L. Bill was inspecting the monument on July 28, 1959, Heaton expressed concern about the location of one of the two planned residences. He told Bill it was sited in the middle of a drainage channel, which could be the source of considerable trouble later on. Bill later advised Hugh Miller, "Some corrections in the area above the residence location would serve to protect the structure and the occasional flow of water can be directed around the building. It is too late to relocate the residences." The planned visitor parking area was also poorly sited. At the time, plans included the installation of a six-foot culvert under the road to prevent flooding, but ultimately only a 56-inch culvert was installed. Officials would later learn the culvert size was inadequate and perhaps question the wisdom of constructing a parking area in a drainage wash.

Funds in the amount of \$36,700 for two new residences were made available for the fiscal year 1959 program. On June 24, 1959, bids were opened and a contract was awarded for \$36,950 to Leon Glazier of Hurricane, Utah. The identical residences contained 1,254 square feet of living space with three bedrooms and one bath, with a 362 square foot attached garage. Excavation began on July 2 and construction was completed on December 16.1790 Water and sewer lines were also extended to the new residences. Heaton, Humberger, and Project Supervisor Wayland P. Fairchild (WODC) inspected the job that day, which was declared complete and acceptable. Until commercial power reached the monument, however, the Heatons and McKown could not move in. In March 1960 Clifford Heaton built storage spaces in the residence garages and Grant Heaton installed insulation.

No provisions for landscaping were made to keep costs from exceeding funds available. Zion officials estimated the cost would be about \$2,400 and had to seek approval from the Washington and regional offices to expend additional funds. Approval from Washington was given in mid-December 1959 to landscape the residences, with the stipulation that expenditures be kept to the bare minimum. In March 1960 Grant Heaton and Ray Mose graded and filled the area as needed to prepare for landscaping. In April Mose planted a row of plum trees and 11 Carolina poplars "at back" (north) of the residences to help screen them from the fort area. Other plantings were made around the buildings, concrete block walks were constructed, and lawns were planted. Construction of the new visitor parking area, parking area for a future seasonal apartment, a service road to the residences, and a utility courtyard began on August 23, 1960, and was completed on September 21. The visitor parking area was in a loop configuration near the east entrance of the monument, on the north side of the road. (Refer back to figure 97 for site location.)

As mentioned earlier, the old CCC infirmary was removed in May 1961. In June 1961 an entrance sign was constructed and installed at the monument's east entrance, a project that had been planned, Heaton reckoned, for 15 years. ¹⁷⁹² Clair Ford, Ray Mose, and Grant Heaton excavated for the 14 x 4 x 1-foot concrete slab base, dressed and erected the sandstone, and affixed a wooden sign to the front. Work began on June 19 and was

completed June 30. The design is very similar to others erected in parks and monuments during Mission 66.¹⁷⁹³

By the end of 1961, most of the development that would take place at Pipe Spring National Monument under the Mission 66 program was completed. A total of \$97,823 had been expended on projects described above. Other monument projects were planned under Mission 66 (at a total estimated cost of \$226,977) but none of these had been authorized by early 1962. 1794 Overhead wires to the fort were placed underground in May 1962. During October 1963, Leonard Heaton (just recently retired) assisted Zion's Park Engineer Joe McCabe map out the monument's utilities, which a survey crew from Zion mapped during November 12-16.

Water System

No funds were programmed to develop the monument's water system during fiscal year 1959. However, the work that Heaton was doing in trying to restore the spring flow to the spring room, as well as the expected construction of new residences that year, required that a collection box be designed which could later serve the new water system. In February 1959 Engineer P. E. Smith (WODC) forwarded a sketch of a suggested collection and distribution box to Superintendent Franke. WODC engineers completed plans for the complete monument water system in March 1959. The estimated cost for executing their plans was \$36,500. The system required two reservoirs, one 40,000-gallon reservoir at low level for fire and emergency reserve and one smaller 5,000-gallon reservoir at high level for domestic use and fire "first aid." The larger reservoir was to be fed by gravity from the spring, the small reservoir required a pump for distribution. In his transmittal of the plans, Engineer Smith wrote Franke,

This somewhat unusual system was devised in order to hold the permanent scar [on the monument] to a minimum.... We realize that a complete gravity system is desirable, but feel that the heavy equipment which would be required to install a larger reservoir at the site shown for the small reservoir would permanently scar the terrain. Considering the proximity of the nature trail, we feel that this would be highly undesirable.¹⁷⁹⁷

Franke, Heaton, and Park Engineer Bossler reviewed the plans and made an on site study on March 11, 1959. The men proposed a simpler and less expensive system to WODC engineers, suggesting that a 15,000-gallon tank be located in a pocket along the ridge west of the fort, on the old quarry trail. This would allow the entire water system to function by gravity flow, delivering water through a buried four-inch pipeline. The front of the tank could be hidden with large boulders, and the top of the reservoir could be used as an observation platform along the nature trail, Franke suggested. The estimated cost would be \$18,450, excluding the distribution system to the new residences. ¹⁷⁹⁸ Regional Director Miller later returned the unapproved WODC plans to Franke: "It seems too complicated a system for a small area," he said, proposing an entirely different system than that proposed by Franke to WODC. Miller suggested a 30,000-gallon gravity reservoir and a 2,000-gallon, partially underground, reservoir using a pump. ¹⁷⁹⁹

Engineer Smith revised the water system plans based on comments from the regional office and Zion, resubmitting the revised plans in mid-April 1959. He pointed out that it was impractical to construct a large reservoir along the old quarry trail for there was no pocket along the trail large enough to place the reservoir, meaning extensive and expensive rock excavation and removal. Pipeline construction along the cliff face would also be difficult and costly, Smith asserted. Design standards also required a fire reserve capacity of 38,400 gallons in addition to the normal domestic use. Iso In August Zion, region, and WODC officials came to the monument to discuss the water system and other developments. Heaton later reported, "Think we have finally settled on spot for 40,000-gallon tank on [the] hill for culinary use."

A WODC engineer collected survey data for the new water system, parking area, and service roads in November 1959. On November 13, 1959, Assistant Superintendent Humberger and Carl Jepson came out to inspect the area and to go over the latest plans for new water system. Project construction proposals for a water system continued to be submitted during the 1960s, but due to lack of funds the new water system was not constructed.

Walkways

As might be expected, as soon as development activity kicked into high gear in the late 1950s, a need for new walkways arose. In May 1957 laborers constructed walks around the comfort station. The walks between the fort and cabins were repaved with blacktop. In July and early August 1959, new walks were constructed at the office and east side of the fort and old walks were repaired. During April 1960, Grant Heaton and Ray Mose laid four new concrete block walkways around the new residences and garages. Nearly one year after the new residences were completed, a new walkway was built from the residential area to the trailer office using leftover materials from a road construction job. 1802 Other work on walkways prior to 1964 was in the nature of routine maintenance or resurfacing.

Nature Trail

While Zion and other Park Service officials made occasional inspections or references to the proposed nature trail at the monument during this period, no progress was made in financing trail construction. The old rock quarry trail was very crooked, observed one WODC engineer in April 1959; it appeared that a good deal of work would be required to make a safe hiking trail along it. The trail would not be constructed until the summer of 1968 when government-sponsored youth employment programs supplied the monument with additional workers.

Ponds, Fish, Fowl, and Springs

The Fort Ponds

By the late 1950s, draining and cleaning of the fort ponds was nearly an annual affair and an all-day job for three men. In addition to this routine chore, a number of pond repair projects took place. On May 19, 1957, strong winds blew over an old cottonwood tree on

the walkway between the ponds, damaging the rock wall on the west side of the path between the ponds and damaging the walk. In mid-June Leonard Heaton and Carl Johnson removed the tree stump between the ponds, rebuilt the damaged rock wall, and repaired the walk.

During May and June 1958, the exterior rock walls of the fort ponds were stabilized, requiring 30 bags of cement. Gary Heaton and Ray Mose began work on May 20 on the east pond wall. After the first two days, Mose worked alone on the job. The fire pump and hose were used to first clean out the loose dirt and debris. Then the cement was mixed with a reddish brown coloring (to resemble old mud mortar) and troweled into the cracks. Mose had to suspend work on the walls for a while to help ready the monument for that year's Establishment Day (May 30). He resumed work the first week of June and completed the exterior walls on June 9, 1958. On June 18 Ray Mose, Jim McKown, and Kelly Heaton cleaned out and drained the fort ponds. Then Leonard Heaton assisted the three men in repointing the inside of the ponds with cement. Work was completed on June 21 and the ponds were refilled.

On July 21, 1959, the fort ponds were drained and some of the carp and goldfish moved to other ponds. Heaton wrote that there were so many that they kept the water muddy all the time. On July 22 Ray Mose and Allen Drye cleaned the fort ponds, putting 39 carp in meadow pond, and 33 goldfish in the Indian pond (reservoir), leaving 30 or more fish in ponds by the fort. Due to the July 21 earthquake, Heaton noted that the spring flow had noticeably increased. It took only three days to refill the ponds this time, while before it had taken nearly four full days. The ponds were drained and cleaned in June 1961. In 1962 they were cleaned twice, once in May and again in November. During the May cleaning, the rock walls were repaired. Heaton reported that after the November cleaning it took 74 hours for the ponds to refill, about 22 hours faster than in previous years when he had timed it. He attributed the increased flow to the 1959 earthquake.

Between 1960 and 1963, several efforts were made to stabilize the deteriorating stone walls of the fort ponds. Heaton noted considerable seepage through the east bank of the ponds in February 1963, but could not locate the source.

The Meadow Pond

Heaton made no reference in his journal about public swimming in the meadow pond after the summer of 1950. It appears that shortly after that year swimming at Pipe Spring was forbidden by either Zion or regional office officials. In early August 1958, Heaton reported that he got into trouble with superiors by letting people swim at the monument. Swimming as a monument activity had been reported in a magazine article, much to his superiors' chagrin. No correspondence about the matter has been located.

Fish

By the late 1950s, Heaton appears to have given up stocking the ponds with hatchery trout and the predominant fish species were carp and goldfish. His records indicate that he occasionally received donations of local carp to put in the ponds. On one occasion in

August 1958, Heaton, Edna, and two of their sons went to Johnson Lake, 35 miles east, to catch some fish to put in the fort's west pond. They caught 17 carp and three bass, about six to eight inches long.

In May 1963, shortly before his retirement, Heaton asked U.S. Fish and Wildlife to deliver 100-200 trout to the fort ponds when they made a delivery of trout to the reservation. On May 4 he received a delivery of two nets of fish, about 100, six to eight-inch rainbow trout. By late July, word had gotten out about the new arrivals for Heaton wrote, "There is some night fishing going on here at the monument now that people have found out we have trout in the ponds." 1806

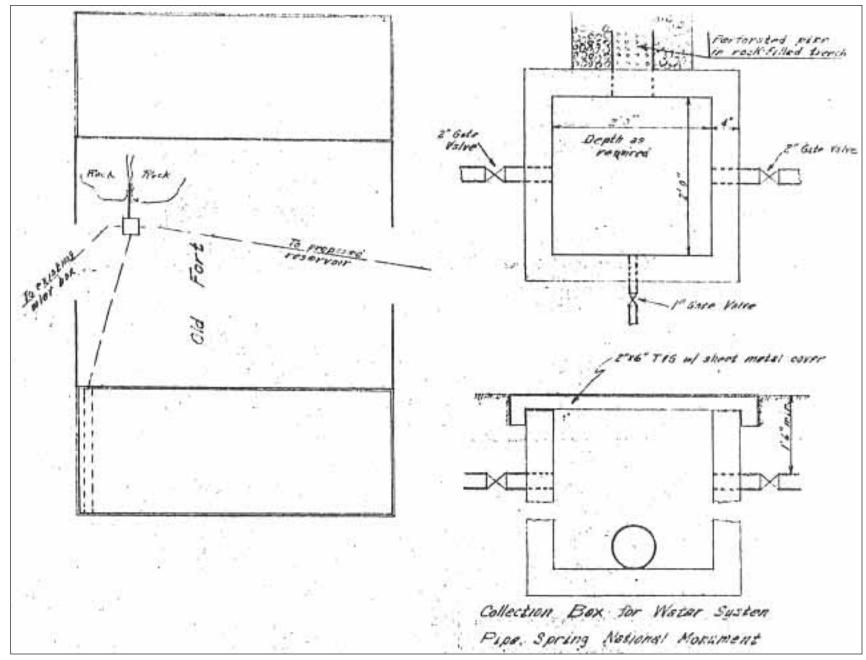
Fowl

During the late 1950s, local residents occasionally donated domestic ducks for the monument's ponds. The problem was that wild cats would always make short work of them. Heaton even set a trap in Heart Canyon for the cats to protect both monument fowl and his own chickens. 1807 Every year Heaton would add a few ducks to the ponds, and just as surely, the cats would eat them. Wild cats weren't the only hazards. On one occasion in 1959, two young Indian boys injured two ducks with slingshots (Heaton referred to these as "flippers"). The number of ducks on the pond continued to fluctuate during the early 1960s. A bobcat killed one shortly before Heaton retired. After Management Assistant Hugh Bozarth came on duty, he purchased four ducks to add to the lone duck there at the time. "Visitors are pleased that ducks have been restored as part of the historical scene," Bozarth reported to headquarters. 1808

Springs

During the summer of 1956, the spring stopped running through the fort and spring room. In August Heaton tried to locate the problem and met with some success: "Put a rock at the spring to raise the water level at the head, which forced a fair stream of water into the fort again." Heaton speculated that the opening to the outside spring had enlarged, lowering the pressure of spring flow into the fort.

By early 1959, the spring flow no longer emerged from under the north building but in the courtyard, at more than three feet lower elevation and at less pressure. Extensive work was done in February and March 1959 to restore the flow naturally through the spring room again. Beginning at the northwest corner of the courtyard, Ray Mose and Sherwin Heaton excavated down to reach the water channel. On February 9 the two men broke through to the spring channel and got flooded out. Work had to be temporarily halted until a pump could be brought from Zion on the 20th. It was discovered that the water channel from the north building ran between two very large rocks which extended about eight feet from the building foundation. A six-inch concrete wall was placed below the spring outlet between two large rocks, from the bottom of the excavation to four inches below ground level. Heaton wrote that this was done for two reasons: first, to prevent spring water from seeping into the spring room and second, to construct a catch basin beneath the courtyard to collect water for the monument's culinary system, and to divert water into the spring



108. Sketch showing location of spring and collection box, February, 1959 (Pipe Spring National Monument)

room. An open bottom-type manhole was installed. A two-inch pipe was placed in the collection box and connected to the old water system that supplied the picnic area, residences, and other areas on the monument. Plans were to take more water from this point for the new water system. A three-inch pipe was installed to carry water to the spring room. It was discovered that by raising the water level of the spring on the west side of the fort, the water flow could be increased into the spring room, so this level was raised about eight inches. The spring project was completed March 25, 1959. 1810

In April 1961 Heaton reported that Ray Mose "found a new spring of water" behind the west cabin as he cleared away the dead vegetation. Heaton wrote that the "new spring" (presumably a seep) was six to eight feet higher up the hill from the previously known spring.¹⁸¹¹

Flood Diversion, Irrigation, and Pipelines

As in previous years, on numerous occasions between 1956 and 1963 either the cattlemen's or the Tribe's pipeline from the monument became clogged with roots or debris and had to be cleaned. This happened almost annually. The fire pump was found to be the best method of clearing the lines on such occasions.

Floods

Constructing the new parking area in the middle of a flood wash in 1960 was only asking for trouble, and it sure enough came. The parking area had been inspected and accepted on September 21. On November 6, 1960, a morning of constant rain brought flooding by noon. Heaton described the scene:

Flood going over the roads at the culvert, washing a lot of trash onto the parking area, taking out some road shoulders at the new parking road. Several other places washed some. Take one man a week or more to clean up after the flood. The culvert across road was just not big enough to carry the water. Flood wash about 1/2 full of sand now. A week's work or more on it to care for future floods. Drain and gutters worked OK at residence. 1812

The flood overflowed the 56-inch culvert onto the road leaving trash and debris in the fills. Flood water from the road to Moccasin ran into monument and washed out the east side of the parking area loop road and filled the gutter at the cattle guard. New ditches were eroded along the new road. Ray Mose and Grant Heaton spent four days cleaning up the flood debris and fixing damaged roads.

During August 1963, hard rains resulted in floods again overflowing the banks of the drainage channel in the monument's picnic area on several occasions, depositing trash and sand. Another flood on September 13 damaged the picnic area, roads, and grounds around the new residences. Funds from the regional office were used to have the flood debris removed, under Park Engineer McCabe's supervision. This flood convinced McCabe that another culvert was needed to prevent future flooding of the campground, which was later proposed.

Museum Collection

In July 1957 Theo McAllister of Kanab donated to the collection two powder horns (one dated 1857), an iron kettle, an iron pot, and a wooden ram-rod for a gun. In 1958 a new system of museum cataloguing was adopted. Much of the responsibility of converting to it was delegated to Park Historian McKown. During the year the monument continued to acquire new artifacts. On July 2, 1958, McKown transported an old wagon down from Kaibab Village to the monument on a truck and placed it in the fort's courtyard. That month the monument had a visit from Dave Smith, son-in-law of Bishop Joe Hopkins. (Hopkins was the blacksmith and carpenter at Pipe Spring when the fort was under construction.) Heaton quizzed Smith about what the old tools in the monument's collection were used for so the information could be used in their interpretive program.

On July 15, 1958, Walter Winsor and his wife visited and donated some small antiques to the monument. That month Heaton also picked up an old spinning wheel in Orderville that once belonged to Maria Bowers. He wrote Judge Levi S. Udall at month's end about the possibility of getting some of his mother's things to fix up the old telegraph room. His mother was Luella Stewart Udall, the first telegraph operator at Pipe Spring. (In February 1959 Heaton received a letter from Judge Udall saying the family had collected several items of their mother's to put in the telegraph office at Pipe Spring.) During September 1958, Heaton went to Orderville to pick up some antiques donated by the Esplin sisters, Bessie Brooks, Evelyn Richards, Saria Cox, and Maggie Esplin. 1813

On January 15, 1959, Heaton picked up "an old show case" in Orderville, which he described as "circular glass with revolving partitions." ¹⁸¹⁴ (This is still used in the visitor center to display ethnographic materials.) During January 1959, about 20 pieces of antique furniture were taken to Wesley McAllister in Kanab for repair. A concerted effort was made beginning in early 1959 to acquire more furnishings for the fort both through purchase and donation (see "Monument Administration, 1959" section). In April 1959 the Covington painting of Toroweap Valley was sent to the Western Museum Laboratory for conservation work. During the summer a considerable number of new pieces were added to the collection, most obtained by purchase or donation by Carl Jepson and Lloyd Sandberg. A woman in Hurricane, Utah, made a rag rug for the fort that summer.

On May 30, 1959 (Establishment Day), Carl Jepson brought out an old quilt and frame to be used in the fort and gave Heaton a list of things that could be used to refurnish the rooms. Heaton's mother, Margaret C. Heaton, donated some more antiques that day. In early August Heaton got \$50 from Zion to purchase pioneer relics for the museum. En route back to the monument, he purchased artifacts from Mrs. Nella H. Robertson in Alton for \$40. In September Heaton traveled to Glendale to buy an old farm wagon for \$10 (it wasn't picked up until January 1960). Heaton was quite active in 1961 purchasing artifacts for the museum, literally scouring the countryside for "old relics." 1815

In the early 1960s, the Winsor family made additional donations to the monument. ¹⁸¹⁶ In January 1960 a descendant of James M. Whitmore, Mrs. Alvira Fairborn of Sandy, Utah, donated a footstool, stand, and several articles of men's clothing. In July 1961 Mrs. Vilo

DeMills of Rockville, Utah, donated a weaving loom made in 1860 in Salt Lake City, and Clair Ford spent part of the spring of 1962 restoring the old loom, which was in such poor condition that he had to remake parts of it. The spinning wheel was also repaired so that it was useable. Heaton set up a weaving exhibit in the upstairs of the fort's lower building.

During the winter of 1961-1962, Bob Olsen and Ray Mose treated the iron implements in the blacksmith shop by scraping off loose rust and painting them with a mixture of turpentine and linseed oil to retard further rusting. (Other metal artifacts in the museum's collection may have been similarly treated.) Wood objects were generally treated with linseed oil.

In the summer of 1962, Heaton reported to Zion officials that Emma J. Spendlove brought an 1881 pencil sketch of Pipe Spring by the French artist Albert Tissandier to the Kanab Chamber of Commerce for exhibit. Heaton was directed to find out if it could be bought as it was the oldest known depiction of Pipe Spring. Although she was unwilling to sell the drawing, in January 1963 Mrs. Spendlove provided the monument with a photograph of the Tissandier sketch and gave permission for it to be used in the historical handbook at Pipe Spring. In March 1963 Heaton brought some more artifacts from Zion to use in the fort museum.

Water Issues

The spring and summer of 1956 were particularly dry seasons. In April 1956 Heaton reported, "Brinkerhoff [a local stockman] is hauling water for his cattle as his ponds are dried up." ¹⁸¹⁸ That July hot and dry weather conditions required Heaton to keep water running into irrigation ditches almost constantly to preserve the monument's trees and meadow. ¹⁸¹⁹

As part of the federal claims to waters of the Lower Colorado River (the *Arizona v. California* case mentioned in Part VIII), the Park Service's chief of lands sent an inquiry about water usage to Pipe Spring National Monument. Heaton reported that the water his family used was unmetered: "The water is taken directly from the spring and no restrictions are made to its use." Heaton was using the old Army connection installed above the division weir for the family's domestic water supply, although Indian Service officials had protested this arrangement in March 1942 (see Part VI). Heaton also stated that about 5 acres were being irrigated, broken down as follows: 2 acres of meadow, 2.5 acres of trees (including the campground), and .5 acres of garden. On May 29, 1956, the Park Service made a partial statement of claims. It stated that Pipe Spring obtained its water through Kanab Creek, a tributary to Lake Mead. 1822

During 1956, in connection with federal claims in the *Arizona v. California* case, Zion officials (on behalf of Chief A. van V. Dunn, Water Resources Section) asked Heaton more questions about Pipe Spring water. He reported that the flow of Pipe Spring "has remained a steady flow year in and year out, never a change regardless of the weather conditions..." Before 1925, all water was confined to the area within 200 yards of the spring itself for stock watering and irrigation of the meadow and orchard. For about 10

years prior to 1934, water was run into a stock pond just west of the monument. Since the 1934 tri-partite division, spring flow had not left the monument except for the water piped to the stockmen's and Indians' reservoirs, Heaton stated.

A water rights docket was assembled for Pipe Spring National Monument in 1957 as a basis for water claims in *Arizona v. California*. Chief Dunn informed Regional Director Miller in April 1957 that the Park Service and Indian Service were making an effort to present consistent Departmental claims in the case. "This may also reopen the question of whether the Park Service should file and appropriation application," Dunn wrote.¹⁸²⁵

In April 1958 Heaton received a telegram from the WODC, asking for measurements of the spring flow. He informed the office that none had been taken since May 1934 when Park Service Engineer A. E. Cowell and Indian Service Engineer N. A. Hall took measurements. Another official gathering data for the *Arizona v. California* case spent 90 minutes in June querying Heaton by phone about irrigation at Pipe Springs, Moccasin, Short Creek, and other places on the Arizona Strip. A hearing on the *Arizona v. California* case was scheduled for May 2, 1958, in San Francisco, California, about the time the Park Service was to provide its testimony. Chief Dunn was chosen to be the chief witness, assisted by Regional Chief of Lands, John E. Kell. 1826

In March 1959 Kell called the WODC chief's attention to the monument's general development plan and early agreements made about the division of Pipe Spring water. He recommended that planning and design take into account the one-third flow of the springs allowed to the Park Service, although he was uncertain how it was being measured. He intended to send Civil Engineer William E. ("Bill") Fields (regional office) to check on the matter "at the first opportunity." That month, Chief Dunn wrote Hugh Miller regarding Kells' concern about monument development and water limitations. Dunn wrote,

The method of distribution to stockmen has never been explained, but wasteful overflow of watering troughs would be contrary to water laws. I also believe that only about one family uses the Indian quota. That use may also be wasteful, but I believe the Indian rights would be paramount.

I believe that the division of water [in 1933] was made on no sound analysis of beneficial use or future needs. I believe the NPS development is now restricted by the one-third quota, but the Secretary has the authority to negotiate new agreements and issue new regulations. It might be well justified to make a map of the complete water system and uses and analysis of water uses by each party when convenient, to determine whether there is a waste of water. Such an investigation should be made for factual data, without stirring up the other water claimants. 1828

No record has been located to indicate such an investigation was made at the time or in the years just following the recommendation.

No correspondence on Pipe Spring water issues was located for the early 1960s. 1829 Neither are there references to any disputes in Heaton's journal or reports for the period. It seems to have been a rare time when there were no water problems, other than pipelines of the stockmen or the Indians getting occasionally clogged up and requiring attention. The Bureau of Indian Affairs requested a number of water tests. Superintendent Herman E. O'Harra, Hopi Agency, had the water analyzed from Pipe Spring in April 1961. The laboratory results showed it good for irrigation. 1830 Apparently some surface crusting had been observed on the reservation land being irrigated by Pipe Spring water, which led to a concern about the water. Along with the test results, a program was suggested to increase the organic matter of the surface soil to reduce the crusting. The water from a new tribal well was analyzed in November 1961 and found to be too high in salt content for human use. For the same reason, its usefulness for agriculture was limited. 1831

In December 1963, shortly after Heaton retired, Superintendent Oberhansley paid a visit to Tribal Chairman Vernon Jake to discuss the water division at the monument and the protection of archeological sites on the reservation.

Deaths, Accidents, Missing Persons, and Heaton Family Matters Deaths

In 1956 Heaton took several hours off work to conduct funeral services for Max Clarence Mayo, a Kaibab Paiute boy, age 12, who was killed accidentally with a 38 pistol. 1832 Three years later, Heaton attended the funeral of Asa Walter Judd, who died on July 17, 1959. Judd was three years old when his parents settled in Kanab in 1870. On April 23, 1959, Heaton attended the grave-side funeral service for "old Jake Indian who was about 85 years old and a very good friend of the white man." 1833 Heaton went to a number of other funerals for friends and relatives during this period.

On May 9, 1959, just a few days after Jim McKown's return from training at Yosemite National Park, Kelly Heaton died in his sleep of heart failure. His wife Nora and five children survived him, ages two to 15. The funeral was held on May 11. Kelly Heaton had seasonally worked at Pipe Spring as both laborer and guide since 1941. Nora Heaton later worked at the monument from 1974 through 1982 as a clerk/typist and park technician.

Accidents

On March 17, 1957, Heaton reported that two men, Wayne Brooks and Keith Bryner, crash landed their small plane at Cox's ranch 15 miles west of the monument due to storms and darkness. The wreckage was brought through the monument on a truck. Heaton reported they "had quite a time getting through the monument as the wing spread was too great to go between the trees. Had to pull the truck sideways with a tractor to get through." ¹⁸³⁴

In May 1958 a three-year-old boy fell into the fort ponds, but was fished out by his mother, unharmed. On July 30, 1958, a more serious accident involved driver Yvonne Heaton and some local girls. While driving seven young girls to a 4H camp at Duck

Creek, Utah, the driver lost control of the pickup truck, which left the road and overturned about one-half mile east of the monument. All were brought to the monument, then treated at Kanab Hospital. Aside from bruises and abrasions, Mary Heaton sustained a broken wrist, Carolyn Heaton some torn rib ligaments, and Millicent Heaton (Leonard Heaton's daughter) "a bruised chest and eye full of dirt and gravel." ¹⁸³⁵

On September 22, 1960, three of Leonard and Edna Heaton's children - Olive, Claren, and Millicent - were in a car-truck accident in Fredonia. Olive, age 18, was injured the most seriously with a broken jaw, rib, skull fracture, and numerous cuts and bruises on her head, arms, and neck. Millicent suffered cuts, bruises, and shock. Claren had only one cut and a stiff neck. A few days later, Heaton took Olive to Salt Lake City to see a specialist for her injuries, where she was hospitalized until October 7.1836

On December 13, 1960, an accident occurred involving a truck driven by Ralph Castro, a Kaibab Paiute man. Castro's car slide on slick, snow-packed roads into a big rock 1.5 miles north of the monument. His grandfather, a passenger in the vehicle, was seriously injured when his head went through the windshield, giving him numerous cuts and bruises on the head, shoulders, and hands. They called on Heaton for help, who spent several hours with them administering first aid, getting them to a physician, and moving the vehicle from the road. Park Historian Bob Olsen's truck accident in Johnson Canyon was mentioned earlier (see "Monument Administration, 1961" section).

A small "cotton fire" occurred at the monument on May 4, 1961, started at the comfort station when a man dropped a lighted match on the sidewalk. The cotton from the cottonwood trees was thick on the ground that day and caught fire from the match, burning about 30 square feet of area.¹⁸³⁸

Missing Persons

On July 5, 1962, a missing person was reported from the reservation. Heaton later wrote,

Got a phone call from the Indian village at 6:30 p.m. [Wednesday] saying old Charley Chaws [sic] was lost. [He] wandered off Tuesday evening. I and my son Gary went up to help find him. Ray Mose had located him before we got there, about 1? miles north of home. He is about 70 and can hardly get around. Got mad at the folks because they took all his money [and] won't feed him, so he went off to die. We had to carry him to the car about 1/2 mile. 1839

The elderly man Heaton referred to was Charlie Chassis, grandfather to Glendora Homer, (formerly Glendora Snow). Homer recalled her aging grandfather was nearly blind and partially senile at the time the above incident was reported. While she remembered him frequently getting disoriented and lost (often calling out for her help), she thought Heaton misinterpreted his mental state. Her grandfather didn't have any money, she recently told monument staff.¹⁸⁴⁰

In late June 1962, Bob Olsen failed to return from one of his hunting trips for Powell survey markers. Heaton got worried about him as he was driving on old vehicle with poor tires, so Heaton and Ray Mose went to search for him. Heaton later contacted the Utah Highway Patrol, the U.S. Forest Service, the Whiting Brothers Sawmill logging crews, Zion officials, and the Fredonia sheriff and asked them all to be on the lookout for Olsen. When Olsen returned to Pipe Spring at 5:30 that evening, no harm had come to him. It turned out he had decided to stop by Orderville to visit relatives. Zion officials insisted on a write-up of the incident, and Olsen was chastised for not keeping Heaton informed of his whereabouts.

On September 8, 1962, Heaton spent part of his day off hunting for a couple of 11-year-old Kaibab Paiute girls who had taken their mother's car and driven it off the road. They were unhurt, but scared, Heaton reported, and had run off into the hills after the accident. 1841

Heaton Family Matters

In the early 1950s, polio epidemics posed a serious health crisis in some parts of the country, including Utah. The Poliomyelitis Vaccination Act of August 12, 1955, provided that the Public Health Service allocate \$30 million to states to help them buy the new vaccine developed by Dr. Jonas E. Salk. Polio cases dropped from 37,771 cases in 1955 to ca. 5,700 in 1957-1958. Heaton reported in 1956 that all children under the age of 14 were required to be inoculated with the polio vaccine (given in three shots) and that his children were among those who received the shots.

On November 16, 1956, the Heatons' son, Lowell H., was married to Glenda Jones of Welsville, Utah. 1844 The couple attended Utah State Agricultural College in Logan, Utah. On January 7, 1957, son Sherwin Heaton left for California on his two-year Church mission. In early June 1958, son Clawson Heaton graduated from Utah State University, Logan, Utah. Another son, Leonard P., married Yvonne Workman on June 8, 1957. In January 1960 son Gary A. Heaton left for Australia on his two-year Church mission. In June 1962 the Heatons attended college graduation for another son in Tempe, Arizona. 1845

Oil Exploration and Drilling

In June 1956 Heaton reported, "A lot of travel, most of it is in visitors and the oil drilling crew who have a large rotary drill 18 miles west of the monument. Gave them permission to haul water from the monument for drilling purposes. Will take about two to three loads a day, [in a] 1,000 gal. tank." That month Heaton reported that Conoco, Phillips, and Sinclair oil companies and one other were conducting oil exploration and drilling operations at White Pockets, 26 miles west of the monument: "[They are] finding it hard drilling and [are] down about 400 ft." In early May 1957, Heaton reported oil testing in the area of Clay Hole. He gave the company testing there the "privilege of hauling 1,000 gals. of water for [the] oil well drilling job." In February 1958 Heaton reported, "A large convoy of well rigs and trucks passed through the fort [i.e., monument] to make seismograph tests on oil lands to the west of the Clay Hole area." In early March Heaton heard that oil was found at the Clay Hole area at a depth of about 1,400 feet. In

early August 1958, Heaton reported that drilling for oil was taking place about 15 miles southwest of the monument but little had been found. The last reference made during this period to oil drilling was in late January 1960, when Heaton reported, "Had some oil drillers in the camp area last night. Said they were going to go another 1,500 feet in one of the wells out west of here." 1850

Area Roads

On February 1, 1956, Superintendent Franke presented a slide lecture to residents of Fredonia about the Mission 66 program. Franke encouraged his audience to keep working for the road from Fredonia to Hurricane. He told them that Utah's State Road Commission would complete its part of the road if the State of Arizona would commit to improve its portion. In early March, Heaton attended a Fredonia Booster Club meeting at which time the club was dissolved. A new town mayor and council were to try to "get the road from Fredonia to Hurricane on the secondary system so it can be oiled," Heaton later wrote. Representatives from Kanab, Fredonia, Hurricane, St. George, Cedar City, and Zion National Park attended a public meeting held on March 24 in Kanab. The purpose of the meeting was to discuss the area road-building program in connection with the proposed Glen Canyon Dam. Heaton reported, "It seems to be the opinion of most all that the road [will be] from Hurricane on U.S. 91 by way of Pipe Spring to Fredonia or U.S. 89 on to Glen Canyon.... We were told that a meeting was being held in Phoenix [on] March 31 to discuss the Fredonia-Pipe Spring-Hurricane Road. It looks [like] and we hope the road will soon be built." 1852

Regional Chief of Operations Canfield surveyed the road situation at Pipe Spring during April 1956, then paid a visit that month to Superintendent John O. Crow, Uintah and Ouray Agency, at Ft. Duchesne, Utah, to discuss a bypass road. Crow told Canfield the Office of Indian Affairs would have no objections to a bypass road if it did not call for any expenditure from them. Canfield later informed Regional Director Miller of his meeting with Crow and suggested that the road be built with Park Service funds since the relocation primarily benefited the monument. In his monthly report for April 1956, Zion's Acting Superintendent Art Thomas reported to Director Wirth, "There is considerable sentiment in the community for the proposed road from U.S. 89 at Fredonia to connect with U.S. 91 at Hurricane. Special Booster Clubs have been formed and officials hope to get [it] in the 1957 program." Is 1950.

While on a supply run to Fredonia in June 1956 Heaton was told "that both Mohave County officials and [Arizona] State Road Commission have turned down our request that the road from Fredonia to Hurricane be made a secondary road. Now help has been asked of our U.S. Senators to have the Bureau of Public Roads... build the highway. Hope we get some action." On July 2 the town of Fredonia had what Heaton called "a homecoming celebration" that was attended by 15 to 20 officials, including the governor, a state senator, and county road officials. Heaton reported, "Some of the men drove over the road from Fredonia to the Utah state line at Short Creek and were well-pleased with the alignment.... We surely have a lot of men backing our project." 1856

On July 14, 1956, Heaton went to Flagstaff, Arizona, to a meeting to discuss area road developments and the impact of the Glen Canyon Dam's construction on area transportation systems. Representatives attended from Fredonia, businessmen from towns along U.S. 89, government officials, and Commissioner Frank Christensen (Arizona State Road Commission). During a two-hour session, they learned that the road from Fredonia west to the Utah state line must be included in the State's secondary road system to qualify for federal assistance. Then, federal funds could cover up to 90 percent of the cost of the road that passed through federal lands. Traffic on roads to the new Glen Canyon Dam site was anticipated to be very heavy; road officials thought more than one route to the dam site would be needed. The railroad yard in Santa Fe was to enlarge its operations by 300 cars to handle the incoming freight associated with the dam's construction. It was estimated then that more than 300,000 carloads of cement would be used in the dam.¹⁸⁵⁷

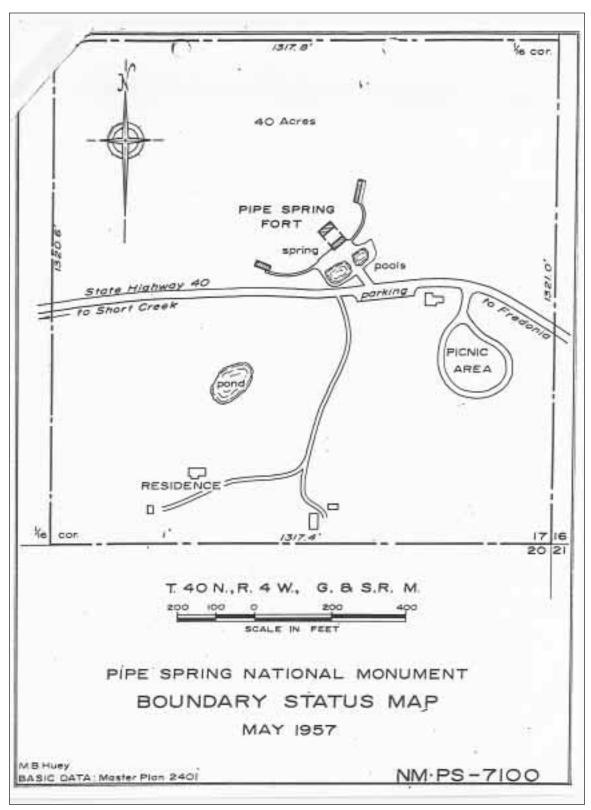
On July 22, 1956, two State Highway Department officials and the State Planning Board chairman traveled with some local men over State Highway 40 from Fredonia to Short Creek, accompanied by Leonard Heaton. The officials talked about how easy it would be make a road along that route, Heaton reported later, and stated it would be included in their planning as an access road to the Glen Canyon Dam project. During that July, a letter was received from the superintendent of the Uintah and Ouray Indian Agency giving permission to the Park Service to build a road south of the monument for through travel. Permission still had to be secured from the Kaibab Paiute Tribal Council, however.

In August 1956 Heaton reported that Acting Director Scoyen responded to a letter from Arizona Senator Barry Goldwater about the Hurricane-Fredonia road situation. Scoyen informed Goldwater that the portion of the road that crossed the reservation was eligible for federal aid, but the Indian Service had to apply for it. On August 23 Heaton and Superintendent Franke attended the Utah and Arizona State Road Commission meeting in Kanab concerning the Hurricane-Fredonia road, to discuss the possibility of getting it built as an access road to the Glen Canyon Dam. At least two area roads were approved as access roads to the dam. Heaton reported, "Looks like the Kanab road to the dam will be put in first and [the] Fredonia-Hurricane road next in two years." But few wanted to wait another two years for the Hurricane-Fredonia road to be improved.

On August 27, 1956, Regional Director Miller wrote Director Wirth about the bypass road, making an argument for why the Park Service should finance its construction:

What apparently has always stopped consideration beyond this point is the question of how this Service could expend funds to construct the bypass outside the monument. The amount involved is approximately \$5,000.

Since the bypass would be of primary benefit to us, it seems reasonable that we should expend the funds necessary to accomplish the change. Increasing activity in this vicinity focusing on the Glen Canyon Dam and increased travel generally create a nuisance as well as a hazard to visitors by having this road go directly



109. Pipe Spring National Monument Boundary Status Map, May 1957 (Courtesy National Archives, Record Group 79))

by the primary feature of the area - the point of visitor concentration. The existing road practically bisects this 40-acre monument.

Inasmuch as the Indian Service and we are sister bureaus and the benefits mutual, though predominantly ours, could authority be granted to an interbureau agreement so that this Service would be authorized to expend the necessary funds? That solution is probably too simple. Is there any other suggestion you can make to achieve this goal except asking for special legislation, perhaps attached to the Appropriation Bill?¹⁸⁶⁰

Assistant Director Hillory A. Tolson referred the matter to the NPS Solicitor's office for an opinion. In early October Assistant Solicitor J. Edward Amschel wrote Tolson that he believed Congressional authorization would be required for the Park Service to expend funds on the bypass road. Such authority might be secured in the form of a special act of Congress, the inclusion of the item in the next "basic authorities" bill, or by including appropriate language in the next appropriation bill. None of these solutions appeared attractive to Miller.

In November 1956 Superintendent Franke offered Miller an alternative for solving the problem. Franke wrote Miller that, during a September 25-26 visit to Zion by Utah Senator Arthur V. Watkins, Zion officials broached the issue of the bypass road. Officials pointed out that the Hurricane-Fredonia route was important not only as an approach road to Pipe Spring, but also as link to Glen Canyon Dam and its recreational area approach highway. It was also a natural link between U.S. Highways 89 and 91. Watkins later conferred with civic leaders in southern Utah and studied the problem, including an overflight inspection of the area. Then Watkins informed Franke he would take the matter up with Senator Barry Goldwater and urge the U.S. Indian Service to program the improvement of that road section within the Kaibab Indian Reservation. (Both senators were members of the Interior and Insular Affairs Committee.) Franke suggested to Miller that a representative from the Washington office discuss the matter with Watkins. He said, "I will in the meantime get the communities of southern Utah and northern Arizona to forward their expression of support for this project to their respective representatives." 1862 Franke was confident that improvement of the 15-mile road section on the reservation would be "promptly followed by the Road Commissioners of Utah and Arizona in improving the balance of the Hurricane-Fredonia Road."1863

In February 1957 Heaton reported that the road from Fredonia to Short Creek to the Utah state line had finally been placed in the Arizona secondary road system. In May he attended a Fredonia meeting of businessmen, city councilmen, and the editor of the *Arizona Republic*, whose purpose was to "try and get the need of the Fredonia-Hurricane road before the public." ¹⁸⁶⁴ On July 21 Heaton wrote, "Was told last night that Utah Governor Clyde is to be in Kanab this week and will drive over the road from Fredonia to Hurricane and Utah. Is now in a hurry to get the money to build their part of the road. I expect to see it started this winter or spring." ¹⁸⁶⁵ In August Heaton learned that Utah had \$100,000 to "put their part of the road in shape for truck route travel and the two state

commissions are to meet in 10 days to decide on the route at Short Creek." ¹⁸⁶⁶ Toward the end of the month he noted an increase in large truck travel through the monument. On August 29 an Arizona road engineer and two aides visited the area to look over the road situation, but gave Heaton little indication of what the State Road Commission would do. In mid-September representatives from the Bureau of Reclamation also came out to look over the road. In September 1957 Heaton reported, "There is still considerable talk of getting the oiled road from Fredonia to Hurricane started soon by several different groups of people." ¹⁸⁶⁷ Apparently, area bridges were incapable of handling much weight, for Heaton reported in October, "There is an increase in big trucks using the Fredonia-Hurricane road traveling empty, because of the poor bridges." ¹⁸⁶⁸

In mid-February 1958, Heaton reported, "Was told in Fredonia that Utah has started the road survey from Hurricane to Short Creek and are trying to get Mohave County to spend the \$100,000 on the Indian Reservation each year till it is completed, also that by the first Monday in March there should be a report on the REA coming into our area."1869 Later that month Heaton wrote that there was a "lot of talk regarding the trucking of cement over the road from Hurricane, Utah to Fredonia, Arizona for Glen Canyon Dam, 12 to 24 [trucks] per day. This will add to my worries for safety through the monument this summer because of parking of visitors on the south side of the road."1870 In March Heaton learned that Utah was surveying a road from Hurricane to the Arizona state line, "wanting to get that road built and accommodate the big trucks hauling supplies to Glen Canyon. It looks like Arizona will be forced to build all or part of it in a year or so," he wrote. 1871 In March Superintendent Franke requested that the master plan's topographic base map indicate access roads to Glen Canyon Dam and the town of Hurricane. "We believe both the Glen Canyon Project and the Hurricane-Fredonia Road are major factors influencing our development," he wrote WODC officials. 1872

In May 1958 the local sheriff told Heaton that Utah road engineers had found a feasible route through Short Creek Canyon to Kanab, raising the possibility that if Arizona did not cooperate in building the Hurricane-Fredonia road by Pipe Spring, Utah would construct a new road elsewhere. Heaton believed that businessmen in Flagstaff and Kingman were "selfishly" obstructing the construction of the Hurricane-Fredonia route because they wanted to keep traffic on the Route 66 highway.

In June 1958 tribal concerns about access to Pipe Spring water threatened to derail the Park Service's plans to construct a bypass road and to fully carry out monument development plans. About this time, Park Service officials learned the Bureau of Indian Affairs (BIA) and the Kaibab Paiute opposed construction of the bypass road believing the removal of the old monument road denied them access to Pipe Spring water. In a memorandum to the Chief of the WODC about the monument's master plan, Chief of Design and Construction Thomas Vint stated that if the access issue became a stumbling point with the Kaibab Paiute, then

... it may be necessary to leave a secondary type of road through the monument for use of the Indians even if the bypass is built at a later date. This would affect the visitor center location.

We believe that the bypass could be built by the National Park Service under the same authority that was used to make an agreement with the Forest Service for us to build the Wupatki-Sunset Crater Road. This would require an agreement with the Bureau of Indian Affairs. 1873

Regional Director Miller later sent a copy of the Park Service's agreement with the U.S. Forest Service at Wupatki and Sunset Crater to Superintendent Franke as an example of one that might be executed between Pipe Spring and the Indian Service.

Events taking place at Zion National Park in 1958 increased pressure on the Park Service to get the bypass road constructed. Increasing truck traffic spurred by the construction of Glen Canyon Dam led to Zion placing weight restrictions on trucks using the Zion-Mt. Carmel Highway. Beginning January 1, 1959, the Park Service planned to forbid any travel over the highway by trucks exceeding three tons. 1874 Consequently, the Glen Canyon Project would now cause more travel along the old route past Pipe Spring National Monument and force improvements to be made to the Hurricane-Fredonia road, which of course local residents had been begging for from county and state officials for years.

On June 27, 1958, Superintendent Franke wrote the superintendent of the Kaibab Indian Reservation informing him that the monument's master plan was ready to be sent to Director Wirth for review and consideration and that approved plans would be budgeted within the near future. The development plan called for building a bypass road outside the monument boundaries. Such a road could be built by the Park Service with BIA and tribal approval, wrote Franke. Franke proposed an interagency meeting to review and discuss the monument's development program, to be held either at Zion or in Ft. Duchesne, Utah. 1875 A nearly identical letter was sent to Superintendent O'Harra at the Hopi Indian Reservation, suggesting a meeting in Zion or at Keams Canyon. 1876

Park Service and Indian Service representatives met on July 11, 1958, and discussed two alternative routes for a bypass road south of the monument. One alignment would have been 3/4-mile long, the other, 1.5 to 2 miles in length. The Kaibab Paiute representative preferred the road be kept closer to the monument's south boundary than the Park Service plan proposed, which located the route further south to avoid cutting through the archeological site just below the monument. It was agreed that the Park Service was to build the road, subject to Tribal Council approval of its survey and map.

Meanwhile, Regional Chief of Operations Canfield learned that \$8,000 had been programmed for the 1960 Road and Trail Program for the Park Service to construct a road bypassing Pipe Spring National Monument. Canfield notified Regional Director Miller that Park Service solicitors still maintained it would take special legislation (i.e.,

Congressional approval) to authorize the spending of Park Service funds on such a project. "The authority by which we could spend money in this project is still clouded and uncertain," Canfield wrote.¹⁸⁷⁷ Similar questions of authority were pending at Coronado, Navajo, and Rainbow Bridge national monuments, and the question of expending funds outside monument boundaries had been recently placed before the director. Canfield suggested that the director's reply might indicate how to best handle the Pipe Spring situation.

In September 1958 Franke submitted a map showing the road's planned location to superintendents of the Hopi and Kaibab reservations and asked for comment and approval. 1878 O'Harra responded that he had no objections to the proposed route (or locating it even 200 feet further north than shown on the plan) but could not bring it before the Kaibab Paiute Tribal Council as it was then inactive. He anticipated it might be reactivated after a November 22 meeting in Moccasin. 1879 Franke wrote Hugh Miller at the regional office and inquired, given the apparent lack of concern by the Kaibab Paiute for the archeological ruins, whether the Park Service might construct the bypass road through the ruins? Erik Reed made a handwritten comment on the letter after it reached the office to the effect that the interbureau agreement the Park Service had with the Indian Service on roads would require the Indian Service to finance archeology investigations if the ruins were to be impacted; he voted for avoiding the site. Canfield agreed with Reed and advised Franke to avoid the prehistoric site. 1880

On January 24, 1959, Heaton attended a meeting with the Kaibab Paiute to ask for their approval for the Park Service to construct the bypass road south of the monument on reservation land, explaining the Service's reasons. Heaton later wrote in his journal,

... they discussed it for some time, then turned the application down. Reasons: no money for them, cutting up their land with roads, then if new highway comes through soon [there will be] more changes, then no guarantee Indians could be given work on the road. The council members listened to the older people, then I think it was partly [because of] their attitude toward the white men and the treatment they have received. 1881

On February 12, 1959, Heaton reported to Superintendent Franke on the meeting in more depth. Present at the meeting on January 24 were Chairman Theodore Drye, Secretary Lucille Jake, Bill Tom, Ray Mose, William Mayo, Morris Jake, and about 15 other tribal members. Heaton said that discussion among the Tribal Council took about 20 minutes. Then they raised the following objections to the bypass road (in Heaton's words):

1st They did not want their land all cut up with roads. If a new highway was to be built in two or four years through the reservation it would not likely go where the present road is now, and it would mean more cutting up of their grazing lands.

2nd There would not be any money in it for them, unless just a few days labor, as they thought most of the work would be done by machinery.

3rd It would take out some of the fruit trees and farm land (southeast of the monument). 1882

The latter area referred to were the gardens just below the Indian pond (reservoir), constructed in 1933.

During February 1959, Heaton reported a decline in use of U.S. Highway 89 caused by the opening of the Glen Canyon Bridge. Less traffic along the route through Fredonia resulted in a drop in visitation to Pipe Spring, he observed. On April 14 the Kaibab Paiute Tribal Council voted to allow the State of Arizona right-of-way to build its portion of the Hurricane-Fredonia road through the reservation. Over the winter of 1958-1959, Mohave County maintained the road from Fredonia to the Utah line, but beginning July 1 maintenance was taken over by the Arizona State Road Commission. Heaton later reported that the road maintenance improved thereafter.

On June 21, 1959, some road engineers working on the Hurricane-Fredonia road stopped by to see the monument. They told Heaton work would soon start at Short Creek and head east from there. Short Creek Bridge and five miles of road were to be built in 1959 at a cost of \$230,000. In July 1959 the Arizona State Road Commission began survey work on building Arizona's portion of the new Hurricane-Fredonia road. The road was to bypass the monument about 700 feet (about 1/4 mile) to the south. Work was suspended on July 10, Heaton reported, "because of political differences." He had been told it would be another two years before the new road was constructed. During July the Arizona Department of Highways hired Heaton's son Leonard P. as maintenance man on the Fredonia to Short Creek section of road.

In November 1960 Arizona Department of Highways awarded a construction contract for just under \$.5 million to a Phoenix company to build 4.3 miles of road and one bridge south of the Arizona-Utah line at Short Creek. Work was scheduled for completion by June 30, 1961. By the end of 1961, all but 10 miles of the Short Creek to Hurricane part of the Fredonia-Hurricane road was asphalted; Short Creek to Pipe Spring was still dirt, while the road from the monument to Fredonia was only oiled. The monument experienced a notable rise in visitation that year. In April 1962 Utah contracted to pave the remainder of the Utah portion of the Hurricane-Fredonia road and work was completed in August.

Superintendent Oberhansley visited Arizona State Highway Engineer Van Horn in Phoenix in mid-January 1962 to discuss the State's completion of the Hurricane-Fredonia road. Oberhansley was not particularly encouraged by the response, but told Heaton the Arizona portion was to be completed that year. The only improvement activity that took place, however, was in August 1962 when the State contracted for the bridge crossing Kanab Creek in Fredonia to be rebuilt along with 1.5 miles of road. (Work did not begin until the following March, however.) The same month the Arizona State Road Commission purchased the right-of-way from the Kaibab Paiute Tribe for the Fredonia-Short Creek portion of the highway that passed through the reservation. 1884 Meanwhile,

traffic along the road and through the monument had already increased significantly since the Utah portion of the road had been improved. Of particular concern was heavy truck traffic. During November Heaton and Olsen noticed plaster fill that had fallen in a number of areas around the fort. They suspected the problem stemmed from vibrations caused either by earthquakes, large trucks passing by the monument (then at a rate of three to eight per day), or jet fighters passing low over the area. In addition to concerns about vibration, some drivers drove through the monument at excessive speeds, ignoring posted signs, posing a serious safety hazard for visitors.

Between May and June 1963, the Arizona State Highway Department chipped and seal-coated the road from Fredonia to the monument. The dirt road west of the monument to Short Creek remained unpaved and in poor condition.

Part X - Pipe Spring National Monument Comes Alive

Introduction

As the 1960s progressed, more and more emphasis was placed on re-creating the "historic scene" at Pipe Spring National Monument. 1885 This had long been of some concern to management, but the restoration and maintenance needs of the historic buildings had always taken precedence. Now that Mission 66 programs and funding had taken care of the immediate needs of the historic buildings, attention turned to their setting. In addition, monument staff put into effect some earlier suggestions made by interpretive specialists to improve the interpretive program and came up with ideas of their own. The seeds for developing the monument into a "living history ranch" were planted during this period, as evidenced by the gradual changes in exhibits and the increasing use of demonstrations during guided tours. It would not be until 1968, however - when government-sponsored youth training and employment programs became available - that the supply of personnel would even begin to approach the demands of a full-fledged living history program. From the monument's perspective, the long-awaited completion of State Highway 389 in May 1967 was probably the most important event of the decade, not only for the monument but also for neighboring communities.

Events transpiring at the highest level of government had eventual repercussions at Pipe Spring National Monument. President John F. Kennedy's assassination on November 22, 1963, left the country in a state of shock. Vice-president Lyndon B. Johnson became president and remained in office until 1968, when Richard M. Nixon won the White House. National political and social turmoil over the war in Viet Nam and civil rights issues during the 1960s did not touch the remote site of Pipe Spring National Monument, but President's Johnson's "War on Poverty" most certainly did. Announced in his State of the Union Address on January 8, 1964, Johnson's War on Poverty called for legislation that would attack the multiple causes of poverty: illiteracy, unemployment, and inadequate public services. Under the Economic Opportunity Act of August 30, 1964, \$947.7 million was authorized for 10 separate programs overseen by the Office of Economic Opportunity (OEO), including Job Corps, Volunteers in Service to America (VISTA), and work-training programs, such as the Neighborhood Youth Corps (NYC), Youth Conservation Corps (YCC), and Operation Mainstream. These programs would be for Pipe Spring National Monument what the CCC camp had been, only with far fewer administrative headaches. Additional "warm bodies" working at Pipe Spring enabled the monument to carry out a number of programs and projects that had been on its wish list for many years. During this period, the Zion Natural History Association also offered generous financial support to help the monument reach a number of worthy goals related to its living history program and native grass restoration project.

Beginning about 1964, there were many changes in Park Service management personnel, from the monument level to the Washington office. Management Assistant Hugh H. Bozarth was hired to oversee Pipe Spring National Monument in October 1963. He was the first manager from Park Service ranks to take charge of the monument since its

establishment in 1923. Bozarth remained there until September 1967. James M. ("Jim") Harter served as acting management assistant from Bozarth's departure until April 1968. Supervisory Historian Raymond J. Geerdes succeeded Harter and remained at Pipe Spring until February 1971. In August 1965 Zion National Park's Superintendent Francis R. Oberhansley retired; Warren F. Hamilton succeeded him. Hamilton left Zion in late April 1968, succeeded by Karl T. Gilbert (1968-1969) and Oscar T. Dick (1969). From April 6, 1969, to September 18, 1971, Karl T. Gilbert was general superintendent of the newly established Southern Utah Group (SOUG) in Cedar City, Utah, which administered Bryce Canyon, Zion, and Capitol Reef national parks, and Cedar Breaks and Pipe Spring national monuments. (SOUG was later abolished on July 8, 1972.) Robert I. Kerr was made superintendent of Zion in 1970. At the Southwest Regional Office, Regional Director Daniel B. Beard succeeded Thomas J. Allen on August 6, 1963, and served until September 9, 1967. Frank F. Kowski succeeded him at that time. In Washington, D.C., Director Conrad Wirth left his position in January 1964 and was succeeded by George B. Hartzog, Jr. The longest continuous presence during the decade was Secretary of the Interior Stewart L. Udall who served in his position from January 21, 1961, to January 20, 1969. (Udall had direct family ties to Pipe Spring National Monument. His grandmother, Eliza Luella Stewart, was the Deseret Telegraph Office's first telegraph operator at Pipe Spring during the early 1870s.) On January 21, 1969, Walter J. Hickel, who served only until November 25, 1970, succeeded Udall.

The federal government's efforts to terminate its obligations to Indian tribes in the 1950s (mentioned in the introduction of Part VIII) led to a growing backlash in the 1960s. Coinciding with a new Democratic administration that professed concern about the plight of the poor, federal aid to tribes greatly expanded during this period and reservation governments were made eligible as sponsoring agencies for numerous federal economic opportunities. In the late 1960s, the Department of the Interior received an appropriation of \$1 million to carry out an Indian assistance program. 1886 Half of this amount was allocated for the Southwest Region. In addition, the Paiute received \$1 million as a result of the aboriginal land settlement. The money enabled the Kaibab Paiute Tribe to pursue its desire to develop a tourism complex, the primary objective being to create jobs for its members. 1887 All at once the monument and regional office staff were catapulted into an unprecedented working relationship with the Tribe. In response to the Tribe's planned developments, the Park Service rallied to reduce the visual impact of developments on the "historic scene" while protecting the tri-partite water agreement of 1933. In anticipation that the Tribe might challenge this agreement, a great deal of historical research was conducted in 1969 to bolster the Park Service's case for legal ownership of the land and springs. Talk of an interdepartmental land exchange was also thrown into the mix, reviving the possibility of expanding the monument's boundaries.

The Indian occupation of Alcatraz Island on November 20, 1969, according to one historical reference, "signaled the rise of Indian activism." Island it is to argued that the 1953 Termination Resolution and its effects led to this increase in activism, however, at least laying the foundation for Indian activism during the late 1950s and throughout the 1960s. The American Indian Movement (AIM), founded in 1970, soon emerged as the

most militant voice for radical change in federal-Indian relations, setting the stage for future political confrontations in the early 1970s. By the end of the decade, Park Service officials administering park units adjacent to reservations could not ignore the increasing economic and political power of Indians. Amidst a backdrop of an increasingly tense environment in many parts of the country, the cooperative efforts and relatively smooth working relationships between the Kaibab Paiute, Bureau of Indian Affairs (BIA), and Pipe Spring National Monument in the late 1960s are all the more noteworthy. Both the Indians and the Park Service stood to benefit from maintaining harmony, and – at least at Pipe Spring – both succeeded in doing so.

Monument Administration

The Bozarth Period

There were no immediate or drastic changes effected by Management Assistant Bozarth's arrival at the monument in the fall of 1963. Bozarth did not keep a daily journal as Leonard Heaton had, so the primary sources for this period are monthly reports Bozarth and the park historian filed, as well as Zion staff meeting minutes, oral histories, and correspondence. 1889 (The superintendents' monthly narrative reports were discontinued as of June 30, 1967, by directive. Thereafter each site maintained a log of significant events and sent a monthly report to the regional director.) Park Historian Bob Olsen continued providing tours, maintaining museum collection records, and performing other curatorial duties. He also conducted historical research. In addition to his management responsibilities, Bozarth conducted tours on Olsen's days off and at other times, as visitation required. Bozarth estimated during the 1965 summer season that giving tours occupied half his time. There was an observable increase in activity over previous years in the area of public outreach. Bozarth made a concerted effort to become better acquainted with the local communities by presenting talks and slide programs to service groups in the surrounding region. Olsen did many off-site programs as well, usually at schools (see "Interpretation" section).

Gradual improvements to the Hurricane-Fredonia road (State Highway 389) both east and west of the monument quickly led to other advances in nearby communities. In April 1964 Arizona Senator Barry Goldwater notified Moccasin residents that a post office rural station would be established in Moccasin on May 16, 1964. In August 1964 GarKane Power Company added new lines to the system supplying Colorado City (formerly Short Creek), resulting in a temporary power outage at the monument from August 24 through August 28, 8:00 a.m. to 4:00 p.m. daily. While increased traffic brought a few more visitors to the monument, it also brought considerably more problems. (See "Area Roads" section.)

In order to convey more of the cattle ranching aspect of the fort, Bozarth and Olsen wanted to reconstruct some of the site's historic fencing. (As mentioned in Part IX, this was a project Leonard Heaton had pushed for but with no success.) In the spring of 1964, an old, 300-post stake-and-rider fence was located in the area that the owner was willing to sell for \$98. But Zion officials still lacked enthusiasm for the project and had no interest in funding it. Bozarth and Olsen had one other pet project they wanted to see funded,



110. Newly re-constructed corral, August 1966 (Pipe Spring National Monument, neg. 486)

aside from the reconstructed fence. They wanted to refurbish the telegraph office display. In September 1965 a member of a telegraph club in Altadena, California, Louise Ramsey Moreau, volunteered to help complete the Deseret Telegraph Office in the fort. Her club had already collected some antique equipment for the office. She offered to supply the layout and circuits needed as well as to suggest the types and designs of instruments appropriate for the display. Olsen requested permission from Zion officials to change the display, for \$100 to purchase additional equipment, and for another \$100 to purchase the old stake-and-rider fence. Regional office officials urged Carl Jepson in his role as executive secretary of the Zion Natural History Association (ZNHA) to fund both projects, pointing out these offers needed to be taken advantage of before they were withdrawn. In October 1965 the ZNHA promised to donate up to \$200 to complete the Deseret Telegraph Office exhibit and to purchase the old fence; it was acquired in early 1965, treated with wood preservative, and installed below the east cabin by permanent laborer Joseph C. ("Joe") Bolander and seasonal laborer Ray Mose in June and July 1966. Olsen described the fence as "part stake-and-rider and part stockade."1890

It is uncertain what became of Moreau's offer to redo the telegraph office exhibit. In 1967 the monument was awaiting shipment of an old telegraphy key set from the Smithsonian Institute to be used in the display. In addition to improving the telegraph office exhibit, Olsen wanted to set up an authentic cheese-making display in the fort. The Church in Kanab donated a large Damrow Brothers cheese vat in October 1964, but what Olsen was really after was a Ralph's Oneida cheese vat. Olsen's efforts in 1965 included researching

old methods of cheese making and interviewing Mrs. Edward Swapp of Kanab, an 80-year-old woman who had made cheese as a girl.

In early 1964 Olsen researched the old Kaibab Wagon Road (which once passed by the fort) and the Deseret Telegraph Office's line along the eight-miles between Pipe Spring and Cedar Ridge. He plotted these and related sites on a USGS map. Local residents had used all the wire and some of the old telegraph posts in the 1920s for fencing, but some evidence still remained. On January 27 Olsen climbed the Vermillion Cliffs and, looking out over the plain, spotted a row of posts. On February 18 after obtaining permission from Tribal Chairman Vernon E. Jake, Bolander and Olsen retrieved three posts and two insulators from the reservation, all believed to be remnants of the original telegraph line. (There was one pole left standing on the reservation about 1/4 mile west of the monument. 1891) Bozarth reported in April that all telegraph poles at Pipe Spring were "now authentic." 1892 In



111. An authentic telegraph pole behind east cabin, September 1999 (*Photograph by Bill Cantine, Pipe Spring National Monument*)

November 1964 seven poles were treated with preservative, tarred, and set in place during 1965. 1893 Also that year, broken insulators on the standing poles were replaced with antique insulators.

On October 28, 1964, Bozarth and Olsen went to Gunlock, Utah, to attend the dedication of a monument to William Haynes Hamblin, brother Jacob Hamblin.¹⁸⁹⁴ The Hamblin family was planning a huge family reunion at Pipe Spring for 1965 and Olsen wanted very much to solve the mystery of how Pipe Spring got its name before that time. He was unable to locate any reliable documentary sources to verify the story, however. As it turned out, plans to hold the Hamblin reunion at Pipe Spring were cancelled that year due to a death in the Hamblin family. Olsen and Bozarth breathed a sigh of relief at this news as the reunion was expected to bring 1,200 people and they couldn't see how the tiny monument (and its single comfort station) could handle them all!

Between 1964 and 1965, the monument's carbon dioxide fire extinguishers were exchanged for the dry-chemical type. The McCulloch fire pump was routinely checked to make sure it was in operating condition. The old fire hose was replaced in June 1965 with a new linen one. Monument staff attended first aid training as well as instruction on fire protection. In the mid-1960s, an attempt was made to locate a historic building fire retardant that was appropriate and could be easily applied. In June 1966 a shipment of Flamort WC fire retardant arrived at the monument and was subsequently applied to unpainted woodwork in historic buildings, including the attic of the fort.

The monument still lacked a modern water system. In March 5, 1964, recently retired Leonard Heaton, along with Zion Park Engineer Joe McCabe and Byron Hazeltine, walked the monument staking water lines in preparation for mapping. 1895 On July 15, 1965, Bill Rothschild from the Western Office, Division of Design and Construction (WODC), visited the monument for the purpose of planning the monument's water system. The following October Rothschild returned to the monument with two other WODC men and Superintendent Hamilton. Most certainly due to lack of funds, nothing was done to construct a new system during the 1960s. During his tenure at the monument, Bozarth sent biweekly culinary water samples to public health officials for testing. Sporadic reports of test results indicate samples nearly always tested pure. 1896

No major landscape changes were made during the 1964-1968 period. Plum trees were transplanted during in January 1965 to help screen the residential and utility areas. In March 1965 an arbor was constructed for the historic grape vine which was reported "spreading through the cottonwood tree tops." In January 1967 three men from the Park Service's Western Tree Crew worked for a week cutting and pruning crowded trees and hazardous limbs on the monument. Also Also that month the old CCC-era drinking fountain pipe was replaced and the stonework rebuilt. The main plum orchard received a complete tree pruning in February 1969.

The lightning protection system installed on the fort in 1956 continued to be a lure to children. In August 1965 children were found climbing up the cables. Bozarth solved the problem by regrounding the cables inside the fort. (Bozarth learned a few years later that determined boys could *still* scale the fort walls after hours. See "Visitation" section.)

Rattlesnakes continued to wind their way to the monument during the hot and dry summer months and were occasionally found near the fort or other areas frequented by visitors. Bozarth's report for June 1965 states that two such large rattlers were "controlled to other hunting grounds." [1899] (What he means is the snakes were killed and sent to the proverbial "happy hunting grounds!") In the mid-1960s, a pair of Coopers hawks were noticed in several successive years nesting and raising a brood in the tops of the cottonwood trees south of the fort.

Extensive archeological reconnaissance work was carried out along the new right-ofway proposed for the rerouted section of State Highway 389 during 1965. (See "Area Roads" section.)

There was considerable publicity for the monument during 1965, consisting of newspaper, magazine, and even television coverage. One of the articles was by Jay Ellis Ransom entitled "Forgotten Refuge at Pipe Spring," in Trailer Travel Magazine, November 1965. The article mentioned "several unruffled ponds and swimming pools," probably to the consternation of Zion officials, for it appears that during this period public swimming was still not allowed in the meadow pond. Evidently there remained a diving board in place there, however. As in an earlier article, the campgrounds were reported to be "part of the original parade ground of the early day military post," a story that seems to have no basis in fact but appealed to the imagination of travel writers. Another romantic image wrongly put forward in this and earlier articles was that the fort was a scene of vicious, ongoing conflict with area Indians: "For five bloody years the fort was a true refuge in the wilderness for the Mormon pioneers," Ransom wrote, perpetuating the myth. He never mentions it was a Church tithing ranch. One of the drawing cards for tourists, the article pointed out, was that everything was free – the camping site, the firewood, even the fruit off the monument's trees! This part of the article at least was absolutely true. Other articles at the monument appeared in Utah, Arizona, and Nevada newspapers during the 1960s. The National Park Service celebrated its Golden (50th) Anniversary in 1966, a time monument staff took advantage of by publicizing and promoting Pipe Spring in press releases announcing the anniversary.

The monument received a new pickup truck in June 1966 and the old one was returned to Zion. Bob Olsen and family left the monument in late September 1966 (see "Personnel" section). The monument was left without a park historian for nearly six months. Bozarth and Bolander alternated their work days so someone would always be on duty at the site to provide tours and protection. During the fall of 1966, Bozarth also worked on preparing an operations manual for the monument. Relief came when, on March 12, 1967, Fredonia schoolteacher Paul Cram Heaton entered on duty as a seasonal historian. He initially worked weekends; beginning May 27 (once school ended) he worked a 40-hour week. Meanwhile, Bozarth and Bolander continued to served as fort guides until Heaton came on duty full-time, then helped guide as needed.

On January 26, 1967, Regional Director Daniel B. Beard, Assistant Regional Director George C. Miller, Superintendent Hamilton, and Park Engineer McCabe visited the monument to review on-site the location of a planned temporary visitor contact station. The structure was to be a surplus portable building from the Bureau of Reclamation in Page, Arizona. In February and again in July 1967, NPS landscape architects visited the monument to check out proposed locations for the building. It was not moved to the monument until April 1968, however.

Park Service officials planned to discontinue overnight camping at Pipe Spring as soon as the rerouted State Highway 389 was completed. Frequently, the demand for camping

spaces exceeded the available number of spaces, and Zion and Pipe Spring managers expected the situation to get much worse with the opening of State Highway 389. There was simply nowhere to expand camping facilities given the monument's small size. (Large groups had often used the meadow as an overflow camping area.) Restroom facilities were inadequate to handle large crowds and there was also a concern about the damage to vegetation and impacts to the "historic scene," not to mention midnight break-ins to the fort by wall-scaling youths! Bozarth began encouraging the Kaibab Paiute to develop a camping area on the reservation as early as January 1964. Zion and Pipe Spring staff began alerting travel magazines and guidebooks in the summer of 1966 that camping was to be discontinued at the monument with the opening of the new highway in 1967. There was also some discussion between Zion officials and Bozarth during early 1967 about charging a visitor fee at the monument once the new highway was completed, but the decision was made to postpone the fee for at least another year. (No fee was charged until the early 1970s.)

On May 27, 1967, State Highway 389 was opened to the public, including the bypass road the Park Service had long pushed for. The west entrance to the monument was no longer needed. It was closed and monument access was now only from the east. A "no camping" sign was posted to advise visitors of a change in policy for the old camping area, which was now designated solely for day-use. During July the old highway through the monument was obliterated and an attempt was made to restore the road trace to natural conditions. 1900 That month the old CCC swimming pool (the meadow pond) was filled in with dirt. There were plans to plant grass over it and use the area as a group picnic area. The monument's telephone wires were also placed underground and poles removed, "no longer disturbing the historic scene," Bozarth reported. 1901 (In late 1967, however, Bozarth's temporary successor, Jim Harter, complained that the telephone lines were so noisy with static that phone calls were nearly impossible, especially at night. It was suspected the problem lay in the buried line.)

As soon as the bypass road was in good enough shape to drive on (even before the main highway was finished), Bozarth noticed a drop in visitation figures. There was some concern that the new ban on camping might result in lower visitation figures. While traffic increased along State Highway 389, no one knew how many motorists would leave it long enough to make the short detour to see the monument. (Years later, former Park Historian Jim McKown commented on the marked difference that resulted from the abandonment of the old monument road. "While I was there, it was still a way station for travelers. That aspect of it is pretty much gone," he told the author. 1902)

Park Historian Bob Olsen's departure in September 1966 and the fact that no one permanent was hired to fill in for a while delayed the preparation of a museum prospectus for the monument. Regional Curator Jean R. Swearingen visited the monument in May 1967 accompanied by Superintendent Hamilton and Chief Naturalist James W. ("Jim") Schaack. Swearingen rearranged an exhibit or two and recommended removal of some extraneous items. The fort's heating and lighting systems were discussed at that time.

She filed a report in July to Regional Director Beard that included immediate and long-term recommendations. Her cover letter stated that since the monument had no furnishing plan or interpretive prospectus her report was only a general list of suggestions. 1903 She wrote in her cover memorandum,

... I feel strongly that something should be done for this area. It should not be allowed to ride along as it has, in a state of neglected mediocrity.

This state is by no means the fault of the area personnel! In my report I refer to the 'shoddiness' of the rooms but it must be understood that this condition does not exist because of the lack of care. Management Assistant Bozarth and Caretaker Bolander have done a beautiful job with what they have at hand, which is very little. Under the conditions they are working, only so much can be done! Lack of personnel is the one and only reason for the problem that exists – that of a rather rundown, but interesting, group of buildings.

The other deciding factor in the general appearance of this area is, there has not been enough money available (and the qualified personnel to spend it) for the objects and maintenance to improve the rooms. An area like this cannot live on donations alone.¹⁹⁰⁴

Swearingen's primary short-term recommendations were 1) to increase museum security by keeping objects out of arm's reach behind stanchions, not displaying the most valuable items, and having visitors always accompanied by a guide (this was contrary to the "informal" tour approach then taken at the monument); 2) to keep exhibit lighting subtle, subdued, and very indirect; 3) to improve labeling; and 4) to make the fort appear "lived in" by purposeful placement and arrangement of artifacts. Swearingen also made suggestions about displays in the west cabin (then called the bunkhouse), and the east cabin (referred to as the blacksmith shop and tack room).

Swearingen's long-range recommendations were to 1) increase security by adding personnel and giving regularly scheduled tours; 2) add heating and lighting in ways that did not impact the "purity of the period;" and 3) keep walls, floors, and woodwork in good condition, with minor disrepairs promptly tended to.

The fact that the fort was unheated and objects suffered extremes in temperatures was a serious concern. Swearingen encouraged the use of costumed staff that put "warm bodies" back into the historic scene. This would both add security, help maintain cleanliness, and boost the visitor's imagination. These recommendations, if carried out, would not only impact collections management issues but would change the practice of interpretation at Pipe Spring. While the "living history" idea already appealed to Pipe Spring staff (interpreters had experimented with a few demonstrations in the midst of their tours), Bozarth and Olsen's successors were given even more reason to head down that road after Swearingen's report. Yet the key issue was *personnel*. Where were they to come from and who would pay for them?



112. Arizona Governor Jack Williams, assisted by "Miss Fredonia," at ribbon cutting ceremony for dedication of State Highway 389, August 5, 1967 (*Photograph by Hugh Bozarth, courtesy Zion National Park, neg. 4502-A*)



113. Fredonia Mayor Warren Dart Judd with his wife Olive (left) and Governor Jack Williams and wife (right) at the Pipe Spring fort, August 5, 1967 (*Photograph by Hugh Bozarth, courtesy Zion National Park, neg. 4284*)

The formal dedication of the State Highway 389 road took place in Fredonia on August 5, 1967. Superintendent Hamilton and his wife attended the event, along with Mrs. Charles J. Smith, widow of Zion's former Superintendent Smith. Governor Jack Williams was the main speaker at the dedication. He and his wife, along with Mayor Warren Dart Judd and his wife Olive, visited the Pipe Spring fort later that day.

While the main road contract included construction of the spur road to the monument off State Highway 389, no plans had yet been made to improve the road to Moccasin further north, past the spur road to the monument entrance. On August 14, 1967, a meeting was held between the Mohave County Supervisor Bob Gilpin, Tribal Chairman Vernon Jake, and Indian Service engineers to discuss the matter. It was decided the road would be realigned, with Mohave County helping the Indian Service with funding.

It was mentioned earlier in Part VIII that there appeared to have been some health repercussions in the area of Pipe Spring from the nuclear weapons tests conducted in the 1950s at the Nevada Test Site. In Bozarth's monthly report to the director for May 1967, he made the following report:

From the New York Times Service, dateline Washington: The U.S. Public Health Service 'Leukemia Discovered in Clusters'.... One such baffling cluster was reported in the small isolated settlement of Fredonia in Northern Arizona. Four Leukemia cases developed within four years in a population of 643. This represents 20 times as many cases as would be expected in a community that size...¹⁹⁰⁶

Documentary photographer Carole Gallagher wrote in 1993:

Cancer was such a rarity that when a cluster of leukemia deaths struck the small towns of Utah and Nevada a few years after testing began in 1951, even the doctors had no idea what this illness could be. One nine-year-old boy who was brought to the hospital in St. George was diagnosed as diabetic by a physician who had never seen leukemia before. This child died after one shot of insulin. 1907

Other than Bozarth's reference in 1967 just cited, no other references to such health concerns were mentioned in monument documents from the 1960s. The multitude of health effects from above-ground nuclear testing during the 1950s (and the government's liability to pay for alleged damages) have been vigorously debated in courts of law for many years. It is simply worth noting that any ill effects to Utah and Nevada citizens or wildlife would equally apply to northern Arizona for it, too, was heavily blanketed with radioactive fallout during the testing period.

Hugh and Lenore Bozarth left the monument at the end of the 1967 summer season. A going-away potluck was held for them at the monument on August 29. Bozarth was promoted and transferred to White Sands National Monument as chief ranger and reported for duty there in early September. 1908

Harter Steps In

Bozarth's departure from the monument added to a personnel emergency at Zion National Park since at that time a ceiling was placed on Park Service employment. In addition to there now being two vacant positions at Pipe Spring (permanent park historian and management assistant), Zion had three vacant positions of its own. In the fall of 1967, Zion had authority to hire only one person for the five vacancies. James M. ("Jim") Harter was hired to manage the monument on a temporary basis because a permanent replacement could not be hired at the time due to strict Service-wide restrictions on hiring. He was hired as a GS-5 seasonal park guide and came on duty September 5, 1967. Zion was forced to terminate Acting Management Assistant Harter when his 180-day limitation expired. He was then rehired under the 700-hour clause. To keep someone on duty when Harter and Bolander were absent, Melvin ("Mel") Heaton of Moccasin was hired as a seasonal laborer. Bolander was on sick leave for a month, from about November 9 to December 12 (see "Deaths, Accidents, Missing Persons, and Family Matters" section). Seasonal Laborer Ray Mose was also working that fall. Both he and Mel Heaton were terminated in early December. Paul C. Heaton was rehired in the spring of 1968 as a seasonal guide, working weekends. Mel Heaton was also rehired in 1968 and 1969 as a seasonal laborer.

In September 1967 Harter broached the subject of obtaining juniper poles from Bureau of Land Management (BLM) land to be used "for future corral building near [the] fort." ¹⁹⁰⁹ The BLM was agreeable, so he went on several fall trips with Mel Heaton and BLM Range Manager Marvin Jensen to survey areas where juniper was available. On October 17 Harter met with Vernon Jake to discuss the Tribe's proposed plans for developing facilities near the monument. This was probably the earliest of many other meetings to be held with the Tribe concerning development topics in the late 1960s and early 1970s.

During Harter's brief tenure at Pipe Spring, efforts were made to reseed part of the monument with native grass. In September 1967 Harter obtained seed from the BLM office in Kanab for revegetation. The superintendent at Fort Union National Monument also sent a burlap bag full of grama grass seed to Joe Bolander in January 1968, and in early February, he planted the seed north of the fort and on top of the fill covering the old meadow pond. Pevegetation efforts would expand considerably during the summer and fall of 1968 under Ray Geerdes' administration.

On November 7, 1967, the Zion roads and trail crew spent two days at Pipe Spring working on the picnic area and striping the parking lot. On December 5 Zion's Chief Ranger Bob Peterson, Chief Naturalist Jim Schaack, and Chief of Maintenance Joe Davis visited to discuss plans with Harter for the fort's heating and rewiring. They also measured for a pressure pump system to supply a planned visitor contact station with water and for fire protection.

In January 1968 a temporary visitor contact station was installed, located southeast of the fort ponds, about 30 feet west of the concrete block comfort station and north of the picnic

area.¹⁹¹¹ In February Zion crews put in a sewer line, leveled the building site, and then began working on the facility. (They also installed a 500-gallon water tank that month which improved the existing fire protection system.) Work was completed on April 10. The old trailer office, in use since March 1959, was taken away on April 29, 1968. Zion contributed several display cases for exhibits in the building. On May 5 seasonal Park Historian Allen Malmquist entered on duty. One of his first assignments was to prepare an Indian exhibit in the new visitor contact station, which he completed that month.

In the spring of 1968, Jim Harter accepted an appointment at Oregon Caves National Monument. He and his family left Pipe Spring National Monument on April 5, 1968. As was customary, a farewell picnic was held several days prior to their departure, attended by 40 people from Moccasin and the surrounding area.

Geerdes and the Neighborhood Youth Program, 1968

Supervisory Historian Raymond ("Ray") Geerdes arrived with his family on April 25, 1968, to oversee the Pipe Spring National Monument. Right away, Geerdes began filing a monthly log of significant events upon his arrival. Just prior to coming to Pipe Spring, Geerdes had worked at Sitka National Historical Monument in Alaska, and earlier at Hawaii Volcanoes National Park. One of Geerdes' first actions was to contact local Forest Service and BLM officials for their advice on native grass revegetation. Soil Conservation Service personnel visited in May to offer their advice. On May 18, 1968, the community of Moccasin held a picnic at the monument and extended its customary hospitality to newcomers by inviting all monument personnel. The month's culminating event was the birth of a sorrel colt to Geerdes' mare at Pipe Spring on May 27. Both horses sported Hawaiian names, Lani (the mare) and her colt, Kamehameha - surely a rarity on the Arizona Strip!

The two and one-half year period that Geerdes supervised Pipe Spring National Monument was one of great challenge and change. During this period, the plans of the Kaibab Paiute Tribe to develop a tourism complex that would provide jobs for its members posed difficult problems for Park Service administrators. Geerdes saw those problems as opportunities to forge a new relationship with the Tribe, one that would benefit both it and the Park Service, and to incorporate additional lands and cultural resources into the monument. Those events, and examples of earlier monument cooperation with the Tribe, are discussed in a later section, "Planning and Development with the Kaibab Paiute Tribe and Associated Water Issues."

Thanks to Geerdes' past experience and persistence, the summer of 1968 transformed Pipe Spring National Monument's interpretive program. If Bozarth planted the seed for the living history program, it must be said that under Geerdes it took root and sprouted, mainly due to his familiarity with government-funded youth employment programs implemented under President Johnson's "War on Poverty" policy. Geerdes had worked directly with the Neighborhood Youth Corps program for a year and one-half while at Sitka National Historical Monument where he supervised the program for the Borough of Sitka. 1914 During his first month at Pipe Spring, Geerdes contacted Fredonia High School officials to begin laying the groundwork for the monument's participation in the NYC

program, traveling to NYC offices in Flagstaff and Phoenix. He also met frequently in May (and again in June) with Vernon Jake to discuss employing Paiute youths at the monument. A background on the program is provided below.

The Neighborhood Youth Conservation program was handled by a sponsoring agency, which in this case was the State of Arizona, under the federal government's Office of Economic Opportunity (OEO). The State handled financing, payrolls, insurance, apportionment of openings, and dealt directly with the OEO. Youth could work up to 26 hours per week. Once the school year started, the in-school program allowed employment of about 12-16 hours per week, fitted into weekends. Under the out-ofschool program (during the school year), youth could work up to 32 hours per week.¹⁹¹⁵ Rules required that enrollees meet an income criteria, thus it favored enrollees from low-income families as well as "at risk" youth, such as high school dropouts. For its part, the recipient agency was to contribute "in-kind" services to the youth. At Pipe Spring such services included assisting with their transportation, providing work experience, remedial education, as well as guidance and counseling. In addition, Geerdes or his staff helped the youth find jobs, assisted them when they got into legal jams, and interacted with social workers and schools on their behalf. 1916 Enrollees working as guides also received instruction in Western history. Compared to other Indian tribes that ran their own NYC programs (such as the Navajo), the Kaibab Paiute obtained a program on their reservation quite late, in 1974. 1917

Geerdes felt that relations with the Kaibab Paiute Tribe in particular would be improved by hiring some of their youth under the NYC program, and several were hired. 1918 Not all Indians hired under the program were Kaibab Paiute, however. Many were Navajo. Geerdes estimated about 30 or 40 Navajo families lived on the outskirts of Fredonia in the late 1960s. Many were impoverished and living "in wooden shacks," he reported. 1919 These families relied heavily on employment at the Fredonia lumber mill. VISTA enrollees in Fredonia played an important role in locating eligible Navajo youth and getting them enrolled in the area's NYC program. 1920

The monument's first student enrollee, Steve Tait of Fredonia, started working weekends at Pipe Spring in early May 1968.¹⁹²¹ In late May Geerdes spoke with the NYC Area Coordinator Andrew ("Andy") Sandaval in Flagstaff by phone about getting enrollees at Pipe Spring. Sandaval oversaw a five-county area, designated the Northern Arizona District Action Council in 1969. On June 11 Geerdes was informed that he would be able to get NYC workers for the monument that summer. He spoke with the program's contact in Colorado City on June 14, but by the time Park Service authorities in the regional office and Zion National Park approved his involvement with the program, enrollees there had already found other assignments. By June 14 nine enrollees were signed up to work at Pipe Spring, three girls and six boys, all from either Fredonia or Moccasin (the latter primarily from the reservation). More boys and girls were added during the summer. Enrollees worked 26 hours per week, up to 10 weeks.

Geerdes had no trouble selling Zion's Superintendent Karl T. Gilbert on the idea of employing youth under the government programs. For one thing, staff at Zion National Park already had experience using NYC workers since 1965. Formal approval from the regional office was still needed, however. When Gilbert forwarded Geerdes formal proposal to Regional Director Frank F. Kowski in late June 1968, he pointed out that

... aside from the benefits of the work projects, it is a mutual undertaking linking the National Park Service with local organizations and people. At Pipe Spring this is a much-needed public relations factor and has our approval even if only on this basis.

The planned period-costumed attendants within the fort follows recent thinking on that subject, and this experimental project will be an inexpensive method of determining its feasibility and value.

This office is giving approval to his [Geerdes'] program, which will be under our continual scrutiny as it progresses. 1922

Kowski later congratulated Gilbert and Geerdes for proceeding with setting up the NYC program at Pipe Spring. He asked that monument staff play particular attention to visitor reaction to the costumed attendants in the fort and added, "As you know, this approach is in complete accord with the director's desire to experiment further with park attendants in period costume. Please furnish us with pictures when possible and an evaluation of the effectiveness of this part of the program so that we may send them to Washington." ¹⁹²³

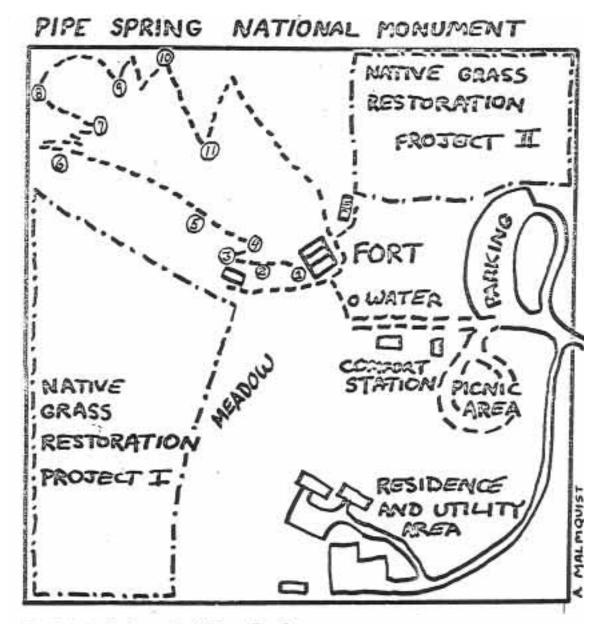
Ultimately, in 1968 a total of 15 NYC enrollees was assigned to the monument over the course of the summer allowing to test out the living history program concept on a limited basis as well as to accomplish special project work. Of the 10 NYC boys enrolled that summer, four were local Paiute and five were Navajo: Russell Tom, Clarence Tom, Timothy Rogers, Gerald Jake, Corwin McFee, Johnnie Manymule, Keith Yazzie, Rex Tsi, Larry Stephenson, and Johnny Simpson. 1924 At the beginning of the summer, two white girls from Fredonia and one Paiute girl from Moccasin signed on with the NYC program: Gina Henrie and Shirla Bundy from Fredonia, descendents of "pioneer" Mormon families, with villages in southern Utah named after them (Bundyville and Henrieville); and Claudina Teller, a Paiute girl, whose family of course had even older ties to the area. Henrie and Bundy had period dresses they made at home with the help of older ladies in the community "to conform to the type of dresses worn by Mormon Pioneer young ladies of the period of the 1870s and 1880s," Geerdes later reported. 1925 It was initially planned for all three to be in period dress, but Teller could not obtain a Paiute costume as she (and Geerdes) had hoped, thus the Fredonia girls were the ones who worked in costume and escorted visitors that summer. Teller assisted in cleaning the fort and with office duties such as answering the phone, typing, and filing. (The other girls also performed these chores as time allowed.)

Claudina Teller appears to have initially preferred office work to working as a guide. Geerdes wrote that when she first came to the monument to work, while both intelligent and attractive, she was also "extremely shy, withdrawn, and introverted." During that summer, Geerdes felt she "developed poise, responsibility, and initiative." Teller mastered the Park Service filing system and took on many routine office chores. Precisely because she was Indian, monument visitors displayed a keen interest in talking to her, and gradually she grew more comfortable speaking with strangers.

At the beginning, Geerdes planned for the girls just to act as "greeters," meeting visitors at the parking lot, giving them the monument's informational leaflet, and escorting them to the visitor contact station. Then uniformed guides were to take them on the fort tour. Park Service staff, however, discovered early on that the visitors preferred to tour the fort with the costumed girls! (Those visitors who were more historically oriented or who had more in depth questions were escorted by a uniformed historian, Geerdes reported.) In addition to guide service, the girls also sometimes demonstrated how the rug loom worked. After the girls finished guiding visitors through the fort, they brought them back to the contact station where monument staff talked with them about their experience and answered questions. The costumed guides were so popular that Geerdes received permission from Sandaval to hire two more girls in early August, Helen Jensen and Patty Tait. 1927 Geerdes wanted to "break in" two more girls for the first two would not meet the age requirement to participate in the NYC program the following year. Geerdes later estimated the NYC program saved the Park Service \$3,718 that year; the volunteer women from Moccasin contributed services worth at least \$400.

NYC boys performed an entirely different function during the summer of 1968: hard, physical labor. All the Navajo boys assigned to Pipe Spring were from Fredonia and rode to work with seasonal guide Paul C. Heaton. Heaton interacted a great deal with the young enrollees working on the monument. 1928 The first project the boys worked on was the construction of the long-planned nature trail. (See "Nature Trail" for details on trail development.) For their next project in late July, the NYC boys began clearing a seven-acre area on the west side of the monument to prepare for seeding to native grasses. Geerdes' goal was to recreate "historic range conditions" on several areas. 1929 The general area the boys were working in, of course, was the Civilian Conservation Corps' Camp DG-44 site. The boys removed remnants of CCC-era foundations as well as brush and willows. Check dams were constructed to retard soil erosion. In less than a one-month period, the boys contributed 700 man-hours to this project. By late August the west side area was cleared and ready for disking and harrowing. By early October this area was hand-seeded with a variety of native grasses purchased by the Zion Natural History Association. 1930 "Native Grass Restoration Project I" had been completed. The savings to the Park Service by using NYC labor for the construction of fencing, corrals, and native grass restoration was estimated at \$4,500. (See "Nature Trail" section for other work performed under NYC labor.)

Allen Malmquist prepared the site map shown in figure 114. The map was included in an Environmental Study Area Inventory that Geerdes submitted to Zion's Superintendent



Metalphoto Markers On Nature Trail

- Pipe Spring flowing from under Fort
- 2. Deseret Telegraph pole
- 3. Seep, one of several associated with Pipe Spring
- 4. Fort from rear, hard to defend
- 5. Quarry Trail, how "rock lizard" used
 6. Contrast native grass below with sage outside monument
 7. Arizona Strip, identify points on horizon
- 8. Point out Powell Monument on rim and others to the east.
- Identify pinon, juniper, cacti, ect.
- 10. Downthrow of strata along Sever Fault, geology of Spring
- Oasis around Pipe Spring

114. Map showing nature trail and native grass restoration project areas, 1968 (Pipe Spring *National Monument)*

Gilbert on July 13, 1968. In addition to the nature trail, it depicts the areas originally planned for native grass restoration. (Reports of the period suggest that the NYC boys worked only on the area labeled Project I.) The numbers along the nature trail indicate sites where metalphoto markers were placed.

Geerdes held several summer picnics, which helped build camaraderie between workers at the monument and the community. The first was on June 27, to which all employees and their families were invited. A total of 60 people attended. Geerdes held another all-employees' picnic on August 19. By the time their summer appointments ended on August 24, 1968, the NYC girls had contributed a total of 1,119 hours of work; the boys had contributed 1,302 hours. 1931 Considering that six rattlesnakes were found and killed during that July and August, it's rather amazing that all the enrollees stuck around for the entire summer! 1932 In addition to the threat of snakes, on August 7, 1968, a lightning bolt struck between the visitor contact station and the east cabin near a large group of 30 visitors being escorted by NYC enrollee Gina Henrie. The work did have its hazards!

Geerdes complied with Kowski's earlier request for an evaluation of using costumed attendants in the fort in early August 1968. After two months, Geerdes judged the program as an "unqualified success." The girls giving tours, he reported, "became rapidly knowledgeable as [to] the details of the fort and the history of the area," although Geerdes does not describe precisely how they were trained (presumably they were given the monument's historical handbook for starters). While it was not originally intended for the girls to act as fort guides, due to their popularity, about 90 percent of their time was spent with visitors. Often, visitors discovered they had some family ties with the girls' families, adding to their mutual enjoyment of the tour. Visitors were "enthralled" by the girls, Geerdes wrote. He reported,

The period dress format fits in very well with the idea of a living history ranch (farm) idea. In short, these young ladies have given the old fort and our interpretation of it a living, vital dimension, pleased and benefited several thousand of our visitors, and have not involved any direct expense except the time of their training and supervision.mcm¹⁹³⁴

Moreover, Geerdes added, "An unforeseen advantage in the program was the involvement of all of the NYC enrollees in the monument values and, by extension, through their parents and families to the entire Fredonia and Moccasin community." Geerdes intended to continued the NYC program in order to build on the new program. As he had predicted, it increased the monument's interaction with the Indian community of Moccasin, and Tribal Chairman Vernon Jake reportedly dropped by the monument several times a week to informally discuss business with Geerdes during this period. 1936

In the fall of 1968, four Youth Conservation Corps program youth were hired: Bulah Hosey, Lynn Ballard, Delaine O. Cox, and Rudy Johnson. They were all terminated at various dates during November. Geerdes received permission from Sandaval to hire NYC youth during the 1968-1969 school year, and several were hired in November and

December 1968, one being Fredonia high school student Heber Heaton (Mel Heaton's brother) who worked 10 hours per week at Pipe Spring as part of the NYC's in-school program. In November that year, Joe Bolander was promoted from laborer to park guide, subject to furlough. Once Bolander was converted to park guide, the monument had no permanent maintenance person on staff for the remainder of the decade. Also that fall, Zion staff Joe Davis, Keith Wilkins, and Jim Schaack visited the monument to study the fort's lighting and wiring systems. In December 1968 the monument was forced to close on Saturdays and Sundays due to government cutbacks. Geerdes reported the monument received no adverse criticism about the closure that month.

In January 1969 Geerdes met with Andy Sandaval in Flagstaff to discuss the effectiveness of the NYC program at Pipe Spring in 1968. He was promised a tentative allotment of 12 NYC enrollees for the summer of 1969. This, Geerdes later reported to Superintendent Gilbert, would allow the fort to be continuously staffed with two girls in period dress while a crew of three to five boys assisted staff with outdoor jobs. Sandaval granted Geerdes permission to employ up to six Navajo boys that winter under the out-of-school program, on the basis that Geerdes met the qualifications of a counselor. (Geerdes had formerly been both a school counselor and high school principal.) That month Geerdes hired three boys, Herman Tso, Norman Curley, and Herbert Haskie, all Navajo living in Fredonia, ages 16-21. Two other Navajo boys were hired later, but their names are not known. Timothy Rogers was hired under the NYC's out-of-school program during part of the 1968-1969 school year.

Claudina Teller also worked during the fall of 1968. Geerdes helped her get into the Phoenix Indian School for its second semester, so she left the monument at the end of 1968. She planned to return and to work at Pipe Spring during the summer of 1969, and talked of making a Paiute costume out of four deer hides before that time. In May she wrote Geerdes from Phoenix and asked if her friend Glendora Snow (then attending school in Phoenix but also from Moccasin) could work at the monument with her that summer. Geerdes replied that he would be happy to have Glendora. 1937 The two girls started working together at Pipe Spring on May 26. Once Teller completed training Snow, their schedules were split so that they usually worked together only one day a week that summer. Teller and Snow were originally supposed to work in the visitor contact station but they ended up also working as guides. 1938 Geerdes reported in early August, "The Kaibab Paiute have been included in our new interpretation with three girls in Indian dress working as guides this summer. Although the Paiute didn't play any direct role in the history of Pipe Spring, the girls are encouraged to discuss their heritage with visitors." 1939 The girls wore buckskin dresses with beads and other fringed ornaments, Geerdes later reported. 1940

Geerdes also reported on his experience working with Navajo NYC youth at the monument:

These Navajo boys are good workers and are bilingual. One of them is a highly skilled carpenter and has made several bookcases for us and will do other

carpentry work. The other boys are doing men's work in helping us finish our corrals to be used for our historic ranch branding program this summer.

We are helping these boys in many ways. We have conducted a driver's class so that they can learn the Arizona highway laws and qualify for a driver's license. We have gone to the judge for several of them when they had to appear for driving without a license.... One day a week the entire crew is sent over to the [Kaibab] Indian village to help on the Indian housing project which has fallen behind.¹⁹⁴¹

The increased work force that winter enabled the monument to enlarge the corral below the east cabin and to construct a fence around the meadow area at very little cost. 1942 This work expanded on the "living ranch" theme Geerdes was promoting. Work was done on the meadow-fencing project in January and was completed in February 1969. Juniper posts for both the meadow fence and corral were obtained by permit from nearby BLM lands. A half-mile of five-strand barbed wire fence was obtained by permission from Forest Service land near the Grand Canyon and reused in the meadow fence. Four sections of horizontal rails made of quaking aspen were placed on the side of the juniper post fence nearest the fort so that visitors could sit or lean on the rails "Western style" while watching or petting saddle horses kept inside the area. In late February work began on the main corral complex below the east cabin. The reconstructed corral was enlarged into a corral complex, using old corral materials donated by area ranchers. 1943 Under Mel Heaton's supervision, NYC boys (all Navajo from Fredonia) erected both the meadow fence and the corral complex. While the boys were bilingual, Heaton also spoke Navajo, having served his two-year Church mission on the Navajo Reservation.

In March 1969 Anthony G. ("Tony") Heaton of Moccasin donated an old chicken coop, in keeping with the "living ranch" goal of including more farm animals in the fort's setting. Heaton reported the coop was made from lumber taken from a blacksmith shop formerly located at Pipe Spring. 1944 In addition to chickens and the traditional pond ducks (as well as his own horses), Geerdes introduced geese into the scene in either 1969 or 1970. (At some point locals began referring jokingly to Pipe Spring as "Geerdes' Goose Ranch!") Fowl were fed the corn grown in the monument's "historic garden," and eggs from the chickens were distributed to the "poor and needy," reported Geerdes. 1945

During part of March and April 1969, Geerdes was away from the monument attending two courses at the Mather Training Center. By the end of April, the corral complex was completed enough for the monument's first branding events, and three branding demonstrations were given on May 3, 24, and 30.1946 It is not known who originated the idea, but these events were widely advertised. Geerdes described the program as "an unqualified success." Both white and Indian stockmen from the Moccasin area demonstrated the branding and sorting, branding their own calves. He Navajo NYC boys, all good horsemen, helped local ranchers round up the cattle and also participated in the branding event, along with Park Service employees. Geerdes described the vivid

sights and smells during a demonstration and the manner in which the activity was interpreted to those watching:

The branding is for real. The blue smoke arises as hot irons touch cowhides. The piercing brawl of the branded calf, the acrid smell of burnt hair, the dust swirling in the corral, and the milling herd all testify to its reality. Explanations are given to the visitor on state laws regulating branding, the why and how of branding, the purpose of branding and dehorning, and the historical continuity at Pipe Spring back to the Winsor Castle Stock Growing Company. It has gone over big...

Yet with all its dramatic sights, smells, and sounds branding is not a sideshow at Pipe Spring. It is an integral, gut function of our living ranch. It is Living Interpretation here at its best. 1950

The branding events were well publicized in Salt Lake City, Las Vegas, and Flagstaff newspapers. Out-of-state visitors talked about it when they returned home, prompting one call from the New England area asking when the next branding would be scheduled! The popular demonstration was held again with more than 200 attending on August 15, 1969, when David Johnson branded about 40 head of calves. On September 15 Moccasin's Bishop Owen Johnson and his two sons, David and Ronnie, demonstrated cattle branding for several hours for the benefit of 40 Albright Training Center trainees and their instructors. The branding demonstrations were another step in the direction of the "living ranch" theme Geerdes strove to put into effect at Pipe Spring.

Geerdes wanted to expand the program and also yearned for a full-time NYC supervisor to oversee the boys' project work during the summer months. He also wanted a full-time community aid to perform clerical duties in the office (he had Rosetta Teller, a Paiute girl, in mind for the latter position). The monument staff was "strained to the breaking point," he wrote program directors in Kingman and Phoenix in May 1969. He asked for their help in getting a work-crew supervisor and community aid, without which, he informed them, the interpretive program at the monument might be discontinued or curtailed. Not to cut political corners, Geerdes had already written to Senator Barry Goldwater in early April to ask for his support of Pipe Spring's NYC program. Goldwater assigned one of his staff to provide Geerdes assistance in acquiring the supervisor and park aid.

The 1969 Summer Program: Adding Volunteers

During the summer season of 1969, 18 youth were employed at various points under the NYC program, which ended August 30. That summer, girls were paid \$1.30 per hour and boys were paid \$1.60 per hour. 1952 Once again they were Paiute and Navajo boys and girls, and white girls from Fredonia. 1953 As in 1968, they worked 26 hours per week, with boys working as laborers and girls primarily as costumed guides. The Fredonia girls wore long, "pioneer-period" dresses and the Paiute and Navajo girls wore "Indian dress." 1954 In addition to giving tours, the girls cooked, sewed, operated the loom, and played the organ, all the while displaying increased confidence over the prior summer. They also did office work. Geerdes reported the Indian girls were "pleasantly surprised" to find so many

visitors interested in asking them questions. Visitors were drawn to the girls and sometimes engaged for an hour or more in conversation with them. Geerdes felt this boosted the self-esteem of the Kaibab Paiute girls in particular. 1955

On July 14, 1969, Andy Sandaval came from Flagstaff with one of his assistants to observe the NYC enrollees working on site. Ten days later he returned with another assistant (Lupe Anaya) and took movies of the youths. Enrollees performed over 3,000 hours of work at the monument that summer. Over the entire year, the monument utilized 27 enrollees in in-school and out-of-school programs; their combined contribution in labor totaled 11,814 hours.¹⁹⁵⁶

In addition to the use of NYC youth at Pipe Spring during the summer of 1969, Geerdes incorporated more adult volunteers from Moccasin into the interpretive program. That year he experimented with such volunteers just on the weekends, beginning in May with the branding demonstrations and going to late June. Owen and David Johnson from Moccasin and Alfred Drye from Kaibab Village oversaw the branding demonstrations. From late May to late June (a total of seven days), women from the Moccasin Ward's Women's Relief Society came in period dress to assist in period demonstrations. 1957 Geerdes later reported some of the women wore authentic 100-year-old clothing passed down in their families. The first day of the women's demonstrations overlapped with the final day of the men's branding demonstrations (May 24). The women baked bread on the fort's old stove, crocheted, quilted, operated the rug loom, and played the organ. Soap making and butter churning were also added at some point that summer. During the same period, Claudine Teller and Glendora Snow demonstrated corn grinding to visitors using manos and metates. The two Kaibab Paiute girls were situated outdoors on the south side of the fort ponds near the steps.

Geerdes later described that summer's program to a private citizen from Banning, California (the man was formerly of Kanab). He had seen a newspaper article about the monument and had written, inquiring about it. Geerdes wrote to him,

Here at Pipe Spring we have initiated several programs on the way to making this a 'living ranch,' much as it was in the 1870s. During the summer months we have a staff of high school girls from Fredonia that come in pioneer dress, guide visitors through the fort, and demonstrate many of the pioneer's activities. They cook, wash, weave, sew, and garden. Since Pipe Spring was a cattle ranch, we would be justified in setting up a complete cattle operation here. This season the only aspect of such an operation that was practical on the Monument was branding in the corrals just east of the fort.... The three weekend sessions were very popular with visitors. ¹⁹⁵⁸

In fact, it all worked just as Geerdes had envisioned: visitors loved the new living history program at Pipe Spring and attendance increased dramatically that summer. Geerdes calculated visitation for June 1969 was more than 50 percent higher than for June 1968, a marked increase that continued for the rest of the summer. 1959 (Visitation for September-

December was about 25 percent higher than for those months the previous year.) What is most perhaps notable is that the improvements to the monument's interpretive program required only minimal direct expense to the Park Service. Rather, they were realized through, and heavily dependent on, the use of the government-sponsored youth employment programs and a new, previously untapped resource - local volunteers. There is no question that Geerdes had truly effected positive and dramatic change at Pipe Spring in just one year, charting a new interpretive course for the monument that would continue into the early 1970s. At some time about mid-August 1969, Geerdes' title was changed from supervisory historian to management assistant; his title was changed again in November to area manager. 1960

By the end of the summer of 1969, Geerdes expanded the monument's direct involvement with the NYC program. Local and county Community Action councils oversaw the OEO program. During August both Geerdes and Mel Heaton were elected to the Coconino Community Action Council which gave them seats on the five-county council that met monthly in Flagstaff, giving the monument a stronger voice in NYC and other OEO programs operating in the area. 1961 Under the OEO's Operation Mainstream program, a fulltime, year-long training position at the monument was funded for a clerk-receptionist. Konda Button, a young widow living in Fredonia, was interviewed for the position in September and was hired in October (see "Personnel" section). The monument's responsibility to Button (and to the program funding her) was to provide training experience, counseling, and supervision. She in turn worked just as an agency employee would. While the monument had benefited in 1968 from some office assistance provided by a few female NYC enrollees, this was the first time the administration had such help on a year-round basis. During the fall of 1969, Geerdes also hired two Navajo boys under the NYC's out-ofschool program, Norman Curley and Melvis Slim, both of whom had prior work experience at the monument. The two Fredonia youth rode to work with Konda Button.

Editor Ron Greenberg of the Park Service's *Interpreter's Newsletter* visited Pipe Spring on December 3, 1969, with plans to write an article on its new interpretive programs. Geerdes was ready for him, making special arrangements for another branding demonstration. He also brought in four of the previous summer's NYC girls in costume and installed them in the fort for Greenberg's visit. Greenberg was suitably impressed: Pipe Spring earned the first five pages in an issue of the *Interpreter's Newsletter*. A story in the same issue on Yellowstone National Park only made page 7; Geerdes was on cloud nine! Other monument staff and members of the local communities were all quite proud - and deservedly so - of what had been achieved in 1968 and 1969 through mutual effort.

Confidant that much could still be accomplished with the work force he had tapped, Geerdes compiled an ambitious list of goals for fiscal year 1970 that included 15 projects. Among them was the "rejuvenation" of the Whitmore-McIntyre dugout, excavation of the old lime kiln and construction of a pathway to it, construction of a trail to the Powell survey monument (located on the reservation), reconstruction of historic watering troughs, replanting a vegetable garden, establishing a fruit orchard, cultivation of the grape arbor,

as well as continuing with all the programs established by the summer of 1969. 1962 Other 1970 goals were to replace the asphalt walks with native flagstone, work with the BLM on the Arizona Pioneer Roads project, experiment with a wagon ride concession, and provide proper heating and lighting in the fort. 1963

In January 1970 a corral-style fence of horizontal quaking aspen poles was constructed along the front of the parking lot and along the roadside of the picnic grounds. The fence was installed to keep people away from the drainage ditch and culverts, to facilitate fee collection (though none was yet being assessed), and to eliminate camping problems in the picnic area. Geerdes felt that it also enhanced the "historic attractiveness and atmosphere of the area." ¹⁹⁶⁴ In March a Park Service electrical engineer and landscape architect met with Southern Utah Group officials and representatives from GarKane Power Company to work out details for installing an underground power line. During May an historian and historical architect from the Western Service Center inspected the fort to review plans for wiring, heating, and lighting.

In 1970, other than Operation Mainstream employee Konda Button, Ray Geerdes was the only permanent, year-round monument employee. Seasonal staff included Park Guide Bolander, Seasonal Park Historians Allen Malmquist and Tony Heaton, Maintenance Foreman Mel Heaton, laborer Paul C. Heaton, and - on an intermittent basis - laborers David Johnson and Alfred Drye. Steve Tait was also hired as a seasonal employee. Tony Heaton was a history teacher at Hurricane High School. 1965

Working with and living among the mostly Mormon population of surrounding Arizona Strip communities was a positive experience for Geerdes and his family. He had been there just under two years when, in early 1970, he received anti-Mormon literature in the mail from the Christian Tract Society of Hemet, California. He sent the society an angry letter demanding to be taken off their "hate mailing list," writing, "I am not a Mormon but have never had finer neighbors to live with or people to deal with." ¹⁹⁶⁶

During the summer of 1970, 19 NYC enrollees worked at the monument under the inschool program, two under the out-of-school program, and two under Operation Mainstream. All were from Fredonia or Moccasin. 1967 Geerdes both expanded and made more authentic the range of demonstrations offered that summer, including starting a "Paiute demonstration." 1968 This project consisted of the NYC boys constructing several reproduction Paiute wickiups and a lodge. Other work performed by the boys that summer included weeding and irrigating the seven-acre plot of land replanted in native grasses the previous year and working on maintenance projects, such as trail improvement and erosion control. The costumed girls continued to offer guided tours with demonstrations, to clean the fort, and to perform office work.

In late July 1970, Dr. Irving Handlin, the Southwest Region's NYC coordinator, visited the monument. Geerdes later reported that Handlin was enthusiastic about the monument's NYC program. In August Geerdes was elected chairman of the Fredonia-Moccasin Community Action Council while Konda Button was elected its secretary. That month

BLM Natural Resource Specialist Strafford Murdock and C. M. McKell, head of the Department of Range Science at Utah State University, Logan, Utah, inspected the monument's native grass restoration area. The men were enthusiastic about the project and evaluated it as an "unqualified success," Geerdes later reported. ¹⁹⁶⁹ Another native species that McKell suggested Geerdes use for reseeding was Galleta grass. ¹⁹⁷⁰ That fall, the Department of Range Science sent Geerdes some of this type seed.

Branding demonstrations were continued during 1970 and received increased publicity. A demonstration was offered to a group of trainees from the Albright Training Center on January 19, 1970, and again on April 6. The interpretive aspects of the branding program were discussed with trainees. Dubbed a "living ranch," Pipe Spring National Monument was one of only five such areas in the entire Park Service. 1971 That year, from May 11 to May 16, five men from Harpers Ferry Center's Division of Audio-Visual Arts filmed cattle roundup and branding activities in order to depict one aspect of the Pipe Spring's living ranch program. The group was under the direction of Carl Degen. His crew made a 28-minute movie from the shooting. Public brandings were held on May 14, 16, and 29. Two more branding demonstrations were arranged in September, one for the Phoenix Dons Club and one for a class from the Albright Training Center. 1972

While the Harpers Ferry Center crew was there, Geerdes discussed with one of them the possibility of putting on a telegraphy demonstration the next summer. He wanted to train one of the NYC girls to "play" 17-year-old Luella Stewart, using the telegraph set to transmit messages to another former Deseret Telegraph Station in St. George. He also wanted the interpreters to demonstrate butter and cheese making, but had not yet located an Oneida cheese vat.

An operations evaluation was conducted at Pipe Spring National Monument from July 30 to August 15, 1970. The resulting report pointed out that the monument lacked formalized management objectives. While the monument's existing master plan never contemplated the area begin operated as a living ranch, current operations clearly reflected that objective. While it commented favorably on the new interpretive program, the evaluation team observed that Geerdes' ability to carry out the living ranch theme depended heavily on personnel provided under various OEO-funded training programs. They advised that the Park Service begin staffing the area to enable the monument to continue its interpretive programs "so that when and if these temporary programs are discontinued, we do not have to discontinue these effective interpretive activities."1973 The team noted that visitation figures were already 30 percent higher than those for 1969. As in the past, the monument still charged no entrance or use fee. The report recommended that a decision on a fee should be put off until the current master plan study was completed. A horticultural plan was needed "to preserve the historic orchard." The team commended Geerdes for his relations with various outside organizations: "He has pursued a program in external affairs for the benefit of the services to the public which is generally far beyond the scope normally expected of an area manager for a unit the size of Pipe Spring."1974



115. Barney Burch (left) and Tony Heaton (right) take part in a branding demonstration, 1969 (*Pipe Spring National Monument*)



116. Attentive onlookers watch Tony Heaton (left) and Herman Tso (right) lasso a calf during a branding demonstration, 1969 (*Pipe Spring National Monument*)

In September 1970 Geerdes reported to officials at Harpers Ferry Center that Pipe Spring's living ranch enticed visitors who planned to make a quick stop at the monument to linger much longer. The smell of home-baked bread; the friendliness of local costumed girls; feeding the chickens, ducks, and geese; or getting nuzzled by the colt, Kamehameha, all added to the pleasure of their stop and to the richness of their experience. That month Ray Geerdes accepted a promotional transfer to Kennesaw Mountain National Battlefield Park as supervisory park historian. He left Pipe Spring on either October 8 or 9 and reported for duty at Kennesaw on October 18. Geerdes left behind a transformed interpretive program that attracted high numbers of visitors and that forged improved relations with neighboring communities, Indian and Mormon alike. The alliances he made with the Kaibab Paiute under the NYC program would be particularly critical in the days ahead. The response by Geerdes and his superiors to the challenge of tribal developments in the late 1960s (described later in the "Planning and Development with the Kaibab Paiute Tribe and Associated Water Issues" section) also turned a potential water crisis into a model for interagency cooperation. His would be a hard act to follow indeed!

Personnel

Information on Hugh Bozarth's departure from Pipe Spring in 1967 and his temporary replacement, Jim Harter, was provided in the earlier "Monument Administration" section. Two new employees entered on duty at Pipe Spring in 1968, Ray Geerdes (late April) and Allen Malmquist (May). For more information on these two men. see the "Monument Administration" section. Malmquist was converted to intermittent appointment November that year. He returned to work as seasonal historian in 1969 and 1970. Tony Heaton began working as a seasonal historian during the spring weekends of 1970.

Joe Bolander, hired as an ungraded laborer in late 1963 (referred to as "caretaker"), initially commuted to work daily from his home in Orderville, Utah. In June 1964 he asked if a trailer site could be designated for his use so that he could park his trailer there and live on site



117. Joe Bolander, undated (*Pipe Spring National Monument*)

during the week. As there were still water and sewer connections at Jim McKown's old trailer site, he was given permission to put his trailer there. Bolander worked for a number of years doing maintenance and repair work around the monument, assisted at times by Ray Mose. Bolander was a natural born storyteller who loved recounting the monument's history to visitors. Probably shortly after Bob Olsen's departure (the fall of 1966), he began giving guided tours out of necessity. In April 1968 Regional Director Kowski took a fort tour guided by Bolander. Kowski was well pleased with the experience. Bolander was promoted from laborer to park guide, subject to furlough, on November 17, 1968. In March 1970 Bolander attended a course in oral communications for park technicians at Mather Training Center. He continued working at the monument through January 1976.

Park Historian Bob Olsen was remarried on July 7, 1964, in Salt Lake City. He and his wife Lauri were honored by the ladies of the Moccasin community at an open house given at Pipe Spring on August 14. The couple's first child (a son) was born in Salt Lake City on February 23, 1966. From mid-March through April 1966, Olsen spent six weeks at an interpretive methods course at Mather Training Center in Harpers Ferry, West Virginia. Olsen took a promotional transfer to Whitman Mission National Historic Site in Walla Walla, Washington, in September 1966. A going-away picnic was held for the Olsen family on September 17. The family left Pipe Spring monument on September 23, 1966, with Olsen reporting for duty in Walla Walla on September 26.

Mel Heaton was hired as seasonal laborer in the fall of 1967 and continued working at the monument until May 1979. Mel was the son of former monument laborer and guide Kelly Heaton and Nora Heaton, who would also later work at the monument. From the start, Geerdes was aware that Mel Heaton was interested in becoming a park guide at the monument. (See "Monument Administration" section for specific references to work Heaton performed or oversaw at Pipe Spring.) Heaton attended various Park Service training courses in 1969 and 1970, including classes on law enforcement, modern welding, and environmental maintenance. At some point in 1969 Heaton's title was changed to "foreman."

Ray Mose continued as seasonal laborer at the monument through 1967. Joe Bolander and Mel Heaton worked in 1968 as caretaker and seasonal laborer, respectively. Shortly before Bolander was promoted to park guide, Doyle C. Winder was given a temporary appointment as laborer in early November 1968. During the summers of 1969 and 1970, David Johnson was working at the monument as an intermittent laborer. Alfred Drye was also hired as an intermittent laborer in 1970.

Bozarth and Bolander served as park guides until the following spring of 1967 when Paul C. Heaton of Fredonia was hired, first as a seasonal part-time park historian, then during the summer as a full-time employee. Heaton worked again for the monument during the 1968-1970 travel seasons.

As mentioned earlier, Konda Button of Fredonia was hired as clerk receptionist under the OEO's Operation Mainstream program in October 1969. Under this program, she had to

be given four hours of remedial education per week along with one hour of counseling. Button received training at Zion and Bryce Canyon, as well as at the Flagstaff NYC office. She took a course in general business at Fredonia High School and received instruction on the history of Southern Utah and Mormon settlements under Geerdes' tutelage. Geerdes intended to hire her when her year of Operation Mainstream expired the following October. 1975

Planning and Development with the Kaibab Paiute Tribe and Associated Water Issues Aside from those changes referenced in the earlier "Monument Administration" section, very few changes to the monument's physical plant took place from 1964 to 1970. Monument staff worked on preparing chapters for the monument's master plan in 1964 and 1965. No visitor center or nature trail constructed was constructed under the Mission 66 program, due to lack of funds. The trailer office continued to be used until the visitor contact station was installed at the monument in early 1968 (referenced earlier). An important shift in the monument's planning and development activity during this time period was the evolution of a closer working relationship between monument staff and the Kaibab Paiute Tribe. This shift was prompted by a number of synchronous events: the completion of State Highway 389, the availability of financial resources and planning assistance to the Tribe to enable them to develop tourism-based facilities, and the Park Service's own desire to carry out planning goals during a period of tight fiscal restraints. The Park Service's willingness to cooperate with and assist the Tribe to attain their goals was also spurred by a concern over protecting monument resources, including its "historic scene."

The monument's early efforts in the 1960s to forge cooperative agreements with the Tribe got off to a rocky start. After the tri-partite water agreement of 1933, it was another 30 years before the next agreement of a cooperative nature was executed between the monument and the Kaibab Paiute Tribe. Even then, the agreement was plagued with problems. In late 1963 Tribal Chairman Vernon Jake gave the monument permission to use the Tribe's newly dug garbage pit near Kaibab Village. (According to Management Assistant Hugh Bozarth, the Tribe originally dug this pit at his urging.) In February 1964, however, the Tribe indicated they expected the Park Service to share in the pit's maintenance expense. At Superintendent Oberhansley's direction, Bozarth drafted an agreement stating that the Park Service would share in trash pit maintenance. That seems to have been an amicable arrangement at the time. Almost one year later, however, in January 1965, the Tribe informed Bozarth that a fee of \$15 per month would be charged for use of their garbage dump site. Bozarth was taken aback by the request and immediately began looking for another site to dispose of monument refuse. He learned in February that Fredonia officials would allow the use of the town's dump for a fee of \$25 per year (as opposed to the tribal fee, which amounted to \$180 per year). Bozarth contacted the Tribe and asked about continuing the joint-maintenance agreement of the dumpsite as opposed to paying a monthly fee but a response was very slow in coming. Meanwhile, the monument used Fredonia's dumpsite while awaiting a reply from the Tribal Council. In March Bozarth learned that certain Moccasin residents were dumping their trash into the Tribe's dumpsite with neither permission nor payment. "This is none of our business, but such are their relationships," he informed Zion officials. 1976

In November 1965 Bureau of Indian Affairs (BIA) official Harry Dohm of Gallup, New Mexico, visited the monument and reservation to mediate a settlement between the monument and Tribe over the use of the reservation dumpsite. In December the Tribal Council met and discussed the matter but no decision was reached. By early 1966 they were offered the rate of \$5 per month to use the reservation dump, which Bozarth agreed to pay. Even though the total of \$60 per year exceeded the \$25 a year he was then paying the town of Fredonia, it was worth not having to drive 15 miles to Fredonia to dispose of the monument's garbage.

From time to time, there were interactions between the Tribe and monument personnel on other topics. In connection with the construction of State Highway 389, Bozarth reported in February 1964 that the Tribe was considering setting up a trading post at the intersection of State Highway 389 and the road leading to the monument. Vernon Jake indicated that the post would be Indian-owned with someone contracted to operate it. As mentioned earlier, Bozarth suggested to Jake about this time that the Tribe consider building a camping area for visitors.

In April 1966 Bozarth reported that as the completion of the rerouted State Highway 389 approached, the Tribe was making plans to "establish a public service of some sort at the Moccasin intersection near the monument." Bozarth pointed out to Zion officials that any such development by the Tribe would require culinary water from Pipe Spring, not just the pond water from which their present share was derived. Such a situation would impact the water distribution method that had been in place since the three-way division box was installed in the summer of 1934. Bozarth wrote that the monument's water collection box (beneath the fort's parlor floor) was barely adequate to meet the monument's needs for culinary water. He supported the Tribe's desire to offer services that met a public need, and again encouraged tribal officials to consider putting in a camping area and a trading post.

The first formal notification of the Tribe's development plans came in the fall of 1967. Tribal Chairman Vernon Jake wrote a brief letter on October 18, 1967, to Superintendent Hamilton informing him of the Tribe's development plans:

With the recent completion of Arizona State Highway 389, the Kaibab Paiute Tribal Council is now concerned with development of tourist facilities near Pipe Springs National Monument.

We plan to develop several facilities including a campground, service station, restaurant, grocery and curio stores, and possible a motel. Additional traffic generated by completion of this highway will undoubtedly create a need for further development of Pipe Springs National Monument.

In order that both NPS and Tribal development projects be compatible, we request that you let us know what you have programmed for the monument. 1978

Hamilton responded two weeks later, praising the Tribe's development plans as "a very worthwhile endeavor" that would meet area visitor needs. He wrote that while the principal development planned by the monument was to improve its interpretive facilities, there were other concerns:

We hope to obtain a Visitor Center where information could be provided to the visiting public and some of the exhibits would be displayed for better interpreting the history of the Fort. We would hope to eventually have more people on the staff with the increase in travel, and this would require some additional housing. As you perhaps know, with our limited space we are now discouraging camping on the Monument and will eventually restrict the site to picnicking only. We certainly do not plan to develop any facilities such as the types you are considering.

I certainly hope your plans to develop the tourist facilities will become a reality. If we can be of any assistance to you we will be glad to do so...¹⁹⁷⁹

Hamilton offered to meet with Vernon Jake at Pipe Spring to further discuss the Tribe's plans. The matter was discussed at the November 1, 1967, Zion staff meeting. It was brought up that "some time back" there had been talk of the Indians needing a larger share of water from Pipe Spring should they actually carry out their development plans. Park Service officials opined at the meeting that the Tribe "should have enough water with their present one-third share if they made provision for proper storage of the water." 1980 By 1969, however, it would be quite apparent that they were wrong in making that presumption.

The Tribe's development plans were in large part driven by the availability of economic aid from the Economic Development Administration (EDA) which had an office located in Santa Fe. The EDA funds were funneled to various tribes through the Indian Development District of Arizona (IDDA), an NPS-administered program which functioned to assist tribes in developing and improving their economic and social well being. (IDDA was not connected to the BIA.) IDDA staff assisted the tribes with planning, design, and production of construction drawings. 1981 On December 7, 1967, Guy McIntosh, Ernest Rice, and Bill Tom of the BIA visited Pipe Spring with Tribal Chairman Vernon Jake. They discussed with Jim Harter future development plans for tourist facilities near the monument. At the request of IDDA's Project Planner Gene Griffin, a meeting was held on March 20, 1968, between Superintendent Hamilton, Landscape Architect Gene Switzer (Lake Mead National Recreation Area) and Griffin at Pipe Spring to discuss the Tribe's proposed developments. Funds came from tribal contributions and from IDDA. Preliminary plans proposed placing a campground and other developments at the intersection of State Highway 389 and the spur road to the monument, located immediately north of the highway. There was also some discussion about the possibility of a motel but this would be "sometime in the future," Hamilton reported to Regional Director Beard. 1982

Switzer sent a more detailed report of the meeting to the Design and Construction Office, San Francisco Service Center, which included a sketch map showing the location of proposed developments. He reported that a Phoenix architectural firm (which had never seen the site) had drawn up sketches of a proposed complex that included an 80-100 unit motel, curio store, cafe, a service station, and a pay campground-trailer complex. Very little research had been done in planning the whole proposal, Switzer wrote. There were no master plan, topographic maps, aerial photos, or feasibility studies, to base plans on. Griffin indicated that IDDA did not want to ask the BIA for assistance. Switzer reported,

In our discussions we tried to diplomatically emphasize that the NPS did not intend to discourage them in a development but that the NPS was not in favor of it being located adjacent or in close proximity to the monument. It was felt that a commercial development would cheapen the historical values, the impact and impression to the visitor upon entering the facility, as well as his views to the outlying open countryside.

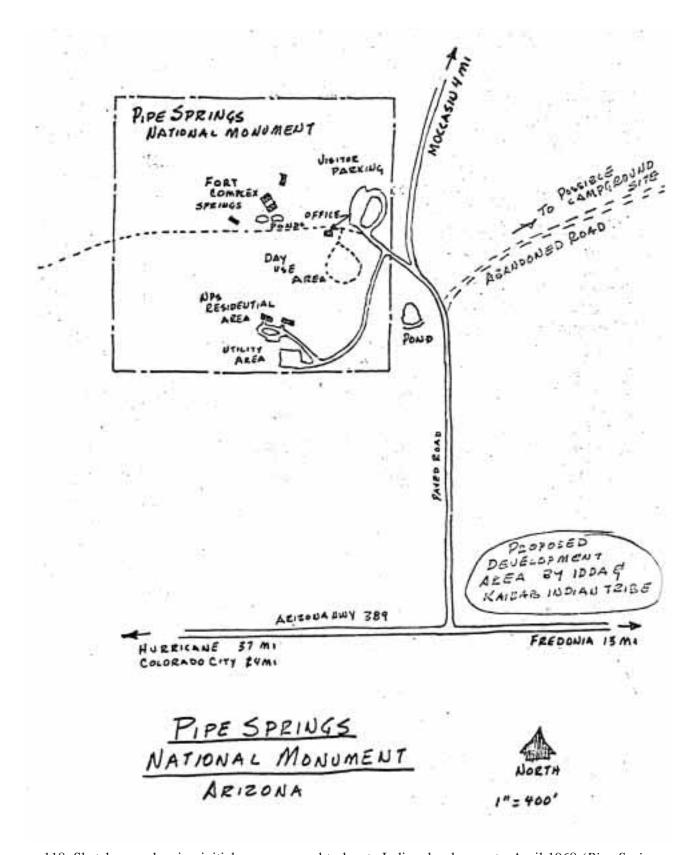
Our recommendations were that if the development became a reality it should be located to the east of the intersection...

After viewing several possible sites for a campground complex a location about one-half mile to the east of the monument was suggested.... It would require very little site preparation and is out of sight of the highway and monument but close enough to provide the visitor a panoramic view of the countryside and a trail system to the monument.

Water to the site would be derived from the [Indian] pond near the monument entrance and would have to be delivered through a pressure system. 1984

Switzer pointed out that State Highway 389 was being used as a shortcut to the North Rim of the Grand Canyon and to Glen Canyon National Recreation Area from Interstate 15. Still, he could hardly imagine the large-scale developments being planned by the Tribe as a "paying proposition" in such a remote area. "The Monument itself or the reservation are not or have not been that great an attraction," he pointed out. Switzer agreed to assist the Tribe in the planning process as his time permitted, by providing information about technical matters pertaining to the preparation of a study, master plan, federal standards, etc. He informed them, however, that he could not actually prepare the master plan, renderings, and working drawings himself, as Griffin had hoped.

Discussions about tribal development plans continued after the arrival of Ray Geerdes to the monument in late April 1968. In May Zion's Chief of Maintenance Joe Davis and Civil Engineer Denny Galvin (Southwest Region) visited to look over the monument's water situation. In July three BIA officials also visited the monument while investigating the Tribe's proposed commercial developments.



118. Sketch map showing initial area proposed to locate Indian developments, April 1968 (*Pipe Spring National Monument*)

On July 13, 1968, Ray Geerdes wrote Superintendent Gilbert about an Environmental Study Area Inventory for the monument. He had received permission from Vernon Jake to include several areas within the reservation boundaries in the park's environmental education interpretive program. These areas were the Pueblo ruins south of the fort, the Heart Canyon petroglyph area, and the Powell survey monument north of the fort. Jake also agreed to allow a way trail that connected these areas to Pipe Spring National Monument's new nature trail. Geerdes felt these features belonged within the monument and he had approached Jake about the idea of the Park Service acquiring these lands. Geerdes reported,

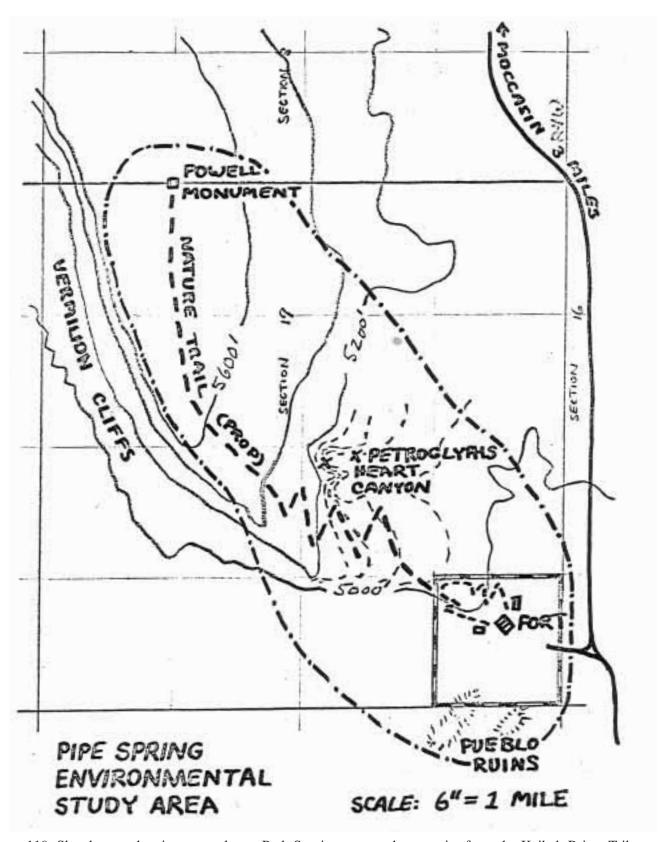
When Mr. Jake was here the other day I discussed the general ideal [sic] with him of acquiring these areas. From this discussion I concluded that Mr. Jake is very receptive to the idea and would consider a land exchange for BLM land adjacent to the reservation. The economic value of the area outlined is almost nil as far as grazing land is concerned, but would be of tremendous value in interpreting the area. I would like to discuss this in detail with you at the first opportunity. 1985

No records of further correspondence or discussion on this proposal are found for 1968, but the issue would be revived in late 1969.

On January 10, 1969, two men from the Phoenix BIA office, Architect George M. Causland and Engineer Victor Lund, visited the monument in connection with a proposed tribal office building. Originally, Geerdes and Vernon Jake planned to go Flagstaff that day to talk with Andy Sandaval about NYC issues. 1986 When Geerdes cancelled out (presumably to attend to the BIA meeting), Jake made other plans. On that day (January 10), a terrible accident occurred. Vernon Jake and three others - Fredonia's Mayor Arland Brooksby, Fredonia policeman Eldon Johnson, and Merrill ("Buddy") Button - were killed when their small plane crashed near Fredonia. The group was returning from a Soil Conservation Service meeting in Kingman, Arizona. All monument personnel attended the group funeral, which was held in Kanab. 1987 Bill Tom succeeded Vernon Jake as tribal chairman.

In late February, at the request of Gilbert, Geerdes prepared a summary of the monument's contacts and relations with local Paiute and Navajo. He reported that on February 12, 1969, IDDA Assistant Director Frank H. Carson spent a day at Pipe Spring explaining "all the possible Indian Development plans." 1988 The role played by IDDA in tribal developments was somewhat puzzling at that point to Geerdes who added.

What his relationship is with Mr. Gene Griffin, also of the IDDA... is not clear. In fact, the exact relationship of the IDDA and the BIA and local tribe is anything but clear. We were courteously cooperative, but I do have certain reservations about the promotional nature of this organization, its representatives, and their relationship to the above mentioned groups. 1989



119. Sketch map showing general area Park Service proposed to acquire from the Kaibab Paiute Tribe through land exchange, 1968 (*Pipe Spring National Monument*)

Geerdes also described involvement by monument staff in the summer youth programs, cooperation in law enforcement matters, and cooperation on development issues. Gilbert forwarded a copy of this report to Superintendent John E. Cook of the Navajo Lands Group. Cook was impressed with the report. He wrote back to Gilbert,

I certainly commend Supervisory Historian Geerdes for an excellent summary [of contacts with local Indians] and what appears to be an excellent feeling toward the local Indian people.

I particularly wish to commend him for his astuteness in acquiring 'certain reservations' about IDDA. Mr. Frank H. Carson was recently the Navajo Tribal Parks & Recreation Director and succeeded in adversely affecting our relationships with the Navajo Tribe. I recommend 'due caution' when dealing with or around Mr. Carson (I'll fill you in further in Santa Fe next week).

You might have Geerdes continue with this Navajo NYC as is and steer clear of the reservation program. It is quite political and unpredictable now and it sounds to me as if you've already a good thing going at Pipe Springs. 1990

Over the winter of 1968-1969, the Tribe began building homes as part of a new housing project at Kaibab Village. 1991 The BIA construction superintendent was short of workers and asked Geerdes in February if he would loan some of his NYC boys for the housing project. Tim Rogers was reassigned permanently to the housing project. (Application to the Flagstaff office to refill Rogers' slot at the monument was turned down. Monument personnel were informed that the area was over its quota. Another attempt to hire an outof-school youth that spring resulted in a heated exchange between the Flagstaff coordinating office and Geerdes. 1992 Another serious conflict arose that summer between Geerdes and Flagstaff officials over the latters' refusal to pay enrollees they had dropped from the program. 1993) One day a week, Geerdes released five Navajo NYC workers to work on the Kaibab Village housing project. By July two Park Service representatives sat on the Paiute-Kaibab Housing Authority, a five-member group, with Geerdes as vicepresident and Mel Heaton as secretary. The organization supervised the construction of housing on the reservation as well as new water works construction. While the Tribe, BIA, and IDDA oversaw housing construction, this particular water development project on the reservation would primarily be the Park Service's responsibility. That is the reason for the participation by Geerdes and Heaton on the Housing Authority.

On April 6, 1969, Karl T. Gilbert was appointed general superintendent of the newly established Southern Utah Group (SOUG). Administrative oversight of Pipe Spring National Monument was transferred from Zion to SOUG. That following May and June a number of meetings were held at Pipe Spring between BIA officials and Geerdes regarding the Tribe's development plans. On May 13 Albert R. ("Al") Purchase, BIA Lands Operations Officer from the Hopi Agency at Keams Canyon, discussed the BIA's building plans and future water needs with Geerdes. Purchase advised Geerdes that construction of the tribal office building was to begin in the fall of 1969, just three months later. The new 3,000 square foot building was to have public restrooms and showers. It

was estimated that the building's water usage would vary between 2,000 and 5,000 gallons per day. Development plans for a motel, store, filling station, and campground complex were scheduled at that time for the spring of 1970. Geerdes phoned Gilbert that day informing him of the situation.¹⁹⁹⁴ Al Purchase phoned Gilbert the following day formally advising him of the Tribe's plans to construct the office building.

On May 16, 1969, Gilbert sent a memorandum to Regional Director Kowski regarding the Tribe's development plans and his concerns about the impact on water use at Pipe Spring. Recall that the monument had yet to develop a modern water system, although one had been planned for many years. In his memorandum to Kowski, Gilbert raised several questions:

An expansion and updating of the present Pipe Spring water system is programmed for the near future. The question now comes to mind as to the advisability of a joint NPS-BIA system. Should this be considered? Are there advantages or disadvantages to it? This utilization of a single spring in the development of two separate water systems of considerable size certainly offers problems.¹⁹⁹⁵

No event since the early 1930s had created such an immediate need to reappraise the monument's water situation, nor posed more of a threat to a mutual agreement that had been unchallenged and in place for 36 years. Up to this point, water to the Tribe had been provided from the fort ponds, water used by them primarily for stock watering and secondarily for irrigation, not for culinary use. Thus it was not only the increased amount of water needed by the Tribe that necessitated a change in the old arrangement but the *kind* of water needed. After conferring with Gilbert it was decided that Geerdes would check with the regional office and San Francisco Service Center regarding both the monument's requirements for water and the possibility of establishing a cooperative arrangement with the Tribe. On June 16, 1969, Geerdes received an unexpected visit in the late afternoon by BIA Plant Manager George Easton (also from Keams Canyon) and local Paiute officials. According to Geerdes, Easton "demanded to know where the new BIA water tank and line could be laid."1996 Geerdes reported the visit to Gilbert that day. On June 18 Gilbert and Joe Davis traveled to Pipe Spring to inspect the monument's water supply in order to prepare a response to Easton's demand for immediate information.

By July 1969 tribal development plans brought the matter of water at Pipe Spring to a point of "critical reappraisal," reported Geerdes. 1997 Materials were being stockpiled for the Tribe's new office building. On July 2, 1969, a meeting was held at Pipe Spring to discuss the water distribution problem. It was attended by Karl Gilbert, Joe Davis, Jim Schaack, Bill Fields, and Ray Geerdes. 1998 Fields later wrote regarding the tribal office building, "the plans were drawn, the contract was let, and preconstruction conference held without firming [up] any plans for water for the building." 1999 It was obvious that the Tribe's one-third allotment from Pipe Spring would not meet the demands of its proposed developments. Gilbert, Davis, Schaack, Fields, and Geerdes agreed that the ideal solution would be to drill one or more wells to serve as the primary source for

culinary water. Fields volunteered to request a USGS study from the Water Rights Division and ask them to schedule a test well. Fields later wrote,

It was also agreed that we should 'lay it on the line' to the Indians and BIA and attempt to work out something mutually beneficial on the spot without resorting to a discussion of legal ramifications. We will point out to them that without this spring flow there would be no Monument and without the Monument there would be little use for their complex.²⁰⁰⁰

There was another reason the Park Service wanted to cooperate with the Tribe on the development of a joint water system. Use of the main spring for culinary water by monument staff was responsible for an undesirable situation: when the Park Service's culinary system was in operation, the spring did not flow through the spring room, due to insufficient flow. The entire system, Bill Fields concluded, needed to be rehabilitated if the monument was to continue its use of the spring for culinary water. "Of course, if we can get culinary water from another source then the original system will work much better..." wrote Fields.²⁰⁰¹ A formal request from the regional office to the supervisory hydrologist, San Francisco Service Center, for a USGS study of the ground water situation was made on July 11, 1969. A request for a test well to be drilled west of the monument was also made at about the same time.

It was brought up at the above-referenced July 2 meeting that legal ownership of Pipe Spring had never been firmly established. If the Park Service's legal right as full legal proprietary owner was nonexistent preceding and apart from the Presidential Proclamation establishing the area as a national monument, then the use of water would be governed by the Winters v. United States decision. But, as in the past, there appeared to have been little enthusiasm on the part of either the BIA or the NPS to force the legal issue. Why was this so?

Recall that the Office of Indian Affairs (later renamed the Bureau of Indian Affairs) had long denied Charles C. Heaton's claim to ownership of the Pipe Spring property both before and after it was transferred to the National Park Service. Heaton had never relented on the issue, however, and the Park Service had acquired it much as they would have a privately owned property, except, that is, for the long delay in transfer of the quitclaim deed. The question of water rights – never legally settled at Pipe Spring - hinged on whether the Pipe Spring property was public domain at the time the reservation was created, or whether it was privately owned. As described in Part I of this report, Heatons' application to locate Valentine scrip certification for the Pipe Spring ranch had been held for rejection by the Commissioner of the General Land Office on April 10, 1920. Assistant Secretary of the Interior Edward C. Finney denied Heaton's subsequent appeal on June 6, 1921. As far as the BIA was concerned, the matter ended right there and meant that Pipe Spring was part of the public domain when the reservation was established. But Heaton's lawyers filed a motion for review of the June 6 decision. The case had not yet been reviewed when the monument was established. The Heaton family no longer needed to battle the issue.²⁰⁰² The legal

quagmire that remained, however, resulted in future headaches for both the Park Service and Indian Service. There was reticence on the part of the heads of the sister agencies to create an all-out interdepartmental conflict. More importantly, both agencies stood to lose by pushing for full ownership of the springs. This appears to be the primary reason why the tri-party agreement stood unchallenged for so many years.

On July 3, 1969, Ray Geerdes reviewed every bit of data he could find in the monument's files on the Pipe Spring water situation. He then began preparing a lengthy memorandum to Gilbert attempting to piece together the ownership history of the ranch, which he referenced as "Some General Thoughts on Water Distribution." The Park Service had inherited a "clouded title," he concluded, which meant "a clouded water situation today." Geerdes referenced the impact that the 1957 *Arizona v. California* water rights case had in forcing the federal government to obtain legal documents pertinent to its ownership of Pipe Spring. In Geerdes' opinion, it then had all the proof needed to establish exclusive rights of ownership to Pipe Spring land and water. However, as the tri-party agreement was working well, the Park Service saw no reason to "rock the boat" with a legal battle. 2004

Geerdes wrote Gilbert in the July 3 memorandum that it was in the best interests of the Park Service, "without stirring up any controversy," to do whatever was necessary to "uncloud" its title to Pipe Spring. He continued:

We should above all, honor the water arrangement with the ranchers and assure them of our every intention to do so. They are our strongest allies. Their established beneficial usage to the water, which is recognized by Arizona law, is only really valid against the legitimate heirs of the private title of the Pipe Spring property. If we have a solid undisputed title and water rights, then they do also since their rights are but a lien or obligation against ours. They are and will be our stanch, friendly allies. Besides the right established under Arizona law, there is the 1924 agreement giving them one-third of the water, subsequently honored by the tri-party arrangement of 1933.

We should assure the Indians that we do not want to go back in any way on the one-third division that was made in 1933. However, it is obvious from an amateur appraisal of the situation that the eventual needs of the new development far exceeds the one-third allowed them. At that time then Pipe Spring also would be hard pressed to maintain its water needs and its oasis-like character with even a close partition of water. This critical usage would come during the summer months, of course. In short, there is simply not enough water for our growing needs and their new plans.

Also, we are already furnishing them their share of the water which, as good neighbors, we can adjust to greater quantity or lesser quantity to keep their stock tank full. It is seriously questioned whether the new development, as such, calls for any water at all other than that which they may wish to divert from the prior use of the stock watering tank. This is in no way a 'prior' use. If we succumb to this new usage now, we do so at serious peril of the integrity of the National Park

area. In addition, the problem may become acute when they utilize their third to the full, and then some aggressive type in the BIA or IDDA decide to go after a larger share. The failure to establish our real legal title puts us in a precarious position here. 2005

"If we succumb to this new usage now, we do so at serious peril of the integrity of the National Park area." Geerdes' fear was that should the Tribe ever begin using more than its allotted third, it might set a precedent for "prior use." This made it all the more important for the Park Service to resist yielding more than the Tribe's one-third share of water to them for their new developments.

Although dated July 3, 1968, Geerdes' memorandum was both completed and transmitted to Gilbert on July 7. There the letter was edited and retyped before distribution, curiously omitting Geerdes' final paragraph. Immediately following the paragraphs cited above, he had originally written,

Hopefully a better solution is in the offing. On June 25, 1969, Tribal Chairman Bill Tom received a letter advising them that the Kaibab Paiute Tribe would be the recipient of an Economic Development [Administration] grant which would provide 80 percent on \$8 a foot maximum for drilling and casing of water wells and to provide up to 3,000 gallon capacity storage tank. [In] a discussion with Bill Tom this morning (July 7), Bill expressed himself as in complete agreement on the well rather than taking any more or different Pipe Spring water. He expressed complete interest in not hurting the future of Pipe Spring. He asked whether the Park Service could go into [the] joint well project and asked for a joint meeting on July 8 with himself, Mr. Ferrell Secakuku, Assistant Director in the Economic Development Administration and Park officials. This is a happy breakthrough and should be exploited immediately. ²⁰⁰⁶

It is not known why Gilbert chose to delete this paragraph from the circulated copy which went to the regional office, the Park Service's Water Rights Division, and possibly others.

On July 8, 1969, Karl T. Gilbert, Ray Geerdes, Bill Tom, and Assistant Director Ferrell Secakuku (IDDA) met again at the monument to discuss water and development issues. Geerdes later described the meeting as "amicable." Gilbert reported on the July 8 meeting to Regional Director Kowski on July 10. As a result of the meeting, he reported,

... the Indians now realize that a water problem does exist, and that Pipe Spring does not flow sufficient water to meet the needs of all concerned.

The meeting was friendly and cordial. The initial approach by the Indians was, 'What are you going to do to help us, and how soon?' Through explanation of our overall program we were able to re-channel their approach to a realistic one involving a solution pending a survey, resulting in possible well sites, by the U.S. Geological Survey. I am sure that the Indians understand that the maintenance of the Pipe Spring National Monument in an 'oasis' state means as much to them as it does to us. They understand that their proposed development would mean little

to the traveling public without the Monument serving as an attraction and focal point.

The Indians are still pressing for a joint system, thinking totally along the lines of economy and hoping that the National Park Service will shoulder the major burden. At this time I am not in favor of a joint system; however, I do think that a single system, owned and operated by one agency, could meet the needs of all concerned. Water produced by one agency could be furnished to the other on a cost of production basis.

The water situation at Pipe Spring is critical and immediate action is imperative. We must be concerned with the Paiute Council's program of development as we cannot risk the chance of a well along the fault north of the Monument. Such a well could seriously damage the present spring.

...Further developments scheduled for the near future are a service station, 30-unit campground, 10-site trailer court, 20-unit motel with swimming pool, country store, and small restaurant with snack bar.

In our discussion water rights were not discussed. At no time did this come up, nor was there need to bring it up. All talk was based on the division of waters from Pipe Spring. Supervisory Historian Geerdes has now researched the Pipe Spring water ownership and has prepared a lengthy summary. This document will be sent to you in the near future.

Again, I emphasize the urgency of the Pipe Spring water situation.²⁰⁰⁷

On July 15 Gilbert forwarded the edited version of Geerdes' July 3 memorandum ("Some General Thoughts On Water Distribution") to Kowski for review and consideration. He asked that Kowski also have Bill Fields and Field Solicitor Manges review it. In his cover memorandum to the regional director, Gilbert added,

At this time there is no reason to believe that the Kaibab Paiute Tribe will challenge the present water agreement. However, there is an indication that the Local Council may be pushed by the IDDA (Indian Development District of Arizona), an organization which apparently is not too greatly concerned with previous 'white man' agreements.²⁰⁰⁸

Subsequent events suggest that Kowski's office immediately requested cost estimates for a USGS study of ground water and test wells in the general area of Moccasin. A week later, the chief of the Division of Water Resources (Washington office) was informed by the Division of Water Resources, San Francisco Service Center, that a ground study would cost about \$1,000-\$1,500. The cost estimate for an 800-1,000-foot test well ranged from \$15,000-\$20,000.²⁰⁰⁹

Bill Field's report of the July 2 meeting at Pipe Spring and his analysis of the water situation was circulated to the appropriate officials in the regional office. William E.

("Bill") Brown, Special Assistant to the Regional Director for Environmental Awareness, wrote Gilbert after reading Field's report:

I have just read Bill Field's excellent analysis of the water situation at Pipe Spring, particularly with regard to the Paiute Indian installation and its possible extensions as a recreation complex feeding basically upon our National Monument visitors. Hope you can keep me posted on this one because the ecological implications of fooling around with the springs and the aesthetic problems that might ensue from over-expansion of the Tribal installation could have profound environmental management implications.²⁰¹⁰

Brown reiterated his concern a few weeks later: "...as with the Steam Generator Plant at Lake Powell, we are dealing with other groups who have prerogatives affecting our resources, and we must do all we can to assure that our administrative and environmental conservation interests are guarded." ²⁰¹¹

On August 5, 1969, IDDA Director C. G. McNeil and Assistant Director Ferrell Secakuku arrived at the monument. Instead of stopping at the office to see Geerdes, McNeil bypassed the contact station and, without identifying himself, had Joe Bolander take him around the area, asking him leading questions about the water. Later, Geerdes walked up to the fort and saw what he described as a "big, heavy-set Falstaff-like creature sprawled out on one of our benches, fast asleep. Later he came to life." Geerdes later reported to Gilbert,

The best way I can describe Mr. McNeil is to say that he is the Frank Carson type only worse.... With utmost effort I maintained extreme courtesy. He began to jump all over me about the water. Some of his questions, as best I remember them [were], 'Who told you that we needed all of your water just for the office building?' 'Why in the ___ can't we just hook on to your system?' 'You obviously [have] got plenty of water here – why won't there be enough?'.... These are just a few of his choice remarks. I have never seen so much obnoxious bluster in one individual. Last Friday... I had occasion to talk to John Cook, Navajo Lands Group Superintendent, and Regional Director Kowski. Naturally the talk swung around to the IDDA and Frank Carson. The 'Modus Operandi' of the IDDA was brought sharply to mind.²⁰¹²

Geerdes advised Gilbert "that time is running out on us in a sense. If the water study would definitely materialize in the meanwhile, we would have something definite to go on."

The next day (August 6) BIA's George Easton returned wanting immediate access to Pipe Spring water. He informed Geerdes that the BIA's temporary solution to development needs was to run a temporary connection to the monument's culinary system and put a storage tank on the hill north of the visitor contact station. This was entirely unacceptable from the Park Service's position, but to stall for time, Geerdes countered that Gilbert's approval would be required prior to such an action. He suggested that the BIA pump water

out of the ponds and purify it for their use as a temporary measure. An impasse was reached. Easton informed Geerdes his superiors would want to meet with Gilbert to discuss the situation.

The next meeting was on September 11, 1969, when BIA and NPS officials reached a temporary agreement on water usage at Pipe Spring.²⁰¹³ By mutual accord, it was decided (as a temporary solution only) that the BIA would tap into the pipeline outside the monument, which emptied into the Tribe's reservoir (the "Indian pond"). The water would require treatment before it could be used for culinary purposes. The agreement bought the Park Service additional time to wrestle with the problem and to work with the Tribe to find a permanent solution.

The Park Service adopted a two-pronged strategy in response to the situation. Water exploration and the construction of one or more wells seemed to be the obvious solution and best recourse. Southwest Regional Office officials gave the well-testing project top priority. The goal was to locate an alternate water source that would supply IDDA's entire planned complex as well as culinary needs of the Park Service. All Pipe Spring water then could be used for "natural development of the oasis like quality of the area," as Geerdes later asserted.²⁰¹⁴ Basic considerations were that the well needed to be as close to the monument as possible, its needed to yield at least 50 gallons per minute, and no reduction in flow of Pipe Spring would be tolerated (i.e., it could not tap the same water source from which Pipe Spring flowed). Consultation by Bill Fields with Geologist William F. Mildner of the Soil Conservation Service confirmed his suspicions that a well drilled along the Sevier fault in the vicinity of the monument would most likely affect the flow from Pipe Spring.²⁰¹⁵ Mildner thought that water could be obtained from the alluvial fill adjacent to Two Mile Wash (northeast of the monument) without impacting Pipe Spring. He volunteered to help locate the test well on the ground. In late 1969 the regional office scheduled the test well for fiscal year 1971 as its highest priority in the Southwest Region under Water Rights Acquisition funds. Once located, the cost of the well's installation was to be born by both the Indians and the Park Service.²⁰¹⁶ (Kowski learned in July 1970 that the Western Service Center dropped the test well item from the 1971 program. His office took immediate action to get it put back in.²⁰¹⁷)

The second strategy was to attempt to determine if the Park Service's proprietary ownership of Pipe Spring could be proven in a court of law. On July 31, 1969, Field Solicitor Manges was provided a copy of Geerdes' July 3, 1968, memorandum to Gilbert (referenced earlier) and other documents pertinent to Pipe Spring ownership. He requested more documents and information from the field, but had been given everything available at the time. It was clear that additional research was called for, as Geerdes had pointed out earlier to Gilbert.

Land Exchange Proposal Revived

Yet another complicated matter was thrown into the mix. Discussions about a possible land exchange between the Tribe, BLM, and NPS were revived during late summer of 1969. Whereas in the monument's early years the Park Service had objected to a boundary

expansion, now Geerdes had no trouble in finding allies. There had been two primary objections in the past: first, that the archeological site had nothing to do with the Pipe Spring story and the reasons for the monument's establishment, and second, such an expansion would almost certainly and immediately be opposed by the Tribe. Now that the Tribe appeared willing to consider a land exchange, a boundary expansion appeared to be possible. As for the archeological ruins not relating to Pipe Spring, attitudes about environmental education had advanced considerably since private citizens and their elected officials had first proposed the expansion. Now Regional Interpretive Archeologist Albert H. Schroeder and William E. Brown, special assistant to the regional director for Environmental Awareness, favored the land exchange. In late August 1969, Schroeder wrote regarding the proposed land exchange,

This archeological site fits into the historical theme of the area, for it can be tied into environmental aspects of man's occupation of this region. A comparison of the Pueblo and Mormon settlement and subsistence patterns can easily be linked to the water situation in the general region....

This matter was discussed with Bill Brown of this office who feels that the environmental aspects of the two culture patterns could play an important part in interpreting man's use of the local environment. We both feel that a decision should be made in the near future, before we lose the chance of acquisition...²⁰¹⁸

One other factor was driving Park Service officials to expand the monument's boundary. Some believed that increased vandalism would accompany reservation developments due to increased numbers of people who would be camped or lodged outside the monument. It was hoped that the land exchange would add land to the north and to the south, thus providing an ameliorating protective buffer.

General Superintendent Gilbert wasn't satisfied that Schroeder's memorandum only commented on the interpretive value of the archeological site. He wrote Kowski asking that Schroeder and Brown visit the site to consider the value of adding the Powell survey monument as well as a proposed scenic easement between the monument and State Highway 389. Gilbert made one other point, that "boundary adjustment consideration should be made only with an awareness of future water supply and demand in the area and with an eye to obtaining potential water sources." ²⁰¹⁹

During November 1968, Geerdes was accompanied by Southern Utah Group Environmental Specialist Gil Lusk to examine the area of contemplated additions to Pipe Spring (the "Anasazi" ruins, Powell monument, and Heart Canyon area). The total acreage to be acquired by the monument under the proposed exchange was about 760 acres. Preliminary discussions were held with Tribal Chairman Bill Tom on a possible three-way land exchange between the BLM, BIA, and Park Service. Geerdes reported that Tom and local BIA representative Ross William showed great interest in the possible exchange. This potential exchange strengthened the conviction of Park Service officials that clear, legal ownership of Pipe Spring needed to be established in order to negotiate with the

Tribe on all issues from what Geerdes referred to as a "position of strength." ²⁰²² Unexpectedly, legal assistance to Geerdes became available from within the Park Service. Legal Assistant William L. McKeel spent a day at Pipe Spring reviewing water rights, legal ownership matters, and the proposed land exchange. McKeel, an attorney attached to the Washington office but duty-stationed at Rocky Mountain National Park, was assigned to water rights, land exchange, and acquisition matters for the Park Service. McKeel offered his assistance to Pipe Spring National Monument in achieving a coordinated approach to all three issues.

During 1969 BIA and tribal plans for development took shape in ways that alarmed Park Service officials. Now, instead of being grouped together in one concentrated area (as shown earlier on the 1968 sketch map, figure 118), proposed commercial developments lined both sides of the road to Moccasin, just north of its juncture with State Highway 389. Such developments, if carried out, would have created an extreme visual impact looking both northward toward the monument and southward from the monument. If the Park Service could acquire the archeological site below the monument, at least vistas there could be preserved. On December 12, 1969, Gilbert wrote Kowski about the proposed land exchange. Acquisition of the lands containing the Powell monument, the Heart Canyon petroglyphs, and the Pueblo ruins "would make for a total historical environmental area and would make possible the complete historical story of Pipe Spring," he wrote. The question was, how to bring about the exchange? Gilbert stated,

The Paiute Indians are aware of these features. They are also, at the time of this writing, willing to exchange the lands on which these features are located for nearby Bureau of Land Management lands, providing the mechanics for such an exchange can be worked out.

The possibility of an exchange has informally been discussed with BLM officials. Extreme cooperation seems apparent; however, the mechanics for making such an exchange are presenting difficulties. Seemingly, Indian lands can be exchanged only through Congressional action.²⁰²³

BLM officials informed Gilbert that the Paiute had to initiate action to set the land exchange process in motion. He sought Kowski's comments on the matter. His letter was forwarded by Acting Associate Regional Director Monte E. Fitch to Director George B. Hartzog, Jr. Fitch sought advice on how to proceed, given the fact that authorization for the land exchange had to be requested by the Tribe. Fitch informed Hartzog that Arizona Representative Sam Steiger was sympathetic to Indian affairs and would probably be receptive to introducing the needed legislation if properly approached. Timing was of the essence, however. While Tribal Chairman Bill Tom was "easy to deal with and sympathetic with this exchange," the person next in line for his position had "a relatively hostile attitude towards federal agencies in general," Fitch had been told, referring to Tribal Vice-chairman Ralph Castro.²⁰²⁴

On December 19, 1969, Al Purchase and Ralph Castro visited the monument to review pending issues involved in a land exchange.²⁰²⁵ They informed Geerdes that on the evening of December 18 the Tribal Council had unanimously agreed "in principal" to the proposed land exchange.²⁰²⁶ The two men wanted to walk over to visit the features included within the proposed exchange, and did so in the company of Ray Geerdes and Mel Heaton. A seep spring used by Theodore Drye was included in the land under consideration. The men discussed the possibility of piping the seep spring water off the land but then agreed a better solution would be to provide Drye with water from the new Park Service well to be constructed. Much discussion transpired about the Park Service's wish to have all the land between the monument and the highway, as the strip just north of the highway was viewed as "prime" for tourism development. (Purchase seemed more opposed to losing this land than Castro.) The possibility of a joint museum was also discussed. There was no enthusiasm on either side for having two separate museums, one Park Service and one Indian, as Purchase had previously discussed with Kowski. With acquisition of the archeological site, the museum's primary focus (as the men discussed it that day) was to interpret prehistoric, historic, and present Indian cultures. The fort and its historic buildings were to be their own museum for interpreting the "pioneer" phase of Pipe Spring's history. Geerdes made it clear to Purchase and Castro that their discussions that day were "informal understandings," not binding agreements. In reporting the meeting to Gilbert the following day, Geerdes wrote that the Park Service's fear of Ralph Castro opposing the proposed land exchange was "no longer a factor. He became completely sold on the idea and especially a joint museum for display of Indian Culture."2027 Castro also approved of the monument's native grass restoration project and suggested it be expanded to include the area between the monument and the highway.

By the end of 1969, Geerdes was excited over the possibility of the land exchange with the Tribe that would give the monument (in his words) *lebensraum*.²⁰²⁸ Development plans were going forward for the Tribe and Park Service to locate and construct a well and to share a water system, and talks about a joint-museum had been encouraging. In a briefing statement to Kowski, Geerdes wrote that what was happening at Pipe Spring provided "a unique opportunity to make a pilot project of the Secretary's Point 11 Indian assistance policy. There is nothing like an idea in its time."²⁰²⁹ How the Park Service responded to the Tribe's development plans, he asserted, would make the difference between "triumph or tragedy" for Pipe Spring's future.

On the same day, getting all his political "ducks" in a row, Geerdes wrote to Tribal Chairman Bill Tom describing the lands the Park Service wanted to acquire and extolling the ways the Tribe would benefit from the exchange. The Tribe was to receive "first class grazing land" next to the reservation from the BLM in return for the "depleted" grazing areas turned over to the Park Service. (It is unknown what the BLM was to receive from the Park Service in return.) An expansion of the monument to include and interpret Indian prehistory at the Pueblo ruins and Heart Canyon petroglyphs "would draw in many more visitors and be an economic asset" to the Tribe's plans for developing a tourist complex, Geerdes assured Tom. He concluded his letter by enthusing,

In short, Bill, I think that this exchange would be a great thing for your people. One of Secretary Hickel's major programs for the Park Service is to cooperate with the Indians in situations such as ours for the betterment of the Indian people and the promotion (with them) of their own authentic Indian culture. Undoubtedly our future at Pipe Springs is very closely and intimately bound with yours and it looks as though we will succeed or fail together in the future.²⁰³⁰

In late 1969 the Park Service created an Indian Assistance Division in Santa Fe to help coordinate efforts between Indian tribes and Park Service units. Civil Engineer Bill Fields was appointed chief of the new division. Already familiar with the complex gamut of issues at Pipe Spring National Monument and the Kaibab Indian Reservation, Fields continued to be actively involved in developments there into the 1970s.

Still, no one knew if or how the proposed land exchange could be carried out. On December 24, 1969, Assistant Director Edward A. Hummel responded to the regional office's earlier memorandum to Hartzog seeking advice on the proposed land exchange. Hummel suggested that Kowski work with Field Solicitor Manges to determine if the exchange could be made under existing legislation. Hummel said he would ask the Western Service Center's (WSC) Office of Land Acquisition and Water Resources in Denver, Colorado, to render any assistance Kowski required in the matter.²⁰³¹ (The WSC took over the San Francisco Service Center's role in late 1969.) The WSC subsequently checked into the matter and its chief, John E. Ritchie, informed Kowski that a land exchange was not possible since the act establishing the reservation precluded transferal of title of Indian lands. In order for a land exchange to be authorized, an amendment to the act establishing the reservation would be required, Ritchie stated. He suggested that the Park Service work out a cooperative agreement with the Tribe similar to an agreement made at Canyon de Chelly National Monument.²⁰³²

Joint Planning Continues in 1970

In March 1970 a joint meeting was held to further discuss development plans.²⁰³³ Attending the meeting were Art White, Landscape Architect Volney Westley, and Bill Fields, all of the SWRO; Karl T. Gilbert and Jim Schaack (SOUG); Joe Davis (Zion); Landscape Architect and Planner Dan Wilson (Lake Mead NRA); Ray Geerdes; Al Purchase and Ferrell Secakuku (BIA); and some members of the Tribal Council, including Bill Tom. Arrangements were made for an immediate planning study to be undertaken. A preliminary joint master plan and request to conduct a water study were given to Tom to take to the Tribal Council for approval.

BIA representatives Leroy Horn and Robert ("Bob") Orchard met with Geerdes at Pipe Spring on March 25, 1970, and with Gilbert and Tom the following day to discuss development and land exchange issues. They reported back to the BIA's area director that the Park Service wanted to restore the monument's 40-acre site to its historic appearance, remove the picnic area and all other structures not built during the historic era, build a visitor center between the Moccasin road and Section 17, and develop the Indian ruins

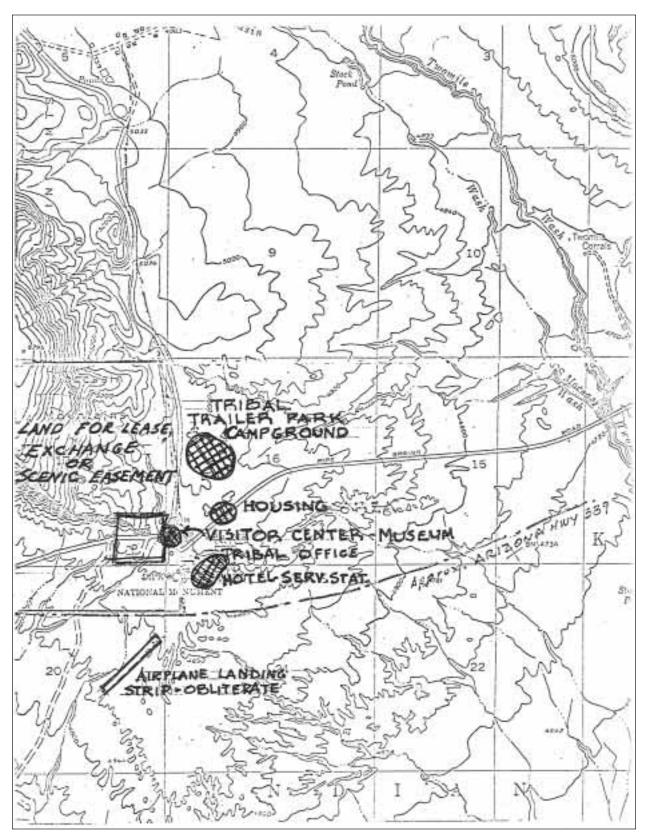
below the monument.²⁰³⁴ (At that point, the Park Service planned to relocate the monument's staff housing to reservation land leased from the Tribe.)

In late March 1970, some time after the Park Service, BIA, and tribal meeting had taken place, the Tribal Council met. Soon after, Bill Tom came by the monument and met for three hours with Geerdes. The Council had approved the joint master plan, Tom told him, but time had run out at the meeting before the water survey could be discussed or approved by the Tribe. He did not anticipate any problem, however, if Park Service officials sent him a specific request for tribal approval to drill a test well. Tom conveyed to Geerdes that while he felt he understood the range of issues discussed at the earlier meeting, he had difficulty communicating and explaining them to other tribal members. He asked if Geerdes or Gilbert could attend a tribal meeting soon to help him articulate some of the ideas that had been discussed. Tom told Geerdes that until the water problem was solved, tribal plans to construct a motel and swimming pool had been put on hold. The two men also discussed the proposed land exchange as it related to the building of a joint use visitor center. Geerdes later reported to Gilbert,

As far as the possible joint museum and interpretive center, he said that the tribal leaders all favored giving the Park Service the land right up to the new Moccasin road with the idea that eventually we would construct a large visitor center museum somewhere near the present cattle pond in which they could cooperate with us in some kind of cooperative agreement. He indicated that any time we wanted to move on the land exchange that they would initiate a request through channels or through Goldwater or other sources. They realize that even if the land exchange went through and the cooperative agreement for a joint visitor center constructed on Park land was indicated that it would take a lot of time for construction funds, etc. The general idea is that more and more they are putting themselves in our hands and under our direction. They no long have any desire or inclination to go it alone on anything.²⁰³⁵

Geerdes believed an important watershed had been crossed by the Park Service, that the agency had demonstrated to the Tribe that its good faith and concern could be taken seriously. To put the icing on this cake of "good feelings" between the agencies, BIA Project Engineer Westley Lucas donated 70 yards of gravel, oiled all the monument's roads and parking lots, and "built without compulsion" the access road into Pipe Spring before the month was out.²⁰³⁶

On April 7, 1970, Landscape Architects Volney Westley and Dan Wilson traveled to Zion to meet with General Superintendent Gilbert and some of his staff to discuss development issues at Pipe Spring. The two then headed to the Kaibab Indian Reservation and met with BIA and IDDA officials and Bill Tom. Jim Schaack and Gil Lusk joined them. The men discussed possible locations for developments while physically walking the grounds. Some possible development layouts were suggested. Dan Wilson was put in charge of preparing maps and proposed layouts.



120. Sketch map of proposed locations of developments, April 1970 (Pipe Spring National Monument)

On April 8 and 9, 1970, Gilbert, Davis, Schaack, Westley, and Wilson met at Pipe Spring with Geerdes and discussed the preliminary joint master plan, proposed land exchange, and joint-use visitor center. The group concluded there were three alternatives related to land acquisition: 1) the Park Service could press for a land exchange; 2) acquire other than fee title through a special use permit, scenic easement, or zoning of the desired buffer area; or 3) leave the land status as it was and encourage the Indians to manage the lands for recreational purposes. The recommendation was for the Park Service to push for the land exchange. With regard to the building and siting of what was then referred to as "the Tribal Visitor Center-Museum-Crafts Sales Building," three alternatives were considered: 1) the Tribe could build a facility on their land large enough for the Park Service to lease space for its visitor center and headquarters; 2) the Park Service could build on monument land (or on to-be-acquired or controlled "buffer zone" land) and grant space to the Tribe for concessions operations; and 3) a building could be constructed partly on NPS and partly on tribal land with each agency financing its portion. Since the proposed location for the visitor center was within lands proposed for future Park Service control (between the Moccasin Road and monument in the approximate area of the Indian pond), it was recommended at this meeting that the Park Service build the facility and provide space for the Tribe. The preliminary layout is shown in figure 120.

On April 30 and May 1, 1970, Ray Geerdes and Bill Tom traveled to Tuba City, Keams Canyon, Flagstaff, and the Grand Canyon on tribal and NYC program matters. The two men were unsuccessful in getting an NYC program established expressly for the Kaibab Paiute but they kept trying. Meanwhile, Geerdes found other ways to hire tribal youth through the NYC program.²⁰³⁷

At 11 a.m. on June 2, 1970, the Kaibab Paiute Tribe held an official dedication ceremony for the tribal office building, 10 new housing units in Kaibab, and the newly paved road to Kaibab and Moccasin. 2038 Both BIA and Park Service officials attended the event. Karl T. Gilbert, Ray Geerdes, and Volney Westley represented the Park Service. 2039 It is likely that addresses by either BIA or NPS officials that day included references to the mutual benefits expected to be derived from interagency cooperation. In his letter inviting Regional Director Kowski to the dedication, Superintendent Homer M. Gilliland, Hopi Agency, acknowledged the closer relationship: "The National Park Service, the Kaibab Tribe, and the Bureau of Indian Affairs are cooperating in various projects that will benefit all agencies involved. This total involvement will continue indefinitely and will provide social and economic benefits to the Indian and non-Indian communities." 2040 Indeed, by this date the agencies were working closely on a joint community master plan that involved the development of a joint-use water system and joint-use interpretive facility. Plans for a land exchange were also continuing.

On May 28, 1970, General Superintendent Gilbert made a formal request to Tribal Chairman Bill Tom for permission to drill a test well near Two Mile Wash, under the direction of USGS staff. Should an adequate well be developed on reservation land, Gilbert wrote in his memo, "we would propose entering into a formal and documented agreement regarding the use of the well. Provisions of this agreement would reflect Indian

and Park Service needs based on final outcome of possible cooperative proposals."²⁰⁴¹ The Tribe passed Resolution K-2-70 in favor of granting permission to drill the test well on June 17 but as the resolution had to go through the BIA's Phoenix office for signatures, word was slow getting back to Gilbert. It was late July before he learned word-of-mouth that permission had been given.²⁰⁴² On August 12 Director William L. Bowen, Western Services Center, directed the chief of its Water Resources Division to take the necessary action to drill the test well. In late September Kowski made a formal request to Secretary of the Interior Walter J. Hickel that the Park Service proceed with drilling the test well(s). The objective was to locate a well capable of producing 75 gallons per minute of water.²⁰⁴³

By mid-June 1970, the Park Service had its joint development plan, maps, and layouts ready for field review as well as a draft Memorandum of Understanding (MOU) for operation and development for the Kaibab-Pipe Spring area. The Park Service had hoped to meet with BIA and tribal officials that month to go over the plan and MOU, but the earliest date convenient to all parties was July 20. On that date, a meeting was held at the new tribal office, attended by Park Service officials Karl T. Gilbert, Volney Westley, Dan Wilson, and Ray Geerdes; tribal officials Bill Tom and Ralph Castro; and BIA officials Al Purchase, Bob Orchard, and Homer G. Gilliland. Mutual concerns of water, land lease, or usage, and possible joint operation of a visitor center were discussed.²⁰⁴⁴ Wilson and Orchard presented their respective proposed plans.²⁰⁴⁵ In order that vistas south of the monument would remain unimpaired, the Park Service wanted there to be no developments along the main highway. The BIA plan called for all commercial development to be on the east side of the Moccasin road, with nothing located along the highway. Orchard's plan called for locating a picnic area west of the road, separate from the campground area, which was to be sited north of the tribal office. Geerdes argued for keeping the picnic area with the campground on the east side of the road. Others were in agreement. There was additional discussion about the campground, museum, and trailer park. Funds were immediately available to the Tribe to build a \$6,500 trailer park. The Tribe's request for funds to build the motel had previously been turned down. The idea of a service station had also been dropped, but approved plans still were in place for additional housing and a \$85,000 museum. Either BIA or tribal officials raised the question, would the Park Service be interested in leasing the Tribe's museum building as a visitor center? That was a possibility, Park Service officials responded.

Gilbert brought up the question of a land exchange at this July 20 meeting. Gilliland said he didn't think an exchange would be possible, but that land could be leased to the Park Service.²⁰⁴⁶ Uncertain he could sell the Washington office on the idea of lease, Gilbert then asked about the possibility of a scenic easement. Discussion continued on the leasing idea. Gilliland and Tom were interested in knowing how joint plans might benefit the Tribe, particularly in the creation of new jobs. Tom was in favor of a snack bar and craft shop so that his people could continue to live and work on the reservation.

During the summer of 1970, in addition to its concern with the visual impact of tribal developments, the Park Service had concerns about a proposed transmission line south of Pipe Spring. Park Service officials were first notified about the Navajo Project's proposed

line on May 13, too late to provide official comment at public meetings scheduled for May 5-7 in Las Vegas, St. George, and Kanab. Called the "Navajo-McCullough Transmission Line," it was to be located about four miles south of Pipe Spring, crossing the Arizona Strip from the Navajo Generating Station to the McCullough Switching Station. Park Service officials met with representatives of Los Angeles' Department of Water and Power on July 20 and expressed their objections to the damage to the historic and environmental scene, as visitors would view it from the monument. The intrusion of high tension lines and support towers cutting a swath across the scenic view was unacceptable, they maintained. Up to that time, Park Service officials argued, the panorama across the Arizona Strip was "practically unaltered" from the homesteading period of the late 1920s and 1930s.²⁰⁴⁷ (Of course State Highway 389 was incongruous, but was acceptable because it brought visitors!) They suggested the company consider two alternate routes for its transmission line, one through the reservation and the other to the north, through BLM land.²⁰⁴⁸ Company officials agreed to conduct a helicopter survey to determine if the Park Service's proposed alternate routes were feasible. Later, Gilbert was informed that the company's helicopter survey indicated that both routes proposed by the Park Service would work but that either route would be more costly than the route originally proposed. (See "The Navajo-McCullough Transmission Line" section, Part XI, for the outcome.)

Historical Research on Pipe Spring Ownership

In August 1969 Gilbert authorized Geerdes to begin research that would be useful in establishing Park Service ownership of Pipe Spring. In late August Geerdes spent several days in Kingman, Arizona (the Mohave County seat). Between September and November, he made numerous visits to record depositories in St. George (Washington County seat) and Kanab (Kane County seat). He also interviewed a number of people at Church offices and the Utah Historical Society in Salt Lake City as well as made extensive searches of their legal and historical material. Geerdes estimated he spent more than 80 hours conducting historical research before writing his report in December. Legal Assistant William L. McKeel visited the monument on December 12 and reviewed water, title, and land exchange problems. He strongly supported Geerdes' efforts to establish legitimate ownership of Pipe Spring. He also reviewed the research work Geerdes had done on the legal title to Pipe Spring. McKeel expressed his approval of Geerdes' work and expressed his opinion that the legal title would stand up in court. 2050

One mystery that was cleared up in the course of Geerdes' research was the question posed in 1943 about the stockmen's two-acre "reserve" on Pipe Spring National Monument, raised in Part VI of this report. Geerdes discovered that the two acres was "an exact square in the southwest corner of the monument." A special use permit had been issued by the Park Service to the stockmen, valid from February 1925 to February 1926, for the purpose of their "erecting and maintaining corral and yard fences, water and feed troughs, and any other fixtures necessary for the feeding and handling of range stock." The permit was never renewed but the corral and watering troughs were used intermittently until 1956 when they were finally removed and the monument's boundary fence built out to the corner. Their long-standing use of the area may have created the impression among some of the stockmen that they either owned this piece of land or that it had been

permanently set aside for their use, but neither was the case. No conflict seems to have arisen over the misunderstanding, only a certain amount of administrative confusion in later years! There still existed, however, a cattle access lane along the monument's southeast corner. Geerdes maintained there was no need for this lane anymore; he planned to eliminate it during the fall of 1969 to keep cattle outside the monument boundary.²⁰⁵³

On January 1, 1970, Geerdes submitted his 72-page narrative report with supporting documentation to General Superintendent Gilbert. Entitled "The Ownership of Pipe Spring: A Legal and Historical Brief," the report pulled together all that was known at the time regarding the ranch's past owners, including its first owner, the Church. In a few instances, Geerdes was forced to resort to some personal speculation (he wrestled in particular with the shadowy role of the Valentine scrip), but most of his conclusions appear to be based on solid documentation. (See Part I for more information on the ranch's history of ownership.) He maintained that his report "properly substantiates both the historic and legal claims of the National Park Service to Pipe Spring.... the only other legal claim on any of our water is the allotment granted to the cattlemen." ²⁰⁵⁴ In addition to the internal circulation and usefulness of this report, Geerdes gave a lecture on the history of Pipe Spring's ownership to a group of adults at the Methodist Church in Page, Arizona, in August 1970.

Nature Trail

In mid-January 1964, Bob Olsen, Hugh Bozarth, and Joe Bolander scoped out possible courses for what was then called "a historic foot trail." Of course, as recounted in earlier chapters, this scoping exercise for a nature, geological, and/or historic walking trail had been performed from time to time for over three decades, but no funds were ever available to carry out plans. Olsen wrote,

A logical route is along the stone boat trail that runs along the face of the ridge west of the buildings, then up the ridge, and back to a point somewhere near the east cabin. There is about 400 feet of the stone boat trail, which is 2 to 3 feet high. It is first recognizable 225 feet west of the fort.²⁰⁵⁵

The "stone boat trail" is also referred to in reports as the "quarry road" or "quarry trail." (Its historic use was described in Part I.) The proposed circle trail scoped out by the three men in January was given the name "Wamptun Trail." It terminated at the Powell survey monument.²⁰⁵⁶

On January 31, 1964, Olsen, Bozarth, and Bolander explored an area along the ridge just west of the monument boundary. Several large rocks with lines of cleavage cut in them and a large rock with three drill holes in it led the men to think that some of the rock used for the fort was quarried there.²⁰⁵⁷ Several inscriptions were also located near this site. In March 1964 Olsen took Leonard Heaton about 500 feet west of the monument boundary to the site Bozarth discovered where there were a series of drill holes in the rock. Heaton told him the drill holes were of CCC vintage. In other words, this was the quarry site

Camp DG-44 used for stone when it was needed for projects, such as to line the parking area with curbing. The CCC boys acquired quite a reputation for carving their names into historic buildings on the monument, so it is hardly surprising they also left inscriptions at their quarry site. A tentative sign plan was prepared for the nature trail in 1964. Though the trail had not been improved in any way, it appears that some visitors hiked it during the 1960s, just as Leonard Heaton had in the 1950s, at that time often accompanied by a group of boy scouts.

Nothing was done in the way of trail construction until 1968. In a cover letter for the monument's Environmental Study Area Inventory submitted to Zion in July 1968, Ray Geerdes pointed out the value of a combined historical/geological/nature trail:



121. NYC boys working on the nature trail, July 1968. Boys include Russell and Clarence Tom, Larry Stephenson, Steve Tait, and "two Navajo" – possibly Johnnie Manymule, Keith Yazzie and/or Rex Tsi. Ray Geerdes is in uniform, leaning on a shovel. (*Pipe Spring National Monument*)

Although the purpose of the trail is amply justified for interpretive purposes on a day by day basis it is ideally suited for an Environmental Education situation as it gives an excellent panorama overlooking the whole Arizona Strip country and an outstanding way to contrast the old overgrazed area with the native grass restoration projects. In addition it gives access to the Heart Canyon Petroglyphs and the Powell survey marker.²⁰⁵⁸

Zion officials were open to lending a hand, and Neighborhood Youth Corps enrollees afforded the monument additional labor. That May Geerdes began soliciting advice from trail foremen in area parks on building the combined history, geology, and nature trail. On July 8, 1968, Jim Schaack and Joe Davis came from Zion to inspect the proposed route for the new trail with Geerdes. On July 10 and 11 a trail crew from Zion blasted the overhangs for the trail route. A crew of NYC boys worked that month on building the trail, about one-half mile in length. Geerdes later estimated that the boys saved the Park Service \$3,000 in construction costs.²⁰⁵⁹ The first group to officially hike the newly created trail (still without signage) was a group of 30 4H girls from Fredonia on July 30. As

mentioned earlier, Geerdes received permission from Tribal Chairman Vernon Jake to add a gate and way trail to connect the nature trail to the Heart Canyon petroglyph area and Powell monument. Former Custodian Leonard Heaton's recommendation for a trail, first made to Southwestern National Monuments' Superintendent Frank Pinkley in January 1934, had finally been realized.

In October 1968 the Zion Natural History Association purchased metalphoto materials for the monument to develop interpretive signage along the self-guided trail. In November 1968 Zion staff assisted Allen Malmquist with the construction of 14 metalphoto-routed interpretive signs, which were erected the same month along the trail. By July 18, 1969, Geerdes estimated over 3,000 people had used the new trail.²⁰⁶⁰

<u>Interpretation</u>

On-site Programs

The monument's overall plan during the 1960s was to give the fort a lived-in appearance, creating the impression that the 1870s inhabitants had just stepped out and would be back soon. Artifacts were evaluated with this objective in mind and either eliminated from or added to the display as needed. Tours were run on a more informal basis with guides sometimes excusing themselves to begin a new tour or combining groups mid-tour on busy days. (On such occasions, guides were "roving interpreters," in Olsen's words.) In February 1964 a Cousino message repeater was installed in the fort courtyard; it gave the visitor a two-minute introduction. The message repeater told the story of Mormon colonization and described the role of Pipe Spring in that history. The older Mohawk message repeater in the telegraph room told the story of the opening of the Deseret Telegraph Company's station at Pipe Spring. (A Cousino repeater replaced it in 1965.) Touching the telegraph key activated it. The repeaters were helpful, reported Bozarth, "especially on crowded days." ²⁰⁶¹ The two-minute message in the courtyard, however, was thought to be too long as visitors walked away before it finished. A telegraph key and sounder were obtained from Mountain States Telegraph and Telephone in 1964 to be used in the reconstructed Deseret Telegraph Office.

In late August 1964, Robert Barrell of the regional office and Chief of Interpretation William C. Everhart (Washington office) visited the fort and made recommendations for improving the interpretive program. Everhart objected to the use of electric lights in the fort, but because this was a controversial issue they continued to be used. On occasion, especially if the day was sunny and rooms were well-lit, staff would turn them off for sometimes visitors too complained about them.

During the spring and early summer of 1964, the 100-year-old pioneer loom was restrung by Olsen and made ready for demonstration use that August. The loom and weaving exhibit was located first in one of the fort rooms, but in May 1965 it was moved to the courtyard and set up beneath the north porch. (Staff wanted to create a photo gallery of "old-time pioneers" connected to the fort in the room vacated.) The first rug woven on it was completed in December 1965.²⁰⁶² In 1965 a hand lathe, mortising machine, forge blower, and cheese press were added to demonstrations. When time allowed, guides

demonstrated all these contraptions, or at least those that visitors showed an interest in. In the summer of 1966, Olsen put the old forge into working order so it too could be used for demonstrations. Demonstrations that year also included woodworking and rug making. Bozarth reported that older visitors took special delight in personally demonstrating to their friends and families how the loom worked. At some point during 1966 (probably after the summer season had ended), the 100-year-old loom was taken out of service temporarily so it could be worked on. Once repaired, it took Olsen and Bolander an entire season just to restring the loom with warp threads.

During 1967 over 8,000 conducted tours of the fort were given. Demonstrations were offered on the loom, hand lathe, and mortising machine. Paul C. Heaton was the primary guide that summer. Tours were still given on a rather informal level with no set times or schedule. By the end of the travel season, Bozarth was toying with the idea of putting tours on an organized schedule, but he left the monument in September so no change was made that year.

Beginning in 1968, the monument's interpretive program benefited from federally funded job training programs, described earlier. Adult volunteers from the community also were added to the interpretive program on weekends, beginning in the summer of 1969. The monument's use of demonstrations was greatly expanded at that time. (See earlier "Monument Administration" and "Nature Trail" sections.) The fort was the still main interpretive facility (as it had always been) but costumed guides were a novelty and took the administration one step closer to creating the "lived-in" feeling it strove for. Geerdes imagined the courtyard of the fort, with benches set around its interior perimeter, as an outdoor classroom. Benches were already located near the fort entrance; Geerdes suggested that others could be similarly arranged for visitor use.

The construction of the combined nature trail during the summer of 1968 also expanded possibilities for interpretation. While the trail was self-guided, its signage and the scenic panorama atop the Vermillion Cliffs enhanced the visitor's awareness of the area's environment, particularly its geology and topography. Geerdes thought the larger area presented the ideal opportunity for communicating conservation values to the public. From his perspective, the Pueblo ruins below the monument's southern boundary and the Heart Canyon petroglyphs northeast of the fort attested to the importance of the natural springs in human history. The fort and cabins bespoke of the Mormon settlers' ability to adapt to the rugged environment and to exploit its grasses to feed cattle. The effects of overgrazing were readily apparent as one looked out over the desert and would be made even more so once the native grass restoration plan was realized. Then, visitors would be able to better visualize what the landscape looked like before the arrival of Euroamericans and vast numbers of cattle.

During the summer of 1969, the monument's interpretive program was evaluated under Park Service Program Standards for Interpretation and Visitor Services. It was noted that the area did not have a completed interpretive prospectus and had never had one.²⁰⁶³ It was estimated that to raise the monument's program to an acceptable standard two positions

need to be filled (a permanent, GS-3 information receptionist and a GS-4 temporary interpretive guide) and additional equipment purchased at a cost of \$12,687. To raise the program to optimum standards, the monument needed to hire (in addition to the above) both a permanent GS-7 historian and a temporary GS-3 information receptionist, at an added cost of \$9,741.²⁰⁶⁴ While none of these permanent positions was filled prior to Geerdes' departure in the fall of 1970, he did gain the clerical services of Park Aid Konda Button in the fall of 1969 and was able to hire Tony Heaton as a second seasonal historian during the summer of 1970.

Off-site Programs

In 1964 monument staff contacted 1,819 people, presenting programs to the Boy Scouts of America, church and school groups (Moccasin, Fredonia, Alton, Glendale, Orderville, Colorado City); Kanab Firemen; Fredonia Women's Club; Kanab Civic Ladies Club; and Kanab Lions Club. Programs consisted of slide shows of National Park Service sites or films, most of which were from the "What's New" series narrated by Chief of Interpretation William C. Everhart.

In 1965, 882 people were contacted in off-site talks to 15 groups in Kanab, Orderville, Fredonia, Moccasin, Colorado City, and Mt. Trumball. That year Olsen presented a program to Fredonia school children on the Paiute Indians, letting the children grind corn with manos and metates from the monument's collection. At the request of Tribal Chairman Vernon Jake, in June 1965 Bob Olsen presented a slide program on Park Service careers to 10 Indian participants in the Neighborhood Youth Corps at the Indian Branch Chapel of the LDS Church. The monument acquired a movie projector from Zion in late 1965, which was used later in off-site programs.

Off-site talks were given to 14 groups (675 people) in 1966. Olsen or Bozarth visited schools, civic, and church groups. Community programs were taken to Orderville, Kanab, Hilldale, Fredonia, Moccasin, Colorado City, Mt. Trumbull, and Tuweep. The program was particularly well attended at Mt. Trumbull, a very remote settlement that few outsiders, let alone "entertainment," ever came to. Bozarth reported the whole town (95 people) turned out for his four-hour program. In the previous year, Bozarth flew his own plane 90 miles to the settlement to show films to the community, and presumably he continued to do this for succeeding years. Also this year, Zion's Park Naturalist Allan Hagood gave several geology talks to school classes in the Pipe Spring area.

Off-site programs during 1967 included a program at Mt. Trumbull. This time Bozarth was accompanied by Zion's Park Naturalist Barbara Lund who presented slides of Saguaro National Monument and sound recordings of Zion National Park's toads. Thirty-five people turned out for that year's event. Other outreach programs were given to the Kanab Ladies Civic Club and the St. George Chamber of Commerce.

General Historical Research and Publications

The historical handbook for Pipe Spring (in preparation since Lloyd Sandberg began work on it in 1956) was ready for publication in 1964 but cuts in the printing fund delayed

publication for two more years. That year, Park Historian Bob Olsen provided additional review and corrections based on his research during his tenure. In 1966 it was finally published as part of the Park Service's Historical Handbook Series with James McKown and Robert M. Utley listed as authors. According to Olsen, this was the first publication that told the whole Pipe Spring story.

Olsen continued being very active through his tenure in researching a number of topics related to Pipe Spring's history. He was particularly interested in John Wesley Powell's survey of the area and gathered quite a bit of data concerning it. Another area of research for Olsen in 1964 and 1965 was the domestic and wild plants that would have been at Pipe Spring historically. He also spent a great deal of time reviewing the company records of those companies that managed the Church's tithed herds and even offered several public programs on those records. As the interpretive program geared up to include demonstrations, his research efforts included personal interviews with old-timers to learn how certain artifacts were used. He searched diligently during this period for documentary proof of the legend associated with the naming of Pipe Spring, but was unable to find such evidence. Many of Olsen's monthly narrative reports to Bozarth contain a wealth of information about specific research efforts.

In March 1963 Olsen visited the Utah Historical Society and found materials there on the Whitmore-McIntyre incident. Olsen made another research visit to Dixie College in St. George, Utah, in late January 1964 to review the minutes of the Canaan Cooperative Cattle Company. He was also able to meet with Professor A. Karl Larson and to make arrangements for the microfilming the Winsor Stock Growing Company's Ledger B.²⁰⁶⁵ That month, at his own expense, he ordered a microfilm copy of the diary of F. S. Dellenbaugh from the New York Public Library. (This was the only extant diary of the 1871-1872 Powell Survey not published by the *Utah Historical Quarterly*.) An 1872 sketch of the fort's floor plan was located in the diary of Frederick S. Dellenbaugh.²⁰⁶⁶ In March Olsen continued his research at the University of Utah and the Utah Historical Society.

In the spring of 1964, Ledger B of the Winsor Castle Stock Growing Company and the Canaan Cooperative meeting minutes were microfilmed at the expense of the Zion Natural History Association. This documentation provided a record of the owners of Pipe Spring from 1873 to 1879 and a partial list from 1879 to 1883. Olsen gave a presentation on the Winsor Ledger B microfilm on May 6 at the request of Mrs. Carlos Judd. The program was given in the fort's spring room and was attended by 20 people from Fredonia, Kanab, and Orderville, most of whom were interested in genealogical research. A similar presentation of the Canaan Cooperative's microfilmed minutes was held on July 10, 1964, for another 20 people from Kanab.

In September 1963 a contract was negotiated between the Park Service's Southwest Regional Office and Professor C. Gregory Crampton (Department of History, University of Utah) to prepare a narrative history of Mormon colonization in and around the national parks and monuments of southern Utah and adjacent Nevada and northern Arizona. It was

expected that his report would aid in developing the interpretive programs of park sites. Crampton conducted most of his research in the summer and early fall of 1964, visiting the park areas within his study area. He made visits to Pipe Spring on September 11, 18, and 19. Crampton was particularly interested in the Deseret Telegraph Company's line and the old road trace west of the monument. He returned to Pipe Spring on July 12, 1965. Crampton's report, "Mormon Colonization in Utah and Adjacent Parts of Arizona and Nevada, 1851-1900," was completed during 1965. Crampton returned again to Pipe Spring on August 28, 1966, and spent the day with Olsen.

As part of the monument's research efforts, Bozarth and Olsen met with Utah historian Juanita Brooks for two hours on October 20, 1964. They were hoping to track down the Winsor Castle Stock Growing Company's Ledger A, but she knew nothing about it. (Ledger A could not be located that year or the next. Winsor family members thought it might have been lost in a house fire.) In reference to their questions about the origin of the Pipe Spring name, Brooks told them she didn't think any men in Hamblin's 1858 expedition kept diaries. She suggested several other research paths for Olsen to follow. Olsen was very thorough not only in searching through archival depositories but also in writing to more distant archival sources for information, such as the Huntington Library in San Merino, California, and the Bancroft Library at the University of California, Berkeley.

In 1965 an article written by Olsen was published in *The Journal of Arizona History*, entitled "Pipe Spring, Arizona, and Thereabouts." ²⁰⁶⁷ (After the article appeared, Olsen reported to Bozarth that revisions had been made by someone at which time erroneous information was added before the article's publication.) That year Olsen made visits to the Utah Historical Society and the Church historian's office in Salt Lake City to research military records. Also in 1965, Olsen conducted a taped interview with Leonard Heaton. ²⁰⁶⁸ In February 1965 he interviewed Andrew J. Alger, grandson of Charles Pulsipher, the man who succeeded Anson P. Winsor as the Pipe Spring ranch's superintendent. In March he interviewed Lucy Chamberlain Esplin of Cedar City, Utah, daughter of Thomas and Ann Chamberlain of Orderville, Utah. From late 1965 to early 1966, Olsen was "loaned" for a while to Capitol Reef National Monument (made a park in 1971) to research the history of the Fruita schoolhouse for a Historic Structures Report.

In May 1966 Olsen interviewed 81-year-old Mrs. Edward Nisson of Washington, Utah, while she visited the monument. She was the daughter of Woodruff and Martha Alexander, who, she told Olsen, were early owners of Moccasin Spring in the 1860s. ²⁰⁶⁹ During 1966 Olsen wrote two more articles for journal publication, "Winsor Castle: Mormon Frontier Fort at Pipe Spring," *Utah Historical Quarterly*, Vol. 34, No. 3; and "Conflict in the Arizona Strip: The First Skirmish of the 1865-69 Mormon-Navajo War," in the *West Coast Archeological Society Quarterly*, Vol. 2, No. 1. An article by him also appeared in the *Salt Lake Tribune* on May 29, 1966. Olsen was also quite active in preparing almost monthly press releases to newspapers to increase people's awareness of the monument.

In the fall of 1968, Ray Geerdes and Allen Malmquist conducted research on Pipe Spring and on the old Mormon Wagon Road. (See Part I. In the vicinity of Pipe Spring, the road was called the "Kaibab Wagon Road," probably after the reservation was set aside.) In October Malmquist spent a day doing research on Pipe Spring in the Church historian's office in Salt Lake City. Geerdes also did some research in the Church historian's office in November. He took with him a letter of introduction from Bishop Owen Johnson of Moccasin that he later reported was "very helpful." On November 19 Geerdes had a three-hour interview with author Juanita Brooks in St. George, discussing the history of Pipe Spring and Lee's Ferry. A few days later he and Allen Malmquist drove to the old town site of Paria and to Lee's Ferry (Glen Canyon National Recreation Area) where they explored the road up "Lee's backbone" on foot. (This is an extremely rugged wagon road across the river from Lee's Ferry on the Navajo Reservation.) The two men also visited House Rock Valley and returned to Pipe Spring via Kaibab National Forest and the Buckskin Mountain. In December Geerdes conducted two hour-long interviews with Juanita Brooks about the history and location of the main road as well as associated routes.

The Arizona portion of the route is depicted on State Historian James H. McClintock's map depicting "early agricultural settlement and roads made and traveled by colonists and Mormon Battalion route;" a copy of this map is included in Part I of this report (see figure 5). Geerdes and Malmquist were interested in researching the pioneer road system because it was important under a number of historical themes. It was used to carry out Mormon missionary work among the Hopi and the Navajo ca. 1858; it was important in military operations during the Navajo campaign of 1863-1865; it facilitated the beginning of immigration to Arizona (ca. 1875-1880); and it led to the establishment of normal communication and supply routes in the areas it passed through. It was nicknamed the "Honeymoon Trail" for its use by young Mormon couples in Arizona settlements who wished to have their marriages "sealed" at the St. George Temple. Geerdes learned from Brooks that the trail passed through St. George and up the Dugway from Rockville to Pipe Spring and on to Lee's Ferry, also a Park Service site, were historically linked by the road.

Geerdes spoke with BLM officials on whose land much of the road was located about erecting interpretive signage along the old Kaibab Wagon Road. (The route also crossed Kaibab National Forest and entered the Glen Canyon National Recreation Area. Below the Colorado River the road entered the Navajo Reservation, but it does not appear that there were plans to erect signs on the reservation.) In June 1969 an interagency agreement was reached between the BLM, Arizona Strip District Office, and Ray Geerdes (representing the National Park Service) on an interpretive program for Arizona pioneer roads between St. George, Utah, and Lee's Ferry, Arizona. The BLM agreed to participate in on-the-ground research, construct the necessary signs, include Arizona pioneer trails on their visitor map, prepare and publish a stenciled handout describing the trails, and program a formal printed publication scheduled for distribution after the signs were installed. For its part the Park Service was to conduct historical research, prepare a map of the routes to be interpreted, propose a design for signage for major road crossings and public contact points, install the completed signs using NYC labor, provide horses for doing on-the-

ground research and trail identification, and propose wording for a handout describing the trails and their history. 2070

In late 1969 Geerdes also conducted research on the ownership of Pipe Spring in connection with tribal developments. (See earlier "Historical Research on Pipe Spring Ownership" section.) In January 1970 Geerdes interviewed the daughter of Edwin D. Woolley, Jr., Elizabeth Woolley Jensen, in Logan, Utah. He reported "an original manuscript on Pipe Spring was obtained from Mrs. Jensen containing much valuable information."²⁰⁷¹ (At that time Jensen also donated an Indian artifact to the museum collection Geerdes referred to as a "konunk.") Geerdes returned the manuscript to Jensen by mail in late April, urging her to have it published.

Visitation

Travel figures for the monument dropped at the beginning of this period, from 17,138 in 1963 to 14,312 in 1964. (The reason for the sudden drop in numbers is not apparent.) In 1965, 1966, and 1967, visitation increased very little: 15,597, 16,181, and 16,895 respectively. From early 1965 until mid-1967, construction was taking place on State Highway 389. Two events contributed to a jump in increase for 1968 and 1969, when 21,539 and 27, 232 visitors came to the monument, respectively. The opening of State Highway 389 during the summer of 1967 was the first factor that had a positive impact. The other factor was the popularity of the new "living ranch" theme carried out first by costumed guides and then supplemented by community volunteers. As described earlier, these programs were initiated by Geerdes in 1968 and were expanded during 1969 (see "Monument Administration" section). It is impossible to know which of the two changes resulted in the most increase, improved roads or improved interpretive programs. Geerdes was convinced the latter deserved the credit. Both certainly played a role, as well as the increased publicity the monument received in association with its new programs. It is worth noting, however, that visitation to Zion and Bryce Canyon also reflected a significant increase for 1969.

Visitation to Pipe Spring over the Easter weekends between 1964 and 1970 fluctuated over the years, often dependent upon the weather. The monument received only one-half its customary attendance during the 1964 Easter weekend. Visitation picked up again for the 1965 Easter holiday to about 1,100 people, comparable to earlier years. The attendance for the 1966 weekend is unknown as Bob Olsen was away for training in March and April and filed no reports for those months. In his absence, Hugh Bozarth and Joe Bolander served as guides during that year's Easter weekend. A cool Easter weekend in March 1967 brought about 300 visitors per day, an unusually low number for the holiday. No report was made on Easter visitation during 1968. Geerdes reported 1,200 visitors came to Pipe Spring for the Easter weekend of 1969.

On May 17, 1964, 30 University of Utah students and faculty visited Pipe Spring National Monument on a biology field trip. On June 4, 1964, 136 girls from the St. George Stake toured the building and picnicked at the monument with their Church group. On June 17, 1964, 45 students and faculty members from San Diego State College on a geology field trip toured and camped on the monument. Also that month 40 members of the Clark

County Gem Club (Nevada) camped at the monument. On August 23 Mrs. Louise L. Udall (Secretary of the Interior Stewart L. Udall's mother) visited the fort with relatives. Her party was on its way to the dedication of the Jacob Hamblin house in Santa Clara, Utah. Other relatives of the Udall, Lee, and Hamblin families visited that morning. A group of 75 Sons of Utah Pioneers made a quick 20-minute stop to see the monument in September 1964. In 1964 Establishment Day (May 30) was advertised by press release, but resulted in a poor turnout. Bozarth opined this was because the weekend coincided with the annual opening of Utah's fishing season. There are no reports of this event being held at the monument in 1965 and 1966.

Groups visiting the monument during 1965 included the Cedar City chapter of the Utah Historical Society; the Dons Club of Phoenix; a senior citizens group from the Los Angeles area; a group of boys from the Aaronic Priesthood in St. George and Panguitch; student groups from the College of Southern Utah and San Diego State College; and the usual field trips made by area elementary and high schools and boy scout troops. Visitors that year with family connections to the site included Rella Hamblin Lee of Downey, California, and Grace Hamblin De Armen of St. George, Utah (daughter and granddaughter of Jacob Hamblin, respectively), and Mr. and Mrs. Erastus Dilworth Woolley of Manti, Utah (Mr. Woolley was the son of Edwin D. Woolley, Jr.). Both visited in October 1965; Olsen took the opportunity to pump Dilworth Woolley for historical information.²⁰⁷³

A noticeable increase in the number of Church groups came to the monument in 1966. In May testimonial services were held at Pipe Spring by a group of 30 home missionaries from the Kanab Stake. Also that month 90 Church seminary students from the San Fernando Valley, California, visited in addition to 130 members of the Aaronic Priesthood. Other groups visiting in 1966 included boy scout troops, students from Brigham Young University and Dixie College, the Dons Club of Phoenix, the Las Vegas Sierra Club, the 4H Club, the Utah Pioneer Sons and Daughters (from Kane and Washington counties), a group from the Miracle Rest Home of St. George, and members of the Sevier County chapter of the Utah Historical Society. In November 1966 Lloyd Sandberg (past park historian) returned to the monument to lead a group of 25 teachers on a tour.

Groups that visited the monument in 1967 included the boy scouts (including 80 from Belgium and Luxembourg and a carload from England), various school groups, members of the Dons Club, of Napa Valley Tours (California), the Daughters of Utah Pioneers (including Kate B. Carter, author of *Treasures of Pioneer History* and *Our Pioneer Heritage*), and trainees from the Albright Training Center. Several campfire talks were given to large father-son groups camping at the monument, one from St. George and the other from Cedar City. During the time the St. George group was at the fort, 17 of the boys were discovered one evening going over the fort's walls into the locked fort. Monument staff held them inside until the camping leader arrived to reclaim them. During the visit by the Cedar City group, three boys were caught climbing the fort walls into the locked fort. On both occasions, this was accomplished without the aid of the lightning

protection system cables, which had been moved inside the fort. Bozarth consoled himself with the thought that "such abuse" would cease once camping was no longer allowed at the monument.²⁰⁷⁴

One of the monument's visitors during the summer of 1967 was Donald D. Dodd, the Army's commanding officer at Pipe Spring's Camp DG-44 in 1938 and 1939. He returned after nearly 30 years to see the monument and site of the old CCC camp. He was not the only man associated with the camp who returned.²⁰⁷⁵ From time to time, other past enrollees returned and made known to the staff that they had worked with the CCC at Pipe Spring. (The camp's Chief Clerk Jack Harden not only returned to Pipe Spring but also volunteered several seasons to work at the monument during the 1990s. He donated his collection of photographs, taken at Pipe Spring during the late 1930s.) Other important guests who visited the monument in August 1967 include Governor and Mrs. Jack Williams and Fredonia's Mayor Warren Dart Judd and his wife Olive, mentioned earlier.

In 1968, in addition to boy scout troops and elementary and high school groups, students from the University of Utah (accompanied by Dr. Gregory Crampton), College of Southern Utah, Dixie College, Brigham Young University, and Baylor University visited the monument. Other groups included Park Service trainees from the Albright Training Center, a group with Golden Circle Tours (Long Beach, California), Leisure World Tours (Los Angeles), the Dons Club (Phoenix), the Daughters of Utah Pioneers (Salt Lake City), the Sierra Club (Las Vegas), and Kanab's First Baptist Church. Individual visitors in 1968 with historical links to the site included P. W. Duffing of Caliente, Nevada, who had worked as a cowboy for B. F. Saunders (prior owner of Pipe Springs); and Mrs. Latimer of Washington, Utah, granddaughter of Dr. James Whitmore.²⁰⁷⁶

On July 20, 1968, two National Geographic Society officials visited the monument as part of a John Wesley Powell Centennial survey. In September 1968 Sterling McMurrin, Dean of the Graduate School of University of Utah and personal friend of Secretary of the Interior Steward L. Udall, visited the monument and later wrote a letter to Udall encouraging him to visit Pipe Spring. During October of that year, the monument was visited by two USGS officials, Tad Nichols (official photographer for the USGS motion picture on John W. Powell's trip through the Grand Canyon) and Dr. Edwin D. McKee (Western representative of the Powell Centennial).

After 1968, Ray Geerdes rarely reported visits by individual groups to the monument although their numbers were included in travel figures. It is notable, however, that in March 1969 a group of members from the Utah State Legislature visited the monument, accompanied by their families and newsmen from Salt Lake City.

Reunions

The Brown family held a reunion on August 1, 1964, with 70 attending. On July 2-4, 1965, the A. P. Winsor family held its family gathering, attended by 99 people. The Winsor family donated a piece of hand-worked table linen made while the Winsors lived in Provo, Utah, in the 1850s and used while they were at Pipe Spring. They also donated

a child's pink dress made by Mrs. A. P. Winsor, Jr.²⁰⁷⁷ On June 24-26, 1966, the Butler family held a reunion at the monument, attended by 21 family members. On November 23, 1967, the Heaton family of Moccasin held a Thanksgiving outing at the monument, attended by 40 people.

<u>Historic Buildings</u>

The Fort

In January 1965 a handrail was installed on the interior stairway leading from the kitchen to the upper story of the fort. This was done as a safety measure. During the summer some plaster work on the fort's interior was repaired under contract. Other than routine maintenance, no other work on the fort was undertaken until the fall of 1969.

Between April 30 and May 1, 1969, Chief Architect Charles S. Pope (Office of Archeology and Historic Preservation, Branch of Restorations) inspected the monument. He met first with Ray Geerdes and Zion's Joe Davis. Pope also met with former Custodian Leonard Heaton who provided information on "hidden" work that had been done in the fort and on early decisions made regarding the fort. Pope also visited Bishop Owen Johnson of Moccasin, apparently for the purpose of tracking down historic photographs that might be in Church archives on Pipe Spring or on Lee's Ferry. (Owen Johnson's father and family lived at Lonely Dell Ranch and operated Lee's Ferry for 15 years. 2078) Pope commended Geerdes' transformation of Pipe Spring into a "living ranch," accomplished with NYC personnel and "a very minimal expenditure of funds." He discussed five problems the monument faced with regard to its historic structures: 1) provisions needed to be made for heating the fort during the winter; 2) the problem of dampness under the parlor needed to be addressed (northwest room of the north building, first floor); 3) efflorescence in the fort's stone walls at various places needed suppressing; 4) lighting of the fort needed more study; and 5) historic values of the three historic buildings needed to be maintained.²⁰⁷⁹

With regard to heating the fort, Pope recommended that forced-air electric wall heating radiators be installed, suggesting the forced circulation of air would aid in combating dampness. A new electrical wiring system was needed. Pope cut a hole in the floor of the parlor to study moisture problems and recorded humidity and moisture content of the wooden structures in the room. He recommended installing underfloor blowers with heat under the parlor and kitchen to address moisture. Regarding the efflorescence problem, Pope described it as "more unsightly than dangerous," but urged that an intensive investigation for waterproofing the west corner of the fort be made.²⁰⁸⁰ He also noted dampness on the northwest walls, which were against earth fill. With regard to lighting (although the spotlights didn't seem to unduly bother him), Pope recommended more study.

Karl T. Gilbert, Jim Schaack, and Ray Geerdes discussed Pope's recommendations. Gilbert sent Regional Director Kowski comments on them in early 1970. The men objected to the electric wall-heaters that Pope recommended for the fort as they viewed them as incompatible with the historic atmosphere. Rather, they preferred the use of

concealed baseboard heaters and installation of radiant heating elements in old wood heaters and the wood stove. They had no problems with the use of underfloor blowers, if utilized before and after visiting hours. With regard to lighting, electrifying kerosene lamps or other antique lamp fixtures was the preferred option. A work order for these improvements was submitted to the regional office, along with these comments.²⁰⁸¹

During heavy rains in late August and early September 1969, a number of leaks in the fort roof were noticed. During October 1969, a contract was awarded to Dixie Lumber and Hardware of St. George to reshingle the fort with hand-split shakes. Work began on October 27 and was completed in early November.

The East and West Cabins

In May 1964 the roof of the west cabin was cemented (in place of mud) to better withstand strong winds. During the spring of 1965, more earth was applied to the roofs of both buildings to replace dirt washed away by rain. During March 1966, earth was again added to the roofs of the cabins to prepare for a stabilization treatment. On April 1 regional office Architect A. Norman Harp applied 100 gallons of a synthetic resin called "Pencapsula" to the earth roofs of the cabins. While some of the earth washed off the roofs, water did not soak through them. This offered far better protection to the cabins and artifacts exhibited in them.

The next mention of the cabins needing more than routine attention was made during the winter of 1968-1969. Heavy snow that winter aggravated erosion problems on the roofs of the cabins, which Ray Geerdes reported to regional office staff as "storm damage." He advised that the roofs be completely rebuilt during the summer of 1969, using NYC labor force to significantly reduce expenses. Work on the project began in July, with about 600 cedar posts gathered from the Johnson Canyon area, with BLM permission.²⁰⁸² Mel Heaton and David Johnson oversaw and worked with a NYC crew of 10 Navajo boys to cut, trim, and haul the logs to Pipe Spring. The group camped four nights in the canyon while cutting and trimming the logs. VISTA volunteers from Fredonia contributed \$50 for the boys' food during their overnights. Work rebuilding the west cabin roof began in late August 1969, with the crew of boys doing most of the work. The cabin's roof was entirely removed and the poles were replaced with new cedar poles and coated with tar. A material called "Plomose Aggregate" was placed on top of the pole structure. Finally, a layer of Chinle clay was added to the roof. Geerdes reported the resulting structure was completely waterproof.²⁰⁸³ Seasonal laborer Mel Heaton oversaw the roof project. Work on the east cabin's roof was temporarily postponed when Heaton had to be terminated for two pay periods in order to comply with personnel rules.

In March 1970 Jim Schaack recommended to Karl Gilbert that a burglar alarm be installed in the east cabin to guard the multitude of loose articles displayed there, but it is unknown if any action was taken.

Other Historic Resources

In early 1969 Ray Geerdes garnered Superintendent Hamilton's support for four restoration projects at Pipe Spring. The projects included the restoration of the Whitmore-McIntyre dugout, the rebuilding of the historic lime kiln, an expansion of the corral by the east cabin at its north side, and the reconstruction of the historic "outhouse" near the wall adjacent to the northeast entrance of the fort. Total cost for these projects was estimated to be \$10,000. Hamilton endorsed and forwarded the proposal to Kowski in May. The lime kiln and dugout restorations were never carried out, however.

Residences, Utility Area, and Walkways

Work performed in the Park Service residences was generally routine maintenance. Some storage cabinets were installed in the laundry rooms and new rain gutters and downspouts were added during the winter of 1966-1967.

During the summer of 1964, a number of walkways were rerouted around the fort. Steps along one walkway that led to the fort were converted to a ramp. The old walkways, where replaced by new ones, were obliterated. At the same time the plaque describing the Whitmore-McIntyre dugout was relocated. All of this was completed by the end of September 1964. In October of that year, a new asphalt walkway was built to the east cabin. In late 1966 trees were transplanted along walkways to give shade and delineation to the paths.

Sewage System

In July 1964 a report of contaminated culinary water at Pipe Spring triggered an inspection by a Public Health Service sanitary engineer.²⁰⁸⁴ He noticed a pond forming on the surface over the sewer leach field distribution box in July and pointed out the leach field needed attention. His later report stated that its immediate repair or replacement was imperative.²⁰⁸⁵ By late July Bozarth knew a new leach field had to be constructed. He also knew from talking to former Custodian Leonard Heaton that skeletons had been found earlier at the monument's southwest corner, so he asked the regional office for copies of any archeological survey work done on the monument. Regional office staff assured him there would be little if any archeological material within the monument, that such material was located further south. They advised him to just keep a careful watch during excavation work. (From his talks with Leonard Heaton, Bozarth knew they were mistaken.)

Drinking water samples tested pure in August 1964. That month a sewer lagoon was built to temporarily take the place of a leach field. Park Engineer Joe McCabe made a water seepage soil test in September to help in planning for a replacement leach field. While leach field trenches were being dug the following month, a backhoe tore into the stockmen's four-inch pipeline. The holes were patched with strips of tire inner tube and wire and the leach line was installed close by the patched pipe.²⁰⁸⁶ The sewer leach field was replaced in October 1964. Fortunately, no human remains were encountered during the excavation for the new field.²⁰⁸⁷

Ponds, Fish, and Fowl

The Fort Ponds

The fort ponds were drained and cleaned in May 1964. Algae and pondweed were a problem that Hugh Bozarth fought to control during his tenure, but the fact that the Kaibab Paiute Tribe was also a user of pond water was a factor when treatment options were considered. During the summer of 1965, the pondweed was removed from the ponds without draining them. Utah State University experts identified the pondweed as a species of green algae called *Chara*. Bozarth continued to search for a herbicide that could be used to reduce the *Chara* while having no harmful effects to livestock, fish, or trees bordering the ponds. The fort ponds were again drained, cleaned of pondweed, and refilled in June 1967. They were drained again over the winter of 1967-1968, treated with a chemical to retard pondweed growth, and refilled.

The Meadow and the Meadow Pond

Under Bozarth's administration, the meadow was mowed by local neighbors in exchange for the hay. The meadow was often used for large gatherings such as community barbecues and family reunions. On a few occasions, it was even used for overflow camping. No reports of swimming occur during the 1960s, although a diving board was still in place at the meadow pond. In July 1967 (as mentioned earlier in this chapter), the meadow pond was filled in with dirt. No documentation has been located that provides insight into how the management decision to drain the pond was made. It is most likely that liability concerns about public swimming were at play rather than issues related to water use since the pond was supplied from tunnel spring, the stockmen's primary water source of water. At the time the pond was drained, it was planned for the area to be replanted and used as a group picnic area. Prior to and at the time of its draining, the meadow pond was a lush area with many shade trees surrounding the pond. Eventually, with the pond gone, the trees all died.²⁰⁸⁸

Fish

In April 1964 Bozarth reported "rainbow trout appear as numerous and healthy as can be expected." When the ponds were cleaned in May, the fish were somehow disposed of, for none were found in the ponds during a June inspection. Bozarth reported in June 1964 that he was investigating what kind of fish were historically appropriate for the fort ponds, and several sources indicated carp. (The practice of stocking the pond with trout appears to have been initiated by Leonard Heaton after the monument was established.) This information, however, didn't seem to stop trout stocking when they became available. In late 1967 Acting Management Assistant Jim Harter contacted the Federal Fish Hatchery in Albuquerque about obtaining some fish for the fort ponds, but no response has been located. In March 1968 the monument received a donation of 22 rainbow trout for the fort ponds from an unnamed source. Finally, in late June 1968 two seventh grade boys, Clifford Geerdes and Ben Young, captured 25 good-sized carp and released them into the fort ponds, much to Ray Geerdes' delight. He reported to headquarters, "After prodigious official and unofficial efforts to solve this problem, the historic carp are back at Pipe Spring. This should also keep the algae growth down." 2090

Fowl

The number of domestic ducks in the fort ponds frequently fluctuated during the 1960s. Ducks and their nests of eggs were annually lost to wild cats. The monument had three ducks in June 1964. In 1966 Hugh Bozarth continued to maintain a few ducks "to give a little farm type life to the historic scene." It appears that more often than not, local people donated ducks whenever the monument's supply ran low. In December 1966, for example, Fred Smith of Toquerville, Utah, donated five ducks; in May 1968 the Junior Tait family of Fredonia donated two ducks. In November that year, Ray Geerdes picked up eight domesticated mallard ducks donated by someone in Boulder, Utah. During the summer of 1970, seven baby ducks hatched at Pipe Spring. Chickens were probably reintroduced to the monument some time soon after the donation of a chicken coop by Tony Heaton in March 1969. As mentioned earlier, geese were added either in 1969 or 1970, under Geerdes' administration.

Flood Diversion, Irrigation, and Pipelines

As in previous years, every few years or so either the Tribe's or the stockmen's pipelines would get clogged with roots or leaves and require cleaning out. The stockmen's pipeline was in poor condition when Bozarth inspected it in February 1964. The line showed leaks and lack of maintenance. In February 1965 the stockmen asked the Bureau of Land Management to replace the old rusted-out pipeline that conveyed water from Pipe Spring to their grazing leases three to four miles south of the monument. They informed Bozarth in July that a replacement water line was planned, but because the stockmen disagreed among themselves, nothing was done that summer. Bozarth thought the trouble was that the stockmen were unwilling to foot the bill, wanting the new pipeline to be paid for by a government agency (in this case, either the BIA or NPS). In January 1966 Hopi Agency surveyors staked the route for the replacement pipeline. In March a new two-inch plastic pipeline was installed across the monument to take the place of the stockmen's old line. The old line wasn't removed on the monument, rather the smaller plastic pipe was pushed through the larger old line. Once on the reservation, a 1.5-inch line was laid three feet deep; stockmen installed the two-mile line in two days.

Some measures were taken during the 1960s to prevent future flooding at the monument, since the 56-inch drainage culvert had proved inadequate. A new culvert was installed in April 1964. Ray Mose added ornamental rockwork to hold soil behind the culvert wings. In June 1965 Mose built a rock wall about 30 feet long (to hold run-off water to its channel in the main wash), which also improved the look of the culvert wings.

Floods

On August 30, 1969, heavy rain caused flooding, resulting in damages on the monument. The area around the visitor contact station and comfort station was flooded. Emergency funds were made available to have the storm damages repaired under contract in October. The 58 x 26-inch culvert pipe was placed, the drainage channel widened, and flood debris was cleaned up.²⁰⁹² A similar problem, but less severe, was experienced in early September.



122. Visitor contact station after a flood, August 1969 (Pipe Spring National Monument)

Museum Collection

In October 1964 Olsen inventoried the museum's collection of 1,500 artifacts. Olsen treated leather items in the fort with neatsfoot oil that year as well as treated metal items for rust and wood items for rot. An exhibit plan was submitted to Superintendent Oberhansley for approval in March 1964. During 1965 several artifacts were removed from display and newly acquired pieces were added.

In 1965 the monument acquired by donation an old 1860s-era anvil from Reed Beebe. In April of that year, roadwork near Two Mile Wash Bridge, located two miles east of the monument, bulldozed a rock cairn. Inside the cairn was a hand-made rusted wagon clevis. ²⁰⁹³ The clevis was added to the monument's collection; its age was estimated to be 1872 or later as that was when the old roadway it was found along was first used. In April 1965 Regional Curator Franklin Smith and Museum Specialist Richard Anderson (Western Museum Laboratory) visited the monument and advised Olsen on cleaning and preservation work needed for some of its collections. Rella Hamblin Lee and Grace Hamblin De Armen presented a picture of Jacob Hamblin to the monument during their visit in October 1965. (See earlier "Reunions" section for additional references to donations.)

In February 1964 Bozarth reported at a Zion staff meeting that he needed storage for some of the monument's collection. He planned to crate up some of the unused items and bring them to Zion for temporary storage. Storage space had long been a problem for the museum collection. (A lack of place to store objects probably contributed to the displays' cluttered appearance when Heaton was in charge – he displayed just about everything!) As artifacts were pulled from exhibit to create a less crowded appearance, finding a space to safely store them became a challenge. In early 1966 Superintendent Hamilton arranged for a storage cabinet at Zion National Park to be designated for the monument's stored items. Not all items could be fit into the cabinet however. In August 1966 Olsen discovered the monument's mounted heads of a cougar and wild pig were damaged by rodents, due to improper storage.

Donations to the monument's collections in 1966 included a 100-year-old cello, four branding irons, old trunks, garments, a wagon chain hitch, a paper hook, and photographs of Mr. and Mrs. Anson P. Winsor, Jr. During the year, as in years past, a number of small artifacts were reported missing (presumed stolen) from fort displays. As much as they tried, guides could not always be with visitors, particularly if they were in the midst of a demonstration or with another group. On occasion and out of necessity, individuals were sometimes allowed to tour the fort on an informal basis without a guide.

Jean Swearingen's visit to the monument in May 1967 and her subsequent report to Regional Director Beard and Zion and Pipe Spring officials was referenced in an earlier section. (See "Monument Administration" section.) In May 1968 Ray Geerdes picked up a donation of the telegraph table used by Luella Stewart from the Stewart Robinson family in Kanab. In June he took the table and the fort's first telephone to Wesley McAllister in Kanab for refurbishing. That month Melva Whitmore Latimer, great-granddaughter of James M. Whitmore, donated some historic-period clothing to the monument.

In late April 1969, Charles S. Pope of the Park's Service Office of Archeology and Historic Preservation in Washington, D.C., inspected the fort and two cabins for wiring, heating, lighting, and moisture control. (See "Historic Structures" section.)

Water Issues (pre-1968)

In late 1963 Norman Heaton of Cedar City, Utah, son of 83-year old Fred C. Heaton, wrote Superintendent Oberhansley requesting information about the stockmen's water rights at Pipe Spring. His father was one of the Heaton brothers included in the stockmen's group who owned a one-third interest in Pipe Spring water. The request was forwarded to the regional office. Acting Regional Director J. M. Carpenter consulted with A. van V. Dunn and communicated with Regional Director Beard and Director Hartzog. There was opposition at the regional office level to releasing Pipe Spring file materials to Norman Heaton, partly because most did not relate to Heaton's area of concern. There was nothing in the Park Service files indicating how the stockmen handled the division of their one-third share of water. Oberhansley informed Heaton that any rights his father Fred C. Heaton might have to water at Pipe Spring "must stem from the one-third right agreed to by the stockmen, the Indian Service, and the National Park Service," recognized in the

regulations issued November 2, 1933.²⁰⁹⁴ Oberhansley enclosed a copy of the 1933 agreement in his letter and suggested Norman Heaton contact former Custodian Leonard Heaton for more information on the division of water.

In July 1964 the BLM proposed using the old CCC camp located three miles south of Pipe Spring as a Youth Conservation Corps (Job Corps) site. Its proposal included a plan to have water supplied from Pipe Spring. That month Oberhansley called the BLM to ask what the total volume of water was issuing from the Pipe Spring outlet. He was informed that the flow was 58 gallons per minute, as last measured on April 4, 1963.²⁰⁹⁵ It appears the BLM's plan was not implemented, at least not with Pipe Spring water.

For water matters associated with tribal developments of the late 1960s see earlier section, "Planning and Development with the Kaibab Paiute Tribe and Associated Water Issues."

Deaths, Accidents, Missing Persons, and Family Matters

Deaths

In January 1964 Bozarth and Olsen attended the funeral of Mrs. Della Robertson in Alton. Mrs. Robertson was Edna Heaton's mother. On September 19, 1964, Leonard Heaton's father, Charles C. Heaton, died in Kanab. He was buried behind the LDS Church in Moccasin. On August 2, 1967, Ray Mose's wife Serene died in Kanab. She had been ill for several years with diabetes. The plane crash deaths on January 10, 1968, of Tribal Chairman Vernon Jake and others traveling with him were mentioned in an earlier section.

Accidents

Shortly after the official dedication of State Highway 389, a serious personal injury accident occurred one mile west of the monument on October 14, 1967. Jim Harter and Joe Bolander assisted the Arizona Highway Patrol at the scene of the accident. Also that month Bolander had an on-duty accident, and he had to undergo a hernia operation on November 9. He was away from the monument for one month while recovering.

Missing Persons

On November 25, 1969, Geerdes was called out as deputy sheriff to assist in locating the Ellison family from Fredonia. The mother and two teenagers failed to return home the previous evening. The three finally showed up at Pipe Spring at 2 p.m. having been stuck on a road above Cane Beds all night.²⁰⁹⁶

On January 21, 1969, Mel Heaton and NYC-enrollee Tim Rogers failed to return from a trip to BLM land where they were cutting posts to enlarge the monument's corral complex. Geerdes and a BLM official went to search from them in a four-wheel-drive vehicle and got stuck themselves on a dirt road leading from Moccasin to the Coral Pink Sand Dunes. They stayed in the vehicle until 7 a.m. the next morning then walked about four miles to Moccasin. Owen Johnson and others from Moccasin located Heaton and Rogers about 3 a.m. the next morning.²⁰⁹⁷

Family Matters

The Bozarths attended the graduation of their son from high school at Wasatch Academy on May 25, 1965. In October that year, Joe Bolander's 16-year-old son suffered broken bones when his horse fell on him after accidentally running into a closed wire gate at night. In December Lenore Bozarth was hospitalized in St. George for five days, suffering from pneumonia.

Law Enforcement

Monument staff became increasingly concerned about visitor safety as traffic increased through the monument. Driven erratically westbound through the monument in March 1964, a Wonder Bread truck jumped the curb, knocked down a "slow" sign as well as a tree, and kept on going. A report was made to the Arizona Highway Patrol. Shortly after, monument signage indicating a pedestrian crossing lane and slower speed were relocated to be more visible on the approaches to the fort.

In February 1965 Bozarth reported "a fast driving, firearm shooting black sedan driver" was stopped on State Highway 389 that passed through the monument by the sheriff and a highway patrolman. "We were advised that the driver-shooter was the repeater type," wrote Bozarth, grateful for the assistance from local law enforcement officers.²⁰⁹⁸ Traffic continued to pose a safety problem until the new bypass road (State Highway 389) was opened during the summer of 1967 (see "Area Roads" section).

On September 19, 1966, a young, white, hitchhiking male was given food and clothing at the monument after having been beaten by some drunken Kaibab Paiute. (The victim's location at the time of the beating was not recorded; he was most likely hitchhiking through the reservation.) A Mohave County deputy sheriff tended to the legal charges.

Another serious incident occurred on the evening of June 17, 1968, when a group of adult and juvenile Kaibab Paiute from Moccasin entered the monument. The group had been drinking. During their stay, a fight broke out between two teenage boys, resulting in a stabbing of one of the boys. Geerdes and Malmquist took the injured youth to the Kanab hospital where the boy later recovered from his wounds.²⁰⁹⁹ Ray Geerdes subsequently contacted tribal officials, BIA officials at Keams Canyon, and the Mohave County sheriff at Kingman. It quickly became apparent to Geerdes that Pipe Spring National Monument was a jurisdictional "no-man's-land." No Indian Service law enforcement officials were located in the area, tribal officials said they had no jurisdiction over events transpiring on monument grounds, and the Mohave County sheriff felt he had no jurisdiction either.²¹⁰⁰ During late August 1968, Geerdes made a trip to Kingman, Arizona (the Mohave County seat), to discuss law enforcement and jurisdiction matters with a judge, a county attorney, and the sheriff. Apparently, county officials saw the problem as primarily one of distance - Pipe Spring was 300 miles away from Kingman. In true Western style, they solved that problem by making Ray Geerdes a deputy sheriff! His commission was to be exercised only within the boundaries of the monument, however. In October the reservation hired a full-time Indian policeman, Bernard Lucero, who resided with his family in Fredonia.

On November 3, 1968, another incident on monument grounds involved a young Navajo man named Stan Littleman, who staff discovered entering monument buildings and cars; he was turned over to the Indian policeman, Bernard Lucero. Tried in magistrate's court in Fredonia, he was banished from the reservation for six months. On November 19 a law enforcement meeting was held at Geerdes' residence to continue the dialogue on integrating efforts, with Mohave County deputies from Moccasin, Pipe Spring, and Colorado City, Ren Brown (magistrate judge from Moccasin), Bernard Lucero, and Vernon Jake attending. As a result, Geerdes reported the situation "radically improved" with no more incidents reported over the winter of 1968-1969.

In late September 1969, Mel Heaton and Joe Bolander both attended Park Service Law Enforcement school at Bryce Canyon National Park.

Movies

On June 19, 1968, a representative of Film Service Corporation from Salt Lake City visited the monument to take pictures. In July that year, several representatives of a Los Angeles, California, film production company, Madison Productions, Inc., inspected the Pipe Spring area to consider filming a "Death Valley Days" episode there. They were given permission from Zion officials to film at the monument in late July and were required to file the appropriate application and to post a \$2,500 bond. Their contract also required that a 16 mm copy of each episode be provided to the Park Service. In granting permission, officials made one additional request of the production manager:

The historical integrity of Pipe Spring is most important to us; consequently, we hope that your film sequence will depict actual historical facts, not fiction. If possible, we would like for Historian Geerdes to review the script. Too, Mr. Geerdes will be happy to assist you in a realistic approach to any portion of the script.²¹⁰³

As it turned out, Geerdes would have little control over the historical accuracy of the filming. He reported to Gilbert in early September that one of the proposed episodes recreated events at Pipe Spring fort when Luella Stewart was the telegraph operator. Jacob Hamblin (played by Robert Taylor) was portrayed as head of fort operations. "This not only does violence to Anson Perry Winsor but Jacob Hamblin as well, but there apparently is nothing that can be done," wrote Geerdes.²¹⁰⁴ The stories in the other two episodes, while shot at Pipe Spring, had nothing at all to do with the site's history. From September 18 to 27, the company filmed three episodes of "Death Valley Days" at the monument. The first few days of shooting, Allen Malmquist was acting in Geerdes' absence (who was on holiday in Hawaii) and Joe Bolander was there as well. Geerdes returned a few days into the shooting. A crew of about 40 people (including actors, technicians, and directors) worked daily on the production. Park visitors had access to the fort and were able to observe the filming. Geerdes later reported that the crew was very cooperative and no damage was done to the area.²¹⁰⁵ The company had the bedclothes, rugs, and table cloths used in filming professionally cleaned at their expense as well as made a present to the monument of an authentic 35-star flag. The check held as bond was returned to Madison Productions with a letter of commendation from Superintendent Gilbert on the manner of filming which was carried out, "practically [with] no interference to the regular visitor use" of the facility.²¹⁰⁶ Representatives of the company returned to the area on July 12, 1969, to film several opening sequences to the episodes shot in September 1968.

Area Roads

State Highway 389 (the Hurricane-Fredonia road) was still in need of completion in 1964. The portion west of Pipe Spring to Colorado City was still just a dirt road of sand, gravel, and clay. The paved part of the road east of the monument to Fredonia was in frequent need of repair as heavy truck traffic broke up the road's chipped and sealed surface faster than road crews could patch it. The four-mile road to Moccasin off of State Highway 389 was dirt. A bid for rerouting three miles of surfaced road and three bridges along State Highway 389 was rejected as too high in October 1964. State traffic counters were installed at the east and west entrances to the monument that December while state surveyors restaked the reroute of State Highway 389 west of the monument. Over the winter of 1964-1965, an archeological crew began working along the proposed right-of-way of the reroute. David Acton of the Museum of Northern Arizona in Flagstaff directed the survey crew, mostly Kaibab Paiute from the reservation. By February 1965 the crew had unearthed several pithouses of Pueblo I-II time period as well as a storage cist and burial. Gwinn Vivian and Richard Sense of the University of Arizona directed additional reconnaissance survey work along the road route in June; Mr. and Mrs. William Wade of the Museum of Northern Arizona directed the work during October and November. The latter's work crew camped at Pipe Spring while work was undertaken. Superintendent Oberhansley viewed the archeological activity as one that would yield information useful to Pipe Spring National Monument's interpretive program as it expanded to include the Native American context.

In addition to poor road conditions, an absence of directional signage along State Highway 389 created confusion for visitors. Many visitors left the monument heading west on the dirt road then returned to Pipe Spring to ask if they were on the road to Hurricane. At the Park Service's request in January 1964, the Arizona Department of Transportation (ADOT) posted new directional signage along the road.

On February 19, 1965, a contract was awarded to Brown Construction Company of Phoenix to construct three miles of road west of Fredonia and to build three bridges. Construction began by ADOT road crews on March 17 on the new road west of Pipe Spring. The job foreman inquired about the use of local water to compact earth fills and the Tribe agreed to furnish water from their reservoir just outside the monument (the "Indian pond") at a cost to the contractor of 25 cents per thousand gallons. Construction of the monument bypass section of the road began in November; at that time it was expected to be completed in July 1966. On October 23, 1965, ADOT opened bids for the building of State Highway 389 from Fredonia to 1.1 miles west of the monument, and Stout Construction Company of Las Vegas was awarded the contract. On May 5, 1966,

another contract was awarded to Wells Stewart of Las Vegas for construction work on the road west of Pipe Spring.

Bozarth reported that State Highway 389 from Fredonia to Pipe Spring was "subsurfaced" by November 1966, ready for an application of hot mix surfacing. About this time Mohave County road officials were in contact with the BIA to discuss needed improvements to the four-mile road leading to Kaibab Village and Moccasin. By August 1966 a contract had been awarded for the surfacing of the road from Fredonia to 1.5 miles west of Pipe Spring. The base coat surface was applied in the fall and the seal coat the following spring of 1967. Roadwork was suspended over the winter of 1966-1967 due to weather. Heavy trucks were already using the base-coated highway, however.

As mentioned in the "Monument Administration" section, State Highway 389 was opened to the public on May 27, 1967. The formal dedication of the road took place on August 5, 1967. The unpaved road to Moccasin from State Highway 389 still made area travel difficult at times. During and after heavy snowfalls in 1968, it was impassible much of the time. In late August 1969, construction began on a new road to Kaibab Village and Moccasin. Funded by the BIA, the road construction contract was awarded to Nielsons Inc. of Cortez, Colorado. Construction was completed by late spring of 1970.

Part XI - Living in the Past, Planning for the Future

Introduction

This chapter covers the monument's history from late 1970, when Area Manager Raymond J. Geerdes left Pipe Spring, to early 1979, when Superintendent Bernard G. Tracy retired. The highpoints of the decade were the dedication of the Kaibab Paiute Cultural Building/Visitor Center and National Park Service-Kaibab Paiute Tribe jointuse water supply system on May 26, 1973; and the monument's two-year celebration of the country's bicentennial with an expansion of its living history program.

In 1970 President Richard M. Nixon was in the middle of his first term in office. Nixon's second term was clouded by the Watergate scandals and ended in his resignation on August 9, 1974. He was succeeded by Vice-president Gerald R. Ford who later was defeated in the 1976 elections by James Earl ("Jimmy") Carter. During the early 1970s, the United States moved toward military disengagement from its long involvement in the civil war in Viet Nam. The roots of U.S. involvement in Southeast Asia went back to the Truman era and, like the Korean War, were the product of Cold War foreign policy. After sending military advisors from 1955 to 1960, the U.S. government became directly embroiled in the conflict, sending military troops from 1961 to 1973. In 1973 U.S. troops were withdrawn while the federal government continued its support of the South Vietnamese government and military. In 1975 the Saigon government surrendered to the North Vietnamese-backed Provisional Revolutionary Government, ending the war.²¹⁰⁷ The same year U.S. troops were withdrawn from Southeast Asia, another international conflict erupted in the Middle East. The Arab-Israeli War of October 6-22, 1973 (also called the Yom Kippur War), led to an Arab embargo of oil shipments to the United States. The resulting energy crisis resulted in a host of measures being implemented to curb energy consumption by individual citizens, businesses, and governments and to spur the development of additional energy sources. The fuel shortage appears to have contributed to a 21 percent drop in visitation to Pipe Spring National Monument in 1974.

President Nixon's cuts in funds for the Office of Equal Opportunity led to the cancellation of many Community Action programs such as the Neighborhood Youth Corps (NYC), Head Start, and Operation Mainstream in 1973. While the monument struggled to retain the area's NYC program and keep its interpretive program afloat in the early 1970s, it received a boost during the country's bicentennial celebration. Beginning in 1976, enrollees under the Comprehensive Employment Training Act (CETA) program furnished workers for the monument. Volunteers in the Parks (VIPs) also became increasingly essential to the monument's interpretive program, especially in cattle branding and domestic arts demonstrations.

A number of Park Service administrative changes took place during the 1970s. Secretary of the Interior Stewart L. Udall's long tenure in the 1960s was followed by five changes in the Secretary's position between 1969 and 1977, made in the following order: Walter J. Hickel, Rogers C. B. Morton, Stanley K. Hathaway, Thomas S. Kleppe, and Cecil D. Andrus. Fewer changes were made to the directorate. Director George B. Hartzog, Jr.,

served until December 31, 1972. Shortly before his departure, Hartzog reinstated the Superintendent's Annual Report to the Director. (This report had been discontinued in 1964.) Hartzog was succeeded by Ronald H. Walker (January 1, 1973-January 3, 1975), Gary E. Everhardt (January 13, 1975-May 27, 1977); and William J. Whalen (July 5, 1977-May 13, 1980).

Of more direct impact to Pipe Spring National Monument were administrative changes made on the regional level. The monument fell under the direction of three different regional offices during the 1970s. At the beginning of the decade the monument was overseen by Regional Director Frank F. Kowski of the Southwest Region. On November 15, 1971, the boundary of the Midwest Region was adjusted to include Utah, Colorado, and at least part of Arizona. Most likely because of the monument's close historical association with and geographic proximity to Utah, the administration of the monument was transferred to the Midwest Regional Office in Omaha, Nebraska, on that date. Regional Director J. Leonard Volz then headed that office. The monument remained under his direction until January 6, 1974, when the Rocky Mountain Region was established in Denver, Colorado. The monument then fell under its oversight. Regional Director Lynn H. Thompson oversaw the Rocky Mountain Region until Glen T. Bean succeeded him in 1978. Bean held this position until early 1980.

Until July 1972, the monument remained under the administration of the Park Service's Southern Utah Group. Acting General Superintendent Bill R. Alford succeeded General Superintendent Karl T. Gilbert on September 19, 1971; Acting General Superintendent James W. Schaack replaced Alford on January 9, 1972. The Southern Utah Group was abolished on July 8, 1972, after which time the monument was again placed under the direct management of Zion National Park. Zion's superintendents included Robert I. Kerr (May 3, 1970-July 8, 1972), Robert C. Heyder (July 9, 1972-June 2, 1979), and John O. Lancaster (June 3, 1979-May 16, 1981).

During the 1970s, there were numerous changes in personnel at the monument. For information on historians, technicians, seasonal aids, and laborers, see the "Personnel" section. For information about work performed by enrollees in the Neighborhood Youth Corps and Comprehensive Employment Training Act programs and by Volunteers in the Parks, see separate sections under those headings.

Monument Administration

Area Manager Ray Geerdes left Pipe Spring National Monument in early October 1970. Southern Utah Group's Park Naturalist James W. ("Jim") Schaack was appointed acting park manager to look after the monument until a permanent manager could be hired. The only noteworthy events to take place under Schaack's four-month tenure were tied to the placement of all the monument's power lines underground. The power line installation project required GarKane Power Company to excavate a trench of about 1,730 feet to a minimum depth of 42 inches. Archeologist Richard A. Thompson of Southern Utah State College was employed to conduct a preliminary survey to ensure that no archeological

resources were destroyed during the project.²¹⁰⁹ GarKane's work began in November and was completed by December 2, 1970.

Superintendent Bernard G. Tracy, GS-09, entered on duty at Pipe Spring on February 14, 1971, moving into his office in the 12 x 54-foot trailer still used at the time as the visitor contact station. ²¹¹⁰ Former superintendent of Hubbell Trading Post National Historic Site, Tracy would oversee monument operations for most of the decade. Tracy later recalled that when General Superintendent Karl Gilbert offered him the assignment at Pipe Spring, Gilbert said, "All I ask is that you run Pipe Springs as near as you think it used to be in the early days. Think of that period, one hundred years ago." Raised in Arizona and California, Tracy considered himself a native. Although he was not a Mormon, his wife Ruth was a devout member of the Church of Jesus Christ of Latter-day Saints. This undoubtedly hastened the new couple's acceptance by the local Mormon community.

Earlier in his career, Bernard Tracy had been a vineyard owner in California. Prior to his tenure at Hubbell Trading Post, Tracy had worked at Capitol Reef National Park, notable for its historic fruit orchards. He thus had considerable experience with agricultural operations and took to his new assignment at Pipe Spring with relish. Such activities, however, were only made possible by the additional water the monument had access to after its construction of a new well and water system on reservation land, and through an agreement reached after lengthy negotiations with the Kaibab Paiute Tribe. A good deal of Tracy's time would be taken up during his first year at Pipe Spring in meetings with the Tribe as the Park Service sought to build on joint planning activities begun in the late 1960s (see Part X for background).

Construction of the Park Service Well

On January 12, 1971, Chief Gerard S. Witucki and Hydrologist Donald C. Barrett, both of the Water Resources Section, National Park Service's Western Service Center (WSC), held a pre-construction conference at Pipe Spring National Monument between the contractor, monument staff, and the U.S. Geological Service (USGS).²¹¹² Park Service personnel attending the meeting were General Superintendent Karl Gilbert, Acting Park Manager Jim Schaack, Civil Engineer William ("Bill") Fields (Southwest Regional Office), Maintenance Foreman Mel Heaton, and Park Guide Joe Bolander. Fields was also chief of the Indian Assistance Program as well as former chief of Water Rights, Western Office of Design and Construction. Hydrologic Technician E. L. Gillespie represented the USGS (Flagstaff office) at the meeting. The Tribe's economic development planner, Merle C. Jake, did not attend the meeting but accompanied the men during the selection of a well site at Two Mile Wash. A location agreeable to all was selected by the USGS.²¹¹³ That afternoon Park Service staff met with the Tribal Council to discuss plans for the new well. On January 19, Chief Witucki authorized the district chief of the USGS in Tucson, Arizona, to conduct pump testing of test wells. Funds in the amount of \$2,000 were available for the testing part of the project. (This figure was later increased to \$3,500.) The Western Service Center supervised and financed the drilling of the well on the Kaibab Indian Reservation.

Hydrologist Barrett returned to the area in early February 1971. On February 9, he traveled to Fredonia, Arizona, and met with USGS Hydrologist E. McGavock and Hydrologic Technician Gillespie to discuss the drilling results and geo-hydrologic problems involved in obtaining water from the alluvium of Two Mile Wash and adjacent Moccasin Wash. A chief consideration in choosing a well site was that pumping not impact the existing well at Moccasin or Pipe Spring. Four non-productive wells had been drilled so far and a fifth well was in the final stages of drilling by the time of Barrett's arrival. On January 10, the drilling of the fifth test well was completed, which proved also to be dry. The tests indicated that no dependable alluvial source of water existed in the Two Mile Wash area.²¹¹⁴ What water was present in the surface drainage was of very poor quality. The men agreed that a successful well might be completed in a structural trap in the Navajo Sandstone bedrock rather than in the alluvium. Barrett spent February 10-12 in the area studying the situation. He obtained approval from the Western Service Center to have the contractor drill a well at a site selected by McGavock, two miles north of the monument, then made arrangements for a road to be put in to the well site. Finally, he met with the contractor in Hurricane on the 11th. The men worked out a proposed design for the new well and tentatively agreed to necessary changes in the contract schedule for drilling into the bedrock, at a depth expected to be about 200 feet.

Hydrologist Barrett returned to the area on March 25, 1971, to evaluate the pumping test, to make recommendations for the completion of the well, and to discuss a change order with the contractor. He later reported to WSC Director William L. Bowen that the maximum yield of the well appeared to be on the order of 150 gallons per minute or more. The water quality was good, derived from a bedrock aquifer. "Just what long term effects this yield will have on the water reserves of the aquifer cannot be accurately foretold at this time (e.g., mining the waters)," Barrett wrote.²¹¹⁵ The well was to have been a test well, but because of certain drilling requirements relating to the geology of the area, it was drilled as an eight-inch well at a depth of 205 feet. This resulted in it being classified as a production well.

During the last week of March 1971, a master plan study team met at Pipe Spring. Several meetings were held with the Kaibab Paiute during that time which convinced General Superintendent Gilbert that quick action on the new Pipe Spring water system was of the utmost importance. Gilbert reported to Regional Director Frank F. Kowski in late March that the well was a good one, capable of producing 150-200 gallons per minute. While the well had been drilled with the Tribe's permission, no agreement had been executed for the future use of the well, Gilbert emphasized. The meetings just held with the Indians were amicable, wrote Gilbert, and he did not think working out a water agreement with them would be difficult. He made the following observations:

Since quantity of water seems to be no problem, the Park Service should look toward an agreement that would make possible the use of the total Pipe Spring spring flow within the monument for the historical preservation of the area. I suggest we consider giving the Indians, free of charge, an amount of water (approximately fifteen gallons per minute) equal to their spring right, to offset

their use of spring water. Beyond this, I suggest we furnish them water at cost of production.

The Indians have advised us that they are now ready to move on their planned construction projects adjacent to Pipe Spring. They tell us their intent is the immediate construction of a modern campground and the possible construction of a motel-craft store-service station complex. They now have a sizable Tribal Council-office building completed.

This proposed construction puts us behind the '8-ball' because the Indians have suggested the possibility of their putting in a temporary water system utilizing the new well, a small metal tank, and plastic pipe until such time as we can provide the system we hope to install.

Based on the overall existing picture, I believe the Park Service should move ahead as fast as possible on the Pipe Spring water system.²¹¹⁶

While the construction program for fiscal year 1972 budgeted only for plans and surveys of test wells, Gilbert argued that construction of the new well needed to be completed that year as well. He asked Kowski to find funds for that purpose, stating, "I believe it to be extremely important for the overall preservation of the area, and necessary to insure that the monument's historical integrity will not be damaged by hit-and-miss construction by the Indians."²¹¹⁷ The funds were found.

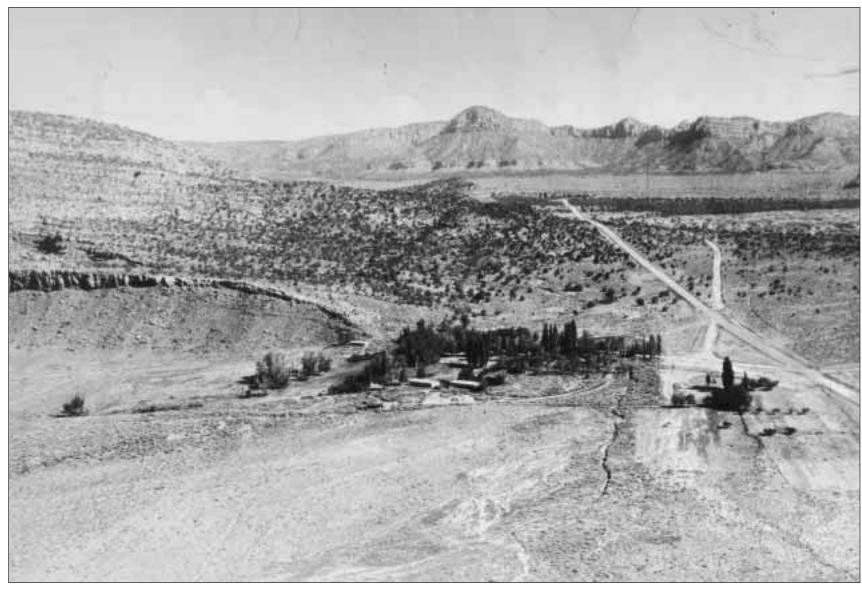
A few days later Gilbert sent Kowski an agreement he had drafted relating to the use of the new well drilled by the Park Service on tribal land. He asked for the regional director's review and comment. In his cover letter, Gilbert wrote,

This agreement should be as short as possible, yet all-inclusive. It should not indicate that the Indians are giving us anything or that we are selling them water from their own reservation. Now is not the time to think of the NPS acquiring any additional water rights from the spring.

This agreement is urgent; we can't mark time and still keep in good stead with the Paiutes. They want to move, and will move if we sit idly by.²¹¹⁸

Park Service officials had urged the Tribe to take advantage of its Indian Assistance Program for some time. Evidence of a positive response came in late March when Tribal Chairman Bill Tom submitted a formal request to Gilbert for assistance:

The Kaibab Paiute Tribe is planning economic developments in the Pipe Springs area and are aware that it is necessary to provide for a cooperative approval to mutual problems. The Council has learned that you have a staff that can lend assistance to our planning. Therefore, it would be appreciated if you would assign some of your staff to work with our people in the preparation of a land use and development plan for the Pipe Springs area.²¹¹⁹



123. Aerial view of Pipe Spring National Monument, April 1971 (Courtesy William E. Fields)

This request was music to Park Service ears. The road ahead, however, would not be an entirely smooth one.

Planning the Water System and Kaibab Paiute Cultural Building/Visitor Center Gilbert knew the time had come when a joint area-management agreement needed to be established with the Kaibab Paiute Tribe. Two meetings were held in April 1971 to discuss the new water system and tribal development program. The first is believed to have been held the week of April 11; no description of this meeting has been located, however. The second meeting was held on April 26, 1971. Participants at this meeting included Bill Tom, Karl Gilbert, Bernard Tracy, several Bureau of Indian Affairs (BIA) representatives, an undisclosed number of Indians from other tribes, and Ed Huizingh and others representing the Economic Development Association (EDA), and U.S. Department of Commerce.²¹²⁰ The group narrowed down the Tribe's projected plans to a campground, visitor center, and a small commercial complex consisting of a camp store, sales outlet for arts and crafts, and possibly a service station. It was agreed that plans for a motel would be delayed until proof of need was established. The EDA contingent was pleased with the overall plan but said that EDA assistance could be based only on a projected job establishment program after construction of the complex was complete. They suggested a maximum grant of not more than \$300,000. Gilbert proposed a water agreement that was well received at the meeting, he later reported. The EDA representatives indicated such an agreement would relieve the Indians of much responsibility and investment.

Although the meeting went well, Gilbert was still apprehensive. In reporting on the meeting to Kowski, he wrote, "I am still convinced that we should not drag our feet in working with this group of Indians. The over-all development plan is most important at this time; we must be able to talk in specifics rather than in generalities. We all are spinning our wheels until such time as we can pinpoint what is to be."2121 His intuition was right on target. The Park Service's new well was completed on May 16, 1971. On June 28, 1971, Park Service officials learned from Merle Jake that the Tribe had scheduled three projects for fiscal year 1972: 1) a public campground and trailer park; a public museum (to be located just outside the monument's east boundary gate); and 3) three new residences. All would require water. Jake informed the Park Service that if it were unable to develop a joint water supply in time to meet the Tribe's needs, the Tribe would be required to develop their own water system from the new well. This threatened to eliminate the chance of a Park Service agreement with the Tribe at a later date. The Tribe, in effect, was planning to "go it alone" with its developments at this point, despite its earlier interest in Park Service participation in the process. Immediately, on June 28, 1971, monument and Zion officials submitted a construction proposal for the new water system to the regional office.

The Kaibab Paiute Tribe's plans to develop its own museum and water system may have resulted from what Gilbert later referred to as a temporary "breakdown in communications." Communications were restored in a meeting held on July 14, 1971, in the Tribe's office and headquarters. The meeting was attended by Landscape Architect Volney J. Westley (Southwest Region), Karl Gilbert, Bernard Tracy, Bill Tom, Merle

Jake, Ferrell Secakuku (Indian Development District of Arizona), and representatives of an architectural firm retained by the Tribe to conduct a feasibility study and to prepare development plans, working drawings, estimates, and specifications for tribal developments.²¹²² It was learned in the meeting that tribal officials misunderstood the water agreement drafted by Gilbert and thought the agreement limited their use of water from the new well to an amount equal to one-third share of Pipe Spring water (approximately 22,000 gallons per day), when in fact it allowed for them to use more water at cost of production. The misunderstanding was corrected.

The purpose of the July 14 meeting was to develop a realistic understanding about cooperative uses and construction of proposed facilities. Regional Director Kowski later reported on the meeting to Phoenix EDA representative Paul Luke, informing him that the Park Service and the Tribe recognized the importance of close cooperation in development planning. The Park Service proposed that a formal agreement be executed whereby it would construct and maintain a water system that would meet the needs of both agencies, with the Tribe permitted to derive its one-third interest in Pipe Spring from the new well at no charge. Additional water could be purchased by the Tribe at cost of production. In return, the Tribe would allow the Park Service to use its one-third share of spring water to maintain the historical landscape of the monument. A second agreement was to be executed for a proposed "visitor center complex" which, at that time, the Tribe proposed building with the Park Service leasing a portion of it for offices and a visitor center.

On July 30, 1971, Tribal Chairman Bill Tom sent a revised version of Gilbert's draft water agreement back to Gilbert for review and comment. It had not yet been discussed or approved of in Tribal Council, he informed Gilbert.²¹²³ Gilbert had a number of strong objections to the revised version, which he noted in his cover letter transmitting the draft agreement to Regional Director Kowski on August 9.²¹²⁴

Another meeting was held on August 24, 1971, just one day after a heavy rainstorm and serious flooding at the monument (see "Floods" section). This purported "getacquainted" meeting turned out to yield useful information and some decisions. Director Ben Riefel, Office of Indian Programs, accompanied Gilbert. Also attending were Bill Tom, Construction Superintendent McIntosh, and BIA Lands Operations Officer Al Purchase, Hopi Agency. Gilbert learned at this meeting that the revised version of the water agreement sent to him by Tom on July 30 had actually been written by Al Purchase. The proposed joint-use visitor center was also discussed. Before the Park Service ever began its cooperative efforts with the Tribe, the BIA had prepared plans for its own visitor center across the road from the tribal office building. Gilbert later wrote Kowski, "These plans continually raise their ugly head and will come alive if we don't assert continuing interest in plan input based on our projected requirements."2125 As a result of this meeting, however, the Tribe reversed its plans to seek planning assistance from a commercial firm and asked for National Park Service assistance. The Tribe's most immediate project was construction of three residences, then scheduled to begin September 1, 1971. This created an urgent need to settle the water question.

In the midst of critical negotiations with the Kaibab Paiute Tribe, an administrative change took place in the Park Service. General Superintendent Gilbert was scheduled to leave the Southern Utah Group on September 18, 1971, to become superintendent of Curecanti National Recreation Area. In anticipation of his transfer, Gilbert advised Kowski in late August to assign a Kaibab Paiute liaison from the Southwest Regional Office. "Superintendent Tracy is a good man on the ground floor," he wrote, "but major dealings involving decisions and agreements should be handled at a higher level." Acting General Superintendent Bill R. Alford succeeded Gilbert as head of the Southern Utah Group on September 19, 1971.

By October 1971, the Tribe decided it wanted the Park Service to design the new joint-use building and to take part in choosing its site. Another meeting was held on October 19 for the purpose of considering on site a design concept for the visitor center developed by the Western Service Center's Office of Environmental Protection and Design. Deputy Regional Director Theodore R. Thompson, Volney Westley, and Bill Fields (all Southwest Region), Acting Superintendent Jim Schaack (SOUG), Tribal Chairman Bill Tom, and Superintendent Bernard Tracy attended the meeting, along with other monument staff. The group consensus was that the location proposed by the WSC office was undesirable and there were other suggestions for changes. Alternatives were suggested and subsequently sent to the WSC by Thompson who asked if the WSC could provide the architectural plans for the building.²¹²⁷

In addition to the siting of the proposed visitor center, the group discussed the desirability of relocating existing Park Service housing outside the monument. A flood of August 23, 1971, had once again alerted the Park Service to the hazards of having residences located in a natural drainage channel (see "Floods" section). Flood protection would be extremely expensive, requiring a sophisticated drainage channel and riprap. Since the Park Service was already involved in the preparation of the Tribe's new subdivision plan northeast of tribal headquarters, why not move monument housing to that area and negotiate a lease agreement? This proposal in fact was included in the draft 1972 master plan for Pipe Spring National Monument and had been approved by Southwest Region officials. When the monument's administration was transferred to Midwest Region on November 15, 1971, however, the idea was quashed; officials there did not support the concept. A report by a Regional Engineer Donald M. McLane also convinced officials at Midwest Region it was unnecessary to remove the housing area. The idea of relocating the residences would be revived again in the late 1970s.)

During December 1971, Tracy met informally with Tribal Chairman Bill Tom to discuss the joint visitor center complex. The Tribe was anxious to start construction on March 1, 1972. On January 20, 1972, a meeting between the Park Service and the Tribal Council was held to study preliminary plans for the new Kaibab Paiute Cultural Building/Visitor Center (hereafter referred to as the visitor center). Bill Tom presided over the meeting. Representing the Park Service was Bernard Tracy, Jim Schaack, and Regional Architect A. Norman Harp. Also attending were representatives of the BIA and the Indian Development District of Arizona (IDDA). Harp presented a

preliminary sketch to the Tribal Council for its consideration. The plan included a snack bar, public restrooms, arts and crafts area, as well as office and exhibit space for the Park Service. The Council voted unanimously to accept the plan. It was agreed at this meeting that the Southwest Region's Professional Support Division (rather than the Western Service Center) would prepare working drawings for the building, parking area, landscaping, and drainage. Harp promised the working drawings would be completed by February 20, 1972, less than one month away. The Council asked that the Southwest Regional Office also design its campground. Harp agreed to send preliminary plans for the campground by February 1. At this meeting the Tribal Council voted to raise the budget for the new building from \$85,000 to \$125,000. Tom stated the Tribe would construct the building with day labor, with subcontracts for electrical, plumbing, and mechanical work. The BIA agreed to provide supervision for the project. Norm Harp later recalled that the building design was never presented to the local Moccasin or Fredonia communities for review or comment.²¹³⁰

Ferrell Secakuku applied to the Economic Development Administration for a portion of the funds required to construct the visitor center and tribal campground.²¹³¹ Harp provided Secakuku with cost estimates for the visitor center and the campground in late January 1972. The grand total was \$212,750: \$157,750 for the visitor center, and \$55,000 for the campground.²¹³² Park Service space in the building had yet to be negotiated through the Government Services Administration (GSA).²¹³³ In July 1972, a formal request for space was sent to GSA for the Park Service to lease space in the planned building.

Construction of the new visitor center began during the summer of 1972.²¹³⁴ Local materials were used in much of the building's construction. Harp recalled years later that his design called for local stone, not only because it was readily available, but also because it would make the new building "look sort of like the old fort." The ventilators on its roof also were similar to those on the fort. Phil Huck (from the BIA's Indian Technical Assistance Center) supervised day-to-day construction activities.²¹³⁶ Bill Fields conducted a monthly inspection, representing the Park Service through its Indian Assistance Program. Fields later recalled that the Kaibab Paiute were hired mostly as laborers on the project. Not many Indians were hired for the project because they didn't have the construction skills needed, he reported.²¹³⁷ Dean Heaton (son of Leonard Heaton) was hired with EDA funds as construction foreman. Heaton set up a hiring office in Colorado City, which turned out to be the primary source of skilled workers used to build the visitor center. Of course, Regional Architect Norm Harp was also very involved in the project and made routine inspection visits to the construction site. Harp recalled that one of the men in Southwest Region's Division of Professional Services involved in producing the working drawings for the visitor center was Engineering Technician Edward ("Ed") Natay.²¹³⁸ Architectural services were provided by the Park Service without charge to the Tribe, as were the services of Bill Fields. According to Harp, the whole construction operation went very smoothly.

Harp and Fields visited the area on July 18-20, 1972. Harp made a progress inspection of the building, still under construction. Fields later reported,

The building is in excellent shape. They are almost to the windows with the rock work and were putting shakes on the roof while we were there. The workmanship is superior and I might add that in my personal opinion, because of the combination of design and workmanship, this building will be the most sound and one of the most beautiful to be utilized by the Park Service.²¹³⁹

In a personal interview conducted in 1997, Fields recalled the urgency of the project, and why the Park Service didn't go through the normal channel of having the Western Office of Design and Construction in San Francisco design and produce architectural plans for the building:

The system did not lend itself to getting something done in a hurry. And I'm not saying it's right or wrong. You know, if they want to dilly dally about what a building looks like and get input and they're not in a hurry to have it. But we had \$170,000 or whatever in the bank and ready for Bill Tom and Phil Huck and whoever else to write checks on, and we needed a building! You're not going to go through the review process [under those conditions]. And I think we did pretty good.... I said, 'Norm, this is what we want.' There's not a better architect in the Park Service than Norm Harp....That guy can do anything from an outhouse to a multistory building or penthouse. And he has the artistic ability.... He went out there, took some pictures, came in and started drawing that thing, and it couldn't be better.²¹⁴⁰

But there were still hurdles ahead. By mid-August 1972, the visitor center was nearing completion. No word had been received from GSA regarding the Park Service's request to lease space in the building. Upon inquiry, the Park Service was told it would take another six to eight weeks for the GSA to contact the Tribe and make arrangements for a lease. Tracy was uneasy at the delay, for a possible change on the political horizon threatened the Park Service's existing amicable relationship with the Tribe. On August 18, Tracy wrote Regional Director J. Leonard Volz,

I have just been alerted to a possible change in the local Paiute Tribal Council. Their election is to be held this fall and the aspirant to the Chairmanship is an activist with definite anti-white leanings. Should he be elected we could be in a completely new ball game as far as our relations with the Tribe are concerned. I suggest an agreement for the rental of the Visitor Center be negotiated at the earliest possible date.²¹⁴¹

Tribal elections were scheduled for October. The Park Service asked GSA officials to expedite the leasing process. On September 7, 1972, a meeting was held with GSA Building Manager Richard C. Hathaway, Superintendent Tracy, and Zion's new Superintendent Robert C. ("Bob") Heyder. Hathaway informed Heyder and Tracy, who wanted a long lease, that any lease in excess of five years required an



124. Program to dedicate new Kaibab Paiute Tribal Cultural Building/Visitor Center, May 26, 1973. Speaker is Regional Director J. Leonard Volz, Midwest Regional Office (*Pipe Spring National Monument*)



125. View of visitor center and crowd gathered for its dedication, May 26, 1973 (*Pipe Spring National Monument*)

Act of Congress. As it turned out, Bill Tom was re-elected tribal chairman. A lease with the Tribe was not executed until March 29, 1973, when Tom signed a five-year lease on 1,831 usable square feet of office space for \$12,636 per year.²¹⁴² The lease included an option to renew for five additional years at a rate to be negotiated. In addition to giving monument staff greater control over visitor use, the new facility allowed them to provide an orientation to visitors prior to their entry to the site. It also provided much-needed office and storage space, improving the monument's overall operations.

The new visitor center was dedicated on May 26, 1973. A grand celebration was held for the completion of the building and the Park Service's near-completion of the new water system. The 50th anniversary of the monument's establishment was also celebrated.²¹⁴³ Regional Director Volz was Master of Ceremonies that day, with over 400 people attending the event. Ceremonies began with Moccasin's Boy Scout Explorer Troop 2368 presenting the colors, followed by the Fredonia High School Band playing the national anthem. The invocation was given by Elder A. Theodore Tuttle, First Council of the Seventy (LDS Church) after which Tracy formally welcomed guests. Remarks were made by Arizona Governor Jack Williams, Utah's Executive Director Gordon E. Harmston (Department of Natural Resources), and former Custodian Leonard Heaton. Tribal member Dan Bulletts offered a benediction in Paiute. Although not listed on the program, a group of Kaibab Paiute came in costume to the dedication and danced, encouraging visitors to join in. Both tribal members and local white residents provided food for the event. The official photographer on the day of the building's dedication was William M. ("Bill") Herr, then working for Zion National Park. 2144 Herr would be named superintendent of Pipe Spring National Monument in 1979.

Other groups that helped with the planning and/or execution of the dedication program included the Kaibab Ward Relief Society Ladies and the Zion Natural History Association, along with Park Service staff from the Midwest Regional Office and Zion National Park. The printed program stated that Pipe Spring was not only a monument to "the intrepid Mormon pioneers," but was "symbolic of the union of many cultures and their need to maintain harmonious relationships with the world about them." Soon, other park units who had relations with Indians were seeking to learn how Pipe Spring had accomplished its joint projects with the Tribe, with the monument providing an impressive model for others to follow. The new building was indeed a remarkable achievement, but cooperation between the Park Service and the Tribe would by no means end with the building's dedication.

The Water Agreement and Park Service Construction of the Water System On April 13, 1972, the Park Service and Kaibab Paiute Tribe signed a water agreement (see Appendix VII, "Agreement with Kaibab Paiute Tribe"). The agreement was sent to the Tribe's attorney and to the Park Service's field solicitor for review and approval prior to its signing. The 25-year agreement provided that the Park Service would construct, operate, and maintain the new well and water system. In return, the Tribe agreed to allow the Park Service to use their one-third rights to Pipe Spring. In lieu of Pipe Spring water,



126. Visitor center ribbon-cutting ceremony, May 26, 1973. Officials, from left to right: Regional Director J. Leonard Volz, Tribal Chairman Bill Tom, Superintendent Bob Heyder (*Photograph by William M. Herr, courtesy Zion National Park, neg. 4457*)

the Park Service would provide a specified amount of 7,884,000 gallons of water per year from the new well at no charge. The Tribe agreed to pay the cost of production for all water they used during any one year in excess of the specified amount. While the Park Service retained ownership of the water system, in the event the agreement was terminated the Tribe had the right to purchase the equipment at the then-appraised value. Both parties agreed to use waters of the well and Pipe Spring economically with the objective of conserving it. Well water could not be used for commercial agriculture. It was the Park Service's responsibility to meter all water and annually bill the Tribe for water in excess of the specified amount. The Park Service agreed to pay an annual rental charge for use of well water at a rate of \$33 per acre foot. Should the output of Pipe Spring exceed the monument's needs, the Park Service agreed to make excess water available to the Tribe. The Tribe at its own cost could install a pipeline connecting the water well lines with the Kaibab Village system for emergency purposes only. The Tribe retained one gallon per minute flow from Pipe Spring for livestock watering purposes. Finally, the Park Service had the option to renew the contract for another 25 years upon its expiration.²¹⁴⁷



127. Kaibab Paiute dancers at visitor center dedication, May 26, 1973 (*Photograph by A. Norman Harp, Pipe Spring National Monument*)



128. Superintendent Bernard Tracy stands behind new visitor center, May 26, 1973 (Photograph by William M. Herr, courtesy Zion National Park, neg. 4433)

The new water system was engineered and financed by the Park Service. Ray Wyrick of the Western Service Center made preliminary surveys, Noby Ikeda of the Denver Service Center (DSC) made the construction layout, and the DSC's Office of Environmental Planning and Design prepared plans and specifications.²¹⁴⁸ The contract for construction of the water system was awarded to Stratton Brothers Construction Company of Hurricane, Utah, for \$155,891.50.²¹⁴⁹ Notice to proceed was issued on February 13, 1973. Construction work, consisting of reservoir excavation, access road grading, and placing of six-inch water line started on February 13, 1973. Work was performed during an unusually wet winter. All construction was completed on June 12, 1973. With the exception of 737 feet of six-inch underground pipeline and two fire hydrants located on monument land, the water system was located on the Kaibab Indian Reservation. The well was located in a small side canyon, a distance of just over two miles from the monument and one-half mile from Kaibab. A small pump house was located directly over the well; the balance of the system was underground, including a 500,000-gallon cement reservoir. A Wallace and Tiernan A-475 chlorinator was also part of the system. It was reported at the time that the pump was capable of producing 150 gallons of water per minute.

Administration Gets Back to Normal

Since the new visitor center had public restrooms, during 1973 the monument's cinder block comfort station, built in 1957, was razed. To further restore the historic landscape at Pipe Spring, the Park Service had long encouraged the Tribe to develop a picnic area on the reservation. A picnic area just east of the monument was under development by the Tribe in 1973, thus the Park Service decided to remove its overtaxed picnic area within the monument. By 1974 the monument's picnic area was removed as well as the old asphalt-surfaced parking area on the monument's east side. Trees and other vegetation were planted to obliterate the site.

The monument finally instituted collection of entrance fees on July 30, 1973. This was the first time that fees were ever collected in the monument's 50-year history. Tracy attributed the 21 percent decline in visitation figures from 24,051 in 1973 to 19,007 in 1974 to a number of factors: 1) reduced travel due to the energy crisis in the early part of the year; 2) removal of the picnic grounds from the monument; 3) institution of fee collection; and 4) improved accuracy of counting resulting from fee collection. Many of the monument's past visitors were local residents who had been coming to the monument for picnics and recreation several times a year for decades. Once they were required to pay an entrance fee, Tracy reported, many chose not to visit the monument or came less frequently.²¹⁵⁰ While that may have been the case initially, a report three years later by Tracy stated that local residents came "as many as six to eight times per year," bringing visiting family and friends.²¹⁵¹

With the Arab oil embargo in place by the fall of 1973, all park units were required to conserve energy and to report how they implemented this policy, beginning with 1973 Annual Reports. Tracy reported from 1973 through 1975 that temperatures and lighting were kept at minimum levels. No more reports on monument energy use were made until the Superintendent's Annual Report for 1979. On November 15, 1979, emergency

building temperatures were put into effect and several other measures were taken to reduce energy consumption. New wood burning stoves were installed in both Mission 66 residences and six-inch under floor insulation was also installed. (Former Custodian Leonard Heaton, who once complained of the residence having no backup heating system and cold floors, would have given his whole-hearted approval to both measures!) Old incandescent lighting fixtures in bedrooms, dining rooms, kitchens, and bathrooms were replaced with fluorescent ceiling fixtures, resulting in an additional energy savings.

On June 25, 1975, an official operations evaluation was conducted at Pipe Spring. A later report stated, "The team was impressed with the monument as a little gem of a historical area especially in the manner in which it is presented to the public." The team thought the historic buildings were well maintained and had that long sought after "lived-in" look that gave visitors the feeling of stepping back in time. The new visitor center and concessions run by the Tribe were an improvement in visitor services, they reported. Although the Tribe's maintenance of the building was not quite up to Park Service standards, the working relationship with the Tribe was satisfactory. The team praised the monument's interpretive program, but cautioned that care needed to be taken "to keep it within reason as far as staffing and costs are concerned." Among the needs identified was for permanent positions for a clerk-typist, to help with office work, and a ranch foreman, to handle the farm and ranch work of the interpretive program. In its long list of recommendations, the team wrote that the construction of a new maintenance and storage structure should be given high priority.

During 1976 the monument began monitoring air quality with readings taken twice daily, morning and evening. Visibility observations were made in order to establish visibility standards for the monument and the Arizona Strip to the south. The data was sent for use in developing a model to the Assistant to the Regional Director James R. Isenogle for Utah who coordinated the Park Service's air quality control program. Also that year the Kaibab Paiute Tribe proposed to build a large, one-story, multipurpose center about one mile north of the monument using grant funds from the Economic Development Administration. The center was needed, the Tribe stated, to combat the problem of alcoholism among its members. The new project would serve a population of about 200 Kaibab Paiute. The estimated cost of the new building was \$250,000. The construction of the building took some time. Dedication of the Tribe's new multi-purpose building took place on December 22, 1978. Merle Jake was master of ceremonies at the event. Bill Fields, Southwest Region, gave the keynote address and Gevene E. Savala conducted the ribbon cutting. Paul Smith (Tribal Operations, Phoenix Area Office) made closing remarks, with Mel Heaton offering the closing prayer.

At the beginning of the 1976 travel season, Tracy met with the tribal chairperson to make suggestions for improving the appearance and operation of the visitor center. He later submitted a list of suggestions to the Tribe's chairperson, not "to be construed as a request or directive," he wrote, trying to be diplomatic.²¹⁵⁷ This appears to be the first time that Park Service expectations were so clearly spelled out to the Tribe for its upkeep of the building.

A problem arose in the fort during 1976 that took much time and money to address. Water seepage along the fort's north wall worsened that year. The consulting firm of Conron and Muths, Restoration Architects, from Jackson, Wyoming, was engaged to research the problem and make recommendations for treatment. (See "Historic Buildings" section for details.) Emergency action was required during November 15-16, 1976, which resulted in the removal of the fort's parlor and kitchen floors. This created a new storage problem for the monument. A place was needed to temporarily store all the furnishings that were removed from the two rooms. It was decided that a room in the visitor center would be used. There was much concern about moving the artifacts from a cool area of high moisture to the warmer and much drier visitor center. Regional Curator Ed Jahns provided the monument with a sling psychrometer in January 1977 for relative humidity readings to be taken in the new storage room, as well as in the storage trailer. He provided instructions for increasing the humidity where the "damp room" (i.e., parlor) furnishings were stored, and advised staff to gradually lower it over several months until it reached the normal humidity of the fort. He advised that the furnishings not be kept in the visitor center for longer than a year.²¹⁵⁸

Tracy did his best to control the humidity in the visitor center storage room. Without introducing humidity through mechanical means, the normal humidity was about 25-26 percent. When he attempted to humidify the room by mechanical means to the 40-50 percent that Jahns recommended as a "starting point," the furnishings began to accumulate a surface residue, which appeared to Tracy to be mineral in nature. In addition to his concern about the collection, Tracy was also concerned about visitors' complaints about the closure of the two rooms of the fort. Local residents in particular were in the habit of bringing their out-of-town guests to see the fort and couldn't understand the lengthy closure of the rooms. Tracy asked Heyder for permission to construct a temporary plywood floor in the fort rooms so furnishings could be put back in and full tours could be given again. Heyder forwarded Tracy's request to the Rocky Mountain Regional Office, stating that he opposed doing anything in the two rooms before the report of Conron and Muths was received.²¹⁵⁹ (That report was submitted in November 1977. See "Historic Buildings, The Fort" section.)

Another serious problem occurred during the summer of 1977, this time interfering with normal operations in the visitor center. The building was connected to a 1,500-gallon septic tank, which proved inadequate to meet the needs of visitors and staff. During the summer, the system became blocked and inoperable. Sewage backed up into the snack bar, forcing its closure for a short period. The visiting public and staff were without restroom facilities for three days. As a temporary measure the septic tank had to be pumped out about once a week. Visitors inconvenienced by the problem at first held the Park Service responsible, but were usually appeased after the problem was explained to them.²¹⁶⁰ The problem was solved with the Tribe's installation of a new sewage lagoon prior to the 1978 travel season.²¹⁶¹

In the spring of 1978, the Government Services Administration renegotiated a new fiveyear lease between the Park Service and Kaibab Paiute Tribe for rental of the monument's office space and visitor center. Tracy reported the lease was improved over the earlier lease.²¹⁶²

The most noteworthy event of 1978 was the completion of the monument's master plan in March. Much had transpired in the way of Park Service-Tribe cooperative developments since the previous master plan of 1972. By 1978 Glen Canyon National Recreation Area was drawing increasingly large numbers of motorists from southern California past the monument on Highway 389. The master plan recommended additional exhibits, the development of a self-guiding nature trail and audio stations, and the re-creation of ranch land, orchards, vineyards, and vegetable gardens. It also proposed relocating the monument's residential and utility areas to tribal land, either in the Tribe's new housing area east of the monument or in a small cove located about one-half mile north of the monument. This proposal would receive thorough study in early 1979, after Tracy had retired (see Part XII).

In late 1978, Tracy advised the Park Service of his plan to retire, which he did on January 12, 1979. He agreed to oversee the monument as a retired annuitant until the arrival of Superintendent William M. ("Bill") Herr, GS-11, on April 8, 1979.²¹⁶³ After that date Bernard and Ruth Tracy moved to Moccasin and lived there until 1996, when they moved to Salt Lake City to be near family.

Visitor Services Operated by the Kaibab Paiute Tribe

Campground

Like the visitor center, the Tribe's campground was designed by the Park Service's Southwest Regional Office through the Indian Assistance Program. Bill Fields recalled that the Park Service "did the plans, the specs, the layout; we hired people, rented backhoes; we dug the trenches; we put in the water lines and sewer lines, parking spaces, curbs, and everything."2164 There was not enough money to complete the campground's construction in the early 1970s, however, nor to build 70-units, as originally planned in 1972.²¹⁶⁵ Begun about 1973, the 45-unit campground and trailer park was completed in 1977.²¹⁶⁶ The full-service operation was located about one-quarter mile northeast of the monument. In addition to the usual necessary hookups, a laundromat, restrooms, and showers were available. Tracy provided field inspection services for the project during its final construction phase. The facility was put into use in 1978 but was not heavily used that year. (Tracy attributed low use of the campground to it not being well advertised.) Again in 1979 the campground had very little use. It was reported that the Tribe did not have anyone to operate it properly, the grounds were not taken care of, and the grocery store was seldom open. One of the monument's seasonal maintenance men parked his trailer there all summer and watered the trees around his campsite, the only ones that were watered. Many people with recreation vehicles drove in, around, and right back out of the campground, monument staff reported.²¹⁶⁷

Snack Bar and Gift Shop

From the time the visitor center was first planned, the Kaibab Paiute Tribe intended to develop the south part of the building for a food service operation and gift shop (also

referred to as the arts and crafts shop). By the end of 1973, the Tribe was in the process of negotiating a contract with an individual to operate the gift shop and provide food services. During the summer of 1974, Dennis ("Denny") Judd of Kanab operated the gift shop. The Tribe operated a snack bar during the summer of 1974. Tracy reported that both ventures did well that first year. The following year he reported the snack bar appeared to be a "thriving business" during the summer of 1975.

During the summer 1976, however, the snack bar was only open for about 10 days. Its operator told Tracy that the amount of business did not justify its operation. Denny Judd continued to operate the gift shop during the 1976 travel season but expressed doubt that he would continue to run the shop in 1977 due to poor sales. The Tribe sought new leasees for both operations. Doug Higgins of Holbrook, Arizona, leased the gift shop and the snack bar in 1977. He found the gift shop profitable, but not the snack bar. After that season he informed the Tribe he would not continue operating both businesses and that, if required to operate the snack bar, he would terminate his lease for both operations. The Tribe allowed him to lease only the gift shop space in 1978; he reported it was a very good year for business. That summer two members of the Tribe operated the snack bar. They too reported a good season. No one was hired by the Tribe to operate the snack bar in 1979 until the end of the summer season. The operators kept it open for two or three weeks then disappeared. Doug Higgins ran the gift shop again in 1978. Monument staff received a number of negative comments about the type and quality of goods Higgins sold, which were mostly from Mexico. ²¹⁶⁸

Since the building was tribally owned, the Park Service had no direct control over its leased operations or building maintenance. Tracy recognized the need to use tact to ensure that all facilities were managed to the Park Service's high standards. At least in 1974 and 1975, Tracy reported that the Tribe was offering good service in its maintenance of the building.

Hiking Trails

In 1968 Tribal Chairman Vernon Jake had been amenable to Ray Geerdes' suggestion that the Park Service construct trails to the Powell survey monument and through Heart Canyon. Nothing was done to build the trails at that time, however, probably because Neighborhood Youth Corps enrollees were busy constructing the monument's own trail. On May 15, 1972, Tracy wrote Tribal Chairman Tom and asked for the Tribe's permission to construct and maintain a two-mile walking trail from Pipe Spring to the Powell survey monument, returning through Heart Canyon where petroglyphs are found. He requested a 10-year agreement with option to renew. The Tribe forwarded Tracy's request to Hopi Agency at Keams Canyon. They in turn asked Tracy to provide them with a legal description and map showing the proposed location of the trail. During his July 18-20, 1972, trip to the area, Bill Fields completed several surveying jobs for the Tribe at its request. While they had asked him to stake a nature trail from Pipe Springs to the Powell monument, Fields decided to not to stake the trail. "A more sound understanding and agreement should be reached between Park Service and the Tribe prior to the staking of the nature trail," Fields reported. Park Service and unknown, no

agreement was executed. Six years later, in 1978, the Tribe completed two trails that connected to the monument's trail system, one to the Powell monument and the other to Heart Canyon.²¹⁷⁰ The Park Service had long desired to administer trails to these sites as part of their interpretive program. Since their construction, the Tribe has administered the trails.

Developments in Kaibab Village

In late June 1974, the Tribe's water well in Kaibab Village failed - the only source of water for the community. The Tribe invoked Clause 13 of the 1972 Memorandum of Agreement with the National Park Service that provided that "the Tribe at its own cost and expense may install a pipeline connecting the water well lines with the Kaibab Village for emergency purposes only." On June 21, 1974, the Tribe connected to the main water line and relied on the Park Service well for the rest of the summer. ²¹⁷¹ By September 1974, the Indian Health Service had completed preliminary design of a new water source and storage system for 12 proposed housing units to be erected in Kaibab. ²¹⁷² Superintendent Bob Heyder advised Tribal Chairman Bill Tom that since the emergency connection was above ground and subject to freezing, the Park Service would be able to continue supplying water only until the onset of winter. ²¹⁷³ On September 30, 1974, the Tribe's well was put back into service and reliance on the Park Service's well ended. The monument provided a total of 1,510,200 gallons of water, which was metered and chlorinated. As stipulated in the 1972 water agreement, the Tribe was billed \$386.01 for the cost of water production. ²¹⁷⁴

In 1975 it was determined that the Tribe's well was no longer adequate for its needs. Drilling operations for a new well commenced in the area of the Park Service's well. On May 15, Tracy informed Heyder that one well was drilled about 1,300 feet northeast of the Park Service well to a depth of 290 feet. No water was found and the site was abandoned. As of mid-May a second well was being drilled about 700 feet southwest of the Park Service well. Drilling was suspended at a depth of 80 feet to make repairs to the drilling rig. The driller advised Tracy at that point that he didn't think water would be found at that site and he intended to suggest drilling next *beside* the Park Service well, as it was a proven water source. Tracy recognized the danger. He suggested in a report to Heyder that the Park Service offer to supply water to Kaibab Village rather than see its system jeopardized by another nearby well. The well log indicated that the current pump was able to produce 250 gallons per minute with no difficulty, Tracy wrote. Under those circumstances, a completely new water agreement would be required with the Tribe.²¹⁷⁵ As it turned out, the Tribe drilled a new well near the monument well in 1980 (see Part XII).

Neighborhood Youth Corps, Comprehensive Employment Training Act, and Volunteer Programs

NYC Program

The monument continued to rely on enrollees of the Neighborhood Youth Corps program through the 1974 summer season. In 1971 there were 18 NYC enrollees, 11 girls, and seven boys. (Seven of the girls were Indian and four were whites; five of the boys were Indian and two were white.) The NYC enrollees contributed 3,473 hours during that

summer. At the conclusion of the 1971 summer's NYC program, two summer aids were hired, three girls (two Indian, one white) and one boy (Indian). They contributed an additional 238 hours of work to the monument.²¹⁷⁶ While most of the Indian workers were Kaibab Paiute during the early 1970s, some enrollees were Navajo, Havasupai, and Hopi. As in prior years, boys were engaged in maintenance work (carpentry, plumbing, painting, tending gardens and orchards, irrigation, and caring for poultry and livestock), under the supervision of Mel Heaton. The girls worked as interpretive guides in the fort demonstrating baking, quilting, weaving, churning, and other "pioneer" domestic arts. As in earlier years, girls were costumed and the boys wore work clothes.

In January 1972, Tracy learned that the NYC program coordinating office for Mohave County was being transferred from the Flagstaff to Yuma, with the possibility that there might be no program in the Pipe Spring area. In addition, the Arizona Strip was in danger of losing its Head Start and Operation Mainstream programs.²¹⁷⁷ Tracy and the area's Neighborhood Council (representing Kaibab, Moccasin, and Fredonia) wrote a number of letters pleading with state officials to keep the NYC program going on the Arizona Strip.²¹⁷⁸ Indian children made up the majority of Head Start and NYC programs; 85 percent of enrollees in the NYC program were Indian and half of these worked at Pipe Spring National Monument.



129. NYC crew take a break from work, July 27, 1971. From left to right: Danny Bulletts, Brigham Johnson, Glen Rogers, Elwin John, Ingo Heaton, and Supervisor Mel Heaton (*Pipe Spring National Monument*)

Operation Mainstream was also an important avenue for adult vocational training. Tracy was assured in early February by the Manpower Planning director for Yuma and Mohave counties that the NYC program would be continued, at least for the time being. Tracy proceeded to line up students to fill the usual 18 slots. Just four days before the enrollees were to begin work at the monument, Tracy received word indirectly that the program had not been scheduled or funded because the area was too remote to justify a program. Chagrined, he wrote Governor Jack Williams about the problem, commenting on the youthful lament of the 1960s, "I am continually hearing the young people refer to the short comings of the so-called ESTABLISHMENT. and I am beginning to believe they have a point."2179 He appealed to the governor to restore the area's NYC program and funds. Williams asked the director of Manpower Planning to get the problem straightened out and Tracy got his



130. NYC girls by fort gate, August 3, 1971. Front row, left to right: Amelia Baker, Ila Bulletts. Back row, left to right: Supervisor Konda Button, Laurie Heaton, Gloria Bulletts, Bonnie Choate, and Maeta Holliday (*Pipe Spring National Monument*)

program and funds back. The program was reactivated on July 3, one month late in the season. That summer there were 14 NYC enrollees, eight girls and six boys (nine Indians, five whites).²¹⁸⁰ In addition, one Paiute boy was hired through Dixie College's off-campus work study program.

In February 1973, Tracy resumed the monument's annual letter-writing campaign to state and county officials to plead for the continuation of the NYC program at Pipe Spring. The female enrollees provided over 80 percent of the monument's summer interpretive program, he informed State Director Adolf Echeveste, Office of Economic Opportunity. The program was continued at the monument that year, but a report of the number of enrollees has not been located.

In 1974 the living history program was operated on a much more limited scale than in prior years due to a decline in scope of the state-sponsored NYC program. The monument was unable to obtain workers directly through the NYC program that year but the Kaibab

Paiute Tribe ran its own NYC program and had a surplus of youth. In 1974 the Tribe programmed five of their enrollees to assist with maintenance work and the living history program at the monument. During its last year of operation at the monument in 1975, eight NYC enrollees worked, six girls and two boys (three girls and one boy were Kaibab Paiute).

CETA Program

Beginning in the summer of 1976, the monument was able to obtain workers through the state's Comprehensive Employment Training Act Program (CETA). The CETA enrollees provided essential seasonal staff, particularly for the monument's interpretive program. CETA girls worked as interpreters and CETA boys performed maintenance work. In 1976 there were 11 enrollees, five girls and six boys. In 1977 there were nine CETA workers, six girls and three boys. During 1978, there were 10 enrollees (nine girls and one boy) and in 1979, nine enrollees (eight girls and one boy). During the late 1970s, Seasonal Park Aid Adeline Johnson supervised the CETA girls.²¹⁸¹

The VIP Program

Volunteers in the Parks (VIPs) continued to contribute to the monument's interpretive program during the summers.²¹⁸² Men and women took part in distinctly gender-differentiated activities during the 1970s, much as they did in the 1870s. (For additional information on VIPs, see "Interpretation" section.)

Cattle Branding Demonstrations

Male volunteers were responsible for cattle branding demonstrations. It is not known how many branding demonstrations were given in 1971; in 1972 there were four branding demonstrations. The cost for the roundup and branding demonstrations in 1971 and 1972 was \$600 each year. Two branding demonstrations were offered in 1973 and again in 1974. Three were given in 1975. During 1977, VIPs participated in branding demonstrations and in the monument's third annual wagon trek. Due to a shortage of funds for VIPs, only one branding demonstration was held on Saturday, May 27, 1978. Two demonstrations were held in 1979, one on Memorial Day and the other on Labor Day.

Although quite popular, not everyone enjoyed the branding demonstrations. Superintendent Heyder observed the demonstration firsthand on May 20, 1973, and later wrote to Tracy:

Personally, the branding, castration and dehorning, marking of the ears, and the general handling of the stock, which was quite rough, I found repulsive. I do realize it is a way of life, which is required in the cattle business. It is an historic fact that these methods were employed by the cattle industry and will continue. From a Park Manager's standpoint, the brandings provide an individual with an excellent education concerning the operation of the cattle industry. And I am quite sure that if individuals were polled who visit the Park on a day of such an event,

we might well find many in favor and many in disfavor. But, when weighing all the facts, it is a good living history presentation.²¹⁸³

Heyder recommended that the demonstration be continued but forbade the VIPs to allow youngsters to mount and ride the animals. He had observed one boy thrown off a young steer. "This cannot be tolerated at any further brandings," he wrote.²¹⁸⁴ Fearful of tort claims against the Park Service, he advised Tracy to make one of the monument's employees (either Rick Wilt or Mel Heaton) a safety officer to ensure that only VIPs entered the corral during demonstrations. He also recommended that an operational plan be developed for the branding demonstration.

Domestic Arts Demonstrations

During the 1970s, costumed female VIPs primarily participated in demonstrations of quilting, baking, soap and candle making, spinning, weaving, and churning. (CETA girls also participated in these demonstrations.) Female VIPs were paid \$1.60 per hour for the quilting program and the monument paid for the cost of materials for their dresses (\$10 each). The cost for the women's quilting program in 1972 was \$450.2185

Zion Natural History Association

The Zion Natural History Association (ZNHA) had operated a branch sales outlet at Pipe Spring in the old visitor contact station. With the larger space rented by the Park Service in its new visitor center, the association realized a 300 percent increase in sales in 1973 over 1972. In 1973 the association provided funds for the dedication program for the visitor center and for the purchase of books for the library. It also published a Pipe Spring poster that sold well. During 1974, ZNHA sales increased by another 45 percent. The association contributed \$1,147 to the monument that year for library books and supplies for the interpretive program. Sales continued to rise in 1975 by 58 percent. In addition to books, slides, and postcards, the association sold quilts, an expensive item that boosted revenue.²¹⁸⁶ That year the ZNHA donated \$680 to the monument for library books and to purchase a wagon to be used in the living history program and 1976 wagon trek. Association sales again showed a 25 percent increase in 1976 and the ZNHA contributed \$1,040 to the monument. The association donated \$943 to the monument in 1977. That year its sales in the visitor center showed a slight decrease over the previous year. In 1978 sales once again showed a slight decline. That year the ZNHA donated \$2,200, \$1,571 of which was used for the purchase of a reproduction cheese vat for the fort. Sales in 1979 showed an 11 percent increase over 1978. The association gave \$859 that year to the monument for its interpretive program, the museum, and library.

Personnel

Administrative changes at the superintendent level at Pipe Spring were mentioned under "Monument Administration." This section summarizes changes in all other staff from 1971 to early 1979, both seasonal and permanent.

Tracy did not have a permanent park historian until Richard K. Wilt was hired in late October 1972.²¹⁸⁷ Wilt remained at Pipe Spring for two years before taking a promotional

transfer to Badlands National Park in November 1974. His position was vacant until the hiring of Glenn O. Clark, GS-09, on March 30, 1975. (Clark took a lateral transfer from Lassen National Park.) In late July 1977, Glenn Clark took a promotional transfer to Virgin Islands National Park. Clark's park historian position was abolished that year and a new position of park technician (interpretation) was established at the GS-06/07 level. Fred Banks, Jr., formerly at the Chesapeake and Ohio Canal National Historic Park, was hired to fill the position on February 26, 1978.

In 1973 Park Technician Konda Button (clerk/typist), originally hired under Operation Mainstream, was appointed to a career-conditional position at the monument. She later married and resigned her position on May 16, 1974. A permanent park technician position was authorized in 1974, but was occupied by Joe Bolander on a subject-to-furlough basis due to hiring restrictions imposed in early 1974. A new park technician position (clerk/typist) was created in 1976, filled by Paul Happel, GS-04, on August 17, 1976. He transferred to the monument from the Soil Conservation Service in King City, California. Happel stayed only one year, transferring to Point Reyes National Seashore in late September, 1977. On January 15, 1978, Park Aid Nora Heaton (widow of former monument employee Kelly Heaton and mother of Mel Heaton) was hired as a park technician (clerk/typist), GS-03/04. She was upgraded from a GS-03/3 to GS-04/2 on August 29, 1978.

Seasonal park aids hired during the 1970s included Nora Heaton, Yvonne Heaton, Adeline Johnson, Lisa Heaton, Clorene Hoyt, Carla Esplin (all local whites), and Lori Jake (Kaibab Paiute). Two Kaibab Paiute women, Leta Segmiller and Elva Drye, were hired to demonstrate Indian crafts during the summer of 1976. This one-time project was made possible with bicentennial funding. (See "Interpretation" section.)

Laborers hired on a seasonal basis during the 1970s included David Johnson and Alfred Drye (1970); Elwin John (1974-1976); Carlos Bulletts (1977-1978 and possibly 1979). Drye, John, and Bulletts are Kaibab Paiute men. In 1979 the monument hired its first female laborer; her name could not be located.

The monument lost two very valuable "old-timers" from the monument during the 1970s. After working 12 years at Pipe Spring, Joe Bolander resigned on January 31, 1976. His departure was a serious loss to the interpretive program. Particularly during the 1970s, Bolander was the object of much high praise by visitors and Park Service officials alike. Another valued employee, Mel Heaton, resigned after nearly 13 years, on May 12, 1979, to go into business for himself.²¹⁸⁸ His maintenance position was then abolished.

Dale Scheier was hired at the GS-05 level into Joe Bolander's old park technician position on June 6, 1976. Scheier was formerly at Sequoia and Kings Canyon national parks in Three Rivers, California. In addition to overseeing monument maintenance, Scheier was an excellent amateur photographer. During his years at Pipe Spring, he created an impressive collection of photographs and slides related to the monument's living history program. On July 16, 1978, Scheier was given a promotion to a GS-06 level.

Permanent monument personnel received training to improve their job skills during the 1970s, some on their own time. Details on specific trainings completed by personnel are reported in the Superintendent's Annual Reports for 1972-1979.

<u>Interpretation</u>

Programs, 1970-1974

The interpretive theme of the 1970s concentrated on portraying both the Mormon "pioneer" era and Pipe Spring as an operating cattle ranch, circa 1870-1880. The program had a strong basis on history and the local environment, telling the story of human occupation of a desert ecosystem. Guided tours were enhanced by costumed guides and a wide variety of demonstrations including cooking, sewing, weaving, butter churning, and other historically appropriate domestic arts. In general, the living history program was active from May through September, the months when the monument received most of its visitors. As it had in the late 1960s, the monument's living history program depended very heavily on the participation of young NYC and CETA workers and on older VIPs. By 1972 it was reported that 90 percent of interpretation was dependent on NYC and VIP personnel. Public branding demonstrations were completely reliant on male volunteers and attracted much attention. The living history program continued to be very popular with visitors and many favorable comments were received during the 1970s.

The quilting demonstration was also quite popular with the public. Both traditional and original designs were used for making quilts. The Zion Natural History Association purchased supplies for making the quilts then later displayed and sold most of the finished pieces in the visitor center's gift shop. The quilts were pieced on a treadle sewing machine on site, then hand-quilted. Two quilts made as part of the monument's living history program - a bicentennial quilt depicting the fort and a star quilt - won blue ribbons at the Northern Coconino County Fair in September 1976 for workmanship and design. The star quilt was sold, but the bicentennial quilt, designed and partly sewn by Pam Clark (wife of Park Historian Glenn Clark), was made part of the monument's permanent collection. Those pictured in figure 131 are working on a double wedding ring quilt.

The enhancement and expansion of the historic landscape was also part of the monument's interpretive program. Vegetable gardens were planted each year and the fruit orchards were maintained. Horse-drawn equipment was used in agricultural activities. In the early 1970s, a cow and horse belonging to employee Mel Heaton were kept in the pasture and used as part of the interpretive program.²¹⁹¹ Tending to and irrigating the monument's vegetation required much attention. As the number of available male NYC or CETA enrollees declined during the decade, maintaining the historic landscape put quite a strain on Heaton and one seasonal laborer.

In addition to the expansion of gardens and orchards that took place in the early 1970s, chickens, ducks, and geese had the run of the area and horses grazed on the fenced meadow. Even the native grass restoration project begun by Ray Geerdes in 1968 played a role in the interpretive program. The "Interpretation" section of the monument's 1971



131. Quilting demonstration in the fort, 1977. From left to right: unidentified girl, Lisa Heaton, and Nora Heaton (*Pipe Spring National Monument*)

draft Management Objectives describes how the landscape elements intertwined with living history demonstrations as a teaching tool:

The lower southwest section of the monument has been utilized as a native-grass restoration patch. The domestic demonstrations and the cattle-branding demonstrations both fit well into the environmental theme of proper use of the resources, historically and presently. Historically, it is possible to show the positive features of the Mormon pioneer resource use, such as communal use of water and resources and how these probably affected the land philosophy of John Wesley Powell. Positively, the combination of restoration of the native grass and the branding demonstration exert a strong influence on the local cattlemen to use the range resource so that the grass can be restored and optimum use of the range resources maintained. The large reservoir of good will created in the local cattle community, by public branding demonstrations and restorations of the 'living ranch' theme, has exerted a stronger environmental influence.

A combination of the interpretive theme and restoration of native grasses has, in effect, made the entire area - both interpretive and resource management-wise - an environmental study area. School children and others can be made graphically

aware of the contrast of the emerging native grass area and the denuded appearance of the surrounding range when viewing both from the combination historic and nature trail over the Vermillion Cliff behind the fort.²¹⁹²

The Zion Natural History Association contributed funds throughout the 1970s to enhance the monument's interpretive program. Their financial contributions are listed in Appendix VIII, "Monument's Administrative Budget."

The completion of the visitor center finally provided the monument with adequate space for an orientation exhibit that could be enjoyed by the visitor prior to their tour of the site. An exhibit plan was completed for the visitor center in December 1973 and was sent out for internal review in April 1974, along with audio texts for wayside exhibits.²¹⁹³ (Prior to then, the labels and text were reviewed and accepted by the Church historian in Salt Lake City.) Tracy and Deputy Regional Director Glen T. Bean requested a number of substantive changes. By the end of July, Harpers Ferry Center was ready to put the exhibit plan into production. In June 1975, Harpers Ferry staff completed and installed an exhibit in the visitor center lobby and 20 wayside exhibits along visitor walkways. It was acknowledged that while the waysides would intrude on the historic setting, this consideration was outweighed by their contribution to the visitor's experience. The visiting public favorably received the new exhibits, with the audio units contributing to their effectiveness. (A number of the museum exhibits are still in use today, while most waysides have been removed.)

In August 1974, Communications Specialist John W. Hanna of Timpanogos Cave National Monument made an evaluation of the monument's interpretive program and wrote in his report, "The interpretive program at Pipe Spring is effectively handling visitors and providing a very satisfactory interpretive experience. The overall quality of performance is average to excellent." Hanna recommended that even more demonstrations be offered and that branding operations be expanded. He also advised the monument to start an oral history program, and in particular, to interview Joe Bolander extensively. (In January 1976, Park Historian Glenn Clark conducted four two-hour interviews with Bolander. These were transcribed in 1996.) Hanna also suggested that the monument make an effort to involve the Kaibab Paiute in interpreting the role of Indians at Pipe Spring.

Programs, 1975-1976: The Bicentennial Celebration and Honeymoon Trail Wagon Trek The country's bicentennial was celebrated at Pipe Spring National Monument during the travel seasons of both 1975 and 1976. Glenn Clark and Mel Heaton were responsible for much of the planning for the event, which temporarily broadened the scope of the monument's living history program, particularly with the addition of a wagon trek along the historic Honeymoon Trail to St. George, Utah.²¹⁹⁵ Tracy conceived the idea of the wagon trek shortly before Clark's assignment to the monument. As soon as Clark arrived, Tracy brought up the idea. The two men agreed a wagon trek would be a special program that would reflect Pipe Spring's original purpose. Clark prepared a proposal and submitted it to Superintendent Heyder, who gave it his approval and forwarded it to the Rocky

Mountain Regional Office. Their interpretive division was also enthusiastic about the proposal. Early bicentennial funds were available for seed money to get the program started. Between July 1, 1975, and September 30, 1976, the monument received \$26,100 in bicentennial funding, not including \$525 received from the Zion Natural History Association.

Mel Heaton knew of an old wagon in Kanab, Utah. The monument turned to the Zion Natural History Association for funds to purchase the wagon, and the association came through with \$350. The wagon required complete rebuilding by the maintenance staff. Regional Bicentennial Coordinator Paul Swearingen offered \$500 for wagon repairs and \$1,400 to purchase a team and harness to pull it.²¹⁹⁶ Monument staff met with Kanab residents Denny Judd (who operated the Tribe's gift shop) and Fred Reese (head of the local Sons of Utah Pioneers) to plan the wagon trek. Glenn Clark, Joe Bolander, and Mel Heaton scoped out the trace of the old Honeymoon Trail, looking for camping spots with water for animals. Feed had to be stored ahead at these spots. The next task was to locate a good team of horses, a harness, and old farming equipment. David Johnson, a local rancher, helped Heaton and Clark with this project. A harness, plowshare, and spike tooth harrow were purchased for \$400 from Earl Sudweeks of Kingston, Utah. Later, the men located a pair of young draft horses at the ranch of L. S. McGraw in Payson, Utah. One



132. Duke and Mel Heaton on wagon pulled by Mick and Molly, undated (*Pipe Spring National Monument*)

was gray and the other a sorrel. The horses were purchased for \$1,000. Tracy named the sorrell gelding Mick and the gray mare Molly.

Mel Heaton had only two months to break in the horse team and rebuild the wagon. He made many trips over the planned route. Glenn Clark later wrote, "He never gave up on the idea that we could pull this thing off with class."2197 Repairs to the wagon were made by Mel Heaton, Elwin John, and Duke Heaton until, Clark wrote, "it was a thing of beauty." Mel Heaton and the boys took the wagon and team out nearly every morning. Mel even began commuting in it from home, becoming a popular local spectacle! Clark contacted Clifford Jake who headed a group of Paiute dancers from Cedar City. They were offered \$100 to perform at the open house. The same amount was offered to a senior citizen's old-time string band led by Mahala Sorensen of Orderville. Adeline Johnson and Lorene Jake baked some of the cookies served at the open house



133. Adeline Johnson demonstrating cheese making, July 1977 (*Photograph by Paul Happel, Pipe Spring National Monument*)

in the monument's old wood-burning stove. The two women prepared several rounds of cheese and Johnson churned butter that would be taken by wagon to St. George.

On September 9, 1975, the open house was held at the monument with 638 people attending. The program included Orderville's Old Time Band, the Paiute dance group, and a square dance group led by caller Burton Banks. The evening ended with Joe Bolander telling stories under the night sky around a large campfire. Light refreshments of lemonade and cookies were served. On September 10, 1975, the monument's first Honeymoon Trail Wagon Trek to the St. George Temple was launched with two authentic covered wagons, one belonging to the monument (driven, of course, by the well-practiced Mel Heaton) and the other owned and driven by Owen and Adeline Johnson of Moccasin, whose wagon was pulled by mules. In addition to the Johnsons and their son Brigham, Glenn and Pam Clark made the trek, along with Paul Swearingen. Denny Judd volunteered to be an outrider. Following the route of the old Honeymoon Trail, it took the party took four days to reach St. George, where participants ceremoniously delivered cheese and butter to Temple President Reed Whipple. The wagons' arrival was planned to coincide with St. George's Dixie Days Roundup Parade. The monument's first wagon trek was favorably received and



134. Bicentennial Wagon Trek, September 1976. Shown are Glenn Clark, Owen Johnson, Elwin John, and Steve Trujillo (*Photograph by Dale Scheier, Pipe Spring National Monument*)

was given a special award for its participation in the parade. The trail-worn participants headed for Ruby Heaton's where they were invited to shower and eat before dashing off to the Dixie Days' culminating event, a rodeo.

A second open house was held at Pipe Spring on September 8, 1976, with 550 people attending, including two busloads of senior citizens from St. George and Hurricane (the "life of the party," Tracy later reported). The event was billed as "an old-time dance evening" in the monument's press release. The 1976 program included music by the Old Time Band of Orderville, the "Fogey Five" of Glendale, as well as local musicians Bob Nisson, Robin Hamblin, Dwight Rogers, and Karla Esplin; story telling by Joe Bolander; a demonstration by Paiute dancers; and finally, music and dancing under the stars. As in the previous year, light refreshments were served.

The monument staged its second Honeymoon Trail Wagon Trek to St. George on September 14-18, 1976. This time four covered wagons delivered homemade cheese and butter to the Temple. (David Johnson loaned two of the wagons and Denny Judd loaned one.) The 71-mile distance was traveled in five days, with 18 people participating. This time a young couple accompanied the trek, going to St. George to have marriage rites performed at the Temple. Upon the arrival of the wagon train in St. George, Owen



135. Julie Heaton and Tina Esplin baking cookies in the fort's kitchen, September 1976 (*Photograph by Dale Scheier, Pipe Spring National Monument*)

Johnson presented cheese and butter to President Grant M. Bowler at the St. George Temple. (Bowler later sent a letter of commendation to the monument.) News coverage of the 1976 trek was excellent. A staff writer and photographer from the *Salt Lake Tribune* accompanied the wagon train for the entire journey. Local newspapers and television station KOOL of Phoenix, Arizona, also provided coverage. Once again, the trek arrived in time to participate in the Dixie Days Roundup Parade and received a special award.²¹⁹⁸

Thanks to bicentennial funding, in addition to the open houses and wagon treks, the monument was able to hire two Kaibab Paiute women, Leta Segmiller and Elva Drye, to demonstrate Indian crafts during the summer of 1976. The women worked beneath a recreated summer Paiute shelter. Segmiller demonstrated basket weaving while Drye demonstrated beadwork and buckskin crafts. The program was well received by many visitors.

Programs, 1977-1979

Interpretive programs during the late 1970s relied heavily on the participation of CETA girls, under the supervision of seasonal park aids. Tours were hampered by the closure in 1976 of the parlor and kitchen, whose floors were removed due to seepage problems along

the fort's west walls. These rooms were closed to the public for almost four years. (See "Historic Buildings, The Fort" section.)

A third annual wagon trek embarked from Pipe Spring National Monument in 1977. The five-day trip to St. George included four monument staff, four VIPs, and four local residents. Cheese and butter made as part of the monument's living history program were once again delivered to the Temple president. The event received good news coverage on television, radio, and newspapers. The wagon trek was held again in 1978 but this time was sponsored entirely by local people.²¹⁹⁹ Eight wagons participated with about 50 participants. No Park Service equipment was used in the event. Once again, the event was well publicized. Writers from *National Geographic, Sunset Magazine, Arizona Highways, Phoenix Magazine*, and *Outdoor Arizona Magazine* covered the wagon trek, as well as Arizona and Utah television stations.²²⁰⁰

During the summer of 1977, Park Service Communication Counselor Vicki H. Black made two trips to Pipe Spring to assess its interpretive program. She spent her time auditing tours each of the days she visited. She was very impressed with the quality of the program. She later reported,

Not only were the ideas, facilities, and exhibits excellent, but the tour guides all had a very good mastery of the art of speaking to people.

Most tours involve a small number of visitors, so the guides are able to give very personalized tours. Excellent questioning strategies were used by the guides, and a lot of 'touchy feelies' are available at Pipe Spring to facilitate interpretation.

Many of the guides at Pipe Spring are young Mormons. One of them suggested that they have few problems speaking to an audience because the Church requires them to have spent a considerable amount of time speaking to large groups throughout their childhood and adolescence. I found that to be an interesting explanation of why I am always amazed at the quality of the tours at Pipe Spring.²²⁰¹

During 1978, thanks to funds from the ZNHA, a reproduction of the historic cheese vat was purchased and placed on exhibit in the spring room. A replica of an original historic loom was also constructed and put into operation by Dale Scheier that year to be used in the living history program.

Off-site Programs

Very few off-site programs were given by monument staff in the early 1970s. Referred to as Environmental Education Programs, one a year was offered in 1973, 1974, and 1975. In 1974 and 1975, Joe Bolander presented programs at the Hurricane High School. In 1976 a lecture was given in Kanab and in Salt Lake City, presumably by Tracy; Tracy taped one lecture for use by a California group. That year Dale Scheier presented three slide shows on the wagon trek to groups and Mel Heaton gave a slide presentation to a group of boy scouts. During 1977, monument personnel gave four off-site programs. In

1978 Scheier gave three off-site presentations to the Moccasin community, the Kanab Stake Senior Citizens, and one youth group. Mel Heaton gave four programs that year, one each to the Fredonia History Awareness Group, the University of Wisconsin, the Meeks family reunion group, and a boy scout troop. Both Scheier and Heaton spoke about the wagon trek and Arizona Strip history. In 1979 monument staff gave five off-site programs.

Visitation

Travel figures fluctuated during the 1970s from a high of an estimated 34,000 in 1971 to a low of 19,000 in 1974, reflecting the impact of the Arab oil embargo. Travel during 1975 rose by 27 percent in 1975 to 24,168. In 1976, the year of the bicentennial celebration, visitation rose again by 19 percent to 27,270. The monument had 28,202 visitors in 1977. In 1978, 29,613 visitors were reported, a modest increase of 5 percent. In 1979 only 26,139 visitors stopped at Pipe Spring, a 12 percent decline that was attributed to fuel shortages and high gasoline prices in Las Vegas and southern California.

In addition to visits by schools, colleges, boy scout troops, and church groups during the 1970s, the Dons Club and Albright Training Academy continued making regular visits to Pipe Spring. Starting in 1975, Greyhound and other bus companies began scheduling regular weekly stops at the monument, usually bringing groups of about 45 people each time.²²⁰³ Unfortunately, a problem arose because the bus guides did not allow sufficient time for a meaningful visit. In 1976 it was reported that bus tour stops were scheduled to last only 20 to 30 minutes (in effect, just a bathroom and stretch break). The Park Service worked with the bus companies to try to get them to allow more time for a tour of the monument.²²⁰⁴ The trend toward bus tours grew. By 1978 scheduled stops were made at Pipe Spring by Greyhound, Gray Lines, Cook Tours, Four Winds, and other bus companies. By the late 1970s, most bus tours consisted of visitors from foreign countries.

Historic Buildings

The Fort

Only routine maintenance was performed on the fort from 1970 until 1976. In July 1974, Historical Architect Rodd L. Wheaton made his first visit to Pipe Spring to inspect the historic buildings. After a tour with Joe Bolander, Wheaton inspected the fort and associated cabins. His later report commented on a host of problems linked to damp penetration of the fort's exterior walls due to seepage, particularly the rear (north) wall. He agreed with Bernard Tracy that the wall needed to be trenched at the exterior, infilled with gravel, and waterproofed. Wheaton observed that past repairs to the exterior had been made with concrete mortar, incompatible both in appearance and chemically with the original lime mortar. He advised that as concrete mortar deteriorated, it be replaced with matching lime mortar. Although the existing wood shake roof was sound, Wheaton recommended that when it needed replacing, wood shingles be used; shakes were not historically appropriate. Regarding the fort interior, he made recommendations regarding the removal of deteriorated plaster and other repairs. Wheaton evaluated the condition of the east and west cabins as "excellent." In his discussions with Tracy, Wheaton learned

the monument lacked a historic resource study, historic structure report, and historic furnishings report.²²⁰⁵

In early 1976, the List of Classified Structures survey of historic buildings was completed at Pipe Spring by Lance R. Williams and Lance J. Olivieri.

Excessive water seepage at the northwest corner of the fort had long been a concern to monument administrators and historical architects but the problem appeared to worsen over the summer of 1976. In May 1976, the historic architecture consulting firm of Conron and Muths was engaged to research the problem and make recommendations for treatment.²²⁰⁶ Rodd Wheaton was the project supervisor and contracting officer's representative.

On November 15-16, 1976, an emergency stabilization conference was held between Thomas B. Muths, Rodd Wheaton, Bob Heyder, and Bernard Tracy at Pipe Spring. A work crew from Zion was put at their disposal. A decision was made to immediately remove the floors of the parlor and kitchen in order to expose the floor joist system and ground beneath. This increased the rate of evaporation of excess water beneath the floors. In attempting to remove the plaster from the interior face of the north wall to expose the original rock wall, workers discovered a layer of concrete. It was quickly learned from speaking with former Custodian Leonard Heaton that the north wall had a two-inch layer of concrete beneath a thin layer of plaster. Enough of the hard concrete was chipped off to expose the rock wall and mortar joints for inspection. The rock was discovered to be soft and 100 percent water saturated; exposed mortar was in a totally plastic state, Muths later reported. While there was a critical need for exterior work to be performed along the north wall, no funds were available for the work. Meanwhile, an attempt was made to develop drainage inside the fort that would permit free flow of water from the back wall through the building and out its south side.²²⁰⁷ The fort's parlor and kitchen were closed to the public while Tracy awaited direction and funding to correct the problem.

During 1977, the seepage along the fort's northwest wall subsided, possibly aided by a drought that year. Conron and Muth's report on the problem was received in November 1977 (Masonry Stabilization Project, Phase I).²²⁰⁸ During 1978, Conron and Muth prepared construction documents to correct the seepage problem (Phase II). They completed this work in either late 1978 or early 1979. Their report was reviewed by Tracy and Heyder in March 1979 and by Rocky Mountain Region staff in May. Repairs of existing damage and preservation work had to await funding. Work was programmed for fiscal year 1979, expected to cost \$98,000. A government contract was advertised by the Park Service in August 1979 for the fort restoration work, but was not awarded. (Reports suggest no qualified contractor bid.) Stabilization work would not be undertaken until 1980. The fort's parlor and kitchen continued to be closed to the public during 1977, 1978, 1979, and much of 1980.

The East and West Cabins

The monument flood of August 23, 1971, caused water damage to the west cabin (see "Floods" section). During the storm, water flooded through the walls and into the structure. While no reports of repairs have been located, it is presumed repairs were carried out. For the rest of the decade the cabins received only routine maintenance.

Landscape Changes

A Park Activity Standards report made in August 1971 provides a "snapshot" description of the monument's landscape at that time. The report stated that an estimated 500 trees and 50 shrubs were being irrigated, along with residential lawns. Cultivated areas included three acres of gardens, two acres of orchards, two acres of pasture, and five acres of alfalfa and grain fields. The balance of 28 acres was natural ground cover.²²⁰⁹ The draft management objectives prepared for Pipe Spring National Monument in 1971 stressed the interpretive value of the native grass restoration area in the monument's southwest section, planted in 1968. (The restored area was pointed out to visitors as a vivid contrast to the overgrazed, denuded areas outside the monument.) It was recommended in this report that, in addition to removal of nonnative weeds and exotics, "a continued and enduring program for restoration of native grasses should be continued not only in the grass restoration plot but in the entire monument."²²¹⁰ At the same time, it expressed the hope that "the development of a new source of water with the Indians will enable the historic trees, orchards, gardens, and vineyards of the pioneers to be maintained or re-established and cultivated as in pioneer times."²²¹¹

The joint-use water system constructed by the Park Service in 1973 did indeed expand the monument's agricultural horizons. Tracy did not wait for the completion of the new water system to get started, however. In late January 1971, monument staff wrote to the American Pomological Society for information about old apple varieties and received a list of suggested types that were still available.²²¹² In the spring of 1971, just after the new well had been drilled on the reservation, Tracy wanted to begin replanting activities to establish an orchard using historic species, but his ambitions were hampered by lack of funds. In addition to a small number of fruit trees, a "historic" vegetable garden had been cultivated annually for some time. In February 1972, the monument placed several large orders for vegetable seeds (corn, cucumber, parsnips, pumpkin, sunflower, zucchini, several varieties of squash, and watermelon); 20 fruit trees (apple, apricot, quince, prune, plum, pear, nectarine, cherry, peach, and walnut); 25 grapes (four varieties); 25 asparagus and 10 blackberry plants. Order forms suggest that the Zion Natural Historic Association paid for the order which totaled about \$400.²²¹³

On June 28, 1971, a construction proposal was submitted by Pipe Spring National Monument for grounds improvement of the fort and picnic area. The proposed work included grading, seeding, and planting trees and shrubs on the monument, "to provide landscaping necessary to enhance the scenic beauty of the area." The project was needed due to "severe damage to the natural vegetation and scenic features" resulting from increased visitor use since 1967, the proposal stated.²²¹⁴ The timing of the landscaping proposal suggests a possible link to the Park Service's anticipation of a water agreement with the Tribe over the new well and water system.

While visitors to the monument must have enjoyed the growing gardens, vineyard, and orchard trees, Tracy's efforts did not please everyone. After an operations evaluation was conducted at Pipe Spring in May 1973, the team reported,

Considerable money and manpower are being spent in the expansion and care of gardens and orchards. While it is true that farming was a part of the historic scene, there is apparently some question as to the relationship of the present day efforts to create a historic scene and just how much the Mormons of the 1880s actually cultivated.... It is concluded by some people that [historic-era ranching operations were] not conducive to extensive gardening. There is also the question of methods used for cultivation, irrigation, harvesting, etc.... Apparently no real historic data is being used to guide the agricultural efforts at Pipe Spring National Monument, so locations and size of gardens are suspect, modern irrigation is incongruous, and varieties of crops planted probably are not historically accurate.²²¹⁵

In its recommendations, the team stated, "The farming and orchard operation should be based on accurate historical data. This should include locations, size, crops, and techniques. The Superintendent should strive to restore the area to be the 1880 period, not turn it into a modern truck farm."²²¹⁶ The evaluation report noted that general appearance of the monument was "below average" and that "it appeared that the maintenance effort is concentrated on the raising of crops instead of maintaining the facilities." No doubt, Superintendent Tracy was disheartened to the read the report.

Not all landscape changes that took place during the 1970s were agricultural in nature. Some trees were planted during 1973 for screening purposes. In 1974 over 30 trees were planted in the monument to help obliterate old monument roads and the parking area made obsolete by the new visitor center. Throughout the 1970s, youths employed under first the NYC then CETA programs provided essential labor to maintain the historic gardens and orchard which required considerable time and attention. The Western Tree Crew also continued to provide tree pruning at Pipe Spring under a program of cyclic maintenance.

Zion Biologist H. E. ("Hank") McCutchen completed a pasture survey at Pipe Spring on April 9, 1976.²²¹⁷ The study assessed resource damage, vegetative condition, and trend. Two pastures were described. One was a three-acre irrigated pasture of perennial grass. It was "probably originally a moist area with cane and willow," McCutchen stated. Adjacent and to the west was a nine-acre pasture of four-wing saltbush with an understory of annual cheat grass and filaree. Also in the larger pasture was a small stand of saltbush without understory, a stand of silver maple and a stand of willow. The nine-acre pasture was the site occupied by the CCC camp in the 1930s. Three burros and two horses were using the pastures in 1976. Other than some damage to tree bark, he found the pasture in good condition but pointed out that a decision need to be made on how much livestock would be maintained by the Park Service. The decision was delayed until 1977.



136. Mel Heaton plowing demonstration garden, May 1977 (Photograph by Dale Scheier, Pipe Spring National Monument)



137. Mel Heaton resting with Mick and Molly, June 1977 (*Photograph by Dale Scheier, Pipe Spring National Monument*)

On January 31, 1977, the monument's Resource Management Plan was approved. Historian Glenn Clark prepared the plan. Under "Maintenance of Historic Grounds" the report stated,

All of Pipe Spring National Monument is considered historic ground. The native grasses, historic fruit trees, pioneer shade trees, pastures, gardens, sandstone cliffs, and trails have historic significance at Pipe Spring. All of this will be managed as a part of the historic setting at Pipe Spring. Modern intrusions will be minimized by placement and by natural vegetation. Historic crops, grasses, and trees will be selected for planting after adequate historical information is obtained. All that is possible within safety guidelines will be done to preserve trees that have stood since the pioneer era at Pipe Spring. Walks, trails, and wayside exhibits will blend with the natural environment to avoid a look of functional modernity. Any structure, sign, utility, or other modern improvement will not be placed in such a way as to conflict with the historical structures and their environs. The objective is to manage the ranch to appear as close as possible to the historic scene of the 1870-1890 period without violating [NPS] standards.

Exotic plant species intrude on the historical scene at Pipe Spring.... Russian thistle, sand burs, cockle burs, puncture vine, cheat grass, tumble mustard, and red brome grass must be eradicated by hand.... If they are not controlled they will crowd out valuable historic species of grasses and shrubs. Other species [young silver-leaf cottonwoods, buffalo or desert gourds, ailanthus and young Potawatomi plums] must be curbed annually.

Native grasses at Pipe Spring have been crowded out or overgrazed nearly to extinction. Some species maintain a tenuous hold.... A proposal has been written for future funding consideration for planting native grasses, trees, and shrubs [including sand dropseed, Indian rice grass, blue grama grass].

The only endemic trees in the area are the pinyon pine and the Utah juniper. The silver-leaf cottonwoods, English elms, black locusts, ailanthus, Carolina and Lombardy poplars, and Potawatomi plums, along with various other fruit varieties of which the original trees are gone, were all imported by Mormon pioneers to Pipe Spring.²²¹⁸

The report goes on to recommend preservation of these trees and/or replacement with accurate varieties of fruit trees. "The original Concord grape vine planted by Dr. James Whitmore in the 1860s will be given due care to insure its survival." Trees that "noticeably conflict with the historic scene" were to be considered for removal. The report stated,

It is important to maintain the gardens with similar types of vegetation cultivated by the pioneers. [They] will be cared for with hand labor or horse drawn equipment to complement the historical scene. Irrigation methods will be similar in appearance to the open ditch method of Mormon pioneer times [hiding the modern pump system].²²¹⁹

Visually intrusive black asphalt-surfaced walkways were to be repaved with colorblended soil cement as funds became available. A decision needed to be made between maintaining the nine-acre pasture for stock or reseeding the area with native grass. If stock (horse and cattle) was to be maintained "it will be of an appropriate variety," stated the report. A seasonal laborer position was needed to maintain the landscape, as the availability of NYC labor was unpredictable.

In the fall of 1977, Hank McCutchen made a follow-up survey of the monument's pasture area and reported indications of overuse. The survey report compared conditions to the earlier 1976 survey. A drought in 1977 and continued livestock use resulted in "major changes" in vegetation since 1976, due to reduced irrigation capacity. The bark of a stand of fruit trees on the north end of the three-acre pasture was being damaged by livestock, whose heavy browsing also impacted ailanthus trees on the south end of the pasture. A downward trend in ground cover and perennial grasses was also observed. The report said due to the heavy use of the area by livestock for over 50 years (prior to Park Service acquisition), "...it is believed that the native vegetation can never be fully restored to its original condition." The downward trend in vegetative condition in the pastures "warrants some type of management decision," particularly as the visible condition might be interpreted by visitors as neglect, said the report. Several alternatives were suggested. Tracy fenced off the fruit trees on the north end of the pasture, as well as a grove of nearby cottonwoods, so that animal damage to tree bark would stop. In December he removed the livestock from the two pastures and put them in the corral below the east cabin.

There seemed to be some confusion and disagreement among Park Service officials administering Pipe Spring in the late 1970s over the manner in which the historic landscape was to be managed. Tracy was caught in the middle. In July 1977, Tracy asked permission from Heyder to cut down a stand of 12-15 silver-leaf cottonwoods that were originally planted for shading around the site of the CCC swimming pool (meadow pond) in the 1930s. "This grove is not part of the historic scene of the 1870-1890 interpretive period of Pipe Spring and obstructs the view of the Arizona Strip from the west cabin," he wrote to Heyder.²²²¹ Tracy's request was denied at the regional office level on the grounds that the trees were providing needed vegetative cover. "Their removal, in our view, would be too great a price to pay for the sake of historical purity," countered Deputy Regional Director Bean.²²²² In September 1977, Tracy asked Heyder if he could remove all the ailanthus in the pasture, which he described as an undesirable exotic species. Former Custodian Leonard Heaton had routinely done this. Heyder replied that the Mormons brought the ailanthus to Pipe Spring during the historic era. "These areas may be managed to the degree to prevent their taking over a disproportionate share of the vegetative cover," he wrote Tracy, but advised him that any removal program had to be pre-approved to determine if Section 106 clearance was needed.²²²³

Tracy read and reread Hank McCutchen's two pasture surveys in October 1977. Managing the grounds as a natural resource area made no sense to him, given his knowledge of historical cattle ranching practices. "If [the area] is to be operated as a

Living History Ranch of 1870-1890," he wrote Heyder, "then the vegetation within the area becomes secondary. The stockmen of that period gave no thought to preservation of the nine acres referred to as 'the large pasture.' They had 10,000 square miles of forage as their front yard."²²²⁴ In a tone of exasperation, Tracy declared, "A final decision should be reached – i.e., Living History vs. Natural Area – and a written directive should be issued, that we may operate the monument in accordance with the Service's plans." Heyder replied,

We believe that there is no question that Pipe Spring is a historic area, but the vegetation growing upon the property does provide the landscape of the area and it should be managed in such a way to prevent its degradation. The monument, from an interpretive standpoint, is operated in the living history concept, but when the operation affects the vegetation, as is the case of the pastures, we must correct the situation in favor of ground cover. The vegetation never becomes secondary to the operation of the living history ranch.²²²⁵

The problem of how to manage the monument's landscape remained essentially unresolved for many years.²²²⁶

Other than the degradation of the two pastures, no landscape changes were reported from 1975 to 1979. Historic orchards were maintained, gardens were planted each year, and the pasture and balance of the area were maintained in keeping with the historic concept of the area. Horse-drawn equipment continued to be used in the maintenance of historic areas.

Planning and Development

One of the chief deficiencies apparent to Park Service officials in the early 1970s (as well as prior years) was the monument's lack of planning documents to guide management decisions. By the end of the decade, great strides had been accomplished to correct the situation. The monument's master plan had not been updated since 1959. A new master plan was completed in 1972; it would be updated again in 1978. By 1978 the monument had a variety of approved management plans. These included an Outline for Planning Requirements (February 1976), Structural Fire Plan (1976), Statement for Management (March 14, 1977), Resource Management Plan (January 31, 1977), Master Plan (March 14, 1978), Visitor Use Plan and General Development Plan (both included in the master plan), and Interim Interpretive Plan (March 24, 1977).

Prepared during August 1971, the Park Activity Standards report was sent to Director Kowski for Pipe Spring National Monument in early October.²²²⁷ It was estimated at the time that to address deficiencies in all areas of operation would require \$26,120. This figure was revised in December to \$35,740 to include funds for curatorial work. Neither figure included the flood protection project, for which the Midwest Region had allocated \$16,300. (The monument's total operating budget for fiscal year 1972 was about \$48,000.)

As mentioned earlier in this chapter, the old comfort station was removed in 1974. No new construction projects were undertaken at Pipe Spring during the 1970s until 1979. That year the 1953 maintenance building was overhauled. In addition to the installation of four-inch insulation, drywall and ceiling, a new roof was put on the building and it was completely rewired. The old oil-pan stove was replaced with two new electric wall heaters. New roofs were also put on the storage trailer and hay barn. A new 1,000-gallon fuel storage tank was buried in the maintenance area to replace the above-ground 500-gallon tank, considered an eyesore.²²²⁸

Museum Collection

Regional Curator Jean R. Swearingen spent a week in early November 1971 at Pipe Spring going over miscellaneous problems with historic building interiors and with the collection on exhibit. Her visit took place shortly before the transfer of Pipe Spring National Monument from the Southwest Region to the Midwest Region on November 15, 1971. During her visit, the regional curator stated that the monument needed \$10,000 to start restoration and preservation of its collection.²²²⁹ As a follow-up to her visit, Jean Swearingen prepared and sent to Regional Director J. Leonard Volz (Midwest Region) and the Southern Utah Group copies of her report, "Preliminary Guide to Interpretive Maintenance."2230 The report included maintenance themes, general instructions for maintaining a house museum display, and maintenance procedures for caring for specific types of artifacts. In her cover letter to Volz, Swearingen stated the value of historic furnishings at Pipe Spring was conservatively estimated at \$75,000. She urged Volz to get the monument's collections professionally appraised. She also recommended that Mel Heaton and Zion's Keith Wilkins be sent to Harpers Ferry Center for conservation training. A room-by-room inventory of curatorial work still needed to be done, she wrote, "the kind of problem that I transfer over to you all."2231

In 1973 Dr. David Wallace and Vera Craig of Harpers Ferry Center made an inspection of the monument's collections. Routine preservation included treating of wood surfaces exposed to the weather. In November 1974, former Park Historian Robert W. Olsen, Jr. (then working at the Division of Museum Services at Harpers Ferry Center), spent a week at Pipe Spring updating collection records and assisting monument staff with curatorial problems. In February 1974, the monument obtained a small utility trailer. Located in the utility area, the trailer was used to store museum collections and other equipment. The trailer, in Olsen's opinion, did not provide adequate storage for museum collections. (For a while it leaked badly whenever it rained; finally, its roof was repaired.) Olsen recommended that a room in the new visitor center or the fort be dedicated for storing collections.²²³²

On May 30, 1975, Regional Curator Ed Jahns (Rocky Mountain Region) visited the monument to consult with its staff on collections management issues. In addition to other recommendations, Jahns pointed out the need for staff to receive training in conservation work, particularly for leather and wood, and recommended Mel Heaton take a preservation maintenance course. He also emphasized the need for a furnishings plan for the historic buildings.²²³³ Jahns returned to the monument in August 1976 to meet with

staff. The decision was made to not actively add to or dispose of furnishings in the collection until a furnishings plan was approved. The trailer was still being used for collections storage, a situation Jahns did not approve of. As Director Gary E. Everhardt had issued a Service-wide directive that historic objects not be used in a consumptive manner, Glenn Clark was faced with the need to acquire a collection of reproductions to be used in the living history program. Jahns expressed concern about the poor condition of many leather objects in the collection and advised monument staff on treatment methods.²²³⁴

In 1976 Clark organized an extensive curatorial program, carried out by the monument's permanent interpretive staff. Its primary objectives were to 1) conduct a complete inventory of over 2,000 artifacts and create a location card file indicating location, condition, and estimated value for each object; 2) accession items found in the inventory with no records; 3) deaccession all items no longer in the collection; 4) separate artifacts that had never been accessioned for professional review to determine if they should be included in the collection; 5) compile a list of artifacts recommended for deaccession; 6) compile a list of items needing professional curatorial work; 7) identify and mark objects to be used only in the living history program; 8) organize a historic photograph file; and 9) organize a slide file.²²³⁵ By December 1976 a location inventory of the Pipe Spring collection was completed.²²³⁶ (See "Monument Administration" section for storage problems created during emergency work in November 1976 that required the emptying of the fort's parlor and kitchen and floor removal.)

By the end of 1977, much of the curatorial work outlined by Clark in 1976 had been completed. The photograph and slide files were still being organized. The main problem faced by the monument was lack of a proper place to store artifacts. Talk of a new maintenance structure with storage facilities offered hope for a solution, but funds were not available for its construction. During 1978 and 1979, Fred Banks worked on developing a curatorial management plan for the monument, with help from Ed Jahns.

Movies and Other Filming

From October 18-22, 1976, Golden West Motion Pictures of Salt Lake City filmed the production, "Brigham Young," at Pipe Spring National Monument. The company was very cooperative during their stay and constant supervision of the film and acting crews was maintained. The movie premiered in Salt Lake City in December 1977, receiving excellent reviews from local newspapers.²²³⁷

In February 1977, the motion picture production specialist for the Utah State Board of Education requested to film portions of a movie on the life of Jacob Hamblin at Pipe Spring. The Board of Education planned to use it as an audio-visual aid in teaching Utah history in its schools, primarily to seventh graders. They expected filming would take about a day and one-half and asked to use a room that would be representative of old Fort Kanab.²²³⁸ The filming was completed in early May.



138. Filming of "Brigham Young" in November 1976 (Photograph by Dale Scheier, Pipe Spring National Monument)

In August 1977, Schick-Sunn Classic Productions, Inc. of Salt Lake City used the fort in a filming for part of a production for television, "The Last of the Mohicans." The film was shown on a television special that aired on Thanksgiving 1977. The company returned on April 19-20, 1978, to film portions of the "The Donner Party." The film company posted bond of \$10,000, which was returned in full on May 4.

While no problems arose during the 1976-1978 filming activity, Superintendent Heyder raised a number of concerns in his Annual Report for 1978:

We feel that this is an area in which training should be provided concerning the do's and don'ts. It is not easy for a small staff to maintain the degree of control required to protect the historic fabric of the historic structures. These companies have large crews; 50 or more is not uncommon. It is extremely difficult for the staff to maintain the degree of supervision required. The Service needs operating guidelines for the actual filming process.²²³⁹

Natural History

In May 1968, Zion's Park Naturalist Barbara Lund identified 49 different bird species in the monument, including the broadwing hawk, considered rare for the area. Christmas



139. Filming of "The Last of the Mohicans" in September 1977 (*Photograph by Dale Scheier, Pipe Spring National Monument*)

bird counts for the Audubon Society were conducted in the Pipe Spring area during 1969, 1970, and 1971. Park Aid Konda Button and Barbara Lund identified a total of 39 species in 1969. Robert Foster reported 27 species counted in December 1970. The 1971 bird count, also by Foster, identified 16 species.²²⁴⁰ In 1973 Park Historian Rick Wilt began cataloguing the area's birds. By the time of his transferal to Badlands National Park in November 1974, Wilt had counted 201 bird species.²²⁴¹

In late spring 1975, Research Geneticist E. Durant McArthur (U.S. Forest Service) visited Pipe Spring and made an informal inventory of plants located along the monument's nature trail and "in the flat area just west of the Headquarters building" (visitor center). He later provided a list of these plants categorized under the headings of trees and shrubs, cacti, forbs (weeds and wildflowers), and grasses.²²⁴² In January 1978, the Soil Conservation Service (U.S. Department of Agriculture) submitted a similar report to the Park Service, entitled "The Flora of Pipe Spring National Monument." The report included a list of plants located within the monument, not including "horticultural introductions such as many of the trees and shrubs used in landscaping."²²⁴³

Archeological and Historical Research

During the summer of 1973, an archeological survey was conducted in areas to be affected by the proposed construction of the new water system. The survey and report was prepared by LaMar W. Lindsay and Rex E. Madsen as part of an Environmental Impact Study for projects in Pipe Spring, Zion, Arches, and Canyonlands.²²⁴⁴ At Pipe Spring, the survey was a ground inspection and surface examination only of areas to be impacted by the new well site, pump house, 500,000-gallon reservoir, water lines, reservoir access road, borrow pit, and GarKane power line (the latter was the northernmost area surveyed, located 10,000 feet north of the monument). Most of the land surveyed was on the Kaibab Indian Reservation. All tangible evidence of aboriginal occupation was found within an area from roughly 3,500 feet north to 700 feet south of the monument. Of the three sites identified, archeological excavation was recommended for only one site (2-MH-3), located about 500 feet south of the proposed pipeline into the monument. Lindsay and Madsen estimated 95 percent of site 2-MH-3 was on the reservation. While no construction activities at the time threatened to impact the site, archeologists have long been interested in the prehistoric mound below the monument. It has never been excavated.

During 1973 and 1974, Rick Wilt taped a number of oral history interviews. Glenn Clark conducted additional oral history interviews from 1974 through 1976, some of which have recently been transcribed.²²⁴⁵ There is no record of research being conducted in archives or libraries other than those at the monument during the 1970s.

Seasonal Residence

After monument staff moved their offices and receiving area into the new visitor center in 1973, there were plans to remove the old double-wide metal trailer used as the visitor contact station. In June 1973, Heyder requested that the monument be allowed to retain the trailer for use as a temporary seasonal residence; his request was approved. The building was moved to the monument's housing area and converted into seasonal quarters. Its use was short-lived, however. In April 1974, the trailer was demolished by a windstorm, surveyed later as a complete loss. Another seasonal residence was not obtained until 1979. On April 27 that year, a new 14 x 60-foot mobile home was delivered and set up.

Solid Waste Disposal

During the 1970s, the monument continued to haul its solid waste from residences to the disposal site owned by the Tribe. (The Tribe took care of the visitor center's garbage disposal.) About 1974 a Park Service report stated that the disposal site was located three miles from the monument in a shallow gully. It was seldom covered and burning was common. Papers are wind-scattered and rodents had access to the refuse. Park Service officials advised that the Indian Health Service evaluate the site and that it be upgraded.²²⁴⁶

The Navajo-McCullough Transmission Line

In April 1972, Jim Schaack learned from an article in *The Southern Utah News* that the Department of the Interior had granted rights-of-way to Los Angeles' Department of Water and Power and the Arizona Public Service Company for three electrical power

transmission lines to cross public land in Arizona, Utah, and Nevada. Park Service officials had previously expressed opposition to the route chosen by the Department of Water and Power across the Arizona Strip in a meeting with representatives of the company meetings during the summer of 1970. (For background, see Part X.) The route chosen from the Navajo Generating Station near Page, Arizona, to the McCullough Switching Station near Boulder City, Nevada, was the same one opposed by the Park Service.²²⁴⁷ On May 11, 1972, Acting Regional Director Phillip R. Iversen sent a memorandum to Park Service Director George B. Hartzog, Jr., pointing out that the location of the transmission line constituted an adverse effect under Section 106 upon Pipe Spring National Monument. This communication was a mere formality, however, as the action had already been approved.

Measurements of Spring Flow

In April 1976, Heyder directed Tracy to develop a plan to routinely measure the spring flow at Pipe Spring. During 1977, a program of weekly water measurements on combined spring flow within the monument was begun in order to gather data required by the Secretary of the Interior's office. Readings in 1978 indicated an average decrease of 2.3 gallons per minute, compare to 1977 figures. Total precipitation for 1978 was 18.16 inches, compared to an average of 8.28 inches for the previous 13 years.²²⁴⁸ Heyder concluded that the springs appeared to come from an aquifer that was not subject to changing patterns of precipitation.²²⁴⁹ In 1979 total spring flow showed an average decrease of 2.82 gallons per minute from 1978. Since measurements had only been taken for few years, it could not be determined if the decrease in spring flow observed was a pattern. The total flow in 1979 averaged 30.93 gallons per minute, compared to the historic measurement of 42.15 gallons per minute taken in 1934.²²⁵⁰

Ponds, Fish, Fowl, and Farm Animals

No reports were filed in the 1970s on the fort ponds or about their being stocked with fish. The focus of the decade was on farm animals. Chickens, ducks, and geese virtually had the run of the area in the 1970s. In addition to expanding the monument's planting activities, Superintendent Tracy expanded the range of its animals. In the early 1970s, a cow and horse belonging to Mel Heaton were kept on the pasture as part of the interpretive program.²²⁵¹ Mick and Molly, the monument's draft horses, were acquired in 1975 (see "Interpretation" section). During his tenure, Tracy contacted a hatchery in Missouri and asked for advice on the type of chickens that were popular about 1870-1880. McMurray Hatchery did better than just reply - it sent a large batch of baby chicks to the monument.²²⁵² Tracy also purchased a pair of burros (a jenny and a gelding) from an area rancher for \$65. Soon, a "surprise" colt was born that Bernard and Ruth Tracy named "C.L.," which stood for "Careless Love." The public loved the burros, Tracy later recalled, but Heyder thought they were completely inappropriate for the monument. Soon the burros were described as "surplus property" and Tracy was forced to get rid of them.²²⁵³



140. Burros at Pipe Spring National Monument, 1970s (Pipe Spring National Monument)

Floods

On the afternoon of August 23, 1971, a rainstorm produced 1.32 inches of rain in a 45minute period. Sixteen people were stranded in the visitor contact station, while one car in the picnic area had water flowing over its hood. The Southern Utah Group's Maintenance Specialist Joe Davis arrived early the next morning to survey the damage. General Superintendent Karl Gilbert quickly sent in two front-end loaders, a dump truck, a bulldozer, and operating personnel to assist the monument with cleanup operations. Surveyor of Maintenance Ronald E. Cotten arrived on August 25 to inspect the damage, estimate costs for repairs, and make recommendations to correct the drainage problem. The area around the visitor contact station, the picnic area, and lawns north of the Park Service residences were all covered with mud and silt to a depth of one to two feet. The historic garden (located between the contact station and the residential area) and six fruit trees were completely washed out. In addition, the sewer system was exposed in several places, the septic tank cleanout was silted in, and the sewer line was broken at one location. The superintendent's garage was flooded and the underground power line serving the power station was exposed and damaged. The west cabin also received water damage from water that had flooded through the walls and into the structure.

Of particular concern to Cotten, Davis, and Tracy was that the original drainage channel through the monument was completely washed out, including rubble-masonry dikes. This left the area entirely unprotected from future storms. This was a serious concern because more storms were predicted for the area at the time. Contact was made with tribal officials who gave permission for the Park Service to do rechanneling work across a portion of reservation, as well as on monument land, to divert and straighten the drainage channel, moving it to the northeast. Cotten estimated the rechanneling would cost \$12,000; another \$4,250 was needed to repair other monument storm damage.²²⁵⁴

Flood Diversion

After the flood of August 23, 1971, the monument's drainage channel was realigned, as per Cotten's recommendation. The initial stages of the project were accomplished under day labor, supervised by Joe Davis. The work had to be performed as time permitted. Complicating the work was the fact that from the beginning to the end of the project, the administration of Pipe Spring National Monument was transferred through three regions (Southwest, Midwest, and Rocky Mountain). This caused considerable confusion in terms of paperwork. Another factor that undoubtedly slowed down the project was the Park Service's indecision about retaining a housing area within the monument. (For a time they were considering moving the houses onto the reservation.) Cleanup work began in August 1971 but storm repairs were not completed until November 1974.²²⁵⁵ Funds in the amount of \$16,300 were allotted by the Midwest Region to repair the storm damage on May 15, 1972. The project included excavation of 800 linear feet of drainage channel and the installation of 374 linear feet of flood protection fence.²²⁵⁶ The work realigned and rechanneled the stream bed.²²⁵⁷

Fire Protection

In 1973 Zion's Chief Ranger Nicholson made a study of conditions at Pipe Spring from which a basic fire plan was developed, put into use, and updated annually. In 1971 Superintendent Bernard Tracy assessed the vulnerability to fire of all monument buildings (as well as museum collections) and made recommendations to improve fire protection. The estimated cost of needed equipment was \$1,200.²²⁵⁸

Safety and Law Enforcement

A basic safety plan was in place at the monument during the 1970s, updated annually. The monument maintained an excellent safety record with no accidents reported from 1969 to 1979. Hazardous trees were flagged and removed in the fall of the year.

No law enforcement problems were reported during the 1970s.

Part XII - The Herr Administration

Introduction

This chapter deals with events occurring in and around Pipe Spring National Monument while it was under the administration of Superintendent William M. ("Bill") Herr, beginning with his arrival on April 8, 1979, and ending soon after his transfer to Golden Spike National Historic Site in mid-January 1989. (Some events associated with the very early administration of one of Herr's successors, Gary M. Hasty, are also mentioned.) A decline in the spring flow at the monument, first noticed in the 1970s, continued throughout the 1980s. The decline led to a two-year study by the Park Service's Water Resources Division. During the 1980s, developments on the Kaibab Paiute Indian Reservation in 1980 and in Moccasin in 1987 threatened to upset the delicate balance over water use that existed between the Park Service, the Kaibab Paiute Tribe, and the Mormon community of Moccasin. Considerable rehabilitation work was accomplished during this period to the fort and west cabin, as well as to tunnel spring.

International events continued to impact the monument to some degree, as the Arab-Israeli conflict had in 1973-1974. When Bill Herr arrived at Pipe Spring, President Jimmy Carter was still in office. During 1979 and 1980, gasoline prices were high, in large part due to critical events in Iran. On November 4, 1979, a hostage crisis took place in Iran, when 53 Americans were held captive for 444 days by Ayatollah Khomeini's Revolutionary Council, an act triggered by the U.S. admitting the recently deposed Shah Mohammed Reza Pahlevi into the country for medical treatment. President Carter froze Iranian assets in the United States and announced the country would go to war to protect oil supply routes in the Persian Gulf. Formal relations with Iran were broken on April 7, 1980, followed by economic sanctions against Iran. The hostage crisis dominated U.S. foreign policy for over a year. It led in mid-November 1979 to the implementation of emergency building temperature restrictions at the monument and other park units. (Fortunately, just one month prior to the hostage crisis, a number of changes had been made to the two permanent residences to make them more energy efficient. See "Permanent Residences" section.) Carter's failure to win release of the hostages helped Ronald Reagan win the 1980 presidential election. The hostages were freed on Inaugural Day, January 20, 1981. As part of the agreement between the U.S. and Iran, trade restrictions were lifted and the U.S. energy crisis gradually eased.

President Reagan served for two terms. Former Vice-president George Bush succeeded him in 1988.²²⁵⁹ The budget-cutting policies of Reagan and Bush led to a curtailment of assistance to Native Americans, leaving some reservations with few opportunities for economic improvement. That is why, some have argued, that the Kaibab Paiute Tribe showed interest in a late 1989 business proposal to locate hazardous waster incinerators on the reservation, a plan that would have put the area at risk for an environmental disaster.

Within the Park Service a number of administrative changes took place between 1979 and 1989. There would be four Secretaries of the Interior during this period: Cecil D. Andrus,

James D. Watt, William C. Clark, and Donald Paul Hodel. In 1979 William J. Whalen was National Park Service director, followed in May 1980 by Russell E. Dickenson. William Penn Mott succeeded Dickenson in May 1985 and served in the post until April 1989. In the Rocky Mountain Region, L. Lorraine Mintzmyer succeeded Regional Director Glen T. Bean on April 6, 1980, and held the position until early October 1991. Superintendent Bob Heyder left Zion National Park in 1979. Zion was successively overseen by Superintendent John O. Lancaster (1979-1981), and two Acting Superintendents, Russell C. Alderson and Malcolm S. Nicholson (1981). Superintendent Harold L. ("Harry") Grafe took over Zion in October 1981 and remained in the position for 10 years. As far as Region, Zion, and Pipe Spring administrations go, the 1980s were a period of relative stability for the monument, with Mintzmyer, Grafe, and Herr providing a rare degree of continuity.

During the 1980s, Herr worked with a number of different tribal chairs. Tribal Chairman Bill Tom represented the Tribe until 1982 when Dolores ("Dee") Savala was elected tribal chair. Gloria Bulletts succeeded Savala in 1983. Both women were subsequently re-elected as tribal chairs later in the decade. Alberta Fuller was elected tribal chair in October 1989. A complete chronology of tribal chairs for the decade has yet to be compiled. What is notable about the decade is that tribal government shifted from being headed by Kaibab Paiute men to being led by Kaibab Paiute women, although men continued to serve on the Council and in other tribal government positions.

Federal Legislation and Federal Water Rights

Two important pieces of legislation were passed in the late 1970s that impacted the management of many park units during the 1980s, particularly those in the West. At about the same time these laws were passed, the federal government took action regarding water rights on lands that it administered. The following two sub-sections briefly describe those events.

The American Indian Religious Freedom Act (1978) and the Archaeological Resources Protection Act (1979)

The U.S. Congress passed the American Indian Religious Freedom Act (AIRFA) on August 11, 1978 (P. L. 95-341; 92 Stat. 469). The act declared "the policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religious of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites." 2260

The Rocky Mountain Region was directed to appoint a key person to serve as liaison between park units, the Rocky Mountain Region, and the Washington office on AIRFA. During the summer of 1979, Regional Coordinator Emma Plume was appointed to serve in that position. Donald Standing Elk and Cecil Lewis worked with Plume after her appointment to develop and implement an operational plan to carry out the AIRFA mandate. A regional committee was appointed to contact each Tribal Council and to

inform them of the Park Service's intentions in respect to the act. Zion National Park was asked to appoint a coordinator to work with the committee. Bill Herr was chosen to be the coordinator for Zion, Pipe Spring, and Cedar Breaks. In notifying Regional Director Bean of Herr's appointment, Zion Superintendent Lancaster wrote, "Although some may exist, we are not aware of any religious sites within any of the three areas." ²²⁶¹

In addition to AIRFA legislation, Congress passed the Archaeological Resources Protection Act (ARPA) in 1979 (P. L. 96-95 Stat. 712). This law defined archeological resources as any material remains of past human life or activities that are of archeological interest and at least 100 years old; required federal permits for excavation or removal and set penalties for violators; provided for preservation and custody of excavated materials, records, and data; provided for confidentiality of archeological site locations; and encouraged cooperation with other parties to improve protection of archeological resources. In September 1980, as part of its response to AIRFA and ARPA, the Park Service's Office of Management Policy drafted a "Native American Relationships Policy," covering the headings of philosophy; legislation; explanation of terms; access and use within park sites; Native American traditional activities; planning and resources management; and research and interpretation.²²⁶² This was a time when establishing close communication and good relations with Indian neighbors became increasingly important among federal agencies.

Federal Water Rights: the Solicitor's Opinion

On June 6, 1978, President Jimmy Carter issued a directive to expeditiously identify, establish, and quantify federal water rights. On June 26, 1979, Department of the Interior Solicitor C. Martz issued Opinion No. M-36914, which was a comprehensive analysis of the nature and extent of federal rights to use water on lands administered by the National Park Service, Fish and Wildlife Service, Bureau of Reclamation, and Bureau of Land Management. It defined and characterized the reserved water rights those agencies may assert under various statutes, executive orders, and Secretarial orders. It also discussed other forms of water rights assertable by federal agencies, including rights initiated by application of water to beneficial use for congressionally authorized or mandated purposes. This right has become commonly know as the federal non-reserved water right. To address concerns raised subsequent to the original opinion, Solicitor Martz issued a supplement on January 16, 1981.²²⁶³

Monument Administration

General

Superintendent Bill Herr arrived at the monument on April 9, 1979, with his wife Jan and their two children. Herr had a B.A. in biological sciences and had worked as a park naturalist in Petrified Forest National Park, Gila Cliff Dwellings National Monument, Zion National Park, and (most recently) Theodore Roosevelt National Park. His past acquaintance with many of the staff at Zion was helpful since Zion continued to oversee the administration of Pipe Spring National Monument. Zion Superintendent Bob Heyder and retired Superintendent Bernard Tracy met with Herr during his first few months at Pipe Spring to familiarize him with operations. Herr was an avid amateur astronomer and

enjoyed teaching astronomy programs to school classes in the area. When Haley's Comet shot past the earth on March 19, 1985, Herr's family all rolled out of bed at 4:15 a.m. to witness the sight.

Herr made what appears to be his first official visit to Tribal Chairman Bill Tom on May 23, 1979. Their conversation centered on maintenance issues pertaining to the visitor center. In late October, Herr and Tom met again to discuss the paving of the visitor center parking lot, maintenance issues, and the monument's use of the tribal dump. The Tribe had never paved the parking area since the dedication of the visitor center in May 1973. On July 29, 1980, Hurricane Sand and Gravel, under contract to the Tribe, began paving the area. Work was completed August 1. "Better late than never,"



141. Williams M. ("Bill") Herr and his wife Jan at Pipe Spring, undated (*Pipe Spring National Monument*)

quipped Herr in his monthly report at the seven-year delay.²²⁶⁴ Documentation during the decade indicates that Maintenance Mechanic Doug Dewitz interacted considerably more with tribal members on a personal basis than did Superintendent Herr, who preferred rubbing elbows with the people of Fredonia and Kanab.

During the 1980s, four permanent staff were on duty at Pipe Spring: a superintendent, a maintenance person (Dale Scheier until April 18, 1981, succeeded by Doug Dewitz), and two park technicians.²²⁶⁵ One technician headed the interpretative program (Fred Banks) and the other performed the monument's clerical work (Nora Heaton, followed by Jeff Frank, Jewell Harter, and Marlene Frederick/Coombs). The monument hired its first seasonal museum curator in 1988, Zula Brinkerhoff. For names of staff who are known to have worked at the monument and a chronological listing of personnel changes, see Appendix IX, "Personnel."²²⁶⁶

Air quality continued to be monitored at the monument during the 1980s. Early in his tenure, Herr faced a noise problem caused by low-flying B-52 bombers, reportedly flying at an altitude of 500 feet. The problem was solved, for the time being, after he contacted officials at Nellis Air Force Base (near Las Vegas, Nevada) and explained to them the Congressional mandate to protect the monument.

In May 1982, a Regional Performance Evaluation Team visited the monument to inspect facilities and evaluate operations. Its report praised the monument's living history program while commending Herr for his effective management of the area. It noted that the Zion Natural History Association (ZNHA) provided substantial financial support, remarking that the monument had "become dependent on it in order to maintain basic operations." Among the team's recommendations pertaining to resource management and visitor protection were that a study be made to determine specific needs for security and fire protection; to not plant trees in straight lines, but to stagger or scatter plantings "to preserve the natural scene;" and to limit use of irrigation water in response to declining spring flow. With regard to maintenance, the team recommended that the park request additional staffing and funding for its maintenance operations. Among recommendations for interpretation were that the monument get some cattle (it had none at the time); replace the "inappropriate" draft horse with "a couple of non-pedigreed range horses;" revamp the waysides "to accurately reflect the Pipe Spring story;" and complete paperwork requesting a furnishings plan for the fort. 2268

In July 1985, Herr proposed to Park Service officials that all grounds within the historic site be declassified as historic except for a very small area encompassing the historic buildings, ponds, corrals, and Whitmore-McIntyre dugout. Having to maintain the monument's entire 40 acres according to the strict guidelines of the 1966 Historic Preservation Act exceeded the monument's resources. Herr garnered the support of Zion and region officials for this proposal, which was later approved. In October Herr made a formal proposal to the Tribe that a cooperating agreement be executed that would allow monument staff to take over the upkeep of the grounds around the visitor center and nearby tribal picnic area, but it appears that no such agreement was reached. 2269

Pipe Spring National Monument officially entered the computer age in November 1986 when a Data Point 1800 computer was delivered from Zion National Park. Zion staff (Pat Fesler, John Tordoff, and Teresa Everard in particular) paid frequent visits to Pipe Spring to provide training to monument staff and to help with computer problems over the next several years.

As mentioned in Part XI, Mel Heaton resigned from the monument in 1979 to go into business for himself. During the 1980s, he privately organized annual Honeymoon Trail wagon treks to St. George. The wagon treks continued to pass across the reservation and through Pipe Spring National Monument until 1987.²²⁷⁰ According to Herr's annual report, that year the Kaibab Paiute Tribe asked Heaton to pay an amount he thought was excessive to drive across the reservation. Consequently, Heaton decided to start the trek about four miles southwest of Pipe Spring, thus bypassing the reservation and monument.

On July 25, 1987, the Kaibab Paiute Tribe and Pipe Spring National Monument sponsored a special event to celebrate the "Take Pride in America" program. Participants dressed in native costume. Entertainment included traditional Kaibab Paiute songs and dances as well as demonstrations of traditional Indian crafts. Activities took place in a recreated



142. Elva Drye (left) and Gail Bulletts (right) demonstrate their beadwork skills at Pipe Spring, summer 1988 (*Photograph by Fred Banks*, *Pipe Spring National Monument*)

traditional Paiute village.²²⁷¹ (The event appears to have taken place on monument grounds.) Indian craft demonstrations were also featured during the summer of 1988.

In mid-June 1988, an operations evaluation was conducted at Pipe Spring. The evaluation team was noticeably more critical in its appraisal of the interpretive program than in prior years. Comments included the following:

The monument has high potential, which is not being met by its present operation. It could be a model representation of a past landscape, with additional emphasis placed on wider interpretive themes through a more vigorous interpretive program. The efforts of the maintenance division at recreating an historic scene could be brought to life for the visitor. The monument could become a 40-acre slice of Arizona Strip history, instead of just a fortified home set in an overgrazed, ill-kept pasture, offering only a cliché living history program.²²⁷²

In addition to other recommendations to improve the program, the team recommended additional seasonal supervisory staff. The recommendation by evaluation team member

Bill Swift that monument staff "reexamine interpretive themes" apparently incensed Herr who responded,

Quite frankly, Mr. Swift is ignorant of the scope of interpretive themes we have tried over the years. After all, between the current staff involved in interpretation, there is over 27 years of experience at PISP [Pipe Spring]. The existing program has evolved out of season after season of trial and error, finding out what has/has not worked with our public. Our existing programs are very well recved...²²⁷³

(For more information about the monument's interpretive program in the 1980s, see "Interpretation" and "The VIP Program" sections.) The evaluation team also reported that a lack of restroom and hand-washing facilities in the fort created health and safety problems for interpreters who often had to abstain from drinking to reduce their need to use the restrooms, which were located some distance away from the fort in the visitor center. Fort guides also cooked in the kitchen and the lack of hot water for hand washing meant food preparation did not meet Department of Public Health standards. The team recommended installing a restroom facility with hot water near the fort. This advice was never carried out, but the team's concerns may explain why cookie baking was later dropped from fort demonstrations, much to the dismay of repeat visitors! The evaluation team praised the work of Doug Dewitz, while acknowledging the maintenance division's need for additional help. They also reported, "In addition to his assigned duties, he seems to be the most active link that the NPS has with the Tribal Council and has initiated a good relations project with the local communities in growing and marketing the pumpkins [grown at the monument]."2274 The team was the first bold enough to assess in print, "Historic landscape no longer exists." (See "Landscape Changes" section.) It recommended research be undertaken to determine what the historic landscape looked like and what should be presented to the public.²²⁷⁵

In mid-November 1988, Herr accepted an offer of the superintendency of Golden Spike National Historic Site from Zion Superintendent Grafe.²²⁷⁶ The transfer was made official on December 1. He entered on duty at Golden Spike January 15, 1989. The fifth permanent person to administer Pipe Spring National Monument, he worked there just under 10 years, the longest tenure after that of Leonard Heaton. Fred Banks also left Pipe Spring during 1989, transferring to Mount Rushmore National Memorial. After Herr's departure, John W. Hiscock served as acting superintendent for just under four months, followed by a permanent appointee, Gary M. Hasty. (Hiscock returned to the monument as superintendent in June 1994 and has served in that position up to the present time.)

During his first year on the job, Hasty was faced with a major environmental issue. In October 1989, just after the election of Tribal Chair Alberta Fuller, the Kaibab Paiute Tribe entered into negotiations with Waste-Tech Services, Inc., a subsidiary of Amoco Oil Company. Waste-Tech sought the Tribe's approval to locate two 50,000-ton hazardous waste incinerators on the reservation, south of Pipe Spring National Monument.²²⁷⁷ Incinerated waste products (mainly oil refinery waste) were also to be buried on the reservation. The incinerators would have generated a payroll of \$3 million annually and

employed 150 people. As area tourism failed to bring in the expected revenue and since federal aid to Indian programs declined during the 1980s, some influential members of the Kaibab Paiute Tribe thought Waste-Tech's proposal was worthy of consideration. The Tribe and local communities were deeply divided on the issue, however, and Park Service relations with the Tribe were also temporarily strained.²²⁷⁸ On October 6, 1990, after a year of negotiations with Waste-Tech, the Tribe voted to sign a contract with the firm. (On the very day the Tribe voted on the issue, Gloria Bulletts-Benson was elected to a three-year term as tribal chair, assuming her duties on October 11.) The vote to sign the contract set off loud outcries from environmental groups, citizen groups in Fredonia and Kanab, and even out-voted members of the Tribe. Tribal member Vivienne Jake organized a group called the "Paiute Earthkeepers" to oppose the incinerators. 2279 Both out of concern for the environment and for area groundwater sources, the Park Service also opposed the plan. Waste-Tech then began preparation of the required Environmental Impact Statement. Early in 1991, the Tribe ceased its negotiations with Waste-Tech, and the incinerators were never constructed on the reservation. Details of this important story must be left for a future history of monument events during the 1990s.²²⁸⁰

Operating Budget and Entrance Fees

The monument's approved operating budget rose from \$124,200 for fiscal year 1979 to \$189,600 for fiscal year 1988. This represents an increase of approximately 65 percent over a 10-year period. Entrance fee collection more than doubled during this period, from \$5,271 in 1979 to \$13,262 in 1988. Separate operating funds were allocated for the VIP program, ranging from \$700 in 1980 (the earliest year reported) to \$2,400 in 1988. Parallel Annual donations from the Zion Natural History Association were also important to the monument. (See Appendix VIII, "Monument's Administrative Budget" and "Zion Natural History Association" section.)

Public Relations

During his administration, Bill Herr kept in close touch with local schools and service clubs, offering off-site programs on various topics. He reports no specifics about his interactions with tribal officials, other than summarily reporting that "close working relationships are maintained" in his annual reports. Not long after his arrival to the area, Herr became a member of the Kanab Lion's Club and the Kanab Chamber of Commerce. In 1982 he resigned from the Lion's Club and joined the Kanab Kiwanis Club, preferring their morning weekly meetings to the Lion's Club evening ones. He attended meetings of these organizations very regularly and was twice elected vice-president of the Kiwanis Club. In the early 1980s, Herr was a member of the Citizens Contract Negotiating Team, which worked with the Fredonia Board of Education and Teachers Association. In November 1984, Herr was elected to the non-partisan Fredonia-Moccasin Board of Education. In either late 1985 or early 1986, Herr was elected president of the Fredonia School Board. He was an elected member of the Coconino County Academic Decathlon Board of Directors in late 1986. Herr appears to have thoroughly enjoyed his involvement with the communities of Fredonia and Kanab.²²⁸² He accepted a part in the Fredonia Civic Play in 1985, but was later forced to set aside his thespian urges when he learned the Superintendents' Conference was scheduled the week of the play's performances.

In 1981 Herr completed the Native American Concerns Training at the Albright Training Center. Aside from the expected interaction monument staff had with the Tribe in connection with leasing space in their building, reports suggest some instances of mutual aid during the decade. When two fires broke out near Kaibab Village in 1982, three monument staff responded to the call for assistance. When Molly, one of the monument's draft horses, died just before spring planting time in 1982, the Tribe not only used its equipment to dig a hole just outside the monument to bury the horse's remains, but later sent over a tractor to till up the demonstration garden, a job formerly performed by horse-drawn plow. (The monument abandoned the plow after Molly's death.) When a six-inch water main broke on the monument in 1983, the Tribe lent the monument their backhoe. On the other hand, when the monument completed enlarging its maintenance building in 1987, it gave the 1974 metal storage unit to the Tribe.

There are no reports by Herr of any serious public relations problems during the 1980s. After Herr's departure and the arrival of Gary Hasty in February 1989, communication appears to have increased between the Tribe and monument staff. As relations improved, Hasty reported, one segment of the local community complained that "we were giving the area back to the Indians." Monument managers and staff often found themselves walking a very fine line between the sometimes-opposing interests of the Tribe and local non-Indian communities.

Herr was not the only staff involved with local communities. In conjunction with Fredonia's celebration of its centennial, Park Technician Fred Banks made arrangements for the exhibit, "300 Years of German Emigration to America, 1683-1983," to be shown at the Fredonia library the last two weeks of January 1985. About 250 people saw the display. In 1985 Banks oversaw the preparation of an exhibit on Pipe Spring National Monument for the Northern Coconino County Fair. It won "Best of Show" award and first place in the educational exhibit division.

News releases of special events were sent out as needed. During 1986, the monument appeared on television three times, filmed twice by two different television stations from Phoenix and once by a Salt Lake City station. Salt Lake City's station did a special on the monument's Memorial Day weekend activities that year. In 1987 two television crews visited Pipe Spring for filming, one from Salt Lake City and one from Phoenix.

<u>Tribal Developments and Tribal-Monument Relations</u>

Development activity on the Kaibab Paiute Indian Reservation, begun during the late 1960s, continued into the 1980s. Fifteen new houses were constructed in 1980, a development known as Juniper Estates, located about 2.5 miles northeast of the monument. Park Service officials viewed development of recreational facilities and water resources by the Tribe as having a direct effect on the monument, as such activities had potential to adversely affect the flow of the historic springs.²²⁸⁴ The Tribe drilled a new well near the monument's well in 1980. In 1981 the Tribe laid a water line from its new well that was independent of the system constructed in 1973 by the Park Service. As the new pipeline was being laid, a tribal agent indicated to monument personnel that the Tribe

might discontinue using the Park Service's water system entirely.²²⁸⁵ The Tribe's new well provided water for the Tribe's gym (the multi-purpose center), tribal office building, and Juniper Estates and Kaibab housing complexes. The Tribe's water system appears to have been out of operation in 1983. In January 1984, Herr submitted notification to Tribal Chair Dolores Savala that water use by the Tribe far exceeded the amount of water the Park Service was required to provide per year.²²⁸⁶ The original 1972 water agreement between the Park Service and the Tribe provided that the Tribe be billed for use of water in excess of 7,884,000 gallons. In 1983 the Tribe's use of water from the Park Service system totaled 16,734,120 gallons, most of which went to Juniper Estates (13,243,500 gallons). Herr informed the Tribe with his notification that the Park Service wished to terminate furnishing water to Juniper Estates as of January 20, 1984, while adding,

This in no manner will decrease our obligation of the seven million gallons per year but is necessary at this time to limit equipment failure due to over use. As always, we stand ready to provide a water supply source in case of an emergency.

At this time we are not considering billing the tribe for the excess of water delivered during 1983.²²⁸⁷

It appears that the Park Service chose to not bill the Tribe for the excess water used in 1983, perhaps to "soften the blow" of their intention to turn off the tap, so to speak, to Juniper Estates. This seems to have hastened the Tribe's efforts to get their water system back into operation. By April, the Tribe was still being provided water from the Park Service well, but Herr notified Regional Director Mintzmyer that, while the Tribe had had some problems with broken pipes and valves, its pump was installed and "ready to go." 2288

Employment of the Kaibab Paiute at Pipe Spring

Once the Neighborhood Youth Corps (NYC) program ended in the mid-1970s, the Tribe had no government-sponsored youth training program until 1985. The Tribe's NYC program had provided the monument with many young Indian workers during the early 1970s. The Tribe was unable to get funds for a Comprehensive Employment Training Act (CETA) program until the fall of 1981, just a year before the program was terminated. This may explain why there were noticeably fewer Indians working at the monument during the early 1980s than in prior years. Official monument reports attest to the fact that Herr and his staff tried to interest tribal members in working at the monument in the early 1980s, but had little success.²²⁸⁹ When a seasonal laborer position opened at the monument in spring 1982, Herr actively recruited among the Tribe and three of its members applied. Sam David Tom was hired for the position. Another Kaibab Paiute man, Ralph Castro, was hired as a seasonal laborer in 1983.

During the early 1980s, fort guides and CETA workers were mostly non-Indian.²²⁹⁰ Seasonal Park Aid Lori Jake was one of the few Kaibab Paiute guides in the fort during that period. She had worked as a park aid/interpreter in the fort since at least 1975. On September 28, 1981, her husband, Merle Jake, was killed in a logging accident on the

Kaibab Plateau. Most of the monument's staff attended the October 3 funeral held in Fredonia. She did not return to the monument in 1982. In March 1983, Herr sought to rehire Lori Jake as a park aid. She first agreed, then changed her mind. Beginning in 1985, the employment situation changed and Indian youth were once again involved in the monument's interpretive program. The Indian Development District of Arizona (IDDA) and another tribal program, whose initials are "TGB," enabled the Tribe to once again place a significant number of Kaibab Paiute as seasonal monument workers, primarily as guides. At least on one occasion in 1987, a Zion personnel specialist and Fred Banks met with prospective employees from the Tribe to explain the work and encourage their application.

Water System

Until June 1980, the Phoenix Indian Health Service did the testing for the monument's water system, testing the water for organic, inorganic, and radiological factors. In July 1980, Herr struck an agreement with Kaibab National Forest for its certified water plant operator to monitor and maintain Pipe Spring's water facilities. The monument's water was tested regularly. A tri-annual inorganic water test was performed as well as biweekly bacteriological testing. Also during 1980, the line-shaft water pump on the monument's well (built in 1973) was replaced with a submersible type pump. In 1980 a two-inch PVC high pressure water line by the fort broke, creating a minor flood. No shutoff valves were shown on current drawings of the water system so staff had to close the main valve at the storage tank. Later someone remembered a buried valve in a field. It was located, dug up, and closed, solving the problem. The valve was then marked on water system drawings for future reference. Two days later a four-inch PVC line broke in the same area, requiring repair. The monument's 500,000-gallon water storage tank, located on the reservation near the Park Service well, was re-covered in 1980 with one foot of sand and surrounded by a corrugated steel fence to keep the sand from eroding away.

During 1981, there were several major breaks in the high pressure water line behind the visitor center, which led to some rerouting of the lines. The fire hydrant was relocated at the end of the line instead of being "dog-legged" 20 feet to the east.²²⁹² An attempt was made to reinstall the large water meter behind the visitor center. Several broken pipes later, the meter, meter box, and 20 feet of six-inch main were replaced. In 1982 A new six-inch water main was installed to the residential and utility areas. This enhanced fire protection and increased water pressure to the areas.²²⁹³ Regional Archeologist Adrienne Anderson was on site during trenching to provide Section 106 clearance for the project.

In order to make "as maintained" utility drawings more accurate, Denver Service Center Engineer Ron Oney visited the monument twice in 1984 to help survey and put in place new markers.

Decline in Spring Flow and Area Water Studies

Beginning in the late 1970s, a decline in the combined spring flow was observed at Pipe Spring. In 1980 alone there was a decrease of 2.1 gallons per minute (gpm). The decrease since 1977 was 7.2 gpm.²²⁹⁴ Again in 1981, a decrease of 1.4 gpm was reported. The total

flow was 27.6 gpm that year. In 1982 the flow decreased for the fifth year in a row to 25.67 gpm.²²⁹⁵ Average flow for 1983 was 22.69 gpm; for 1984, 21.27 gpm. The latter figure represents a 59 percent decrease in flow over an eight-year period, since 1977.

During the week of September 10, 1984, officials from the Water Resources Division (WRD) in Fort Collins, Colorado, made a tour of Zion, Cedar Breaks, and Pipe Spring. Accompanying Chief Stanley L. Ponce and Hydrologist William B. Reed (both, Water Rights Branch), were Superintendent Harry Grafe, Assistant Superintendent Jim Brady, and others. The men met with Herr and reviewed the monument's springs and water system. At that time, they offered region and monument personnel assistance in developing a study to determine the reason for the decreasing flow.²²⁹⁶ In December 1984, the monument initiated paperwork to request the study.²²⁹⁷ At the request of Chief Ponce, Reed initiated research on the status of water rights at Pipe Spring in late 1984 and prepared the scope of work for the Pipe Spring study in 1985.²²⁹⁸ No spring flow measurement was reported in Herr's annual report for 1985. In 1986 the monthly average measurement was 18.33 gpm, again indicating a reduction in flow.

In February 1986, local Moccasin rancher Grant Heaton reported to monument staff that there was no water in his cattle ponds, which were supplied by tunnel spring. He asked the monument to check tunnel spring for problems. The following month, local ranchers Landell and Fred Heaton also stopped by to express their concern over lack of water flowing to their cattle ponds from tunnel spring. Fred believed that the greatest drop in water level was observed after the Park Service's well was installed on the reservation in 1973.²²⁹⁹ During March, Doug Dewitz pumped out the tunnel spring manhole, which was nearly filled to the top. The intakes were cleared of roots and outflow improved.

In March 1986, two men from the Water Resources Division visited the monument to informally assess the spring flow problem.²³⁰⁰ A WRD team installed gauges and recording instruments in August 1986. That October the team installed measuring devices on the spring in Moccasin and on one of the Tribe's wells, in attempt to measure the outflow of those water sources. A two-year study was then begun by the division to try to determine the reasons for the decreasing spring flow.²³⁰¹ A slight increase in the flow was recorded for 1987, to 18.86 gpm. In 1988 the spring flow measurements showed a slight decrease, to 18.50 gpm.

Owen R. Williams and Donald C. Barrett prepared the report on the Water Resources Division's two-year study and submitted it to Chief Ponce on September 2, 1986. Referred to as a "scoping report," it is entitled, "An Evaluation of the Decline in Spring Flow at Pipe Spring National Monument." The report provided an analysis of water rights, described the management situation, and provided physical data gathered during the study period. Water monitoring continued beyond the study. The study indicated that the observed decline in spring flow,

...is real and likely to be the result of man-caused changes in the delivery of ground water to the collective springs at the monument, as opposed to natural

variations in precipitation. Further, at the present rate of decline it is anticipated that spring flow will cease by the mid-1990s...

A suitable course of action for management is unclear at this time due to the lack of certain data. Therefore a set of alternatives for the correction of this deficiency was developed and is presented with a recommended alternative identified.²³⁰²

The report recommended that two courses of action be taken: 1) that additional longterm data be collected on ground water from a) the NPS-tribal well, b) an observation well in the Navajo aquifer near the Sevier fault, c) Moccasin Spring, and d) Pipe Spring; and 2) that alternate water sources be sought to substitute for the tribal and village wells in the Navajo Sandstone aquifer adjacent to the Sevier fault. In August 1986, Hydrologists Donald Barrett and Richard ("Rick") Inglis returned to the Pipe Spring area to install hydrologic data loggers at two locations to monitor ground water level, spring discharge, and precipitation. One logger was installed in an unused Kaibab Paiute tribal well (culinary well no. 1) located about two miles north of Pipe Spring; another logger was installed at Moccasin Spring, just west of Moccasin. Equipment was installed and operating on August 21. Barrett and Inglis planned to analyze the collected data semiannually the first year and prepare a summary report on an annual basis until the monitoring project was terminated.²³⁰³ Hydrologist Alice E. Johns made the first visit to service monitoring equipment and to collect data in January 1987. At that time she also obtained information about the springs at Pipe Spring so that the Water Services Branch could prepare plans for the installation of flow measuring devices on those springs.²³⁰⁴

Tunnel Spring Rehabilitation

Preliminary investigations of tunnel spring by monument staff took place in early October 1987.²³⁰⁵ A rockslide 10 feet from the entrance of the tunnel posed difficulties for workers, and safety hazards within the saturated tunnel were also very real. There was additional tunnel blockage at a depth of 30-40 feet. Funds in the amount of \$15,000 were allotted to rehabilitate tunnel spring in December 1987.²³⁰⁶ One of the purposes of the work was to facilitate better monitoring of the combined spring flow at the monument. The contract was awarded to Grace Company in September 1988. Rehabilitation work began about September 26 and consisted of replacing the distribution pipeline to the monument's south boundary and installing a new collection system. The job was completed by November 1, 1988. In addition to monument staff, Bill Rust, Water Resources Division, and Superintendent Grafe oversaw the work. The WRD provided instructions for installation of a monitoring device as rehabilitation of tunnel spring progressed.²³⁰⁷

Water Developments in Moccasin

In 1987, one year after the Water Resources Division completed its initial water study in the Pipe Spring area and as monitoring of area springs continued, monument staff learned that the village of Moccasin was taking action to further develop its own water resources. The earliest news of this activity came in September when former Superintendent Bernard Tracy, resident of Moccasin, reported to Doug Dewitz that the Moccasin Water Board (of which Tracy was a member) was considering building a water tank, to be filled by a new

well that was soon to be drilled. Funding was being sought by the board to develop this municipal water system. Dewitz learned from the Arizona State Water Resources Department that rancher Owen Johnson had filed for a well in Section 31 or 32 in August of that year.²³⁰⁸ It was thought at the time the new well was owned by David Johnson. Of course, any water developments in Moccasin threatened the Tribe's historic one-third ownership of Moccasin Spring (which tribal members still referred to by the old name of "Sand Spring"), as it was believed at that time that drilling into the local aquifer could reduce the spring flow.²³⁰⁹ Dewitz learned that September that the Tribe was considering protesting further development of Moccasin Spring.²³¹⁰

Monument staff feared such development might also impact Pipe Spring. Dewitz urged the Water Resources Division to send someone to the area to better ascertain and appraise the Moccasin situation.²³¹¹ Moccasin Spring was still being monitored by the WRD. Hydrologist Rick Inglis revisited the area in mid-October 1987. Inglis installed monitoring equipment at the main spring and tunnel spring and replaced equipment at the culinary well field (the Park Service's well north of Pipe Spring). While in the area, Inglis noticed a new, private well being pumped near the southern edge of Moccasin, about three miles northwest of the monument (the well believed to have been David Johnson's). He also learned that residents were contemplating further development of wells to provide water for a municipal water system.²³¹² While it was unknown if such activity in Moccasin would impact the flow of water at Pipe Spring, consideration was given at the WRD to lodging a formal protest on the grounds that further development of Moccasin Spring might be detrimental to the monument's water source. In response to the concern by monument staff that such action jeopardize good relations between the Park Service and Moccasin residents, WRD staff assured Dewitz that no protest action would be taken without Superintendent Herr's prior knowledge and consent.

But the new well in Moccasin wasn't the only water problem that surfaced that fall. In late October 1987, Dewitz learned that one of the cattlemen legitimately using Pipe Spring water (via tunnel spring) sought permission to double the length of the existing pipeline. (The source for this information, a Soil Conservation Service official in Fredonia, did not identify the person who sought permission.) Dewitz was also told that rancher McKay Heaton had applied for federal aid to construct the extension. The existing line was 18,000 feet. Probably as directed by Herr, Dewitz sent a memorandum on the matter to Zion officials and to the Water Resources Division in Ft. Collins, stating,

At this time we feel we must address the following:

- Our definitive water rights
- Our water requirements for the monument for the next 20-50 years
- Any further development of demand on the Pipe Spring water source
- Any grants of federal aid to any one desiring to appropriate water, especially from Pipe Spring

Our question in this matter is: if we allow the cattlemen to expend time and money to further the development of Pipe Spring water to be used for stock watering purposes and then shortly thereafter curtail the amount they are currently utilizing [as] per the 1/3 water agreement, will we be liable for any professed loss of earning potential by the cattlemen?²³¹³

By December 1987, staff of the Water Resources Division were busy trying to track down data that would shed some light on the situation, mostly communicating with the Arizona Department of Water Resources. It was apparent to division staff that the specific water rights of the three parties using water from Pipe Spring (the NPS, the Tribe, and cattlemen) needed to be determined in order to ensure that further depletion of the springs would not result from upstream ground water diversions.

Water Issues, 1988-1989

The 1984-1986 water study, developments in Moccasin, and annual water use billings to the Tribe led to attempts in 1988 by monument staff to account for all water use from Pipe Spring sources. In the spring of 1988, several meters were installed to monitor water use. (Two connections were still unmetered, one to the watering trough and one to the chicken coop; use was estimated for these.) Even then, there appeared to be no accounting for 30-40 percent of water use. Doug Dewitz was charged with solving the mystery. He spoke with Tribal Housing Director Steve Turner who showed him a valve south of the visitor center, near the site of the old Indian pond. (This was where the Tribe's one-third share had been pumped prior to the water agreement of 1972 and construction of the 1973 Park Service well.) Apparently, at the time of Dewitz's inspection, three stock tanks on the reservation were being continuously supplied with water by this valve. At the time, monument staff appeared not to have even been aware of the valve to the Indian pond. Turner and Dewitz determined the flow to the three stock tanks was 4.48 gallons per minute (gpm), nearly five times the amount agreed upon in the 1972 water agreement, which was one gpm. Dewitz then calculated that Pipe Spring was supplying 5,011.2 gallons per day or 1,829,088 gallons per year over and above the amount agreed to in 1972. Dewitz informed Herr that the valve to the Indian pond would be dug up and have a meter installed on it right away so that the flow could be reduced to the amount originally agreed to.²³¹⁴ There appears to have been no fault on the Tribe's part in this matter, but rather Pipe Spring managers had never installed a measuring device to monitor how much water was going to the Tribe's stock tanks. The 1988 discovery suggests that the Tribe may have continued to utilize as much Pipe Spring water after the 1972 agreement as it had before the new well was constructed!²³¹⁵

On May 16, 1988, the Park Service made a request to the Kaibab Paiute Tribe to drill three monitoring wells on the reservation. A meeting was held at Pipe Spring on July 19, 1988, to open discussions about the area's water table levels and to address tribal concerns about the Park Service request to drill new monitoring wells. Hydrologist Rick Inglis and Acting Chief William ("Bill") Werrell (Water Operations Branch) represented the Water Resources Division at the meeting, which was also attended by Bill Herr, Doug Dewitz, Ken Esplin (BIA, Cedar City), Kaibab Paiute Tribal Manager Frederick Cedar Face, Tribal Vice-chairman Tony R. Gutierrez, and Steve Turner (Department of Public Works, Tribe). Three proposed drilling sites were tentatively agreed upon at this meeting. Esplin

advised the Park Service that drilling must be preceded by an archeological survey, at Park Service expense. The Tribe asked to receive copies of all existing and future monitoring data.²³¹⁶ Ultimately, only one new monitoring well was drilled. In October, under a cooperative agreement with the Tribe, the Park Service drilled a test monitoring well immediately west of the Sevier fault about one-quarter mile north of the monument. The other two observation wells used in the study were an existing well drilled by the Tribe in 1971 and the Park Service well drilled in 1972.

The Water Resources Division continued to monitor area springs and wells for one year before it began evaluating the data collected. A preliminary technical report was submitted in the summer of 1989 for review and comment. The final report, "Water Resources Data of the Pipe Spring National Monument Area, Arizona, 1977-1989," prepared by Rick Inglis, was not completed until October 1990. In June 1989, the WRD's Acting Chief Milton Jackson recommended to Regional Director Mintzmyer that a more intensive water study be undertaken.²³¹⁷ The goal was to gather flow rates on the underground aquifer that was thought to be the source of water at Pipe Spring.

Visitor Services Operated by the Kaibab Paiute Tribe

Snack Bar

As mentioned in Part XI, during the summer of 1979 the snack bar was open for only a few weeks. In 1980 the Tribe decided to have one of its members operate the business. It was in operation during the summers of 1980, 1981, and 1982 with no problems reported. No mention was made of the snack bar in the annual reports for 1983. It was closed the entire summer of 1984. No report on the status of the business was made in 1985. The snack bar was open again during the summer of 1986 and, for the first time, remained open until December 1. The same person ran the snack bar in 1987, but pulled out near the end of the year. This operator also ran the campground (see below). The snack bar remained vacant in 1988 and 1989. By the end of 1989, the Zion Natural History Association was making plans to operate it for the 1990 season. The ZNHA began serving its "frontier lunches" to visitors in August 1990.

Gift Shop

During the summers of 1980 and 1981, the gift shop was operated again by Doug Higgins. Some visitor complaints were received about the type of merchandise sold, mostly Mexican, including what one complainant described as "funny" looking onyx pipes (used for smoking marijuana). Probably at Herr's urging, Higgins began to upgrade his Native American crafts section in 1981. In 1982 Herr reported he was still carrying a large number of goods made in Mexico and Asia while also selling some authentic Native American wares. Higgins continued to run the shop for another two years then chose not to renew his lease after the 1984 travel season. The shop was closed during the 1986, 1987, and 1988 seasons.²³¹⁸ During those years, the ZNHA expressed growing interest in leasing the shop as its sales outlet. (Up to then, it operated out of the visitor center area.) In March 1988, ZNHA Executive Director Jamie Gentry made a proposal to the Kaibab Paiute Tribal Council that the association operate its sales outlet from the Tribe's gift shop space, offering \$300 a month user fee. In the proposal, Gentry stated, "We do... feel that

this project could open up a retail outlet for the hand crafts available from the Tribe."²³¹⁹ Approval was received from the Tribe for the arrangement. On August 2, 1988, the ZNHA began moving into the Tribe's gift shop space and soon after opened up for business. It proved to be a profitable move. Sales in 1989 increased over 400 percent from ZNHA sales of 1988, totaling \$95,000 their first year in operation.²³²⁰

Campground

The Tribe's campground was in operation during the 1980s, but appears to have done little business. In late July 1979 it was reported, "The Tribe is doing nothing with the campground; it is overgrown with weeds.... Many visitors inquire about where they may camp." ²³²¹ In 1984 Herr reported that the campground was open all year but that the Tribe kept no host at the site. Fees were collected at the tribal office building on the honor system. In 1986 the operator of the snack bar also ran the campground, but only until the end of the year.

Building Maintenance Issues

By the end of the 1980s, the Park Service's concern about inadequate visitor center maintenance by the Tribe led to a July 13, 1989, inspection by Contracting Officer Representative Leslie J. Powell, Rocky Mountain Region. A deadline of October 31, 1989, was set for the Tribe to correct problems identified by Powell. As the deadline arrived, Superintendent Hasty reported that aside from repairs to a water fountain and air conditioner, little corrective action had been taken. In addition, Hasty reported, during the prior three months several verbal complaints had been received from visitors regarding the appearance of the building, its upkeep, maintenance, and condition of the grounds, sidewalks, and parking lot. Hasty stated,

In general, the rundown condition of this building is conveying a very poor image of the National Park Service, which is uncalled for and needs to be corrected without any further delay. If the Tribe is unable to maintain this building, it should be turned over to the NPS.²³²²

Powell notified Tribal Manager Cecil Scott of the Tribe's responsibility to address deficiencies and extended the deadline for repairs to November 9. Failure to do so, Powell warned, would result in the matter being turned over to the Government Services Administration contracting officer for resolution.²³²³ Although repairs were not completed by the deadline, Scott assured Powell in phone conversations and correspondence that the newly-elected Tribal Council would see that repairs were completed and building well-maintained, acknowledging the failure of the prior tribal administration to do so.²³²⁴

<u>Comprehensive Employment Training Act, Job Training Partnership Act, and Student Conservation Association Programs</u>

The monument benefited from workers provided to it under two government-sponsored programs during the 1980s, the government-sponsored programs initiated as part of the Comprehensive Employment Training Act (CETA) and Job Training Partnership Act (JTPA). The Student Conservation Association (SCA) also provided a small number of

monument workers. The numbers and names of participants in these programs are listed by year in Appendix IX, "Personnel."

Comprehensive Employment Training Act Program

On April 26, 1979, Superintendent Herr and Park Technician Fred Banks traveled to Fredonia High School to talk with its principal and Jim Cox about the CETA program. In August a representative from the State Labor Commission visited the monument to check a report that the Park Service was violating the Child Labor Law by employing girls younger than 16 in the fort's cooking demonstrations. It was decided that the law did not apply to them as their activities were not commercial, but only a part of the living history program. The CETA work season at Pipe Spring began June 2 and ended August 9. On August 9, 1979, as a parting gift, the CETA girls prepared breakfast for staff in the fort before opening time. At the end of the summer the monument was given permission to extend the working hours of CETA employees until school began from four to five days per week. Some CETA workers continued to work weekends until the end of December.

During early August 1980, CETA officials from its Coconino County office in Flagstaff and CETA Coordinator Clint Long, Fredonia High School, paid a visit to the monument to observe its program. Mohave County CETA Coordinator Barbara Valanzano visited Pipe Spring in mid-September. (Herr was drawing monument workers through the programs of both counties.) Getting a jump on things, Herr made arrangements with CETA officials of Coconino County to use students from Fredonia for the following year. He also received permission to recruit an out-of-school person under the CETA program as a museum assistant and tour guide for the winter season.

Herr learned in early 1981 that one of the ways President Ronald Reagan intended to cut government expenses was to freeze the CETA program in 1981 and cancel it entirely in 1982. Herr soon after reported at squad meeting, "If this happens, the monument's interpretive program will revert to hourly tours of the fort only; the living history program will have to be abandoned." The CETA program was in fact ended after the 1982 season, but was replaced by another youth employment program, the Job Training Partnership Act.

Job Training Partnership Act

Beginning in 1984, the Job Training Partnership Act (JTPA) provided workers to the monument.²³²⁶ Coordinators in both Coconino and Mohave counties administered this program locally, like the CETA program. As first the Neighborhood Youth Corps, then the Comprehensive Employment Training Act had done in prior years, the JTPA allowed the monument sufficient youth to maintain its interpretive program, as well as some help to the maintenance division. JTPA workers helped install irrigation pipes to water the monument's trees in 1985.

Student Conservation Association

Beginning in 1980, the Student Conservation Association (SCA) provided the

monument with one worker per summer season. In 1985 a second worker was hired through this program, Lulu Chye, a woman with a hearing disability.

The VIP Program

Volunteers in the Parks (VIPs) continued to play an important role in the monument's interpretive programs during the 1980s. Until his resignation on March 12, 1979, Maintenance Foreman Mel Heaton had always organized branding demonstrations. The staff had to learn how to organize the event, and managed - with the indispensable help of VIPs - to pull a demonstration together for Memorial Day that year. Thanks to the program, VIPs gave a branding demonstration on May 28, 1979, Memorial Day. A blacksmith also worked on site that day with his forge.²³²⁷ "Both activities were popular with the visitors, with a few exceptions to the branding," Herr reported.²³²⁸ Another event was held in September on Labor Day, this time documented by photographer Dick Frear of the Washington office, who came expressly for the purpose.

During the 1980s, male VIPs continued to offer branding and blacksmithing demonstrations. Memorial Day weekends often featured both events, with additional blacksmithing demonstrations offered during the summer, sometimes as many as six. Owen and David Johnson were often involved in the branding demonstrations, along with others whose names were unreported. One of the most frequent VIPs to demonstrate blacksmithing was John Cram, Fredonia High School welding teacher. He worked often enough that he left his anvil, forge, and vise on site. Keith Hepworth also demonstrated blacksmithing. Beginning in 1981, in addition to these types of demonstrations, two VIPs worked full-time as interpreters in the fort, one for 10 weeks in the summer, and the other for three months during the winter.

VIPs staffed a booth featuring Pipe Spring National Monument at the Northern Coconino County Fair for several years. VIPs also provided dance demonstrations for special events. Female VIPs continued to assist with domestic arts demonstrations, guide tours, and help with special events, such as decorating the fort for the "Christmas in July" program. (See "Interpretation" section.) Some women who began their work for the monument as VIPs were later hired as seasonal park aids, such as Yvonne Heaton.

Special funds were annually allocated for the VIP program. (See Appendix VIII, "Monument's Administrative Budget.") By 1989 VIPs could be compensated five dollars a day for meals and a stipend for transportation. Seasonal housing was sometimes provided, paid for by the benefiting account. For a count of VIPs involved in the monument's interpretive programs over the years, see Appendix IX, "Personnel."

Zion Natural History Association

Just as important to the monument's educational programs as its volunteers, the Zion Natural History Association provided critical financial support for a variety of projects between 1979 and 1989. In December 1979, the ZNHA approved funds for an interpretive publication about Pipe Spring in 1980. The author chosen was David Lavender, who completed the first draft by the end of the year. The text and photo work was sent out by

the end of 1982 to various publishers for price quotes. Difficulties at the publisher's delayed publication until 1984. That summer, Lavender's booklet, *The History of Arizona's Pipe Spring National Monument*, finally arrived at the monument and was made available for sale to visitors. The publication replaced the only leaflet available up to that time, a reprint of Robert Olsen's 1965 article, "Pipe Spring, Arizona, and Thereabouts," published in *The Journal of Arizona History*. (Recently revised, Lavender's booklet is still sold to monument visitors.) Gift shop sales by the ZNHA rose dramatically after they began leasing the Tribe's gift shop in late 1988. (See "Gift Shop" section.) Much of its gift shop profits that year went in fiscal year 1990 to fund a full-time position, a ranch worker who worked as a cowboy interpreter. It also helped fund an orientation video for the visitor center.

As in earlier years, the association continued contributing financially to the monument's interpretive programs, library, and museum. Its annual contributions during the 1979-1988 period ranged from \$859 to \$5,280. (See Appendix VIII, "Monument's Administrative Budget.")

Interpretation

On-site Programs

As mentioned in the preceding sections, the interpretive program remained heavily reliant on seasonal staff and workers during the 1980s. During this period, a new special event was created at Pipe Spring, called "Christmas in July." In 1981, the event was held from July 27 through August 1. During that week, VIPs and staff festively decorated the house in order to give visitors a feel for what the fort might have looked like during the holiday season in the 1870-1890 period.²³²⁹ The event featured Christmas carol singing, decorating Christmas trees, making gifts, and holiday baking on the old wood-burning stove. In 1984 the monument received a loom from the LBJ Ranch National Historic Site in Texas. It was set up for visitor use in the visitor center.

The practice of plowing the demonstration gardens with horse-drawn plow was abandoned about 1982 and garden tractors were purchased and used for that purpose. While the death of horse "Molly" that year played a role in the change, a shortage of workers may have also been a factor, rather than any desire to dispense with the living history program. Unlike the late 1960s and early 1970s, when the Neighborhood Youth Corps program provided an equal number of boys and girls (with the boys turned over to Mel Heaton and the girls assigned to act as guides), most government-funded youth that worked at Pipe Spring after 1976 were female. Even some of the males recruited in the 1980s chose to work as guides. During the decade, the maintenance division never had more than two summer youth workers assigned under the CETA program. That is probably why it became commonplace for the monument to hire two or three seasonal laborers each year, and why the more laborintensive, "authentic" way of tilling the gardens was phased out.

There were other changes in the interpretive program during the 1980s, but they were more gradual. Soon after Superintendent Herr's arrival, the emphasis began to slowly shift away from the broader history of Mormon migration to Utah and the West and move

more toward telling the story of Church's Southern Utah Mission (also called Dixie Mission or Cotton Mission) and ranching life on the Arizona Strip. Some Park Service officials, Herr among them, were no longer comfortable with the story told on the Harpers Ferry Center-designed waysides installed along visitor walkways in 1975. During the summer of 1980, Fred Banks refurbished the panels but no textual changes were made. Herr reported Banks' work at a September squad meeting held in Zion. That led to the following discussion, as reported in the meeting minutes:

They [the panels] really look nice. However, as Superintendent Herr pointed out, the story told at Pipe Spring is the story of the Mormon migration to Utah rather than the story of Pipe Spring National Monument. Mr. Jackson explained that years ago we were instructed that Pipe Spring would be the Park Service area in Southern Utah where the story of the Mormon migration to Utah would be told, and the exhibits were made to that effect at Harpers Ferry. Nevertheless, Region may wish to change the exhibits to perhaps tell the more appropriate story of Utah's Dixie Mission.²³³⁰

Of course, in the minds of many Mormon visitors, one could not tell the story of Utah's Southern Utah Mission without telling the larger story of the Mormon's migration to the West. The Park Service's shift away from the content of the "old" Pipe Spring story led to some public relations problems (particularly among the local Mormon residents) which have yet to be resolved. In the minds of many, it had always been a monument to *Mormon* pioneers, even if the enabling legislation delicately neglected to mention that fact. It is important to note that until the 1980s, monument staff as well as visitors (Mormon and non-Mormon alike) seemed happy with the way the site was being interpreted. Herr encouraged Fred Banks to work on ideas for changing wayside exhibits while shifting the focus of the Pipe Spring story to be more region specific. There was consideration given in the early 1980s to sending the old wayside exhibits, once replaced, to Salt Lake City's "This is the Place" State Park. Its area manager had once expressed that they would be appropriate there.²³³¹

Throughout the 1980s, Banks was responsible for preparing the monument's "Annual Statement for Interpretation and Visitor Services." A comparison of statements made under the "Themes and Objectives" headings in the report hints of the change in interpretive emphasis over time. In 1982, for example, interpretive themes were described as follows:

The Interpretive Program will provide the visitor with opportunities to understand Pipe Spring's role in the Mormon pioneer effort and the subsequent westward expansion and settlement. The period of the 1870s and 1880s provides the greatest insight into the early life of this portion of the Mormon culture.... The program will also introduce the visitor to man's historic and prehistoric use of the Strip and encourage him to consider how this relates to our land use ethic today.²³³³

The objectives of the interpretive program in 1982 were,

To foster public understanding and appreciation of life in and around the Mormon settlement at Pipe Spring, of the significance of the settlement in western American history, and of the management policies that protect the natural and historic resources and promote their safe and non-consumptive public use.²³³⁴

By 1988, although still prepared by Fred Banks, the description of interpretive themes is quite different. It also omits the word "Mormon:" "The *primary* theme is human activity at a pioneer ranching settlement in an arid land and the *secondary* theme is Native American influence on the pioneer culture." ²³³⁵ The monument's objectives in 1988 were,

To foster public understanding and appreciation of a pioneer ranching life on a last frontier; to promote the significance of the settlement westward in westward expansion; to advance management policies that protect the natural and historical resources; and to instill safe and non-consumptive public use.²³³⁶

Dramatic changes would not take place until Herr's successor arrived. Yet the shift in interpretive focus was clearly evident by the late 1980s and some concrete steps were taken to implement the change. For most of the decade, however, the living history program continued at the monument, albeit reduced in scale. Branding and blacksmithing demonstrations continued during the summer months, as did some of the domestic arts demonstrations. On June 15, 1984, monument staff experimented with an evening music program, which consisted of organ playing and singing. They also tried offering several quilting seminars. Herr's reports suggest that at least on some July 4 holidays during the 1980s, the monument held an ice cream social of sorts, complete with homemade ice cream. It seems that from 1986-1988, the event included a traditional dance demonstration by a group of cloggers led by Rhea McCormick, all working as VIPs.

During fiscal year 1986, Herr tried to work out a plan with regional office archeologists and historical architects to re-excavate the Whitmore-McIntyre dugout so the site could be of greater interpretive value. The dugout was the site's earliest structure dating to the Mormon settlement period. Herr, like former site managers Leonard Heaton and Bernard Tracy, wanted to see the structure's remains exposed. Soon after the site was excavated in 1959, it had been backfilled. Ever since the late 1950s, archeologists in particular convincingly argued that exposing its remains would lead to their rapid deterioration. (See Part IX, "Monument Administration, 1959" section for details.) The site had been interpreted by means of a wayside exhibit for many years. While Herr's reports suggest he may have faced less opposition in the mid-1980s, the site was not reopened.

In January 1987, Assistant Chief Naturalist Jay Schuler from Badlands National Park visited Pipe Spring and drafted a new wayside exhibit plan for the monument. He returned to finalize the plan in August, which was completed in 1988. Harpers Ferry Center constructed new wayside exhibit panels and audio stations, received at the monument in late 1988. Herr was still in charge but the new exhibits were not installed until after his departure.

In 1989 both Bill Herr and Fred Banks transferred to other park units. Herr's successor, Gary M. Hasty, saw an opportunity to implement "new ideas, methods, and directions" for the monument. His tenure will not be covered in this report, but suffice to say the controversy over what story was to be told at Pipe Spring was far from over. Prior to his arrival, Hasty claimed,

"It was possible for a visitor to enter the area, receive a history of the Mormon Church, learn of the people that have lived there, their genealogy, and depart without seeing an NPS uniformed person, not [even] knowing that this was a unit of the NPS system or why the area was set aside".²³³⁷

After Hasty's arrival, formal guided tours were once-again presented by uniformed Park Service personnel, much as they had been before Ray Geerdes initiated the monument's "living ranch" phase in the late 1960s. Over the winter of 1989-1990, under Hasty's administration, the old waysides were removed and new waysides were installed along the main walkways. The new exhibits interpreted both the natural and human history of the area, returning the interpretive program - according to Hasty - to the "original intent and themes" that accompanied the monument's original creation. 2338

Soon after the waysides exhibits were changed, Hasty received a number of complaints from local white residents, many of whom were probably descendants of families that settled in the area in the Church's initial period of southern colonization. These descendants witnessed what seemed to them to be a radical shift in interpretation away from the history they knew and revered.²³³⁹ Hasty would bear the brunt of local disappointment and bitterness over interpretive changes at Pipe Spring, even though, as these changes were made, Park Service officials believed the new interpretive program returned to the original intent and purpose for which the monument was created.

Off-site Programs

In late December 1979 and early January 1980, Herr contacted the science teachers at area high schools regarding offering Park Service history and astronomy programs. (Herr gave the astronomy programs and Banks, the history ones.) Three to four off-site interpretive programs were given each year from 1980 to 1983, and eight in 1984. Herr reported several were offered from 1986 to 1988.

Visitation

Due to international events mentioned in the introduction, high gas prices in 1979-1981 resulted in a reduction in travel to Pipe Spring in 1979 and 1980, which totaled 26,139 and 26,901, respectively. In spite of high gas prices, visitation increased 17 percent in 1981 to 31,379. Gas prices began to drop in 1982 and, after 1983, visitation steadily rose each year to reach a high of 44,521 in 1989. It is worth noting that in 1989 Herr's successor, Gary Hasty, discovered an error in Herr's methods of calculating visitation figures for the proceeding several years. The figures reported were in fact 10 percent higher than they should have been, but no changes were made in the official records.²³⁴⁰ (See Appendix VI, "Visitation," for annual figures.)

The Dons Club once again brought three busloads of senior citizens on September 7, 1979. The group made several other visits to Pipe Spring in the 1980s. Herr reported in 1980 that 40-50 percent of visitors that year were foreigners.²³⁴¹ The Sons of Utah Pioneers brought a group of 415 in 1983. (The group held its annual convention in Kanab that year.) In January 1984, the Utah State Historical Society brought 76 of its members to Pipe Spring. The Albright Training Center continued to bring its trainees to the monument from time to time to study the monument's operations.

During 1980, official visitors to Pipe Spring included Regional Director Lorraine Mintzmyer in June and Zion Superintendent John Lancaster in September. In late October that year, Governor Bruce Babbitt and former Secretary of the Interior Stewart Udall visited the Kaibab Paiute Tribe, after which the two made an unscheduled stop at Pipe Spring. Lancaster paid another visit to the monument in 1981, as did Regional Historian Mike Schene. Archeologist Ann Johnson was at Pipe Spring to provide Section 106 clearance for several projects in 1982. During the 1980s, Historical Architects Rodd L. Wheaton and Richard J. ("Rick") Cronenberger (both regional office) visited Pipe Spring to review planned projects for the fort and to oversee or inspect work. Mintzmyer reportedly revisited on July 30, 1984. That year Marc Sagan, director of Harpers Ferry Center, visited in September and Von del Chamberlain, director of the Hansen Planetarium in Salt Lake City, in November.²³⁴² In July 1986, Regional Interpreter Bill Sontag paid a visit to Pipe Spring to observe and critique the monument's educational program.

Other staff from the regional office, Zion, and other park units made visits to the monument during the 1980s.²³⁴³ Former Superintendent Bernard Tracy, then residing in Moccasin, also dropped in from time to time to chat with Herr.

Historic Buildings

The Fort

As mentioned in the previous chapter, the fort's parlor and kitchen floors, removed in late 1976, had still not been replaced by the time Herr arrived in April 1979, nor had the moisture problem along the north wall been addressed. Regional Historical Architect Rodd Wheaton and Regional Historian John Albright visited the monument on May 18, 1979, to make plans for the upcoming stabilization work to be performed that summer. At the end of August, Historical Architect Rick Borjes and Bill Slimmer (both regional office) met with Herr for a pre-bid conference on the planned stabilization. Herr reported in late September that the spring flow was up to 500 gallons per day again, causing standing water under the floor area. In spite of 27 inquiries, by the end of September no bids had been received on the stabilization job. The closing date was extended another month, to no avail. No contract was awarded in 1979, and the regional office set about revising the proposal to re-advertise the job.

Finally on April 3, 1980, a contract for \$80,700 was awarded to Hall Brothers of Hurricane, Utah.²³⁴⁴ A pre-construction meeting was held in Herr's office on April 14.

The contractor moved equipment on site that week. In addition to Rick Borjes, John Conron and Dave Muths attended this meeting, along with Keith and Milt Hall and Zion officials.²³⁴⁵ Work began in the fort on May 5 and was completed on September 5. Former Superintendent Bernard Tracy supervised the project. Work under the contract required removal of all cement mortar, repointing the joints with soft lime mortar, and replacing or refacing seriously deteriorated sandstone. In addition, an underground drainage system was installed to divert the flow of water from underground fissures. (This also required removal of an earlier drainage system installed by Leonard Heaton in the winter of 1947-1948.) The new drainage system contract required that 1) the fill areas adjacent to the north, east, and west walls be excavated to the bottom of the footings; 2) bentonite waterproofing be installed along the foundation; 3) new six-inch drain tile be installed along the north, west, and east walls; 4) two new four-foot round concrete drainage basins be placed at the northwest



143. Work in progress on the fort's underground drainage system along the north wall, June 1980 (*Pipe Spring National Monument*)

and northeast corners of the fort, about one foot below the drain tile; and 5) two new eight-inch PVC drain/sewer pipes be installed along an existing line to the spring pool.²³⁴⁶

The final inspection and close-out was made on September 5, 1980, by Rodd Wheaton, Rick Borjes, and John Conron, along with Chief of Maintenance DeVor Pollack and Administrative Officer Dave Crocker from Zion.²³⁴⁷

During 1981, Conron and Muths made a study to determine the color of paint originally used on the fort. The study determined that the fort's exterior woodwork, except for doors and doorways, was originally unpainted. The earliest paints applied were by former Custodian Leonard Heaton, referred to in the report as the "green/red/cream" phase, with later phases being an "all white" scheme.²³⁴⁸ The study found that the subdued colors used on room interiors were most likely similar to those originally used. As the original exterior woodwork was deteriorating, it was decided that it needed to be either painted or treated with preservative.²³⁴⁹ While the Conron and Muths study recommended the green/red/cream phase be used (considered "historic" even though it originated under Heaton), the decision was made to retain the white color scheme.

In the summer of 1982, the fort's catwalk was rebuilt.²³⁵⁰ Railings and balusters on the balconies were replaced as needed and others were stripped and repainted white. During late summer 1983, the fort was reroofed. The old cedar shakes and felt underlayment were stripped off, replaced with red cedar shingles. Factory assembled ridge caps were installed at the ridges.²³⁵¹ Gutters were replaced and rain barrels installed to collect the water. In addition, a major regrouting project on the fort walls, begun June 25, 1983, was completed September 30. ²³⁵² In late November that year, work began on replastering the ceilings and walls. These projects were done under contract, overseen by Rick Cronenberger. Replastering work was completed in the spring of 1984. (Intrusion and fire alarms were also rehabilitated about this time.) That year the regrouting of the fort's courtyard was also completed. In 1987 the fort's southeast chimney was completely rebuilt.

The East and West Cabins

Little work on the east and west cabins was reported by Herr during his tenure. Termites were discovered in 1983 and exterminated that same year. In 1986 Herr reported that the exterior walls of the east cabin were repointed. At that time the walls of the west cabin were still held together with Portland cement mortar.

No other major work on the cabins was done until six months after Herr's departure, during the summer of 1989. Rehabilitation work was originally planned for both the west and east cabins, but west cabin work used all the available funds, thus no work was done on the east cabin.²³⁵³ From late June through August, the Bryce Canyon preservation assistance team assisted Pipe Spring staff with rehabilitation work on the bunkhouse. Rick Cronenberger and Building and Utilities Foreman Michael Lee (Bryce Canyon) provided technical oversight for the project.²³⁵⁴ Historical Archeologist Bill Hunt (Midwest Region) excavated the east room of the west cabin. Hunt advised the monument that an archeological survey was needed around both cabins. Work on the west cabin included replacing the bentonite roof with built in drainage and peeling of existing split log sheathing, relaying of the back stone wall and installation of drainage, and repointing of stone masonry, interior and exterior.²³⁵⁵ Termites were also discovered and exterminated. Except for repointing, most of the work on the bunkhouse was completed just before a severe rain and hailstorm hit the area on August 18, 1989. Monument buildings were unharmed, although demonstration gardens were devastated by the storm.²³⁵⁶

The funding for the rehabilitation work ran out before repointing could be done on the west cabin. The bunkhouse remained closed to the public for the remainder of the year and into 1990, awaiting funding to pay for repointing the cabin's stone walls. Funding in the amount of \$20,300 was provided to complete the rehabilitation work in fiscal year 1990 but it was ultimately diverted to pay for an archeological investigation in and around both east and west cabins.

Landscape Changes

During Herr's administration, a large number of additional trees were planted and monument grounds were landscaped, mostly as a result of the Park Service's decision to



144. Mature Lombardy poplars screening residence no. 9, planted under Bill Herr's direction in the early 1980s (*Photograph by author, taken April 1996, Pipe Spring National Monument*)

retain the residential and utility area within the monument. While most of the new trees were planted to screen those areas, some were planted to screen the Tribe's newest housing development, located east of the monument on a hill visible from the fort. Referring to himself jokingly as "Johnny Appleseed," Herr reported in 1981 that his pet projects were planting trees and putting in irrigation lines.²³⁵⁷ Herr claimed during a 1996 interview to have planted "...somewhat over 200 trees, and installed water irrigation to every one of them."2358 According to his annual reports, between 1980 and 1983, Herr directed the planting of 223 shade trees (to shade and screen the residential and utility areas), 24 fruit trees, and 70 evergreen bushes (to "insulate" around the foundations of the residences), a total of 317 trees and bushes. It appears that another 20 fruit trees for Pipe Spring were included in a larger order made by Capitol Reef National Monument in early 1985. (Expected delivery date was early 1986.) Fruit trees were planted primarily to replace diseased, dead, or missing trees in the orchard.²³⁵⁹ Herr recalled planting cottonless cottonwoods and Carolina and Lombardy poplars as shade trees. "There is not one inch of the place that hasn't been plowed, dug, shoveled, flooded," said Herr in the 1996 interview.²³⁶⁰ Describing himself half-jokingly as a "frustrated landscape architect," Herr reported that he "built an island paradise" at Pipe Spring.²³⁶¹ It was during his tenure that the ditch system of irrigation was changed to underground pipe. During the early 1980s (particularly 1981, 1982, and 1985), irrigation pipe was laid to new trees for individual watering via bubblers to reduce water consumption. Herr remarked, "We used a lot of water after we put those irrigation pipes in."2362 Archeologist Ann Johnson surveyed areas to be heavily planted and provided Section 106 clearance during this period.

In the spring of 1983, Herr sought regional office approval to plant five-gallon Lombardy poplars west of the fort, amidst the aging elms. "We envision that as the poplars grow over the next few years that we will trim back the elms. No wholesale removal [of the elms] is contemplated or desired," he explained to Regional Historical Architect Rodd Wheaton.²³⁶³ This plan was never carried out, and a few old elms still survive west of the fort. Abruptly, tree planting ceased after 1983, either because of Park Service concern over the declining spring flow at the monument or because the monument's plans called for no more trees.

Fruit trees cultivated at Pipe Spring in 1985 included apples, peaches, pears, nectarines, plums, and cherries. Garden crops included beans, corn, squash, tomatoes, peppers, and grapes. One concord grape plant was reported to be "original to the time period interpreted" and was maintained on an individual arbor.²³⁶⁴ Oddly, by the 1980s, management documents make no mention of former Area Manager Ray Geerdes' native grass restoration project, initiated in 1968.²³⁶⁵

In 1985 monument staff borrowed a dump truck from Zion and hauled nine loads of manure and treated sludge from Grand Canyon National Park's North Rim to rebuild the soil in the monument's gardens and orchards. They learned at this time that Grand Canyon had a surplus front-end loader, which Pipe Spring was able to acquire from them for use at the monument. The following year, the monument's 10 modern redwood benches were replaced with what Herr described as "old-fashioned style park benches." In 1985 the monument purchased a new Bollens garden tractor to speed plowing in the gardens. The monument received another three truckloads of manure for the gardens from the Zion Trail Rides corral in October 1986, delivered by a Zion maintenance crew. The monument purchased a new John Deere tractor in 1987, along with a variety of attachments, for grounds-keeping work

A copy of the 1988 Operation Evaluation Report for the monument includes both landscape evaluation comments and monument responses to those comments. The evaluators observed, "Historic landscape no longer exists. Area is impacted with invader grasses, suckers on new starts from several tree species, and weeds. Area look generally unkept. No domestic livestock in historic area (except for chickens, geese, and ducks)."²³⁶⁶ The park responded that there were two horses on site at the time and argued that grounds were "natural," not "unkept." The same evaluators recommended that monument staff,

Work to eliminate all unwanted new growth plants. Research to determine historic landscape. Determine through CRMP [Cultural Resource Management Plan] just what the NPS should present to the public. Work toward that goal. General cleanup and removal of unwanted plant materials.... Restoration of historic landscape when Cultural Resources Management Plan is approved.²³⁶⁷

The park responded that a very active program of removing unwanted vegetation had been underway for two years and that revegetation went hand-in-hand with removal of unwanted plants. The park asked, "What historical landscape do we want? Bare ground, belly-high-to-a-horse grass, or something in between? One is not desirable, the other impossible to bring back." With regard to resources management, the evaluators urged the park to make every effort "to maintain the area as close as possible to the setting of the historic period being preserved."²³⁶⁸

Planning and Development

A number of plans were prepared during the 1980s to provide management guidance at Pipe Spring. Plans included a Collection Preservation Guide (July 1980), Statement for Management (November 1981), Water Resource Management Plan (Draft, 1982), Basic Operations Declaration (January 1982), Development Concept Plan for the Residential and Maintenance Area (July 1982), Safety Plan (1985), Cultural Resources Management Plan (last draft, 1987); and Wayside Exhibit Plan (1988).²³⁶⁹

On a Friday in August 1979, the seven-layer paper roof on the old maintenance building was removed. No protective covering was put on it that day. As luck would have it, the next few days it rained steadily, soaking power tools and supplies before they could be covered with plastic. Belatedly, plastic was put on the roof to prevent further water damage before the new roofing could be installed.

There had long been discussion about removing the monument's residential area and maintenance yard to a nearby location on the reservation. The monument's approved 1978 master plan expressly called for such a change. The developed area was seen as visually intrusive on a landscape viewed by its administrators as historic. While from the north, staff residences and the utility area were partially screened from view by vegetation in the warmer months, the area was painfully visible the rest of the year. It was especially visible looking toward the monument from the south by those driving along State Highway 389. In May 1979, a draft Assessment of Alternatives and Residential Analysis was completed for Pipe Spring. Only two alternatives for action were considered feasible: provide more vegetative screening for the developed areas or relocate them in a small cove located about one-half mile north of the monument. By early 1982 the study had evolved into a Development Concept Plan, this time recommending leaving the residential and utility areas *in situ* and screening with more vegetation. As Herr greatly enjoyed planting trees, this posed no problem for him.

In the spring of 1979, a Zion work crew excavated a hole and installed a 1,000-gallon gas storage tank to replace the 500-gallon above ground tank that served the monument. A new gas pump was installed and put into operation. Archeologist Ronald E. ("Ron") Everhart from Glen Canyon National Recreation Area oversaw Section 106 clearance on the project.²³⁷⁰ It was originally planned to put the tank under part of the residential parking area. A flagstone flooring was encountered about six inches below the asphalt, so a new site for the tank was chosen 20 feet further north.²³⁷¹ (This flagstone was almost certainly the old floor of the monument's garage that burned to the ground in 1951.

Heaton later surrounded the floor with four-foot high cinder block walls on three sides as a place to park the government truck. The stone floor was presumably covered over during the construction of the residential parking area about 1960.) No cultural material was found in the site chosen for the tank.

During August 1980, an old, underground storage facility was filled in for safety reasons. Originally built in 1942 for fuel storage, it was later used for paint storage. Also that year a block wall "fence" was erected along the west side of the utility yard to help prevent erosion and to delineate the edge of the service area. Approximately 400 new fence posts were installed around the grazing pasture and around the monument boundary. New gates were installed in the branding corral below the east cabin.

In the fall of 1986, major rehabilitation work began on the monument's maintenance building, thanks to an unexpected fiscal year-end funding windfall from the regional office. All siding and windows were removed and replaced with new materials. A new roof was installed, including new joists. Work began on October 19; exterior work was completed on November 2, with most other work finished by the end of the year.²³⁷² The work doubled the size of the building and created a proper collection storage room. A new septic tank and leach field were also completed for the building. During December 1986, the monument's old museum storage trailer was surplused to the Kaibab Paiute Tribe for storage at their maintenance yard. No longer needed at the monument, two metal sheds were relocated from the monument's utility area to Zion National Park.

Roads, Walks, and Nature Trail

On April 30, 1979, the Zion Roads and Trails Crew began construction of a new soil cement walkway from the visitor center to the fort, built a wheelchair path around the ponds, and cleaned up the maintenance area. Work by the crew continued through late June. In late September, the road crew returned to chip seal the monument's utility road and residential parking area and to build a new 50-foot section of road from the culvert-bridge to the monument's east boundary gate. During 1982, additional work was done to the soil cement walkway in order to make the walk to all audio stations and wayside exhibits accessible to the handicapped.²³⁷³ The project involved completing the last 500 feet of walk with soil cement. In October 1987, a contractor (Norris-Brown) removed about 300 feet of sidewalk and laid new walks within the monument to make them more handicap-accessible.

In 1980 the Arizona Department of Transportation and the Utah Highway Department improved signage along Highway 389 at Herr's request. The monument's nature trail suffered from erosional damage by the early 1980s. In 1981, thanks to pick and shovel work by Doug Dewitz along with the installation of juniper water bars across the trail, the trail was put back into good shape.

Museum Collection

In June 1979, Herr and Scheier picked up a United Order chair from a resident of Kanab, presumably donated. It was quickly dubbed "Adeline's Throne," after Seasonal Park Aid Adeline Johnson, who supervised the CETA girls working as interpreters in the fort.

In 1980 the storage trailer was still in use. In June 1980, two heavy steel shelving units were purchased for storing larger museum items. In July the monument acquired five new storage cabinets to use for museum storage. This helped to reduce conditions of overcrowding. Diana Pardue and Doris Fanelli, staff from the Division of Museum Services, Harpers Ferry Center, gathered data in March 1980 for a Collection Preservation Guide for the monument. Completed in July 1980, the monument received the report in the early fall. The report identified the monument's need for a better storage facility and better storage methods, as well as identified the need for a furnishing plan. Concern about environmental factors in the historic buildings (unmonitored humidity and temperatures, unsafe light levels) was expressed by the authors, as well as for security of collections displayed in the east and west cabins, where visitors browsed unattended by staff. Rodents remained a big problem in the buildings. The report recommended that fire alarm and mechanical intrusion systems be installed in all buildings and that certain practices be put into effect to enhance daytime security.²³⁷⁴ As Herr did not agree with some aspects of the plan, it is unknown how many of the report's recommendations were put into effect.

During 1981, Fred Banks attended a curatorial methods class at Yellowstone National Park, learning new skills applied to his care of the monument's collection. He continued to attend other collection management-related trainings about every other year until 1989. Two replica pieces of fort furnishings were made for display purposes by maintenance staff that year, a dry sink and a cutting board. The accessioned originals were kept in storage. In late 1982, the monument acquired new kerosene lamps to replace the electric lights then in use in the fort. During 1983, Regional Curator Ed Jahns visited the monument to assist Banks address collection issues.

In January 1986, Banks picked up two wagons from Golden Spike National Historic Site which were surplus to their needs. From time to time, Banks also made small purchases of artifacts for the fort's displays.

As mentioned under the earlier "Planning and Development" section, the monument's maintenance building was rebuilt in 1987. Doubled in size, it included within it a proper collection storage room. During that year, Regional Curator Al Bohnert visited the monument to look over the collection and go over curatorial problems with Banks. In December Bohnert called to tell Herr there was \$7,000 available for the monument to hire a seasonal museum curator. In late March 1988, Zula Brinkerhoff was hired for the position.

Natural History

In late June 1979, two representatives from the Arizona Commission of Agricultural and Horticulture visited the monument in relation to their gypsy moth program. They left five traps with Park Technician Dale Scheier to place around the monument. The Audubon Annual Christmas Bird Count was held on December 22, 1979, with five volunteers counting 28 species.

In 1980 well-known Arizona birder Gale Monson submitted a proposal for studying the migration of birds through Pipe Spring. While the Zion Natural History Association agreed to fund the study, no report has been located and the project may never have been carried out.

Archeological and Historical Research

In early 1980, \$20,000 was allotted for what was called a "Historic Resource Study" of Pipe Spring National Monument. The description of work, however, actually called for four studies: a resource study, structure report, administrative history, and analysis of current furnishings in the fort to determine their historic appropriateness. In addition, the project was originally to be funded over a two-year period, but received funding for only one year. The amount budgeted ended up being woefully inadequate for the amount of work called for, particularly after it was decided that a Denver Service Center (DSC) historian would do the work (DSC had a 40 percent overhead). Historian A. Berle Clemensen was assigned to work on the project. No task directive was prepared for the project, so Clemensen spoke with monument staff about their needs. They informed him they needed a structure report and analysis of current furnishings for the fort. He told them he lacked the expertise to analyze the fort's furnishings but that he would include a section on any furnishings descriptions he found from individuals connected with Pipe Spring in the 1870s-1880s. According to Clemensen, he soon after notified Regional Historian John Albright of his conversations with monument personnel and described the direction the project was taking. Albright consented to the type of study Clemensen proposed to do. Regional Architect Rodd Wheaton was also informed of his plans and made no objections.

The product of Clemensen's research was the report, "Historic Structures Report, History Data Section, Pipe Spring National Monument, Arizona," with the first draft completed in December 1980. Monument staff reviewed and commented on the draft in March 1981.²³⁷⁵ The Regional Historic Preservation Team commented in May, advising that the report's "Furnishings Overview" section be deleted entirely on the basis that Clemensen lacked the expertise to write such a section. In addition, it was felt the report did not fulfill the requirements "as perceived" by the Regional Historic Preservation Team, stated Associate Regional Director Richard A. Strait.²³⁷⁶ Clemensen responded to everyone's comments in a memorandum transmitted to region through Assistant Manger Robert J. Shelley, Midwest/Rocky Mountain Team, DSC. Shelley advised Strait's office that Clemensen's report fulfilled the needs of the park and met the requirements of the NPS standards applicable at the time he wrote the report.²³⁷⁷ The author revised the draft to address monument comments and resubmitted it in 1982, but the report never satisfied the regional

office. Consequently, it was never published, but even in draft form contains much useful historical and architectural data.

In September 1984, NPS Historian Susan A. Tenney completed a National Register of Historic Places nomination for Pipe Spring National Monument. The National Register accepted the documentation on August 25, 1986.²³⁷⁸

Other than Park Service archeologists surveying specific areas to provide Section 106 clearance for projects, the only other archeological investigation was carried out at the monument in 1990 when a survey was completed around the east and west cabins (see "The East and West Cabins" section).

Permanent Residences

Improvements were made to the two permanent residences in October 1979, primarily for the purposes of reducing consumption of electricity. Six-inch insulation was installed beneath the flooring of residences, a storm window was installed on the large picture windows, and new florescent lighting ceiling fixtures were installed. Due to the Iran hostage crisis, restrictions on energy use were put in place on November 15, 1979. Heavy duty Woodsman stoves were installed in the residences in early December, replacing the Franklin stoves.

New countertops and stainless steel sinks were installed in the kitchens of the residences in May 1980. Exteriors of both houses were repainted in 1981. That year solar hot water heaters were installed in the permanent residences and solar reflecting screens were installed on south facing windows of the two residences and the mobile home. The screens reduced heat and glare from the sun during summer months; they were removed in the fall.

In 1983 a centralized TV-FM antenna system was installed to handle the needs of the two permanent residences and one seasonal residence. This permitted the elimination of roof antennae and improved reception. Also that year the two permanent residences were rewired and reroofed. During 1984, the solar panels were reinstalled on the two residences and their bathrooms were remodeled. Work on the kitchens and floors took place in 1985. Radon gas tests were completed on the permanent residences in 1987; both read in the approved area. New concrete driveways were poured for the two residences in September 1987.

Seasonal Residence

A new 14 x 60-foot mobile home was delivered to the monument on April 27, 1979, and was located in the residential area. In the fall of that year, the trailer was unoccupied. Superintendent Lancaster thought it detracted from the area's aesthetic values and threatened that if it wasn't going to be used, he wanted it returned to Zion. The monument managed to retain it, offering it for use to seasonal employees and VIPs. For a time, Administrative Clerk Jeff Frank also lived in it. It was usually referred to in the 1980s as the "dormitory trailer."

During July 1988, a foundation and sewer line were constructed for a new modular home. The new modular was moved in on August 23 and was hooked up to sewer and water connections in early September. That winter the modular home was used successively by several VIP couples. In addition to the new home, the seasonal trailer remained on site.

Solid Waste Disposal

By the 1980s the monument was no longer using the Tribe's dump for its solid wastes but took it to Fredonia, Arizona, for disposal.

Ponds, Fish, Fowl, and Farm Animals

The Fort Ponds

During the summer of 1979, Herr reported a leakage problem with the stone walls of the fort pond. A maintenance expert from the regional office inspected the ponds in August and promised to send product information on a material that would stop the leaks. (There are no reports that a sealant was applied.) At year's end, the pond was still seeping water at the bottom of its walls. The seepage problem continued through the summer of 1980. No repair work could be done over the growing season as the two ponds served as the reservoir for the monument's irrigation water. In 1981 the pond was drained and cleaned out, walls grouted, bentonite berms put in around the wall-pond interface and, as Herr reported, "prayers said." The result, he stated at year's end, was that it seemed to leak even worse than before the work!²³⁷⁹ While underwater cement sealed the leaks where they were located, water would just come out elsewhere on the wall. The worst leakage problem seems to have been in the "lower" (presumably west) pond. In May 1982, another section of wall was built up around the existing outer wall where leaks were located. This held the water back and raised the level of the ponds back up to past levels.²³⁸⁰

Fish

The only mention made of pond fish was in January 1988 when Herr reported a shipment of goldfish requested by him had come in to one of the local businesses. No details were provided.

Fowl

Throughout the 1980s, the monument continued to have ducks, geese, and chickens as part of the historic scene. As in the past, fowl were obtained from a variety of sources. In March 1980, Fred Banks picked up five ducks and three geese from Burton Rust of Glendale, Utah. Ducks and geese were also obtained from Cedar City, although the exact source is unknown. Newly-hatched ducklings and their mothers were placed immediately in cages for protection. (Even older ones were locked up until the garden crops grew tall enough for them to hide in.) In July that year, Herr reported 14 ducks were lost to a predator, thought to be dogs rather than coyotes. In 1981 one or more vandals turned over the duck cages and released the 17 little ducklings. In 1983 Herr picked up 19 ducks donated by Mr. and Mrs. Hans of Rockville, Utah. In March 1984, visitors and staff witnessed a coyote dashing across the horse pasture and capturing a goose for its dinner. That left a count of seven geese and 24 ducks, down from the monument high of 10 geese



145. Live monument geese were plucked to make goose down pillows, 1980 (*Pipe Spring National Monument*)

and 36 ducks, Herr reported.²³⁸¹ In 1986 someone from Kaibab National Forest delivered three ducks for the fort ponds. While Herr does not specifically mention chickens in any of his reports, he does once mention buying a large quantity of chicken feed, and they were in fact still kept. Two of the monument's chickens were killed under rather bizarre conditions on August 18, 1989, when they were struck and killed by hail during a particularly severe storm.

Farm Animals

In March 1982, the draft horse named Molly died, apparently of natural causes.²³⁸² Tribal maintenance worker Steve Turner used the Tribe's tractor to dig a grave for the remains just outside the west boundary on a burn site. Herr wryly reported, "She was duly planted with no ceremony to mark the occasion on March 18 before noon."²³⁸³ In addition to Molly's old wagon partner Mick, Zion National Park often wintered two patrol horses at the monument, named Rabbit and Copper. Grand Canyon National Park wintered two of its horses at Pipe Spring as well, named Blazer and Alex. Blazer arrived with health problems and died at the monument in January 1985. A backhoe was borrowed from Zion, a hole dug next to Molly, and the horse buried there. With his usual tongue-incheek, Herr reported, "Suitable epitaphs were spoken. Markers will be erected this next summer with guests [Regional Director] Lorraine Mintzmyer and [NPS Director] Russ

Dickenson to eulogize the departed."²³⁸⁴ In late 1986, the monument acquired a new saddle horse named "Coco." In March 1988, one of Zion's horses, Rabbit, became ill with colic and was subsequently "put down" at the monument by a Zion ranger. The horse was buried alongside Molly and Blazer in what by then could rightly be described as a horse graveyard.

During Leonard Heaton's era of administration, he actively worked to rid the monument of all cats that wandered in, often killing them. By contrast, when a "stray, well-mannered, domestic cat" found its way to Pipe Spring in 1981, it was quickly escorted to the fort and given the assignment of mice and rat control!²³⁸⁵ The cat was named "Loretta." Herr was far less inclined to welcome dogs that wandered into the area, however, shooting them when he got the chance.²³⁸⁶ The problem was that, at least on one occasion, a dog shot and killed by Herr belonged to a Kaibab Paiute neighbor, which did nothing to enhance his relations with the Tribe.

Fire Protection

The first reported fire to occur since the monument fire of July 1951 took place in June 1980 when a fired consumed between three and four acres of grassland at the monument's west boundary. Due to quick action by monument staff, Forest Service personnel, tribal members, and others, the fire affected only about one-eighth acre inside the monument. A few dozen fence posts required replacement. A Health, Life, and Safety Report that year emphasized the monument's lack of a fire protection system within 700 feet of the housing and utility areas. It is not known when this deficiency was addressed. Fire training for staff was offered from time to time at Zion National Park. A new hose box was obtained in 1982. An operations evaluation in 1988 emphasized the monument's vulnerability to wildfires and encouraged more frequent fire trainings of staff, improvement of firebreaks, more frequent equipment checks, and an updating of the monument's Fire Management Plan.

As in times past, monument staff responded to area fires on the reservation and in Moccasin. On July 5, 1982, Bill Herr, Doug Dewitz, and Seasonal Laborer Sam Tom assisted fighting two fires that occurred near Kaibab Village. One of the fires got large enough to require aerial tanker drops.²³⁸⁷ The Kaibab Paiute Tribe acquired a new fire truck and fire house in December 1982. Dewitz spent several hours in Kaibab going over the use of equipment with members of the Tribe that month. Dewitz and Tom responded to another call to put out a grass fire in Moccasin on July 11, 1988.

Radio Communication

In the spring of 1980, a 35-watt, General Electric (G.E.) base station was loaned to the monument by Zion so the monument could have radio contact with Zion and Cedar Breaks. The system was installed on April 2. In 1983 the monument's old Motorola hand-sets were replaced with new G. E. units and a new G.E. base station was installed. In 1984 another G.E. controller unit was installed in the maintenance mechanic's office.

Accidents, Thefts, and Law Enforcement

Very few law enforcement incidents occurred in the 1980s. In the early 1980s, the monument had a problem with people occasionally climbing over the fence to gain entry after closing hours. Only one theft was reported. On the night of July 27, 1984, a 250-pound anvil belonging to VIP blacksmith John Cram was stolen from the monument. Tribal Policeman Dan Bulletts investigated on July 27 and submitted a report to authorities. Zion Ranger Ken Armstrong also investigated the theft. The value was estimated at \$500-700 and Cram filed a tort claim.

In 1985 Herr reported an attempted abduction that took place on July 18 of a young Indian girl on the Moccasin road, just north of the monument. Officers responded and investigated the report.²³⁸⁸

Epilogue

"Whereas, it appears that the public good would be promoted..." So reads a portion of President Harding's proclamation setting aside Pipe Spring as a national monument 75 years ago. What did its creators have in mind when they referenced "the public good?" Might it be something entirely different for today's computer-age visitor than it was for the family that arrived at Pipe Spring during the 1920s in a Model T?

Since the time Pipe Spring National Monument was established, the National Park System has grown, not only in physical terms - through the addition of hundreds of areas of national significance - but in terms of social awareness. Since the 1920s, the nation's conscience has been awakened and challenged by World War II, the Holocaust, the Nuclear Age, the Cold War, wars in Korea and Viet Nam, and the Civil Rights Movement. Voices of women, Native Americans, Hispanics, and others have all been raised since the 1960s, along with the insistence that American history recognize the sacrifices and contributions of *all* Americans. To its credit, the National Park Service now strives to interpret historical sites in ways that do justice to the plural society we live in. Admittedly, our resolve to now "tell it like it *really* was" creates a host of challenges. Hopefully, this non-exclusivistic approach toward researching, writing, and teaching about the past will generate histories that ring true to more of its citizens.

As the administration of Pipe Spring National Monument profoundly knows, there are two communities that feel compelled to convey their story at this historic site. For most of its history, particularly while Leonard Heaton administered the site, it can be argued that interpretation was presented mostly from the perspective of the Latter-day Saints. By the late 1980s, the pendulum appears to have swung toward a more generic "pioneer" history, although the reasons for this are not very clear. Understandably, given that Pipe Spring is the only Church-associated site that has gained national recognition, the *perception* that its history is not "correctly" being passed on has upset some members of the community. Yet it is important to ask, were monument administrators afraid their interpreters would be accused of proselytizing if they spoke too much of the Church's history or its role at Pipe Spring? Were they uncomfortable with the religious tenets of those responsible for the fort's existence and for the settlement of surrounding communities? Some documentation suggests this may be the case. In a country that advocates freedom of religion as well as separation of church and state, it is understandable that to interpret Pipe Spring is to walk a fine line.

The fact is, however, Pipe Spring's late-19th century history is inextricably bound to an important religious movement. Unlike many other religious and secular movements of the last century, this one thrived. Since it was first organized with six members on April 6, 1830, the Church of Jesus Christ of Latter-day Saints has become one of the world's fastest growing religions and one of its largest churches. When Utah attained statehood in 1896, most of the Church's 250,000 members lived within the state's boundaries. The Church now claims over 10 million members, with only half of that number living in the U.S. It directs the largest volunteer missionary force in the world, operating 330 missions

in 162 countries; the Book of Mormon is available in 91 languages.²³⁸⁹ Rooted in the utopian and revivalist fervor prevalent in the country during the first half of the 19th century, Latter-day Saints are arguably the most enduring example of religious communitarianism. Many descendants of those who fled to the West 150 years ago to escape religious persecution are deservedly proud of their accomplishments, their faith, and their story.

The Kaibab Paiute also have survived generations of persecution, along with dispossession of their lands and associated resources. Yet they cling proudly and tenaciously to their own values and traditions. They, too, have important stories to share.

These are by no means the only stories that can be told at Pipe Spring, however. The interpretive possibilities at Pipe Spring - the opportunities to explore important, thought-provoking questions relevant to our times - are almost limitless. What has been learned from past experience, however, is that the success of interpretive programs can be strengthened by community understanding and support. With its 30-year history of partnering with its Kaibab Paiute and Mormon neighbors, Pipe Spring National Monument is prepared more than most for the years ahead. Indeed, many other parks and monuments could benefit from the lessons learned there.

"Diversity" - whether based on differences of race, sex, ethnicity, or religion – is a word we hear a great deal today, thanks to changing demographics and social sensitivity. Diversity was most certainly *not* a consideration in the early 1920s when people first contemplated making Pipe Spring into a national monument. Latter-day Saints were still considered a "peculiar" people by many of their fellow citizens, unable to shake the legacy in the public mind of their most controversial social experiment: polygamy. As was mentioned in Part I, the fact that Pipe Spring played an important part in Mormon history was never mentioned in the proclamation establishing the monument "to serve as a memorial of western pioneer life."

In fact, documentary evidence suggests that, to Park Service Director Stephen T. Mather and others, the significance of Pipe Spring in 1923 was decidedly more logistical than historical. And yet, on the eve of the 21st century, we can see that Pipe Spring National Monument offers its visitors much more than a rest-stop, that the "public good" can indeed be promoted at this remote site, and that the springs there can perhaps quench a different kind of thirst, one for understanding and reconciliation.

Appendix I - Pipe Spring Ranch Ownership Summary

April 13, 1863

James M. Whitmore was issued a land certificate for a 160-acre tract that included Pipe Spring.

January 9, 1866

Pipe Spring ranch inherited by Whitmore's widow, Elizabeth.

Church ownership (1870-1895)

December 1870

Pipe Spring property transferred from Elizabeth Whitmore to the Church, by verbal agreement with Brigham Young.

January 1, 1874

Elizabeth Whitmore paid \$1000 in stock and \$366.64 cash for Pipe Spring property by Winsor Castle Stock Growing Company (organized January 3, 1873; largest stockholder: the Church).

January 1, 1879

Winsor Castle Stock Growing Company transferred property to the Canaan Cooperative Cattle Company.

November 15, 1879

Canaan Company returned Pipe Springs property to the Church.

1881-1885

Pipe Spring ranch leased to Kanab resident Joseph Gurnsey Brown.

ca. 1885

Management of the ranch and herds turned over to the United Order of Orderville.

August 22, 1887

Kaibab Land and Cattle Company organized ("umbrella" holding company for the Church).

mid-1895

Church sold Pipe Spring property to Benjamin F. Saunders (no record of conveyance; exact date unknown).

July 23, 1895

Daniel and Artimesia Snow Seegmiller execute quitclaim deed to Benjamin F. Saunders.

December 2, 1895

Benjamin F. and Tacy E. Saunders execute quitclaim deed to David D. Bulloch and Lehi W. Jones.

November 3, 1902

David and Alice B. Bulloch and Lehi and Henrietta L. Jones execute quitclaim deed to A. D. Findlay (sale actually took place January 23, 1901).

January 2, 1909

A. D. Findlay sold the Pipe Spring ranch to Jonathan Heaton and Sons, a copartnership (quitclaim deed not executed until 1920).

December 31, 1920

A. D. and S. E. Findlay execute quitclaim deed to Pipe Springs Land & Live Stock Company.

December 18, 1920

Pipe Springs Land & Live Stock Company executes quitclaim deed to Charles C. Heaton.

April 28, 1924

Charles C. Heaton executes quitclaim deed to United States of America.

Appendix II – Presidential Proclamation

PIPE SPRING NATIONAL MONUMENT (ARIZONA)



the President of the United States of America

A Proclamation

WHEREAS, there is in northwestern Arizona on the road between Zion National Park and the North Rim of the Grand Canyon National Park a spring, known as Pipe Spring, which affords the only water along the road between Hurricane, Utah, and Fredonia, Arizona, a distance of sixty-two miles; and

Whereas, a settlement was made at Pipe Spring in 1863 and there was built a large dwelling place, called "Windsor Castle," with portholes in its walls, which was used as a place of refuge from hostile Indians by the early settlers, and it was also the first station of the Descret Telegraph in Arizona; and

WHEREAS, it appears that the public good would be promoted by reserving the land on which Pipe Spring and the early dwelling place are located as a National Monument, with as much land as may be necessary for the proper protection thereof, to serve as a memorial of western pioneer life,

Now, Turnstronk, I, Watren G. Harding, President of the United States of America, by virtue of the power in me vested by section two of the act of Congress entitled, "An Act for the Preservation of American Antiquities," approved June 8, 1906 (34 Stat., 225) do proclaim that there is hereby reserved, subject to all prior valid claims, and set apart as a National Monument to be known as the Pipe Spring National Monument the lands shown upon the diagram hereto americal and made a part hereof and more particularly described as follows:

The southeast quarter of the southeast quarter of section seventeen, township forty north, range four west, Gila and Salt River Base and Meridian.

Warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any of the features or objects included within the boundaries of this Monument and not to locate or settle upon any of the lands thereof.

The Director of the National Park Service under the direction of the Secretary of the Interior, shall have the supervision, management and control of this Monument, as provided in the set of Congress entitled, "An Act to establish a National Park Service, and for other purposes," approved August 25, 1916 (39 Stat., 535), as amended June 2, 1920 (41 Stat., 732): Provided, that in the administration of this Monument, the Indians of the Kaibab Reservation, shall have the privilege of utilizing waters from Pipe Spring for irrigation, stock watering and other purposes, under regulations to be prescribed by the Secretary of the Interior.

In Witness Wilhercof. I have herennto set my hand and caused the seal of the United States to be affixed.

Done at the City of Washington this thirty-first day of May, in the year of our Lord one thousand nine hundred and twenty-three, [SEAL.] and of the Independence of the United States of America the one hundred and forty-seventh.

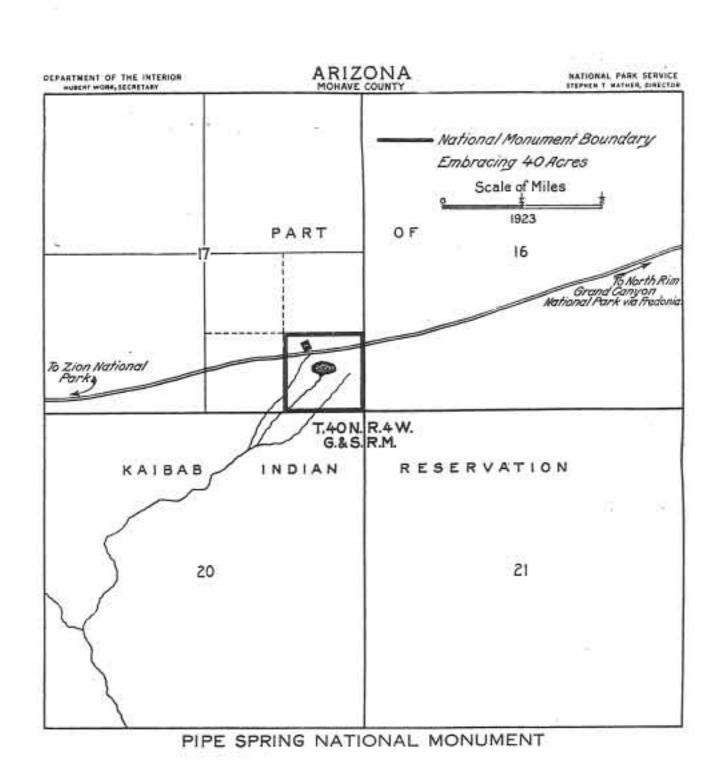
WARREN G HARDING

By the President:

CHARLES E. HOGHES

Secretary of State.

[No. 1663.]



654

Appendix IIIa - Quitclaim Deed

Quit-Claim Deed.

For and in consideration of the sum of four thousand dollars, the receipt of which is hereby acknowledged. I quit-claim to the United States of America all my interest in the following tract of real estato: The southeast quarter of the southeast quarter of section seventeen, township forty north, range four west, Gila and Salt River Base and Meridian.

list,

Charles O'Heaton.

State of Make :

. 88.

Before me July 19

on this day personally appeared Charles C. Heaton, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same.

day of April A. D. 1924.

655

Appendix IIIb - Withdrawal of Application

withdrawal of Pending Application

A. 484

Phoenix 04807

April 28-1924.

I hereby withdraw the application filed in the Prescott, Arizona, land office on May 3, 1888, by Daniel Seegmiller to locate Valentine scrip certificate No. E-13 (Prescott No.3), and the application of myself and the Pipe Springs Land and Live Stock Company to conform said location to the SE. 1/4 SE. 1/4, Sec 17, T. 40 N., R. 4 W., G. & S.R.H.

Charles Heaton

Witnesses to signature:

Jho. W. Glazier Zona Seegmiller,

Filed and Recorded at Request of Heber J. Grant September 29th A.D. 1924, at 9 Olclock A.M. in Book 16 of Miscellaneous Records at page 12 Records of Mohave County, Arizona.

W.H. Welsh County Recorder.

By Hary Carrow, Deputy Recorder.

<u>Appendix IV – Rose Report Summary</u>

SUMMARY AND CONCLUSIONS OF WHOLE INVESTIGATION

- (1) Water discharging from Big Spring (27.77 gallons per mimute) and the Historic Spring (5.67 gallons per mimute) totals 33.44 gallons per minute. This is the total amount flowing into the Interlocked Pools. The 7.70 gallons per minute from Upper Meadow Pool goes to Cattlemen. Total 41.14 gallons per minute, is present water yield at Monument.
- (2) Any material increase in available water at the Monument hinges upon cleaning Tunnel Spring entrance and constructing a flume. The greatest possible increase: 41.14 gallons per minute might be increased to 44.56 gallons per minute, less than 10 percent increase over the present available water.
- (3) No further extension of the Tunnel into the hill should be permitted under any circumstances. Tunnel Spring emerges 22 feet lower than Big Spring and directional trend of fracture and joint system strongly indicates connection between the two springs.
- (4) This water difficulty is not between merely the Heatons of Moccasin, and the Indian Service. The Cattlemen's Association is made up of 13 signatures with Heaton Brothers as only one of them. Heaton cattle rarely make up more than one-fourth all of the cattle that figure in this water problem.
- (5) The Indian Service bases their claim to the waters and are contesting legal rights of Cattlemen solely on the wording of the Presidential Proclamation, which wording was in all probability inserted by that Service when the Proclamation was being prepared. They seem to interpret "use waters" to mean ALL water, and the Indian Service seems to pass up the statement " . . subject to all prior valid claims . . "
- (6) The National Park Service, it seems, is not aware that its future needs will require a large portion of all available water on the Monument after Cattlemen are recognized. Our Service should, it seems, remember that the Heads of the Mormon Church not merely Heatons are interested in the complete historical restoration of Winsor Castle and its setting of trees, orchards, meadows, and gardens. Mr. Mather's dreem was to carry out this beautiful restoration. It seems to fall short of this future program would mean breaking the faith of the whole Mormon Church in the National Park Service and Mr. Mather. We must realize the magnitude of this intense interest in Pipe Spring. It is the whole Mormon Church and its leaders. Let's not make the grave mistake of underestimating this interest in Pipe Spring National Monument.
- (7) Under Arizona Water Law, and according to the Proclamation, the National Park Service accepted Pipe Spring Monument lands "SUBJECT TO PRIOR VALID CLAIMS" and there seems little reason to presume that the Indian Service OWNS the waters there now. The amount they receive, it seems, would be

- contingent upon whatever SUFFLUS is left after Park Service rights (acquired through transfer from private ownership) are preserved. These Park Service needs are, and will be, more than mere "culinary water, and possibly enough for a cow and chickens, and the small meadow."
- (8) The Cattlemen appear to have had legal rights to water under Arizona Water Law prior to the establishing the Monument. This would appear to be one of the "prior valid claims" which we, as owners of the land, should recognize in accordance with the Proclamation.
- (9) During the Summer of 1933, the Indian Service has been getting three-fourths of the 33.44 gallons going into the Interlocked Pools, except for small tourists' needs and water used by the Laborer's household.
- (10) The Park Service Meadow has been getting one-fourth of the same water after the small amounts taken are deducted.
- (11) It seems definitely established that the Indians are irrigating less than one-third the land their three-fourths of the water would irrigate if the Indians made the best use of available waters.
- (12) At Two-Mile Wash, if developed, the Indians could be cultivating 8 times the crops now being cultivated. Less than 3 acres are now cultivated, where possibly 25 acres could be irrigated if pipe were installed and farming were efficient.
- (13) THE INDIANS CERTAINLY ARE NOT IN DIRE NEED OF A FEW MORE GALLONS PER MINUTE AT PIPE SPRINGS. If efficiently used, their present waters would irrigate from 3 to 8 times the amount of land they now have under cultivation.
- (14) Re-allocation of the Laborer's position to Civil Service Custodial grade and appropriation for residence and maintenance of the Momment would, in two weeks after operation, remove all trace of the pioneering appearance from the Momment.
- (15) Landscape architects should cooperate with us at once in working out definitely the future needs in trees, meadows, orchards, and gardens for an historical restoration of the Momment. The Engineers should then promptly have some one familiar with Irrigation Engineering submit figures on water the National Park Service needs for this restoration, and for residential and tourists' needs. We will then know just how much water we can turn over as surplus above our needs to the Indians.

Finally, solving the administrative problem at the Momment is only a matter of increased appropriations for (1) re-allocation of the Laborer position to Custodian or Park Ranger; (2) residence for the Custodian; (3) maintenance of the Monument premises; and (4) restoration of the Monument

Setting as it was in past days. Such bringing of the property up to Park Service standards and maintaining those standards is contingent upon retention of rights we now have to Pipe Spring waters. The entire Mormon Church has a live interest in this most important historic landmark to their early pioneers. The Mormon Church fully expects us to bring the property up to Park standards by a full and complete restoration of Winsor Castle and its setting. To accomplish this end, most, if not all, of the water to which we now have legal right will be needed. Whatever is then surplus can be utilized by the Indians.

Respectfully submitted,

Robert H. Rose,

Assistant Superintendent.

Approved:

Frank Pinkley,

Superintendent.

Appendix V – Regulations for Water Division

RECULATIONS FOR THE DIVISION OF THE WATERS OF PIPE SPRINGS

NOV -2 1933

Pursuant to suthority vested in me by Presidential Proclamation of May SL, 1923, the following regulations are prescribed governing the distribution of the waters of Pipe Springs for irrigation, stock watering, and other purposes:

- The waters of the Springs shall be divided equally, one-third to the Pipe Springs National Momment, one-third to the Indians of the Kaibab Indian Reservation, and one-third to the stockman represented by a memorandum agreement signed June 9, 1924, by representatives of the respective interests.
- 2. In order to accurately divide the waters, there shall be installed recognized recording water meters at each of the three springs, from which the water supply for the respective parties is derived, and of the combined flow of such springs each of the respective parties shall be entitled to receive for their respective uses one-third of such quantity of water. The diversion and use of water before it empties into reservoirs now constructed on the Mommment shall be charged against the one-third share of the total flow to the party receiving such quantity of water. In order to prevent dispute emong the respective interests relative to their not receiving their total share of the water, there shall be installed similar water meters at the respective points of outlets through which water to the respective parties is being carried to their point of use.
- The cost, including installation, maintenance, repairs and replacements of the maters shall be borne equally by the respective interests.

- 4. Failure on the part of the respective interests to pay for their share of the cost of the meters, their maintenance, repairs and replacements, shall be grounds for refusal of delivery of water to the parties so delinquent.
- 5. The respective interests involved shall have the right to inspect at any time the records of the division of the waters, but no tempering or interference with the meters shall be permitted. Should it appear at any time that any or all such meters after having been installed are not properly functioning, the matter, through proper channels, shall be submitted to the Director of the Park Service and the Commissioner of Indian Affairs, which Services shall have the meters inspected and if such inspection warrants, appropriate adjustments shall be made promptly.
- 6. Nothing herein shell be construed as in any way affecting or determining the respective water rights of the parties herein referred to.
 The right is reserved to modify, smend or change these regulations as conditions may warrant.

(Sgd.) OSCAR L. CHAPMAN

ASSISTANT SECRETARY.

Appendix VI - Visitation, Pipe Spring National Monument (1925-1990)

YEAR	NUMBER OF PISP VISITORS
1925	4,000 est.
1926	16,728 est.
1927	16,853 est.
1928	17,321 est.
1929	24,883 est.
1930	8,765
1931	2,300
1932	2,100
1933	2,548
1934	8,544
1935	4,896
1936	4,218
1937	667 (1,042)
1938	4,700 (2,245)
1939	4,780 (3,192)
1940	1,141
1941	1,934 (1,914)
1942 (first war year)	372
1943 (new method of counting)	6,310 (200)
1944	515
1945	635
1946 (first post-war year)	1,193
1947	760
1948	839
1949	1,290
1950	2,352
1951	2,104 (2,113)
1952	2,153
1953	3,566 (3,623)
1954	4,423 (4,080)
1955	4,641 (4,771) (2,341 visitor contacts)
1956 (first year with seasonal ranger)	8,746 (7,909) (4,698 visitor contacts)
1957 (start construction Glen Canyon Dam)	15,699 (14,963) (7,676 visitor contacts)
1958	13,620
1959	10,994
1960 (new counting method)	7,323
1961	10,465
1962	13,999
1963	17,138
1964	14,312
1965	15,597
1966	16,181
1967	16,895
1968	21,539

10.00	27.222
1969	27,232
1970	36,000
1971	"over 34,000"1
1972	33,5002
1973	24,051
1974 (U.S. oil embargo by Arab nations)	19,007
1975	24,168
1976	27,270
1977	28,202
1978	29,613
1979 (high gasoline prices begin)	26,139
1980 (Iran hostage crisis until 1/20/81)	26,901
1981	31,379
1982	31,631
1983	29,746
1984	30,139
1985	31,580
1986	35,285
1987	37,527
1988	42,577
1989	44,521
1990	46,542

Sources:

Report of the Director of the National Park Service for fiscal years 1926-1932.

"Travel Statistics from 1926 to 1953, inclusive," Pipe Spring National Monument Master Plan, April 22, 1954.

Figures after 1953 were gleaned from Heaton's journal, monthly reports, Annual Reports on Information and Interpretation. Beginning in 1955, records distinguished between "total visitation," which included picnickers and campers and fort visitors, and "visitor contact," which was a count of only those who toured the fort.

Numbers shown in italics are taken from "Annual Attendance at Sites at National Parks, Monuments, and Recreation Areas in the Lower Colorado River Basin," which is attached to a memorandum to the NPS Solicitor from Assistant Director Jackson E. Price, April 22, 1958. Where there is no number in italics it means this list did not conflict with visitation numbers provided in Heaton's and/or Zion National Park's reports.

¹ No official figure has been located for this year. The Operations Evaluation report filed in May 1972 stated that year's visitation was "over 34,000" but the travel year was not yet over.

² There was no Annual Report filed in 1970 or 1971. This figure was cited in the 1978 Master Plan and is probably more accurate than an estimate given by Bernard Tracy in the Superintendent's Annual Report for 1972: "about 40,000."

Appendix VII – Agreement with Kaibab Paiute Tribe

ACREEMENT

THIS AGREEMENT, made and entered into this 13th day of April

1972, between the Kaibab Band of Painte Indians of the Kaibab Reservation,

Arizona, organized pursuant to Section 16 of the Indian Reorganization Act

of June 18, 1934 (48 Stat. 984), as amended, hereinafter referred to as

the "Tribe," and the United States Mational Park Service, hereinafter referred

to as the "Service."

WITHESSETH:

WHEREAS, the waters of Pipe Springs within the boundary of Pipe Springs National Monument are now being used by both of the parties hereto under previous agreement; and

WHEREAS, increased needs of both parties have been given consideration, and with the permission of the Tribe the Service has drilled a well on tribal lands two miles north of Pipe Springs Mational Monument; and

WHEREAS, it is deemed advisable to enter into an agreement for the use of the waters from Pipe Springs and from the well so drilled in a manner to meet the needs of both parties,

NOW, THEREFORE, in consideration of the premises and of the nutual covenants and agreements hereinafter contained, and the performance thereof by the parties hereto, the parties do hereby mutually covenant and agree as follows:

- 1. It is mutually understood and agreed that this contract shall become effective on execution thereof and shall extend for a period of twentyfive years (25) and, at the option of the Tribe, may be extended for an additional period of twenty-five (25) years, upon giving notice to that effect to the other party to this agreement at least thirty (30) days prior to the date of such expiration.
- 2. The Service agrees to construct a water system which shall include a pump station, approved water treatment plant, an adequate water storage tank and a six inch water line or larger from the tank to Pipe Springs Mational Monument; the Service further agrees to provide Ts and water meters at five locations for service to tribal facilities. The locations of such Ts shall be determined by further agreement of the parties hereto. The Tribe agrees that the Service may have a right of way with full

rights of ingress and egress during the term of this agreement for the construction, maintenance and use of the water system as described on the attached plat which is marked Exhibit "A" and by reference made a part of this agreement.

- The Service agrees to operate, maintain and repair the water system constructed as aforesaid at its sole cost and expense.
- 4. The Tribe agrees that the Service may use the present onethird of the output of water of Pips Springs now being used by the Tribe so long as this agreement shall remain in force, except as hereinafter provided in paragraph No. 12 and 14.
- 5. The Service agrees that in lieu of the waters of Pipe Springs to which the Tribe has hereby granted exclusive use to the Service, the Service will furnish to the Tribe 7,884,000 gallons of water per year from the water system constructed pursuant to the terms of this agreement at the sole cost and expense of the Service and without any charge to the Tribe.
- 6. The Tribe agrees to pay the actual cost of production rate for all water used by the Tribe during any one year in excess of the amount to be furnished to the Tribe without cost as stated in the preceding paragraph. Cost of production shall be determined by promating the cost of (a) electricity, (b) chemicals, (c) maintenance of pump, plant and main line with appurtenances, and (d) seven year amortization of the pump. The cost of production will be re-evaluated at the end of each two year period.
- 7. The Service retains the ownership in the witer system as constructed by it, but in the event of termination of this agreement, the Tribe shall be given the right of purchase of the equipment at the then appraised market value before the Service shall have the right to remove the same from tribal property.
- 8. It is nutually agreed that the unters of both the well and
 Pipe Springs will be economically used with the objective of conserving the
 same, and obtaining the most feasible use therefrom. Water from the well
 shall not be used for commercial agriculture. In the event rated production
 of the well becomes less than 15 gallons per minutes, the deficit of the
 amount agreed to be furnished by the Service to the Tribe shall be made
 available to the Tribe from Pipe Springs.

- The Service agrees to meter all water and annually bill the
 Tribe for water in excess of the specified amount as hereinbefore provided.
- 10. The Service agrees to pay a rental charge for the use of water from the well by the Service at the rate of \$33 per acre foot, payable annually. The rental charge does not apply to any water used by the Tribe from the well.
- 11. The Parties each agree to make prompt payment upon receipt of billing from the other party.
- 12. The Service agrees that it will maintain the pool now constituting a part of the Pipe Springs Monument attraction and in the event water used by the Service from Pipe Springs is less than the output of said Springs, the Service agrees to make the excess water available to the Tribe through the Tribe's present line and storage system.
- 13. The Tribe at its own cost and expense may install a pipeline connecting the water well lines with the Kaibab Village system for emergency purposes only.
- 14. The Tribe would like to retain one gallon per minute flow from Pipe Springs for Livestock purposes which the Tribe will install at their own expenses.

KAIBAB BAND OF PAIUTE INDIANS OF THE KAIBAB RESERVATION, ARIZONA

By Bill Strive.

NASTONAL PARK SERVICE

APPROVED:

Bureau of Indian Affairs

Appendix VIII - Monument's Administrative Budget (1972-1988)

Note: Budget figures reported in Superintendent's Annual Report beginning in 1973. No annual reports have been located for 1971, 1972, and 1985. The 1989 Annual Report lacked needed data.

YEAR	APPROVED BUDGET	ENTRANCE FEES	OTHER FUNDS
1972	\$48,000 ² (approx.)	not reported	not reported
1973	\$65,500	not reported	not reported
1974	\$71,700	\$2,048	\$1,147 (ZNHA) ³
1975	\$77,100	\$4,002	\$680
1976	\$80,300; \$24,000 ⁴	\$5,179	\$1,040 (ZNHA); \$26,100 ⁵
1977	\$99,300	\$5,487	\$943 (ZNHA)
1978	\$105,600	\$5,821	\$2,200 (ZNHA)
1979	\$124,200	\$5,271	\$859 (ZNHA)
1980	\$126,700	\$5,414	\$2,587 (ZNHA)
	\$700 (VIP program)		
1981	\$133,400	\$6,431	\$4,381 (ZNHA)
	\$1,000 (VIP program)		
1982	\$133,500	\$6,116	\$4,948 (ZNHA)
	\$900 (VIP program)		
1983	\$141,400	\$5,373	\$5,280 (ZNHA)
	\$1,300 (VIP program)		
1984	\$158,800	\$5,613	\$5,010 (ZNHA)
	\$1,400 (VIP program)	×	
1985	(not reported)	(not reported)	(not reported)
1986	\$166,500	\$6,316	\$2,255 (ZNHA)
	\$1,030 (VIP program)		
1987	\$182,800	\$13,726	\$4,116 (ZNHA)
	\$1,275 (VIP program)		
1988	\$189,600	\$13,262	\$3,965
	\$2,400 (VIP program)		

¹ This figure, unless otherwise designated, is the monument's approved budget for that fiscal year. It does not include funds allocated for special projects.

² Cited in memorandum from Regional Curator Jean R. Swearingen, December 1, 1971.

³ Zion Natural History Association

⁴ Second amount for transitional period, July 1-September 30, 1976

⁵ Bicentennial funding

Appendix IX - Personnel, Pipe Spring National Monument (1923-1990)

1923	John E. White acts as Caretaker, paid out-of-pocket by Charles C. Heaton
1924-1925	John E. White acts as Caretaker, paid out-of-pocket by Stephen T. Mather
1926	C. Leonard Heaton hired as Caretaker for \$1 a month, February 8, 1926
1932	C. Leonard Heaton appointed full-time Custodian for \$75 a month
1953	Seasonal Laborer Melvin Kelsey ("Kelly") Heaton hired May 15, 1953
1954	Sherwin Heaton hired as seasonal laborer
1955	C. Leonard Heaton promoted to Acting Superintendent, GS-07, December 15, 1955
	Sherwin and Lowell Heaton work very briefly as seasonal laborers
	Robin Grant Brown hired as seasonal laborer
1956	Seasonal Park Historian, Lloyd Snow Sandberg enters on duty (EOD) June 8, 1956
	(also works summer of 1957 and on intermittent basis into early 1960s)
1957	Seasonal Laborers: Carl W. Johnson and Kelly Heaton
1958	Park Historian James C. ("Jim") McKown, EOD February 10, 1958
	Seasonal Laborers: Gary Heaton and Ray Mose (works to ca. 1967)
1959	Seasonal Laborers: Ray Mose, Allen Drye, Clair Ford, Harry Judd, Sherwin Heaton,
	Ivan A. Goodall
1960	Park Historian Jim McKown transfers to Grand Canyon National Park, June 30, 1960
	Park Historian Max P. Peterson EOD August 22, 1960
	Seasonal Laborers: Ray Mose, Grant Heaton, Harry Judd, Clifford K. Heaton
1961	Park Historian Max Peterson resigns August 19, 1961
	Park Historian Robert ("Bob") W. Olsen, Jr., EOD August 28, 1961
1962	Seasonal Laborer: Ray Mose
1963	Acting Superintendent C. Leonard Heaton retires, September 14, 1963
	Management Assistant Hugh H. Bozarth, GS-09, EOD October 14, 1963
	Joe Bolander hired as caretaker, September 3, 1963
	Seasonal Laborer: Ray Mose
1966	Park Historian Robert Olsen transfers to Whitman Historic Site, leaving
	September 23, 1966
1967	Seasonal Historian Paul C. Heaton hired part-time March 12, 1967, converted to
	full-time May 27, 1967
	Management Assistant Hugh H. Bozarth transfers to White Sands National
	Monument, early September 1967
	Acting Management Assistant James M. Harter, GS-05, EOD September 5, 1967
	Seasonal Laborer Melvin ("Mel") Heaton hired fall, 1967
1968	Acting Management Assistant James M. Harter transfers to Oregon Caves
	National Monument, April 5, 1968
	Supervisory Park Historian Raymond J. Geerdes, GS-11, EOD April 25, 1968
	Seasonal Historian Allen Malmquist hired for summer, May, 1968
	Seasonal Historian Paul C. Heaton rehired for summer
	Neighborhood Youth Corps (NYC) program (summer) – 15 enrollees (10 boys, 5 girls)
	for summer
	NYC out-of-school program (fall and/or winter) approximately 8 enrollees
	Youth Conservation Corps – 5 enrollees (1 summer, 4 fall)
	Joe Bolander promoted to Park Guide, subject to furlough, November 17, 1968
	Doyle C. Winder hired as temporary laborer, November 1968

Ray Geerdes' title changed to Management Assistant, early August 1969
Ray Geerdes' title changed to Area Manager, November 1969
Seasonal Historian Allen Malmquist rehired for summer
Seasonal Historian Paul C. Heaton rehired for summer
Konda Button hired under Operation Mainstream as clerk/receptionist October 1969
NYC in-school program – 18 enrollees for summer
NYC out-of-school program, approximately 9
Volunteers active in cattle branding demonstrations; number not reported
David Johnson hired as intermittent laborer for summer
Seasonal Historian Anthony G. Heaton hired, spring 1970
Seasonal Historian Allen Malmquist rehired for summer
Seasonal Historian Paul C. Heaton rehired for summer
Area Manager Raymond J. Geerdes transfers to Kennesaw Mountain National
Battlefield Park, leaving October 7, 1970
Park Naturalist James Schaack appointed Acting Park Manager (for about 4 months,
October 8, 1970 to February 13, 1971)
NYC in-school program – 19 enrollees for summer
NYC out-of-school program – 2 enrollees for summer
Operation Mainstream – 2 employees
Volunteers active in cattle branding demonstrations; number not reported
David Johnson rehired as intermittent laborer
Alfred Drye hired as intermittent laborer
Superintendent Bernard G. Tracy EOD, February 14, 1971
Seasonal Historians – unreported
NYC program – 18 enrollees (11 girls, 7 boys)
Summer Aids – 4 (3 girls, 1 boy) Park Historian Richard K. Wilt EOD late October 1972
3 park technicians (seasonal)
3 park aids, GS-01 and GS-02 (seasonal)
NYC program — 14 enrollees (8 girls, 6 boys)
Volunteers in Parks (VIPs) – 18 (10 women, 8 men)
Clerk/Typist Konda Button, appointed to career-conditional position NYC program — active, but number of enrollees not reported
VIPs – active in branding demonstration and in planning for dedication of Kaibab-Paiute Cultural Center; number not reported
Kandab-rainte Cultural Center, number not reported Konda Button married and resigned her position May 16, 1974
Seasonal Park Aid Nora Heaton hired for clerk/typist position July 1, 1974 Seasonal Park Aid Yvonne Heaton hired for summer
Seasonal laborer Elwin John (Kaibab Paiute) hired for summer
Rick Wilt transfers to Badlands National Park, November 1974
NYC program - active, but total number of enrollees not reported
VIPs – active in branding demonstrations; number not reported
vii s – active in brancing demonstrations, number not reported

Park Historian Glenn O. Clark, GS-09, EOD March 30, 1975 Seasonal Park Aids: Adeline Johnson, Lisa Heaton, Clorene Hoyt (local vand Lori Jake (Kaibab Paiute) Seasonal Laborer Elwin John rehired NYC Program — 8 enrollees (6 girls and 2 boys) VIPs – active in branding demonstrations; number not reported Park Technician Joe Bolander resigned after 12 years at PISP, January 31 Park Technician Dale Scheier, GS-05, hired June 6, 1976 Park Technician Paul Happel hired in new position, GS-04, August 17, 19	
and Lori Jake (Kaibab Paiute) Seasonal Laborer Elwin John rehired NYC Program — 8 enrollees (6 girls and 2 boys) VIPs – active in branding demonstrations; number not reported Park Technician Joe Bolander resigned after 12 years at PISP, January 31 Park Technician Dale Scheier, GS-05, hired June 6, 1976	
Seasonal Laborer Elwin John rehired NYC Program — 8 enrollees (6 girls and 2 boys) VIPs – active in branding demonstrations; number not reported Park Technician Joe Bolander resigned after 12 years at PISP, January 31 Park Technician Dale Scheier, GS-05, hired June 6, 1976	, 1976
NYC Program — 8 enrollees (6 girls and 2 boys) VIPs – active in branding demonstrations; number not reported Park Technician Joe Bolander resigned after 12 years at PISP, January 31 Park Technician Dale Scheier, GS-05, hired June 6, 1976	, 1976
VIPs – active in branding demonstrations; number not reported 1976 Park Technician Joe Bolander resigned after 12 years at PISP, January 31 Park Technician Dale Scheier, GS-05, hired June 6, 1976	, 1976
VIPs – active in branding demonstrations; number not reported 1976 Park Technician Joe Bolander resigned after 12 years at PISP, January 31 Park Technician Dale Scheier, GS-05, hired June 6, 1976	, 1976
Park Technician Joe Bolander resigned after 12 years at PISP, January 31 Park Technician Dale Scheier, GS-05, hired June 6, 1976	, 1976
Park Technician Dale Scheier, GS-05, hired June 6, 1976	,
	976
Seasonal Park Aids: Adeline Johnson, Lisa Heaton, Nora Heaton, Clorene Hoy	
Esplin (local whites), and Lori Jake (Kaibab Paiute). Leta Segmiller	-
Elva Drye hired for Indian craft demonstrations	ana
Seasonal Laborer Elwin John, rehired for summer	
CETA –11 employees (5 girls, 6 boys)	
VIPs – 27 total (14 in cattle branding demonstration, 13 in wagon trek)	1 1077
Park Historian Glenn Clark transfers to Virgin Islands National Park in late Ju	ly, 19//;
position is abolished	
Park Technician Paul Happel transfers to Point Reyes National Seashore	in late
September, 1977	
Seasonal Laborer Carlos Bullets hired for summer	
CETA – 9 employees (6 girls and 3 boys)	
VIPs – 16 participants (10 in branding demonstrations, 4 in wagon trek, 2	2 in fort)
Park Aid Nora Heaton promoted to park technician (clerk/typist), GS-03/	04,
January 15, 1978; promoted to GS-04 on August 29, 1978	
Park Technician (Historian) Fred Banks, Jr., GS-06/07, hired February 26	, 1978
Dale Scheier promoted to GS-06, July 16, 1978	
Seasonal Laborer Carlos Bullets rehired for summer; Bob Higgins also h	ired (?)
Four Seasonal Park Aids employed as interpreters (one Native American – Lo	ri Jake?)
CETA – 10 employees (9 girls and 1 boy, unnamed)	
VIPs – 9, participants in one branding demonstration	
1979 Bernard Tracy officially retires on January 13 (continues to work to April	Ī 7)
Superintendent William M. Herr, GS-11, EOD April 8, 1979	,
Maintenance Worker Melvin Heaton resigns after nearly 13 years, May 1	2, 1979
5 Seasonal Park Aids, interpreters (all women: Adeline Johnson, Jolene F	
Debbie Judd, and 2 others unnamed.)	,
Three Seasonal Laborers - Bob Higgins, Burton Rust, Kristine Brinkerho	ıff
CETA –9 employees (8 girls and 1 boy, unnamed)	11.
VIPs –20 participants in branding demonstrations	
1 Seasonal Park Technician, laborer (_?_ Heaton)	
3 Seasonal Park Aids (Pat Lomax, Andy Schmutz, and Lori Jake)	
2 Seasonal Laborers (Dan Lomax, Burton Rust)	17.
8 CETA employees: 5 interpreters (Barbara Anderson, Marion Cox, Lucy C	
Heaton, and Debbie Johnson) and 2 laborers, 1 as museum aid (Chery	I Burch)
1 Student Conservation Association (SCA) worker (Jane Kimball)	
VIPs – 18, branding, blacksmithing and other work	

1981	Dale Scheier transfers to Great Sand Dunes NM, COB April 18, 1981
	Maintenance Mechanic C. Douglas Dewitz, EOD November 1, 1981
	4 Seasonal Park Technicians, interpretation (Adeline Johnson, Andy Schmutz, Debbie
	Stender, Julie Heaton)
	? Seasonal Park Aids (Lori Jake + ?)
	2 Seasonal Laborers (Burton Rust, Sam Tom)
	8 CETA employees: 6 interpreters (Lucy Cox, Hallie Cram, Kim Heaton, Garry Russell,
	Brent Johnson, Barbara Anderson), 2 laborers (Steven Homer, Marion Cox;
	Eric Anderson also mentioned as CETA maintenance worker)
	1 SCA worker (Lynn Lancaster)
	18 VIPs: 11 branding, 5 blacksmithing, 2 interpreting in fort
1982	Nora Heaton retires, December 25, 1982
1902	
	2 Seasonal Park Aids, interpreters (Adeline Johnson, Julie Heaton)
	1 Seasonal Park Technician, interpreter
	2 Seasonal laborers (Burton Rust, Sam Tom)
	1 SCA (Kati Jokerst)
	7 CETA employees: 5 interpreters (Lucy Cox, Brent Johnson, Barbara Anderson, Janet
	and Nannette Davis), and 2 laborers (Marion Cox and Garry Russell)
	28 VIPs: 21 branding, 4 blacksmithing, 3 interpreting in fort
1983	Seasonal Typist Lillie Mae Smith, EOD February 28, 1983; left March 24, 1983
	Administrative Clerk Jeff Frank, EOD May 16, 1983
	4 Seasonal Park Aids, interpreters (Barbara Anderson, Andy Schmutz, Julie Heaton,
	Lucy Cox)
	3 Seasonal laborers (Sam Tom, Gordon Shearer, Ralph Castro)
	6 CETA employees: 4 interpreters, 2 laborers (Brent Johnson, Janette and Janet Davis,
	Michael Holmes, James Cox, Marion Cox)
	1 Seasonal Museum Aid (Kim Heaton)
	1 SCA, Museum Aid (Lauren Clark)
	25 VIPs: branding, blacksmithing, and fair booth
1984	4 Seasonal Park Aids, interpreters (Debbie Johnson, Andy Schmutz, Lauren
	Clark, Mary Berentz)
	3 Seasonal laborers (Sam Tom, Gordon Shearer; third person unnamed)
	6 Job Training Partnership Act (JTPA) employees: 4 interpreters (Diane Kropf,
	Jannette and Janet Davis, James Cox) and 2 laborers (Marion and Lucy Cox)
	1 SCA (Frances Herbert)
	14 VIPs: branding, blacksmithing, interpreting
1985	5 Seasonal Park Aids, interpreters (Mary Dalton, Julie Heaton, Adeline Johnson,
1903	Yvonne Heaton, Mary Dewitz)
	2 Seasonal laborers (Sam Tom, Gordon Shearer)
	9 JTPAs (Janet Davis, Marlene Cox, James Cox, Rodney Drye, Kim Chamberlain,
	Carlon Hoyt, Robert Davis, RaChel Griffiths, Kathy Heaton.)
	4 Indian Development District of Arizona (IDDA) (Pat Castro, Tim Castro,
	Herschel Hill, Philip Lopez)
	2 (TGB) (Glena Lee, Carol Pikyvit)
	2 SCAs (Debra Pifer, Lulu Chye)
	VIPs

1986	Jeff Frank transfers to Zion National Park, COB May 10, 1986
	Clerk-Typist Jewel Harter, EOD December 7, 1986
	4 Seasonal Park Aids, interpreters (Yvonne Heaton, Adeline Johnson, Jo Ann Bean,
	Mary Dewitz)
	2 Seasonal laborers (Sam Tom, Gordon Shearer)
	8 JTPAs (Kathy Heaton, Kim Chamberlain, Robert Davis, John Barney, Marlene Cox,
	Opal Hill, Millie Sexton, Alberta Jo)
	2 SCAs (Elizabeth Prather, Lulu Chye)
	86 VIPs: branding, blacksmithing, clogging demonstrations
1987	Jewel Harter, transfers to Yosemite, August 26, 1987
	Clerk-Typist Marlene Frederick, EOD October 11, 1987
	5 Seasonal Park Aids, interpreters (Maurine Cundick, Yvonne Heaton, JoAnn Bean,
	Adeline Johnson; Mary Dewitz)
	3 Seasonal laborers (Sam Tom, Gordon Shearer, Roland Spendlove)
	12 JTPAs (Millie Sexton, Genevieve Homer, Matt Heaton, Juanita Heaton,
	Robert Davis, Alberta Joe, Frank Nakadama, Victor Bunnus, Leonard
	Joe, Irene Martinez, John Barney, Herschel Hill)
	1 SCA (Amanda McLeod)
	150 VIPs: branding, blacksmithing, clogging demonstrations; Take Pride in
	American cleanup, holiday decor
1988	Seasonal Museum Curator Zula Brinkerhoff, EOD March 27, 1988
	Marlene Frederick marries and changes last name to "Coombs," September
	Seasonal Park Ranger (Maurine Cundick)
	3 Seasonal Park Aids, interpreters (Yvonne Heaton, Nedra Heaton, Mary Dewitz;
	possibly 1-2 others)
	2 Seasonal laborers (Harvey Segundo, Sam Tom)
	6 JTPAs (Millie and Jackie Sexton, Benjamin and Matt Heaton, Herschel Hill)
	1 SCA (Cathy Clifton)
	139 VIPs: branding, blacksmithing, dancing, interpreting, Indian crafts, holiday décor
1989	Bill Herr transfers to Golden Spike National Historic Site, EOD January 15, 1989
1707	John W. Hiscock appointed Acting Superintendent, January 15 to May 6, 1989
	Superintendent Gary M. Hasty, EOD May 7, 1989
	Fred Banks transfers to Mount Rushmore National Memorial (no date given)
	Park Ranger, GS-09, position created (name of Banks' successor?)
	Marlene Coombs (Administrative Assistant? No hiring date reported.)
	Seasonal staff: 2 GS-03 females, 1 GS-03 female handicapped, 2 WG-03 Native
	Americans, 1 WG-03 male
	? JTPAs
1990	? VIPs: branding, blacksmithing Ranger Mary C. Davis transfers from Vicksburg Nat. Military Park, July 1990
1990	
	Marlene Frederick transfers to Golden Spike NHS, September 1990
	Administrative Clerk Pat Yero hired, late September 1990

Appendix X - List of Officials, Pipe Spring National Monument (1923-1999)

Monument established May 31, 1923.

Administered by Southwestern National Monuments until February 16, 1942. Administered by Zion National Park from February 16, 1942, to April 5, 1969. Administered by Southern Utah Group from April 6, 1969, to July 8, 1972. Administered by Zion National Park from July 9, 1972, to the present.

John White, Caretaker	5/31/23 – fall, 1925
Charles Leonard Heaton, Caretaker	2/08/26 - 1932
, Custodian	1932 - 12/14/55
, Acting Superintendent	12/15/55 - 9/14/63
Hugh H. Bozarth, Management Assistant	10/14/63 - 9/?/67
James M. Harter, Acting Management Assistant	9/05/67 - 4/05/68
Raymond J. Geerdes, Supervisory Park Historian	4/25/68 - 8/?/69
, Management Assistant	8/?/69 – Oct.'69
, Area Manager	Nov.'69 – 10/07/70
James Schaack, Acting Superintendent	10/08/70 - 2/13/71
Bernard G. Tracy, Superintendent	2/14/71 - 4/07/79
William M. Herr, Superintendent	4/08/79 - 1/14/89
John W. Hiscock, Acting Superintendent	1/15/89 - 5/06/89
Gary M. Hasty, Superintendent	5/07/89 - 11/10/93
Mary Davis, Acting Superintendent	11/11/93 - 6/11/94
John W. Hiscock, Superintendent	6/12/94 to present

Appendix XI – Kaibab Indian Reservation Statistics

Table 1. KAIBAB INDIAN RESERVATION Land areas, population and computed water requirements

Tarte and a second	Area 1/	7arm	Irrigated	Total	Irrigated	Comput	
Calendar Year	irrigated Indian land	fani- lies 1/	family	popul- ation 2/	area per	Cons. use 3/	req. 4
The same of the sa	Acres	No.	Acres	No.	Acres	Ac.ft.	Ac.ft.
1910	40	15	2.7	83	0.5	80	160
1911	40 20	10	4.0	89	0.5	60	160
1912	20	23	0.9	89	0.2	40	80
1913	20	23	0.9	93 96	0.2	40	80
1914		-	-	96	- 14	-	-
1915	-	*	~	98	*	-	-
1916	30			95 95 102	0.3	60	120
1917	32	16	2.0	. 95	0.3	64	128
1918	32 74	16	4.6	102		148	296
1919		*	•	105	-	-	
1920	* 1	-		106		-	-
1921	58	20	-	110	-		- 1
1922	-	-	-	105		-	0
1923	200	2	2	511	0.1	88	176
1924	44	÷	0	94	-	-	-
1926	44	- 8	8	96	0.5	88	176
1927	64	12	3.7	,93	0.5	88	176
1928	44	12	3.7	96	0.5	88	176 176
1929	44	12	3.7	95	0.5	88	176
1930	44	12	3.7	95 96	0.5	88	176
1931	44	12	3.7	95 91	0.5	88	176
1932	44	12	3.7	91	0.5	88	176
1933	la la	12	3.7	96	0.5	88	176
1.934	Ash.	12	3.7	96 97 91	0.5	88	176
1935	0	0		91	0	0	
1936	0	0	-	89	0	0	0
1937 1938	0	0	7	85	0.3	60	120
1938	30	-	3	85	0.5	80	160
1939 1940	10	2	2 0	85	-	+	*
1961	657	Q2.	52	85		645	-
1942	121	2	-	83		-	-
1943	1.0	_		86	-		-
1944		-		86		-	-
1945	-	-	•	85	*	-	
1946	40	(-)	04	101	0.4	98	160
1947	49	-	-	102	0.5	94	188
1948	47	1	3	104	0.5	96	192
1949	48			104	0.5	106	212
1950	53	7	37	91			
1951	51 57	e 20	-	107	0.5	102	204
1952	57	-		96	0.6	114	228
1953	57		2	110	0.2	40	80
1967	20 10	-		100	0.1	20	40

```
1910-1918 Commissioner's Annual Report.
1923 and 1926 District No. 2, Indian Irrigation Service Annual Reports.
1927 to 1937 Miscellaneous Irrigation Data of Indian Irrigation Projects.
1938 and 1939 Statistical Supplement to Commissioner's Annual Reports.
1946 to 1955 Annual Irrigation Grop Reports.
2/ Source:
1910 to 1932 and 1938 to 1945, Commissioner's Annual Reports.
1933 to 1937 Report of Secretary of Interior.
1946 to 1952 and 1954 & 1955, Office of Bureau of Indian Affairs.
1953 Bureau of Ethnic Research, University of Arizona, 1953.
```

Table from "Kaibab Indian Reservation Land and Water Resources," Temp. Exhibit No. 20, prepared by Bureau of Indian Affairs for Arizona v. California legal case (BIA files, Phoenix, Arizona)

^{2/} Assumed to be 2.0 acre-feet per acre for consumptive irrigation requirement.
by Project efficiency estimated at 50 percent.

Appendix XII - Maps and Drawings, Pipe Spring National Monument

Copies of the following maps and drawings were collected and referenced during the course of researching the monument's administrative history. (All are now part of the monument's administrative history research collection.) In some cases, documents were available at more than one location; however, only one was listed.

Location Codes:

BIA: Bureau of Indian Affairs, Phoenix, AZ

Bancroft: Bancroft Library, University of California, Berkeley, CA

DSC Library: Denver Service Center Library, Denver, CO

DSC/TIC: Denver Service Center, Technical Information Center, Denver, CO

NARA I: National Archives and Record Administration, Washington, D.C.

NARA II: National Archives and Record Administration, College Park, Maryland

NARA/RM: National Archives and Record Administration, Rocky Mountain Region, Denver, CO

NARA/SB: National Archives and Record Administration, San Bruno, CA

NPS/WRD: National Park Service, Water Resources Division, Ft. Collins, CO

PISP: Pipe Spring National Monument, Fredonia, AZ

UP: Union Pacific Museum, Omaha, NE

ZION: Zion National Park Archives, Springdale, UT

<u>DATE</u>	REF. NO.	DESCRIPTION (SOURCE)	LOCATION OF ORIGINAL
1870s	(none)	Expeditions of 1871, 1872, 1873	
		(John W. Powell surveys)	Bancroft Dec.11,
1886	(none)	Two Mile Run Survey	
		(John M. MacFarlane)	Utah State Hist. Soc.
pre-1900	(none)	Mormon Settlements along the Arizona Strip and	Public Library
conditions		in Arizona (Walker and Bufkin, Historical Atlas of	¢.
		Arizona)	
pre-1900	(none)	Map showing early settlement and roads in	Public Library
conditions		Arizona (McClintock, Mormon Settlement in	
		Arizona)	
pre-1900	(none)	Map showing boundary changes to Utah and	Public Library
conditions		surrounding territories, 1850-1896 (Beck and	
		Haase, Historical Atlas of the American West)	
Feb.15, 1916	(none)	Public Land Survey, T 40N, R 4W (USGS)	NPS/WRD
1920	(none)	National Park-to-Park Highway (NPS)	DSC Library
April,	#9897	Kaibab Reservation, Arizona (plat map)	NARA II
1921 (?)			
1921 (?)	#9683	Kaibab Reservation, Arizona	NARA II
		(Office of Indian Affairs)	
1921	(none)	Map Showing Highways connecting BRCA,	UP
(or 1923?)		CEBR, N. Rim of GRCA, & Kaibab Forest &	
		Railroads from which Stage Lines Operate	
1922	(none)	Auto Trails Map, State of Utah (Rand McNally)	UP
Jan. 1922	(none)	Map Showing Highways connecting BRCA,	UP

		ZION, CEBR, & North Rim of the GRCA (UP)	
1923	(none)	Map Showing Roads connecting CEBR, BRCA, N. Rim of GRCA, and ZION	NARA/RM
1923	(none)	Utah State Trunk Lines (State Road Commission)	UP
Feb. 1924	(none)	Map of Transportation System and Railroad	UP
	` '	Connections of the Utah-Arizona Parks	
		Transportation Co. (UP)	
1924	(none)	Tours of ZION, CEBR, BRCA, and GRCA (UP) U	ſΡ
1924	(none; Engle's	Kaibab Reservation (BIA?)	BIA
	5/14/24 report)		
May 1924	(none; Engle's	untitled map showing "suggested public watering	PISP
	5/13/24 letter)	place" on Kaibab Indian Reservation (Department	
		of the Interior, US Indian Irrigation Service)	
Feb. 1924	(none; see letter	untitled map showing roads connecting S. Utah &	UP
	of 3/21/25)	N. Arizona parks; road improvements, by source	
		of funding (UP)	
Feb. 1924	(none; see letter	untitled map showing roads connecting S. Utah &	UP
	of 3/21/25)	N. Arizona parks; status of improvements (UP)	
May 1924	(none)	Kaibab Indian Reservation (Department of the	BIA
		Interior, US Indian Irrigation Service) BIA	
May 1929	(none)	Map showing location of ZION, BRCA, BRCA,	UP
		Kaibab National Forest and CEBR (UP)	
1930	(none)	Sketch Map of SW Utah and GRCA (Los Angeles	ZION
		Times; reprinted in ZION/BRCA circular, 1930)	
1930	(none)	Map Showing Roads Connecting CEBR, BRCA,	DSC Library
		N. of GRCA, and ZION (ZION/BRCA circular,	
		1930)	
Nov. 1932	(see letter of	Map of Pipe Spring National Monument Showing	NARA II
	1/7/32)	the Irrigation and Plant Life (hand-drawn by	
N. 1022		L. Heaton)	NIDG/IUDD
Nov. 1933	(none)	Pipe Spring National Monument (+ division box)	NPS/WRD
Dec. 1933	(illegible)	General Development Plan (NPS)	NARA II
Dec. 1933	NM/PS-4933	Sketch Map Showing Water Situation (NPS)	PISP
Dec. 1933	(none) NM/PS-4936	Sketch Map Showing Tunnel Spring (L. Heaton)	NARA II
April 1934	NM/PS-4937	Boundary Survey Map (NPS)	PISP DSC/TIC
April 1934 May 1934	NM/PS-4937 NM/PS-4945	Topographical Sheet Water Division Structure (NPS)	DSC/TIC DSC/TIC
Oct. 1934	NM/PS-4939	Proposed Entrance Road (NPS)	PISP
Jan. 1935	NM/PS-4940	Proposed Approach Road (NPS)	PISP
March 1935	NM/PS-3062	A Western Camping Fireplace (NPS)	PISP
May 1935	NM/PS-4942	Proposed Fence Improvements (NPS)	PISP
August 1935	NM/PS-3005	Layout Plan & ECW Projects (NPS)	PISP
Sept. 1935	NM/PS-8101	Project Plan, ECW 6th Per., Camp - DG44 (NPS)	NARA II
Jan. 1936	NM/PS-3001	A PISP Master Plan cover (NPS)	NARA II
Jan. 1936	NM/PS-3002	A Plan of the Monument (NPS)	NARA II
Jan. 1936	NM/PS-3003	A General Development Plan (NPS)	NARA II
Jan. 1936	NM/PS-4947	Headquarters Area, Utilities Layout (NPS)	NARA II
Jan. 1936	NM/PS-4946	Proposed Campground Road (NPS)	PISP
Feb. 1936	(none)	site location of Whitmore dugout (L. Heaton)	NARA/RM
March 1936	NM/PS-4949	Proposed Foot Paths (NPS)	PISP
March 1936	ECW Project 5	Ditches - Diversion (NPS)	PISP
March 1936	NM/PS-4950	Proposed Parking Area and Boulder Curb (NPS)	PISP
March 1936	NM/PS-4948	Proposed Flood Control Ditch, Central Area	PISP
		(NPS)	

April 1936	(none)	Plat Showing Location of Pipe Springs Acreage	NARA II
April 1936	NM/PS-4941	(hand-drawn; unknown author) [title block not copied;	PISP
		depicts Public Works Projects]	
Jan. 1937	NM/PS-3001B	PISP Master Plan cover (NPS)	NARA II
Jan. 1937	NM/PS-3002B	Plan of the Monument (NPS)	NARA II
Jan. 1937	NM/PS-3003B	General Development Plan (NPS)	NARA II
Jan. 1937	NM/PS-4953	Headquarters Area, Utilities Layout (NPS)	NARA II
April 1937	NM/PS-4952	Water System Study (NPS)	NARA II
Aug. 1937	NM/PS-5700A	Proposed Water System (NPS)	PISP
Sept. 1937	(none)	Temporary Garage (NPS, preliminary plans)	NARA/RM
Jan. 1938	NM/PS-3001C	Cover, Master Plan (NPS)	NARA II
Jan. 1938	NM/PS-3002C	Plan of the Monument (NPS)	NARA II
Jan. 1938	NM/PS-3003C	General Development Plan (NPS)	NARA II
July 1938	NM/PS-5701	Headquarters Area, Utilities Layout (NPS)	NARA II
Oct. 1938	NM/PS-5350	Proposed Sewage System & Septic Tank (NPS)	PISP
Oct. 1938	NM/PS-5351	Proposed Concrete Culvert (NPS)	PISP
March 1939	NM/PS-5351	A Proposed Slab Bridge (NPS)	PISP
May 1939	NM/PS-2027	Signs, Garbage Containers, Hydrants (NPS)	PISP
Jan. 1940	NM/PS-3003D	General Development Plan (NPS)	DSC/TIC
Jan. 1940	NM/PS-3002D	Index and Key Map, Master Plan (NPS)	DSC/TIC
Sept. 1940	Fed.Proj.498	A Historic American Buildings Survey,	DSC/TIC
		Pipe Spring Fort & Cabins (NPS)	
Jan. 1940	NM/PS-5701	A Utilities Layout, Headquarters Area (NPS)	DSC/TIC
ca. 1941	(none)	(untitled; map of Kaibab Indian Reservation)	PISP
Jan. 1942	NM/PS-2025B	Custodian's Residence (NPS) PISP	
Jan. 1942	(none)	Floor Plan of Custodian's Residence (sketch of	PISP
		CCC building, L. Heaton)	
May 1942	NM/PS-2029	Public Contact and Comfort Station (NPS)	DSC/TIC
July 1943	NM/PS-2032A	Gasoline and Oil House (NPS)	DSC/TIC
Feb. 1944	NM/PS-2031	Utility Building (NPS)	DSC/TIC
May 1945 (?)	NM/PS-2026	Planting Sketch and Toilet Locations	PISP
-		(H. Cornell, NPS)	
June 1945	NM/PS-2029C	Contact Station (NPS)	DSC/TIC
1946	NM/PS-3100	Cover, Master Plan (NPS)	DSC/TIC
Oct. 1946	NM/PS-2101	Developed Area Plan (NPS)	DSC/TIC
Nov. 1946	NM/PS-5701B	Utilities Layout (NPS)	DSC/TIC
1946	(none)	Development Outline, Developed Area, Master	DSC/TIC
		Plan (NPS)	
1946	(none)	Development Outline, Interpretation, Master Plan	DSC/TIC
1947	(unknown)	Cover, Master Plan; Development Outline (NPS)	PISP
1948	(unknown)	(Fort's) Existing Drainage System (NPS, as per L.	PISP (?)
		Heaton sketch)	
1948	(none)	Historical Trails, Map of Utah (State of Utah)	PISP
undated	NM/PS-3101	Index Sheet, Master Plan (NPS)	DSC/TIC
(late 1940s)			
ca. 1950	(none)	Walks & Trails Improvement (L. Heaton)	PISP
May 1952	NM/PS-10,000A	Forestry - Fire Control (unknown)	PISP
July 1953	NM/PS-2100E	Roads & Trails Systems (NPS)	DSC/TIC
1953	(none)	Kaibab Indian Reservation (BIA)	BIA
April 1956	NM/PS-2051	Comfort Station (NPS)	PISP
May 1957	NM/PS-7100	Boundary Status Map	NARA/SB
July 1957	NPS/PS-002	Map of Utility Pipelines (sketch, L. Heaton)	PISP
Feb. 1958	NM/PS-2101B	General Development (NPS)	DSC/TIC

Feb. 1958 Feb. 1958	NM/PS-3102 NM/PS-3103	Topographic Base Map (NPS) Proposed Physical Improvements, Mission 66;	DSC/TIC DSC/TIC
		added data, 1966 (NPS)	
March 1958	NM/PS-3100A	Cover and Index Sheet, Master Plan (NPS)	DSC/TIC
Feb. 1959	(none)	Collection Box for Water System (NPS)	PISP
April 1959	NM/PS-3109A	Water System (NPS)	DSC/TIC
May 1959	NM/PS-3104	Headquarters Area (NPS)	DSC/TIC
May 1959	NM/PS-3018B	Employee Residences (NPS)	PISP
June 1959	NM/PS-3104A	Trail Location [walkways] (NPS)	PISP
1959	(none; "fig. 1")	PISP Vicinity Map (in Zorro Bradley's report)	PISP
Jan. 1960	NM/PS-3110	Site Development & Planting Plan – Residences (N	
August 1966	NM/PS-2302	[Entrance] Sign and Wayside Exhibit Plan (NPS)	DSC/TIC
May 1967	NM/PS-3119	Proposed Relocation of Visitor Center (NPS)	DSC/TIC
March 1968	(see 3/29/68	Pipe Springs National Monument, Arizona (sketch	PISP
	meeting report)	map showing proposed development area)	
June 1968	321/80000	Underground Power (NPS)	DSC/TIC
July 1968	(none)	Environmental Study Area	PISP
July 1968	(none)	Nature Trail/Native Grass Restoration Projects I	PISP
		& II	
June 1969	321/80001	Water System; plan of water diversion structure	DSC/TIC
		(NPS)	
June 1969	321/80002	Utilities Systems, As Maintained; Utilities	
		Systems, Residential & Utility Area (NPS)	DSC/TIC
Aug. 1969	NM/PS-2301B	Roads & Trails Systems, As Maintained (NPS)	DSC/TIC
May 1971	321/41,000	Preliminary Design/Topography - Well Site (NPS)	DSC/TIC
Jan. 1972	321/41,001	Water Supply System (NPS) DSC/TIC	
May 1972	KAI-AZ/WD-4A	Plot Plan [Visitor Center & Parking Area] (NPS)	PISP
July 1972	NM/PS-800001	Proposed Development (NPS)	DSC/TIC
Nov. 1973	(unknown)	Waysides (NPS)	PISP
Jan. 1980	321/80007	Pipe Spring [Fort] Restoration Project, 1979	DSC/TIC
		(Conron & Muths)	
1980	321/80003	As Maintained Roads & Trails (NPS)	PISP
Nov. 1981	321/80006B	Existing Land Mgmt. & Use - Constraint (NPS)	DSC/TIC
Jan. 1982	321/80012A	Site Map; residential analysis (NPS)	DSC/TIC
Jan. 1982	321/80,008B	Regional Map, Pipe Spring National Monument	DSC/TIC
		(NPS)	
Dec. 1982	321/80003	As Maintained Roads & Trails (NPS)	PISP
1982-1983	(none)	Tree Type and Location, Fort Area (NPS; sketch,	PISP
		unknown author)	
June 1988	321/80018A	Cattleman's Tunnel Spring Rehab; plan & profile;	DSC/TIC
		vault details (NPS)	
Oct. 1988	(none)	[PISP landscape - 5 site maps with L. Heaton's	PISP
		hand-written notes indicating changes over time]	
Dec. 1993	321/20,900	Pipe Spring National Monument (NPS)	DSC/TIC
June 1997	321/80,022	Pipe Spring National Monument, Cultural	DSC/TIC
		Landscape Inventory, Existing Conditions (NPS)	

¹ For some unknown reason, this identification number is duplicative of 321/80000, dated June 1968, "Underground Power" (321 is the code for PISP).

Notes

Introduction

Although the word "pioneer" has long been used when describing the exploration and settlement activities of Euroamericans, the author has refrained from using the term in this report, except in quotations. "Pioneer" is defined in one dictionary as "one who ventures into unknown or unclaimed territory to settle." Contemporary historians, anthropologists, and Native Americans argue that the Americas were neither unknown nor uninhabited, and that the use of this term perpetuates a myth and is offensive to some. For this reason, the author has chosen to use the less culturally-laden word, "settler."

Part I - Background

- ² From this point on in the history, the Church of Jesus Christ of Latter-day Saints is referred to as the "Church," and its followers as "Latter-day Saints" or "Mormons." Today, the Church frowns on the use of the term "Mormon" being used to describe either its followers or the Church, and requests that the term be used only in the context of the Book of Mormon. Both the Church and its followers, however, have for generations been referred to as "Mormon," much as the members of the Religious Society of Friends are called (and call each other) "Quakers." In both cases, what once was a somewhat pejorative nickname has become to most, anyway acceptable.
- ³ The official name of the Tribe is "The Kaibab Band of Paiute Indians." Past documentation, however, indicates a variety of names has been used in official reports and correspondence: Kaibab Indians, Kaibab-Paiute (hyphenated), and more recently, the Kaibab Paiute. The latter is used throughout this document.
- ⁴ William J. Hunt, Jr., "Archeological Study of Historic Structures HS-2 and HS-3, Pipe Springs National Monument, Arizona. (National Park Service, Midwest Archeological Center, Lincoln, Nebraska, May 1, 1991): 2.
- ⁵ For additional information, see Gregory L. Fox, "The Pipe Spring Archeological Survey: A Section 110 Planning Project, Pipe Spring National Monument, Mohave County, Arizona" (Tucson: Western Archeological and Conservation Center, National Park Service, 1994).
- ⁶ Richard W. Stoffle, Diane E. Austin, David B. Halmo, Arthur M. Phillips III, Ethnographic Overview and Assessment: Zion National Park, Utah and Pipe Spring National Monument, Arizona, Bureau of Applied Research in Anthropology, University of Arizona, Tucson, AZ and Southern Paiute Consortium, Pipe Spring, AZ. Draft, July, 1995.
- ⁷ Martha C. Knack, "Interethnic Competition at Kaibab During the Early Twentieth Century," *Ethnohistory* 40:2 (Spring 1993): 214-215.
- 8 Stoffle et al., Ethnographic Overview and Assessment, 19-20.
- 9 Richard W. Stoffle and Michael J. Evans. *Kaibab Paiute History, The Early Years*, Vol. 23:2 (1976): 2-3. Reprinted by the Kaibab Paiute Tribe from an article published in *Ethnohistory*, this study was originally called, "Resource Competition and Population Change: A Kaibab Paiute Ethnohistorical Case."
- ¹⁰ For more information on this important expedition, see David J. Weber, *The Spanish Frontier in North America* (New Haven: Yale, 1992).
- For additional information, see Angus M. Woodbury, *History of Southern Utah and Its Parks*, Utah State Historical Society, Vol. XII, Nos. 3-4 (July-October, 1944): 123-125.
- Warren L. d'Azevedo, ed., *Handbook of North American Indians, Vol. II, Great Basin* (Washington, D.C.: Smithsonian Institution, 1986): 368-396.

- 13 The Spanish were not alone in their practice of slavery; various forms of slavery were practiced all over the New World.
- Workers of the Writers' Program of the Work Projects Administration for the State of Utah (WPA): *Utah*, *A Guide to the State* (Hasting House, NY, 1941): 41.
- ¹⁵ Such feelings were expressed during oral history interviews conducted by Park Service staff with a number of tribal members during the summer of 1997.
- For additional information on the Old Spanish Trail, see Leroy R. Hafen, Old Spanish Trail: Santa Fe to Los Angeles, with Extracts from Contemporary Records and Including Diaries of Antonio Armijo and Orville Pratt (Glendale, CA: Arthur H. Clark, 1954); C. Gregory Crampton and Steven K. Madsen, In Search of the Spanish Trail: Santa Fe to Los Angeles, 1829-1848. (Salt Lake City: Gibbs-Smith, 1994); and John W. Robinson, "Traders, Travelers, and Horsethieves on the Old Spanish Trail," Overland Journal Vol. 15, No. 2, Summer 1997.
- 17 Stoffle and Evans, Kaibab Paiute History, 6.
- One of the first to enter the Salt Lake Valley was Erastus Snow, who arrived in advance of Brigham Young on July 21, 1847. Snow would later figure prominently in southern Utah history.
- For more information on Mormon colonization of the area, see Charles S. Peterson's, "Settlement on the Little Colorado, 1873-1900." Ph.D. diss., University of Utah. Microfiche, 1967 (Denver Public Library, Western History Collection); and C. Gregory Crampton's "Mormon Colonization in Southern Utah and in Adjacent Parts of Arizona and Nevada, 1851-1900" (National Park Service, 1965; Denver Service Center Library).
- ²⁰ d'Azevedo, ed., 386.
- 21 Charles S. Peterson, *Utah*, *A History* (New York: W. W. Norton & Co., 1977): 43. The "inner cordon" colonies were those established closest to Salt Lake City, mostly between 1847-1857.
- ²² Stoffle and Evans describe a number of "adaptive strategies" by the Kaibab Paiute in response to Euroamerican occupation of their territory. One strategy used to regain access to their appropriated resources was conversion to the Mormon religion (*Kaibab Paiute History*, 17).
- ²³ According to Charles S. Peterson, the location of this Utah mission was south of Cedar City to Santa Clara, extending to Las Vegas, including Harmony and New Harmony; for a time it may have also included Washington, Utah (Peterson's handwritten comments on draft manuscript, January 1999).
- ²⁴ Andrew Jenson, *Latter-day Saint Biographical Encyclopedia* (Salt Lake City, Utah: Andrew Jenson History Co., 1920): 569-570.
- ²⁵ Leonard J. Arrington, *Great Basin Kingdom, An Economic History of the Latter-day Saints*, *1830-1900* (Cambridge, MA: Harvard University Press, 1958): 167-168.
- ²⁶ For a thorough overview of the Utah War, see Arrington, 170-194.
- House Executive Doc. No. 2, 35th Congr., 1st sess., 21; cited in Arrington, 171.
- One of the documents Buchanan used to justify his concerns was a disgruntled letter from a mail contractor displaced by Young's express company, W. M. F. Magraw. Magraw was one of the first to benefit by the cancellation of the mail contract with the B.Y. Express Company; he was also a principal supply contractor for the Utah Expedition (Arrington, 174).
- ²⁹ Jenson, Latter-day Saint Biographical Encyclopedia, 569.
- ³⁰ Jenson, Latter-day Saint Biographical Encyclopedia, 570.
- ³¹ Leroy R. and Ann W. Hafen, editors. *The Utah Expedition*, 1857-1858: A Documentary Account of the United States Military Movement under Colonel Albert

- Sidney Johnston, and The Resistance by Brigham Young and the Mormon Nauvoo Legion. (Glendale, California: The Arthur H. Clark Co., 1982): 183.
- ³² Arrington, 175-176.
- Mormons use the term "gentile" to refer to non-Mormons.
- ³⁴ Peterson, *Utah, A History*, 97. For more information, see Juanita Brooks, *The Mountain Meadows Massacre* (Stanford, Stanford University Press, 1950; second edition, Norman, University of Oklahoma Press, 1962).
- 35 Arrington, 177.
- ³⁶ The migration of Mormons from Nauvoo to the Great Salt Lake Valley is referred to as the "Exodus," the name of the Old Testament book that tells of the Israelites' flight from their Egyptian oppressors.
- ³⁷ C. Gregory Crampton, "Mormon Colonization in Southern Utah and in Adjacent Parts of Arizona and Nevada, 1851-1900" (National Park Service, 1965): 94. Crampton lists the names of the 11 men accompanying Hamblin on the expedition.
- 38 Woodbury: 164.
- According to some reports the Salt Lake Valley had been a no-man's land avoided by both Ute and Shosoni (Peterson, *Utah*, *A History*, 41).
- Warren A. Beck and Ynez D. Haase. *Historical Atlas of the American West*. Norman: University of Oklahoma Press, 1989: 39. The authors do not state if these figures include all races.
- 41 Zorro Bradley, "The Whitmore-McIntyre Dugout, Pipe Spring National Monument, Arizona," unpublished report, 1959: 6. See also, C. Gregory Crampton's "Mormon Colonization in Southern Utah," pp.117-125. Black Hawk was one of the principal Ute leaders. He is not to be confused with the Sauk and Fox leader Black Hawk, who joined Shawnee leader Tecumseh's alliance of Indian tribes with the British to fight the United States government during the War of 1812. The author was advised by Charles S. Peterson that University of Utah Press will be publishing a definitive history of the Black Hawk Indian War in the fall of 1999 (title not provided).
- ⁴² Arrington, 229.
- 43 Woodbury, 168.
- 44 d'Azevedo, ed., 387.
- One could argue a certain amount of wisdom in the proclivity of the Paiute to form alliances and live in proximity to Mormon settlements. In doing so, they were less susceptible to Navajo raiders. They also could appeal to Mormon charity in hard times. Moreover, where other Indians fought against the Militia and/or U.S. Army and lost, most were removed from the very areas they fought hardest to protect. The Kaibab Paiute, on the other hand, have retained a small part of their original territory.
- For information about the role of mission "calls" in Mormon settlement, see Charles S. Peterson's *Take Up Your Mission Mormon Colonizing Along the Little Colorado River, 1870-1900* (Tucson: University of Arizona Press, 1973). "Mission calls were extended by the authority of church leaders and received full validity by public announcement and popular ratification." (Peterson, 42)
- 47 Clyde A. Milner II, Carol A. O'Connor, Martha A. Sandweiss: *The Oxford History of the American West* (New York: Oxford University Press, 1994): 293.
- ⁴⁸ For more information about events leading up to and immediately after the creation of Bosque Redondo, see Josephy, 350-358.

- ⁴⁹ Chiricahua Apache leader Geronimo refused to surrender until 1886. Subtler forms of resistance were manifest during the Ghost Dance years of 1880 and 1890, participated in by some Southern Paiute.
- ⁵⁰ Peterson, *Utah*, *A History*, 139.
- Dee Brown, Bury My Heart At Wounded Knee, An Indian History of the American West. (New York: Holt, Rinehart & Winston, 1970): 33.
- 52 Some dissident Paiute allied with the Navajo in defense of their territory, report Stoffle and Evans (*Kaibab Paiute History*, 13) but the majority sided with whites (Woodbury, 169). One source says that Paiute, "often abetted by Navajo, began hostilities in southern Utah" with a horse stealing raid on the settlement of Kanab in December 1865 (Bradley, 3). The alliance of most with the Mormons provided a measure of self-protection against the far more numerous and powerful Navajo, while sparing them from warring with the Mormons and U.S. Army.
- Dan L. Thrapp, *Encyclopedia of Frontier Biography, Vol. III.* (Lincoln, Nebraska: University of Nebraska Press, 1988): 1169.
- ⁵⁴ James H. McClintock, *Mormon Settlement in Arizona A Record of Peaceful Conquest of the Desert* (Phoenix: 1921): 79.
- Woodbury, 177. Woodbury writes that there was one other incident during the winter of 1873-1874 that threatened the peace, involving the shooting by whites of three Navajo in Grass Valley. Hamblin was able to convince the angry Navajo that the killers were non-Mormons and further conflict was averted.
- ⁵⁶ C. Gregory Crampton, Land of Living Rock, The Grand Canyon and the High Plateaus: Arizona, Utah, Nevada. (New York: Alfred A. Knopf, 1972): 143.
- Peterson, *Take Up Your Mission:* 68-90. The most western of the two roads, pioneered by Jacob Hamblin, headed south from St. George to cross the Colorado River at Pearce's Ferry. Another version of this route followed a more southwesterly route from St. George, crossing at Stone's Ferry. These two wagon trails intersected at various points, finally becoming a single route that headed east toward the Little Colorado. This was called Stone's and Pearce's route. A second route, know as the San Juan Route, traversed the southeastern part of Utah and was promoted for a time by Erastus Snow as the best route to Arizona.
- ⁵⁸ Ibid., 146.
- A Bureau of Land Management archeologist, Rick Malcomson, worked off and on for 13-14 years on a draft National Register nomination for portions of the trail that crossed BLM land in Arizona and Utah. The most current draft dates to 1992 and has been reviewed by both Arizona and Utah Historic Preservation Offices. Malcomson retired in 1992. The Arizona State Historic Preservation Office is currently negotiating with the Arizona Strip District Office of the Bureau of Land Management in St. George for an archeologist do some final ground truthing before finalizing the nomination.
- 60 Arrington, 5.
- 61 Cited in Peterson, Utah, A History, 42.
- 62 Peterson, *Utah*, *A History*, 41.
- 63 Such views of cultural superiority and a sense of religious duty to "save" native peoples is, of course, not unlike that held by many European and Euroamerican colonists of earlier periods and in other parts of the continent. The highly organized, Church-sponsored manner in which these views were implemented, however, serves to distinguish Mormon colonizing from most earlier (as well as later) colonizing efforts, particularly those made

- by mainstream Protestants. One could argue, however, that the role of the Catholic Church during Spanish exploration and settlement during the 16th, 17th, and 18th centuries was quite similar to the role played by the 19th century Mormon Church and its followers.
- 64 Peterson, *Utah*, *A History*, 36.
- Recorded under the heading, "Pipe Springs, or Home of the Pahutes [sic], or the Indians." This is a subsection of "The Pipe Spring Story," Edwin D. Woolley-Erastus Snow Collection (Woolley/Snow Family Collection), MSS1403, Harold B. Lee Library, Special Collections, Brigham Young University, Provo, Utah. It is uncertain which Woolley family member prepared the transcript, but it was most likely either Bert or Dilworth Woolley, sons of Edwin D. Woolley, Jr.
- 66 Ibid.
- 67 Ibid.
- According to a personal communication from Park Service Ethnographer David E. Ruppert, the view of many native groups in the desert west as "lowly" or "backward" was commonly held by Euroamericans. Late 19th century thought regarding social evolution relied on a scale of "progress" from savage and barbarian (not exhibiting the material wealth of Europeans) to civilized (epitomized by the English gentleman). There was a tendency for white observers to place these desert dwellers on the bottom of this scale. Such a crude scale of "progress" is totally rejected today.
- ⁶⁹ The ecological impacts to the Kaibab Paiute by the presence and activities of Mormon settlers are discussed in Stoffle's and Evans' *Kaibab Paiute History* and the *Ethnographic Overview and Assessment* prepared by Stoffle et al.
- ⁷⁰ Stoffle and Evans, *Kaibab Paiute History*, 8-9.
- 71 Woodbury, 22.
- Jacob Hamblin, Nov. 1, 1880. Slightly different excerpts from this letter are cited in Stoffle and Evans, p. 15, and in Robert H. Keller and Michael F. Turek, *American Indians and National Parks* (Tucson, AZ, University of Arizona Press, 1998): 70-71.
- ⁷³ Stoffle and Evans, *Kaibab Paiute History*, 13. See pp. 13-16 for the effects on the Kaibab Paiute resulting from the settlers' appropriation of resources.
- ⁷⁴ For a summary of Pipe Spring ownership, see Appendix I.
- Woodbury, 166. In *A History of Southern Utah and Its National Parks*, Woodbury states that W. B. Maxwell established a ranch at Short Creek "some time prior to 1863" and that James M. Whitmore located ranches at Pipe Springs and Moccasin not long after. This in conflict with reports by C. Leonard Heaton and others that Maxwell, not Whitmore, first settled Moccasin in 1865. No other source linking Whitmore to Moccasin was found.
- Actually, there are one or more lesser springs at each location, thus these places were often referred to as "Pipe Springs" and "Moccasin Springs." The main spring at each of these respective sites, however, is called "Pipe Spring" or "Moccasin Spring."
- ⁷⁷ Kate B. Carter, *Our Pioneer Heritage* (Salt Lake City, Utah: Daughters of Utah Pioneers, 1958): 54.
- ⁷⁸ Book A, Records of Washington County, Utah Territory. Located in the Washington County Recorder's Office in St. George, Utah. See supporting document No. 5 in Geerdes' report, "The Ownership of Pipe Spring: A Legal and Historical Brief" (unpublished manuscript, January 1, 1970). See also pp. 11-12.
- Documentation indicates that the Whitmore family continued to reside in St. George, thus the dugout was most likely used only as temporary shelter for him and/or McIntyre. A

- record of Whitmore's developments is contained in a May 28, 1865 report by President Snow and party to the area. (PISP vertical files)
- 80 Leonard Heaton, "Historical [sic] and Facts Pertaining to Pipe Spring National Monument," p. 6. Lloyd Sandberg (p. 6) also reported McIntyre was a brother-in-law; Woodward (p. 8) and Jenson (p. 659) call him Whitmore's "herder;" Carter (p. 202) refers to McIntyre as "a hired man;" Bradley (p. 3) reports various writers also refer to McIntyre as son-in-law, brother-in-law, and stepson. See also reference to Mrs. McIntyre later in this chapter.
- Peter Gottfredson, *Indian Depradations In Utah*, (Salt Lake City, 1919): 179-160. Cited in Woodward's, "Brief Historical Sketch of Pipe Springs, Arizona," 8.
- 82 C. Leonard Heaton, "Historical [sic] and Facts Pertaining to Pipe Spring National Monument, Arizona," ca. 1946, 6-C (monument archives).
- Flora Snow Woolley wrote that the son left in the dugout was eight years old ("History of the Pipe Springs Monument" November 9, 1934, Edwin D. Woolley and Erastus Snow Family Collection, MSS 1403, Harold B. Lee Library, Brigham Young University, Provo, UT). Historian Arthur Woodward said the name of the son left in the dugout wasn't found in historical accounts but the only son of an appropriate age was James Jr., age eleven ("A Brief Historical Sketch of Pipe Springs, Arizona" June 1, 1941).
- 84 C. Gregory Crampton wrote that men of the Iron County Militia were responsible for locating the bodies of Whitmore and McIntyre and capturing and killing the Paiute. Crampton, "Mormon Colonization in Southern Utah," 125.
- 85 "Memorandum made by Charles Ellis Johnson in July 1914." Church Archives, MS 7941. This memo incorrectly identifies Andrus as "Jim Andrews." The misspelling "Androus" has also been seen.
- 86 According to Flora Snow Woolley, the bodies were found four miles southeast of the dugout. F. S. Woolley, op. cit.
- Angus Woodbury reported the story differently in A History of Southern Utah and Its National Parks. He wrote that the first two Paiute taken captive were questioned and tortured, and that the Militia made a surprise dawn raid upon the camp, killing two Paiute and capturing five. These captives were also tortured before they consented to taking the Mormons to the bodies of Whitmore and McIntyre. The captives claimed innocence, but clothing of the dead men was in their possession and thus considered proof of guilt. Perhaps to avoid the unpleasantness of shooting men face-to-face, the Indians were turned loose and were shot as they attempted to run. This version of the story, like that of Andrus, suggests that nine Paiute were killed (Woodbury, p. 168). Unfortunately, Woodbury did not cite the source for his account. Arizona State Historian James McClintock also reported nine Indians were killed "in a short engagement" (p. 72). Several other accounts say that seven Paiute men were killed. In yet another reference to the incident, recorded by Dilworth Woolley, a man named Ruben Dodge reported that "Jim Andrus' posse caught the Indians, permitted them to run the gauntlet, killed all but one boy who Jim raised." ("Dilworth on Pipe Springs, from his orange notebook," Woolley/Snow Family Collection, op. cit.) Finally, Alonzo Winsor, son of A. P. Winsor, "was under the impression that 13 Indians were killed," reported Leonard Heaton in his "Early History of Pipe Spring," Southwestern Monuments Report Supplement, April 1936: 304. An lengthy article could be written just about the plethora of stories associated with the Whitmore-McIntyre slayings and subsequent retaliatory killings of Paiute.
- 88 Crampton, "Mormon Colonization in Southern Utah," 126.
- 89 C. Leonard Heaton, "Historical [sic] and Facts Pertaining to Pipe Spring National Monument" (unpublished, undated manuscript, probably 1949). This report contains

numerous versions of the Whitmore-McIntyre story. Heaton reported that Hamblin later learned of the Paiute men's innocence during his visits to "Navajo Indian Country." Robert W. Olsen, Jr., reported that a Paiute told Hamblin in 1869 that three of his tribe led the Navajo to Whitmore's sheep, and at least one accompanied them back across the Colorado River ("Pipe Spring," 1965).

- Winsor's son, Alonzo, recounted the story of how this happened to Leonard Heaton in 1936. It is cited in Bradley, 7-8.
- 91 Crampton, "Mormon Colonization in Southern Utah," 126.
- ⁹² Henry P. Walker and Don Bufkin, *Historical Atlas of Arizona*. (Norman: University of Oklahoma Press, 1979): 35.
- ⁹³ Raymond J. Geerdes, "The Ownership of Pipe Spring: A Legal and Historical Brief" (unpublished manuscript, January 1, 1970): 11-14.
- For additional information about the Andrus expedition, see C. Gregory Crampton's "Military Reconnaissance in Southern Utah, 1866." *Utah Historical Quarterly*, 32 (Spring, 1964).
- 95 James G. Bleak, "Annals of the Southern Utah Mission," p. 303, History Department of the Church. Cited in A. Berle Clemensen, *Historic Structure Report History Data Section, Pipe Spring National Monument* (Denver, CO: Department of the Interior, National Park Service, Denver Service Center, 1980, unpublished draft): 1-2.
- ⁹⁶ Deseret News, Salt Lake City, March 1, 1869; cited in Clemensen, 2.
- ⁹⁷ John R. Young to Erastus Snow, August 15, 1869; cited in Clemensen, 2.
- ⁹⁸ The location of the site of this shed in unknown.
- ⁹⁹ Jacob Hamblin and John R. Young to George A. Smith, September 12, 1869, "Journal History," September 12, 1869. Cited in Clemensen, 2.
- A number of reasons have been given as to why the fort was sited in such a manner as to control the primary water source at Pipe Spring. Most often, sources indicate it was to ensure a stable water supply for the fort's occupants and the Church's tithed cattle herds. One source, published in *Arizona*, *A State Guide* in 1941, was unique in that it stated the fort "was constructed over the springs to prevent Indians from poisoning the settlement's water supply." No source was cited for this information and while it was stated as fact, it is likely based on rumor. (Workers of the Writers' Program of the Works Projects Administration in the State of Arizona, *Arizona*, *A State Guide*, New York, NY: Hastings House, 1941: 283.)
- John W. Powell, Major Powell's Trip to Grand Canyon, *Scribner's Monthly*, October 1875, 663. Cited in Lloyd S. Sandberg's unpublished report, "Pipe Spring National Monument," 1957: 5.
- In a September 24, 1943, memorandum from Acting Chief Historian Charles W. Porter III to A. E. Demaray, Porter references some early names of Pipe Spring, including "Yellow Rock Spring": "John W. Powell... in his journal for September 13, 1870, remarked that he camped at a 'great spring, known to the Indians as Yellow Rock Spring, but to the Mormons as Pipe Spring' where 'the Mormons design to build a fort another year, as an outpost for protection against the Indians." (J. W. Powell, *Canyons of the Colorado*, Meadville, Pennsylvania, 1895: 297-298).
- ¹⁰³ Born Mary Elizabeth Carter, she married Whitmore in 1852. The couple had six children.
- This verbal agreement was recorded in the Winsor Company's Ledger B, after the company's January 1873 organization.
- Andrew Jenson's Manuscript History, Historian's Office, Church of Jesus Christ of Latterday Saints (no date given); cited in Lloyd Sandberg, "Pipe Spring National Monument,"

- unpublished manuscript, 1957, 16-18. The excerpt from Jenson's manuscript reads very much like the company's minutes, thus they have been quoted as such.
- Andrew Jenson, Encyclopedic History of the Church of Jesus Christ of Latter-day Saints (Salt Lake City, UT, Deseret News Publishing Co., 1941): p. 659. Jenson wrote the company organized "with a capital stock of \$500,000." This is consistent with excerpts from Andrew Jensen's Manuscript History copied by Lloyd Sandberg, op. cit. Robert J. Olsen, Jr., and David Lavender have incorrectly reported the amount of authorized capital stock was \$50,000.
- The Church subscribed to \$10,000; Brigham Young, Sr., to \$2,350, A. P. Winsor to \$3,000, Alexander F. MacDonald, \$1,000. Five men held the remaining stock.
- Jenson's manuscript, cited in Sandberg, 17. Church Historian Andrew Jenson wrote that "a one-third interest in Moccasin Springs was purchased at the suggestion of Pres. Young and was later paid for by the company named." *Encyclopedic History*, 659.
- 109 Sandberg, 18.
- 110 Ibid.
- It is believed that the verbal agreement, bill of sale, and Winsor Company meeting minutes are the only records of the transaction, as no record of the title of transfer could be located during a search of county records by Geerdes in 1969.
- Mary Bywater Cross, *Quilts and Women of the Mormon Migrations*. Nashville, Tennessee: Rutledge Hill Press, 1996: 126-127.
- Geerdes, "The Ownership of Pipe Spring," 29.
- This information comes from a quote from Pearson H. Corbett's *Jacob Hamblin*, cited in Geerdes, "The Ownership of Pipe Spring," 29. Corbett's book may say more about who "Mrs. McIntyre" was.
- ¹¹⁵ Jenson, Latter-day Saint Biographical Encyclopedia, 570.
- Edwin D. Woolley, Jr., "The Pipe Spring Story," Chapter VI: 28, Woolley/Snow Family Collection, op. cit.
- A. Wm. Lund, letter to George A. Smith, February 11, 1942.
- A "stake" is made of up three or more "wards," the latter being comparable to a local congregation, parish, or single church. Kanab Stake was organized in 1877. The reference to Joseph W. Young being nephew to Brigham Young is in Arrington, 207.
- ¹¹⁹ Joseph W. Young, letter to Horace S. Eldredge, October 16, 1870. Cited in Woodward, 19.
- ¹²⁰ "Memoirs of Joseph R. Young, Utah Pioneer of 1847, written by Himself, Salt Lake City, 1920"; cited in Woodward, 20.
- "Extracts from Letter by Walter F. Winsor Pertinent to the Pipe Spring Story" under "Material on Pipe Springs Furnished by Mr. L. M. Winsor...," Woolley/Snow Family Collection, op. cit.
- 122 Clemensen, 6. Clemensen reports on the same page that there were two lime kilns "just below the hill on which the west stone house was located." The ruins of only one kiln have been found in this location. C. Gregory Crampton wrote that nearly all of the million board feet of lumber used in the construction of the St. George Temple came from Mt. Trumbull, located about 60 miles southeast of St. George (Crampton, "Mormon Colonization in Southern Utah," 160).
- Berle Clemensen speculates that the size was reduced because of the small size of the work force; this may certainly also have been a factor.
- 124 Clemensen, 11.

- Dilworth Woolley wrote to his brother, H. E. Woolley, on August 21, 1943, correcting the Park Service booklet being used at Pipe Spring, which said the north building was erected directly over the spring. Woolley wrote that the spring was located about 15 feet outside the building. Numerous other sources, including Anson P. Winsor's son, L. M. Winsor, contradict him.
- 126 See Clemensen, op. cit., and David Lavender's *The History of Arizona's Pipe Spring National Monument*.
- Crampton, "Mormon Colonization in Southern Utah," 171-172. A news article in the *Arizona Daily Star* states that the telegraph line was used as the telephone line until 1937 ("Pipe Spring Monument Is a Complete Museum," Denver Service Center Library, undated, ca. 1940). For information on the 1965 reconstruction of the historic telegraph line within monument boundaries, see Part X.
- "Material on Pipe Springs furnished by Mr. L. M. Winsor, December 16, 1960." Woolley/Snow Family Collection, op. cit. Some historical documentation spells the name "Windsor Castle."
- ¹²⁹ Ibid.
- "Material on Pipe Springs Furnished by Mr. L. M. Winsor, December 16, 1960," Woolley/Snow Family Collection, op. cit.
- "Dilworth [Woolley] on Pipe Springs," Woolley/Snow Family Collection, op. cit.
- Stoffle et al., *Ethnographic Overview and Assessment*, 21. This period is referred to by the authors as "Lost Times" for the Kaibab Paiute, dating from 1870 to 1900.
- Between 1850 and 1900, more than 90,000 came from abroad "to strengthen Zion's union and redeem its wastelands" (Peterson, *Utah*, *A History*, 36). All were presumably Mormon converts.
- Clemensen, 14. See also, "Anson Perry Winsor," St. George Stake H.P. Quo. Record, #15649, page 272, which states: "I, Anson Perry Winsor... in 1869 was called to settle and build up Pipe Springs, and remained there until called by President Young to labor in the Temple of St. George in September 1876." The date given for when Winsor left Pipe Spring varies somewhat, according to source. One author states that Winsor left Pipe Spring in 1875 (Carter, 153). Another source says he was called to St. George in 1877, perhaps because the Temple was not dedicated until 1877 (Jenson, *Latter-day Saint Biographical Encyclopedia*, 570). September 1876 appears to be correct, given that Winsor's son had to fill in for a brief time prior to the arrival of Pulsipher in January 1877. Anson P. Winsor lived to be 99 years old.
- Edwin D. Woolley, Jr., "The Pipe Spring Story," Chapter VI: 5. Woolley/Snow Family Collection, op. cit. This information is taken from Charles Pulsipher's autobiography, quoted by Woolley.
- Clemensen, 14. This date is consistent with an excerpt from Pulsipher's autobiography, quoted in Woolley, which says when the St. George Temple was completed on January 1, 1877, Pulsipher received a telegram from Brigham Young commanding him to come to St. George. He arrived there the next day, where Young directed him to leave immediately for "Winsor Ranch" to take over operations there.
- "The Pulsipher Family Comes to Pipe Spring," Woolley/Snow Family Collection, op. cit. According to genealogical and family records, the first wife was Ann Beers. No children are recorded of that marriage. There is no mention of her living at Pipe Spring in Clemensen, who mentions the other two wives (p. 15). At the same time Brigham Young

- directed Pulsipher to oversee the ranch at Pipe Spring, he told him to get a young wife and raise more family, his other four children by Sariah being nearly grown. He married Julia on December 13, 1877, and had 12 more children with her.
- 138 Crampton, "Mormon Colonization in Southern Utah," 55.
- Geerdes, "The Ownership of Pipe Spring," 18.
- Arrington, 356. Arrington wrote an article for *Pacific Historical Review*, Vol. XXII (1952), "The Settlement of the Brigham Young Estate, 1877-1879," which would most likely list the date of final settlement.
- Edwin D. Woolley, Jr., reports that Pulsipher was at the ranch until the winter of 1880, thus it appears he did not leave Pipe Spring until sometime after Emett's arrival. "The Pipe Spring Story," Woolley/Snow Family Collection, op. cit. In an unpublished biographical sketch, Pulsipher wrote that he "labored there three years..."
- Gurnsey and Harriet Brown were Flora Snow Woolley's uncle and aunt. F. S. Woolley, "History of the Pipe Springs Monument," Woolley/Snow Family Collection, op. cit. Elizabeth Woolley Jenson wrote that Brown purchased the ranch lease in 1881 (Geerdes, "The Ownership of Pipe Spring," 56).
- Sometime during his tenure at Pipe Spring (1961-1966), Park Historian Robert Olsen borrowed the original drawing from Ena Spendlove of Kanab to have it photographed. The drawing had been passed down in her family. Its whereabouts today are unknown to the author.
- Edwin D. Woolley, Jr. (1845-1920), had a half-brother named Edwin Gordon Woolley (1845-1930). Both were sons of Edwin Dilworth Woolley, Sr., (1807-1881) whose first wife was Mary Wickersham Woolley, mother of Edwin D. Woolley. Woolley, Sr.'s second (plural) wife was Louisa Chaplin Gordon, mother of Edwin G. Woolley. When Louisa died in Nauvoo, Illinois in 1849, the child was sent to Massachusetts to be raised by Louisa's mother. Meanwhile, Woolley left with his other family and the Saints to Salt Lake City. After settling in Utah, the father returned to get five-year-old Edwin G. and took him to live with his family in Utah. Edwin D., just three months older than Edwin G., were "raised together more like twins than as ordinary brothers," said a family account. The two half-brothers later married the Bentley sisters.
- Flora was 29 years old when she went to Pipe Spring. E. D. Woolley, Jr.'s first wife in Kanab was Emma Geneva Bentley, sister to Mary Lavinia Bentley, who married E. G. Woolley. For additional detail on Woolley's Kanab property, see letter from H. E. Woolley to Dilworth Woolley, August 15, 1943, attached to memorandum from A. E. Demaray to Newton Drury, September 15, 1943.
- 146 Clemensen, 22.
- On the quitclaim deed from Seegmiller to B. F. Saunders, the name is spelled "McFarland." This is a typographical error. Reference is made to the McFarlane survey by Dilworth Woolley in his letter to his brother, H. E. Woolley, dated August 21, 1943 (appended to A. E. Demaray's letter to Newton B. Drury, September 15, 1943). Dilworth was present when the survey lines were run.
- Bill of Sale from Benjamin and Tacy Saunders to Bulloch and Jones, signed and dated March 8, 1898. It is not known what circumstances are connected to the reduction of James M. Whitmore's 160-acre tract to the 140 purchased by the Winsor Castle Stock Growing Company or how the property was reduced another 100 acres by the time of the 1886 McFarlane survey. One possibility is that the Church either sold part of the land or transferred it to the United Order of Orderville prior to the survey.

- ¹⁴⁹ Ken Verdoia and Richard Frimage, *Utah: The Struggle for Statehood*. (Salt Lake City, Utah. University of Utah Press, 1996): 129-131.
- ¹⁵⁰ Arrington, 356-359.
- Launched in the fall of 1849, the Perpetual Emigrating Fund was incorporated as the Perpetual Emigrating Company in September 1850 "to promote, facilitate, and accomplish the emigration of the poor" to the Great Basin. Earnings from California Gold Rush returnees provided the initial financial base. Brigham Young served as president of the company until his death (Arrington, 77-78).
- 152 Arrington, 361.
- 153 Arrington, 359.
- During "the Raid," polygamous husbands sought to find locations for their families in out-of-the way places unlikely to be visited by federal deputies (Arrington, 383).
- "In Two Worlds The Recollections of Florence Snow Woolley" (as dictated to her daughter, Elizabeth Woolley Jenson; undated, unpublished manuscript in monument's vertical files):
 62; and "Pipe Springs Becomes a Sanctuary/Place of Refuge," Woolley/Snow Family Collection, op. cit. The latter contains a vivid description of the raiding period.
- ¹⁵⁶ Geerdes, "The Ownership of Pipe Spring," 19.
- 157 See Clemensen, 22-24.
- ¹⁵⁸ "Notes from Correspondence of Dilworth and Bert [Woolley] on Pipe Springs," states that Erastus Snow and Edwin D. Woolley, Jr., conferred on site prior to making the changes to the building. Woolley/Snow Family Collection.
- Dilworth Woolley also wrote of the changes and how they came about in his letter to his brother H. E. Woolley, August 21, 1943 (attached to a memorandum from A. E. Demaray to Newton Drury, dated September 15, 1943). He recalled it being a topic of conversation between his father Edwin D. Woolley, Jr., his grandfather Erastus Snow, and unnamed "others."
- ¹⁶⁰ Flora Snow Woolley, op. cit.
- Dilworth Woolley, letter to H. E. Woolley, September 4, 1943 (attached to a memorandum from A. E. Demaray to Newton Drury, dated September 15, 1943).
- ¹⁶² Unsigned letter dated April 14, 1916. In Woolley/Snow Family Collection, op. cit.
- The site of these watering holes can still be discerned when the area is compared to a historic photograph in the monument's collection that shows cattle watering there. The old watering holes straddle the monument's west boundary and Kaibab Indian Reservation land.
- ¹⁶⁴ Ibid. Reference to the popular name "Woolley's lambing ground" found in the chapter "Pipe Spring Becomes a Sanctuary/Place of Refuge" in "The Pipe Spring Story," Woolley/Snow Family Collection, op. cit.
- ¹⁶⁵ Jenson, Encyclopedic History, 659.
- ¹⁶⁶ "Telegraph and Telephone," in "The Pipe Spring Story," Woolley/Snow Family Collection.
- Leonard Heaton, file memorandum, August 13, 1938.
- ¹⁶⁸ McClintock, 99.
- From 1870 until 1895, the Church successfully concealed its ownership of the Pipe Spring ranch to prevent its confiscation by the federal government under the antipolygamy laws discussed earlier. The Edmunds-Tucker Act of 1887 made the hiding of Church holdings even more imperative, thus the lack of physical evidence recording transfer of Pipe Spring property during this era may have been the result of deliberate intent by Church officials.
- 170 Arrington, 364.

- 171 The kinship tie to Brigham Young is cited in Arrington, 283.
- Geerdes, "The Ownership of Pipe Spring," 60. See also Clemensen, 27.
- Geerdes' interviews with a number of people who knew of Seegmiller's and Woolley's management of the Church's herds suggest that Seegmiller was not alone in his underhanded dealings, and that Woolley too had similar shortcomings. While Seegmiller was fired, Woolley was only admonished by Anthony W. Ivins, the two men's supervisor.
- Historian Charles S. Peterson suggested to the author that J. W. Young may have masterminded Seegmiller's filing on Pipe Spring with Valentine scrip. Seegmiller was Young's foreman for the Arizona Land and Cattle Company. For additional information see Earle R. Forrest's Arizona's Dark and Bloody Ground and Peterson's Take Up Your Mission: Mormon Colonizing Along the Little Colorado River (Peterson's handwritten comments on draft manuscript, January 1999).
- Copy of Act, Forty-second Congress, Sess. III, Chapt. 89, 92-95, 1872.
- Geerdes researched the Valentine scrip matter in 1969 in connection with researching the history of Pipe Spring ownership. Geerdes states that Seegmiller's application to the Prescott Land Office was denied because the land had not yet been surveyed. Had one been made, he wrote, it would have revealed the Pipe Spring property already had a long history of use and development (Geerdes, "The Ownership of Pipe Spring," 39). The author has not located documents supporting two of Geerdes' conclusions: 1) that Seegmiller's application was denied, and 2) that Valentine scrip could only be filed on surveyed land.
- This is speculation on Geerdes' part, but he provides some strong evidence for his conclusion. There was so much Mormon subterfuge during this period (in attempts to hide Church assets) that it is often impossible to ascertain some people's motives for acquiring or attempting to acquire Church property.
- Geerdes, "The Ownership of Pipe Spring," 43.
- ¹⁷⁹ Ken Chamberlain, letter to A. D. Findlay, June 19, 1985.
- ¹⁸⁰ Flora Snow Woolley, op. cit.
- ¹⁸¹ Arrington, 378.
- B. F. Saunders was born in Missouri, September 1847. In *Heart Throbs of the West*, p. 210, Saunders was credited with bringing the most up-to-date cattle breeds to Utah's Dixie. He lived in Salt Lake City at the time of his death on July 26, 1909.
- ¹⁸³ Geerdes, "The Ownership of Pipe Spring," 49.
- Geerdes, "The Ownership of Pipe Spring," 63. Geerdes was convinced through his extensive research that there existed a "gentlemen's" agreement between B. F. Saunders and Church officials by which Saunders was treated well in return for protecting the Church's interests.
- Douglas D. Alder and Karl F. Brooks, A History of Washington County, From Isolation to Destination. (Salt Lake City, Utah Historical Society, 1996): 98.
- Geerdes, "The Ownership of Pipe Spring," 51.
- Geerdes spells this two ways, "Parashont" and "Parashant."
- "Kaibab" operations are believed to refer to a ranch at V.T. Park on the Kaibab Plateau. Geerdes, "The Ownership of Pipe Spring," 49.
- Geerdes reviewed the Company's papers at the Church Historian's Library in Salt Lake City and stated that records from these years are not available.
- Minutes of the final October 1, 1895, meeting of the Board of Directors, Canaan Cooperative Stock Company. Reported in Geerdes, "The Ownership of Pipe Spring," 52.
- ¹⁹¹ Geerdes, "The Ownership of Pipe Spring," 62-63.

- 192 Church Legal Office, Salt Lake City; cited in Geerdes, "The Ownership of Pipe Spring," 62.
- 193 The name "Bulloch" has been incorrectly spelled in a number of publications, including Lavender's booklet and Clemensen's report. The correct spelling has been taken from copies of original documents signed by David Bulloch.
- David Dunn Bulloch, letter to his wife Sarah Ann, December 1, 1895. Attached to Geerdes' report, "The Ownership of Pipe Spring."
- Bulloch and Jones sold and conveyed the Pipe Spring tract to the Pipe Springs Cattle Company, "a Corporation of the State of Utah, with its principal office in Salt Lake City for \$5,000. Bulloch and Jones were two of the Company's four directors, all of whom had close ties to the Church.
- ¹⁹⁶ For additional information, see typed memo filed under date of August 29, 1946.
- ¹⁹⁷ The total cost for 1,200 head would be \$27,000. The Company owed the Deseret National Bank of Salt Lake City \$19,000 as mortgage on the herd; the sale to Findlay was to pay off that debt.
- ¹⁹⁸ The total value of 3,000 sheep would be \$6,750.
- 199 This copy of the contract used in research for this report was unsigned.
- ²⁰⁰ Leonard Heaton, letter to Frank Pinkley, July 23, 1934.
- List of quitclaim deeds pertaining to Pipe Spring, located in the Mohave County Recorder's Office, Kingman, Arizona. Cited in Geerdes, "The Ownership of Pipe Spring," 66. In all quitclaim deeds the grantors are both husband and wife; but for brevity's sake, the author used only the husband's name in the narrative; both are included in the summary ownership chronology, Appendix I.
- No description has been found that gives the location of the "Findlay Lower Reservoir."
- Another report states, "The name Moccasin was derived, it is said, from a moccasin snake which was left at the spring by the Indians in an effort to frighten away the whites." Vincent W. Vandiver, "Report on Pipe Springs National Monument," January 1937: 7.
- ²⁰⁴ McClintock, 97-98.
- Crampton, "Mormon Colonization in Southern Utah," 125. Leonard Heaton wrote that William B. Maxwell made the first claim at Moccasin in 1865, but this is later than the date given by James H. McClintock and C. Gregory Crampton. (C. Leonard Heaton, "A Brief History of the Town of Moccasin, Arizona," undated). Also, "Arizona Strip Town Peopled by One Family," newspaper article published ca. 1940, echoes the 1865 date but probably used Heaton as their source.
- ²⁰⁶ Crampton cites Andrew Jenson's *Encyclopedic History* (1941) as his source for information on the early settlement of Moccasin (Jenson, pp. 522-523). In C. Leonard Heaton's "A Brief History of the Town of Moccasin, Arizona," Heaton reported that Maxwell sold the Moccasin ranch soon after acquiring it to "an unknown man" who built a cabin and lived there about eight years.
- Southern Paiute periodic use and occupation of the site was part of a pattern of regular use and occupation. Although a specific site was not occupied year round, the larger region of use was permanently occupied.
- Emma Carroll Seegmiller, "Voices from Within The Story of the United Order," unpublished manuscript (MS 1000, Folder 1), Church Library and Archives, Salt Lake City, UT.
- 209 It may seem peculiar to "gentiles" that at the beginning of the 20th century Mormons and Paiute were praying for a U.S. President who had been dead since December 14, 1799. Praying for the conversion of souls of deceased non-Mormons was and still is an important

- part of Church practice. This is one of the reasons for the Mormons' intense interest in genealogy.
- ²¹⁰ "Dilworth on Pipe Springs, from his orange notebook," Woolley/Snow Family Collection, op. cit. This information is taken from a statement made by Silas Smith Young to Dilworth Woolley on March 3, 1944.
- This part of the history is recorded in a sworn affidavit taken January 18, 1921, and signed by Charles C. Heaton, Edward Carroll, Henry Blackburn, Henry W. Esplin and Jonathan Heaton, per C. C. Heaton. The affidavit is attached to a petition requesting that certain lands be withdrawn from the Kaibab Indian Reservation. Both are under filed cover letter of March 16, 1921, from John H. Page & Co. to Senator Carl Hayden (Hayden Papers, ASU, Tempe, AZ).
- ²¹² Emma Carroll Seegmiller, op. cit.
- ²¹³ Woodbury, 183-184.
- ²¹⁴ Mark A. Pendleton, "The Orderville United Order of Zion." *Utah Historical Quarterly*, 3:141-159 (1939). Cited in Stoffle and Evans, *Kaibab Paiute History*, 14.
- Leonard Arrington, "Orderville Utah: A Pioneer Mormon Experiment in Economic Organization." Utah State Agricultural College Monograph, Series Vol. 2, No. 2. (1954). Cited in Stoffle and Evans, *Kaibab Paiute History*, 14.
- Leonard Heaton, letter to Mrs. J. Rowe Groesbeck, May 23, 1961.
- See Chubbuck's quote under the section, "The Federal Government's Response: Creation of the Kaibab Indian Reservation." It is highly characteristic of the times that the Church bought the one-third water rights from its own company, the Canaan Cooperative Cattle Company. Also, a news article published ca. 1940 ("Arizona Strip Town Peopled by One Family") states, "One-third of the water was granted the Paiutes by the church in the early eighties..." Other researchers Lavender, and Stoffle and Evans reported that the one-third flow of Moccasin Spring was given to the Indians "in the early 1900s," p. 34, or "probably just before 1907," p. 18, respectively. They wrote that the Church prevailed upon the Heatons to give up this share of water. Both are incorrect. The Church appears to have held one-third water rights to Moccasin since the early 1870s. In a 1938 history of the reservation located in BIA files, Phoenix, Arizona, it states the Church established a mission at Moccasin Springs in 1875. ("Reservation Kaibab: History of Reservation;" see BIA, Phoenix records file.)
- 218 C. Leonard Heaton, "A Brief History of the Town of Moccasin, Arizona," op. cit. A later description of the Paiute community at Moccasin states the size of the farm plot was "about 12 acres."
- ²¹⁹ WPA, *Utah Guide*, 343.
- ²²⁰ Leonard Heaton, letter to Mrs. J. Groesbeck, May 23, 1961.
- ²²¹ Woodbury, 184.
- 222 Arrington, 337. See also Woodbury, 183-184.
- The petition requesting withdrawal of lands from the Kaibab Indian Reservation states that Jonathan Heaton had settled upon a part of these lands, purchased with improvements from a prior settler for \$5,000 in 1875. (The exact location of the lands purchased by Heaton is not described.)
- 224 C. Leonard Heaton, "A Brief History of the Town of Moccasin, Arizona," op. cit. Heaton says Jonathan bought out his brother in 1893. He does not give the date the property came into the five brothers' hands, but this is reported in a newspaper article, "Arizona Strip Town Peopled by One Family."

- Jonathan Heaton's first wife was Clarissa Amy Hoyt, whom he married on September 27, 1875. The couple had 15 children and maintained a home in Alton, Utah. He married Lucy Elizabeth Carroll on December 6, 1878. They lived in Moccasin, Arizona, and had 11 children.
- C. Leonard Heaton, "A Brief History of the Town of Moccasin, Arizona," op. cit. Heaton's words are ironic given that when Mormons fled their new settlements in the area during the Navajo uprisings of the late 1860s, the Paiute had been entrusted to watch over Mormon gardens and fields.
- 227 Ibid.
- The number of acres irrigated is cited in a letter from Assistant Secretary F. M. Goodwin to Attorney Samuel Herrick, July 5, 1921. The quote is from the March 1921 petition filed by residents of Moccasin requesting withdrawal of certain lands from the reservation.
- ²²⁹ "Arizona Strip Town Peopled By One Family," unidentified newspaper article, ca. 1940.
- 230 D. B. Morgan, letter to Senator Carl Hayden, March 16, 1921.
- While one newspaper report states only that his sons were given land, the fact that two sons-in-law also lived in Moccasin (last names Johnson and Brown), suggests that land was also given to two daughters.
- ²³² Ibid. Also in "Moccasin: One Family Town," *Christian Science Monitor*, February or March, 1941. National Park Service, Denver Service Center Library.
- ²³³ James A. Brown, "Report of Special Agent for Kaibab Indians, Annual Report of the Commissioner of Indian Affairs to the Secretary of the Interior for the year 1903" (pp.329-330). Bureau of Indian Affairs, Phoenix, Arizona, Arizona v. California case exhibits file, ca. 1953. The Kaibab Agency was then based in Kanab, Utah.
- ²³⁴ Knack, 217. Smoot made his request in a letter of December 1, 1905.
- ²³⁵ Woodbury, 193.
- ²³⁶ Knack, 216.
- ²³⁷ Woodbury, 192.
- ²³⁸ Knack, 216-217.
- ²³⁹ An excellent resource for additional information about this period is Knack, op. cit.
- ²⁴⁰ File memorandum, Office of Indian Affairs, dated December 30, 1910, signature indecipherable.
- Cited in letter from Assistant Secretary F. M. Goodwin to Attorney Samuel Herrick, July 5, 1921. (A copy of Chubbuck's report has not been located.) This suggests one possible motive for the Church giving the Kaibab Paiute land and water at Moccasin Ranch, but it may not be the only one, given that the Indians were there first.
- Acting Commissioner A. F. Larrabey, letter to Secretary of the Interior, October 8, 1907.
- 243 Cited in letter from First Assistant Secretary James R. Garfield to Senator Reed Smoot, October 1908.
- ²⁴⁴ Ibid.
- ²⁴⁵ Cited by F. M. Goodwin, Assistant Secretary of the Interior, to Attorney Samuel Herrick, July 5, 1921.
- When Churchill met with the "chief" of the San Juan Paiute at Willow Spring, about 12 miles from Tuba City, the Indian "insisted that all the Piutes [sic] needed from the Government was to be let alone." Their main fear was that they might be relocated to another location.
- 247 Ibid.

- ²⁴⁸ Ibid.
- Their share of the water provided 1/6 of a second foot, according to the BIA's "History of [Kaibab] Reservation," 1938.
- ²⁵⁰ R. A. Ballinger, letter to Reed Smoot, Dec. 15, 1909. No copy of the petition has been located.
- ²⁵¹ Peter Iverson, "When Indians Became Cowboys," *Montana, The Magazine of Western History*," Winter 1995: 18-19.
- ²⁵² H. C. Means, report to W. H. Code, July 12, 1911.
- ²⁵³ Ibid., 5.
- 254 Ibid.
- ²⁵⁵ It might be possible to track down the informant's name by finding out who was the Kanab Stake President about 1911.
- ²⁵⁶ This "unknown man" may be the man Maxwell sold his claim to.
- ²⁵⁷ This report conflicts with other documentation that states the Church owned the 1/3 water rights prior to the United Order becoming involved at Moccasin. It is typical of a number of documents of this and later periods which attempt to trace the history of how the Indians obtained their rights to land and water at Moccasin.
- Lorenzo D. Creel, report dated October 28, 1911. Cited in letter from Assistant Commissioner E. B. Meritt to E. A. Farrow, July 13, 1918. The date of the interview is unreported in Meritt's letter to Farrow.
- ²⁵⁹ G. A. Gutches, Letter to Commissioner of Indian Affairs, October 23, 1912. Cited in Knack, 225.
- ²⁶⁰ R. A. Ward, letter to Commissioner of Indian Affairs, March 5, 1912.
- ²⁶¹ Ibid., 3.
- ²⁶² Ibid., 4.
- ²⁶³ Ibid., 5.
- ²⁶⁴ C. F. Hauke, letter to Secretary of the Interior, May 1, 1912.
- C. F. Hauke, letters to Secretary of the Interior, dated March 19 and 20, June 18, and July 16, 1913. The grazing fee for cattle in 1916 ranged from 75 cents to one dollar per head.
- Copies of Executive Orders of June 11, 1913, July 17, 1917, and October 22, 1918; from BIA Office, St. George, Utah. File "Kaibab Realty: Cadastral Survey/Resurvey of Boundary."
- ²⁶⁷ F. H. Abbott, letter to Secretary of the Interior, July 2, 1913.
- ²⁶⁸ Ibid., 3.
- The Department's withdrawal was later repeated when President Wilson issued Executive Order No. 2979 on October 22, 1918, revoking Executive Order No. 1786 of 1913 and restoring the public lands of Township 41, range 2 west, to settlement, location, sale and entry. It is unclear why Order No. 2979 was required or issued. Perhaps the earlier Departmental order was considered insufficient after the 1917 establishment of the permanent reservation.
- ²⁷⁰ A. A. Jones, letter to Clay Tallman, July 10, 1914.
- ²⁷¹ A. A. Jones, letter to Mulford Winsor, July 16, 1914.
- There was not enough housing provided at the Kaibab village for all the Kaibab Paiute in the area, so some had to live in nearby white communities.
- ²⁷³ Henry W. Dietz, "Report on Water Supply of the Kaibab Indian Reservation, Arizona." November 1914: 2-3.
- ²⁷⁴ Ibid., 3-4.

- ²⁷⁵ Ibid., 12.
- ²⁷⁶ Ibid., 13.
- The Kaibab Indian Reservation installed and maintained a fence around Moccasin Spring to keep animals away from the source of their water. Occasionally, animals (such as geese) would get into the enclosure and pollute the water supply. This was a serious concern of Dr. Farrow's in the early 1920s.
- ²⁷⁸ Ibid., 6.
- ²⁷⁹ Clay Tallman, letter to Secretary of the Interior, July 9, 1917. Lavender says that this did not affect private ownership of the Pipe Spring land.
- ²⁸⁰ Cato Sells, letter to Secretary Lane, June 16, 1917.
- Grazing leases document that cattlemen paid the Tribe 50 cents per head in 1913, 75 cents per head in 1916, and one dollar per head in 1917 for grazing privileges.
- ²⁸² Cato Sells, op. cit.
- ²⁸³ Ibid.
- ²⁸⁴ E. A. Farrow, letter to Jonathan Heaton, April 26, 1918.
- ²⁸⁵ Jonathan Heaton, letter to E. A. Farrow, May 6, 1918.
- ²⁸⁶ E. B. Meritt, letter to E. A. Farrow, July 13, 1918.
- ²⁸⁷ Ibid.
- ²⁸⁸ E. A. Farrow, letter to Commissioner of Indian Affairs, August 23, 1918.
- E. B. Meritt, letter to E. A. Farrow, October 16, 1918. The copy made of this letter is extremely poor (too light) and portions are impossible to read.
- ²⁹⁰ E. A. Farrow, letter to Commissioner of Indian Affairs, March 27, 1919.
- ²⁹¹ E. A. Farrow, letter to Recorder of Mohave County, April 14, 1919.
- ²⁹² E. A. Farrow, letter to Arizona's Secretary of State, September 16, 1919.
- ²⁹³ E. A. Farrow, letter to Commissioner of Indian Affairs, January 18, 1921.
- ²⁹⁴ E. A. Farrow, letter to Commissioner of Indian Affairs, February 2, 1921.
- ²⁹⁵ Ibid.
- ²⁹⁶ This should not be interpreted as only a personal conflict however, for Farrow's arrival in November 1918 also immediately preceded the end of World War I and the beginning of an economic depression in the 1920s, which undoubtedly heightened competition for resources.
- See Knack, 219-220. Historic correspondence reviewed by this author indicates that the total amount of land the Heaton's fought for was 3,000 acres plus the three 160-acre homesteads. Knack's summary implies that a total of 3,000 acres was claimed.
- ²⁹⁸ Charles C. Heaton, letter to Mr. John H. Page & Co., March 11, 1921 (Hayden Papers, ASU, Tempe, AZ).
- ²⁹⁹ "Reservation Kaibab; Project Kaibab" History of the Reservation, prepared in 1938. (BIA files, Branch of Water Resources, Phoenix, AZ).
- D. B. Morgan of John H. Page & Co., letter to Senator Carl Hayden, September 22, 1922. (Hayden Papers, ASU, Tempe, AZ).
- 301 Francis M. Goodwin, to Samuel Herrick, July 5, 1921. This correspondence refers to 3,000 acres as the aggregate amount the family filed on, which was over and above the 3 Heaton homestead claims. While several other documents use the 3,000-acre figure to describe the fenced lands, many documents especially those later prepared by the Office of Indian Affairs state the amount of fenced land was 4,000 acres. Some of Farrow's correspondence state 3,600 acres were fenced. Not knowing which of these figures is correct, the author has quoted all documents as they are written. In a letter

- dated September 13, 1922, from First Assistant Secretary E. C. Finney to Senator Carl Hayden, the 4,000 acre figure is used, for example (Hayden Papers, ASU, Tempe, AZ). It is used again in a November 24, 1922, letter from Commissioner Burke to the Secretary of the Interior.
- 302 Charles H. Burke, letter to Secretary Fall, November 24, 1922. (Letter contains list of correspondence pertaining to the Heaton family and land disputes.) Also, F. M. Goodwin, letter to Samuel Herrick, July 5, 1921.
- ³⁰³ See Knack, 224-225.
- See the oral history interview with Kaibab Paiute elder Lita Segmiller, born in 1925. Segmiller recalled "He was a man that stood up for the Indian people.... He saw to it that they got what was coming to them.... He was a good man." (*Oral History Collection, Pipe Spring National Monument, Vol. III*, p. G-20, draft version).
- John W. Atwater, Inspector. "Inspection Report, Kaibab Agency and Schools," August 24-30, 1922.
- ³⁰⁶ Ibid.
- Unidentified official, report to Commissioner of Indian Affairs, Dec. 28, 1922. The last page of this report was not copied at the BIA archives in Ft. Duchesne, Utah, so the official's name is unknown.
- 308 Atwater, "Inspection Report."
- ³⁰⁹ Ibid.
- d'Azevedo, 389. Knack also reports the effects of the drought of the "Dust Bowl" era on local cattlemen: "Nearly all small ranchers went out of business until, by 1935, only the Heatons remained," she wrote (Knack, 225).
- This was reported by Leonard Heaton in a January 5, 1934, letter to Frank Pinkley when the skeleton of Colvin's horse was discovered in the tunnel of tunnel spring. Heaton said Colvin lived at the fort from 1908-1914. This, along with photographs of the fort taken in 1908 by Charles C. Heaton, suggests that the Heatons may have taken possession prior to the formal sale of the property.
- ³¹² "Notes on Pipe Springs from Autobiography of W. S. Rust," Woolley/Snow Family Collection, op. cit.
- 313 Ibid.
- ³¹⁴ "Maida Rust Judd, Her Story," Woolley/Snow Family Collection, op. cit. Written by her sister Mrs. E. A. Madsen of Sandy, Utah.
- Ommissioner of the General Land Office, letter to Register and Receiver, Phoenix, Arizona, April 10, 1920 (Hayden Papers, ASU, Tempe, AZ). Although this letter is unsigned and without letterhead, other documentation (C. A. Engle, letter to Commissioner of Indian Affairs, May 15, 1924) confirms its origin and the exact date of rejection.
- ³¹⁶ John H. Page and Company, Public Land Specialists, Phoenix, Arizona.
- John H. Page to Charles C. Heaton, April 8, 1921.
- E. C. Finney's "Decision on Appeal from the General Land Office [etc.], June 6, 1921." Cited in Knack, 228.
- John H. Page, letter to Sen. Carl Hayden, August 25, 1921 (Hayden Papers, ASU, Tempe, AZ).
- ³²⁰ Senator Carl Hayden's secretary, letter to John H. Page, August 29, 1921 (Hayden Papers, ASU, Tempe, AZ).
- The letter was written on June 21, 1921, but no copy has been located.

- Senator Carl Hayden, letter to John H. Page, October 17, 1921 (Hayden Papers, ASU, Tempe, AZ).
- This is noteworthy as another railroad company, this time the Union Pacific, would later play a key role promoting the creation of southern Utah and northern Arizona parks and monuments during the 1920s.
- Barry Mackintosh, *The National Parks: Shaping the System* (Washington, D.C.: U.S. Department of the Interior, 1991): 11-12.
- 325 Ibid., 14.
- Paul Herman Buck, *The Evolution of the National Park System of the United States*. (Washington, D.C.: U.S. Government Printing Office, 1946): 40.
- ³²⁷ John Ise, *The National Park Service: 1916-1959*. (New York: Arno Press, 1979): 186.
- Albright and Mather were by no means the first pushing for the passage of the Organic Act. Early conservationists, Frederick Law Olmsted, the American Civic Association, the Sierra Club, and the General Federation of Women's Clubs were among the major supporters of the Act.
- Albright left Washington, D.C., in June 1919 to become Superintendent of Yellowstone National Park; he held that post until January 1929. During the last two and one-half years at Yellowstone, he also served as Mather's Assistant Director in the field.
- Alfred Runte, *Trains of Discovery Western Railroads and National Parks* (Niwot, Colorado: Roberts Rinehart, Inc., 1990): 42.
- ³³¹ Lary M. Dilsaver, "Secretary Lane's Letter on National Park Management," in American's National Park System, The Critical Documents. (Lanham, Maryland: Rowman & Littlefield Publishers, Inc., 1994): 51. Horace Albright is the actual author of this letter.
- Albright served in the position of director from January 12, 1929, to August 9, 1933.
- Although a natural feature, Scott's Bluff National Monument at Gering, Nebraska, was the first historical monument established under the Park Service, proclaimed on December 12, 1919. This massive promontory was a landmark on the Oregon Trail.
- ³³⁴ Ise, 194. Cites Shankland's *Steven Mather of the National Parks*. Mather made his fortune in borax prior to his appointment as Park Service director.
- ³³⁵ Ise, 197.

Part II - The Creation of Pipe Spring National Monument

- ³³⁶ Woodbury, 193.
- ³³⁷ Ibid.
- Throughout the agrarian West, 1919 marked the onset of drought, the discontinuance of wartime spending, the elimination of wartime price supports, and the failure of overseas and domestic markets. Utah stock cows that sold for up to \$70 a head in 1917 sold for \$20 a head in 1920. Wool dropped from 60 cents per pound to less than 20 cents per pound. By the time the stock market crashed in October 1929, the total value of Utah livestock had plummeted to \$22 million, down from \$47 million in 1918 (Leonard J. Arrington, *Utah's Audacious Stockman: Charlie Redd.* Logan and Provo: Utah State University Press and the Charles Redd Center for Western Studies, 1995: 105-106).
- Report of the Director of the National Park Service, for fiscal year ending June 30, 1920:
 38. It is unknown if Mather attended the conference and dedication or made his comments from elsewhere. While it is doubtful there is a connection, it is worth noting

- that the date August 26, 1920, is the same date that Heaton sold one-third interest in Pipe Spring water to some cattlemen of Kane, Washington, and Iron counties.
- 340 Ibid., 39.
- ³⁴¹ Report of the Director of the National Park Service, fiscal year ending June 30, 1923: 28.
- Ise, 242. Ise reported that he traveled this road in 1922 and recalled that he "nearly lost the trail at one point. Occasionally a tourist would get lost in the desert at this time and a few deaths were recorded."
- Report of the Director of the National Park Service, for fiscal year ending June 30,1923: 9.
- 344 See Figures 16-18 in Clemensen's report, photos of the fort taken by Mather, now in the National Archives.
- 345 Clemensen, 31.
- Keller and Turek, 71. Authors cite letter from Stephen T. Mather to C. Burke, June 6, 1921
- George W. P. Hunt served as U.S. minister to Siam 1920-1921, so was not the governor at this time. He was elected Arizona's governor for seven nonconsecutive terms between 1912-1932.
- ³⁴⁸ Clemensen, 31. See also Robert H. Keller's interview with Leonard and Edna Heaton, November 8, 1991. Leonard Heaton mistakenly reported this visit took place in 1922.
- Robert H. Keller, interview with Leonard and Edna Heaton, November 8, 1991. The misspelling of Randall Jones as "Maranda" Jones has been corrected in this report.
- At some point during the early 1920s, Jones became a representative of Union Pacific's parks department. No documentation has been located to indicate when this came about. In the *Dudes are Always Right, the Utah Parks Company in Zion National Park, 1923-1972* (unpublished manuscript, 1980: 123). Dena S. Markoff includes a photograph of Randall Jones, noting that he was an early booster of Zion National Park, long-time photographer for Utah Parks Company, and also played an important role in finalizing plans for the Zion-Mt. Carmel Tunnel.
- 351 Stephen T. Mather, letter to George A. Smith, January 18, 1922. Cited in Clemensen, 31.
- Described by George H. Smith, in a letter to Carl R. Gray, October 24, 1923.
- George H. Smith, letter to Carl R. Gray, October 24, 1923 (Smith was the UP's attorney).
- Utah Historian Charles S. Peterson informed the author that by 1912 Utah Governor William Spry was a full-fledged advocate of roads; his successor, Simon Bamberger (1916-1920), was less enthusiastic about "roads to rocks" but continued Spry's initiative.
- Unsigned letter report, October 22, 1921.
- 356 Stephen T. Mather, letter to D. S. Spencer, November 28, 1921.
- ³⁵⁷ Horace M. Albright, letter to Stephen T. Mather, December 17, 1921.
- ³⁵⁸ "Minutes of the Governor's Committee on National Park Development in Utah" and attached memoranda, December 19, 1921.
- 359 "National Park Association in Utah Proposed," Deseret News, December 19, 1921.
- 360 "Highway System to Link Utah Parks Proposed," Deseret News, December 20, 1921.
- 361 Ibid.
- 362 "Zion Park and Cedar Breaks May be United," Desert News, December 20, 1921.
- ³⁶³ Woodbury, 201.
- Report of the Director of the National Park Service, fiscal year ending June 30, 1924: 16.
- 365 "Southern Utah Counties Seek Primary Road," Deseret News, December 20, 1921.

- ³⁶⁶ Alfred Runte, "Pragmatic Alliance Western Railroads and the National Parks," (National Parks & Conservation Magazine (April 1974). In this article, Runte states that this awareness emerged after preservationists lost the 1908 battle to save Yosemite's Hetch Hetchy Valley.
- ³⁶⁷ Runte, 17.
- Maury Klein, Union Pacific The Rebirth, 1894-1969 (New York: Doubleday, 1990): 259.
- ³⁶⁹ Ibid.
- 370 Klein, 263.
- ³⁷¹ Ibid.
- 372 Klein, 262.
- ³⁷³ Klein, 264
- D. S. Spencer, "Zion Our Newest National Park And Other Southern Utah Scenic Attractions," *The Union Pacific Magazine* (January 1922): 31-32.
- ³⁷⁵ Ibid.
- ³⁷⁶ Ibid.
- J. T. Hammond, Jr., memorandum to Utah Parks Company, November 28, 1923. It is uncertain if Hammond is using Oldroyd's correct title. Utah Historian Charles S. Peterson suggested to the author that Oldroyd may have instead held the chairmanship of the State Land Board.
- 378 Stephen T. Mather, letter to Charles B. Petty, April 13, 1922.
- 379 Stephen T. Mather, letter to W. W. Seegmiller, April 13, 1922.
- ³⁸⁰ Woodbury, 203.
- ³⁸¹ "Utah Construction Program of UP Involves \$5,000,000," *The Union Pacific Magazine*, (November, 1922): 15.
- ³⁸² "Southern Utah Soon to See Development," Salt Lake Tribune, March 12, 1923.
- In Mather's 1924 *Report of the Director of the National Park Service*, he states that the hotel was placed in operation in 1924.
- "UP Officials Head New Corporation to Develop State," Deseret News, March 29, 1923.
- ³⁸⁵ "Offer Is Made For Bryce Land," Salt Lake Tribune, May 5, 1923.
- The application was for purchase of "the southeast quarter of the southeast quarter of section 36, township 36 south, range 4 west, Salt Lake meridian." (*Salt Lake Tribune*, May 5, 1923)
- ³⁸⁷ "C. of C. Disapproves U.P. Land Purchase," Desert Evening News, May 14, 1923.
- ³⁸⁸ "Coast Seeks Delta Trade" *Salt Lake Tribune*, May 21, 1923. Charles S. Peterson informed the author that the main UP line went through Delta; the spur line was constructed to Fillmore, about 25-30 miles east of Delta. (Peterson's handwritten comments on draft manuscript, January 1999.)
- ³⁸⁹ "U.P. Has Big Utah Program," Salt Lake Tribune, May 23, 1923.
- ³⁹⁰ "Mabey Relates Facts of Trip," *Salt Lake Tribune*, May 24, 1923. The Lincoln Highway was a route that crossed into northern Utah, from Wyoming toward Ogden. This incident is typical of political infighting that occurred when different regions were competing for road dollars.
- ³⁹¹ Ibid.
- ³⁹² "Club Favors Sale of 40 acres at Bryce Canyon," Desert News, May 25, 1923.
- ³⁹³ "Hotels to be Finished Soon," Salt Lake Tribune, May 28, 1923.
- Randall L. Jones, letter to H. M. Adams, November 10, 1923.

- ³⁹⁵ Randall L. Jones, letter to H. M. Adams, December 19, 1923.
- ³⁹⁶ Randall L. Jones, letter to H. M. Adams, December 10, 1923.
- ³⁹⁷ Carl R. Gray, telegram to George H. Smith, November 22, 1923.
- ³⁹⁸ George H. Smith, "Memorandum of Facts, Utah Park Development," November 26, 1923.
- ³⁹⁹ Heber J. Grant, letter to Stephen T. Mather, May 12, 1923. Cited in Clemensen, 32.
- 400 Heber J. Grant, letter to Stephen T. Mather, May 12, 1923. Cited in "A Brief Report on Pipe Spring National Monument As Reflected by the Early Files of That Area," 1943. (This report is filed under cover letter of October 22, 1943.)
- 401 Stephen T. Mather, letter to Heber J. Grant, May 21, 1923. Cited in Clemensen, 32.
- 402 Stephen T. Mather, letter to Lafayette Hanchett, May 21, 1923. Cited in Clemensen, 32.
- 403 Lafayette Hanchett, June 8, 1923. Cited in "A Brief Report on Pipe Spring National Monument As Reflected by the Early Files of That Area," 1943. It is unknown if Hanchett's letter was addressed to Mather or President Grant. (This report is filed under cover letter of October 22, 1943.)
- ⁴⁰⁴ A. E. Demaray, memorandum to Stephen T. Mather, May 23, 1923. Cited in Clemensen, 33.
- ⁴⁰⁵ Charles H. Burke, memorandum to Hubert Work, May 28, 1923.
- ⁴⁰⁶ William Spry, memorandum to Arno B. Cammerer, May 23, 1923.
- 407 Knack, 228. Knack cites E. C. Finney's Decision on Appeal from the General Land Office, Re: Valentine Scrip Location, Phoenix 04907-K, June 6, 1921.
- 408 Stephen T. Mather, memorandum to Hubert Work, May 29, 1923.
- ⁴⁰⁹ Hubert Work, memorandum to President Warren G. Harding, May 29, 1923.
- ⁴¹⁰ Proclamation No. 1663, May 31, 1923.
- In 1980, National Park Service Historian Berle Clemensen pieced together events that immediately followed the monument's establishment. Some of the information in this part of the history is drawn from his Historic Structure Report, History Data Section, Pipe Spring National Monument with supporting primary documentation referenced. Where primary documentation was available for this period, it was cross-referenced with Clemensen's history.
- ⁴¹² B. L. Vipond, memorandum to E. B. Meritt, June 7, 1923. Cited in Clemensen, 33.
- 413 A. E. Demaray, letter to Heber J. Grant, July 30, 1923. Cited in Clemensen, 34.
- This is part of quote, cited in Part I of this report, taken from Dilsaver, 51.
- 415 Report of the Director of the National Park Service, for fiscal year ending June 30, 1923: 14-15.
- 416 Ibid., 45.
- ⁴¹⁷ National Park Service, Branch of History, "A Brief Report on Pipe Spring National Monument as Reflected by the Early Files of That Area," October 22, 1943 (attached to memorandum from Hillory A. Tolson to A. E. Demaray, October 22, 1943).
- Given the Arizona Strip's close historical and cultural ties to Utah, it is almost easy to forget that Pipe Spring fell under the political jurisdiction of Arizona. Attempts by the researcher to locate newspaper articles published about Pipe Spring in the *Mohave Miner*, local newspaper of Kingman, Arizona (the Mohave County seat), at the time of the monument's establishment were unsuccessful. It is possible that a search of Phoenix's *Arizona Republic* might turn up an article related to the event, or that Governor Hunt's official papers might contain some correspondence on the matter.

The vast majority of National Park Service records related to Pipe Spring, however, document that Mather was in much closer contact with Church and state officials in Utah on the matter than with those in Arizona. While Senator Hayden was very involved in trying to help Charles C. Heaton protect his ownership rights to Pipe Spring, a search of his official papers disclosed no correspondence related to the establishment of the monument. This is an area that could use some additional research.

- ⁴¹⁹ Roger W. Toll, letter to Arno B. Cammerer, November 8, 1932.
- While it is not known for certain if Mather was aware of its plans, the company hardly kept it a secret, having written about their plans in their company magazine in January 1922, referenced earlier in this report.
- Knack, 225. Knack reports that nearly all the small ranchers went out of business until, by 1935, only the Heatons remained.
- Thomas C. Parker, letter to Director Horace Albright, June 6, 1933. The record of the discussion between Heaton and Demaray is referenced in the July 30, 1923, letter from Demaray to Grant.
- While Albright correctly identifies some of the primary contributors toward Pipe Spring's purchase, he neglects to recognize the private citizens who made contributions. The Heatons, of course, also made a considerable contribution.
- One source states that school sections could not be sold in less than a 40-acre tract, so it appears that Utah sold UP 40 acres with the "deal" that UP would then give back 19 of those acres to the state (land that comprised the canyon's rim). Thus one finds some news articles reporting that 40 acres were sold and others saying that 21 acres were sold. Both are in a sense correct, but it's important to know that UP did not *end up* with 40 acres.
- "State Agrees to Sell Bryce Canyon Land to Railroad for Hotel Site," *Deseret News*, June 4, 1923, and "State to Keep Title to Land," *Salt Lake Tribune*, June 5, 1923. The first article contains the terms of the state's counterproposal.
- The article goes on to describe that the two men were to travel from Salt Lake City to Lund, Cedar City, to Zion National Park, Pipe Spring National Monument, the North Rim, then north to Kanab, Bryce Canyon, Richfield and east to Hanksville, "pack train to the natural bridges," Bluff, and finally to Mesa Verde.
- 427 "Scenic Utah to be Viewed," Salt Lake Tribune, June 4, 1923.
- 428 Ibid.
- 429 "Governor Back From Road Trip," Salt Lake Tribune, June 4, 1923.
- 430 "State Officials Leave to View Park Hotel Site," Deseret News, June 1, 1923.
- 431 Ibid. Colonel Samuel C. Lancaster worked for the Oregon Highway Dept. when the Columbia River Highway was built 1913-1922. See also Linda Flint McClelland, Presenting Nature: The Historic Landscape Design of the National Park Service, 1916-1942 (Washington, D.C: Government Printing Office 1993): 103. McClelland writes that this highway "established the state of the art for building scenic roads in mountainous areas." and that it would greatly influence the construction of park roads in the 1930s.
- 432 "Bryce is Made U.S. Monument," Salt Lake Tribune, June 30, 1923.
- Report of the Director of the National Park Service, fiscal year ending June 30, 1924: 15.
- ⁴³⁴ Union Pacific advertising brochure, "President Harding and Zion National Park," undated; probably 1924.
- 435 "Bryce is Made U.S. Monument," Salt Lake Tribune, June 30, 1923.
- 436 Ise, 243. The author does not give the exact date.

- 437 "Hotel Begun at Zion Park," Salt Lake Tribune, June 30, 1923.
- 438 "State Offer for Bryce Land Sale Accepted by U.P.," Deseret Evening News, July 2, 1923.
- 439 "Bryce Hotel Now Assured," Salt Lake Tribune, July 3, 1923.
- Bill of Sale, Union Pacific Archives. Syrett had built a small hotel and a number of tourist cabins at Bryce Canyon since 1919 on land he obtained from Utah under a grazing lease. While his lease expired in 1922 and was not renewed by the state, he did not abandon his improvements until the Utah Parks Company purchased them.
- ⁴⁴¹ B. J. Finch, "Report on Investigation of Routes in Southern Utah," undated and unsigned; investigation made June 19-23, 1923 (F. P. Farquhar Papers, Bancroft Library).
- 442 Ibid.
- "Southern Utah Soon to See Development, " *Salt Lake Tribune*, March 12, 1923. The *Tribune* refers to this section of road as part of the "Salt Lake-Grand Canyon highway" and indicates the improvement work was carried out in 1923.
- 444 Finch, "Report on Investigation of Routes in Southern Utah."
- 445 Ibid.
- 446 Ibid.
- ⁴⁴⁷ "Road Commissioners Favor Shorter Road, Zion Park to Bryce Canyon," *Salt Lake Tribune*, June 26, 1923.
- ⁴⁴⁸ This was reported in Woodbury, 206.
- ⁴⁴⁹ Francis P. Farquhar, letter to Jonathan Heaton, August 25, 1923 (F. P. Farquhar Papers, Bancroft Library).
- ⁴⁵⁰ Jonathan Heaton, note to Francis P. Farquhar, August 31, 1923 (F. P. Farquhar Papers, Bancroft Library).
- ⁴⁵¹ Francis P. Farquhar, letter to Charles Smith, July 4, 1947.
- ⁴⁵² In Keller's 1991 interview with Leonard Heaton, he was told that the Heaton brothers sold one-third of the water to the cattlemen, which included 15 or 20 different men.
- Francis P. Farquhar. "Director Stephen T Mather and Party, Schedule of Trip to Zion National Park, North Rim, Bryce Canyon, and Cedar City, September 3 to 14, 1923" (F. P. Farquhar Papers, Bancroft Library).
- Ibid. From Pipe Spring, Mather's party traveled back via the Kaibab Forest to the North Rim. On September 9 they parted company with Daniel Hull (who set out for El Tovar), heading north from Grand Canyon to Kanab. This time they did not make the detour to Pipe Spring, having concluded their business there on September 7. That evening in Kanab's Rust Highway Hotel, Mather, Harris, and Farquhar made remarks at a meeting of the Young People's Mutual Improvement Association, after which the Honorable James W. Good presented an oration, "Come, come, ye Saints," and "Utah, Star of the West." En route to Bryce Canyon the following day, the party briefly visited with the bishops of Mt. Carmel, Orderville, and Glendale (Sorenson, Carroll, and Hopkins, respectively). On September 10 and 11 Mather's party toured Bryce Canyon and Cedar Breaks, then returned to Cedar City by night train. The next day they attended "Old Home Celebration" and the official dedication of the Union Pacific's spur line to Cedar City. Mather took part in the ceremonies, which were held in the tabernacle, presided over by Randall L. Jones. An entire morning of oratory followed, presented by a host of local and state dignitaries; as well as Union Pacific officials from Los Angeles. Mather and Good also addressed those assembled. A belated train arrived at two o'clock. More speeches ensued, including one by Senator Reed Smoot. Finally, the Harding memorial golden rail was laid. Farquhar, probably worn quite thin

at the end of nine long, hot days of auto touring and a day of speeches, wryly listed the VIPs in attendance: "President Heber J. Grant, President Ivins, Governor Charles R. Mabey, Vice-president Adams of the Union Pacific, Dan S. Spencer, District Forester R. H. Rutledge, President H. W. Lunt, General Sherman, Mr. Lancaster, Carl McStay; not to mention Dusty Rhodes and Goodrich Mudd." As he wound down his log of the day's events, Farquhar humorously remarked that the "Big wind from the orators brought on rain."

- Francis P. Farquhar, letter to Amy Heaton, October 16, 1923 (F. P. Farquhar Papers, Bancroft Library). Myrtle White was Pipe Spring caretaker John White's wife.
- President Grant had informed Mather in May 1923 that Heaton would sell the property for \$5,000, as stated earlier in this report.
- For a discussion of the economic and religious tensions between the idealistic Latterday Saint settlers and Indians on Utah's southern frontier, see Charles S. Peterson's *Take up Your Mission: Mormon Colonizing Along the Little Colorado River* (Tucson: University of Arizona Press, 1973).
- Stephen T. Mather, letter to Ole Bowman, December 10, 1923. Cited in Clemensen, 35
- ⁴⁵⁹ Ole Bowman, letter to Stephen T. Mather, December 20, 1923. Cited in Clemensen, 35.
- 460 Charles C. Heaton, letter to Heber J. Grant, December 18, 1923. Cited in Clemensen, 36.
- ⁴⁶¹ Stephen T. Mather, telegram to Heber J. Grant, January 4, 1924. Cited in Clemensen, 36.
- 462 Stephen T. Mather, letter to Charles C. Heaton, February 11, 1924.
- ⁴⁶³ There is no copy of this letter on file; it is referenced in Mather's letter of March 13 and in Clemensen, 36.
- The documentation that describes what the adjustment consisted of has not been located. Fall's adjustment is referred to by Keller and Turek, 73, with no citation or detail given. It apparently excluded the Pipe Spring tract given that Heaton was asking for a new public water reserve to be established.
- 465 Stephen T. Mather to Charles Burke, March 13, 1924. Cited in Clemensen, 37.
- ⁴⁶⁶ In a later report, Engle writes this section of land was known as "Pasture 2." C. A. Engle, report to Commissioner of Indian Affairs, May 14, 1924. Engle is *not* saying Farrow had developed tunnel spring, only that he had improved Pasture 2.
- This date is inconsistent with the date of August 26, 1920, given by Charles C. Heaton at the September 7, 1923, Pipe Spring meeting when terms of agreement for sale were made with Mather.
- 468 C. A. Engle, letter to Commissioner of Indian Affairs, May 13, 1924.
- ⁴⁶⁹ Ibid.
- ⁴⁷⁰ The first coincidence (if it indeed was one) has already been mentioned: that the date of E. C. Finney's denial of Heaton's application and the date that Stephen T. Mather wrote to Commissioner Burke about his interest in making Pipe Spring a national monument were the same June 6, 1921.
- 471 C.A. Engle, letter to Commissioner of Indian Affairs, May 14, 1924.
- 472 Stephen T. Mather, letter to Charles C. Heaton, May 25, 1924.
- ⁴⁷³ Frank Pinkley, letter report to Stephen T. Mather, June 13, 1924.
- ⁴⁷⁴ Ibid.
- 475 Memorandum of Agreement, June 9, 1924.
- These names were listed in a rider to the water rights record for tunnel spring. Findlay's name was misspelled "Finlay" in this list, Bulloch was misspelled "Bullock," and Lehi was misspelled "Lehigh." That record was taken from a undated, hand-

- written note in the NPS Water Rights Division files for Pipe Spring. The latter indicated that the Sorenson ownership passed to Leonard Heaton some time prior to May 1937. These names are also included in the Robert H. Rose report, September 19, 1933.
- ⁴⁷⁷ Frank Pinkley, letter report to Stephen T. Mather, June 13, 1924.
- ⁴⁷⁸ Arno B. Cammerer, letter to Frank Pinkley, June 20, 1924 (text cited in full).
- ⁴⁷⁹ Francis M. Goodwin, letter to Attorney General, June 25, 1924
- ⁴⁸⁰ Knack, 221.
- Stephen T. Mather, letter to Charles C. Heaton, July 2, 1924.
- 482 Stephen T. Mather, letter to Hubert Work, October 15, 1924.
- ⁴⁸³ Hubert Work, letter to Stephen T. Mather, October 23, 1924.
- ⁴⁸⁴ Keller, 8.
- 485 It is not known when or how he came by this information.
- ⁴⁸⁶ Heber S. Grant, letter to Leonard Heaton, October 10, 1933.
- 487 One might be safe in assuming that McIntyre and Whitmore were related to the two men slain in 1865 at Pipe Spring; what interest the other small donors had the monument's establishment, or who they were, is unknown to the author.
- ⁴⁸⁸ Robert A. Burns, letter to Jonathan Heaton, May 7, 1926.
- 489 Stephen T. Mather, letter to Charles C. Heaton, March 13, 1924.
- ⁴⁹⁰ Ibid.
- John White to Stephen Mather, November 16, 1923; Stephen Mather to Charles C. Heaton, November 24, 1923; Stephen Mather to Charles C. Heaton, February 11, 1924; Frank Pinkley to Stephen Mather, June 28, 1924; A. E. Demaray to Frank Pinkley, July 9, 1924. All cited in Clemensen, 38-39.
- 492 Stephen T. Mather, letter to Carl Gray, October 9, 1923 (F. P. Farquhar Papers, Bancroft Library).
- ⁴⁹³ "Mather Details Possibilities of Southern Utah Attractions," *Salt Lake Tribune*, December 9, 1924.
- ⁴⁹⁴ The story of the Rockville cutoff is long and very involved. Mather played a critical role in getting it constructed. For details, see 1924 correspondence from Union Pacific archives.
- 495 "Southwest Circle Tour Roads and Bridges," U.S. Department of the Interior, National Park Service, Government Printing Office, 1994.
- ⁴⁹⁶ "Highways in Harmony: Southwest Circle Tour Roads and Bridge," U.S. Department of the Interior, National Park Service, Government Printing Office, 1994.
- ⁴⁹⁷ The Virgin River Bridge was still under construction at the end of 1924.
- 498 Stephen T. Mather, telegram to D. S. Spencer, April 29, 1924. Attached to D. S. Spencer report to H. M. Adams, May 1, 1924.
- ⁴⁹⁹ Randall Jones, letter to H. M. Adams, July 14, 1924.
- 500 "2 Zion Park Road Connections Are to be Improved," *Deseret News*, July 18, 1924. See also "Parks Committee Assures Finances for Road Programs," *Deseret News*, July 18, 1924.
- 501 "\$200,000 Will Be Spent in 1925 in Advertising Southern Utah Wonders," *Salt Lake Tribune*, November 25, 1924.
- 502 Ibid. Union Pacific must have purchased these in 1924, as they offered their first circle tour that year.

503 "Mather Details Possibilities of Southern Utah Attractions," Salt Lake Tribune, December 9, 1924. No reference is made in this article to Pipe Spring National Monument, which printed only excerpts of Mather's annual report.

Part III - The Monument's First Ten Years

- ⁵⁰⁴ Report of the Secretary of the Interior, fiscal year 1928: 5.
- ⁵⁰⁵ Ise, 243.
- 506 Report of the Director of the National Park Service, fiscal year ending June 30, 1930: 174, 177.
- ⁵⁰⁷ Ibid., 173.
- Most tourism began there after the Santa Fe Railroad built a spur line to Williams, Arizona in 1901 and constructed the El Tovar Hotel in 1904.
- W. W. Wylie first established Wylie camps in Yellowstone National Park. "Wylie Way" camps were later established at Zion and the North Rim of the Grand Canyon and operated by permit through 1922. These camps were the forerunners of the later lodge system.
- The word "stage" was used to denote rail travel during the 1920s. In the case of travel in southern Utah and northern Arizona, travel was a combination of rail (to Cedar City) and motor coach (bus) travel.
- Report of the Director of the National Park Service, fiscal year ending June 30, 1924: 43.
- ⁵¹² Report of the Director of the National Park Service, fiscal year ending June 30, 1925: 127.
- 513 "Notes of C. Leonard Heaton on Pipe Springs National Monument" [Heaton Journal] January 1928. Heaton began to keep a monthly journal in early 1928, which became almost a daily journal beginning in February. He continued this only through May 1928. (He did send monthly reports to Pinkley, however, and Pinkley then excerpted portions of Heaton's remarks for his own monthly reports to the director.) Heaton did not resume his journal keeping until October 1935. From that point on, he maintained a daily journal until his retirement in September 1964.
- ⁵¹⁴ Heaton Journal, February 1928.
- ⁵¹⁵ Heaton Journal, May 23, 1928.
- The monument has also in its collection film footage of the men at Pipe Spring that day (Andrea Bornemeier, review comment to Kathleen L. McKoy, July 1999).
- Report of the Director of the National Park Service, fiscal year ending June 30, 1929:
 50, 159. Most of the southwestern national monuments have only estimated visitation figures reported in the annual reports.
- Report of the Director of the National Park Service, fiscal year ending June 30, 1930:78.
- 519 The road was also designated State Highway 40 at some point.
- 520 Linda Flint McClelland, Presenting Nature: The Historic Landscape Design of the National Park Service, 1916-1942. Washington, D.C: Government Printing Office, 1993.
- ⁵²¹ Heaton reported Coolidge was 510 driving miles from Pipe Spring in the 1930s.
- ⁵²² Report of the Director of the National Park Service, fiscal year ending June 30, 1923: 82.
- ⁵²³ Report of the Director of the National Park Service, fiscal year ending June 30, 1929: 155.
- ⁵²⁴ Report of the Director of the National Park Service, fiscal year ending June 30, 1926: 153.
- 525 As mentioned in Part II, Charles C. Heaton unofficially oversaw White's activities.
- ⁵²⁶ Frank Pinkley, monthly report to Stephen Mather, August 1, 1925. Cited in Clemensen, 41.

- 527 Stephen T. Mather to Frank Pinkley, September 8, 1923. Cited in Clemensen, 38. It is unknown if he followed Mather's advice, but no documentation has been located that indicates restoration funds were ever received from the State of Arizona.
- 528 Southwestern Monuments Monthly Report, November 5, 1923. Cited in Clemensen, 38. It is not known is meant by "provide experience with local materials and labor." Perhaps Pinkly wanted local workmen to gain experience on the secondary buildings prior to employing them on any fort restoration work. (Original report unavailable.)
- 529 Attached to an October 22, 1943, memorandum to Associate Director Arthur B. Demaray, is a report on early monument files which notes the following of Pinkley's role in the restoration of the monument's historic buildings: "Mr. Pinkley's advice appears to have been sound, but the restoration work went forward without any qualified historical or architectural supervision."
- ⁵³⁰ "Questions on History of Pipe Spring Answered by Dilworth Woolley," cited in Clemensen, 61.
- 531 Clemensen, 61.
- 532 Clemensen, 40.
- ⁵³³ Heaton Journal, February 8, 1961.
- Grant Heaton reported that Leonard attended his last years of high school in St. George and believed he graduated but did not mention any college. Interview by Kathleen L. McKoy, September 27, 1997. A letter from Paul R. Franke to Hugh Miller dated July 18, 1955, states that Heaton attended several years of college at Brigham Young University.
- Leonard Heaton, letter to Mrs. J. Groesbeck, May 23, 1961; reference to having worked in 1925 and to the horse "Snake" in Heaton Journal, February 8, 1961. No documentation has been found that suggests any prior "deal" was made to hire Heaton when the government acquired the property from his father, Charles C. Heaton. If there had been such an understanding, the Park Service would not have needed White to stay on as long as he did.
- ⁵³⁶ He did not get the title of Custodian until 1932.
- "In 1926 February 8, I came to Pipe Spring to look after the monument for the National Park Service, for the privilege of operating a service station and lunch counter. This I did for four years." Leonard Heaton, letter to Mrs. J. Groesbeck, May 23, 1961. (In the 1991 Keller interview, Heaton reported he operated the store "for about five years.")
- 538 Frank Pinkley, letter report to Stephen T. Mather, May 3, 1926.
- Grant Heaton, interview by Kathleen L. McKoy, September 27, 1997.
- A handwritten note on the accompanying memo to Acting Director Arno B. Cammerer stated "No permit issued to Leonard Heaton in 1932. H.H."
- Grant Heaton, interview by Gaylan Hoyt, August 8, 1998.
- Commenting on a draft of this manuscript, Utah Historian Charles S. Peterson pointed out that local ranchers, traders, and tour guides were frequently necessary points of access to remote areas of the Four Corners region. At Hubbell Trading Post, John Lorenzo Hubble and his son Lorenzo played a role similar to the role of the Heatons at Pipe Spring; so did Zeke Johnson, caretaker at Natural Bridges National Monument (Charles S. Peterson, review comments, attached to letter to Superintendent John Hiscock, January 28, 1999).
- ⁵⁴³ Bob Keller, "Interview Between Dr. Bob Keller and Leonard and Edna Heaton, Pipe Spring National Monument, Moccasin, Arizona," November 8, 1991: 4.
- ⁵⁴⁴ Report of the Director of the National Park Service, fiscal year ending June 30, 1929.
- ⁵⁴⁵ Keller, 12.

- ⁵⁴⁶ Report of the Director of the National Park Service, fiscal year ending June 30, 1926: 154.
- ⁵⁴⁷ Frank Pinkley, letter report to Stephen T. Mather, October 1, 1926.
- Leonard Heaton, quoted by Frank Pinkley, letter report to Stephen T. Mather, March 1, 1928. See letter for more detail on work involved.
- 549 Southwestern Monuments Monthly Report, March 1, 1927. Cited in Clemensen, 46.
- ⁵⁵⁰ For details see Clemensen, 43-44.
- This site is also spelled "Bull Rush Wash" in old reports and correspondence.
- 552 Clemensen, 51. Clemensen does not cite his source for this information.
- 553 Leonard Heaton, interview by Berle Clemensen, January 24, 1980. Cited in Clemensen, 51.
- Leonard Heaton, monthly report, February 24, 1936.
- 555 Keller, 18-19.
- Other documentation suggests the Heatons lived only on the second floor of the upper house in the first years.
- ⁵⁵⁷ Grant Heaton, interview by Kathleen L. McKoy, September 27, 1997.
- Leonard Heaton, quoted by Frank Pinkley, letter report to Horace M. Albright, March 10, 1930.
- ⁵⁵⁹ Leonard Heaton, quoted by M. O. Evanstad, letter report to Horace M. Albright, November 13, 1930.
- Leonard Heaton, letter to Frank Pinkley, July 31, 1933.
- 561 Southwestern Monument Monthly Report, for January, March, May 1928. Also Leonard Heaton's Journals for 1928: February 21, 23; March 11, 21, 27; April 23.
- ⁵⁶² Clemensen states the work was completed by March, but Heaton's reports for this period indicate otherwise (see endnote 44).
- 563 Clemensen, 53.
- Leonard Heaton, quoted by Frank Pinkley, letter report to Stephen T. Mather, June 1, 1928.
- ⁵⁶⁵ Frank Pinkley, letter report to Stephen T. Mather, September 5, 1928.
- Frank Pinkley, memorandum to Stephen T. Mather, August 14, 1926; Leonard Heaton to Frank Pinkley, September 12, 1926; Leonard Heaton to Frank Pinkley, April 29, 1927; interview of Leonard Heaton by Berle Clemensen, January 24, 1980. All cited in Clemensen, 53.
- 567 Clemensen, 58.
- Harry Langley, letter to Charles E. Peterson, March 21, 1930. Langley describes Ruestch as "a native who has not only visited the Monument but has lived there" (Harry Langley, letter to Charles E. Peterson, March 21, 1930). It is unknown under what conditions Ruetsch "lived" at Pipe Spring; perhaps he was a caretaker at one time for a prior owner.
- Leonard Heaton, quoted by Frank Pinkley, letter report Horace M. Albright, September 5, 1929.
- Three years later, Frank Pinkley wrote in a May 7, 1935, letter to Director Arno B. Cammerer that Heaton's position at that time was "Laborer, Grade 4," annual salary, \$1,200.
- Leonard Heaton, letter to Frank Pinkley, December 22, 1932.
- The Heaton children were born in the following order: Kezia Maxine, June 16, 1927; Charles Clawson, November 20, 1928; Dear R., July 29, 1930; Leonard P., August 12, 1932; Lowell H., April 9, 1934; Sherwin, November 10, 1936; Gary A., August 14, 1939; Olive, November 21, 1942; Claren Robertson, June 24, 1944; and Millicent, May 20, 1947 (genealogical data provided by monument staff).

- Leonard Heaton, letter to Mrs. J. Groesbeck, May 23, 1961.
- 574 Ibid.
- ⁵⁷⁵ Heaton Journal, September 29, 1941.
- 576 Southwestern Monument Monthly Report, December 1932.
- 577 Ibid.
- ⁵⁷⁸ Ibid.
- 579 Birds mentioned in Leonard Heaton's journal include the Green-tailed Towhee, Gambel quail, Nevada savanna sparrow, English song sparrows, robin, meadowlark, killdeer, crow, seagull, red-breasted nuthatches, long-tailed Chat, Clark nutcracker, junco, Canyon wren, Gambel sparrow, black birds, finches, shrike, sage thrasher, spotted robin, Western Vesper sparrow, flycatcher, kingfisher, Burid sparrow, Deseret sparrow hawk, horn finches, "Scarpner," woodpeckers, golden eagles, red-shafted flicker, vermilion flycatcher.
- Reptiles notes are the Stephegers blue-bellied lizard, tiger lizard, blow snake, king snake, spotted night snake, Kingmakers, and the ever-present rattlesnake.
- Leonard Heaton, quoted by Frank Pinkley in letter report to Horace M. Albright, August 5, 1931. Heaton reported that the rattlesnakes particularly liked the west cabin that summer.
- Leonard Heaton, quoted by Frank Pinkley in letter report to Horace M. Albright, June 6, 1932.
- The store is shown on a number of maps, including NM/PS-4933, dated December 1933, and NM/PS-4941, dated April 1936. Both identify the building as "stone store building." Leonard Heaton also shows it in a 1932 hand-sketched map, identified as "house."
- In a 1961 letter Heaton reported he operated the store for four years. Leonard Heaton, letter to Mrs. J. Groesbeck, May 23, 1961.
- According to Grant Heaton, Maggie Heaton (wife of Charles C. Heaton) also owned and operated a small store in Moccasin, which still stands.
- ⁵⁸⁶ Grant Heaton, interview by Kathleen L. McKoy, September 27, 1997.
- ⁵⁸⁷ Keller, 1.
- Warren Mayo, interview by David E. Ruppert and Kathleen L. McKoy, March 25, 1997.
- ⁵⁸⁹ Lita Segmiller, interview by David E. Ruppert and Kathleen L. McKoy, March 25, 1997.
- ⁵⁹⁰ Ibid.
- ⁵⁹¹ Ibid.
- ⁵⁹² Ibid.
- ⁵⁹³ Ibid.
- ⁵⁹⁴ Leonard Heaton, quoted by Frank Pinkley in letter report to Horace M. Albright, September 4, 1930.
- ⁵⁹⁵ Leonard Heaton, quoted by Frank Pinkley in letter report to Horace M. Albright, November 5, 1931.
- 596 Leonard Heaton, quoted by Frank Pinkley in letter report to Horace M. Albright, August 1932.
- ⁵⁹⁷ Leonard Heaton, quoted by Frank Pinkley in letter report to Horace M. Albright, October 1, 1932.
- ⁵⁹⁸ Leonard Heaton, letter to Frank Pinkley, October 24, 1933. It is not known where roundups were held this year or in later ones. The year had been very dry resulting in poor grazing

- conditions. Most of the cattlemen planned to sell most of their stock that fall, figuring on significant losses if the winter brought snow. (Heaton's monthly report for September 1933.)
- Leonard Heaton, quoted by Frank Pinkley in letter report to Horace M. Albright, December 2, 1931.
- The Mutual Improvement Association (MIA) was a Church-sponsored group for girls and young women divided by age: the youngest were the Beehive Girls (ages 12-13), the MIA Maids (ages 14-15), and the Gleaner Girls (16 and older), now referred to as the Laurels. (LaVina Heaton, oral communication to Debra Judd, August 1999.)
- Leonard Heaton, monthly report, July 26, 1933.
- Heaton Journal, April 17, 1949. On Easter Sunday, had "about 20 cars & 70 or more people out to picnic..." One of the visitors was Mrs. Elvira Winsor Jahovac, great great granddaughter of Bishop A. P. Winsor.
- 603 Heaton Journal, May 17, 1941.
- 604 Leonard Heaton, "Guide for Lecture to Visitors," undated, ca. 1945. The campground at that time was located southeast of the fort, below the road that passed through the monument. That would have put the Heaton brothers' pond approximately in the location used today as a vegetable garden.
- 605 Ibid., 4.
- 606 Ibid.
- 607 Grant Heaton, interview by Kathleen L. McKoy, September 27, 1997.
- 608 Heaton, "Guide for Lecture to Visitors," 4.
- 609 Ibid.
- 610 Leonard Heaton, letter to Frank Pinkley, January 7, 1932. Horace Albright didn't particularly care for all these chickens running around the monument; he requested that Heaton keep them away from the fort.
- 611 Leonard Heaton wrote to Frank Pinkley on June 19, 1931, "...will spend the next 4 weeks catching fawn." According to Grant Heaton, Leonard captured fawn then raised them for a time before selling them to the Forest Service. (This was common practice in Fredonia at the time, monument staff informed the author.) Frequently a few of the captured fawn would die before Heaton could sell them.
- Many of these landscape features are shown on sketch map of the monument prepared in 1932 by Leonard Heaton. That map is included in Part IV of this report.
- 613 Clemensen, 42.
- Frank Pinkley, letter report to Stephen T. Mather January 1, 1928: "[Heaton] has been working on the road west of the monument which goes to Zion National Park. Some money is being expended on this road ...as it is one of the weakest links in the chain of roads north of the Grand Canyon."
- Using a historic photograph in the monument's collection, Landscape Architect Peggy Froeschauer Nelson identified the original location of the watering holes during a 1997 Cultural Landscape Inventory of the fort's landscape.
- Leonard Heaton, monthly report, April 1, 1928. The location of the new stock watering holes has yet to be determined.
- 617 Leonard Heaton, quoted by Frank Pinkley, letter report to Stephen T. Mather, September 5, 1928.
- Leonard Heaton, quoted by M. O. Evenstad, letter report Horace M. Albright, August 6, 1929.

- Leonard Heaton, quoted by M. O. Evenstad, letter report Horace M. Albright, July 10, 1929.
- 620 The earliest camping areas are not shown on any maps located to date.
- When Park Service official Harry Langley made the first proposal to construct a formal campground at PISP in late 1933, this was the general area he suggested be used. His report will be referenced later.
- 622 Leonard Heaton, quoted by M. O. Evenstad, letter report Horace M. Albright, August 6, 1929.
- 623 Leonard Heaton, quoted by Frank Pinkley, letter report to Director, December 3, 1929.
- 624 Leonard Heaton, letter report to Frank Pinkley, May 26, 1932.
- 625 Since all of the published tours in 1929 going from southern Utah to the North Rim state that tours were to travel the Zion-Mt. Carmel Highway, and the tour season began June 1, it suggests that the road may have been opened to UP travel prior to its official opening.
- 626 Klein, 267.
- Leonard Heaton kept a journal for part of 1928, then did not resume keeping it until October 1935.
- ⁶²⁸ Leonard Heaton, quoted by Frank Pinkley, letter report to Horace M. Albright, February 10, 1930.
- 629 Leonard Heaton, quoted by Frank Pinkley, letter report to Horace M. Albright, March 10, 1930.
- 630 Leonard Heaton, quoted by Frank Pinkley, letter report to Horace M. Albright, April 10, 1930.
- Leonard Heaton, quoted by Frank Pinkley, letter report to Horace M. Albright, July 16, 1930.
- 632 Leonard Heaton, quoted by Frank Pinkley, letter report to Horace M. Albright, August 13, 1930.
- 633 Leonard Heaton, quoted by Frank Pinkley in letter report to Horace M. Albright, July 6, 1932.
- Report of the Director of the National Park Service, fiscal year ending June 30, 1930: 180.
- 635 Report of the Director of the National Park Service, for fiscal years ending 1931 and 1932: 114 and 88, respectively.
- 636 Ibid., 173.
- 637 "A New Highway...Through a Mountain!" Union Pacific Archives, Utah Parks Company collection.
- 638 Report of the Director of the National Park Service, fiscal year ending June 30, 1930: 78.
- 639 National Park Service. "Zion and Bryce Canyon National Parks, Utah," 1930.
- 640 Leonard Heaton, quoted by Frank Pinkley in letter report to Horace M. Albright, October 1, 1932.
- ⁶⁴¹ Report of the Director of the National Park Service, fiscal year ending June 30, 1923: 20.
- ⁶⁴² Report of the Director of the National Park Service, fiscal year ending June 30, 1929: 156.
- Report of the Director of the National Park Service, for fiscal year ending June 30, 1926: 7.
- During the early 1930s, Park Service officials responding to media inquiries about Pipe Spring often referred them to Heaton for detailed information. Thus, newspaper or magazine articles also repeated the history as the monument's caretaker then told it.
- 645 Leonard Heaton, monthly report, September 25, 1935.

- Note believed to have been attached to letter from Frank Pinkley to A. E. Demaray, January 22, 1931. (Rest of letter missing.)
- 647 Leonard Heaton, monthly report, October 24, 1933.
- In a letter dated January 10, 1941, Heaton reported uncovering a double burial while digging trenches for the sewer system. In this case, he placed the bones back in the trench, covered them up and notified Superintendent Miller at Southwestern National Monuments.
- 649 Leonard Heaton, monthly report, May 24, 1933.
- 650 Grant Heaton, interview by Kathleen L. McKoy, September 27, 1997.
- 651 Leonard Heaton, monthly report, September 25, 1935.
- 652 Grant Heaton, interview by Kathleen L. McKoy, September 27, 1997.
- 653 Southwestern Monument Monthly Report, June 1933.
- 654 Leonard Heaton, monthly report, October 24, 1933.
- 655 Leonard Heaton, cited in George A. Moskey, letter to Leonard Heaton, July 29, 1933.
- 656 Ibid.
- Lafayette Hanchett, letter to John D. Giles, December 10, 1930; and E. T. Scoyen, letter to Horace M. Albright, December 28, 1930.
- 658 Horace M. Albright, letter to E. T. Scoyen, January 5, 1931.
- 659 Frank Pinkley, letter to Horace M. Albright, January 22, 1931.
- 660 Southwestern Monuments Monthly Report, March 1933.
- 661 Leonard Heaton, letter to Frank Pinkley, June 19, 1931. It appears that the reason for Charles C. Heaton's trip was to confer with officials on the water crisis at Pipe Spring (see Part IV).
- George Albert Smith, letter to Arno B. Cammerer, August 10, 1933. (Smith was also one of the Church's Council of Twelve; he succeeded Heber J. Grant as Church President in 1945.)
- The original text proposed for the plaque contained another sentence added at this point: "The Washington County Militia recovered the bodies and seven Indians were killed." It is unknown why the association had this statement omitted from the marker when it was cast.
- 664 Leonard Heaton, letter to Frank Pinkley, September 7, 1933.
- 665 Leonard Heaton. "Historical [sic] and Facts Pertaining to Pipe Spring National Monument, Arizona," 4-5.
- 666 Leonard Heaton, "Some Early History of Pipe Spring National Monument," *Southwestern Monuments Monthly Report Supplement*, April 1936: 300.

Part IV - The Great Divide

- See Part II of this report for information regarding this agreement.
- 668 Edgar A. Farrow, letter to Charles H. Burke, January 7, 1925.
- ⁶⁶⁹ A discussion of Engle's report is included in Part II.
- The district's Supervising Engineer, L. M. Holt, stated in a letter to the Commissioner of Indian Affairs of February 20, 1934, that "it has not been definitely determined whether the many dry years have reduced the flow of the Springs, or whether the development of water above may have reduced their flow." Thus, the 10-year drought could have been to blame for the decrease in spring flow rather than the Heatons' activities.
- 671 Edgar A. Farrow, letter to Charles H. Burke, January 29, 1925.

- 672 Ibid. Although Charles Heaton was the legal owner of this property, it is apparent from this conversation that Jonathan Heaton was still in large part in control of what went on in Moccasin.
- 673 The white population of Moccasin in 1921 was 39; by the early 1940s it had reached 63. The Indian population remained larger than the white population, increasing from 73 in 1906 to 94 in 1926.
- 674 Edgar A. Farrow, letter to Charles H. Burke, January 27, 1926.
- 675 E. B. Meritt, letter to Edgar A. Farrow, February 26, 1926.
- 676 Charles S. Peterson noted that Leo A. Snow made the original recommendation that later led to the establishment of Mukuntuweap National Monument (later, Zion National Park) after his General Land Office survey of the area (Peterson's handwritten comments on draft manuscript, January 1999).
- 677 Leo A. Snow, letter report to Edgar A. Farrow, September 1, 1926.
- 678 Ibid.
- 679 Ibid.
- 680 C. A. Engle, letter to E. A Farrow, November 2, 1926.
- ⁶⁸¹ Henry W. Dietz, "Report on Water Supply of the Kaibab Reservation, Arizona," November 1914: 6.
- ⁶⁸² For information about these other controversial areas see Martha C. Knack, "Interethnic Competition at Kaibab during the early Twentieth Century."
- ⁶⁸³ It appears from correspondence during this period that at least in the early 1930s, a Mr. Hanrion was in charge of overseeing day-to-day operations at the reservation.
- ⁶⁸⁴ This visit is reported in *American Indians & National Parks*, Robert H. Keller and Michael F. Turek, (Tucson: University of Arizona Press, 1998): 77.
- 685 Ibid.
- ⁶⁸⁶ T. N. Neske to Charles H. Burke, August 15, 1928. Cited in Keller and Turek, 77.
- 687 Collier was a vigorous and unrelenting critic of the prevailing belief that Indians should be assimilated into the "superior" white society. For additional information on John Collier's remarkable role as reformer, see Lawrence C. Kelly's "John Collier and the Indian New Deal: An Assessment," in Jane F. Smith and Robert M. Kvasnicka, eds. *Indian-White Relations, A Persistent Paradox* (Washington D.C.: Howard University Press, 1976): 227-241.
- ⁶⁸⁸ E. B. Meritt, letter to Secretary of the Interior, August 24, 1926. Other sources indicate the Indians' cooperative cattle business was fairly successful during this period.
- 689 See Parts I and II of this report for references to these three reports and full citations.
- 690 Holt was based in Salt Lake City and in charge of District 2 since 1931.
- ⁶⁹¹ J. Henry Scattergood, letter to Horace M. Albright, August 30, 1929. A copy of Holt's report has not been located.
- ⁶⁹² Arno B. Cammerer, letter to Charles J. Rhoads, September 12, 1929.
- 693 Charles J. Rhoads, letter to Horace M. Albright, September 30, 1929.
- ⁶⁹⁴ Frank Pinkley, letter to Horace M. Albright, October 10, 1929.
- 695 Ibid.
- 696 Ibid.

- 697 By time-division, Pinkley meant arranging for the monument to use the whole spring output during the day, "when we have visitors," and letting the Indian Service use it from night until morning, "when we can best spare it."
- Heaton spelled it. The former spelling was used as Ben Sorenson was a member of the cattlemen's association that watered stock at Pipe Spring.
- ⁶⁹⁹ Frank Pinkley, letter to Leonard Heaton, April 23, 1931.
- In this account, it is stated that the Heatons had 3,000 acres of reservation land enclosed by their fences, as opposed to the 4,000 acres referenced in other reports. All of this land had been enclosed while the land was still public domain, i.e., prior to 1907. Rhoads states that the 3,000 acres *included* the three homestead claims of Charles, Lucy, and Fred Heaton for which patents were issued. This also is a discrepancy with other documentation.
- 701 Charles J. Rhoads, letter to the Secretary of the Interior, April 15, 1931.
- 702 This event is fully chronicled in Part II.
- 703 Charles J. Rhoads, letter to the Secretary of the Interior, April 15, 1931. No Park Service records of this meeting have been located.
- George C. Coggins, Public Natural Resources Law. (New York: Clark Boardman Company, Ltd., 1990): 4-41. See also Charles J. Meyers, Water Resource Management A Coursebook in Law and Public Policy. (Mineola, NY: The Foundation Press, Inc. 1980): 201-205.
- ⁷⁰⁵ E. C. Finney, letter to Secretary of the Interior, May 6, 1931.
- ⁷⁰⁶ Charles J. Rhoads, letter to Edgar A. Farrow, May 21, 1931.
- Frank Pinkley, letter to Thomas Vint, May 18, 1931.
- ⁷⁰⁸ Frank Pinkley, letter to Horace M. Albright, June 18, 1931.
- ⁷⁰⁹ Frank Pinkley, letter to Leonard Heaton, June 20, 1931.
- ⁷¹⁰ Leonard Heaton, letter to Frank Pinkley, June 10, 1931.
- There may be other reasons he went to Salt Lake City other than to seek out Smith's support. Although more research would need to be conducted to substantiate this, this researcher has the impression that most of the money privately raised to purchase Pipe Spring came not from local ranchers at all, but from men with Salt Lake City and probably Church connections. It was because southern Utah ranchers did not contribute to the fund that Charles Heaton had to come up with the extra \$500.
- ⁷¹² Leonard Heaton, letter to Frank Pinkley, January 7, 1932.
- ⁷¹³ Frank Pinkley, letter to Leonard Heaton, January 14, 1932.
- 714 Chief Clerk, letter to Frank Pinkley, February 9, 1933. Later correspondence indicates this position was Grade 4.
- ⁷¹⁵ Leonard Heaton, letter to Frank Pinkley, May 26, 1932.
- ⁷¹⁶ The information from this point forward in this paragraph and the following one is taken from Knack, 230-232.
- 717 Charles J. Rhoads, letter to Carl Hayden, October 20, 1932. Cited in Knack.
- ⁷¹⁸ B. S. Garber, letter to Horace M. Albright, August 26, 1932.
- ⁷¹⁹ Arno B. Cammerer, letter to Commissioner of Indian Affairs, August 30, 1932.
- Arno B. Cammerer, letters to Frank Pinkley and to Leonard Heaton, both August 30, 1932.

- A copy of Smith's letter has not been located. It is referenced in a letter from Reed Smoot to George A. Smith, October 26, 1932.
- ⁷²² Charles J. Rhoads, letter to Senator Smoot, October 25, 1932. (No copy of Smoot's letter has been located, but Rhoads references his letter of October 4.)
- 723 Ibid.
- Reed Smoot, letter to George A. Smith, October 26, 1932.
- ⁷²⁵ George A. Smith, letter to Charles C. Heaton, November 21, 1932.
- ⁷²⁶ Leonard Heaton, letter to Horace M. Albright, October 7, 1932.
- 727 Ibid.
- ⁷²⁸ Horace M. Albright, letter to Leonard Heaton, October 25, 1932.
- ⁷²⁹ Leonard Heaton, letter to Horace M. Albright, November 7, 1932.
- 730 Ibid.
- 731 Ibid.
- ⁷³² Arno B. Cammerer, letter to Commissioner of Indian Affairs, December 8, 1932.
- 733 Ibid.
- ⁷³⁴ J. Henry Scattergood, letter to Horace M. Albright, December 27, 1932.
- Ibid. In her article describing this period and Scattergood's letter, Martha C. Knack states that the monument's landscaping activities ca. 1932 (just after Finney's 1931 decision) included adding a campground and two additional reservoirs (Knack: 229-230). This is untrue. No additional reservoirs were constructed after the 1926 meadow ponds. The new campground was not sited until the fall of 1933 (it was constructed in 1934). Heaton did not begin planting trees in that area until the winter of 1933-1934.
- 736 Ibid.
- ⁷³⁷ Ise, 442.
- ⁷³⁸ Arno B. Cammerer, letter to Leonard Heaton, January 4, 1933.
- ⁷³⁹ Leonard Heaton, letter to Frank Pinkley, January 11, 1933.
- ⁷⁴⁰ Ibid.
- 741 Ibid.
- Thid. One can only speculate, given the racism of the times, what Heaton meant by this statement. Within the context of this letter, he appears to be suggesting that something dark and sinister is behind the Indian Service's attempts to get water for the Indians.
- 743 Ibid.
- 744 Ibid.
- ⁷⁴⁵ Leonard Heaton, letter to Frank Pinkley, January 11, 1933 (second letter).
- ⁷⁴⁶ Charles J. Rhoads, letter to Horace M. Albright, February 13, 1933.
- Horace M. Albright, telegram to Leonard Heaton, February 24, 1933.
- ⁷⁴⁸ Leonard Heaton, letter to Edgar A. Farrow, February 24, 1933.
- Leonard Heaton, letter to Frank Pinkley, February 24, 1933. In fact, the meadow was not there when the monument was created; it grew up after the meadow ponds were constructed in 1926 and 1927.
- ⁷⁵⁰ Ibid.
- ⁷⁵¹ Frank Pinkley, letter to Leonard Heaton, March 11, 1933.
- ⁷⁵² Leonard Heaton, letter to Frank Pinkley, March 24, 1933.
- 753 Ibid.

- ⁷⁵⁴ Leonard Heaton, letter to Edgar A. Farrow, March 29, 1933.
- ⁷⁵⁵ Leonard Heaton, letter to Frank Pinkley, March 29, 1933.
- 756 Charles J. Rhoads, letter to Edgar A. Farrow, April 3, 1933.
- ⁷⁵⁷ Referenced in John Collier, letter to Horace M. Albright, May 9, 1933. There was a signature line provided for the Park Service Director on the original letter but the copy obtained as part of the author's research does not have the Director's signature.
- ⁷⁵⁸ In one report Heaton says they started work on April 5; in another letter he states they started on April 4.
- ⁷⁵⁹ Leonard Heaton, letter to Frank Pinkley, April 7, 1933.
- ⁷⁶⁰ Edgar A. Farrow, letter to Charles J. Rhoads, April 19, 1933.
- ⁷⁶¹ Leonard Heaton, letter to Horace M. Albright, April 22, 1933.
- ⁷⁶² Leonard Heaton, monthly report, April 25, 1933.
- ⁷⁶³ Frank Pinkley, letter to Horace M. Albright, April 12, 1933.
- ⁷⁶⁴ Ibid.
- 765 Horace M. Albright, letter to the Commissioner of Indian Affairs, April 27, 1933
- ⁷⁶⁶ John Collier, memorandum to Horace M. Albright, May 9, 1933.
- ⁷⁶⁷ Ibid.
- ⁷⁶⁸ Keller and Turek, 79.
- Heber J. Meeks, Lee J. Esplin, Fred C. Heaton, Gilbert G. Heaton; letter to William King, May 15, 1933. Cited in Knack.
- ⁷⁷⁰ Leonard Heaton, monthly report, April 24, 1933.
- Leonard Heaton, letter to Horace M. Albright, May 26, 1933.
- Arno B. Cammerer, letter to Leonard Heaton, May 26, 1933.
- 773 Ibid.
- 774 Southwestern Monuments Monthly Report, June 1933.
- ⁷⁷⁵ It is unknown who this official was. Heaton spelled the name "Linzie" while Farrow spelled the name "Lenzie." The latter spelling was used.
- ⁷⁷⁶ Leonard Heaton, letter to Bob Rose, December 25, 1933.
- 777 Thomas C. Parker, letter to Horace M. Albright, June 6, 1933.
- 778 Ibid.
- 779 Ibid...
- ⁷⁸⁰ Leonard Heaton, letter to Edgar A. Farrow, June 5, 1933. Heaton makes no mention of the stockmen's water, thus it is presumed he is referring only to the water source that supplied the fort ponds.
- ⁷⁸¹ Edgar A. Farrow, letter to Leonard Heaton, June 24, 1933.
- ⁷⁸² Leonard Heaton, letter to Horace M. Albright, June 26, 1933.
- ⁷⁸³ Leonard Heaton, letter to Frank Pinkley, July 31, 1933.
- ⁷⁸⁴ Langley's official title at Grand Canyon was Assistant Architect, but he was a Landscape Architect who worked for Chief Landscape Architect Thomas C. Vint's Landscape Division, San Francisco.
- ⁷⁸⁵ Frank Pinkley, letter to Leonard Heaton, August 5, 1933.
- 786 Thomas C. Parker, letter to F. A. Kittredge, August 11, 1933.
- ⁷⁸⁷ Leonard Heaton, letter to Horace M. Albright, August 16, 1933.
- 788 Ibid.

- ⁷⁸⁹ Ibid.
- A. E. Demaray, letter to Frank Pinkley, August 31, 1933.
- ⁷⁹¹ Leonard Heaton, letter to Bob Rose, December 25, 1933. Heaton requests a copy of Parker's June 2 report in this letter, which he had never received a copy of. It is not known if it was ever sent to him.
- ⁷⁹² Harry Langley, letter to T. C. Vint, August 31, 1933.
- ⁷⁹³ Frank Pinkley, letter to Arno B. Cammerer, September 7, 1933.
- ⁷⁹⁴ Ibid.
- ⁷⁹⁵ Ibid., 3.
- ⁷⁹⁶ Ibid., 4.
- ⁷⁹⁷ Ibid., 4-5.
- ⁷⁹⁸ Ibid., 5.
- ⁷⁹⁹ Leonard Heaton, monthly report, September 25, 1933.
- Harry Langley, memorandum to T. C. Vint, undated, assumed to be September 1933.
- 801 Ibid.
- 802 Ibid.
- Rose pointed out this figure was very close to that obtained in September 1929 by the Indian Irrigation Service's Supervising Engineer, 33.56 gallons per minute.
- Robert H. Rose, "Report of Water Resources and Administrative Problems at the Pipe Spring National Monument," September 19, 1933.
- 805 A. van V. Dunn, letter to Joseph E. Taylor, April 9, 1937.
- 806 Ibid., 17.
- 807 Ibid., 29.
- 808 Ibid., 17-18. The names of the cattlemen were listed in Part II of this history. There was only one discrepancy. Rose spelled John Schmutz "John Schonitz." "Schmutz" is probably the correct spelling, as it is the name of a ranching family common on the Arizona Strip, according to Charles S. Peterson. (Peterson's handwritten comments on draft manuscript, January 1999.)
- 809 Ibid., 19.
- 810 Ibid., 36.
- 811 Ibid., 33.
- 812 It appears from both the tone of the report and some of the information contained in it that Rose was relying to a considerable extent on Leonard Heaton for some of his "facts." Heaton, of course, had his own bias, just as Edgar A. Farrow had.
- 813 Ibid., 53.
- 814 Ibid., 54.
- 815 Leonard Heaton, monthly report, October 24, 1933.
- 816 Leonard Heaton, monthly report, October 24, 1933.
- 817 Ibid.
- 818 Leonard Heaton, monthly report, November 23, 1933.
- Pinkley had not sent a copy to Supt. Patraw or Asst. Supt. Parker at Zion, either, by October 19. It is possible that Pinkley discussed Rose's recommendations with the Washington office by telephone, but there is no record of it.
- ⁸²⁰ John Collier, letter to the Secretary of the Interior, October 13, 1933.
- 821 Oscar L. Chapman, "Regulations for the Division of the Waters of Pipe Springs," November 2, 1933.

- 822 Solving the water problem through interdepartmental compromise is reminiscent of how the legality of Charles C. Heaton's ownership of Pipe Spring had been circumvented by establishment of the monument.
- 823 Leonard Heaton, monthly report, October 24, 1933.
- 824 A. E. Demaray, letter to Frank Pinkley, October 28, 1933.
- 825 Ibid.
- 826 F. A. Kittredge, letter to Arno B. Cammerer, November 15, 1933.
- 827 Leonard Heaton, monthly report, October 24, 1933.
- 828 He reports that the stockmen had received no word either about the regulations.
- 829 Leonard Heaton, monthly report, November 20, 1933.

Part V - The Great Depression

- 830 Southwestern Monuments Monthly Report, November 1930.
- 831 Southwestern Monuments Monthly Report, August 1932.
- 832 Southwestern Monuments Monthly Report, September 1932.
- 833 The name was officially changed in January 1937.
- Richard B. Morris, *Encyclopedia of American History*. New York: Harper & Row, 1982.
- ⁸³⁵ John C. Paige, The Civilian Conservation Corps and The National Park Service, 1933-1942 An Administrative History. U.S. Department of the Interior, National Park Service, 1985. See also Isabelle F. Story, The National Parks and Emergency Conservation, Washington: GPO, 1933.
- 836 Ibid.
- In various documentation of the period, the camp was also referred to as "DG-44-A" and "G-44-A."
- Evaluation Reading Leonard Heaton, letter to National Park Service, Washington, D.C., March 30, 1933. There is no other correspondence on the matter of public works projects at Pipe Spring until November 1933.
- Stan Cohen, *The Tree Army, A Pictorial History of the Civilian Conservation Corps,* 1933-1942. Missoula: Pictorial Histories Publishing Company, 1980: 91-92.
- Leonard Heaton, monthly report, September 25, 1933.
- The Federal Emergency Relief Act was passed on May 12, 1933. The Public Works Administration was established June 16, 1933 under the National Industrial Recovery Act.
- 842 F. A. Kittredge, letter to Leonard Heaton, November 15, 1933.
- Leonard Heaton, letter to Frank Pinkley, December 4, 1933.
- Leonard Heaton, letter to Frank Pinkley, December 15, 1933.
- 845 Southwestern Monuments Monthly Report, December 1933.
- 846 Ibid.
- Originally NM/PS-3000, by 1935 the plans were designated NM/PS-3004.
- A rather poor copy of these plans is attached to Langley's report of December 20, 1933.
- 849 Southwestern Monuments Monthly Report, December 1933.
- ⁸⁵⁰ Leonard Heaton, letter to Frank Pinkley, January 5, 1934. This suggests that the Heatons took possession prior to the transfer of title, which was early January 1909.
- 851 Ibid.

- 852 F. A. Kittredge, letter to A. E. Cowell, January 9, 1934.
- 853 Leonard Heaton, report on CWA work to Washington office, April 20, 1934.
- At this time Thomas C. Vint was Chief Architect, Washington office, although he was a landscape architect by training and previous position. He was Chief Landscape Architect from 1927-1933, San Francisco.
- 855 Harry Langley, letter to T. C. Vint, February 7, 1934.
- 856 A. B. Cammerer, letter to T. C. Vint, January 31, 1934.
- Leonard Heaton, letter to Frank Pinkley, January 19, 1934.
- 858 Leonard Heaton, letter to Frank Pinkley, January 24, 1934.
- 859 Leonard Heaton, monthly report, March 26, 1934.
- 860 Leonard Heaton, report to State Administrator, Civil Works Program, undated (ca. March 27, 1934.)
- ⁸⁶¹ A. E. Cowell, Final Report on Civil Works Program, April 29, 1934.
- A. E. Cowell, letter to William G. Carnes, April 28, 1934.
- Leonard Heaton, letter to Hugh M. Miller, June 8, 1934. After Frank Pinkley, Hugh M. Miller was next in command at Southwestern National Monuments. His exact title is unknown.
- ⁸⁶⁴ He asked the Heatons if they could show there was a need by visitors for these services; apparently, they could not.
- Frank Pinkley to Carnes, April 18, 1935: Pinkley mentions that Heaton "was in the office the other day and tells us that the store building shown on the plot plan has been removed." When Heaton learned that a CCC camps was to be established at the monument during the summer of 1935, he asked Pinkley if the store/gas station could be rebuilt at the monument. Pinkley denied the request.
- 866 Grant Heaton, interview by Gaylan Hoyt, August 8, 1998.
- ⁸⁶⁷ Leonard Heaton, monthly report, April 23, 1934.
- 868 L. M. Holt, letter to John Collier, February 6, 1934.
- No further correspondence was located on the matter.
- 870 Leonard Heaton, monthly report, April 23, 1934.
- Heaton variously refers to Hall in later reports using the wrong first initials. Cowell reported the meeting took place on May 3; Heaton reported it was May 5.
- A. E. Cowell, "Report on Spring Flow, Pipe Springs National Monument, May, 1934."
- 873 Leonard Heaton, monthly report, May 25, 1934.
- Leonard Heaton, letter to Frank Pinkley, May 23, 1934.
- It is presumed that Heaton continued his time-sharing method of allotting water to the Indian Service until the weir plate was installed in April 1935.
- 876 Leonard Heaton, monthly report, June 25, 1934.
- Leonard Heaton, letter to Frank Pinkley, May 24, 1937.
- 878 Leonard Heaton, letter to Frank Pinkley, August 3, 1934.
- 879 Frank Pinkley, letter to Leonard Heaton, August 9, 1934.
- ⁸⁸⁰ Leonard Heaton, letter to Frank Pinkley, August 13, 1934.
- Leonard Heaton, monthly report, August 24, 1934.
- Frank Pinkley, letter to Leonard Heaton, August 25, 1934.
- Frank Pinkley, letter to Leonard Heaton, October 11, 1934.

- Leonard Heaton, letter to Frank Pinkley, October 8, 1934. It is unknown how he planned to water the garden, or if the meadow pond was still dry.
- Leonard Heaton, monthly report, October 24, 1934. The cedars and pines were not planted until the following March. Twenty-five cedars and 14 pines were planted on the southeast quarter of the monument. Heaton's efforts to replant native vegetation on the monument were directed by Langley and other Park Service officials.
- Heaton states in his journal that Parven Church was an Indian stockman. (July 12, 1940) (Note: Heaton frequently misspelled Church's first name.) In 1942, Heaton says he is the local agent for the Indian Service (February 4, 1942). It is uncertain what official role he played.
- 887 Leonard Heaton, monthly report, November 23, 1934.
- Chairman, Board of Supervisors of Mohave County, letter to Frank Pinkley, October 8, 1934.
- Park Service brochures stated the distance to Fredonia was 18 miles. Heaton refers to the distance as 15 miles.
- ⁸⁹⁰ The final version is NM/PS-4940, dated January 1935.
- 891 For construction details, see A. E. Cowell's "Report for Period Ending April 3, 1935."
- 892 Leonard Heaton, monthly report, April 24, 1935.
- 893 Cowell later reported the weir plate was "rectangular, with end contraction, cut from sheet brass."
- ⁸⁹⁴ These were drawing NM/PS-3004. The final plans, NM/PS 2025-B, were issued in early 1942.
- 895 Leonard Heaton, letter to David H. Madson, April 26, 1935.
- 896 Ibid.
- 897 Leonard Heaton, letter to Frank Pinkley, April 26, 1935.
- 898 Hillory A. Tolson, letter to Frank Pinkley, May 16, 1935.
- 899 A. E. Cowell, letter to F. A. Kittredge, May 4, 1935.
- 900 Leonard Heaton, monthly report, May 24, 1935.
- 901 A. D. Ryan, radiogram to A. B. Cammerer, June 10, 1935.
- Heaton reported in September 1934: "There is a lot of talk and meetings being held here about the Taylor (Bill) and how it will affect the industry. There are two main groups of people. One wants to Strip for just Arizona residents, and all other stockmen will have to move out regardless of their holdings; and the other is to give every man his right to the grazing in proportion to his holdings." Leonard Heaton, monthly report, September 24, 1934.
- ⁹⁰³ The Grazing Service merged into a new Bureau of Land Management in 1946.
- 904 Cohen, 92.
- 905 Ibid. See also Robert Fechner, Annual Report of the Director of Emergency Conservation Work, Fiscal Year ending June 30, 1936 (Washington, D.C.: Government Printing Office, 1936): 42-43.
- Workers of the Writers' Program of the Work Projects Administration in the State of Arizona. Arizona, A State Guide. New York: Hasting House: 80.
- 907 Leonard Heaton, monthly report, July 25, 1935.

- Leonard Heaton, monthly report, September 25, 1935. Two years later, Heaton wrote that he moved his family to Moccasin so they would not be exposed "to the rough element that always goes with a camp of men" (letter of October 29, 1937).
- 909 Leonard Heaton, monthly report, February 24, 1936.
- ⁹¹⁰ Leonard Heaton, monthly report, August 26, 1935.
- ⁹¹¹ Ibid.
- 912 Water Agreement, August 15, 1935. PISP archives.
- 913 Leonard Heaton, monthly report, August 26, 1935.
- 914 Hillory A. Tolson, letter to Frank Pinkley, October 22, 1935.
- 915 Leonard Heaton, monthly report, October 27, 1935. Another source says they were sent to Pinto, Utah.
- 916 Pinkley later wrote, "the diaries were instituted primarily as a measure of protection for the employees..." Frank Pinkley to Leonard Heaton, May 14, 1938.
- ⁹¹⁷ Leonard Heaton, letter to Frank Pinkley, October 18, 1935.
- October 29, 1935, with the redesignation of Company 1979.
- The officers, advisers, and instructors changed frequently during the four years the CCC camp was at Pipe Spring. No attempt has been made to identify all of them. The names of most are included the J. C. Reddoch's annual camp reports, but reports are available only for 1936, 1938, and 1939 as Reddoch was unable to reach the camp in 1937 due to snow-covered roads.
- 920 W. H. Wirt, "Report to Chief Forester on Emergency Conservation Work at Pipe Springs National Monument," December 10, 1935. The camp's enrollees were designated "Junior" to distinguish them from Veteran enrollees.
- ⁹²¹ Leonard Heaton, monthly report, November 23, 1935.
- 922 The flagstone came from a quarry several miles away.
- 923 Leonard Heaton, monthly report, December 25, 1935.
- 924 Ibid.
- 925 W. H. Wirt's "Report to Chief Forester on Emergency Conservation Work at Pipe Spring National Monument," December 10, 1935.
- 926 O. T. Hagen, letter to Leonard Heaton, December 8, 1935.
- 927 Leonard Heaton, monthly report, December 25, 1935.
- 928 Hugh M. Miller, telegram to Leonard Heaton, February 24, 1936.
- 929 Heaton Journal, February 28, 1936.
- 930 Leonard Heaton, monthly report, February 24, 1936.
- 931 ECW Camp Report for Company 2557, DG-44, March 9, 1936.
- 932 J. D. Erskine, monthly report, March 22, 1936.
- 933 Heaton Journal, March 22, 1936.
- 934 Heaton Journal, March 24, 1936.
- 935 Heaton Journal, March 27, 1936.
- 936 Heaton Journal, May 15, 1936.
- 937 Leonard Heaton, letter to Frank Pinkley, August 31, 1936.
- 938 Heaton Journal, April 30, 1936.
- 939 Frank Pinkley, letter to Leonard Heaton, May 15, 1936.
- 940 Heaton Journal, March 30, 1936.

- ⁹⁴¹ Leonard Heaton, monthly report, April 24, 1936.
- 942 Heaton Journal, April 23, 1936. Shirey's first name is unknown.
- ⁹⁴³ J. D. Walkup, letters to Senator Carl Hayden and Hugh M. Miller, April 22, 1936.
- 944 Frank Pinkley, letter to J. D. Walkup, April 25, 1936.
- 945 Hillory A. Tolson, letter to Carl Hayden, undated (response to Hayden letter of April 27, 1936).
- 946 Heaton Journal, May 14, 1936.
- ⁹⁴⁷ David H. Madson, letter to Frank Pinkley, October 6, 1936.
- ⁹⁴⁸ Leonard Heaton, monthly report, June 22, 1936.
- Heaton had trouble with the boys stealing parts from the Park Service's truck in order to patch up another automobile to drive to town in.
- ⁹⁵⁰ Jack L. Harden, letter to Kathleen L. McKoy, August 11, 1999.
- 951 Heaton Journal, June 6, 1936.
- 952 Heaton Journal, July 25 and 27, 1936.
- 953 Frank Pinkley, letter to Alfred C. Kuehl, August 1, 1936.
- 954 George L. Collins, letter to Division of Grazing, September 1, 1936.
- 955 Alfred C. Kuehl, report to Thomas C. Vint, November 1936.
- 956 Hugh M. Miller, letter to George L. Collins, December 11, 1936.
- 957 Leonard Heaton, monthly report, December 22, 1936.
- 958 Heaton Journal, November 28, 1936. Heaton estimated the number to be 3,000 to 4,000 fish.
- 959 Keller and Turek suggest the filing resulted from an area drought in 1936, which created additional demand on Pipe Spring water by cattlemen, the Wildlife Service, and a number of local families. While Heaton reports the drought, no documentation has been seen by the author of this report that links the drought to Pinkley's desire to file.
- ⁹⁶⁰ Joseph E. Taylor, letter to Arno B. Cammerer, December 19, 1936.
- ⁹⁶¹ Frank Pinkley, letter to Leonard Heaton, May 19, 1937.
- ⁹⁶² To this request Heaton stated the deed had either been sent by his father to Heber J. Grant or Lafayette Hanchett, and did not know what had happened to it after that point. Pinkley was finally able to obtain a copy at the County Record Office in Kingman.
- ⁹⁶³ Leonard Heaton, letter to Frank Pinkley, May 24, 1937.
- 964 Heaton said that the only change in the list of "owners" of the cattlemen's onethird share of water was that he, Leonard Heaton, had acquired B. P. Sorenson's interest.
- ⁹⁶⁵ Leonard Heaton, letter to Frank Pinkley, May 24, 1937.
- ⁹⁶⁶ Joseph E. Taylor, letter to Frank Pinkley, June 3, 1937.
- ⁹⁶⁷ George A. Moskey, letter to Joseph E. Taylor, January 27, 1937.
- ⁹⁶⁸ Edwin T. Stewart, letter to Albert L. Johnson, February 1, 1937.
- ⁹⁶⁹ Arno B. Cammerer, letter to Joseph E. Taylor, February 11, 1937.
- 970 William Zimmerman, Jr., letter to Arno B. Cammerer, March 12, 1937.
- 971 A. E. Demaray, letter to Joseph E. Taylor, March 26, 1937.
- ⁹⁷² Joseph E. Taylor, letter to Arno B. Cammerer, April 7, 1937.
- 973 See A. van V. Dunn, letter to Joseph E. Taylor, April 9, 1937.
- Frank Pinkley, letter to Albert L. Johnson, May 19, 1937. In a later letter (June 9, 1937) from Leonard Heaton to Frank Pinkley, Heaton stated that on occasion when he was

- not irrigating the monument during winter months spring water flowed down a sandy wash about 1.5 miles to the south, but did not leave the reservation.
- 975 A. E. Demaray, letter to Joseph E. Taylor, May 21, 1937.
- 976 Ibid.
- ⁹⁷⁷ Joseph E. Taylor, letter to Frank Pinkley, June 3, 1937.
- ⁹⁷⁸ Vincent W. Vandiver, "Report on Pipe Springs National Monument, Mohave County, Arizona," January 1937. This report contains numerous photographs of the immediate and surrounding landscape.
- ⁹⁷⁹ Landscape Architect Alfred C. Kuehl approved planting grass in the areas Heaton suggested. Rather than the Bermuda that Heaton wanted to plant, Kuehl recommended Muhly grass and Arizona fescue, which were more cold resistant (Alfred C. Kuehl, letter to Hugh M. Miller, March 6, 1937).
- 980 Heaton always referred to these were "poplar" logs. Kuehl called them cottonwood. Photographs of the trough, drinking fountain, and tables are attached to job completion reports of January 1938.
- 981 Heaton Journal, April 16, 1937.
- 982 Heaton Journal, May 27, 1937.
- 983 Heaton Journal, June 13, 1937.
- 984 Heaton Journal, June 1, 1937.
- 985 Heaton Journal, July 15, 1937.
- 986 Heaton Journal, December 27, 1937; Heaton's monthly report, January 23, 1938.
- 987 Heaton Journal, July 24, 1937.
- 988 Heaton Journal, August 11, 1937.
- 989 Alfred C. Kuehl, monthly narrative report, August 20-September 20, 1937.
- ⁹⁹⁰ This suggests native seed had been gathered for reseeding portions of the monument.
- ⁹⁹¹ Leonard Heaton, monthly report, September 22, 1937.
- 992 Leonard Heaton, monthly report, October 22, 1937.
- ⁹⁹³ Leonard Heaton, monthly report, November 22, 1937.
- 994 Heaton Journal, October 18, 1937.
- ⁹⁹⁵ Alfred C. Kuehl, monthly reports, September 20-October 20, 1937, and October 20-November 24, 1937.
- ⁹⁹⁶ Leonard Heaton states it was 6 x 7 feet; Kuehl reports it was 6 x 6 feet.
- ⁹⁹⁷ Leonard Heaton, monthly report, December 22, 1937.
- ⁹⁹⁸ Frank Pinkley, letter to Acting Regional Director, September 9, 1937.
- 999 Herbert Maier, letter to Arno B. Cammerer, September 15, 1937.
- ¹⁰⁰⁰ Herbert Maier, letter to Nute H. Epps, November 22, 1937.
- ¹⁰⁰¹ Leonard Heaton, letter to H. B. Hommon, October 29, 1937.
- Leonard Heaton, monthly report, June 30, 1938. It is believed the drinking fountain was located on the south side of the ponds, just east of the steps. This report states the fountain, trough, and table were completed in January 1938, but this conflicts with earlier reports from Heaton.
- Heaton's reports indicate that this number reflects actual visitors who were registered or contacted at the fort. There is a possibility that visitation figures for other years include vehicles and parties simply driving past the monument.
- ¹⁰⁰⁴ Leonard Heaton, monthly report, January 23, 1938.

- ¹⁰⁰⁵ Leonard Heaton, monthly report, February 23, 1938.
- 1006 Leonard Heaton, monthly report, May 24, 1938.
- ¹⁰⁰⁷ Preliminary Study for Custodian's Residence, NM/PS-2025.
- This is probably Lorenzo Brown who was nicknamed "Ren." He may be related to Heaton by marriage, for there was Brown family in Moccasin.
- ¹⁰⁰⁹ Alfred C. Kuehl, Field Report, August 8, 1938.
- ¹⁰¹⁰ A September 5, 1938, memo from Frank Pinkley to Leonard Heaton says that 700 linear feet of ditches were authorized for removal.
- ¹⁰¹¹ Carl A. Wickerham, memorandum to District Commander, August 23, 1938.
- ¹⁰¹² Keith K. Tatom, letter to Frank Pinkley, August 30, 1938.
- Frank Pinkley, letter to Commander Officer, Fort Douglas District, September 5, 1938.
- ¹⁰¹⁴ Heaton Journal, September 15, 1938.
- ¹⁰¹⁵ Hugh M. Miller, memorandum to Frank Pinkley, September 24, 1938.
- ¹⁰¹⁶ Ibid.
- ¹⁰¹⁷ J. H. Tovrea, Concrete Culvert Proposal, October 11, 1938.
- ¹⁰¹⁸ Heaton Journal, November 17, 1938.
- Leonard Heaton, letter to Frank Pinkley, October 14, 1938; and monthly report, December 23, 1938; Heaton Journal, November 20, 1940.
- ¹⁰²⁰ Leonard Heaton, letter to Frank Pinkley, November 25, 1938.
- 1021 Ibid.
- ¹⁰²² Ibid.
- W. H. McDougall, memorandum to Frank Pinkley, January 3, 1939. See Part VI for later developments regarding the fort ponds and fish.
- The birds came from the Papago-Saguaro Park station of the Arizona Game and Fish Department.
- ¹⁰²⁵ Natt N. Dodge, memorandum to Frank Pinkley, December 12, 1938.
- Leonard Heaton, monthly reports, for January 23, 1939, and February 22, 1939.
- Leonard Heaton, monthly report, August 31, 1947.
- ¹⁰²⁸ Natt N. Dodge, memorandum to Frank Pinkley, December 12, 1938.
- ¹⁰²⁹ Ibid.
- ¹⁰³⁰ Leonard Heaton, monthly report, December 23, 1938.
- ¹⁰³¹ Heaton Journal, January 2, 1939.
- ¹⁰³² Frank Pinkley, letter to Leonard Heaton, February 4, 1939.
- ¹⁰³³ Leonard Heaton, letter to Frank Pinkley, March 4, 1939.
- Heaton Journal, March 29, 1940. "The children found some more pots and some human bones in the land knoll about the same place they found the pottery last year. I had digging stopped and brought the pots to the monument, all were broken.... Made a report of the find to H.Q. and Nusbaum."
- ¹⁰³⁵ Heaton Journal, December 3, 1938.
- On October 24, 1940 Heaton reported "two small Indian pots that were found at Moccasin 2 years ago" were stolen from his display at the monument (Heaton Journal). It is not known how much of the collection is still retained at Pipe Spring.
- ¹⁰³⁷ Jesse Nusbaum, letter to Leonard Heaton, April 11, 1941.
- ¹⁰³⁸ Leonard Heaton, culvert completion report, June 9, 1939.

- ¹⁰³⁹ Alfred C. Kuehl, field report, April 23, 1939.
- 1040 Ibid.
- ¹⁰⁴¹ Frank Pinkley, memorandum to Acting Regional Director, May 11, 1939.
- ¹⁰⁴² Leonard Heaton, completion report, January 20, 1941.
- ¹⁰⁴³ See "Western Camping Fireplace," PG 3062-A, March 25, 1935 (map files, 1930s).
- 1044 Date of completion, May 31, 1939; report filed March 13, 1940.
- ¹⁰⁴⁵ Frank Pinkley, letter to J. C. Roak, February 13, 1940.
- ¹⁰⁴⁶ J. C. Roak, letter to Hugh M. Miller, March 14, 1940.
- Heaton Journal, January 24, 1940. "Took Mrs. Heaton through some of the CCC buildings.... She liked the educational building as it is finished off better and in a better location than any of the others."
- ¹⁰⁴⁸ Leonard Heaton, letter to Hugh M. Miller, May 25, 1940.
- A floor plan of the residence, as remodeled by Heaton in 1941, can be found attached to a letter to Hugh M. Miller from Leonard Heaton, January 13, 1942.
- 1050 Heaton Journal, October 8-9, 1940.
- ¹⁰⁵¹ Hugh M. Miller, letter to Leonard Heaton, October 24, 1940.
- Headquarters, Southwestern Monuments, "Justification to Accompany Preliminary Estimates for Fiscal Year 1942." April 12, 1940. The fort is referred to in the plural since there are technically two buildings, the upper and lower buildings.
- Research on the fort's original shingles was conducted in 1940. See Hugh M. Miller letter to Minor R. Tillotson, December 16, 1940.
- Headquarters, Southwestern Monuments, "Justification to Accompany Preliminary Estimates for Fiscal Year 1942." April 12, 1940.
- ¹⁰⁵⁵ Heaton Journal, February 14, 1940.
- ¹⁰⁵⁶ Southwestern Monuments Monthly Report, April 1940.
- ¹⁰⁵⁷ Heaton Journal, May 1, 1940.
- Edwin C. Alberts, memorandum to Frank Pinkley, April 19, 1940. McClung and Lovelady were the men who made the measurements. Their first names are unknown.
- ¹⁰⁵⁹ Historic American Buildings Survey, No. Ariz-18, approved November 7, 1940.
- 1060 Heaton Journal, May 9, 1940.
- ¹⁰⁶¹ Heaton Journal, May 22, 1940.
- 1062 Heaton Journal, July 1, 1940.
- This was Camp DG-173. In documentation during this period it is variously referred to as being 3, 3.5, or 4 miles south of Pipe Spring. As the most common distance cited is 4 miles, that distance was used.
- See CCC, Eight Corps Area, Camp Property Disposal List, April 24, 1940; Bernard L.
 Douglas, letter to Regional Grazier, August 16, 1940.
- ¹⁰⁶⁵ Heaton Journal, October 2, 1940.
- 1066 Southwestern Monuments Monthly Reports, September 1940.
- A later entry in Heaton's journal suggests the men may have been Grant and Sterling Heaton, his brothers.
- Dale S. King, letter to Leonard Heaton, July 16, 1940. The analysis report included the statement, "The plaster contains no gypsum, whereas present day plaster does."
- ¹⁰⁶⁹ Lyle E. Bennett, Field Report, August 14, 1940.
- ¹⁰⁷⁰ Heaton Journal, August 21, 1940.

- ¹⁰⁷¹ Drury had actually been offered the job of director in 1933, but had declined it.
- ¹⁰⁷² Ise, 442.
- ¹⁰⁷³ J. C. Roak, letter to Hugh M. Miller, July 25, 1940.
- ¹⁰⁷⁴ Heaton Journal, November 8, 1940.
- For details about the condition of the fort, see Charles. A. Richey's "Report of Inspection, Pipe Springs National Monument," November 8, 1940.
- 1076 Heaton installed a floor in the cellar in late August 1942.
- ¹⁰⁷⁷ Program of work, under cover letter of June 18, 1940, H. C. Fortier to A. L. Wathen.
- The project (ECW Job 22) was completed by mid-January. See Heaton's report of January 20, 1941, for details of the entire project. The 1946 Master Plan Outline describes the system as consisting of "580 feet of 6" sewer line and a 2,500 gallon septic tank."
- A detailed account of this discovery is in Heaton's Journal, January 9-10, 1941.
- 1080 Leonard Heaton, letter to Superintendent's Office, January 10, 1941.
- ¹⁰⁸¹ Southwestern Monuments Monthly Report, March 1941.
- ¹⁰⁸² See George W. Norgard, "Field Report," April 3, 1941, for details.
- Charles A. Richey, "Report of Inspection, Pipe Spring National Monument," April 19, 1941.
- ¹⁰⁸⁴ Ibid.
- 1085 Clifford K. Heaton, Owen Johnson, Wesley McAllister, and one unidentified man were the primary local workers.
- ¹⁰⁸⁶ For details, see Alfred C. Kuehl, "Field Report," April 19 and May 1, 1941.
- ¹⁰⁸⁷ For details on all of May's work, see daily entries in Heaton Journal, May 1941.
- ¹⁰⁸⁸ Heaton Journal, May 12, 1941.
- Southwestern Monuments Monthly Report, April 1941. Other references to roof repairs in Heaton's Journal, various dates, May 1941.
- ¹⁰⁹⁰ Heaton Journal, May 31, 1941.
- ¹⁰⁹¹ For details see George W. Norgard's Field Report, June 14, 1941.
- ¹⁰⁹² Southwestern Monuments Monthly Report, July, 1941.
- 1093 Southwestern Monuments Monthly Report, August, 1941.
- Hugh M. Miller, letter to Leonard Heaton, May 8, 1941.
- When Heaton cleaned out meadow pond in May 1944, he noticed rocks lining it were becoming loose. He wrote in his journal, "I wonder if the Park Service could furnish 1 or 2 tons of cement to cover the bottom and up the sides 3 or 4 feet. Sure would make it a good swimming hole" (May 3, 1944). Perhaps he hoped Zion's Superintendent Charles J. Smith wouldn't share Hugh M. Miller's stand on not having a swimming pool at the monument.
- Apparently, Tillotson had broached this idea with Hugh M. Miller a year earlier, so the idea was not entirely new to Miller.
- Paul R. Frank, memorandum to the Minor R. Tillotson, September 3, 1941.
- 1098 Hugh M. Miller, memorandum to the Minor R. Tillotson, September 5, 1941.
- Newton B. Drury, memorandum to Hugh M. Miller, September 16, 1941.
- Hugh M. Miller, "Report of Inspection," September 29, 1941.
- ¹¹⁰¹ Final plans NM/PS 2025-B are referenced in Part VI.
- Leonard Heaton, letter to Charles A. Richey, December 16, 1941; the plan for the custodian's residence was NM/PS- 2025-B.

- Alfred C. Kuehl, "Report to the Chief Architect on Pipe Springs [sic] National Monument," November 1936. The cottonwood trees referred to are the grove south of the ponds. While these were once thought to have been planted during the years Camp DG-44 was at Pipe Spring (Nelson and McKoy, 1997 Cultural Landscape Inventory), it has since been documented by such references as this one that cottonwood trees were at that location long before the camp's arrival. A number of officers of DG-44 and Forest Service staff set up their quarters beneath these trees.
- 1104 Ibid. See also Alfred C. Kuehl, letter to George L. Collins, November 13, 1936.
- ¹¹⁰⁵ Frank Pinkley, letter to Alfred C. Kuehl, November 17, 1936.
- W. J. Ward, "Report of Reconnaissance for Proposed Fredonia-Toroweap Approach Road to Grand Canyon National Monument [sic]" June 10, 1937.
- 1107 Charles A. Richey, monthly narrative report, July 1937.
- A. E. Demaray, letter to Senator Carl Hayden, November 22, 1937. See also Hillory A. Tolson, letter to Carl Hayden, July 31, 1946. This later letter references the 1937 road survey.
- ¹¹⁰⁹ Carl Hayden, letter to Elmer C. Coker, February 8, 1938.
- 1110 This engineer's name is unknown but it was neither Conway nor Pratt.
- Hugh M. Miller, telegram to Minor R. Tillotson, March 2, 1940.
- Jesse L. Nusbaum, "Report on Archeological Investigations of Indian Service 'Short Creek to Zion' Road Location across a Western, or Late Pueblo II Mound, on the Kaibab Indian Reservation, immediately southward of Pipe Springs National Monument," September 1940 (filed under cover letter to the Director, September 13, 1940). Nusbaum's suggests that Naranjo joined him "at the last moment" as one of his oldest friends. (Note: Heaton misspells this name as "Nirango.")
- It is uncertain what year the fenced stock drive was constructed. It may have been one of the activities carried out by the CWA in association with their relocation of the old monument road in the early 1930s.
- Jesse L. Nusbaum, "Report on Archeological Investigations of Indian Service 'Short Creek to Zion' Road Location across a Western, or Late Pueblo II Mound, on the Kaibab Indian Reservation, immediately southward of Pipe Springs National Monument," September 1940.
- 1115 Ibid.
- Leonard Heaton, letter to Hugh M. Miller, August 28, 1940.
- Albert H. Good, memorandum to Minor R. Tillotson, September 30, 1940.
- Milo F. Christiansen, memorandum to Newton Drury, October 24, 1940.
- It is possible that the regional office made its decision based on the information sent them in August by Heaton, that the Indian Service did not intend to build a road past the monument. This wasn't officially acknowledged to Park Service officials, however, until a year later.
- ¹¹²⁰ Southwestern Monuments Monthly Report, October 1940.
- Southwestern Monuments Monthly Report, August, 1941. Heaton reported that the two CCC camps furnishing Indian Service labor on the road were to be moved out for the winter of 1940-1941, but it is uncertain if this happened. Heaton did say that the roadwork was originally to take 60 days, but was still in progress six months later (Leonard Heaton, monthly report, March 1942).
- Alfred C. Kuehl, "Field Report," April 19 and May 1, 1941. It is unknown if Dr. Farrow was still superintendent, but he probably was not, both because he resided in Cedar City

- during his last years in that position and because he opposed the Park Service's preferred road location.
- Hugh M. Miller, memorandum to Region III, May 14, 1941.
- Hugh M. Miller, memorandum to Minor R. Tillotson, August 29, 1941.
- ¹¹²⁵ Jesse Nusbaum, memorandum to Minor R. Tillotson, June 12, 1941.
- 1126 Thomas C. Vint, memorandum to Minor R. Tillotson, October 21, 1941.
- Heaton Journal, May 12, 1937. Heaton's journals indicate that whenever he was on leave but still in the area (e.g., Moccasin), he would often stop by the monument to check on how his "substitute" was doing. He always reported things going well.
- ¹¹²⁸ Leonard Heaton, monthly report, November 22, 1939.
- Also referenced as "Pipe Spring National Monument: A Few Historical Facts."
- Vandiver stated that he obtained his data on the history of the fort and Moccasin from Heaton.
- Region III was established August 1, 1937, covering the Southwest states. The name was changed to Southwest Region in 1962.
- ¹¹³² Frank Pinkley, letter to Acting Regional Director, November 3, 1937.
- ¹¹³³ Frank Pinkley, letter to Leonard Heaton, December 18, 1937.
- Leonard Heaton, monthly report, December 22, 1936.
- "Pipe Spring National Monument, Arizona," March 1938. Although the author is not identified, the text has the "flavor" of being written by Leonard Heaton.
- 1136 Ibid.
- H. E. Rothrock, letter to Frank Pinkley, August 13, 1938. No mention is made of the fact that American Indians were drawn to the springs long before the Latter-day Saint settlers.
- ¹¹³⁸ Heaton Journal, May 23, 1938.
- For some unknown reason, Rothrock did not submit a written report for the May trip until August 13, nearly 3 months later. While Rothrock's report states the monument visit took place on May 21, Leonard Heaton's journal recorded it on May 23; Al Kuehl's Field Report also dates the visit as May 23.
- 1140 The geologist, a Mr. Hawkins, was to be assisted by Al Kuehl.
- Dale S. King, memorandum to Frank Pinkley, August 25, 1938.
- Charles N. Gould, "Report on Proposed Wayside Shrine at Pipe Spring National Monument," Report No. 188, Inspected September 27, 1938.
- 1143 H. E. Rothrock, memorandum to Leonard Heaton, July 28, 1939.
- Natt N. Dodge, memorandum to Frank Pinkley, December 12, 1938.
- 1145 H. E. Rothrock, "Report on Pipe Springs National Monument," June 1939.
- 1146 Ibid.
- Mrs. Shields was the wife of the blacksmith at Grand Canyon National Park. She was said to have been "very active" in the Church of Jesus Christ of Latter-day Saints (Charles A. Richey, memorandum to Paul R. Franke, February 6, 1942).
- Hugh M. Miller, memorandum to Minor R. Tillotson, December 23, 1940.
- ¹¹⁴⁹ Minor R. Tillotson, memorandum to Hugh M. Miller, January 10, 1941.
- "Pipe Spring National Monument, Arizona," W. H. Kistler Stationery Co., Denver, CO, July 1941. A copy of this leaflet was located in the Woolley/Snow Family Collection, op. cit.

- Subsequent correspondence suggests that Neasham "overlooked" Church data when he prepared the monument's first published leaflet. On February 9, 1942, Regional Archeologist Jesse Nusbaum sent Church official George A. Smith a copy of the leaflet and asked for Church data "on the naming of the site, the time of arrival of Bishop Winsor, the date of completion of the buildings, and any other suggestions that you would like to have considered in a future replication of this leaflet." Smith complied with Nusbaum's request with a return letter dated February 11, 1942.
- Hugh M. Miller, memorandum to Newton Drury, May 1, 1941.
- 1153 Ibid.
- Hugh M. Miller, memorandum to Dorr G. Yeager, May 28, 1941.
- Arthur Woodward, "Brief Historical Sketch of Pipe Springs, Arizona," June 1941; 1.
- 1156 Ibid., 26.
- 1157 Ibid.
- 1158 Ibid., 27-28.
- 1159 Ibid., 29.
- 1160 Dorr G. Yeager, memorandum to Hugh M. Miller, June 19, 1941.
- Leonard Heaton, letter to Hugh M. Miller, June 19, 1941.
- Hugh M. Miller, letter to Leonard Heaton, June 27, 1941.
- Leonard Heaton, letter to Hugh M. Miller, July 20, 1941.
- Russell K. Grater, memorandum to Hugh M. Miller, August 19, 1941.
- 1165 Charles A. Richey, memorandum to Russell L. Mahan, November 21, 1941.

Part VI - The World War II Years

- lie Ise, 447-448. The author drew on John Ise's, *The National Park Service: 1916-1959* (cited in an earlier chapter) for information in these first introductory paragraphs.
- 1167 The work of the Civilian Public Service camps was primarily conservation-oriented.
- Report of the Secretary of the Interior, 1942. Cited in Ise, 449.
- 1169 Some plasterwork was done in the fort rooms on ceilings and walls during the war years. Heaton reported repairs to the fort's rock floor in the south wing in his monthly report for April 1944. He put a new roof on the residence in May 1944. This is about the sum of building work unless otherwise noted in this chapter. Historical architects may want to refer to descriptive information in "Major Repair and Rehabilitation Program" sheets (submitted under cover memorandum of August 12, 1944) which list building and other needs for repairs and work.
- Grant Heaton reported that Dean Heaton is the only child of Leonard and Edna Heaton still living in the immediate area. He now resides in Fredonia.
- Bennett and Yeager visited on August 29, 1944; Cornell visited with Vint on May 31, 1945.
- Heaton Journal, August 29, 1944.
- ¹¹⁷³ Heaton Journal, January 17, 1942.
- Hugh Miller, memorandum to Hillory A. Tolson, January 9, 1942.
- Heaton Journal, January 24, 1942.
- 1176 Southwestern Monuments Monthly Report, February 1942.
- In March 1942 Southwestern Monuments forwarded its files and plans to Zion. A list of plans and drawings sent is attached to a memorandum from Charles A. Richey to Paul R. Franke, March 10, 1942. It is unknown if Zion later sent these to Pipe Spring or if they remain in Zion's collection.

- ¹¹⁷⁸ Zion National Park oversaw Bryce Canyon National Park from 1928 to 1953.
- The topics reported on are weather conditions, inspections, maintenance, lectures/guide service, increase/decrease in travel, visitors (VIPs), wildlife protection and fish cultural activities, accidents, and visits by U.S. Armed forces. In addition to sending in this official monthly report to Zion, Heaton submitted a copy of his daily journal entries for the month. In June 1944 Assistant Superintendent Dorr G. Yeager asked Heaton to discontinue sending his monthly diary, but advised him to continue keeping his journal.
- ¹¹⁸⁰ Heaton Journal, February 1, 1944.
- The acting director approved the design in January 1942. A copy of these plans (NM/PS 2025-B) are attached to a memorandum to Heaton from Walter S. Harwood, February 3, 1942. They include a locational map. (Apparently, earlier plans for two residences had been abandoned.) Working drawings for the residence were finalized in early 1943.
- Heaton's journal indicates he made at least one trip to Zion a month, usually to pick up supplies.
- Heaton appears to have only occasionally attended these classes, probably because of the long distance he would have had to travel.
- Heaton Journal, March 23, 1942.
- 1185 Report of the Director of the National Park Service, fiscal year ending June 1942.
- This was not the only way in which park units "contributed" to the war effort, however. On December 16, 1941, the Secretary of the Interior called on all bureaus of the Department of the Interior for "full mobilization of the Nation's natural resources for war..." In fiscal year 1942, 125 permits were issued by the Department to the War and Navy Departments and war agencies to make use of National Park Service lands, buildings, and facilities (*Report of the Director of the National Park Service*, fiscal year ending June 1942).
- Heaton refers to this some times as the Gunnery Training Station and other times the "Air Base." The official title of the base and branch of military it was associated with is unknown to the author.
- Heaton Journal, April 9, 1942.
- ¹¹⁸⁹ Heaton Journal, May 28, 1942.
- The raising of Hereford cattle provided the Tribe's primary source of non-governmental income during these years.
- Leonard Heaton, monthly report, August 2, 1943.
- Such acts of kindness were not limited to the war years, but were reported both prior to and after the war.
- Heaton Journal, June 2, 1942.
- Leonard Heaton, monthly report, June 1, 1944.
- Leonard Heaton, monthly report, August 2, 1943. Heaton reported these "pesty animals" climbed to the tops of black locust trees to eat the tender growing shoots, doing considerable damage to the monument's trees.
- Leonard Heaton, monthly report, September 1, 1945. "It look like we might lose all this specie of trees," he wrote.
- Heaton Journal, May 23, 1944. Heaton also used poison wheat in the fort to try to exterminate rats and mice.
- Heaton Journal, July 11, 1945: "Had 6 Indian children down for a swim today."

- ¹¹⁹⁹ Heaton Journal, June 26, 1942.
- On July 22 Heaton excavated outside the west cabin's west wall in preparation for new concrete footings. On the 29th he wrote in his journal, "...the west end of the south wall [of the west cabin] looks a lot better since I pulled it back in line."
- ¹²⁰¹ John E. Kell, memorandum to Harvey Cornell, October 5, 1942.
- Paul R. Franke, memorandum to Minor R. Tillotson, December 23, 1942.
- 1203 Ibid.
- 1204 Ibid.
- ¹²⁰⁵ Minor R. Tillotson, memorandum to Paul R. Franke, January 2, 1943.
- 1206 Ibid.
- ¹²⁰⁷ Herbert E. Kahler, memorandum to Minor R. Tillotson, January 20, 1943.
- ¹²⁰⁸ Harvey Cornell, memorandum to Newton Drury, January 1, 1943.
- Heaton's surgery was related to chronic appendicitis and a hernia. Edna would have her own turn with surgery at year's end. In mid-December 1943, Heaton took a few days annual leave to take Edna to St. George for a planned operation (an ovarian cyst and an appendix were removed). When he went to St. George to pick her up from her hospital stay, a blood clot was discovered and she had to stay several more days. He finally was able to bring her home from the hospital on New Year's Eve.
- ¹²¹⁰ Leonard Heaton, monthly report, November 16, 1942.
- ¹²¹¹ Leonard Heaton, monthly report, June 2, 1942.
- Lauritzen, Jonreed, "Pipe Spring, A Monument to Pioneers," *Arizona Highways*, February 1943.
- In July and October 1944, the Utah State Historical Society published Angus M. Woodbury's "A History of Southern Utah and Its National Parks." Published in two separate issues of the *Utah Historical Quarterly*, these articles provided one of the most comprehensive and scholarly histories available at the time concerning Mormon colonization of southern Utah and the northernmost region of Arizona, particularly Kane County, where Kanab was located. Woodbury, a professor at the University of Utah, grew up in St. George and descended from Mormon settlers.
- 1214 Heaton Journal, June 29, 1943.
- 1215 Drawings NM/PS 2029A and 2029B. The final version, 2029C, is dated March 31, 1945.
- 1216 Dorr G. Yeager, memorandum to Charles J. Smith, September 20, 1943.
- ¹²¹⁷ Heaton Journal, January 29, 1944.
- 1218 Heaton Journal, April 13, 1944.
- 1219 Leonard Heaton, monthly report, June 1, 1944. (Heaton also mentions this in his journal.) The crew was to be made up of Kaibab Paiute and Moccasin men. The outcome of this effort it is unknown to the author.
- 1220 Heaton Journal, July 31, 1944.
- ¹²²¹ In his monthly report for September 1945, Heaton reported "a good crop of wheat and spuds" was expected from the Alton farm.
- Leonard Heaton, monthly report, September 1, 1945.
- How common this type of arrangement was in other monuments during the period is unknown.

- Heaton Journal, July 12, 1945. This history may be Heaton's "Historical [sic] and Facts Pertaining to Pipe Spring National Monument, Arizona." Although undated, it appears to have been completed in 1949. (See Part VII.)
- 1225 Heaton Journal, August and October 1946.
- Leonard Heaton, monthly report, December 1, 1942. By comparison, visitation in November 1941 was 47.
- While Drury's original directive has not been located, a response from Heaton is on file. See Leonard Heaton, memorandum to Paul R. Franke, December 1, 1942. It seems that the directive had to do with park units that had public roads passing through them, thus would not have affected all units in the same manner.
- 1228 Leonard Heaton, monthly report, March 31, 1943.
- 1229 Dorr G. Yeager, memorandum to Leonard Heaton, August 17, 1943.
- Leonard Heaton, monthly report, October 1, 1943. The travel figures reported for the monument are taken from *Report of the Director of the National Park Service*. These vary slightly at times from the figures reported by Heaton, but not by a significant amount.
- ¹²³¹ Leonard Heaton, monthly report, September 1, 1945.
- 1232 Heaton Journal, January 19, 1943.
- Heaton Journal, February 18, 1943. "ECW" refers to the Emergency Conservation Work program.
- 1234 Heaton Journal, December 21, 1943.
- 1235 Heaton Journal, January 12, 1944.
- 1236 Heaton Journal, December 18, 1945.
- Heaton Journal, September 16, 1943.
- Heaton Journal, November 5, 1943. On April 11, 1944, Heaton wrote in his journal, "Planted the lawn on the south and east of the residence building today." On May 17, 1944, he wrote, "...am having some tough luck getting the lawn to grow. Too much sand blown onto the young grass."
- 1239 Heaton Journal, February 12, 1943.
- 1240 Charles J. Smith, memorandum to Minor R. Tillotson, January 13, 1944. Heaton reported to Smith that such flash floods occurred at least every two or three years in the area. Overflow of the drainage ditch was caused by wood and other debris lodging against the center support of the bridge that spanned the ditch.
- 1241 Heaton Journal, August 29, 1943.
- 1242 Heaton Journal, January 29, 1945.
- 1243 Heaton Journal, January 15, 1943.
- 1244 Heaton Journal, December 3, 1942.
- 1245 See Part III.
- ¹²⁴⁶ For details see later section, "Interpretation the War Years."
- For details about how this collection was acquired, see Heaton's monthly reports for April and May 1945.
- 1248 Heaton Journal, April 17, 1942.
- ¹²⁴⁹ Heaton Journal, April 25, 1942.
- 1250 Heaton Journal, April 15, 1942.
- 1251 Heaton Journal, August 13, 1943.
- 1252 Heaton Journal, April 4, 1944.

- 1253 Heaton Journal, July 21, 1944.
- 1254 Leonard Heaton, monthly report, June 1, 1945.
- 1255 Heaton Journal, May 6, 1944.
- ¹²⁵⁶ Leonard Heaton, letter to Dorr G. Yeager, September 25, 1944.
- Heaton seems to have gone to this extra effort when a group of boy scouts or Beehive Girls had an overnight outing at the monument, not for the average visitor.
- Leonard Heaton, monthly report, June 1, 1945. See also Heaton's Journal, May 21, 1945.
- Heaton Journal, May 21, 1945. Warren Mayo is still living on the reservation. F. (Francella?) Jake may be Tim Rogers' mother and Elouise Drye was Benn Pikyavit's mother. Charlie Chassis was Glendora Homer's great grandfather and would have been an adult in 1945.
- The original request came from the Chicago office; which branch or division is uncertain, but the question about taxes suggests it may have been Lands.
- Leonard Heaton, memorandum to Dorr G. Yeager, August 18, 1943. Zion misplaced the first letter and had to ask Heaton to resend it, which he did on September 15, 1943.
- 1262 Leonard Heaton, monthly report, August 2, 1943.
- ¹²⁶³ Hillory A. Tolson, memorandum to Minor R. Tillotson, July 15, 1943.
- ¹²⁶⁴ Hillory A. Tolson, memorandum to Commissioner of Indian Affairs, October 7, 1943.
- Hillory A. Tolson, memorandum to the Commissioner of Indian Affairs, December 20, 1943.
- 1266 Leonard Heaton, monthly report, May 1, 1945.
- On October 13, 1943, Heaton wrote in his journal, "Will see Mr. Church of the [Kaibab] Indian Reservation about getting 12 or 15 loads of gravel to put on roads."
- ¹²⁶⁸ Heaton Journal, October 20, 1943.
- ¹²⁶⁹ Paul R. Franke, memorandum to Hugh Miller, April 6, 1942.
- 1270 It should be remembered that Heaton held firm to his conviction that the Indian Service had no legal right to Pipe Spring water and that he maintained the position that the Park Service's one-third share was insufficient to meet the monument's needs. Unfortunately, he took it upon himself to "right" the wrong he felt had been inflicted on the monument by the Indian Service.
- No documentation has been located that indicates if or when Heaton's system of distribution was abandoned. A May 23, 1956, letter from Leonard Heaton to the Chief of Lands indicates at least the family's domestic supply was coming from the old Army connection and therefore did not pass through the division weir.
- 1272 Heaton Journal, March 4, 1942.
- 1273 Heaton Journal, March 18, 1942.
- 1274 Heaton Journal, March 28, 1942.
- No additional information is available to the author on how this ruling came about.
- 1276 A. van V. Dunn, memorandum to Attorney Albert L. Johnson, February 6, 1943.
- As mentioned in Dunn's memorandum (cited above), this law took effect in 1919. Demaray's letter of May 21, 1937, is referenced in Part V.
- ¹²⁷⁸ Albert L. Johnson, memorandum to Minor R. Tillotson, March 4, 1943.
- 1279 Charles A. Richey, memorandum to the Water Rights Section, March 10, 1945.
- ¹²⁸⁰ Paul R. Franke, memorandum for Regional Director, March 20, 1943.
- ¹²⁸¹ Ibid.

- 1282 The Rose report was discussed in Part IV.
- 1283 The author lacks the legal background to analyze Dunn's analysis or to provide much additional commentary. It is recommended that those interested in establishing a legal case of any sort refer to original documents referenced in this administrative history.
- 1284 A. van V. Dunn, memorandum to Albert L. Johnson, April 22, 1943: 1.
- 1285 Ibid.
- The 1907 withdrawal refers to use being for the "Kaibab and other Indians."
- 1287 A. van V. Dunn, memorandum to Albert L. Johnson, April 22, 1943: 2.
- 1288 Ibid.
- 1289 Ibid., 3.
- ¹²⁹⁰ Ibid.
- ¹²⁹¹ See Part II for details on the 1924 agreement and Part IV for detail on the 1933 agreement.
- 1292 A. van V. Dunn, memorandum to Albert L. Johnson, April 22, 1943: 4.
- 1293 Ibid. Dunn makes an error in stating "the ponds at the monument were built about 1863 and water has been used and dissipated ever since." While there were most likely dirt reservoirs at Pipe Spring from an early date, the stone-lined ponds were constructed in the late 19th century during the Woolley family's residency at the site.
- ¹²⁹⁴ Ibid., 4-5. Dunn cites Sec. 75-101 and Sec. 75-140 of the 1939 water code.
- Ibid., 6. The allowable quota was 21,439 gallons per day (gpd) for each party. The Park Service's deficit was 49 gpd; the stockmen's deficit was 145 gpd; the Indian Service's surplus was 6,122 gpd. Later on Dunn states that the stockmen "have a nominally fully used third of the spring flow...but may in reality have an unused surplus like the Indians." (p. 7) Dunn does not provide the names of the 10 families west of the monument provided water by the Park Service, but these are *not* the stockmen's families. Their "water demand" was listed as 310 gallons per day (gpd). By comparison, Heaton's family used 200 gpd.
- 1296 Ibid., 7.
- ¹²⁹⁷ Ibid., 6. The majority of stock Dunn calculated for were categorized as "transient." He allowed only for two head of livestock for Heaton. The families west of the monument were referred to by Heaton in a letter to Frank Pinkley dated May 24, 1937: "Then we have some 11 families living west of us that come to the Monument for water which I presume is used for domestic purposes, or maybe to water a milk cow or a horse." Apparently this occurred only during the summer months.
- In a later letter to Minor R. Tillotson, Dunn wrote, "I also feel that the Park Service could use more of the total flow than its third without detriment to the others.... I gather that the custodian would like to do so." A. van V. Dunn, memorandum to Minor R. Tillotson, May 31, 1943.
- 1299 A. van V. Dunn, memorandum to Albert L. Johnson, April 22, 1943: 7.
- 1300 Ibid., 8.
- No indication of why he doubted this is given.
- A. van V. Dunn, memorandum to Albert L. Johnson, April 22, 1943: 8.
- 1303 Ibid.
- 1304 Albert L. Johnson, memorandum to Minor R. Tillotson, April 30, 1943.
- 1305 Ibid. See the Johnson memorandum for details.
- 1306 Ibid
- Hillory A. Tolson, memorandum to Minor R. Tillotson, May 22, 1943.

- 1308 Heaton Journal, November 5, 1945.
- 1309 Charles A. Richey, memorandum to Paul R. Franke, February 6, 1942.
- 1310 Ibid., 2.
- 1311 Charles A. Richey, memorandum to Paul R. Franke, April 7, 1942.
- ¹³¹² Jesse L. Nusbaum, letter to George Albert Smith, February 9, 1942.
- George Albert Smith, letter to Jesse L. Nusbaum, February 11, 1942, with attachment: A. Wm. Lund, letter to George A. Smith, February 11, 1942. The Church provided no information regarding the origin of the Pipe Spring name. The accuracy of the Pipe Spring naming story was still being called into question in 1943, even as it was repeated in the 1943 edition of the monument's leaflet (see Charles W. Porter III, memorandum to Miss Story, July 1, 1943).
- 1314 Milton J. McColm, memorandum to Newton B. Drury, October 20, 1942.
- Heaton Journal, September 22, 1943. See also Erik K. Reed, letter to Charles J. Smith, October 7, 1949.
- 1316 Dorr G. Yeager, memorandum to Charles J. Smith, September 20, 1943.
- 1317 Ibid.
- 1318 Ibid.
- ¹³¹⁹ Ibid.
- 1320 See "Monument Administration" section.
- 1321 Leonard Heaton, monthly report, October 1, 1943.
- 1322 This correspondence is attached to a memorandum from A. E. Demaray to Newton Drury, dated September 15, 1943. Not all of it is accurate, however. For example, Dilworth Woolley believed citing secondary sources that the Dominguez and Escalante expedition was the first to visit Pipe Spring, not Jacob Hamblin's party.
- Dilworth Woolley, letters to H. E. Woolley, August 21, 1943, and September 4, 1943; attached to a memorandum from A. E. Demaray to Newton Drury, dated September 15, 1943.
- Leonard Heaton, letter to Dilworth Woolley, January 14, 1944.

Part VII - The Calm Before the Cold War

- Firewood was obtained for a time from Crofts Sawmill, location unknown. Later it was obtained from Fredonia's Whiting Brothers Sawmill, which opened in 1951.
- 1326 Heaton Journal, August 13 and 14, 1948.
- Heaton Journal, May 17, 1947: "Started on the new change of work week today, running from Saturday morning to Wednesday evening."
- Heaton Journal, June 23, 1946: "Have decided not to make the change in my work week on account of my church work Sunday afternoon. Will have to keep some member of the family on the place every day when possible as there are too many people coming out to see the place to go off and leave it."
- Heaton Journal, November 4, 1946. After a particularly long wait in lines at the Alton mine he wrote, "We sure do suffer with the cold in that old fort truck without a good floor mat or heater," he wrote. He bought coal from the Atherly Brothers coal mine. The company changed hands in March 1948.
- 1330 Heaton Journal, May 13, 1946.

- 1331 There is some indication that Fredonia obtained power from Kanab, but was not technically served by REA. Residents there were still pushing for an REA project in the early 1950s, along with other small communities of the Arizona Strip.
- 1332 Heaton Journal, September 27, 1946.
- 1333 Heaton Journal, July 3, 1949.
- Heaton Journal, May 11, 1949: "Took a phone message up to the Indian village to Warren Mayo;" November 24, 1949: "Took an urgent message to Kenneth Rink at Cane Beds at noon."
- 1335 DDT is an abbreviation for dichlorodiphenyltrichloroethane.
- 1336 Heaton Journal, October 2, 1946.
- 1337 Heaton Journal, May 1, 1947.
- Heaton Journal, May 3, 1947. Heaton did not report the outcome of the hunt.
- 1339 Leonard Heaton, monthly report, August 31, 1947.
- Heaton Journal, August 19, 1947: "Had a roundup of rats within the fort that have made the place their home and [are] doing a lot of damage. Caught one."
- Leonard Heaton, monthly report, October 31, 1950.
- 1342 It is uncertain to the author why this date was picked for the celebration as the day officially set aside to commemorate the event is "Pioneer Day," July 24.
- 1343 Heaton Journal, June 8, 1947.
- 1344 The flowers were to represent beadwork on the moccasin.
- Heaton Journal, June 12, 1947.
- 1346 Leonard Heaton, monthly report, June 30, 1947.
- Heaton Journal, July 15, 1947. The word "paint" could be a typo in the transcript of the journal.
- 1348 Leonard Heaton, memorandum to Charles J. Smith, April 4, 1949.
- 1349 Ibid.
- 1350 Heaton Journal, March 30, 1950.
- Heaton Journal, July 20, 1949. The transcript of the Heaton Journal says the men were looking 6 miles south of the monument but all other later references say the area was 6 miles north. The identity of these two men is unknown to the author, or when dinosaur tracks were first reported in the region.
- 1352 Heaton Journal, October 24, 1949.
- 1353 Heaton Journal, July 7, 1950.
- 1354 Leonard Heaton, letter to Newton Drury, December 18, 1945.
- 1355 Ibid.
- 1356 Heaton Journal, May 24, 1947.
- Heaton Journal, July 22, 1947. The purpose of the men's visit is unknown, but seems to have included a discussion of the monument road relocation.
- Leonard Heaton, monthly report, August 31, 1947. By 1954 the flock was 150 strong (monthly report, September 1, 1954).
- Leonard Heaton, monthly report, October 31, 1950.
- The monument truck appears to have been the Heatons' only form of transportation, other than that provided by horses.
- ¹³⁶¹ Heaton Journal, April 29, 1948.
- 1362 Heaton Journal, September 15, 1948.

- 1363 Heaton Journal, May 15, 1948.
- 1364 Heaton Journal, June 14, 1948.
- 1365 Heaton Journal, July 16, 1948.
- 1366 Heaton Journal, July 14, 1948.
- ¹³⁶⁷ Heaton Journal, September 22, 1948.
- Heaton Journal, August 2, 1948. These figures conflict with Heaton's fort "window count" of April 17, 1941, when he wrote that there were 152 small window panes to wash in the fort.
- 1369 Heaton Journal, entries for October 3-8, 1948.
- 1370 Heaton Journal, October 21, 1948.
- 1371 Heaton Journal, February 7, 1949.
- 1372 Heaton Journal, February 11, 1949.
- 1373 Heaton Journal, April 17, 1949.
- 1374 Heaton Journal, April 22, 1949.
- 1375 Heaton Journal, April 25, 1949.
- Heaton Journal, September 30, 1949. Another source says visitation for the year was
 1,290. "Travel Statistics from 1926 to 1953, inclusive," Pipe Spring National Monument Master Plan, April 22, 1954.
- 1377 Leonard Heaton, monthly report, May 1946.
- ¹³⁷⁸ Heaton Journal, October 5, 1949.
- ¹³⁷⁹ Heaton Journal, May 28, 1950.
- 1380 Heaton Journal, October 27, 1949.
- ¹³⁸¹ Heaton Journal, September 7, 1950.
- Heaton Journal, August 16, 1952.
- ¹³⁸³ Heaton Journal, February 9, 1950.
- 1384 A "status" employee is one who had completed the probationary period under the career-conditional employment system. It is also known as an employee with competitive status.
- 1385 Heaton Journal, August 29, 1950.
- 1386 Heaton Journal, December 21, 1949.
- ¹³⁸⁷ Heaton Journal, February 15, 1950.
- Heaton Journal, March 1, 1950.
- 1389 Charles J. Smith, memorandum to Minor R. Tillotson, April 3, 1950.
- 1390 Heaton Journal June 14 and 15, 1956.
- 1391 Heaton Journal, April 29, 1950.
- 1392 Dudley Hamblin was the son of Jacob Hamblin.
- 1393 Ibid.
- Leonard Heaton, monthly report, May 1, 1950.
- ¹³⁹⁵ Heaton Journal, May 21, 1950.
- 1396 Heaton Journal, June 9, 1950.
- ¹³⁹⁷ Heaton Journal, June 26, 1950.
- 1398 Heaton Journal, August 9, 1950.
- This list is attached to a letter from Heaton to Patraw, July 7, 1950.
- "Travel Statistics from 1926 to 1953, inclusive," Pipe Spring National Monument Master Plan, April 22, 1954.
- The visitation for April alone was 1,047, thanks to the barbecue.
- ¹⁴⁰² Heaton Journal, May 25, 1946.

- ¹⁴⁰³ Heaton Journal, May 27, 1949.
- Heaton's notes, titled "August 29, 1946." Monair claimed to have helped finish building the fort ponds, trading wine to Jonathan Heaton in Moccasin for a barrel of carp for the ponds. (Other reports suggest the ponds were constructed during the Woolley period.)
- ¹⁴⁰⁵ Heaton Journal, September 18, 1949.
- Heaton Journal, April 9, 1950. Winsor "told me that the east cabin was built for his father and family. The open room between the two rooms was the blacksmith shop. West cabin was for the [stone] masons, Elijah and Elisha Averett, and other workmen. He drove the oxen that hauled the rock from the hillside to the fort." If Winsor was 86 in 1950, that would have made him only about 6 years old at the time the fort was constructed, which seems too young to have been driving oxen down the stone boat trail.
- The legend of how Pipe Spring got its name is cited in Lavender, 41. It should be noted that during this period the Branch of History questioned the source of this story and recommended further study be made of the legend. "When the true origin of a place name is not known, popular imagination usually invents just such a story as this to explain it," wrote one of Drury's associates on November 27, 1946.
- ¹⁴⁰⁸ Heaton Journal, December 12, 1948.
- Leonard Heaton, monthly report, June 1, 1946.
- ¹⁴¹⁰ Heaton Journal, January 7, 1947.
- ¹⁴¹¹ Heaton Journal, May 12, 1948.
- ¹⁴¹² Heaton Journal, May 26, 1947.
- ¹⁴¹³ Ibid.
- Heaton Journal, August 6, 1949. Heaton doesn't specify which pond Dean dove into, but it is presumed it was the meadow pond as this one was preferred for swimming.
- ¹⁴¹⁵ Heaton Journal, May 20, 1947.
- ¹⁴¹⁶ Heaton Journal, June 3, 1947.
- 1417 Heaton Journal, January 22, 1948. No mention was made of the cause of Bulletts' death
- Heaton Journal, April 29, 1947: "Cleaned out the head of pipe leading the water into the spring room of the fort. Found it backed up with tree roots. Took about 3 hours to dig it out and cover it back over. Just in front of the west door, north building." He had to do more work along these lines in January 1947.
- ¹⁴¹⁹ Heaton Journal, November 26, 1947.
- Heaton Journal, December 3, 1947. For more details on this project, see Leonard Heaton, memorandum to Charles J. Smith, December 9, 1947.
- ¹⁴²¹ Heaton Journal, December 4, 1947.
- Heaton later reported that in addition to hot linseed oil, the preservative used to treat the joists and underside of flooring was 10 parts diesel and one part penta.
- ¹⁴²³ For details, see Heaton's journal entries for January-April, 1948.
- 1424 See "Pipe Spring National Monument Repairs to Historic Buildings, 1942-1948," monument archives.
- 1425 It is not known what source Heaton relied on to determine what the original gates looked like. Mrs. Min Adams described the original gates to Heaton in a June 1, 1949, interview, but this interview took place just after he had constructed the new gates.

- Heaton says he ran out of square nails while assembling the west gates. It is uncertain if he obtained more before assembling the east gates.
- 1427 Heaton Journal, June 8, 1949.
- 1428 Heaton Journal, June 13, 1949.
- Charles J. Smith, memorandum to Minor R. Tillotson, April 3, 1950; Heaton Journal, July 11, 1950.
- ¹⁴³⁰ For additional project details see "Report on Rehabilitation."
- ¹⁴³¹ Heaton Journal, September 19, 1950.
- 1432 Heaton Journal, November 19, 1950.
- ¹⁴³³ Heaton Journal, November 25, 1946.
- ¹⁴³⁴ Charles J. Smith, memorandum to Minor R. Tillotson, April 3, 1950.
- For details see Heaton's journal entries for May and June 1949. See also "Report of Rehabilitation, West Cabin."
- 1436 Heaton Journal, March 5, 1946.
- ¹⁴³⁷ "Schedule of Appraised Values of Quarters," October 22, 1946. Under cover letter of December 19, 1946. This report includes a floor plan.
- 1438 Ibid.
- 1439 Heaton Journal, July 21, 1947.
- ¹⁴⁴⁰ Heaton Journal, August 24, 1949.
- There is a reference to the kerosene fridge in Heaton's Journal, January 8, 1954, so the family must have had both kinds at different times.
- 1442 Charles J. Smith, memorandum to Minor R. Tillotson, July 13, 1950.
- ¹⁴⁴³ Heaton Journal, May 22, 1946.
- 1444 Heaton Journal, August 8, 1946.
- 1445 Heaton Journal, July 6, 1947.
- ¹⁴⁴⁶ Leonard Heaton, monthly report, July 30, 1948.
- ¹⁴⁴⁷ Heaton Journal, May 23, 1949.
- ¹⁴⁴⁸ In fact, clogged lines were so common no attempt has been made to describe them all; cleaning the lines was practically a routine maintenance task for Heaton.
- 1449 Heaton Journal, June 4, 1948.
- Heaton Journal, August 24, 1948: "Cleaned out the roots clogging the water from running through the fort. Found tree roots growing up the 2" pipe from the lower end."
- ¹⁴⁵¹ Heaton Journal, January 12, 1948.
- 1452 Heaton Journal, August 11, 1950.
- ¹⁴⁵³ Leonard Heaton, letter to Charles J. Smith, August 12, 1950.
- Paul L. Balch, memorandum to Minor R. Tillotson, August 21, 1947.
- Paul L. Balch, memorandum to Minor R. Tillotson, June 21, 1948.
- According to Heaton's journal, Grater also returned with Natt Dodge in September 26, 1946, and took pictures. Illustration no. 90 of the residence (attributed to Grater) was thus probably taken either on June 26 or September 26, 1946.
- Other information on the stones is contained in a letter from Leonard Heaton to Lynn B. Johnston, August 15, 1955. See also Heaton Journal, entries for September 19 and October 19, 1946.
- Leonard Heaton, monthly report, June 1, 1946: "Mr. Foote of Kanab informed me the other day that he had located the half of the old grinder from the first grist mill to be erected in Long Valley about 1880 and I could come get it any time I wanted it. With

- this and the [other] half Mr. Black has would make the set complete. These grinders are made of volcanic rock from Dixie County. Hand worked. About 3 foot across, 18 inches thick. Was turned by water power."
- Leonard Heaton, monthly report, December 2, 1946. Heaton wrote in his journal the previous November 18, 1946: "Made a blockade in the doorway of the two rooms of the west cabin so that I can put the Bishop Hopkins collection in for display and lock it up."
- ¹⁴⁶⁰ Heaton Journal, May 18, 1947.
- ¹⁴⁶¹ Leonard Heaton, monthly report, March 1, 1948.
- ¹⁴⁶² Leonard Heaton, monthly report, May 1, 1950.
- ¹⁴⁶³ For details, see Heaton's monthly report for October 31, 1950.
- 1464 Heaton Journal, July 12, 1945.
- 1465 Heaton Journal, July 27, 1946.
- Heaton probably meant to title it either "History and Facts Pertaining to Pipe Spring National Monument, Arizona, or "Historical Facts Pertaining to Pipe Spring National Monument, Arizona." The report has neither date nor author on it, but it is unmistakably Leonard Heaton's writing. The first paragraph gives the date away, for it says the history contains "some of the stories and observations that has [sic] come to my attention the past twenty-three years." Heaton was appointed custodian in 1926, thus 23 years later would date the report to 1949. This is consistent with his references to writing the history made in his journal during the years 1945-1949. (It is currently archived at the monument in a General History file dated "1936-1938.")
- ¹⁴⁶⁷ As mentioned earlier, Reed never visited Pipe Spring until May 1948.
- 1468 Charles S. Smith, memorandum to Minor R. Tillotson, December 30, 1946. This memorandum contains much useful documentation that Smith cites as evidence to support his argument.
- 1469 Ibid.
- Erik K. Reed, memorandum to Charles J. Smith, January 10, 1949. See also Erik K. Reed, letter to H. E. Bolton, June 2, 1948; Erik K. Reed, memorandum to Newton Drury, July 20, 1949.
- ¹⁴⁷¹ Erik K. Reed, memorandum to Charles J. Smith, June 20, 1946.
- 1472 Kahler suggested that Heaton research *Deseret News* files and Church records in Salt Lake City, and that he contact Juanita Brooks and review James C. Black's journals, both in St. George.
- Heaton Journal, June 1, 1949. See also "An Interview with Mrs. Min Adams, Kanab, Utah, June 1, 1949," in monument archives. Adams reported that her husband succeeded another caretaker, Max McArthur. Both men were unable to tolerate being ordered about by the women living at the fort.
- 1474 Heaton Journal, April 19, 1946.
- Leonard Heaton, monthly report, December 2, 1946.
- ¹⁴⁷⁶ Heaton Journal, November 24, 1946.
- ¹⁴⁷⁷ Charles J. Smith, memorandum to Minor R. Tillotson, August 1, 1947.
- 1478 Ibid.
- ¹⁴⁷⁹ Forrest R. Stone, letter to E. T. Scoyen, August 15, 1947.
- ¹⁴⁸⁰ E. T. Scoyen, memorandum to Charles J. Smith, August 19, 1947.
- Heaton Journal, September 21, 1947.

- ¹⁴⁸² Charles J. Smith, memorandum to Minor R. Tillotson, January 16, 1948.
- ¹⁴⁸³ Heaton Journal, February 18, 1949.
- Heaton Journal, February 20, 1949.
- ¹⁴⁸⁵ Heaton Journal, May 9, 1949.
- Heaton Journal, March 2, 1950. This was presumably the barbecue that was held at the monument, reported on earlier in this chapter.
- ¹⁴⁸⁷ Heaton Journal, March 14, 1950.
- ¹⁴⁸⁸ Heaton Journal, May 23, 1950.
- This report, like his "History and Facts Pertaining to Pipe Spring National Monument, Arizona," bears neither Heaton's name nor a date, but is obviously his writing style. The date has been estimated by the author by analyzing references within the text, such as the reference to Bishop Hopkins tools, most of which were not acquired by Heaton for the monument's collection until May 1945. Heaton reported in July 1948 that he was busy writing up "the historic notes" he had obtained from "old settlers as they visited the monument in the past" (Leonard Heaton, monthly report, July 1948).
- This story is first recounted, in an abbreviated form, in Heaton's "Notes Taken in An Interview with Alonzo Winsor," March 1936.
- Author's note: I suspect that as long as Heaton was overseeing the monument, interpretation followed along the lines of what he wrote in his "Guide for Lecture to Visitors." In other words, no matter what story the Park Service wanted told, Heaton was in charge of what was said on the guided tour and for many years had considerable control over exhibit text as well.

Part VIII - The Cold War on the Arizona Strip

- For additional information, see Kenneth R. Philp, *John Collier's Crusade for Indian Reform*, 1920-1954 (Tucson: University of Arizona Press, 1977) and his article, "Termination: A Legacy of the Indian New Deal," *Western Historical Quarterly*, Vol. 14 (April 1983).
- ¹⁴⁹³ Morris, Encyclopedia of American History, 645.
- 1494 Carole Gallagher, American Ground Zero, The Secret Nuclear War. New York: Random House, 1993. Photojournalist Gallagher served from 1983 through 1992 as the director of the Nuclear Towns Documentary Project (sponsored from 1985-1990 by the Utah State Historical Society).
- ¹⁴⁹⁵ "Ground Zero Under Study As Potential Tourist Stop," *Denver Post*, October 17, 1999.
- For details on the outcome of this and other litigation related to atomic testing, see Gallagher, *American Ground Zero*, xvii-xix.
- ¹⁴⁹⁷ Heaton Journal, January 27, 1951.
- Heaton Journal, January 28, 1951. In a number of his transcribed entries, Heaton capitalizes "Atomic Bomb" or "Atomic" which hints at the possible awe, respect, and/or fear attached to the weapon by Heaton at the time. It is uncertain if the transcriptionist consistently preserved this convention.
- Heaton may have kept a personal journal aside from the one he kept for the monument. If so, some of his feelings may be revealed in that record.
- Cathy A. Gilbert and Kathleen L. McKoy, Cultural Landscape Report: Fruita Rural Historic District, Capitol Reef National Park. U.S. Department of the Interior, National Park Service, Intermountain Region, 1997. Uranium mining ended in the park in 1956.
- ¹⁵⁰¹ Heaton Journal, September 6, 1952.

- See Heaton's journal entries for June 20, July 10, August 30 and 31, September 9 and 4, 1954.
- 1503 Leonard Heaton, monthly report, July 3, 1954.
- 1504 Heaton Journal, August 30, 1954.
- 1505 Leonard Heaton, monthly report, September 1, 1954.
- 1506 Heaton Journal, September 4, 1954.
- ¹⁵⁰⁷ Heaton Journal, October 14, 1954. See also Heaton's monthly report, November 2, 1954.
- ¹⁵⁰⁸ Heaton Journal, October 18, 1954.
- 1509 Heaton Journal, January 12, 1954.
- ¹⁵¹⁰ Heaton Journal, February 1, 1951.
- ¹⁵¹¹ Charles J. Smith, monthly report, April 10, 1951.
- Heaton does not report in his journal where the machine was located but in Charles J. Smith's report to the director for March 1951, he states it was not on the monument.
- Heaton Journal, March 29, 1951. Heaton incorrectly refers to the compound as "silver iodine."
- 1514 Heaton Journal, August 10, 1951.
- Earlier correspondence indicates the monument received "the old 50 watt radio that was at the Zion park office." Charles J. Smith, memorandum to Tillotson, December 13, 1950.
- Heaton Journal, May 28, 1951. See also Heaton's monthly report to Charles J. Smith, June 1, 1951.
- This building is also referred to as the "stable/garage." It was built about 1929 by Heaton, used as a barn and hay shed until about 1938 when it was converted by Heaton into a combination barn, garage, and utility building.
- 1518 Both children were under seven years of age, a later report stated.
- A report of the fire is attached to a memorandum from Hugh M. Miller to Charles J. Smith, dated July 20, 1951. See also "Individual Fire Report" attached to memorandum from Charles J. Smith to Minor R. Tillotson, August 7, 1951. The latter report includes photographs of the scene.
- 1520 Heaton Journal, January 17, 1957.
- 1521 Heaton was appointed temporary chairman of this association in April 1953.
- 1522 S. T. Carlson, memorandum to Acting Regional Director, August 28, 1951.
- Heaton Journal, July 9, 1951. Heaton reference to his girl getting hurt concerns a power mower accident involving Olive, described later under the "Accidents, Deaths, and Heaton Family Matters" section. This happened about one month earlier.
- 1524 Heaton Journal, July 9, 1952.
- ¹⁵²⁵ Heaton Journal, July 10-11, 1952.
- 1526 Heaton Journal, April 4-5, 1953.
- 1527 Heaton Journal, April 24, 1953.
- 1528 Heaton Journal, July 27, 1952.
- 1529 Heaton Journal, August 20, 1952.
- 1530 Heaton Journal September 24, 1952.
- 1531 Heaton Journal, July 30, 1952.
- Heaton Journal, February 2, 1955: "Got home about 8:30 p.m. with a sick headache. Just too much tobacco smoke for me."
- 1533 Heaton Journal, August 14, 1953.

- 1534 Ibid.
- 1535 The company's name, "GarKane," was named after Garfield and Kane counties.
- 1536 Leonard Heaton, monthly report, March 3, 1953.
- 1537 Heaton Journal, April 1, 1953.
- References in the early 1960s to the pump refer to is as a McCulloch make. It was purchased in Salt Lake City.
- ¹⁵³⁹ Zion National Park staff meeting minutes, October 14, 1953.
- 1540 Heaton Journal, June 23, 1953.
- 1541 Heaton Journal, June 30, 1953.
- ¹⁵⁴² Zion staff meeting minutes, July 29, 1953.
- 1543 Heaton Journal, August 14, 1953.
- 1544 It appears that this was the first reprinting since 1941. Neither 1941 nor 1954 leaflets stated camping facilities were available, only picnicking facilities.
- 1545 The Church does not sanction polygamy, nor has it since the Woodruff "manifesto" of 1890. The Church excommunicates members practicing it. See Part I for additional history. It is still practiced, however, by a small group of Mormon fundamentalists who refuse to accept official Church policy on the matter.
- For additional information on the Short Creek raid, see Martha Sonntag Bradley, Kidnapped From That Land the Government Raids on the Short Creek Polygamists, Salt Lake City: University of Utah Press, 1993; and Roman Malach's Short Creek-Colorado City on the Arizona Strip, Mohave County Board of Supervisors, Kingman, Arizona, 1982.
- 1547 Heaton Journal, July 26, 1953.
- ¹⁵⁴⁸ Heaton Journal, July 27-28, 1953.
- 1549 Heaton Journal, August 1, 1953.
- Bradley states that Short Creek wives and children were taken after the raid to Phoenix and placed under state and county welfare jurisdiction; the children were made wards of the state (Bradley, 153).
- This did not end Arizona's crackdown on Short Creek polygamists, however. Utah took even stronger legal action against polygamists during this period. See the case of *Black v. State*, Bradley, pp. 160-181.
- Archeologist Laird Naylor, past resident of Colorado City, wrote to the author on August 23, 1999, "I have never heard the rationale for the [name] change overtly stated.... However, I think it is clear that they wanted to escape the stigma associated with the 1953 raid by the State of Arizona." Naylor later informed the author that he's seen "colloquial references" in the news media that there are about 40,000 practicing polygamists in the Intermountain West today.
- ¹⁵⁵³ *Westways*, Volume 45, No. 8, August 1953.
- Heaton Journal, August 28, 1953. This suggests Heaton wasn't a source of Ransom's information.
- ¹⁵⁵⁵ Heaton Journal, January 15, 1954. No details have been found on the proposed change.
- 1556 Leonard Heaton, monthly report, February 1, 1955.
- 1557 Kelly Heaton suffered from a heart problem.
- 1558 Sherwin also filled in during Heaton's absences in 1955.
- Heaton Journal, September 3, 1954.

- In Heaton's monthly report for August 1955, he reported the film was called "Pioneer Scout."
- Heaton Journal, August 25, 1955. "Kock" might be a transcription error as "Koch" is a more common spelling.
- 1562 Heaton Journal, August 26, 1955.
- 1563 Heaton Journal, May 4, 1955.
- ¹⁵⁶⁴ John M. Davis, letter to Sherwin Heaton, June 17, 1955.
- Hugh M. Miller, memorandum to Chester A. Thomas, June 28, 1955.
- Chester A. Thomas, memorandum to Hugh M. Miller, July 12, 1955. Sherwin Heaton actually resided in Moccasin at the time.
- 1567 Ibid.
- Leonard Heaton's brother, Grant Heaton, said that Leonard injured his right hand in a farming accident while he was unloading hay off a wagon into the barn hayloft, using a system of ropes and pulleys. Grant stated that he still had the use of his hand after the accident (personal communications to Gaylan Hoyt and Kathleen L. McKoy, late 1998 and early 1999, respectively).
- ¹⁵⁶⁹ Paul R. Franke, letter to Hugh M. Miller, July 18, 1955.
- ¹⁵⁷⁰ Hugh M. Miller, draft memorandum to Charles J. Franke, July 26, 1955 (not sent).
- 1571 Ibid.
- ¹⁵⁷² Hugh M. Miller, memorandum to Charles J. Franke, July 26, 1955.
- 1573 Hugh M. Miller, memorandum to files, September 13, 1955.
- ¹⁵⁷⁴ Paul R. Franke, memorandum to Hugh M. Miller, July 17, 1956.
- ¹⁵⁷⁵ Paul R. Franke, memorandum to Hugh M. Miller, October 14, 1955.
- See Appendix VI, "Visitation." In the Annual Report of Information and Interpretive Services, monument visitor contact for 1955 is reported to be 2,341. The cause for the discrepancy is unknown. The higher figure is from Heaton's monthly report for December 1955.
- ¹⁵⁷⁷ Heaton Journal, March 24-25, 1951.
- Heaton's journal says "80," but his monthly report for August 1951 says there were 90 girls.
- ¹⁵⁷⁹ Heaton Journal, June 2, 1951. See also Heaton's monthly report, July 2, 1951.
- ¹⁵⁸⁰ Heaton Journal, May 15, 1954.
- Heaton Journal, September 9-11, 1954.
- ¹⁵⁸² Heaton Journal, July 30-31, 1955.
- 1583 Heaton Journal, September 3, 1955.
- 1584 Heaton Journal, March 17, 1951.
- For details, see Heaton's journal entries from late April to mid-June 1951. (Heaton's journal states he began work on April 24, but his final report states May 3.) See also "Report for Rehabilitation" July 9, 1951.
- ¹⁵⁸⁶ For more detail, see Heaton's journal entries, February 7-14, 1952. Heaton's descriptions are a bit confusing as on one occasion he calls the balusters "railings."
- 1587 Heaton Journal, March 26, 1952.
- Heaton Journal, June 23, 1953. Heaton obtained the log from an area sawmill about March 1953.

- Heaton Journal, July 18, 1953. See also Project Completion Report, Historic Fort Rehabilitation, August 28, 1953.
- ¹⁵⁹⁰ Paul R. Franke, memorandum to Minor R. Tillotson, March 10, 1953.
- Leonard Heaton, "Walk and Trail Improvement Program, 1951." This proposal appears to call for all the walkways in the monument to be blacktopped.
- 1592 Heaton does not give their names.
- 1593 Heaton Journal, December 7, 1954.
- 1594 Heaton Journal, January 15, 1955.
- 1595 Heaton Journal, January 1, 1953.
- Leonard Heaton, monthly report, September 30, 1952. See also Project Completion Report, ca. April 1953.
- ¹⁵⁹⁷ Natt N. Dodge, memorandum to Hugh Miller, May 8, 1953.
- Leonard Heaton, memorandum to Paul R. Franke, May 26, 1953. This description is notable because the exact location of early stone quarries used during the fort's construction is undocumented. Heaton mentions two distinct areas were used.
- 1599 Heaton Journal, August 30, 1953.
- 1600 Heaton Journal, October 3, 1953.
- 1601 Heaton Journal, August 24, 1954.
- ¹⁶⁰² Leonard Heaton, monthly report, December 2, 1954.
- 1603 Heaton Journal, August 31, 1955.
- ¹⁶⁰⁴ Paul R. Franke, monthly report, January 11, 1956.
- 1605 Heaton Journal, July 3, 1955.
- 1606 Heaton Journal, September 13, 1954.
- 1607 Heaton Journal, November 14, 1955.
- Leonard Heaton, monthly report, October 3, 1954. See also Heaton's journal entries for September 12 and 13, 1954.
- 1609 Heaton Journal, March 1, 1952.
- There is some correspondence regarding conservation of this painting on March 25 and 26, 1959.
- 1611 Heaton Journal, February 1, 1955.
- ¹⁶¹² Leonard Heaton, monthly report, December 2, 1955.
- ¹⁶¹³ Heaton Journal, May 23, 1955.
- ¹⁶¹⁴ Heaton Journal, May 21, 1950.
- ¹⁶¹⁵ Leonard Heaton, monthly report, July 2, 1951.
- 1616 Heaton Journal, October 22, 1951.
- ¹⁶¹⁷ Heaton Journal, May 6, 1953.
- ¹⁶¹⁸ Leonard Heaton, monthly report, May 1955.
- For more information on this case, see Charles J. Meyers and A. Dan Tarlock, Water Resource Management, A Coursebook in Law and Public Policy. New York: The Foundation Press, Inc. 1980: 205-209.
- See report files in the administrative history manuscript collection for a copy of this report.
- "Factual Data in Support of Claims for Indians and Indian Tribes to Uses of Water in the Lower Basin of the Colorado River in the States and Arizona and California," Vol. XVIII, Kaibab Reservation. December 1954.
- 1622 Ibid., 2.

- 1623 Ibid., 3.
- This map is missing a small portion from the center; BIA staff in Phoenix, Arizona, copied it.
- ¹⁶²⁵ Heaton Journal, March 12, 1951.
- Phone interview, Kathleen L. McKoy with Grant Heaton, September 3, 1998. Grant Heaton reported that Olive is now living in Texas.
- Heaton Journal, June 9, 1951. See also Heaton's monthly report, July 2, 1951.
- ¹⁶²⁸ Heaton Journal, April 3, 1953.
- ¹⁶²⁹ Heaton Journal, October 27, 1951.
- 1630 Heaton Journal, March 19, 1952.
- 1631 Heaton Journal, June 14, 1955.
- ¹⁶³² Leonard Heaton, monthly report to Charles J. Smith, June 1, 1951.
- Leonard Heaton, monthly report, September 30, 1952. She married Wells Lindquist Brady.
- ¹⁶³⁴ Heaton Journal, May 18, 1957.
- At times, the Mohave County road crews maintained the entire road from Fredonia to Short Creek, which appears to have been the case between October and December 1953.
- 1636 Heaton Journal, May 2, 1951.
- ¹⁶³⁷ Heaton Journal, January 19, 1952.
- ¹⁶³⁸ Leonard Heaton, monthly report, April 30, 1952.
- ¹⁶³⁹ Heaton Journal, June 17, 1952.
- 1640 Heaton Journal, September 6, 1952.
- Heaton Journal, September 13, 1952; see also Heaton's monthly report, September 30, 1952.
- ¹⁶⁴² Zion staff meeting minutes, November 5, 1952.
- House Joint Memorial No. 2; Arizona's First Regular Session, Twenty-first Legislature; attached to cover letter, Governor Howard Pyle to National Park Service, March 25, 1953.
- 1644 Ibid.
- 1645 Heaton Journal, March 4, 1953.
- ¹⁶⁴⁶ Conrad L. Wirth, letter to Governor Howard Pyle, April 10, 1953.
- ¹⁶⁴⁷ Leonard Heaton, monthly report, June 4, 1955.

Part IX - Mission 66

- 1648 Conrad L. Wirth, Annual Report to the Secretary of the Interior, fiscal year ending June 30, 1956.
- 1649 Chris Goetze, memorandum to Kathleen L. McKoy, June 14, 1999.
- David H. Canfield, memorandum to Hugh M. Miller, April 23, 1956.
- 1651 Ibid.
- ¹⁶⁵² In a later reference to Little, Heaton spells his first name "Louran."
- ¹⁶⁵³ The children were Sharon, Curtis, and Susan, ages 8, 6, and 3, respectively.
- 1654 Heaton Journal, June 8, 1956.
- Sandberg's 21-page narrative history of Pipe Spring drew on both primary and secondary source materials. The report is entitled, "Pipe Spring National Monument." Historical handbooks were a series of handbooks that described the historical and archeological

- areas in the National Park System. Additional research was done by Sandberg's successor, James C. McKown. It was finally published in 1966, with McKown and Robert M. Utley listed as authors.
- 1656 Heaton Journal, August 30, 1956.
- ¹⁶⁵⁷ Heaton Journal, August 1, 1956.
- ¹⁶⁵⁸ Heaton Journal, August 17, 1956.
- Heaton Journal, August 24, 1956. The dog was the Heaton's pet. It was a small dog, recalled James C. McKown in 1999.
- 1660 Heaton Journal, September 5, 1956.
- 1661 Heaton Journal, October 3, 1956.
- 1662 Heaton Journal, October 8-21, 1956.
- 1663 Heaton Journal, March 7, 1957.
- ¹⁶⁶⁴ Leonard Heaton, memorandum to Paul R. Franke, April 11, 1956.
- Paul R. Franke, memorandum to Chief, Western Office of Design and Construction (WODC), March 7, 1958. Heaton made no mention of his son finding remains neither during the work nor in his monthly report. This information only surfaced in Franke's memo referenced above when he asked that the master plan's base map indicate "large prehistoric burial ground on the SW section of the monument. Some dozen skeletons or parts thereof have been uncovered there, particularly when we removed the old corral and stock sheds. Mr. Heaton advises that there are no doubt several hundred burials in the area indicated." A later handwritten note on a memo of July 30, 1964, written by Hugh Bozarth, stated Heaton told him he had dug up skeletons in this area as a child while digging underground play houses.
- Donald Worster, *Rivers of Empire, Water, Aridity, and the Growth of the American West*, (New York: Oxford University Press, 1985): 274.
- Later, work population shifted to Page, Arizona, which reduced travel to the monument.
- ¹⁶⁶⁸ Leonard Heaton, monthly report, March 1, 1957.
- ¹⁶⁶⁹ Heaton Journal, May 17, 1957.
- Paul R. Franke, memorandum to Hugh M. Miller, June 6, 1957; see also Heaton's journal entry for May 30, 1957.
- 1671 Heaton Journal, June 1, 1957.
- 1672 Heaton Journal, July 10, 1957.
- The Sandbergs still live in Hurricane. For the remainder of his career, Lloyd combined teaching school with working as a seasonal interpretive ranger at Zion National Park.
- ¹⁶⁷⁴ Heaton Journal, November 7-8, 1957.
- ¹⁶⁷⁵ Erik K. Reed, letter to Arthur Woodward, January 18, 1957; see also Arthur Woodward, letter to Erik K. Reed, November 1, 1957.
- ¹⁶⁷⁶ Charlie R. Steen, memorandum to Erik K. Reed, December 6, 1957.
- 1677 Charlie R. Steen, memorandum to Erik K. Reed, December 12, 1957.
- In a later August 30, 1958, memorandum written by Hugh M. Miller, it was stated that McKown took the historian position because history had been his major in school and because he wanted to attain experience applicable to park ranger standards. His real goal was to get into the Park Service protection force. The position at Pipe Spring was a GS-5 Park Historian.

- ¹⁶⁷⁹ Franke informed Heaton at the February 5 staff meeting that he wanted McKown to work at Zion for three months, which Heaton apparently was unhappy about. Franke had said he would let McKown come earlier to Pipe Spring if the weather was good (i.e., visitation increased).
- 1680 Heaton Journal, March 9, 1958.
- ¹⁶⁸¹ Heaton Journal, March 25, 1958.
- 1682 Heaton Journal, April 26, 1958.
- Heaton does not record how long this took, but it appears to have been only a matter of four or five days.
- Benn Pikyavit, personal communication, September 1998. (Pikyavit is a Kaibab Paiute employed as seasonal guide for the monument.)
- ¹⁶⁸⁵ Heaton Journal, May 12, 1958.
- Apparently, the old CCC log tables were not disposed of at the time, for Heaton references the need to replace them in January 1961.
- ¹⁶⁸⁷ James C. McKown, telephone interview by Kathleen L. McKoy, September 27, 1999.
- 1688 Ibid.
- ¹⁶⁸⁹ Ibid.
- ¹⁶⁹⁰ James C. McKown, letter to Kathleen L McKoy, September 9, 1999.
- ¹⁶⁹¹ Heaton Journal, June 5, 1958.
- Heaton Journal, July 26, 1958. He does not say what he did with the pots; presumably they went into the museum's collection.
- ¹⁶⁹³ Heaton Journal, July 26, 1958.
- ¹⁶⁹⁴ Hugh M. Miller, memorandum to Conrad L. Wirth, August 30, 1958.
- ¹⁶⁹⁵ Ibid.
- ¹⁶⁹⁶ Heaton Journal, October 1, 1958.
- Heaton had previously asked permission for his mother, Maggie Heaton, to arrange the furnishings in the fort.
- ¹⁶⁹⁸ Charlie R. Steen, memorandum to Erik K. Reed, March 3, 1959.
- Sandberg was hired in June to scout around and buy more furnishings.
- Heaton Journal, January 29, 1959.
- On May 7, 1959 Heaton wrote in his journal that the office trailer "is in very bad shape and should never have been brought over here."
- Heaton Journal, July 21, 1959. The transcription of Heaton's journal suggests the men actually heard the fort walls "cracking" at the time of the earthquake!
- 1703 H. L. Bill, memorandum to Hugh M. Miller, August 14, 1959.
- 1704 It is uncertain if this was the outside trough or the one in the spring room.
- ¹⁷⁰⁵ Heaton Journal, September 4, 1959.
- See Zorro A. Bradley's 30-page report for details, "The Whitmore-McIntyre Dugout, Pipe Spring National Monument, Arizona," 1959.
- ¹⁷⁰⁷ Erik K. Reed, memorandum to Paul R. Franke, October 1, 1959.
- Udall forwarded the letter to the Washington office, which in turn passed it on to the regional office for consideration on September 18, 1961. No other correspondence is available regarding this request.
- 1709 Robert M. Utley, memorandum to Erik K. Reed, October 2, 1959.
- ¹⁷¹⁰ Ibid.

- 1711 It is unknown if Franke transferred or resigned, but most likely the latter. Heaton wrote that Franke and his wife moved to Santa Fe.
- ¹⁷¹² Heaton Journal, August 24, 1960.
- ¹⁷¹³ Heaton Journal, September 19, 1960.
- 1714 Attendance at the affair wasn't reported.
- 1715 Charlie R. Steen, memorandum to Erik K. Reed, June 30, 1960.
- ¹⁷¹⁶ Heaton Journal, November 11, 1959.
- McKown worked as an inner-canyon ranger at Grand Canyon until April 1962, then moved to Montana where he worked for 35 more seasons as a seasonal ranger at Yellowstone National Park. For additional information see letter from McKown to McKoy, September 9, 1999; and transcribed telephone interview with McKown by McKoy, September 27, 1999.
- ¹⁷¹⁸ Heaton Journal, June 29, 1960.
- ¹⁷¹⁹ James C. McKown, letter to Kathleen L. McKoy, September 9, 1999.
- ¹⁷²⁰ Heaton Journal, August 22, 1960.
- Heaton Journal, September 7, 1960.
- 1722 Max P. Peterson, Annual Report of Information and Interpretation, 1960.
- 1723 Heaton Journal, December 31, 1960.
- Heaton Journal, February 8, 1961. Heaton states no one had lived in the fort since 1938, but his family actually moved out in 1936.
- 1725 It is never stated whether the Tribe purchased it or private individuals from the reservation. He references the requests in his journal on January 26, 1961, and wrote, "[They] will get it for almost nothing."
- There is a photograph of one of the sections on a flat-bed truck being moved off the monument (PISP, neg. 154). This building may yet be standing in Kaibab Village.
- 1727 Heaton Journal, May 6, 1961.
- ¹⁷²⁸ This tank lay around the monument for about three years before Zion made arrangements for the Tribe to take it in August 1962. Another fuel tank associated with the old power house was sent to Zion.
- 1729 Heaton Journal, August 18, 1961.
- 1730 Heaton Journal, August 20, 1961.
- Heaton Journal, July 8, 1961.
- Later events suggest the couple may have been having marital troubles at the time of Olsen's hiring, although these may also have occurred as a result of the separation.
- 1733 Either during or just prior to January 1962, Olsen had a search made of National Archives photos taken during the Powell Survey, but none could be found that related to Pipe Spring. He also researched photos in the Denver Public Library, Western Collection. For details, see Olsen's monthly report, January 31, 1962.
- Olsen wrote and published an article, "Early Cultures of the Southwest," in *California Archeological Bulletin of the California State Archeological Society*, January 1963 (No. 1).
- Heaton Journal, October 21, 1960. See also August 30, 1961, reference to monument needing a maintenance man with skills with tools, plastering, painting, and carpentry.
- 1736 1961 Annual Report on Information and Interpretation.
- Leonard Heaton, monthly report, December 3, 1961.
- ¹⁷³⁸ Heaton Journal, January 4, 1962.
- 1739 Ray Mose, as recorded by Leonard Heaton in his journal, February 27, 1962.

- Leonard Heaton, memorandum to Francis R. Oberhansley, March 30, 1962. A map showing the location of the east cabin corrals is attached to a memorandum from Oberhansley to the regional director, April 3, 1962.
- ¹⁷⁴¹ Thomas J. Allen, memorandum to Francis R. Oberhansley, April 10, 1962.
- 1742 Robert W. Olsen, Jr., monthly report, June 1, 1962.
- 1743 Robert W. Olsen, Jr., monthly report, October 2, 1962.
- ¹⁷⁴⁴ Franklin G. Smith, memorandum to George C. Miller, August 1, 1962. This memorandum also includes recommendations regarding two looms in the monument's collection.
- 1745 Robert M. Utley, memorandum to George C. Miller, October 4, 1962.
- 1746 Ibid.
- Robert W. Olsen, Jr., monthly report, June 30, 1962.
- 1748 It is possible this condition was related to the earlier back trouble that he reported having. He mentioned later that the operation was on the veins in his legs and that it improved his condition.
- See Robert W. Olsen, Jr., combined monthly report for December 1962 and January 1963 for research information on the authenticity of the name's origin.
- Heaton Journal, June 19, 1963.
- Heaton Journal, August 11, 1963.
- 1752 Heaton Journal, August 24, 1963.
- 1753 Heaton Journal, September 14, 1963.
- ¹⁷⁵⁴ Leonard Heaton, monthly report, September 2, 1963.
- The caretaker position was abolished about October 1968 so that the incumbent could be promoted to tour guide, subject to furlough.
- ¹⁷⁵⁶ Heaton Journal, January 9, 1957.
- 1757 Heaton Journal, February 28, 1959.
- On one occasion, Heaton refers to Burr as the "manager" for GarKane Power Company.
- ¹⁷⁵⁹ Heaton Journal, May 8, 1958.
- 1760 Heaton Journal, August 11, 1958.
- ¹⁷⁶¹ Leonard Heaton, monthly report, September 30, 1959.
- Heaton Journal, October 26, 1959.
- Heaton's journal says power reached Moccasin on April 7, but his monthly report says power was turned on in the new line from Boulder on April 8.
- All Establishment Day events during this period are noted under the "Monument Administration" section.
- ¹⁷⁶⁵ Heaton Journal, April 9, 1956.
- ¹⁷⁶⁶ Heaton Journal, April 21, 1957.
- 1767 Heaton Journal, April 6, 1958.
- ¹⁷⁶⁸ Heaton Journal May 4, 1958.
- 1769 Ibid.
- Heaton Journal, March 24, 1959. The information regarding McIntyre conflicts with other sources.
- Heaton Journal, April 13, 1957.
- 1772 Robert W. Olsen, Jr., Annual Report on Information and Interpretation, 1963.
- 1773 This may be contained in the Woolley/Snow Family Collection, op. cit.

- Robert W. Olsen, Jr., monthly report, September 30, 1962. Heaton incorrectly reports the date as September 3 in his journal.
- 1775 The engineer's first name is unknown.
- 1776 Heaton Journal, December 13, 1956.
- ¹⁷⁷⁷ Heaton Journal, February 7, 1957.
- 1778 Heaton Journal, various entries, January 1959.
- 1779 Charlie R. Steen, memorandum to Regional Chief, Division of Interpretation, March 3, 1959. Additional description of work done is contained in Heaton's monthly narrative reports.
- For details, see "Completion Report for Rehabilitation of Fort and Cabins Project," July 25, 1961.
- Heaton Journal, March 7-8, 1957.
- Robert W. Olsen, Jr., file memo, January 25, 1964. See memo for detail; includes a sketch map that also shows location of several old ponds west of the fort.
- 1783 Its location is shown on a utilities sketch map attached to memorandum of July 5, 1957, from Heaton to Franke.
- Leonard Heaton, "Completion Report of Construction Project," signed by Paul R. Franke, August 15, 1957. The concrete comfort station was removed some time after the completion of the visitor center in 1973.
- Heaton reported in his journal on March 20, 1957: "Planted several varieties of cactus and four trees around the comfort station. Want to plant some grass later on."
- 1786 It should be mentioned that originally a two-story duplex was planned for the residences. That was opposed by the regional office and by Heaton, as was the concept of a one-story duplex. In November 1958 Zion officials proposed that yet a third residence be added to the master plan to house a permanent maintenance man.
- Leonard Heaton, memorandum to Hugh M. Miller, November 4, 1958.
- Doty is well-known for the Mission 66 visitor centers he designed for the Park Service, but as it turned out he would not design Pipe Spring's.
- 1789 H. L. Bill, memorandum to Hugh M. Miller, August 14, 1959.
- ¹⁷⁹⁰ See Heaton's monthly reports for July-December 1959. For the most detail, see Narrative Report, Contract No. 14-10-345-7, attached to Individual Building Data form, buildings 6 and 7; see also project completion report.
- For details, see "Completion Report, Entrance, Residence and Utility Roads," final approval February 8, 1961.
- The wooden part of this sign was probably the one made in Zion and delivered to the park in 1956. Heaton never reported its installation. The stone part of the entrance sign was made in 1961.
- 1793 This sign is now located just west of the visitor center.
- Miles E. Smith, "Limited Examination, Field Records, and Property," Pipe Spring National Monument, February 28, 1962.
- ¹⁷⁹⁵ For design of collection box, see P. E. Smith, memorandum to Paul R. Franke, February 24, 1959.
- 1796 Drawing NM/PS-3109 is in the 1950s map file compiled for this project.
- ¹⁷⁹⁷ P. E. Smith, memorandum to Paul R. Franke, March 4, 1959.
- ¹⁷⁹⁸ Paul R. Franke, memorandum to Chief, WODC, March 13, 1959.

- 1799 Hugh M. Miller, memorandum to Paul R. Franke, March 25, 1959.
- 1800 P. E. Smith, memorandum to Paul R. Franke, April 15, 1959.
- ¹⁸⁰¹ Heaton Journal, August 10, 1959.
- ¹⁸⁰² Leonard Heaton, monthly report, November 30, 1960.
- ¹⁸⁰³ In November the bottom of the ponds was dug out to try to reduce the murkiness of the water so visitors could better see the fish.
- Heaton reported in his journal several earthquake tremors were felt at Pipe Spring on February 15, 1962, but did not associate these with changes in the spring flow.
- Heaton Journal, August 6, 1958. It is uncertain what magazine the article was in. Heaton refers to it as a vacation magazine; the *Westways* printed an article mentioning the swimming pool in August 1953.
- 1806 Heaton Journal, July 29, 1963.
- Heaton Journal, March 5, 1956. Heaton reported that he caught a bobcat in a trap set in Heart Canyon. The bobcat had killed one of the white ducks the previous day.
- Hugh H. Bozarth, monthly report, December 1963.
- 1809 Heaton Journal, August 24, 1956.
- Leonard Heaton, "Completion Report for Rehabilitation of Fort and Cabins Project," July 25, 1961. (Heaton's monthly report says this work was completed March 27.) See also Paul R. Franke, memorandum to Chief, WODC, February 11, 1959, and Leonard Heaton, memorandum to Paul R. Franke, February 12, 1959, as well as Heaton's monthly narrative reports. For design of collection box, see P. E. Smith, memorandum to Paul R. Franke, February 24, 1959.
- ¹⁸¹¹ Heaton Journal, April 10, 1961.
- ¹⁸¹² Heaton Journal, November 6, 1960.
- ¹⁸¹³ See Heaton's journal entry of September 1, 1958, for list of items.
- ¹⁸¹⁴ Heaton Journal, January 15, 1959.
- ¹⁸¹⁵ See Heaton's 1961 journal entries for specific references to acquisitions.
- See Heaton's journal entry for September 4, 1961, and monthly report for September 1961. Other donations were made in 1962 (see Olsen's monthly report for June 1962).
- Leonard Heaton, monthly report, January 31, 1963.
- Heaton Journal, April 18, 1956. See also entry of April 20, 1958.
- Leonard Heaton, monthly report, August 2, 1956.
- ¹⁸²⁰ The inquiry letter has not been located, only Heaton's response.
- Leonard Heaton, memorandum to Chief of Lands, May 23, 1956. Heaton's report was not sent directly to the Chief of Lands, but was edited and retyped by Zion officials. When they transcribed this statement and sent it to the regional office it stated, "No meters are used at Pipe Springs. The water is taken directly from the spring and no restrictions are made to its use." (Paul R. Franke, memorandum to Hugh M. Miller, June 4, 1956) With regard to Heaton's domestic water supply, see also attachments to Heaton memorandum to Paul R. Franke, July 5, 1957.
- ¹⁸²² "Answers for the National Park Service to Interrogatories Addressed to the United States by the California Defendants in *Arizona v. California*," May 29, 1956.
- Leonard Heaton, memorandum to Paul R. Franke, October 1, 1956 (under cover letter of October 11, 1956, Chester A. Thomas to Regional Director). The original questions

- were posed by Chief of Lands David Canfield and sent by A. van V. Dunn in a memorandum of August 29, 1956 (not located).
- In a somewhat contradictory statement, Heaton also reported that before the monument was established, the water at Pipe Spring flowed south into the meadow area and then into a sandy area below it. While this area extended one to three miles south, Heaton thought the spring flow would not have exceeded more than one-half mile beyond the meadow at any time.
- ¹⁸²⁵ A. van V. Dunn, memorandum to Hugh M. Miller, April 24, 1957. An index to the docket is attached to Dunn's memorandum.
- 1826 Donald E. Lee, memorandum to Hugh M. Miller, April 3, 1958.
- ¹⁸²⁷ John E. Kell, memorandum to Chief, WODC, March 18, 1959.
- ¹⁸²⁸ A. van V. Dunn, memorandum to Hugh M. Miller, March 20, 1959.
- ¹⁸²⁹ Correspondence files for 1960-1963 contain little, compared to prior years.
- ¹⁸³⁰ John C. Dibbern, letter to Herman E. O'Harra, April 21, 1961.
- ¹⁸³¹ John C. Dibbern, letter to Herman E. O'Harra, November 23, 1961.
- Heaton Journal, May 26, 1956. No details are given. Heaton refers to the boy as "Maxine" but, according to tribal members, that was not the boy's correct name.
- 1833 Heaton Journal, April 23, 1959. First name is not given.
- 1834 Heaton Journal, March 17, 1957.
- 1835 Heaton Journal, July 30, 1958.
- 1836 Heaton Journal, entries for September 22, 24, and October 7, 1960.
- 1837 Heaton Journal, December 13, 1960.
- 1838 Heaton Journal, May 4, 1961.
- 1839 Heaton Journal, July 5, 1962.
- ¹⁸⁴⁰ Andrea Bornemeier, memorandum to Kathleen L. McKoy, June 11, 1999.
- ¹⁸⁴¹ Heaton Journal, September 8, 1962. The girls were unnamed.
- Beginning in 1952, there were widespread field tests of use of gamma globulin during polio epidemics in Utah, Texas, and Iowa, but the tests showed only short-term protection. A vaccine prepared by Dr. Jonas E. Salk was used in the largest medical field test in history on 1,830,000 school children ca. 1953-1954; results were reported in April 1955, disclosing active immunity was provided by the Salk vaccine for at least six months with more permanent protection by use of booster injections.
- ¹⁸⁴³ Morris, Encyclopedia of American History, 814.
- 1844 It appears the marriage was "sealed" in St. George on June 8, 1957, as Heaton reports the same son was married in St. George, Utah, on this date.
- One reference states "a son and daughter" and states they were graduating from Tempe College. Staff meeting minutes say the graduation was for a son. The college is presumably Arizona State University in Tempe, Arizona.
- 1846 Heaton Journal, June 20, 1956.
- Heaton Journal, June 23, 1956.
- ¹⁸⁴⁸ Heaton Journal, May 6, 1957.
- ¹⁸⁴⁹ Heaton Journal, February 8, 1958.
- ¹⁸⁵⁰ Heaton Journal, January 29, 1960.
- Heaton Journal, March 7, 1956. "Oiled" roads were graveled, as opposed to dirt or bituminous-paved roads.

- 1852 Heaton Journal, March 24, 1956.
- David H. Canfield, memorandum to Hugh M. Miller, April 23, 1956.
- ¹⁸⁵⁴ Chester A. Thomas, monthly report to Conrad L. Wirth, May 2, 1956.
- 1855 Heaton Journal, June 23, 1956.
- ¹⁸⁵⁶ Heaton Journal, July 2, 1956.
- ¹⁸⁵⁷ Heaton Journal, July 14, 1956.
- ¹⁸⁵⁸ Leonard Heaton, monthly report, August 2, 1956.
- ¹⁸⁵⁹ Heaton Journal, August 23, 1956.
- Hugh M. Miller, memorandum to Conrad L. Wirth, August 27, 1956.
- ¹⁸⁶¹ J. Edward Amschel, memorandum to Conrad L. Wirth, October 2, 1956.
- ¹⁹⁶² Paul R. Franke, memorandum to Hugh M. Miller, November 23, 1956.
- 1963 Ibid.
- ¹⁹⁶⁴ Heaton Journal, May 2, 1957.
- 1865 Heaton Journal, July 21, 1957.
- Heaton Journal, August 7, 1957.
- Leonard Heaton, monthly report, September 30, 1957.
- ¹⁸⁶⁸ Heaton Journal, October 1, 1957.
- 1869 Heaton Journal, February 17, 1958.
- Heaton Journal, February 24-25, 1958.
- ¹⁸⁷¹ Heaton Journal, March 4, 1958.
- Paul R. Franke, memorandum to Chief, WODC, March 7, 1958.
- ¹⁸⁷³ Thomas C. Vint, memorandum to Chief, WODC, June 16, 1958.
- Hugh M. Miller, memorandum to Chief of Operations, June 25, 1958.
- Paul R. Franke, letter to Superintendent, Kaibab Indian Reservation, June 27, 1958. It is not known who the official was at Ft. Duchesne at this time.
- Paul R. Franke, letter to Superintendent, Hopi Indian Reservation, July 3, 1958. It is unclear to the author why both superintendents at Ft. Duchesne and Keams Canyon were notified about the matter.
- David H. Canfield, memorandum to the Hugh M. Miller, July 31, 1958.
- A map was not attached to the archived letter. The transmittal letter to the Hopi Indian Reservation is dated September 10, 1958; none has been located to the Kaibab Indian Reservation, but it is presumed one was sent out about the same time.
- ¹⁸⁷⁹ H. E. O'Harra, letter to Paul R. Franke, September 17, 1958.
- David H. Canfield, memorandum to Paul R. Franke, October 7, 1958.
- Heaton Journal, January 24, 1959.
- Leonard Heaton, memorandum to Paul R. Franke, February 12, 1959 (filed under cover memorandum of February 17, 1959).
- Heaton Journal, October 12, 1961. See also Zion staff meeting minutes, February 7, 1962.
- Possibly to avoid future problems, the State was not content with the Tribe's earlier granting of right-of-way for the road to cross the reservation, but wanted to own the land outright.

Part X - Pipe Spring National Monument Comes Alive

It is important to emphasize that what is often referred to as protecting the "historic setting" of Pipe Spring in the 1960s was not so much maintaining any *existing* historic

- integrity but was an attempt to return conditions to what they were believed to have been like in the 1870s. It was thus an attempt to *reconstruct* a historic landscape. This was discussed in the Cultural Landscape Inventory of the monument's landscape, conducted in 1997 by Peggy Froeschauer Nelson and Kathleen L. McKoy.
- Raymond J. Geerdes, memorandum to Frank F. Kowski, December 29, 1969.
- ¹⁸⁸⁷ Karl T. Gilbert, memorandum to Frank F. Kowski, July 22, 1970.
- ¹⁸⁸⁸ Morris, Encyclopedia of American History, 645.
- 1889 The correspondence files for the 1960s are very slim for reasons unknown.
- 1890 Historian's monthly report, July 1966.
- Historian's monthly report, September 1964.
- Management Assistant's monthly report, April 1964. A later interview with Grant Heaton revealed that the four poles west of the fort were not historic, but had been replaced with new poles in 1959.
- According to monument staff, the telegraph pole located near the lime kiln site was struck by lightning in the early 1990s and was replaced. The remaining poles are the ones placed in 1965.
- ¹⁸⁹⁴ In his monthly report, August 1965, Olsen reported that William H. Hamblin's grandson, Albert Hamblin, visited the monument and stated that his grandfather was poisoned to death in Pioche, Nevada in 1872, before he could testify in court to the ownership of a mine.
- A sketch map dated "3/5/64" was made at that time showing the main pipelines. See map in 1964 correspondence files.
- Bozarth refers to his samples as "drinking water," suggesting that the samples were taken from the collection box rather than from the fort ponds.
- ¹⁸⁹⁷ Management Assistant's monthly report, March 1965.
- ¹⁸⁹⁸ This work was part of routine maintenance during the 1960s. The tree crew pruned the trees again in 1969.
- 1899 Management Assistant's monthly report, June 1965.
- While no evidence of the road can be discerned east of the fort, one can still see evidence of the road west of the fort as well as for some distance outside the monument boundary, heading southwest. This is believed to be the trace of the old Kaibab Wagon Road as well as old monument road.
- ¹⁹⁰¹ Management Assistant's monthly report, July 1967.
- ¹⁹⁰² James C. McKown, telephone interview by Kathleen L. McKoy, September 27, 1999.
- 1903 It is unknown why Swearingen did not reference Arthur Woodward's 1959 "Details for Furnishing House Museum at Pipe Spring National Monument," unless she considered it inadequate.
- Jean R. Swearingen, memorandum to Daniel B. Beard, July 14, 1967. Report entitled "Pipe Spring National Monument," appended to cover memo.
- Bozarth presumably attended as well, but does not say so in his monthly report for August.
- ¹⁹⁰⁶ Management Assistant's monthly report, May 1967.
- ¹⁹⁰⁷ Carole Gallagher, American Ground Zero, The Secret Nuclear War: xxix.
- 1908 The Historic Listing of National Park Service Officials published by the U.S. Department of the Interior (1991) incorrectly states that Bozarth remained at Pipe Spring until September 1970.

- ¹⁹⁰⁹ Acting Management Assistant's monthly report, September 1967. Later references indicate that management wanted to add to the earlier reconstructed corral.
- 1910 See later sketch map showing native grass restoration areas. The area Bolander planted in is presumed to be that labeled "Project II," located northeast of the fort.
- The location of the temporary contact station is shown on Drawing 321/80001, "Water System," June 25, 1969.
- 1912 The monument was designated Sitka National Historical Park on October 18, 1972. By coincidence, the current superintendent at Pipe Spring National Monument, John W. Hiscock, worked in the Alaska Regional Office from 1989-1994, just prior to his transfer to Pipe Spring.
- ¹⁹¹³ That May, Park Naturalist Barbara Lund (Zion) identified 49 different bird species in the monument, including the broadwing hawk, considered rare for the area.
- Raymond J. Geerdes, letter to Jack Peters, March 7, 1969. Geerdes' title at the Sitka site is unknown. He may have been appointed acting superintendent; he is not listed as one of its superintendents in the *Historic Listing of National Park Service Officials*. He writes in this letter that he was "in charge" of the Alaska site.
- Youths had to be out of school for at least three months before they could qualify under this program and their families had to meet an income criteria.
- Raymond J. Geerdes, memorandum to Joe Montoya, Andrew Sandaval, Jack Peters, July 14, 1969.
- ¹⁹¹⁷ It appears that Geerdes had to find unused NYC "slots" in other communities and ask to use these in order to take on Paiute enrollees, thus it was more difficult to hire them.
- 1918 Raymond J. Geerdes, memorandum to Karl T. Gilbert, June 21, 1968. Geerdes reported that the Tribe had only four eligible enrollees, two of whom worked at the monument.
- ¹⁹¹⁹ Raymond J. Geerdes, memorandum to Karl T. Gilbert, February 28, 1969. This memorandum is a summary of area contacts with local Paiute and Navajo.
- 1920 Raymond J. Geerdes, letter to Tony Gabaldon, June 10, 1969. Four VISTA volunteers worked in the Moccasin area, but not directly for the monument. The particular letter references controversy in the Fredonia community about the VISTA workers, but does not provide details. Geerdes had high praise for their work.
- Tait was first hired under the Youth Conservation Corps (YCC) program; he later also worked under the NYC program.
- ¹⁹²² Karl T. Gilbert, memorandum to Frank F. Kowski, June 27, 1968.
- ¹⁹²³ Frank F. Kowski, memorandum to Karl T. Gilbert, July 18, 1968.
- 1924 Paul C. Heaton, letter to Clarence Newman, undated (ca. late August 1968). Handwritten notes by Raymond J. Geerdes from May and June listed one other name, but it is uncertain if he worked that summer (Stanley Brewer, a Paiute boy). Steve Tait also worked at the monument that summer.
- ¹⁹²⁵ Raymond J. Geerdes, memorandum to Karl T. Gilbert, August 6, 1968.
- ¹⁹²⁶ Raymond J. Geerdes, memorandum to Karl T. Gilbert, February 28, 1969.
- ¹⁹²⁷ The girls were both white.
- In early September, Geerdes made recommendation to Zion officials that Heaton be given an Incentive Award for his "Special Service" in connection with the NYC program.
- Log of Events, Interpretation and Visitor Services, September 1968 (Zion). See also Raymond J. Geerdes, memorandum to Frank F. Kowski, August 31, 1970.

- During the summer Paul C. Heaton contacted seed companies for price lists of native grasses, stating the monument was interested in blue grama, sand drop seed, and native Indian grasses. It is presumed these are the types planted that fall.
- ¹⁹³¹ Log of Significant Events, August 1968.
- 1932 Two rattlers were killed in July; four more in August. Numbers 4 and 5 were near the comfort station and ponds; Number 6 was on the steps of the pond. As in the past it was those hot and dry summer months that attracted both tourists and rattlesnakes!
- 1933 Raymond J. Geerdes, memorandum to Karl T. Gilbert, August 6, 1968.
- 1934 Ibid.
- ¹⁹³⁵ Ibid.
- 1936 Geerdes reported this just after Jake's tragic death in his Log of Significant Events for January 1969. Of course, these visits were not solely related to the NYC program, but also to tribal development plans.
- He added the caveat that she must meet NYC eligibility requirements, which she did. Glendora Snow later married and is now Glendora Homer. She most recently was employed as a seasonal ranger at the monument during the summer of 1999.
- 1938 It is unclear how much guide work the Paiute girls did that summer. Geerdes mentions that, in costume, they ground corn and demonstrated beadwork outside the fort and interacted there with visitors. They also worked in the visitor contact station doing office work.
- 1939 Raymond J. Geerdes, letter to O. F. Myrup, August 4, 1969.
- Raymond J. Geerdes, memorandum to Acting Director, Harpers Ferry Center, September 19, 1970. This memorandum provides the rationale for why buckskin dresses were adopted by the girls. Geerdes explained, "all our research seemed to indicate the young Paiute girls in the 1870s, such as the sketch made of a pretty Paiute girl near Nixon Spring by Powell's party, wore nothing from the waist up. Although several of our Paiute girls rivaled the charm and beauty of the young Paiute girl in Powell's sketch, our better judgement restrained us from being too authentic in this."
- ¹⁹⁴¹ Raymond J. Geerdes, memorandum to Karl T. Gilbert, February 29, 1969.
- 1942 Geerdes later reported the projects cost only five dollars for staples!
- Raymond J. Geerdes, memorandum to Ron Greenberg, June 24, 1969. See also Raymond J. Geerdes, memorandum to Karl T. Gilbert, July 18, 1969; and Raymond J. Geerdes, memorandum to Frank F. Kowski, August 31, 1970.
- ¹⁹⁴⁴ Log of Significant Events (SOUG), March 1969.
- 1945 Raymond J. Geerdes, memorandum to Acting Director, Harpers Ferry Center, September 19, 1970.
- ¹⁹⁴⁶ For details, see Raymond J. Geerdes, letter to Ron Greenberg, June 24, 1969.
- ¹⁹⁴⁷ Log of Significant Events, May and June, 1969.
- What is not made clear in Geerdes' reports is whether the men involved in the demonstrations were all-volunteer or not. They probably were.
- ¹⁹⁴⁹ Raymond J. Geerdes, letter to Jack Peters, March 7, 1969.
- 1950 Raymond J. Geerdes, memorandum to Acting Director, Harpers Ferry Center, September 19, 1970. Geerdes preferred to use the term "Living Interpretation," to "Living History."
- Raymond J. Geerdes, letter to S. P. Duncan, R. Ruiz, and P. Homer, Jr., May 9, 1969.
- 1952 It is presumed the enrollees were paid this amount (or close to it) during 1968 as well, but no documentation on their pay for that year has been located.

- 1953 Log of Significant Events, July 1969. The names of all the enrollees are not available for this year.
- ¹⁹⁵⁴ Raymond J. Geerdes, memorandum to Frank F. Kowski, August 31, 1970. Geerdes never describes the costumes of the Indian girls.
- 1955 Raymond J. Geerdes, memorandum to Acting Director, Harpers Ferry Center, September 19, 1970.
- ¹⁹⁵⁶ Ibid.
- 1957 Geerdes does not identify the women who worked in the fort.
- ¹⁹⁵⁸ Raymond J. Geerdes, letter to O. F. Myrup, August 4, 1969.
- ¹⁹⁵⁹ Log of Significant Events, May and June, 1969.
- 1960 It is not known if this change involved a promotion. No paperwork on the change has been located.
- 1961 This resulted in an odd situation. While Pipe Spring was located in Mohave County but Kingman, Arizona, had no active NYC program. Flagstaff was in Coconino County. By being on the Coconino Community Action Council, Geerdes had access to Flagstaff's NYC "slots," recruiting most of his enrollees through the Flagstaff agency by 1970. That first summer Geerdes also picked up enrollees from other county agencies who failed to utilize their quota.
- A later report indicates that a remnant of a "historic orchard" of plum, peach, and apple trees existed but had gone to "weeds." See monument's 1970 Operations Evaluation, Part VIII.
- 1963 "Goals" attached to Raymond J. Geerdes memorandum to Karl T. Gilbert, July 18, 1969.
- ¹⁹⁶⁴ Log of Significant Events, January 1970.
- Geerdes reported to Andy Sandaval in early 1970 that the monument had two people on staff with M.A. degrees in history. He is probably referring to Allen Malmquist, Tony Heaton, and/or himself.
- ¹⁹⁶⁶ Raymond J. Geerdes, letter to Christian Tract Society, March 11, 1970.
- Raymond J. Geerdes, memorandum to Frank F. Kowski, August 31, 1970. This report includes an enrollee chart listing all the enrollees' names, their job functions, and other information. In-school program enrollees were Bonnie Button, Hazel Mackelsprang, Gina Bundy, Addie Johnson, Lorna Young, Amelia Baker, Ila Jane Bulletts, Brenda Drye, Eileen Drye, Glen Drye, Danny Bulletts, Elwin John, Glen Rogers, Sarah Mae Nez, Maeta Holliday, Daisey Curley, Marilyn Manywhiskers, Chester Franklin, and Larry Curley. Out-of-school program enrollees were Roger Manywhiskers and Norman Curley. Operation Mainstream employees were Konda Button and Alfred Drye.
- ¹⁹⁶⁸ Raymond J. Geerdes, memorandum to Karl T. Gilbert, May 6, 1970.
- ¹⁹⁶⁹ Log of Significant Events, August 1970.
- 1970 C. M. McKell, letter to Raymond J. Geerdes, August 24, 1970. McKell noted that the exotic species growing in the area Geerdes was attempting to revegetate was *Arigostrata cilianensis*, or "stink grass."
- Raymond J. Geerdes, memorandum to Karl T. Gilbert, May 6, 1970. In 1969 Teller and Snow had demonstrated corn grinding; Geerdes doesn't mention what new Indian demonstration was added in 1970.
- 1972 The Dons Club is a well-respected group of Phoenix businessmen interested in Arizona history, particularly the Spanish period. According to Arizona historian Reba Grandrud,

- it still exists and has many members. She thought the club may have been formed in the 1930s. (Reba Grandrud, personal communication to Kathleen L. McKoy, June 17, 1999.)
- "Operations Evaluation of Pipe Spring National Monument, July 30, 1970-August 15, 1970," Luis A. Gastellum, Chief of Office of Operations Evaluation.
- 1974 Ibid.
- ¹⁹⁷⁵ Raymond J. Geerdes, letter to Clenta Holmes, April 22, 1970.
- ¹⁹⁷⁶ Management Assistant's monthly report, March 1965.
- 1977 Management Assistant's monthly report, April 1966.
- ¹⁹⁷⁸ Vernon E. Jake, letter to Warren F. Hamilton, October 18, 1967.
- ¹⁹⁷⁹ Warren F. Hamilton, letter to Vernon E. Jake, October 31, 1967.
- ¹⁹⁸⁰ Zion staff meeting minutes, November 1, 1967.
- Oral interview with William E. Fields by Kathleen L. McKoy, September 15, 1997. Fields (both civil engineer and water rights specialist) became chief of this program in 1969 and served in that position until his retirement in 1987.
- Warren F. Hamilton, memorandum to Daniel B. Beard, April 3, 1968.
- The Park Service's Field Office of Design and Construction was established in San Francisco in July 1954, taking the place of the earlier Western Office of Design and Construction (WODC). In February 1966 it was redesignated the San Francisco Planning and Service Center (referred to as the San Francisco Service Center, or "SSC"). It covered all of the four western regions. In October 1969 the Western Service Center was established; it became the Denver Service Center in November 1971.
- 1984 Garry C. Switzer, memorandum to Chief Landscape Architect, March 29, 1968.
- ¹⁹⁸⁵ Raymond J. Geerdes, memorandum to Karl T. Gilbert, July 13, 1968.
- ¹⁹⁸⁶ Raymond J. Geerdes, memorandum to Karl T. Gilbert, February 28, 1969.
- ¹⁹⁸⁷ Log of Significant Events, January 1969.
- ¹⁹⁸⁸ Raymond J. Geerdes, memorandum to Karl T. Gilbert, February 28, 1969.
- ¹⁹⁸⁹ Ibid.
- ¹⁹⁹⁰ John E. Cook, memorandum to Karl T. Gilbert, March 11, 1969.
- 1991 Kaibab Village has also been referred to by the Kaibab Paiute as "Old Moccasin," "Indian Moccasin," or just "Moccasin," but is a separate community from the original Moccasin (about 1.5 miles northwest) from which they moved in 1908. See Part I for details.
- See Lupe Anaya letter to Mel Heaton, April 21, 1969; Raymond J. Geerdes, letter to Lupe Anaya, April 25, 1969; and Lupe Anaya letter to Raymond J. Geerdes, May 19, 1969.
- See Raymond J. Geerdes, memorandum to Joe Montoya, Andrew Sandaval, Jack Peters, July 14, 1969. The program was not without its difficulties, mostly of an administrative nature. The fact that Fredonia was in a different county than the monument was one obstacle to be overcome with NYC coordinators. In addition, Geerdes at times became extremely frustrated and angered by what he perceived as poor communication and lack of support from the NYC area staff in Flagstaff, particularly during the summer of 1969. A bitter controversy erupted that summer when Geerdes started Dale Yellowhair and Melvis Slim (both Navajo from Fredonia) working, prior to their paperwork being approved by NYC headquarters in Flagstaff. The Flagstaff office later said the boys failed to qualify, dropped them from the program (because the family did not meet the income requirements), and refused to pay them for just under 200 combined hours of work. Geerdes' response letter regarding the matter was ignored for three weeks, prompting phone calls which went unanswered or unreturned. Geerdes' letter of July 14 was a second letter about the matter, this time both angry and threatening in its tone. No further

- documentation was located regarding the matter, so the outcome of the disagreement is unknown. The working relationship at least seems to be have been repaired by the fall.
- Memorandum of telephone call to Karl T. Gilbert from Raymond J. Geerdes, May 13, 1969.
- ¹⁹⁹⁵ Karl T. Gilbert, memorandum to Frank T. Kowski, May 16, 1969.
- 1996 Log of Significant Events, June 1969.
- ¹⁹⁹⁷ Log of Significant Events, July 1969.
- Fields was also chief of the Park Service's Indian Assistance Division and former chief of Water Rights in the Western Office of Design and Construction He identifies himself as Indian. His father was part Cherokee and his mother Anglo. He grew up in New Mexico and spent a great deal of time on the Navajo Reservation. He worked for the Park Service from 1958 to 1987. For more information see oral history interview conducted by Kathleen L. McKoy, September 15, 1997, park archives. At the time of this writing, he was living outside of Santa Fe, New Mexico.
- William E. Fields, Report on Field Trip to Pipe Spring National Monument, July 10, 1969.
- ²⁰⁰⁰ William E. Fields, memorandum to Assistant Regional Director, Operations, July 10, 1969.
- ²⁰⁰¹ Ibid.
- ²⁰⁰² See "The Heaton Family and Pipe Spring, 1909-1924" section in Part I, and "Pipe Spring's Purchase and Belated Transfer to the Federal Government" in Part II.
- ²⁰⁰³ Raymond J. Geerdes, memorandum to Karl T. Gilbert, July 3, 1969 (SOUG edited version).
- ²⁰⁰⁴ Ibid.
- ²⁰⁰⁵ Ibid.
- Raymond J. Geerdes, memorandum to Karl T. Gilbert, July 3, 1969 (PISP original version). "3,000" is possibly a typographical error, unless the EDA grant was to fund a system that would only provide for the tribal office building. A tank this small would have been insufficient for all the planned developments.
- ²⁰⁰⁷ Karl T. Gilbert, memorandum to Frank F. Kowski, July 10, 1969.
- ²⁰⁰⁸ Karl T. Gilbert, memorandum to Frank F. Kowski, July 15, 1969
- ²⁰⁰⁹ Gerard S. Witucki, memorandum to Chief of the Division of Water Resources, July 22, 1969.
- ²⁰¹⁰ William E. Brown, memorandum to Karl T. Gilbert, July 14, 1969.
- ²⁰¹¹ William E. Brown, memorandum to the Assistant Regional Director, July 31, 1969.
- ²⁰¹² Raymond J. Geerdes, memorandum to Karl T. Gilbert, August 5, 1969.
- Ronald E. Cotten and William E. Fields, memorandum to Assistant Regional Director, Operations, September 15, 1969. NPS officials included Karl T. Gilbert, Joe Davis, Jim Schaack, Ray Geerdes, William E. Fields, and Ronald E. Cotten. BIA officials attending the meeting were Supervisory General Engineer Victor Lund, Plant Manager George Easton, and Land Operations Officer Al Purchase.
- ²⁰¹⁴ Raymond J. Geerdes, memorandum to Karl T. Gilbert, January 1, 1970, "Legal and Historical Brief," 6.
- ²⁰¹⁵ For details regarding the geological aspects of the water situation see William F. Mildner, memorandum to William E. Fields, September 29, 1969.
- ²⁰¹⁶ Frank F. Kowski, memorandum to Director, Western Service Center, December 12, 1969.
- ²⁰¹⁷ Frank F. Kowski, memorandum to Director, Western Service Center, July 17, 1970.
- ²⁰¹⁸ Albert H. Schroeder, memorandum to Raymond J. Geerdes, August 29, 1969.

- ²⁰¹⁹ Karl T. Gilbert, memorandum to Frank F. Kowski, October 10, 1969. There is no elaboration provided on this last point.
- The lands were described as "the balance of Sec. 17 (600 acres), the N 1/2 of the N 1/2 of Sec. 20 (down to the highway) and those parts of Secs. 16 and 21 lying west of the new Moccasin Road about 760 acres total." Source: "Memorandum of Understanding Between Pipe Springs National Monument and the Kaibab Paiute Tribe," unsigned and undated; probably prepared by Ray Geerdes in either late 1969 or early 1970.
- ²⁰²¹ Log of Significant Events, November 1969.
- ²⁰²² Raymond J. Geerdes, memorandum to Karl T. Gilbert, January 1, 1970, "Legal and Historical Brief," 6.
- 2023 Karl T. Gilbert, memorandum to Frank F. Kowski, December 12, 1969. Copies of several sample layouts were attached to this memo, but the quality is too poor to include in this report.
- ²⁰²⁴ Monte E. Fitch, memorandum to George B. Hartzog, Jr., December 16, 1969.
- ²⁰²⁵ Castro was also Claudina Teller's brother.
- ²⁰²⁶ Raymond J. Geerdes, memorandum to Karl T. Gilbert, December 20, 1969.
- ²⁰²⁷ Ibid.
- ²⁰²⁸ A German term literally meaning "living space," but alluding to the amount of additional territory deemed necessary by a nation for its economic well-being.
- ²⁰²⁹ Raymond J. Geerdes, memorandum to Frank F. Kowski, December 29, 1969. He is referring to Secretary of the Interior Walter J. Hickel.
- ²⁰³⁰ Raymond J. Geerdes, letter to Bill Tom, December 29, 1969.
- ²⁰³¹ Edward A. Hummel, memorandum to Frank F. Kowski, December 24, 1969.
- ²⁰³² John E. Ritchie, memorandum to Frank F. Kowski, December 30, 1969.
- ²⁰³³ The date and location of this meeting (whether at the monument or tribal office) is unknown. No detailed report of this meeting has been located. Only a reference to it in the Log of Significant Events, March 1970.
- ²⁰³⁴ BIA Area Director, memorandum to Superintendent, Hopi Agency, April 17, 1970.
- ²⁰³⁵ Ray Geerdes, memorandum to Karl T. Gilbert, March 25, 1970.
- Log of Significant Events, March 1970. See also letter from Raymond J. Geerdes to Westley Lucas, March 28, 1970.
- ²⁰³⁷ See Raymond J. Geerdes memorandum to Frank F. Kowski, August 31, 1970, for an excellent background summary on the monument's NYC program.
- The new housing area was referred to as the "Mutual Self-Help Housing Project." Until this time, the road to Moccasin had not been paved.
- Originally Gilbert declined the invitation, but a later letter (James M. Eden to Homer M. Gilliland, June 16, 1970) indicates he attended, and that he and Geerdes spoke with Gilliland
- Homer M. Gilliland, letter to Frank F. Kowski, May 11, 1970.
- ²⁰⁴¹ Karl T. Gilbert, letter to Bill Tom, May 28, 1970.
- ²⁰⁴² Karl T. Gilbert, memorandum to Frank F. Kowski, July 22, 1970. Resolution is attached to this memo.
- ²⁰⁴³ Frank F. Kowski, memorandum to Walter J. Hickel, September 21, 1970.
- ²⁰⁴⁴ Minutes of the BIA-NPS meeting, July 20, 1970.
- ²⁰⁴⁵ Copies of these plans were not located during research.

- No documentation has been located that would explain why the change of heart regarding a land exchange, whether the Tribe had reversed its views or the BIA opposed the exchange.
- ²⁰⁴⁷ Bill R. Alford, memorandum to Frank F. Kowski, May 19, 1970.
- ²⁰⁴⁸ Log of Significant Events, July 1970.
- The research process ended up taking three to four months longer than Geerdes had originally anticipated.
- 2050 Log of Significant Events, December 1969. See also Raymond J. Geerdes, memorandum to Karl T. Gilbert, December 16, 1969.
- ²⁰⁵¹ Raymond J. Geerdes, memorandum to Karl T. Gilbert, September 4, 1969.
- ²⁰⁵² Ibid.
- ²⁰⁵³ Ibid.
- Raymond J. Geerdes, memorandum and report to Karl T. Gilbert, January 1, 1970, "The Ownership of Pipe Spring: Legal and Historical Brief," 68.
- ²⁰⁵⁵ Historian's monthly report, January 1964.
- A sketch map of the proposed trail is attached to a January 25, 1964, file memo by Bob Olsen concerning the lime kiln.
- Historian's monthly report, January 1964. Olsen wrote "I also found a rock with drill holes in it near the stone boat trail."
- ²⁰⁵⁸ Raymond J. Geerdes, memorandum to Karl T. Gilbert, July 13, 1968.
- Raymond J. Geerdes, memorandum to Karl T. Gilbert, August 6, 1968. See also Raymond J. Geerdes, memorandum to Karl T. Gilbert, July 18, 1969.
- ²⁰⁶⁰ Raymond J. Geerdes, memorandum to Karl T. Gilbert, July 18, 1969.
- 2061 Annual Report on Information and Interpretation, 1964.
- ²⁰⁶² Ray Geerdes later reported that the rugs woven on the loom were used in the fort.
- The monument's 1970 Operations Evaluation stated that Harpers Ferry staff visited the monument to begin the interpretive prospectus, but did not indicate the date of their visit.
- ²⁰⁶⁴ "Program Standards, Interpretation, Pipe Spring National Monument," approved by Frank F. Kowski, July 22, 1969.
- The Universal Microfilming Corporation copied the ledger in March in Salt Lake City. The negative of the microfilm was turned over to the Zion Natural History Association, who paid for the filming.
- See Olsen's monthly report for February 1964 for details on how Dellenbaugh sketch plan differed from what was at the fort in 1964. Olsen's March 1964 report goes into great detail about where the spring entered the fort, as Dellenbaugh's sketch showed it not emerging inside the fort but entering the fort through the west wall of the lower building.
- ²⁰⁶⁷ Robert W. Olsen, Jr., "Pipe Spring, Arizona, and Thereabouts," *The Journal of Arizona History*, Vol. 6, No. 1 (Spring 1965).
- According to monument staff, the location of this tape is unknown; it also appears never to have been transcribed. (Andrea Bornemeier, electronic communication to Kathleen L. McKoy, June 24, 1999.)
- Historian's monthly report, May 1966. This is the first reference the author has seen to this family name connected to Moccasin Spring ownership and requires verification beyond the scope of this report. Mrs. Nisson stated her parents were in the area during the time of the Whitmore-McIntyre slayings.

- ²⁰⁷⁰ Garth M. Colton, letter to Raymond J. Geerdes, June 6, 1969. A copy of the agreement with Colton's signature is included, It is not known of Geerdes signed and returned the agreement or if the joint proposals were ever carried out.
- Log of Significant Events, January 1970. See also Geerdes' letter to Jensen, April 28, 1970
- ²⁰⁷² Annual Reports for 1964-1967; Log of Significant Events, December 1968 and December 1969.
- ²⁰⁷³ See Olsen's file notes of October 30, 1965, for details.
- ²⁰⁷⁴ Management Assistant's monthly report, May 1967.
- ²⁰⁷⁵ Dodd was interviewed in April 1976; a transcript of that interview is in monument archives (*Oral History Collection, Pipe Spring National Monument, Vol. I*, 1996).
- ²⁰⁷⁶ Geerdes once spells the name "Latimore," but later refers to a Melva Whitmore Latimer, who made a donation of antique clothing in June 1968. This woman, Geerdes stated, was Whitmore's great granddaughter.
- Bozarth gives this name in his monthly report. Olsen reported the dress was made by "the second lady telegrapher stationed at Pipe Spring in 1876," and mentions no name.
- 2078 Charles S. Pope, report to Frank Kowski on April 30 and May 1 Pipe Spring visit, June 25, 1969. For information about the Johnson family at Lee's Ferry, see the recent National Register nomination prepared for Lee's Ferry and Lonely Dell Ranch Historic District by Historical Research Associates, Inc., July 1997.
- ²⁰⁷⁹ Ibid.
- Later, Pope's office requested that the stone walls with efflorescence be periodically washed with clear water and asked also for sample of the efflorescent salts for analysis. For details, see memorandum for E. A. Connally to Frank F. Kowski, August 8, 1969.
- ²⁰⁸¹ Karl T. Gilbert, memorandum to Frank F. Kowski, February 13, 1970 (draft).
- ²⁰⁸² Log of Significant Events, July 1969.
- ²⁰⁸³ Log of Significant Events, August 1969.
- ²⁰⁸⁴ It was thought by the inspector that the unsatisfactory water quality was caused by the collection box (buried beneath the parlor floor) not being thoroughly disinfected before it was put back into use. It had been emptied and cleaned shortly before three tests in June and July 1964 revealed poor water samples.
- ²⁰⁸⁵ Kenneth D. Feigner, "Environmental Health Survey, Pipe Spring National Monument," July 15, 1964.
- ²⁰⁸⁶ Zion workmen later repatched the hole.
- ²⁰⁸⁷ The new leach filed was located about 25 feet east of where Leonard Heaton once indicated skeletons had been unearthed.
- ²⁰⁸⁸ This area is no longer used as a public area and is covered with natural vegetation, as is the entire site of the old CCC camp.
- ²⁰⁸⁹ Management Assistant's monthly report, April 1964.
- ²⁰⁹⁰ Log of Significant Events, May and June 1969.
- ²⁰⁹¹ Management Assistant's monthly report, May 1966.
- ²⁰⁹² Log of Significant Events, September and October, 1969.
- A clevis is a U-shaped metal shackle with the ends drilled to receive a pin or bolt, used for attaching or suspending parts.
- Frank R. Oberhansley, letter to Norman Heaton, January 14, 1964.

- Bozarth reported in Chapter 1 of the Master Plan that the spring flow was 64,000 gallons per day.
- ²⁰⁹⁶ Log of Significant Events, November 1968.
- Log of Significant Events, January 1969. For a more detailed account, see Raymond J. Geerdes letter to Fred Howard, January 30, 1969.
- Management Assistant's monthly report, February 1965. It is difficult to ascertain if the event took place within monument boundaries from Bozarth's description.
- ²⁰⁹⁹ Log of Significant Events, June 1968.
- ²¹⁰⁰ Raymond J. Geerdes, memorandum to Karl T. Gilbert, February 28, 1969.
- ²¹⁰¹ Log of Significant Events, November 1968.
- ²¹⁰² Raymond J. Geerdes, memorandum to Karl T. Gilbert, February 28, 1969.
- ²¹⁰³ Sydney B. Ellis, letter to Glen Cook, July 29, 1968.
- ²¹⁰⁴ Raymond J. Geerdes, letter to Karl T. Gilbert, September 4, 1968.
- ²¹⁰⁵ Log of Significant Events, September 1968.
- ²¹⁰⁶ Karl T. Gilbert, letter to Glen N. Cook, Madison Productions, Inc., October 4, 1968.

Part XI - Living in the Past, Planning for the Future

- ²¹⁰⁷ Morris, Encyclopedia of American History, 501-505.
- 2108 "Fredonia Community Action Programs May Continue; Administrative Jobs End." The Southern Utah News, March 1, 1973. (Attached to Robert C. Heyder memorandum of March 6, 1973.)
- ²¹⁰⁹ For details, see Richard A. Thomason's archeological report, "Pipe Springs National Monument Utilities Project," January 15, 1971.
- The U.S. Department of the Interior's *Historic Listing of National Park Service Officials* lists Tracy's title as "Park Manager," as well as his successor, William M. Herr. The author has deferred to the title used by Tracy and Herr on official correspondence, "Superintendent."
- ²¹¹¹ Quoted by Bernard G. Tracy; interview by Mary Jane Lowe, *Oral History Collection*, *Pipe Spring National Monument*, Vol. II, 1996.
- ²¹¹² The contractor was from Hurricane, Utah, whom Witucki and Barrett met with en route to Pipe Spring on January 11.
- Gerard S. Witucki, memorandum to WSC Director William L. Bowen, January 20, 1971.
- Donald C. Barrett, memorandum to William L. Bowen, February 19, 1971. Barrett reported that an earlier report suggesting water could be obtained from alluvial fill in Two Mile Wash was probably based on the assumption that the Indian well at Moccasin was completed in the alluvium. "There is good reason to question this assumption," he wrote.
- 2115 Donald C. Barrett, memorandum to William L. Bowen, April 2, 1971. This report also contains as-built dimensions and hydrologic data.
- ²¹¹⁶ Karl T. Gilbert, memorandum to Frank F. Kowski, March 31, 1971.
- ²¹¹⁷ Ibid.
- ²¹¹⁸ Karl T. Gilbert, memorandum to Frank F. Kowski, April 2, 1971.
- Bill Tom, letter to Karl T. Gilbert, March 30, 1971. Attached to Gilbert memorandum of April 2, 1971.

- According to information provided by William E. Fields to Kathleen L. McKoy during a September 15, 1997, interview, the Economic Development Administration (EDA) provided funds for tribal developments through the Indian Development District of Arizona.
- ²¹²¹ Karl T. Gilbert, memorandum to Frank F. Kowski, May 3, 1971.
- Only the architect's last name was reported, "Numkena," with some question over its spelling.
- ²¹²³ "Agreement," attached to letter from Bill Tom to Karl T. Gilbert, July 30, 1971.
- For the differences in versions see Karl T. Gilbert's version attached to memo of April 2, 1971; Bill Tom's version attached to memo of July 30, 1971; and Gilbert's comments in memo to Frank F. Kowski, August 9, 1971.
- ²¹²⁵ Karl T. Gilbert, memorandum to Frank F. Kowski, August 25, 1971.
- ²¹²⁶ Ibid. It is not known who was appointed to the task. (It may have been Bill Fields.)
- 2127 Theodore R. Thompson, memorandum to Acting Chief, Office of Environmental Protection and Design, Western Service Center. Several sketches are attached, including suggested building arrangement. The building layout is considerably different from the existing one.
- Merrill D. Beal, memorandum to Glenn O. Hendrix, Denver Service Center, August 11, 1972. See McLane report attached to Beal's memorandum.
- The building is referenced in documents from the 1970s by a wide variety of names: at the January 20, 1972, meeting it was called the Indian Cultural Center Building; other names used in 1972 were the Kaibab Paiute Cultural Center, Kaibab Paiute Tribal Building, Visitor Center-Arts and Crafts Building, and Kaibab Paiute Tribal Cultural Building/Visitor Center. (The latter was used on the official dedication program.) After its construction, it was most often called the visitor center.
- ²¹³⁰ A. Norman Harp, interview by Kathleen L. McKoy, September 15, 1997.
- ²¹³¹ According to Bill Fields, the Park Service's Indian Assistance Program assisted the Tribe in writing a grant to obtain construction funds from the EDA. William E. Fields, interview by Kathleen L. McKoy, September 15, 1997.
- For a cost breakdown, see A. Norman Harp, letter to Ferrell Secakuku, January 26, 1972. Bill Fields later commented that the Western Office of Design and Construction probably would have charged \$65,000 for the plans alone!
- 2133 A. Norman Harp, memorandum to Frank F. Kowski, January 25, 1972.
- The author has not located the Completion Report on the building, nor does other documentation list the start-up date or date of completion. No annual report was filed that year, nor were monthly reports kept. One source stated the building was scheduled to be completed by October 1972.
- ²¹³⁵ A. Norman Harp, interview by Kathleen L. McKoy, September 15, 1997.
- ²¹³⁶ Correspondence states that Paul Akers (Indian Technical Assistance Center) also provided help to the Tribe in this project.
- William E. Fields, interview by Kathleen L. McKoy, September 15, 1997. Fields stated, "We hired as many Kaibabs as we could hire."
- A. Norman Harp, interview by Kathleen L. McKoy, September 15, 1997. Natay is currently American Indian Trust Responsibility Officer for the Intermountain Region.
- ²¹³⁹ William E. Fields, memorandum to Frank F. Kowski, July 26, 1972.
- ²¹⁴⁰ William E. Fields, interview by Kathleen L. McKoy, September 15, 1997.
- ²¹⁴¹ Bernard G. Tracy, memorandum to J. Leonard Volz, August 18, 1972.

- U. S. Government Lease for Real Property, Lease No. GS-09B-73087, March 29, 1973. (Research copy only has signature of Bill Tom.
- ²¹⁴³ Zion's Superintendent Robert C. Heyder recalled in a 1996 interview that the Kaibab Paiute Band attained tribal status about this time, another reason to celebrate.
- ²¹⁴⁴ Plan of Operations for Dedication, Pipe Spring National Monument, May 26, 1973.
- ²¹⁴⁵ Dedication Program, May 26, 1973.
- Robert R. Lovegren, memorandum to Utah State Director, October 23, 1973. Arizona's Assistant to the Regional Director sought to develop an agreement with the Yavapai Apaches in the development of a visitor complex near Montezuma Castle National Monument. They asked to see Pipe Spring agreements as examples.
- Negotiations to renew the contract, which expired April 13, 1997, are still in process at the time of this writing. In the interim, the old agreement has been mutually renewed in three-month increments.
- For details, see Construction Drawing No. 321/41,001, Water Supply System, January 1972.
- Although this is the amount listed in the contract, the final Completion Report lists the total cost as \$152,312.50. Completion Report, February 21, 1974.
- Superintendent's Annual Report for 1974. (Robert C. Heyder version.) See also related correspondence, June 24, 1974.
- ²¹⁵¹ Bernard G. Tracy, memorandum to Lynn H. Thompson, through Robert C. Heyder, February 3, 1977.
- 2152 "Operations Evaluation, Pipe Spring National Monument," June 25, 1975.
- ²¹⁵³ It was mentioned that "although there are some difficulties that have arisen with Indian employees due to major cultural differences, these matters appear to be handled satisfactorily."
- ²¹⁵⁴ Superintendent's Annual Report for 1976 (Robert C. Heyder version).
- In paperwork prepared by the Tribe in applying for financial assistance to build the multipurpose center, it was stated, "Presently, the Tribe is experiencing a high rate of alcoholism among its tribal members. It can be readily assumed that this may be the result of lack of adequate facilities to deal with the leisure time of the Kaibab Paiute Tribe. The provision of leisure service facilities is essential towards the unification of the Tribe and the preservation and enhancement of the culture." (Program Narrative Statement, Part IV," attached to Robert C. Heyder memorandum to Regional Director, May 20, 1976.)
- ²¹⁵⁶ "Paiutes Plan to Dedicate New Building," Southern Utah News, December 21, 1978.
- ²¹⁵⁷ Bernard G. Tracy, letter to Chairperson, May 28, 1976.
- ²¹⁵⁸ Ed Jahns, memorandum to Bernard G. Tracy, January 5, 1977.
- ²¹⁵⁹ Bernard G. Tracy, memorandum to Lynn H. Thompson, through Robert C. Heyder, February 3, 1977; Robert C. Heyder, memorandum to Lynn H. Thompson, February 9, 1977.
- ²¹⁶⁰ Superintendent's Annual Report for 1977 (Robert C. Heyder version).
- At the end of 1977, the Tribe planned to construct a 4,000-foot long, six-inch sewer line to a sewage lagoon by the next travel season. A new lagoon was reported built in the Superintendent's Annual Report for 1977, but no description the system was included.
- The author does not have a copy of the schedules attached to the lease agreement, so is unable to determine in what ways the lease was "improved." It is likely that the Park

- Service was clearer about its expectations regarding maintenance services to be provided by the Tribe since this was the area that caused the most problems between 1973-1978.
- Tracy retired at the GS-09 level. In a 1975 Operations Evaluation, it was reported that nearly all administrative services were handled at Zion National Park at that time. Should the monument either be made independent of Zion or should it hire an Administrative Assistant to take over its administrative duties, they stated, consideration should be given to upgrading the Superintendent's grade to a GS-11. Since neither of these conditions were met when William M. Herr was hired in 1979, it is unclear why the position was upgraded.
- ²¹⁶⁴ William E. Fields, interview by Kathleen L. McKoy, September 15, 1997.
- ²¹⁶⁵ Ibid. Fields recalled the Tribe located a couple of trailers for offices on the campground for a while when it was only partially constructed.
- The author believes this area served as the tribal picnic area referred to in Park Service documents, long before it opened as a campground.
- ²¹⁶⁷ Superintendent's Annual Report for 1979 (John O. Lancaster version).
- ²¹⁶⁸ Superintendent's Annual Report for 1979 (John O. Lancaster version).
- ²¹⁶⁹ William E. Fields, memorandum to Frank F. Kowski, July 26, 1972.
- ²¹⁷⁰ Superintendent's Annual Report for 1978 (Robert C. Heyder version).
- Superintendent's Annual Report for 1974. Another document states the Tribe tapped the line "on June 24 or thereabouts, and the delivery of water commenced by the National Park Service on June 26." Robert C. Heyder, letter to Bill Tom, December 18, 1974.
- ²¹⁷² Correspondence from Richard R. Truitt to Bill Tom, September 23, 1974, suggests the new housing units were to be transferred to Kaibab Village from Zion.
- ²¹⁷³ Robert C. Heyder, letter to Bill Tom, September 25, 1974.
- ²¹⁷⁴ Ibid. See also related correspondence, September 12, 1974.
- ²¹⁷⁵ Bernard G. Tracy, memorandum to Robert C. Heyder, May 15, 1975.
- ²¹⁷⁶ Bernard C. Tracy, memorandum to Acting General Superintendent Billy R. Alford, December 30, 1971.
- ²¹⁷⁷ These two programs may have been linked to the NYC program.
- For details see letter of January 28, 1972, from Bernard Tracy to Governor Jack Williams and letter and petition from the Neighborhood Council to Bob Kennerly, Arizona Rural Effort, February 4, 1972.
- ²¹⁷⁹ Bernard G. Tracy, letter to Jack Williams, June 15, 1972.
- ²¹⁸⁰ Bernard G. Tracy, memorandum to J. Leonard Volz, September 7, 1972.
- Adeline Johnson was married to Owen Johnson, whose mother, Ester Heaton Johnson, was one of Jonathan Heaton's daughters.
- ²¹⁸² Documents suggest that Park Guide Joe Bolander supervised the VIPs.
- ²¹⁸³ Robert C. Heyder, memorandum to Bernard G. Tracy, May 25, 1973.
- ²¹⁸⁴ Ibid.
- ²¹⁸⁵ Bernard Tracy, undated memo (1972 research file). This memo also reported the cost of the branding program for 1971 and 1972.
- ²¹⁸⁶ It is unclear if the ZNHA sold only quilts produced as part of the monument's interpretive program or if other quilts were sold.
- ²¹⁸⁷ Because no Superintendent's Annual Reports were required or filed for 1970 and 1971, and Tracy filed no monthly logs in 1971, little data is available on personnel for that period. In fact, no monthly logs from Tracy were located for the entire period of his tenure.

- Mel Heaton continued to lead private wagon treks after he left the monument. From 1978-1998 he led annual Honeymoon Trail treks, in addition to other wagon treks. The second week of September was the time chosen for the Honeymoon Trail trek. (Mel Heaton, personal communication to Kathleen L. McKoy, July 6, 1999.)
- ²¹⁸⁹ Superintendent's Annual Report for 1972.
- ²¹⁹⁰ "Information on Quilting at Pipe Spring National Monument," attached to Bernard Tracy memo of November 18, 1976.
- In 1973 an Operations Evaluation Team raised a concern about having Heaton's animals on the monument. "The Government provides feed and care for these animals. The question arises concerning the legality of the Government furnishing feed and care to animals belonging to one of its employees. The question of injury to a visitor or death of an animal poses complications. It is recommended that the Superintendent explore the possibility of purchasing animals rather than continuing with the present practice." (Operations Evaluation Report, May 1973.)
- ²¹⁹² "Management Objectives, Pipe Spring National Monument," (draft) March 3, 1971.
- ²¹⁹³ Correspondence states that by Rick Strand, presumably of Harpers Ferry Center, developed the exhibit plan.
- ²¹⁹⁴ "Observations and Recommendations Pertaining to the Pipe Springs National Monument Interpretive Program," John W. Hanna, August 6, 1974.
- ²¹⁹⁵ For Clark's initial proposal and budget, see his memo to Bob Heyder, May 5, 1975.
- ²¹⁹⁶ Paul Swearingen would later attend the open house and accompany the first wagon trek.
- ²¹⁹⁷ "The Making of an Interpretive Event," Glenn O. Clark, undated (probably October 1975). Much of the description of the first wagon trek is taken from this report. Additional detail is contained in this highly entertaining narrative.
- ²¹⁹⁸ Superintendent's Annual Report for 1976. See also NPS Press Release, August 25, 1976.
- The exact dates of the 1977 and 1978 wagon treks were not given in the Superintendent's Annual Reports in which they were mentioned.
- ²²⁰⁰ Superintendent's Annual Report for 1978.
- Vicki H. Black, "Communication Counselor's Report, Glen Canyon NRA, Zion NP, Pipe Spring NM, Cedar Breaks NM," September 6, 1977. (Her name is now Vicki B. Webster.)
- ²²⁰² See Appendix VI, "Visitation."
- ²²⁰³ Superintendent's Annual Report for 1975.
- ²²⁰⁴ Superintendent's Annual Report for 1976 (Robert C. Heyder version).
- Rodd L. Wheaton, memorandum to Associate Regional Director, Professional Support, September 20, 1974.
- 2206 Contract issued May 14, 1976, to Conron and Muths; see research file, "Pipe Springs Buildings, Misc. Dates."
- Tom Muths, Trip Report for November 15-16, 1976; see report for additional details. See also Trip Report by Rodd Wheaton, November 30, 1976.
- ²²⁰⁸ The firms' report is attached to Rodd L. Wheaton memorandum to Robert C. Heyder, November 8, 1977.
- ²²⁰⁹ This report is attached to a memo from Bill R. Alford to Frank F. Kowski, October 5, 1971.
- ²²¹⁰ "Management Objectives, Pipe Spring National Monument," (draft) March 3, 1971.
- 2211 Ibid
- ²²¹² George M. Kessler, letter to Joseph Bolander, February 24, 1971.

- ²²¹³ Purchase Order No. 1550, February 18, 1972.
- ²²¹⁴ Project Construction Proposal, Grounds Improvement, Fort and Picnic Area, M-9-2.
- ²²¹⁵ "Operations Evaluation Report," May 1973. During the 1980s, monument staff report, a lot of irrigation line was laid so that cultivated areas and some trees could be watered from the ponds.
- ²²¹⁶ The monument was, in fact, referred to during this period as "Tracy's Truck Farm," but it is unknown if this moniker came from local residents or from Park Service administrators who disapproved of his farming activities. In Tracy's defense, he had gone to great lengths to insure the planting of historically appropriate species.
- ²²¹⁷ "Pipe Spring Pasture Survey," H. E. McCutchen, April 9, 1976. Attached to Robert C. Heyder's cover memorandum of June 4, 1976.
- ²²¹⁸ Resource Management Plan, Pipe Spring National Monument, January 31, 1977.
- ²²¹⁹ Ibid.
- Hank McCutchen, "A Condition and Trend Analysis of Two Pastures at Pipe Spring National Monument," October 5, 1977.
- ²²²¹ Bernard G. Tracy, memorandum to Robert C. Heyder, July 13, 1977.
- ²²²² Glen T. Bean, memorandum to Robert C. Heyder, September 20, 1977.
- ²²²³ Robert C. Heyder, memorandum to Bernard G. Tracy, November 15, 1977.
- ²²²⁴ Bernard G. Tracy, memorandum to Robert C. Heyder, October 20, 1977.
- Robert C. Heyder, memorandum to Bernard G. Tracy, November 15, 1977. See also Lynn H. Thompson, memorandum to Robert C. Heyder, January 12, 1977.
- No formal evaluation of the cultural landscape was completed until 1997, when it was determined that the landscape lacked sufficient historical integrity for listing on the National Register of Historic Places. (See Peggy Froeschauer Nelson and Kathleen L. McKoy. "Cultural Landscape Inventory, Pipe Spring National Monument," August 1997.) This determination, however, did not preclude its management as a historic landscape, but gave managers a wider latitude in how they chose to manage it.
- The document listed standards for law enforcement; fee collection; forestry and fire control; primary and secondary roads; trails and walk, buildings, utilities (including irrigation system), garbage and trash removal, grounds, fences and walls, picnic area, signs, interpretive program, livestock program, historic artifacts, GSA vehicles, and storm drainage channels. Under all these areas, workload factors were listed along with requirements to meet standards. This report is attached to a memo from Bill R. Alford to Frank F. Kowski, October 5, 1971.
- ²²²⁸ Superintendent's Annual Report for 1979 (John O. Lancaster version).
- ²²²⁹ Bill R. Alford, memorandum to Frank F. Kowski, December 20, 1971.
- 2230 These guidelines were adapted from Nan Carson Rickey's, Guide to Interpretive Maintenance, Old Bedlam, Collins Quarters, 1863-1864, prepared for Fort Laramie National Historic Site.
- ²²³¹ Jean R. Swearingen, memorandum to J. Leonard Volz, December 1, 1971. ("Preliminary Guide" is attached to this memorandum.)
- For Olsen's report, see Robert W. Olsen, memorandum to Chief, Division of Museum Services, February 14, 1975.
- ²²³³ File memo, May 30, 1975.
- 2234 Ed Jahns, Trip Report, August 10-11, 1976.
- ²²³⁵ Superintendent's Annual Report for 1976.

- ²²³⁶ Bernard Tracy, memorandum to Robert C. Heyder, December 6, 1976. A list of items not found in the inventory (thus to be deaccessioned) is attached to this memo.
- ²²³⁷ Superintendent's Annual Report for 1977 (Robert C. Heyder version).
- ²²³⁸ Dean Bradshaw, letter to Bernard G. Tracy, February 1, 1977.
- ²²³⁹ Superintendent's Annual Report for 1978 (Robert C. Heyder version).
- Records of the area's annual "Christmas" bird count for 1969, 1970, and 1971 are in research file "PISP Bird Count/Surveys." (For information on the Audubon Society's Christmas bird count, see December 21, 1978, article from the *Washington County News* in this file.) There may have been other years the count was conducted, but reports were not located for other years.
- ²²⁴¹ Superintendents' Annual Report for 1974.
- ²²⁴² E. Durant McArthur, letter to Glenn O. Clark, May 6, 1975.
- ²²⁴³ "The Flora of Pipe Spring National Monument," Richard J. King, Soil Conservation Service, U.S. Department of Agriculture (undated; probably late 1977 or January 1978).
- LaMar W. Lindsay and Rex E. Madsen, "Report of Archeological Surveys of the Pipe Springs National Monument Water Supply System Project, Kaibab Indian Reservation, Mohave County, Arizona; Zion National Park Sewer Extension Project, Washington County, Utah; Arches National Park Road and Sewage Disposal Area Projects, Grand County, Utah; and Canyonlands National Park Road Projects, Needles and Grandview Point Areas, San Juan County, Utah." (Salt Lake City: University of Utah; unpublished public document, July 15, 1973): 4-5.
- Four, two-hour interviews by Glenn Clark with Joe Bolander and one three-hour interview with Leonard Heaton, conducted in January 1976, were transcribed in 1996 and are included in the monument's *Oral History Collection, Pipe Spring National Monument, Vol. 1*.
- This report on water, sewage, and waste disposal was originally part of a larger document whose title was not noted on the copied section.
- ²²⁴⁷ James W. Schaack, memorandum to J. Leonard Volz, April 21, 1972; news article attached. (*The Southern Utah News*: "Power Lines to Cut Across Area," April 20, 1972.)
- ²²⁴⁸ Superintendent's Annual Report for 1978.
- Superintendent's Annual Report for 1978 (Robert C. Heyder version).
- It was reported that the historic measurement was 1945 in the Superintendent's Annual Report for 1979. This is incorrect; the author has substituted the correct figure. See Part V, "Completing the Division of Water" section.
- A 1973 Operations Evaluation team reported that Heaton's animals were furnished feed at the government's expense and questioned the legality of the arrangement, as well as liability issues.
- ²²⁵² Bernard G. Tracy; interview by Mary Jane Lowe, *Oral History Collection, Pipe Spring National Monument, Vol. II*, 1996, VIII:7. Tracy couldn't remember how many ("twenty-five or fifty"); breeds were la porpentins, silver wyandottes, and others.
- 2253 Ibid. VIII:8.
- Ronald E. Cotten, memorandum to Assistant Director, Park Support Services, August 26, 1971. Numerous photographs are included with this report.
- For additional reports on storm damage repair, see also J. Leonard Volz, memorandum to Bernard G. Tracy, June 27, 1972; Donald M. McLane, memorandum to Assistant Director,

- Park Operations, July 28, 1972 (attached to memorandum from Merrill D. Beal to Director, Denver Service Center, August 11, 1972).
- ²²⁵⁶ WO #1510-7002-404; WO for Emergency Storm Damage Repairs, approved June 6, 1972.
- Additional work related to storm damage repairs is described in WO #1510-7501-503, see 1972 research files. See also Completion Report, dated April 3, 1975.
- ²²⁵⁸ Bernard G. Tracy, memorandum to Karl T. Gilbert, March 17, 1971.

Part XII - The Herr Administration

- ²²⁵⁹ Morris, Encyclopedia of American History, 488; 540.
- ²²⁶⁰ NPS-28, Cultural Resource Management Guideline, National Park Service Department of the Interior, July 1994.
- ²²⁶¹ John O. Lancaster, memorandum to Glen T. Bean.
- Department of the Interior, National Park Service, Office of Management Policy: "Draft, Native American Relationships Policy," September 22, 1980.
- ²²⁶³ Solicitor's supplement to Solicitor Opinion No. M-36914 under cover memo of February 10, 1981, from Ira J. Hutchison to all regional directors and DSC manager. See supplement for additional information.
- ²²⁶⁴ Superintendent's Annual Report, 1980.
- ²²⁶⁵ Banks' Parks Technician position was upgraded to Ranger, GS-09, after he left in 1989.
- The names of permanent employees are not repeated annually in the Personnel chart (Appendix IX), only dates they began and ended their work at the monument. As much information as possible on these topics was gathered during the course of research. Names of seasonal staff (particularly CETA workers) were not always reported, however. This is the most complete list that could be compiled from the records available to the author.
- 2267 "Operations Evaluation and Management Review of Pipe Spring National Monument," May 9-14, 1982 (under cover memorandum from Lorraine Mintzmyer to William M. Herr, July 12, 1982). Herr's response to the report are in his memo to Zion's superintendent, August 3, 1982. This statement appears to be an exaggeration, as the level of ZNHA contributions represented only a fraction of the monument's allotted budget (see Appendix VIII). Funds from ZNHA were most often applied to interpretive programs, the museum, and the library.
- 2268 Ibid.
- ²²⁶⁹ William M. Herr, memorandum to Dolores Savala, October 22, 1985. No response on file.
- During 1984 and 1986, the event was held in early September. It is not known if it was always held that month, nor if it was offered annually, although Herr refers to it as annual event in 1986.
- ²²⁷¹ "'Pride in America' Program set," Spectrum, Wednesday, July 15, 1987.
- Operations Evaluation, Pipe Spring National Monument, June 13-15, 1988. Under cover memo from William M. Herr, with responses to evaluation report, September 29, 1988.
- ²²⁷³ Ibid.
- ²²⁷⁴ Ibid.
- ²²⁷⁵ Kathleen L. McKoy and Historical Landscape Architect Peggy Froeschauer Nelson carried out landscape research in the summer of 1997. The study confirmed the 1988 team's assessment of the landscape, documenting its loss of historical integrity.
- William M. Herr, monthly report for November 1988. "The affirmative answer took about 2 seconds," reported Herr. Herr does not say why the offer came from Superintendent Grafe, who was at Pipe Spring when it was made.

- The earliest proposal was to locate the incinerator just over one-half mile south of PISP; by 1990 the location being considered was 5 miles southeast of PISP.
- ²²⁷⁸ Superintendent's annual report, 1990.
- ²²⁷⁹ "Approval of waste incinerator project means jobs, 'war'" Spectrum, October 9, 1990.
- A substantial amount of documentation on the Waste-Tech issue is located in the 1990 research file, but the author collected none after that date. Articles with complete citations are listed in the Bibliography of this report (a number of articles lacked dates or name of the newspaper).
- ²²⁸¹ Superintendent's annual reports, 1979-1989.
- Herr's community activities appear not to have included much (if any) off-duty socializing with the Kaibab Paiute. Reports indicate his interactions with the Tribe were nearly always of an official nature.
- ²²⁸³ Superintendent's annual report, 1989.
- Statement for Management, Pipe Spring National Monument; approved November 26, 1980.
- ²²⁸⁵ Zion staff meeting minutes, February 25, 1981.
- ²²⁸⁶ The exact amount agreed upon in 1972 was 7,884,000 gallons of water per year.
- ²²⁸⁷ William M. Herr, letter to Dolores Savala, January 16, 1984.
- ²²⁸⁸ William M. Herr, memorandum to Lorraine Mintzmyer, April 9, 1984.
- ²²⁸⁹ In January 1983 Park Technician Fred Banks spoke to members of the Tribal Council about seasonal employment opportunities that summer, which suggests the monument's interest in hiring members of the Tribe. There may have been little interest among Indian youth to work either as fort guides or laborers.
- There is a perception among a number of recently interviewed tribal members that Kaibab Paiute have had little employment opportunity at the monument, and that their ranks have been drawn upon only for menial work, such as the seasonal laborer position. Shortly after Sam Tom was hired, a permanent maintenance mechanic position opened at the monument. There is no indication Herr encouraged tribal members to apply. The fact that there were few Indians working at the monument during the 1980s may have reinforced that feeling.
- ²²⁹¹ The author was unable to learn what the"TGB" acronym stands for.
- ²²⁹² Archeologist Ann Johnson, Rocky Mountain Regional Office, provided Section 106 clearance for this project.
- For additional detail on water line installation, see memorandum to files by William M. Herr, May 4, 1982.
- ²²⁹⁴ Superintendent's annual report, 1980.
- That year the monument drafted its "Water Resource Management Plan" which described the ways in which monument water was used and described floodplain management, water quantity, impacts of decreasing surface water at Pipe Spring, water quality, the ecosystem, water rights, and analysis of alternatives. See draft report for details, 1982 research file.
- 2296 Stanley L. Ponce and William B. Reed, memorandum to Chief, Water Resources Division, October 23, 1984.
- 2297 Revised 10-238, Development/Study Package Proposal, "Determine Reason for Decreased Spring Flow," referenced in the Superintendent's annual report for 1984 (copy of 10-238 in 1984 research file).
- For details on the 1973 Park Service well and on the proposed monument study outline, see William B. Reed, memorandum to Stanley Ponce, December 18, 1984.

- ²²⁹⁹ William M. Herr, monthly reports for February and March 1986. It is interesting to note what may have been a notion among local ranchers that the Park Service well negatively impacted flow from Pipe Spring sources, particularly given that such pains were taken to drill a well that would *not* impact Pipe Spring water.
- 2300 The men were Olen Williams and Don Barrett. Barrett returned with Richard Inglis in August 1986 to install measuring instruments. In October Barrett and Inglis returned with Alice Johns, also from Ft. Collins.
- Water measuring devices were installed as part of the study, but the 1987 Superintendent's annual report stated, "Additional study has gone into a workable device for tunnel spring." It is unclear then whether all water sources were being accurately measured or just the main spring.
- Owen R. Williams and Donald C. Barrett. "An Evaluation of the Decline in Spring Flow at Pipe Spring National Monument," undated; under cover memorandum of September 2, 1986.
- 2303 Donald Barrett and Richard Inglis, memorandum to Chief, Water Rights Branch (Stanley Ponce), October 7, 1986. See also Barrett and Inglis memorandum/trip report to Chief, Water Resources Division, October 15, 1986.
- Alice E. Johns, memorandum to Chief, Water Resources Division, February 9, 1987. She refers to the springs as main spring, spring house spring, and tunnel spring. Rick Inglis refers to these three in 1988 as big spring, parlor room spring, and tunnel spring.
- 2305 Doug Dewitz, file memoranda, November 15, 1987.
- William M. Herr, monthly report, December 1987. For additional information about work on tunnel spring, see Doug Dewitz, memorandum to Ron Hermance, August 26, 1986; William L. Werrell, memorandum to Lorraine Mintzmyer, February 2, 1988; and most important Dewitz's handwritten project notes attached to PX 1510-8-0010, September 16, 1988.
- ²³⁰⁷ Ibid.
- ²³⁰⁸ See file and phone memoranda from September 23 through December 3, 1987; see also file record 112, Water Rights Branch Information Tracking System, December 4, 1987 (all in 1987 research file).
- 2309 It is now known that drilling in Moccasin does not affect Moccasin Spring unless the drilling is along the fault. (Andrea Bornemeier, draft review comment to Kathleen L. McKoy, June 25, 1999.)
- No documentation is available to the author to indicate the outcome of these events.
- 2311 Beth Voelkel, phone memorandum of call from Doug Dewitz, December 3, 1987.
- William Werrell, memorandum to Harold Grafe, September 29, 1987; and Water Resources Division file memo, undated.
- Doug Dewitz, memorandum to L-54 water files, Zion, and Water Resources Division, October 29, 1987.
- 2314 Doug Dewitz, memorandum to William M. Herr, June 28, 1988.
- No documentation available to the author after the 1972 water agreement reports anything being done to monitor the Tribe's use of Pipe Spring water.
- ²³¹⁶ For details, see Richard R. Inglis' trip report, August 26, 1988, under cover memo from Stanley L. Ponce (same date).
- Milton Jackson, memorandum to Lorraine Mintzmyer, June 26, 1989. Subsequent events occur beyond the time-frame of this study and have not been researched.

- No report is available on the status of the shop in 1985.
- ²³¹⁹ Jamie Gentry, letter to Tribal Council, March 14, 1988.
- Superintendent's annual report, 1989. It is presumed Hasty is referencing sales in fiscal, not calendar years. For sales totals for the decade covered by this chapter, see Superintendent's annual reports, 1979-1989.
- 2321 Zion staff meeting minutes, July 31, 1979.
- ²³²² Gary M. Hasty, memorandum to Leslie J. Powell, October 31, 1989.
- ²³²³ Leslie J. Powell, letter to Cecil Scott, November 2, 1989.
- ²³²⁴ Cecil Scott, letter to Leslie J. Powell, November 15, 1989.
- ²³²⁵ Zion staff meeting minutes, February 5, 1981.
- ²³²⁶ No information has been located on how this program was operated or funded.
- ²³²⁷ John Cram was responsible for most blacksmithing demonstrations.
- ²³²⁸ William M. Herr, monthly report, May 1979.
- Zion staff meeting minutes, July 28, 1981. See also memo from M. S. Nicholson to Chief, Office of Communications and Public Affairs, July 15, 1981.
- ²³³⁰ Zion staff meeting minutes, September 4, 1980. The author was unable to learn who "Mr. Jackson" was.
- 2331 It is unknown if this idea was ultimately carried out.
- These reports are not available for every year, only for 1982 through 1986 and 1988.
- ²³³³ "Annual Statement for Interpretation and Visitor Services," March 8, 1982.
- 2334 Ibid.
- ²³³⁵ "Annual Statement for Interpretation and Visitor Services," February 4, 1988.
- ²³³⁶ Ibid.
- ²³³⁷ Superintendent's annual report, 1989.
- ²³³⁸ Ibid.
- ²³³⁹ For an example of one locally prominent woman's thoughts on the subject, see the interview of Adeline S. Johnson, April 26, 1996 (*Oral History Collection, Pipe Spring National Monument, Vol. II*, 1996).
- Superintendent's annual report, 1989. Hasty does not specify which years were miscalculated. Herr's 1979-1988 figures are reported in the Appendix as Herr calculated them. The 1989 figure was reported by Hasty.
- 2341 Zion staff meeting minutes, August 7, 1980.
- For a more complete listing of notable visitors, see the Superintendent's annual reports for this time period.
- 2343 Zion Concession Specialist John W. Hiscock visited the monument in July 1985 to look over the sales outlet. He returned in September that year for the same purpose. This was at a time the ZNHA was considering leasing the Tribe's gift shop space.
- ²³⁴⁴ Zion staff meeting minutes, March 26, 1980. This work was performed under Contract No. CX 1200-6-B 029 (or 016?), "Pipe Spring Restoration Project." For details, see progress reports filed in May-September 1980.
- 2345 John Conron, along with Rick Borjes, served as the historical architects overseeing the project. Conron was with Conron & Muths, Restoration Architects, based in Jackson, Wyoming, the private consulting firm that did the initial investigation of the fort's moisture problem beginning in November 1976 (see Part XI).

- 2346 Associated drawings: 321-80,007 2A (Walkway Removal) and 2321-80,007 2B (Change Drainage Location). See also, Zion staff meeting minutes for April-September, 1980 meetings.
- For details, see the following: 1) trip report for June 3-4, 1980, by Richard A. Borjes;
 Completion Report, by Raymond D. Pollock, June 22, 1981;
 trip and closeout inspection report for September 4-6, 1980, by Richard A. Borjes.
- ²³⁴⁸ "Pipe Spring National Monument, Original Woodwork Paint/Finish Color Study," Conron and Muths, Restoration Architects, March 1981: 94. According to Leonard Heaton's records, the red and green scheme of the porches dates no later than 1952 (possibly as early as 1942). Heaton also mentions painting other exterior woodwork light gray in 1952 (the author could find no mention of "cream" in his records). Heaton reported painting other exterior woodwork light gray in 1952. The change to white may date to 1959 when the porches were scraped and repainted.
- ²³⁴⁹ Ibid. See also later references to this study in Gary M. Hasty memorandum to Richard A. Strait, September 6, 1989, and Richard J. Cronenberger memorandum to William M. Herr, November 14, 1989, in which Cronenberger recommended retaining the white paint scheme.
- For details, see Completion Report, "Remove Old, Rebuild New Catwalk," November 10, 1982.
- ²³⁵¹ For details, see Completion Report, "Reroof Fort/Building #1," March 20, 1984.
- For details, see Completion Report, "Regrout Fort Walls/Building #1," March 20, 1984.
- ²³⁵³ Superintendent's annual report, 1990. Work originally planned for the east cabin included replacing the existing roof framing system and sheathing in kind, installation of a new bentonite roof with built in drainage, site drainage, and repointing of stone masonry, interior and exterior.
- 2354 See 1) 1989 research file for information on Project No. PISP-8901 Reroof and Stabilize East Cabin and West Cabin, and Project No. PISP-8902, Site Drainage for East Cabin and West Cabin; 2) trip report for July 17-21, 1989, by Richard J. Cronenberger; and 3) "Brief Overview, Stabilization to HS-3, Summer/Fall 1989," by Doug Dewitz.
- ²³⁵⁵ Bryce Canyon Preservation Assistance Team, "Preservation Maintenance Project Proposal, Blacksmith Show and Bunkhouse, PISP," June 1989.
- ²³⁵⁶ "Devastating Storm Strikes Pipe Spring," NPS press release, August 21, 1989.
- ²³⁵⁷ William M. Herr, monthly report, August 1981.
- ²³⁵⁸ William M. Herr, oral interview by M. J. Lowe, April 30, 1996. *Oral History Collection, Pipe Spring National Monument, Vol. II*: 27.
- ²³⁵⁹ Maintenance Mechanic Doug Dewitz received training in orchard management techniques (tree pruning, etc.) at Capitol Reef National Park. For a list of fruit trees ordered in February 1985, see 1985 research file.
- ²³⁶⁰ William M. Herr, oral interview by M. J. Lowe, April 30, 1996. *Oral History Collection, Pipe Spring National Monument, Vol. II*: 28.
- ²³⁶¹ Ibid., 32.
- ²³⁶² Ibid., 36.
- ²³⁶³ William M. Herr, memorandum to Rodd Wheaton, April 20, 1983.
- ²³⁶⁴ Draft Cultural Resources Management Plan, February 1985.
- ²³⁶⁵ The 1985 Draft Cultural Resource Management Plan states, "Native grasses at Pipe Spring have been crowded out or overgrazed to near extinction. Some species maintain

- a tenuous hold. A proposal has been written for future funding consideration for planting native grasses, trees, and shrubs."
- "Operation Evaluation Report," June 13-15, 1988 (filed under cover memorandum from William M. Herr to Lorraine Mintzmyer, September 29, 1988; includes Herr's responses to evaluation).
- 2367 Ibid.
- 2368 Ibid.
- The draft Cultural Resources Management Plan was never finalized, as a new format came out in 1988.
- ²³⁷⁰ Everhart also oversaw roadwork the crew did about this time at the monument.
- ²³⁷¹ Ron Everhart, memorandum to Glen T. Bean, September 25, 1979.
- ²³⁷² For details, see "Completion Report, Shop Rehabilitation," March 20, 1984.
- This trail work did not include the nature trail, which has never been wheel chair accessible due to the extreme ruggedness of the terrain.
- Doris D. Fanelli, "Collection Preservation Guide, Pipe Spring National Monument," July 1980.
- ²³⁷⁵ William M. Herr, memorandum to Lorraine Mintzmyer, March 31, 1981.
- ²³⁷⁶ Richard A. Strait, memorandum to Assistant Manager, Midwest/Rocky Mountain Team, Denver Service Center, May 8, 1891. Region's comments are attached.
- Robert J. Shelley, memorandum to Richard A. Strait, September 18, 1981 (Berle Clemensen's September 14, 1981, response to regional comments is attached).
- ²³⁷⁸ The 1984 National Register nomination contains numerous errors. The current Superintendent intends to have the nomination amended at some future date for the purposes of providing corrections, changing the district boundaries, and extending the site's period of significance.
- ²³⁷⁹ Superintendent's annual report, 1981.
- ²³⁸⁰ Superintendent's annual report, 1982. See also Herr's monthly report for May 1982.
- ²³⁸¹ William M. Herr, monthly report, March 1984.
- For details see William M. Herr, memorandum to Board of Survey, Zion National Park, March 30, 1982.
- ²³⁸³ William M. Herr, monthly report, March 1982.
- William M. Herr, monthly report January 1985.
- ²³⁸⁵ Zion staff meeting minutes, April 22, 1981.
- ²³⁸⁶ William M. Herr, monthly report, February 1982. Herr reported, "Up to four feral dogs have been observed in the area lately. Research with a rifle indicated that the Superintendent is a lousy shot. Further research will be carried out with the aid of a pistol."
- ²³⁸⁷ William M. Herr, monthly report, July 1982.
- ²³⁸⁸ William M. Herr, monthly report, July 1985. No specifics and outcome were reported.

Epilogue

²³⁸⁹ Global Media Guide; Dec. 31, 1998, statistics (Church of Jesus Christ of Latter-day Saints Internet website - www.lds.org).

Bibliography

Published Public Documents

I	, Horace M. Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1929 and the Travel Season, 1929. Washington, D.C.: Government Printing Office, 1929.
F	Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1930 and the Travel Season, 1930. Washington, D.C.: Government Printing Office, 1930.
F	Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1931 and the Travel Season, 1931. Washington, D.C.: Government Printing Office, 1931.
F	Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1932 and the Travel Season, 1932. Washington, D.C.: Government Printing Office, 1932.
tÌ	Newton B. Annual Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 1941. Washington, D.C.: Government Printing Office, 1941.
	Annual Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 1942. Washington, D.C.: Government Printing Office, 1942.
	Annual Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 1943. Washington, D.C.: Government Printing Office, 1943.
	Annual Report of the Director of the National Park to the Secretary of the Interior for the Fiscal Year Ended June 30, 1944. Washington, D.C.: Government Printing Office, 1944.
	Annual Report of the Director of the National Park to the Secretary of the Interior for the Fiscal Year Ended June 30, 1945. Washington, D.C.: Government Printing Office, 1945.
	Annual Report of the Director of the National Park to the Secretary of the Interior for the Fiscal Year Ended June 30, 1946. Washington, D.C.: Government Printing Office, 1946.
	Annual Report of the Director of the National Park to the Secretary of the Interior for the Fiscal Year Ended June 30, 1947. Washington, D.C.: Government Printing Office, 1947.
	Annual Report of the Director of the National Park to the Secretary of the Interior for the Fiscal Year Ended June 30, 1948. Washington, D.C.: Government Printing Office, 1948.
	Annual Report of the Director of the National Park to the Secretary of the Interior for the

- Fechner, Robert. Annual Report of the Director of Emergency Conservation Work, Fiscal Year ending June 30, 1936. Washington, D.C.: Government Printing Office, 1936.
- Ickes, Harold L. *Annual Report of the Secretary of the Interior for the Fiscal Year Ended June 30, 1934*. Washington, D.C.: Government Printing Office, 1934.
- Mather, Stephen T. Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1920 and the Travel Season 1920. Washington, D.C.: Government Printing Office, 1920.
- _____. Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1923 and the Travel Season, 1923. Washington, D.C.: Government Printing Office, 1923.
- _____. Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1924 and the Travel Season, 1924. Washington, D.C.: Government Printing Office, 1924.
- _____. Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1925 and the Travel Season, 1925. Washington, D.C.: Government Printing Office, 1925.
- _____. Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1926 and the Travel Season, 1926. Washington, D.C.: Government Printing Office, 1926.
- Gilbert, Cathy and Kathleen L. McKoy. *Cultural Landscape Report: Fruita Rural Historic District, Capitol Reef National Park*. U.S. Department of the Interior, National Park Service, Intermountain Region, 1997.
- Paige, John C. *The Civilian Conservation Corps and The National Park Service, 1933-1942 An Administrative History.* U.S. Department of the Interior, National Park Service, 1985.
- U.S. Department of the Interior, National Park Service. "Highways in Harmony: Southwest Circle Tour Roads and Bridge," Washington, D.C., Government Printing Office, 1994.
- _____. *Historic Listing of National Park Service Officials*, Washington, D.C.: Government Printing Office, May 1991.
- _____. "Zion and Bryce Canyon National Parks, Utah," Circular of General Information, Washington, D.C.: Government Printing Office, 1930.
- _____. "Zion and Bryce Canyon National Parks, Utah," Circular of General Information, Washington, D.C.: Government Printing Office, 1935
- _____. "Southwest Circle Tour Roads and Bridges," Washington, D.C., Government Printing Office, 1994.

- West, Roy O. Extract from the Annual Report of the Secretary of the Interior, Fiscal Year 1928 Relating to the National Park Service. Washington, D.C.: Government Printing Office, 1928.
- Wirth, Conrad L. Annual Report of the Director of the National Park to the Secretary of the Interior for the Fiscal Year Ended June 30, 1953. Washington, D.C.: Government Printing Office, 1953.
- _____. Annual Report of the Director of the National Park to the Secretary of the Interior for the Fiscal Year Ended June 30, 1954. Washington, D.C.: Government Printing Office, 1954.
- _____. Annual Report of the Director of the National Park to the Secretary of the Interior for the Fiscal Year Ended June 30, 1956. Washington, D.C.: Government Printing Office, 1956.
- _____. Annual Report of the Director of the National Park to the Secretary of the Interior for the Fiscal Year Ended June 30, 1957. Washington, D.C.: Government Printing Office, 1957.
- _____. Annual Report of the Director of the National Park to the Secretary of the Interior for the Fiscal Year Ended June 30, 1960. Washington, D.C.: Government Printing Office, 1960.
- Work, Hubert. Extracts from the Annual Report of the Secretary of the Interior, Fiscal Year 1927 Relating to the National Park Service. Washington, D.C.: Government Printing Office, 1927.

Unpublished Public Documents

Atwater, John W. "Inspection Report, Kaibab Agency and Schools," August 24-30, 1922.

- Bradley, Zorro. "The Whitmore-McIntyre Dugout, Pipe Spring National Monument, Arizona," 1959.
- Clemensen, A. Berle. "Historic Structure Report History Data Section, Pipe Spring National Monument," 1980 (draft).
- Cowell, A. E. "Report on Spring Flow, Pipe Springs National Monument," May 1934.
- Crampton, C. Gregory. "Mormon Colonization in Southern Utah and in Adjacent Parts of Arizona and Nevada, 1851-1900," National Park Service, 1965.
- Dietz, Henry W. "Report on Water Supply of the Kaibab Indian Reservation, Arizona," November 1914.
- Dunn, A. van V. "Water Rights Interests of National Park Service in Lower Colorado River Basin," November 28, 1952.
- Fox, Gregory L. "The Pipe Spring Archeological Survey: A Section 110 Planning Project, Pipe Spring National Monument, Mohave County, Arizona." Tucson: Western Archeological and Conservation Center, National Park Service, 1994.
- Geerdes, Raymond. "The Ownership of Pipe Spring: A Legal and Historical Brief," January 1, 1970.

- Grace, Tacy. "Biography of James Montgomery Whitmore," undated, Pipe Spring National Monument vertical files.
- Heaton, C. Leonard. "A Brief History of the Town of Moccasin, Arizona," undated (ca. 1936?).
- _____. "Early History of Pipe Spring," Southwestern Monuments Report Supplement, April 1936.
- _____. "Historical [sic] and Facts Pertaining to Pipe Spring National Monument, Arizona," undated (probably 1949).
- . "Guide for Lecture to Visitors," undated (ca. late 1940s).
- _____. "Notes of C. Leonard Heaton on Pipe Spring National Monument," 1926-1963 (Heaton Journal; transcribed copy)
- Hunt, Jr., William J. "Archeological Study of Historic Structures HS-2 and HS-3, Pipe Springs National Monument, Arizona." Lincoln, Nebraska: Midwest Archeological Center, May 1, 1991.
- McKown, James C. and Robert M. Utley. "Pipe Spring National Monument, Arizona," National Park Service Historical Handbook Series No. 00, Washington, D.C., 1964.
- LaMar W. Lindsay and Rex E. Madsen, "Report of Archeological Surveys of the Pipe Springs National Monument Water Supply System Project, Kaibab Indian Reservation, Mohave County, Arizona; Zion National Park Sewer Extension Project, Washington County, Utah; Arches National Park Road and Sewage Disposal Area Projects, Grand County, Utah; and Canyonlands National Park Road Projects, Needles and Grandview Point Areas, San Juan County, Utah." Salt Lake City: University of Utah; July 15, 1973.
- Markoff, Dena S. "The Dudes are Always Right The Utah Parks Company in Zion National Park, 1923-1972," Zion Natural History Association, September 1980.
- Means, H. C. "Report on Kaibab Irrigation," Bureau of Indian Affairs, July 12, 1911.
- Nelson, Peggy Froeschauer and Kathleen L. McKoy. "Cultural Landscape Inventory, Pipe Spring National Monument," National Park Service, August 1997.
- Nusbaum, Jesse L. "Report on Archeological Investigations of Indian Service 'Short Creek to Zion' Road Location across a Western, or Late Pueblo II Mound, on the Kaibab Indian Reservation, immediately southward of Pipe Springs National Monument," September 1940.
- Rothrock, H. E. "Report on Pipe Springs [sic] National Monument," June 1939.
- Rose, Robert H. "Report of Water Resources and Administrative Problems at the Pipe Spring National Monument," September 19, 1933.
- Sandberg, Lloyd Snow. "Pipe Spring National Monument." 1957.

- Stoffle, Richard W., Diane E. Austin, David B. Halmo, Arthur M. Phillips III. "Ethnographic Overview and Assessment: Zion National Park, Utah and Pipe Spring National Monument, Arizona," Bureau of Applied Research in Anthropology, University of Arizona, Tucson, AZ and Southern Paiute Consortium, Pipe Spring, AZ. Draft, July, 1995.
- Thomason, Richard A. "Pipe Springs National Monument Utilities Project," January 15, 1971.
- Vandiver, Vincent W. "Report on Pipe Springs National Monument, Mohave County, Arizona," January 1937.
- Ward, W. J. "Report of Reconnaissance for Proposed Fredonia-Toroweap Approach Road to Grand Canyon National Monument," June 10, 1937.
- Owen R. Williams and Donald C. Barrett. "An Evaluation of the Decline in Spring Flow at Pipe Spring National Monument," undated; under cover memorandum of September 2, 1986.
- Wirt, W. H. "Report to Chief Forester on Emergency Conservation Work at Pipe Spring National Monument," December 10, 1935.

Woodward, Arthur. "A Brief Historical Sketch of Pipe Springs, Arizona," June 1941.

_____. "Details for Furnishing House Museum at Pipe Spring National Monument," January 1959.

Newspaper Articles

(from F. P. Farquhar Collection, Bancroft Library, University of California, Berkeley, CA)

- "National Park Association in Utah Proposed," Deseret News, December 19, 1921.
- "Highway System to Link Utah Parks Proposed," Deseret News, December 20, 1921.
- "Zion Park and Cedar Breaks May be United," Deseret News, December 20, 1921.
- "Southern Utah Counties Seek Primary Road," Deseret News, December 20, 1921.

(from Utah Parks clipping file, Union Pacific's archives, Omaha, Nebraska)

- "Southern Utah Soon to See Development, "Salt Lake Tribune, March 12, 1923.
- "UP Officials Head New Corporation to Develop State," Deseret News, March 29, 1923.
- "Offer Is Made For Bryce Land" Salt Lake Tribune, May 5, 1923.
- "C. of C. Disapproves UP Land Purchase," Deseret News, May 14, 1923.
- "Application for School Land Purchase Delayed," Salt Lake Tribune, May 17, 1923.
- "Coast Seeks Delta Trade," Salt Lake Tribune, May 21, 1923.
- "Retail Dealers Welcomed to City by Mayor," Desert Evening News, May 22, 1923.
- "Delta Shows Prize Farms," Salt Lake Tribune, May 22, 1923.
- "UP Has Big Utah Program," Salt Lake Tribune, May 23, 1923.
- "Mabey Relates Facts of Trip," Salt Lake Tribune, May 24, 1923.
- "Club Favors Sale of 40 acres at Bryce Canyon," Deseret News, May 25, 1923.
- "Board Favors Bryce Project," Salt Lake Tribune, May 26, 1923.
- "Hotels to be Finished Soon," Salt Lake Tribune, May 28, 1923.
- "Governor is Invited to Extend South Visit," Salt Lake Tribune, May 29, 1923.
- "State Officials Leave to View Park Hotel Site," Deseret News, June 1, 1923.
- "Bryce Canyon Party is Feted," Salt Lake Tribune, June 2, 1923.
- "Scenic Utah to be Viewed," Salt Lake Tribune, June 4, 1923.

- "State Agrees to Sell Bryce Canyon Land to Railroad for Hotel Site," Deseret News, June 4, 1923.
- "Governor Back From Road Trip," Salt Lake Tribune, June 4, 1923.
- "State to Keep Title to Land," Salt Lake Tribune, June 5, 1923.
- "Hotel at Bryce Declared Needed," Salt Lake Tribune, June 6, 1923.
- "Road Commissioners Favor Shorter Road, Zion Park to Bryce Canyon," *Salt Lake Tribune*, June 26, 1923.
- "Hotel Begun at Zion Park," Salt Lake Tribune, June 30, 1923.
- "Bryce is Made U.S. Monument," Salt Lake Tribune, June 30, 1923.
- "State Must Sell Entire 40 Acres to U.P.," Deseret Evening News, June 30, 1923.
- "Bryce Hotel Now Assured," Salt Lake Tribune, June 30, 1923.
- "State Offer for Bryce Land Sale Accepted by U.P.," Deseret Evening News, July 2, 1923.
- "Park Highway Plan Approved," Salt Lake Tribune, March 12, 1924.
- "2 Zion Park Road Connections Are to Be Improved," Deseret News, July 18, 1924.
- "Parks Committee Assures Finances For Road Program," Desert News, July 18, 1924.
- "Zion Park Road Contract is Let," Deseret News, July 23, 1924.
- "Contract Is Let on 3.37 Mile Road in Provo Canyon," Desert News, October 3, 1924.
- "Utah Highways Ready to Meet Tourist Trade," Deseret Evening News, November 27, 1924.
- "\$200,000 Will Be Spent in 1925 in Advertising Southern Utah Wonders," *Salt Lake Tribune*, November 25, 1924.
- "Land Exchange Authorized to Open Utah Park," Deserte Evening News, November 28, 1924.
- "Secretary Offers Plans for Utah National Park," Salt Lake Tribune, November 28, 1924.
- "Mather Details Possibilities of Southern Utah's Attractions," *Salt Lake Tribune*, December 9, 1924.
- "Bids Wanted to Zion Park Road," Salt Lake Tribune, December 14, 1924.

(from National Park Service, Denver Service Center Library, Denver, Colorado)

- "Arizona Strip Town Peopled by One Family," undated, no citation.
- "Pipe Springs is Tribute to Early Day Mormon Settlers," Arizona Daily Star, undated (1939?).
- "Pipe Spring Monument is a Complete Museum," Arizona Daily Star, August 19, 1939.
- "Pipe Spring is Kept Complete," Arizona Daily Star, August 19, 1939.
- "Moccasin: One Family Town," Christian Science Monitor, undated (probably early 1941).

(Pipe Spring National Monument files)

- "Fredonia Community Action Programs May Continue; Administrative Jobs End." *The Southern Utah News*, March 1, 1973.
- "Power Lines to Cut Across Area," The Southern Utah News, April 20, 1972.
- "'Pride in America' Program set," Spectrum, Wednesday, July 15, 1987.
- "Approval of waste incinerator project means jobs, 'war'," Spectrum, October 9, 1990.
- "Indians resist toxic incinerators," High Country News, September 10, 1990.
- "Tribe votes on incinerator, chairman," Southern Utah News, October 8, 1990.
- "Arizona tribe accepts huge incinerator," Denver Post, October 10, 1990.
- "Alliance determines to make incinerator a national issue," *Southern Utah News*, November 19, 1990.
- "Anti-incinerator group is now Grand Canyon AAI," Southern Utah News, December 3, 1990.
- "Ground Zero Under Study As Potential Tourist Stop," Denver Post, October 17, 1999.

Books

- Alder, Douglas D. and Karl F. Brooks. *A History of Washington County, From Isolation to Destination*. Salt Lake City: Utah Historical Society, 1996.
- Arrington, Leonard J. *Great Basin Kingdom, An Economic History of the Latter-day Saints, 1830-1900.* Cambridge: Harvard University Press, 1958.
- _____. *Utah's Audacious Stockman: Charlie Redd*. Logan and Provo: Utah State University Press and the Charles Redd Center for Western Studies, 1995.
- Beck, Warren A. and Ynez D. Haase. *Historical Atlas of the American West*. Norman: University of Oklahoma Press, 1989.
- Bradley, Martha Sonntag. *Kidnapped From That Land the Government Raids on the Short Creek Polygamists*. Salt Lake City: University of Utah Press, 1993.
- Brooks, Juanita. *The Mountain Meadows Massacre*. Stanford, Stanford University Press, 1950; second edition, Norman, University of Oklahoma Press, 1963.
- Brown, Dee. *Bury My Heart At Wounded Knee, An Indian History of the American West.* New York: Holt, Rinehart & Winston, 1970.
- Buck, Paul Herman. *The Evolution of the National Park System of the United States*. Washington, D.C.: U.S. Government Printing Office, 1946.
- Carter, Kate B. Treasures of Pioneer History. Salt Lake City, Daughters of Utah Pioneers, 1953.
- _____. Our Pioneer Heritage. Salt Lake City: Daughters of Utah Pioneers, 1958.
- Coggins, George Cameron. *Public Natural Resources Law*. New York: Clark Boardman Company, Ltd., 1990.
- Cohen, Stan. *The Tree Army, A Pictorial History of the Civilian Conservation Corps, 1933-1942.* Missoula: Pictorial Histories Publishing Company, 1980.
- Crampton, C. Gregory. *Land of Living Rock, The Grand Canyon and the High Plateaus: Arizona, Utah, Nevada*. New York: Alfred A. Knopf, 1972.
- Cross, Mary Bywater. *Quilts and Women of the Mormon Migrations*. Nashville, Tennessee: Rutledge Hill Press, 1996.
- Dilsaver, Lary M. *American's National Park System, The Critical Documents*. Lanham, Maryland: Rowman & Littlefield Publishers, Inc., 1994.
- d'Azevedo, Warren L. ed. *Handbook of North American Indians*. Washington, D.C.: Smithsonian Institution, 1986.
- Forrest, Earle R. Arizona's Dark and Bloody Ground. Caldwell, Idaho: Caxton Printers, 1936.

- Gallagher, Carole. American Ground Zero, The Secret Nuclear War. New York: Random House, 1993.
- Hafen, Leroy R. and Ann W., editors. *The Utah Expedition, 1857-1858: A Documentary Account of the United States Military Movement under Colonel Albert Sidney Johnston, and The Resistance by Brigham Young and the Mormon Nauvoo Legion.* Glendale, California: The Arthur H. Clark Co., 1982.
- Howells, Rulon S. *The Mormon Story, A Pictorial Account of Mormonism*. Salt Lake City: Bookcraft, 1964.
- Hundley, Norris Jr. Water and the West—the Colorado River Compact and the Politics of Water in the American West. Berkeley: University of California Press, 1975.
- Ise, John. Our National Park Police, A Critical History. Baltimore: John Hopkins Press, 1961.
- Jenson, Andrew. *Latter-day Saint Biographical Encyclopedia*. Salt Lake City: Andrew Jenson History Co., 1920.
- _____. Encyclopedic History of the Church of Jesus Christ of Latter-day Saints. Salt Lake City, Desert News Publishing Co., 1941.
- Jordan, Terry G. North American Cattle-Ranching Frontiers Origins, Diffusion, and Differentiation. Albuquerque: University of New Mexico Press, 1993.
- Josephy, Alvin M. Jr. Five Hundred Nations, An Illustrated History of North American Indians. New York: Alfred A. Knopf, 1994.
- Keller, Robert, and Michael F. Turek. *American Indians and National Parks*. Tucson, University of Arizona Press, 1998.
- Klein, Maury. Union Pacific The Rebirth, 1894-1969. New York: Doubleday, 1990.
- Lavender, David. *The History of Arizona's Pipe Spring National Monument*. Springdale, Utah: Zion Natural History Association, 1984 (rev. 1998).
- McClelland, Linda Flint. *Presenting Nature: The Historic Landscape Design of the National Park Service*, 1916-1942. Washington, D.C: Government Printing Office, 1993.
- McClintock, James H. *Mormon Settlement in Arizona A Record of Peaceful Conquest of the Desert.* Phoenix: The Manufacturing Stationers Inc., 1921.
- Mackintosh, Barry. *The National Parks: Shaping the System* (Washington, DC: U.S. Department of the Interior, 1991).
- Malach, Roman. Short Creek-Colorado City on the Arizona Strip. Mohave County Board of Supervisors, Kingman, Arizona, 1982.
- Meyers, Charles J. and Dan Tarlock, *Water Resource Management, A Coursebook in Law and Public Policy*. Mineola, NY: The Foundation Press, Inc. 1980.

- Milner II, Clyde A., Carol A. O'Connor, and Martha A. Sandweiss. *The Oxford History of the American West*. New York: Oxford University Press, 1994.
- Morris, Richard B. Encyclopedia of American History. New York: Harper & Row, 1982.
- Osgood, Ernest Staples. The Day of the Cattleman. Chicago, University of Chicago Press, 1929.
- Peterson, Charles S. Utah, A History. New York: W. W. Norton & Co., 1977.
- _____. *Take Up Your Mission Mormon Colonizing Along the Little Colorado River, 1870-1900.*Tucson: University of Arizona Press, 1973.
- Runte, Alfred. *Trains of Discovery Western Railroads and the National Parks*. Niwot, Colorado: Roberts Rinehart, Inc., 1990.
- Smith, Jane F. and Robert M. Kvasnicka, eds. *Indian-White Relations, A Persistent Paradox*, Washington, D.C.: Howard University Press, 1976.
- Story, Isabelle F. *The National Parks and Emergency Conservation*, Washington: Government Printing Office, 1933.
- Thrapp, Dan L. *Encyclopedia of Frontier Biography, Vols.I- III*. Lincoln, Nebraska: University of Nebraska Press, 1988.
- Verdoia, Ken and Richard Frimage. *Utah: The Struggle for Statehood*. Salt Lake City, Utah: University of Utah Press, 1996.
- Walker, Henry P. and Don Bufkin. *Historical Atlas of Arizona*. Norman: University of Oklahoma Press, 1979.
- Workers of the Writers' Program of the Work Projects Administration for the State of Utah. *Utah, A Guide to the State.* New York: Hasting House, 1941.
- Workers of the Writers' Program of the Work Projects Administration for the State of Arizona. *Arizona, A State Guide*. New York: Hasting House, 1941.
- Worster, Donald. *Rivers of Empire Water, Aridity, and the Growth of the American West.* Oxford: Oxford University Press, 1985.

Journals

- (author unidentified) "Utah Construction Program of UP Involves \$5,000,000," *The Union Pacific Magazine*, (November, 1922): 15. Reprinted article from *Salt Lake Tribune*, October 16, 1922.
- Crampton, C. Gregory, ed., "Military Reconnaissance in Southern Utah, 1866," *Utah Historical Quarterly*, Vol. 32, No. 2, Spring, 1964.
- Knack, Martha C. "Interethnic Competition at Kaibab During the Early Twentieth Century," *Ethnohistory* 40:2, Spring 1993.

- Iverson, Peter. "When Indians Became Cowboys," *Montana, The Magazine of Western History*," Winter 1995.
- Lauritzen, Jonreed. "Pipe Spring, A Monument to the Pioneers," *Arizona Highways*, February 1943.
- Olsen, Robert W., Jr. "Pipe Spring, Arizona and Thereabouts" *Journal of Arizona History*, Vol. 6, No. 1, Spring 1965.
- _____. "Conflict in the Arizona Strip: The First Skirmish of the 1865-1869 Mormon-Navaho War," Pacific Coast Archaeological Society Quarterly, Vol. 2, No. 1, January 1966.
- Philp, Kenneth R. "Termination: A Legacy of the Indian New Deal," *Western Historical Quarterly*, April 1983.
- Ransom, Jay Ellis. "Refuge at Pipe Spring," Westways, Vol. 45, No. 8, August 1953.
- _____. "Forgotten Refuge at Pipe Spring," *Trailer Travel Magazine*, November 1965.
- Rothman, Hal K. "'A Regular Ding-Dong Fight': Agency Culture and Evolution in the NPS/USFS Dispute, 1916-1937," *Western Historical Quarterly*, May 1989.
- Spencer, D. S. "Zion Our Newest National Park And Other Southern Utah Scenic Attractions," *The Union Pacific Magazine* (January 1922): 31-32.
- Spendlove, Earl. "Pipe Spring A Page from the Past," undated, no citation.
- Stoffle, Richard W. and Michael J. Evans. *Kaibab Paiute History, The Early Years*, "Resource Competition and Population Change: A Kaibab Paiute Ethnohistorical Case," *Ethnohistory*, Vol. 23:2, 1976.
- Runte, Alfred. "Pragmatic Alliance Western Railroads and the National Parks," *National Parks & Conservation Magazine*, April 1974.
- Woodbury, Angus M. "A History of Southern Utah and Its National Parks" *Utah Historical Quarterly*, Vol. 12, July, October 1944.

Oral Interviews

- Caywood, Janene, ed. *Oral History Collection, Pipe Spring National Monument, Vol. I*, Pipe Spring National Monument, 1996.
- Hoyt, Gaylan. Interview with Grant Heaton (unrecorded), August 8, 1998.
- Keller, Robert H. Interview with Leonard and Edna Heaton, Moccasin, Arizona, November 8, 1991.
- Lowe, Mary Jane. *Oral History Collection, Pipe Spring National Monument, Vol. II*, Pipe Spring National Monument, 1996.

McKoy, Kathleen L. Oral History Collection, Pipe Spring National Monument, 2000.	ıt, Vol. IV, Pipe
Telephone interview with Grant Heaton (unrecorded), September 27, 199	7.
Telephone interview with Grant Heaton (unrecorded), September 3, 1998	
Telephone interview with James C. McKown (unrecorded), September 27	, 1999.
Ruppert, David E. and Kathleen L. McKoy. <i>Oral History Collection, Pipe Monument, Vol. III</i> , Pipe Spring National Monument, 1998 (draft).	Spring National

Index

A Abbot, F. H., 61	Andrews, Mrs., 137 Andrus, Cecil D., 561, 611 Andrus, James, 26, 29, 37
accidents and injuries, 49, 267, 363-366, 397, 400, 404, 415- 417, 443, 447, 473-475, 518, 555, 610, 620 Acton, David, 558	Antelope Valley, 292, 295, 297, 300, 323, 329 antiques, 1, 168, 183, 185, 258, 259, 262, 289, 293, 294, 302, 310, 312, 315, 316, 324, 332,
Adams, H. M., 93, 100, 101, 103 Adams, John A., 137	346, 351-353, 375, 392, 412, 432, 435, 441, 443, 444, 447, 449, 455, 470, 471, 488, 489, 493, 542, 549, 553, 554, 578, 603, 604, 641
Adams, John Quincy, 377 Adams, Mrs. Min, 377	Antiquities Act, 79, 257 ants, 41, 324
administrative history task directive, 2 Affleck, D. A., 86 Aiken, George R., 416	appraisals (property), 369, 523, 616 aquifer (Navajo Sandstone), 4, 7, 564, 608, 623,
ailanthus trees, 7, 41, 255, 286, 600, 601 air quality, 577	624, 626 Arab-Israeli War, 561 Archaeological Resources Protection Act
airplanes, 323, 351, 614 Akin, A. M., 282, 288 Alberts, Edwin C., 294	(ARPA), 612, 613 archeological sites, 80, 258, 305-307, 433, 473,
Albright Training Center (Grand Canyon National Park), 452, 505, 509, 546, 547, 619, 634	481, 482, 518, 528, 529, 530, 540, 613 archeological surveys, 550, 607, 626, 636, 643 archeology, 482
Albright, Horace M. 1933 request for measurement of spring flow, 213	Arches National Monument, 316 Arco, Idaho, 416
advises Mather on development strategy, 93 appointed NPS assistant director, 80	Arizona Department of Transportation (ADOT), 558, 640 Arizona Department of Water Resources, 625
at opening of Zion-Mt. Carmel Highway, 149 resigns from the NPS, 207 Albright, John, 634, 642	Arizona State Highway Department, 378-380, 395, 477, 483, 484, 514
Alcatraz Island, 486 Alderson, Russell C., 612	Arizona Strip Church role in settlement, 18 description, 7
Alexander, Martha, 543 Alexander, Randall, 46 Alexander, Woodruff, 543	ethnographic and historical background, 9, 10 historical and cultural ties to Utah, 7
alfalfa, 41, 49, 52, 62, 63, 75, 597 Alford, Bill R., 562, 569	home of Kaibab Paiute, 9 impact of Utah War on Latter-day Saint immigration, 13
algae, 551 Alger, Andrew J., 543 Alger, Mrs. Parsellow S. Hamblin, 365	Indian resistance to white settlement, 26 land certificates issued, 18
Allen, Lewis, 46, 47, 67 Allen, Thomas J., 448, 486	southern migration from Utah, 15 Spanish exploration and contact, 10 Utah officials' attempts to retain, 27
Alton, Utah, 45, 162, 329, 330, 350, 364, 379, 393-395, 397, 401, 424, 454, 470, 541, 555 American Automobile Association (AAA), 86, 88	Arizona Strip Community Association, 391, 393, 395, 404
American Indian Movement (AIM), 486 American Indian Religious Freedom Act (AIRFA), 612	Arizona Territory, 25, 26, 79, 114 Armstrong, Ken, 647 Armstrong, William W., 140
Amschel, J. Edward, 479 Anderson, Adrienne, 621	Arrington, Leonard J., 14, 20, 37 Arrowhead Trail, 93, 95, 102, 103, 120 arts and crafts, 290, 567, 570, 580, 586, 593, 615,
Anderson, Charles W., 409 Anderson, Richard, 553 Andersons Ranch, 120	626 Ash Creek, 10

botanists, 353 Assiniboin Indians, 198 Boulder Dam National Recreation Area, 377 astronomy, 614, 633 Bowen, William L., 535, 564 Atkin, Rudger C., 455 Atomic Energy Commission (AEC), 385, 387, Bowers, Maria, 470 416 Bowman, Ole, 93, 129 atomic weapons testing, 349, 384-386, 416 Boy Scouts of America, 167, 172, 239, 289, 352, 405, 454, 538, 546, 547, 594, 595 Atwater, John W., 74-76 Audubon Society, 606, 642 Boyce Thompson Arboretum, 169 Axtel, Ward, 409, 437, 456 Bozarth, Hugh H., 421, 452, 467, 485, 487, 489-Aztec Ruins National Monument, 153, 181 493, 495-497, 511-514, 537, 539-543, 545-547, 550-552, 554-556, 559 В Bozarth, Lenore, 452, 495, 556 Brabant, M. de, 103 Babbitt, Bruce, 634 Bradley, Zorro, 441 Badlands National Park, 586, 606, 632 Brady, Jim, 622 Balch, Paul L., 374 bridges, 4, 88, 91, 101, 144, 148, 251, 282, 298, Ballard, Lynn, 502 308, 366, 418, 421, 480, 482, 483, 553, 558, 640 Bamberger, Simon, 88, 90 Brigham Young University, 158, 546, 547 Bancroft Library, 543 Bringhurst, Mrs., 40 Banks, Burton, 591 Brinkerhoff, Zula, 614, 641 Banks, Fred, Jr., 586, 604, 614, 617, 619, 621, Brockmeier, Harry E., 409 628, 631-633, 641, 644 Brooks, Bessie, 470 Barrell, Robert, 539 Brooks, Juanita, 543, 544 Barrett, Donald C., 563, 564, 622, 623 Brooks, Wayne, 473 baseball, 255, 424, 435, 455 Brooksby, Arland, 518 Basinger, W. S., 93, 100, 103 Brower, Emeline Zenatta, 32 baskets, 412, 435, 593 Brown Construction Company, 558 Bean, Glen T., 422, 562, 589, 601, 612, 613 Brown, Art, 374 Bear Valley, 92 Brown, James A., 51 Beard, Daniel B., 486, 491, 493, 516, 554 Brown, Joseph Gurnsey, 37 Beebe, Reed, 553 Brown, Lorenzo J., 283, 332, 352, 557 Beidinger, Lt., 277 Brown, Robin Grant, 397 Bel Air Movie Company, 397 Brown, William E., 528 Bennett, Lyle E., 297, 320, 409 Bryce Canyon National Park, 81, 82, 94, 95, 97, Benson, Lymon, 372 99-102, 104, 110, 115-117, 119, 122, 123, bentonite, 635, 636, 644 125, 142, 144, 147, 149, 151, 177, 178, 180, Berry Knoll slayings, 27 314, 316, 321, 390, 399, 401, 422, 486, 513, Big Cottonwood Canyon, 14 545, 557, 636 Bill, H. L., 439, 463 Bryce Canyon preservation assistance team, 636 birds, 7, 166, 168, 169, 263, 276, 282, 287, 310, Bryner, Keith, 473 359, 490, 605, 642 Buchanan, James, 13 Black Hawk Indian War, 15 Buck, Paul Herman, 79 Black, Alvin, 333, 416 Buckskin Mountain (Arizona), 29, 49, 52, 53, 59, Black, Tamar J. (Tamar Young), 33 544 Black, Vicki H. (Vicki Webster), 594 buckskins, 52, 53 Blood, Henry H., 123, 144 budget, 144, 163, 190, 199, 248, 293, 354, 362, Bohnert, Al, 641 423, 570, 602, 611, 618 Bolander, Joseph, 496, 503, 511, 512, 526, 537, buffalo, 351, 600 545, 555-557, 563, 586, 589-592, 594, 595 Bull Rush ranch, 45 Bolander, William C., 368 Bulletts, Carlos, 586 Bolenger, Clyde, 404 Bulletts, Dan, 573, 647 Bolton, H. E., 376 Bulletts, Fred, 367 Borjes, Rick, 634, 635 Bulletts, Gloria (Gloria Benson), 612, 618

Bossler, Ed, 434, 435, 458, 464

563, 637 Bulloch, David Dunn, 44, 45, 137, 365, 422, 450 Bullrush Wash, 162, 282, 286, 289, 328, 331 Carlson, S. T., 391 Carnes, William G., 243, 252, 267 Bundy, Shirla, 499 Bureau of Ethnic Research, 415 carp, 44, 45, 286, 287, 333, 372, 466, 551 Bureau of Indian Affairs (BIA), 137, 181, 413, Carpenter, F. R., 275, 304 461, 473, 480, 481, 487, 514-516, 518, 520-Carpenter, J. M., 554 522, 524, 526-529, 531, 532, 534, 535, 552, carpenters, 332, 375, 405, 434, 435, 440, 457, 556, 559, 567-570, 625 470, 503 Bureau of Land Management (BLM), 418, 496, Carroll, Emma Isabelle, 42 529, 552, 613 Carson, Frank H., 518, 520, 526 Bureau of Reclamation, 236, 413, 480, 491, 613 Carson, Kit, 18, 26 Burgoine, Helen H., 432 Carter, James Earl, 385, 611, 613 burials, 27, 288, 299, 306, 352, 353, 425, 558 Carter, Kate B., 546 Burke, Charles H., 74, 90, 105-107, 113, 114, Carver, John A., Jr., 455 130, 189, 190, 193, 208, 341 Casa Grande Ruins National Monument, 153, Burns, Robert A., 140, 389 181, 260, 310 Burr, Reed, 452 Castro, Ralph, 412, 474, 529, 530, 535, 620 burros, 598, 608 Cates, L. S., 140 bus tours (1970s), 595 cats, 263, 295, 352, 410, 467, 552, 646 Bush, George H. W., 611 cattle, 1, 18, 24, 26, 27, 29, 32, 35-37, 41-46, 48, butter, 33, 159, 170, 506, 509, 587, 591, 592, 594 49, 53, 56, 57, 59, 60, 61, 65, 68, 71, 75, 76, Button, Konda, 507, 508, 512, 541, 586, 606 100, 108, 109, 112, 129, 130, 135, 136, 152-Button, Merrill, 518 154, 166, 171-173, 182, 190, 193, 201, 204, 206, 209, 214-216, 220, 225, 228, 230, 238, \mathbf{C} 241, 242, 246, 247, 249, 251, 259, 270, 280, 285, 299, 311, 313, 324, 325, 334, 342, 346, Cahalane, Victor H., 263 358, 359, 360, 363, 373, 379, 381, 385, 394, calf pasture, 7, 201, 214 396, 413, 415, 417, 425, 444, 448, 469, 471, California gold rush, 10 487, 504-506, 509, 532, 537, 540, 551, 561, Cammerer, Arno B., 105, 106, 111, 137, 186, 574, 582, 584, 587, 588, 598, 601, 615, 622, 193, 201, 206-208, 210, 215, 218, 219, 221, 638 222, 227, 229, 230, 237, 239, 241, 247, 250, cattle branding, 154, 324, 504-507, 509, 554, 251, 264, 267-269, 271, 273, 279, 297, 306, 561, 584, 585, 587-589, 629, 640 307, 356 cattle companies Camp, Charles L., 353 Canaan Cooperative Cattle Company (Canaan Campbell, Dell, 357 Company), 36, 37, 44, 48, 67, 450, 542 Campbell, Thomas E., 71, 78 Kaibab Land and Cattle Company, 42, 44 campgrounds, 151, 154, 162, 167, 172-174, 180, Pipe Springs Cattle Company, 45 189, 206, 218, 222, 228, 229, 238, 241-243, Pipe Springs Land & Live Stock Company, 45, 245, 247, 249-251, 254, 255, 257, 259, 267, 76, 77, 132, 341 269, 275, 280, 282-286, 290, 291, 293, 297, Winsor Castle Stock Growing Company, 29, 298, 301, 304, 320, 323, 326, 329, 330, 331, 31, 36, 37, 46, 48, 505, 542, 543 336, 349, 354, 359, 373, 379, 387, 392, 395, cattle guards, 167, 238, 241, 247, 249, 324, 359, 396, 403, 405, 411, 412, 424, 425, 430, 432, 379, 394, 413, 425 445, 451, 456, 459, 469, 471, 491, 492, 508, cattle ranches, 25 514-516, 521, 525, 535, 546, 551, 565, 567, cattle roundups, 45, 154, 171 570, 579, 590, 626, 627 cattlemen (stockmen), 60, 61, 68, 71, 78, 108, Canaan Spring, 36 110, 112, 113, 124, 127, 129-131, 134-136, Cane Beds, Arizona, 379, 555 138, 140, 141, 171-173, 189, 196, 197, 200, Canfield, David H., 422, 456, 476, 481, 482 201, 204, 206, 207, 210, 214-216, 219-221, Cannonville, Utah, 29 224-226, 228-230, 233, 244-246, 250-252, Canyon de Chelly National Monument, 136, 531 258, 259, 270, 271, 273, 287, 298, 301, 324, Capitol Reef National Park, 111, 387, 399, 543, 334, 337-344, 349, 358, 363, 400, 411, 413,

425, 444, 469, 472, 473, 504, 536, 537, 550-85, 104, 105, 109, 114, 126, 127, 140, 154, 552, 554, 588, 602, 624, 625 172, 227, 255, 313, 314, 326, 338, 345, 541, Causland, George M., 518 555, 563, 573, 633, 649, 681 Cedar Breaks National Monument, 4, 82, 94, 95, Church, Parven E., 247, 278, 332, 334, 336, 337, 97, 99, 100, 103, 104, 119, 122, 125, 142, 147, 344, 377 Churchill, Frank C., 55 149, 175, 321, 399, 401, 486, 613, 622, 646 Cedar City, Utah, 44, 77, 88, 90, 92, 93, 95, 100, Chye, Lulu, 629 102, 103, 117, 120, 122-125, 135-137, 144, circle tour (Union Pacific's Grand Circle), 82, 86, 148, 150, 169, 180, 192, 255, 276, 310, 358, 97, 99, 111, 123, 142, 147, 175 363, 405, 422, 444, 454, 476, 486, 543, 546, Citizens Contract Negotiating Team, 618 554, 591, 625, 644 Clark, Glenn O., 586, 587, 589-591, 600, 604, 607 Cedar Face, Frederick, 625 Clark, Pam, 587, 591 Cedar Ridge, 33, 122, 489 Clark, William C., 612 cement, 190, 242, 246, 262, 264, 284, 307, 367, Clawson, Rudger, 39 368, 409, 410, 431-433, 456, 458, 466, 477, clay, 250, 280, 289, 297, 353, 374, 379, 411, 441, 480, 549, 576, 601, 635, 636, 640, 644 456, 458, 549, 558 Chamberlain, Ann C., 40 Clay Hole, 475 Chamberlain, Ellen C., 40 Clegg, Reed, 264 Chamberlain, Ken, 43 Clemensen, A. Berle, 40, 642 Chamberlain, Thomas, 40 cloud seeding, 388 Clyde, George Dewey, 434 Chamberlain, Von del, 634 Chandler, Harry, 151 coal, 75, 96, 100, 167, 275, 278, 330, 336, 350, Chapman, Oscar L., 229, 341 358, 369, 370, 379, 408, 437, 461 Chassis, Charlie, 334, 474 Coconino County (Arizona), 113, 120, 264, 363, cheese, 33, 159, 346, 406, 443, 488, 509, 539, 419, 507, 618, 628 585, 591, 592, 594 Code, William H., 56 cheese making, 489, 509 Colbert, Edward H., 353 Cold War, 383, 384 cheese vats, 488, 509, 585, 594 Chernobyl (USSR), 385 College of Southern Utah, 546, 547 Chesapeake and Ohio Canal National Historic Collier, John, 192, 194, 213, 214, 219, 229, 244, Park, 586 273, 306 Colorado City, Arizona (Short Creek), 27, 144, chickens, 77, 173, 200, 212, 467, 504, 511, 587, 608, 638, 644 396, 487, 498, 541, 557, 558, 570 Chidester, David, 26 Colorado Plateau, 387 Chief Naraguts, 15 Colorado River, 9, 18, 20, 26, 29, 36, 111, 151, Chilton, Albert B., 277 255, 383, 413, 415, 425, 471, 544 chipmunks, 263, 324 Colorado River Storage Project Act, 425 Chiricahua National Monument, 236 Colvin, O. F., 76, 239 Christensen, Frank, 477 comfort station, 166, 228, 238, 241, 243, 268, Christensen, Ortho, 430, 431 283, 290, 293, 303, 322, 326, 328, 354, 391, Christian Tract Society, 508 403, 410, 421, 422, 423, 427, 433, 451, 459, Christiansen, Milo F., 307 460, 465, 474, 489, 496, 552, 576, 603 Chuarumpeak, 29 Community Action Council, 507, 508 Chubbuck, Levi, 53-55, 67 Comprehensive Employment Training Act Church groups (LDS) Program (CETA), 561, 584, 585, 587, 593, Aaronic Priesthood, 364, 405, 455, 546 598, 620, 627, 628, 630, 641 Beehive Girls, 172, 364 computers, 615 Gleaner Girls, 172 Conron and Muths, Restoration Architects, 578, Stake M Men, 172 596, 635 Young Men's Association, 172 Conron, John, 578, 596, 635 conservation, 191, 207, 235, 249, 251, 267, 412, Young Women's Association, 172 Church of Jesus Christ of Latter-day Saints, 2, 3, 421, 470, 526, 540, 603 7, 11, 19, 20, 25, 39, 42, 44, 48, 52, 59, 67, Conway, Norman B., 305-308

Cook, John E., 520, 526 plans to use ECW funds, 252 cookies, 591 Cooley, Everett, 455 D Coolidge, Arizona, 153, 249, 258, 294, 301, 305, dance groups, 632 Daughters of Utah Pioneers, 437, 546, 547 cooperatives, 29, 59, 76, 101, 109, 126, 181, 262, Daughters of Utah Pioneers' Museum and 380, 487, 513, 518, 521, 531, 532, 535, 557, Pioneer Village, 437 565, 568, 579, 604, 626 Davis, Harvey, 448 Coopers hawks, 490 Davis, Joe, 496, 503, 516, 521, 531, 538, 548, corn, 9, 10, 29, 35, 49, 57, 62, 75, 289, 351, 504, 609, 610 506, 541, 597, 638 Davis, John M., 398 corrals, 1, 7, 26, 44, 129-131, 135, 152-154, 172, DDT (dichlorodiphenyltrichloroethane), 351, 359 173, 189, 204, 206, 214, 228, 237, 245, 252, De Armen, Grace Hamblin, 546, 553 324, 334, 358, 363, 380, 416, 425, 448, 450, Death Valley National Monument, 452 496, 500, 504-506, 508, 536, 550, 555, 585, deaths, 14, 18, 23, 27, 29, 31, 36, 37, 42, 43, 159, 601, 615, 638, 640 168, 184, 200, 303, 314, 332, 353, 366, 385, costumes, 493, 499, 500, 502, 503, 505-508, 511, 416, 440, 489, 495, 555, 619, 630 540, 545, 573, 582, 585, 587, 615 deer, 24, 52, 173, 174, 360, 503 Cotton, Ronald E., 609 Degen, Carl, 509 cottonwood trees, 7, 41, 112, 255, 275, 280, 282, Dellenbaugh, Frederick S., 542 284, 286, 288, 304, 311, 325, 404, 410, 454, Demaray, Arthur E., 105, 107, 113, 141, 185, 465, 474, 490, 600, 601, 637 194, 213, 219, 230, 271, 273, 304, 306, 339, Cove Creek Fort (Cove Fort), 15, 429 347, 358, 383 covered wagons, 118, 591, 592 DeMills, Vilo, 471 Covington, Loren, 412, 470 demonstrations, 1, 4, 86, 90, 109, 111, 118, 171, Cowell, Arthur E., 230, 233, 238, 239, 242-244, 181, 188, 195, 269, 485, 493, 500, 504-506, 246, 247, 249-251, 253, 472 508, 509, 532, 539, 540, 542, 561, 582, 584, cowpeas, 57 585-589, 593, 615, 617, 628, 629, 632 cows, 27, 75, 77, 155, 212, 416, 446, 587, 608 Dern, George H., 149 Cox, Delaine O., 502 Deseret Telegraph Company, 35, 539, 543 Cox, Saria, 470 Desert Botanical Garden, 353 coyotes, 7, 52, 324, 352, 644 Dewitz, Doug, 3, 614, 617, 622-625, 640, 646 Craig, Vera, 603 Dick, Oscar T., 486 Cram, John, 629, 647 Dickensheets, D. W., 295 Crampton, C. Gregory, 19, 20, 46, 116, 542, 547 Dickenson, Russell E., 450, 612, 646 Cramton, Louis C., 107, 154 Dietz, Henry W., 62, 63, 193 Creel, Lorenzo D., 59, 61, 62, 67 Dinosaur National Monument, 425 Crocker, Dave, 635 dinosaur tracks, 353 Cronenberger, Richard J., 634, 636 Ditto, Hugh H., 282 Crow, John O., 476 Division of Grazing (Grazing Service), 236, 250-Cuban Missile Crisis, 384 252, 254, 255, 262, 264, 267, 275-277, 279, culinary water, 195, 280, 336, 490, 514, 522, 282, 284, 286, 290-293, 295, 300, 301, 304, 550 305, 307-309, 329, 411, 418 Cumming, Alfred, 15 Dixie Days Roundup Parade, 591, 593 Curecanti National Recreation Area, 569 Dixie Junior College, 364, 450, 542, 546, 547, Curley, Norman, 503, 507 583 currants, 35, 41, 173 Dixie Lumber and Hardware, 549 custodian's residence Dobson, Thomas Frain, 41 1940 cost estimate, 294 Dodd, Donald D., 282, 285, 288, 547 general references, 183, 293, 298, 330, 331, Dodge, Natt N., 287, 312, 359, 364, 408, 451 357, 369, 370, 372, 407, 444, 459, 463 dogs, 162, 263, 287, 344, 424, 621, 644, 646 need for permanent, 250, 268, 424 Dohm, Harry, 514 plans for permanent, 283, 303 domestic arts, 561, 582, 585, 587, 629, 632

Dominguez, Francisco A., 10, 376	electric power
donations, 124, 129, 140, 183, 289, 312, 315,	commercial, 101, 163, 350, 361, 393, 421,
375, 391, 401, 412, 439, 454, 466, 467, 470,	442, 452, 453, 463, 487, 508, 562, 607
488, 493, 504, 532, 545, 547, 552-554, 585,	generator house, 357, 409, 428, 453
618, 641, 644	generators, 163, 299, 328, 350, 354, 357, 361,
Dons Club, 509, 546, 547, 595, 634	369, 370, 383, 388-390, 401, 403, 408, 409
Doty, Cecil J., 461	422, 424, 428, 434, 437, 452, 453, 461
drainage system, 75, 91, 203, 204, 237, 241-243,	Rural Electrification Administration, 350, 393,
250, 253, 257, 260, 267, 276, 282, 284, 286,	452, 453, 480
290, 291, 297, 331, 332, 352, 354, 357, 358,	electrical system, 433, 503, 548
372, 373, 411, 412, 442, 447, 456, 463, 469,	elm trees, 7, 41, 112, 173, 229, 255, 297, 298,
506, 508, 552, 564, 569, 570, 596, 609, 610,	300, 356, 600, 638
635, 636, 640	Emett, James S., 37
Draper, Hamilton A., 255, 264, 288	energy conservation, 561, 576, 595, 611, 643
Driggs, Howard R., 187	Engle, C. A., 130, 131, 134, 190, 191, 193
drinking fountain, 267, 278, 280, 282, 490	Enterprise, Utah, 404, 444
drought, 471	entrance fees, 492, 576, 618
Drury, Newton B., 297, 302, 307, 308, 313, 320,	Environmental Education Programs, 594
	Environmental Education Flograms, 594 Environmental Study Area Inventory, 500, 518,
321, 323, 330, 345, 353, 358, 378, 383	538
dry farming, 57, 60, 62, 75 Drye, Alfred, 506, 508, 512, 586	Erdersbee, William E., 375
· ·	
Drye, Allen, 439, 466	erosion, 235, 251, 374, 500, 508, 549, 640
Drye, Elouise, 334	Escalante, Silvestre Velez de, 10, 376
Drye, Elva, 171, 183, 586, 593	Esplin, Carla, 586
Drye, Theodore, 453, 482, 530	Esplin, David H., 137
Duck Creek, Utah, 474	Esplin, James, 333
ducks, 173, 364, 410, 467, 504, 511, 530, 552,	Esplin, Karla, 592
587, 608, 638, 644	Esplin, Ken, 625
Duffing, P. W., 547	Esplin, Lee, 244
Dunn, A. van V., 44, 224, 270, 272, 273, 337,	Esplin, Lucy Chamberlain, 543
339, 340-344, 356, 413, 471, 472, 554	Esplin, Lynn, 366
Dwight D. Eisenhower, 384, 421	Esplin, Maggie, 470
T.	Esplin, Roland, 413
${f E}$	Establishment Day, 1, 182, 422, 427, 431, 432,
Easton, George, 521, 526	437, 438, 443, 445, 466, 470, 546
Echeveste, Adolf, 583	evaluations, 499, 502, 509, 589, 598, 616, 617,
Echo Canyon, 15	638
Echo Cliffs, 19	Evans, Michael J., 11, 681
Echo Park Dam, 425	Everhardt, Gary E., 562, 604
economic depressions	Everhart, Ronald E., 639
1920s, 82	Everhart, William C., 539, 541
1930s, 235-237	exhibit cases, 310, 332, 375, 392, 412, 497
Panic of 1873, 48	exhibits, 1, 80, 108, 139, 171, 181-184, 263, 283,
Economic Development Administration (EDA),	285, 289, 294, 295, 302, 310-312, 316, 326,
515, 524, 567, 568, 570, 577	328, 332, 345, 346, 375, 380, 392, 405, 412,
Economic Opportunity Act, 485	421, 429, 430, 432-435, 437, 440, 441, 443,
Edmunds Act, 38, 39	444, 447, 449, 453, 459, 470, 471, 485, 488,
Edmunds-Tucker Act (Anti-Polygamy Act), 39,	492, 493, 497, 515, 530, 539, 553, 554, 570,
42	579, 589, 594, 600, 603, 619, 631-633, 640,
Eklund, Roy N., 288	641
El Escalante Hotel (Cedar City), 100-102, 135	expeditions, 10, 14, 19, 29, 35, 79, 257, 376, 543,
Eldredge, Horace S., 32	681
21010060, 1101000 0., 52	

exploration, 10, 11, 13, 15, 18, 313-315, 383, fish hatcheries, 265, 269, 287, 333, 466, 551, 608 384, 387, 475, 527, 650, 681 fish stocking (fort ponds), 241, 250, 265, 269, 286, 372, 393, 410 Express and Carrying Company (B.Y. Express Co.), 13, 14 fishing, 241, 265, 269, 333, 467, 546 Fitch, Monte E., 529 F Flagstaff, Arizona, 363, 477, 480, 498, 503, 505-507, 513, 518, 520, 534, 558, 563, 582, 628 Fabian, Harold, 455 flagstone, 254, 255, 264, 266, 267, 279, 331, 354, Fagergren, Fred C., 329, 356, 357, 363, 369, 372, 364, 406, 508, 639 374, 390 Flanery, W. H., 337-339 Fairbanks, Avard, 364 flood protection, 242, 354, 357, 372, 411, 412, Fairborn, Alvira, 470 442, 469, 552, 610 Fairchild, Wayland P., 463 floors, 33, 141, 157, 159, 162-164, 169, 279, 286, Fall, Albert B., 78, 130 293, 297, 310, 328, 349, 356, 359, 367, 369, family reunions, 172, 182, 391, 404, 405, 455, 375, 388, 391, 406, 407, 433, 435, 438, 444, 489, 547, 551, 595 456-458, 493, 514, 542, 548, 569, 577, 578, Fanelli, Doris, 641 593, 596, 604, 634, 639, 643 Farguhar, Francis P., 123-125 Foote, Homer, 375 Farrow, Anna, 74, 192 Ford, Clair, 435, 438-440, 445, 447, 457, 458, Farrow, Edgar A., 65, 67-76, 78, 99, 107, 112, 463, 471 113, 123, 124, 127, 129, 131, 135-137, 141, Ford, Gerald R., 561 154, 189, 190-194, 196, 197, 199, 201, 207-Foremaster, E., 137 212, 214, 215, 218, 221, 222, 225, 228, 230, forge, 440, 497, 513, 539, 629 244-246, 280, 304, 307 Forgeon, Aland, 254, 255, 264 Fechner, Robert, 235, 248, 253 Fort Belknap Indian Reservation (Montana), 198, federal audit, 448 340 federal non-reserved water right, 613 Fort Defiance, 19, 33 Felton, Jim, 443 Fort Douglas, 284, 285 female suffrage in Utah, abolition of, 39 Fort Duchesne, Utah, 57, 305, 476, 481 Fields, William E., 472, 521, 522, 525, 527, 531, Fort Leavenworth, 13, 14 563, 569, 570, 571, 577, 579, 580 Fort Sam Houston, 292 Fillmore, Millard, 11 Fort Sumner, 18 Fillmore, Utah, 16, 92, 100, 102 Fort Union National Historic Site, 429 Finch, B. J., 120, 122, 123, 144 Fort Wingate, 18 Findlay, A. D., 43, 45, 76, 77, 450 fowl, 410, 431, 435, 458, 465, 467, 504, 551, Findlay, John R., 45, 137 552, 608, 644 Finney, Edward C., 78, 106, 113, 198, 199, 204, Fowler, Catherine S., 10 206, 214, 522 Frank, Albert, 212, 270 fire extinguishers, 357, 363, 390 Frank, Jeff, 614, 643 fire hazards, 301, 320, 327, 329 Franke, Paul R., 301, 302, 321, 322, 325-328, fire hydrants, 297, 336, 371, 391, 576 335-337, 339, 340, 343, 345, 364, 383, 392, fire inspections, 329, 357, 371 393, 395, 398, 399, 402, 403, 406, 407, 409, fire pits, 442 410, 418, 422, 424, 425, 427-430, 432, 433, fire protection, 327, 329, 361, 362, 371, 391, 437, 438, 441, 442, 456-458, 461, 464, 476, 394, 403, 422-424, 431, 490, 496, 497, 547, 477, 479-482 610, 615, 621, 646 Frear, Dick, 629 fire pump, 362, 383, 394, 403, 458, 466, 469, 490 Frederick, Marlene (Marlene Coombs), 614 fire retardant, 490 Fredonia Booster Club, 379, 401, 418, 419, 476 fireplaces, 260, 267, 280, 282, 285, 291, 367, Fredonia High School, 364, 405, 497, 513, 573, 430-432, 440, 450, 457, 461 628, 629 fish, 44, 45, 209, 236, 241, 246, 250, 265, 269, Fredonia, Arizona, 3, 7, 25, 36, 41, 55, 56, 61-63,

286, 287, 322, 333, 364, 372, 402, 410, 413,

431, 435, 458, 465-467, 551, 608, 613, 644

88, 90, 95, 99, 100, 107, 109, 116, 120, 122,

123, 144, 150, 167, 170, 172, 174, 177, 180,

181, 198, 247, 280, 282, 297, 301, 303-305, Glen Canyon Dam, 425, 427, 453, 476, 477, 479, 480, 481 307, 323, 329, 330, 335, 363, 364, 377-380, Glen Canyon National Recreation Area, 425, 516, 387, 389, 392-395, 399-401, 403-405, 412, 416-419, 427, 428, 449, 452-454, 474-477, 544, 579, 639 479-481, 483, 484, 491, 495, 497-500, 502-Glendale, Utah, 332, 364, 375, 470, 541, 592, 508, 512-514, 518, 538, 541, 542, 547, 549, 644 552, 555-559, 564, 570, 573, 582, 595, 614, Glenn, John, 448 618, 619, 621, 624, 628, 629, 644 Golden Circle Tours, 547 Freeman, Ralph W., 254 golden eagles, 359 Frenchman Flat (Nevada Test Site), 385 Golden Spike National Historic Site, 611, 617, fuel storage, 354, 390, 445, 603, 640 641 Fuller, Alberta, 612, 617 Golden West Motion Pictures, 604 Funke, Walter, 55 goldfish, 466, 644 Goldwater, Barry, 477, 479, 487, 505, 532 G Good, Albert H., 307 Good, James W., 123 Gallagher, Carole, 384, 495 Goodall, Ivan A., 458 Galleta grass (Hilaria jamesii), 374, 509 Goodwin, Francis M., 138 Galvin, Denny, 516 Goodwin, George E., 100, 101, 144 Gambel quail, 287, 356, 447 gophers, 167, 324 Garber, B. S., 201 Gould, Charles N., 29, 310, 312 Garber, Paul J., 434 Government Accounting Office (GAO), 369 GarKane Power Company, 393, 452, 453, 487, Government Services Administration (GSA), 570, 508, 562, 607 571, 578, 627 Garvey, Daniel E., 349, 362, 363, 379 Grace Company, 623 gas storage tank, 639 Grafe, Harold L., 612, 617, 622, 623 Gay, F. D. B., 103 Grafton, Utah, 32 Geerdes, Clifford, 551 Grand Canyon National Game Preserve, 52 Geerdes, Raymond J., 3, 42, 486, 496-500, 502-Grand Canyon National Park 509, 511-513, 516, 518, 520-528, 530-532, 1927 boundary expansion, 150 534-541, 544, 545, 547-552, 554-557, 561, Bright Angel Point, 86, 149, 150 562, 580, 587, 633, 638 general references, 81, 97, 107, 150, 218, 236, geese, 173, 263, 280, 364, 504, 511, 552, 587, 250, 304, 358, 363, 374, 443, 452, 638, 645 608, 638, 644 Grand Canyon Lodge, 150, 151, 158, 208 General Land Office (GLO), 55, 62, 65, 72, 77, Kaibab Trail, 151 78, 104-106, 113, 138, 139, 197, 236, 304, North Rim, 86, 90, 94, 97, 99, 104, 107, 110, 346, 522 112, 119, 122-125, 141, 142, 144, 145, Gentry, Jamie, 626 147-151, 158, 175, 178, 180, 351, 516, 638 geologists, 18, 221, 311, 353 South Rim, 88, 149, 151, 443 geology, 79, 97, 221, 222, 225, 275, 283, 290, Grand Teton National Park, 328 310-312, 315, 316, 353, 380, 537, 538, 540, Grant, Heber J., 88, 91, 93, 95, 104, 109, 110, 541, 545, 564 114, 117, 124, 129, 134, 138-141, 151, 185, George, Captain, 188 201, 593 Gila Cliff Dwellings National Monument, 613 Grant, Ulysses S., 24, 79 Gilbert, Karl T., 486, 499, 502, 503, 518, 520, grapes, 7, 26, 31, 48, 490, 507, 597, 600, 638 521, 523-532, 534-537, 548, 549, 557, 562grasses, 24, 62, 74, 275, 278, 289, 300, 301, 327, 565, 567, 568, 569, 609 329, 331, 369, 374, 396, 407, 485, 492, 496, Giles, John D., 185, 187 497, 500, 502, 509, 530, 538, 540, 587-589, Gillespie, E. L., 563, 564 597, 598, 600, 601, 638, 639, 646 Gillett, Frederick H., 117 Grater, Russell K., 250, 316, 345, 375 Gilliland, Homer M., 534, 535 Gilpin, Bob, 495

Glazier, Leon, 463

Glen Canyon Bridge, 421, 483

gravel, 91, 167, 290, 307, 308, 336, 349, 353,	World War II, 248, 319
369, 371, 374, 379, 406, 422, 427, 456, 474,	Emergency Conservation Work, 235, 247, 248,
532, 558, 595	251-253, 260, 264, 267, 268, 275-277, 279,
gravel pit, 336	280, 282, 330
Gray, Carl R., 90, 92, 96, 100-104, 115, 141, 151,	Emergency Relief Appropriation Act, 247, 350
158, 208, 595	Federal Emergency Relief Act, 237
greasewood bushes, 278, 283	impact on local cattle industry, 201
Great Depression	impact on local employment, 235, 236
Civil Works Administration (CWA), 237, 238,	impacts on visitation to southwestern national
241-244, 249, 250, 253, 293, 394	monuments, 235
Civilian Conservation Corps	increased competition for resources, 192
area road work, 308	monument development, 235
Camp G-173 (Antelope Valley), 292, 295,	
	New Deal programs, 235, 247
300, 323, 329, 330	Public Works Administration (PWA), 237
Camp NP-12 (Walnut Canyon), 236, 292,	Great Northern Railway, 96, 97
295, 300	Great Salt Lake Valley, 11, 13, 14, 352
camps in Arizona, 236	Greenberg, Ron, 507
creation of, 248	Gregg, Raymond, 409
DG-44	Gregory, Herbert E., 19, 20, 46, 310, 363, 542,
administration, 254	547, 681
begin swimming pool construction, 263	Griffin, Gene, 515, 516, 518
benefit to monument questioned, 267,	grinding stones, 170, 183, 299, 375
268, 278, 279	gristmill, 375
church services, 255	Gros Ventre Indians, 198
complete swimming pool, 265	Gross, Charles S., 409
contact with Native Americans, 258	Gunlock, Utah, 489
description of camp, 252	Gutierrez, Tony R., 625
discipline problems, 257, 262, 266, 276, 283, 285	Н
discovery of Powell survey marker, 257	Hook Convon 205
disposal of CCC buildings, 295	Hack Canyon, 395
education building, 255, 282, 292, 293, 294	Hagen, O. T., 257
educational courses, 255	Hagood, Allan, 541
enrollees act as tour guides, 309	Hall Brothers (Keith and Milt Hall), 634
establishment at Pipe Spring, 251	Hall, N. A., 244, 472
Grazing Service projects, 251, 282	Hall, Robert G., 427
injury accidents, 266	Halloween, 172
local girls, 266	Hamblin, Dudley, 363
NPS conflict with Army, 260, 262, 284	Hamblin, Jacob, 15, 16, 18, 19, 24, 27, 29, 31,
problem of pets, 263	54, 315, 352, 432, 455, 489, 546, 553, 557,
projects at Pipe Spring, 253, 255, 257,	604
260, 266, 267	Hamblin, Robin, 592
relocates to Ajo, 292	Hamblin, William Haynes, 352, 489
social activities, 265	Hamilton, Warren F., 255, 288, 486, 490-492,
veterans later return, 439	495, 514, 515, 550, 554
G-173	Hammond, J. T., Jr., 99
injury accidents, 300	Hanchett, Lafayette, 93, 94, 105, 129, 140, 144,
work at Pipe Spring, 300, 301	185
general operations, 235	handicapped accessibility, 640
infirmary, 183, 293, 298, 331, 369, 370,	Handlin, Irving, 508
372, 407, 445, 459, 463	Hanna, John W., 589
Office of Indian Affairs, 236	Hansen Planetarium, 634
racial segregation, 236	Happel, Paul, 586

Harden, Jack L., 547	family matters, 415, 416, 437, 473, 475
Harding, Warren G., 105-107, 109, 116-119, 123, 127, 198, 214, 649	family work on monument, 329, 349, 350, 358, 388, 392, 400, 409, 424
Harmston, Gordon E., 573	family's relations with neighbors, 324
Harp, A. Norman, 549, 569-571	farm in Alton, Utah, 167, 168, 329, 349, 350,
Harpers Ferry Center, 509, 511, 589, 603, 631,	392
632, 634, 641	farming activities at Pipe Spring, 173, 174,
Harris, A. W., 124, 125	189, 206, 210, 222, 244, 250, 446, 608
Harter, James M., 486, 492, 496, 497, 511, 515,	held in esteem by locals, 2
551, 555	hired as Pipe Spring caretaker, 157
Harter, Jewell, 614	involvement with Boy Scouts of America, 167,
Hartzog, George B., Jr., 486, 529, 531, 554, 561,	239, 289, 352, 405, 454, 538, 546, 594
608	journal, 2, 254
Haskie, Herbert, 503	location of farm buildings, 225, 228
Hasty, Gary M., 611, 617, 619, 627, 633	marries Edna Robertson, 162
Hatch, Ellis, 404	meetings with Mather, 158
Hatch, Utah, 265	moves family to Moccasin in 1935, 252, 258
Hathaway, Richard C., 571	moves into Mission 66 residence, 442
Hathaway, Stanley K., 561	named Fredonia Booster Club vice-chairman,
Hauke, C. F., 60	380
	nuclear family, 167
Havasupai, 9, 36, 582 Hayden, Carl, 72, 73, 78, 90, 201, 264, 304, 305,	· · · · · · · · · · · · · · · · · · ·
402	on Pipe Spring's significance, 353
	operates gas station and store, 112, 158, 162,
Hayden-Cartwright Act, 305	167-170, 204, 228, 241, 243, 279, 330, 358, 201, 407, 461, 516, 521, 525, 554, 565
Hazeltine, Byron, 490	391, 407, 461, 516, 521, 525, 554, 565,
Head Start program, 561, 582	567, 578, 579, 603, 604
Heart Canyon, 334, 457, 467, 518, 528-530, 538-	plans to retire, 446, 450
540, 580	promotion to acting superintendent, 403
heaters, 286, 330, 356, 369, 371, 388, 394, 408,	protests Solicitor's 1931 opinion, 203
548, 603, 643	recalls family history, 48
heating, 407, 444, 453, 492, 493, 496, 508, 548,	recalls Kaibab Paiute ways, 49
549, 554, 577	receives 30-year service pin, 445
Heaton family	receives letter of commendation, 388, 558, 593
and cattlemen's one-third water rights, 225	recounts history of Moccasin, 48
and United Order, 49	recounts Whitmore-McIntyre incident, 26
history, 48, 49, 59	removes his barn and corrals, 450
homestead claims, 72	response to monument's transfer to Zion, 321
perceived as threat to Kaibab Indian	retirement home in Moccasin, 450
Reservation, 134, 189, 337	retirement picnic, 451
reasons for wanting monument established, 112	routine monument work, 166, 349
reunions held at Pipe Spring, 405, 548	serves as Pinkley's pallbearer, 294
Heaton, C. B., 48	typical of early caretakers, 2
Heaton, C. Leonard	Heaton, Carolyn, 474
1932 report on water use, 204	Heaton, Charles C.
attempts to landscape residence (infirmary),	1923 meeting with Mather, 124
331, 371	1924 water agreement, 135
attitude toward Kaibab Paiute, 432	at 1933 marker installation, 115, 187
cattlemen's interests, 216, 219	leads opposition to Solicitor's 1931 opinion,
Civil Service status, 250, 276, 361	199
custodian position funded, 166	Moccasin claim, 72
dislike of office work, 328	Pipe Spring claim, 72, 77, 78, 105, 106, 338,
dislike of staff meetings, 393, 432	522
dissatisfaction with Mission 66 residence, 440	proposed as monument custodian, 141

reason for selling Pipe Spring, 112, 216	Heaton, Melvin Kelsey, 373, 389, 394, 395, 397,
requests public water reserve be created, 130	406, 410, 428, 430, 437, 440, 454, 456, 458,
son of Jonathan Heaton, 45	466, 473, 512, 586
water lease to Army, 298	Heaton, Millicent, 167, 451, 459, 474
Heaton, Claren, 167, 447, 474	Heaton, Nora, 473, 512, 586, 614
Heaton, Clawson, 320, 371, 372, 379, 416, 475	Heaton, Norman, 554
Heaton, Clifford K., 447, 459, 463	Heaton, Olive, 167, 363, 366, 415, 422, 432,
Heaton, Darrell L., 409	474
Heaton, Dean, 167, 320, 349, 366, 368, 371, 416,	Heaton, Paul Cram, 491, 496, 500, 508, 512,
	540
547, 570	
Heaton, Duke, 591	Heaton, Ruby, 592
Heaton, Edna Robertson, 2, 45, 112, 158, 163,	Heaton, Sherwin, 167, 280, 349, 369, 397-399,
167, 169, 173, 182, 184, 249, 292, 293, 309,	402, 404, 410, 411, 447, 457, 458, 467, 475
327, 329, 349, 350, 354, 356, 364, 371, 376,	Heaton, Sterling, 137, 373, 379, 547
390, 391, 392, 394, 395, 397, 398, 404, 409,	Heaton, Tony, 508, 511, 541, 552
415, 416, 422, 424, 429, 432, 440, 443, 446,	Heaton, Wendell, 433
447, 451, 453, 461, 467, 474, 555	Heaton, William, 45
Heaton, Edward C., 364	Heaton, Yvonne, 473, 586, 629
Heaton, Fred C., 45, 72, 137, 298, 329, 356, 357,	Hebron, Utah, 36
363, 367, 369, 375, 390, 552, 554, 586, 590,	Hendricks, Glen, 409
604, 614, 617, 619, 621, 622, 628, 631-633,	Hendricks, Sam D., 356
641, 644	Henrie, Gina, 499, 502
Heaton, Gary A., 167, 349, 369, 410, 428, 430,	Hepworth, Keith, 629
431, 460, 466, 474, 475, 562, 604, 611, 617,	Hepworth, Squire, 38
619, 633	Herr, Jan, 613
Heaton, Grant, 158, 163, 164, 173, 183, 184, 243,	Herr, William M., 3, 573, 579, 611-615, 617-622,
249, 332, 357, 367, 416, 442, 447, 456-458,	624-634, 636, 638-641, 644-647
463, 465, 469, 622	Herrick, Samuel, 78
Heaton, Heber, 503	Hewes, L. I., 144
Heaton, Ira, 45	Heyder, Robert C., 562, 571, 578, 581, 584, 585,
Heaton, Israel, 45	589, 596, 601, 602, 605, 607, 608, 612, 613
Heaton, Jennie, 126	Hickel, Walter J., 486, 531, 535, 561
Heaton, Jonathan, 43, 45, 49, 50, 55, 57, 59, 60,	Hicks, George, 38
63, 65, 67, 69-73, 76, 77, 94, 113, 123-125,	Higgins, Doug, 580, 626
139, 140, 151, 190	Hill, Louis W., 96
Heaton, Jonathan and Sons, 45	Hiscock, John W., 617
Heaton, Jonathan, Jr., 45	Historic American Building Survey (HABS), 295,
Heaton, Junius, 45	368, 438
Heaton, Landell, 352, 622	historic buildings
Heaton, Leonard P., 167, 349, 352, 372, 403, 411,	east cabin
416, 425, 443, 447, 456, 460, 475, 483	1925 reconstruction, 154, 155
Heaton, Lisa, 586	1941 rehabilitation work, 301
Heaton, Lowell, 167, 244, 349, 358, 368, 369,	construction, 29
388, 397, 403, 410, 411, 416, 475	general condition and repairs, 458, 549,
Heaton, Lucy Carroll, 49, 50, 72, 73, 543	597, 636, 643
Heaton, Margaret C., 157, 327, 391, 412, 437	used for tool storage/work room, 279
Heaton, Mary, 474	fort
Heaton, Maxine, 167, 280, 415, 416	as defense against Navajo, 32
Heaton, McKay, 624	as house museum, 182, 293, 302, 314, 320,
Heaton, Mel, 496, 503, 504, 507, 508, 512, 520,	328, 345, 346, 354, 406, 428, 429, 432,
530, 549, 555, 557, 563, 577, 582, 585-591,	433, 434, 435, 441, 443, 603
594, 603, 608, 615, 629, 630	balconies, 284, 368, 383, 405, 636
	catwalk, 294, 349, 368, 636

ceilings, 167, 287, 456, 636	historical research
completion, 33	by Arthur Woodward, 314, 435
concern about damage caused by heavy	by C. Leonard Heaton, 182, 309, 334, 376,
traffic/jet vibrations, 484	380, 536, 541, 545, 607, 642
construction, 37	by James C. McKown, 439, 442
courtyard gates, 40, 154, 164, 334, 349,	by Lloyd Sandberg, 423
357, 368	by Ray Geerdes, 523, 536, 545
description, 33	by Robert W. Olsen, Jr., 446, 542
exterior repairs, late 1920s, 164	need for historian/research, 182, 185, 312,
floor replacement, 367	313, 376
foundation, 172, 235, 248, 287, 290, 294,	Hodel, Donald Paul, 612
295, 297-303, 308, 309, 313-316, 330,	Hofler, Capt., 277
	_
333, 335, 345, 376, 380, 411, 428, 473	Holt, L. M., 193, 244
general condition and repairs, 346, 367,	Homestead Act, 16, 18, 73
405, 410, 435, 455, 465, 548, 551, 578,	Hommon, H. B., 222, 280
594, 595, 634, 644	Honeymoon Trail, 20, 544, 589-592, 615
gun ports, 33, 457, 458	Honeymoon Trail Wagon Trek, 584, 585, 589-
impact of 1959 earthquake, 439, 466	594, 615
interior repairs, late 1920s, 159	Hoover, Herbert, 200
joists, 159, 162, 164, 367, 640	Hopi, 9, 15, 315, 316, 473, 481, 482, 520, 534,
lighting, 370, 424, 435, 443, 458, 492, 493,	544, 552, 568, 580, 582
503, 508, 539, 548, 549, 554, 576, 643	Hopi Agency, 473, 520, 534, 552, 568, 580
nicknames, 35, 109	Hopkins collection (tools), 332, 349, 375, 435,
parlor, 159, 162, 163, 349, 357, 367, 435,	470
458, 514, 548, 578, 593, 596, 604, 634	Hopkins, John, 332, 349, 375, 435, 470
plaster, 159, 162, 163, 167, 220, 287, 290,	Horn, Leroy, 531
297, 301, 334, 368, 401, 406, 439, 456-	Horn, Van, 483
459, 484, 548, 595, 596, 636	horses, 24, 29, 42, 44, 49, 75, 152, 168, 238, 242
restoration funds, 107, 127	246, 324, 360, 380, 397, 413, 444, 497, 504,
roof, 287, 293, 297, 298, 549	544, 587, 590, 598, 608, 615, 619, 638, 645
spring room, 35, 159, 162, 163, 291, 345,	Hosey, Bulah, 502
367, 368, 383, 406, 435, 437, 458, 464,	Hotel Utah (Salt Lake City), 124
467, 469, 522, 542, 594	House Committee on Interstate and Foreign
windows, 33, 166, 174, 279, 286, 346, 358,	Commerce, 385
362, 385-387, 405, 407, 408, 422, 432,	House Rock Valley (Arizona), 19, 42, 44, 544
435, 437, 438, 440, 457, 571, 640, 643	House, Ivan, 364
moisture problems, 162, 297, 300, 367, 369,	housing inspections, 407
456, 458, 548, 550, 578, 593, 596	Howard, E. O., 140
west cabin	Howard, John C., 140
1929 reconstruction, 166	Hoyt, Clorene, 586
1931 damage and repairs, 166	Hualapai, 9, 36
1941 work, 301	Hubbell Trading Post National Historic Site, 563
1942 work, 325	Huck, Phil, 570, 571
construction, 33	Huizingh, Ed, 567
general condition and repairs, 369, 458,	Hull, Daniel R., 124
549, 597, 636, 643	human remains, 170
used as classroom, 264	Humberger, Charles E., 434, 435, 441, 442, 448,
used as map room/office by Grazing	458, 463, 465
Service, 277	Hummel, Edward A., 531
historic furnishings report, 435	Hunt, Bill, 636
historical handbook, 423, 439, 442, 444, 446,	Hunt, George W. P., 125, 154
449, 471, 502, 541	hunting, 9, 11, 49, 52, 174, 183, 235, 276, 315, 324, 353, 387, 433, 444, 449, 475, 490

hunting laws, 52 irrigation ditches, 166, 169, 204, 229, 241, 253, Huntington Library, 543 255, 267, 280, 288, 297, 301, 320, 324, 325, Hurricane Electric Company, 458 329, 471 irrigation pipeline, 329, 373, 411 Hurricane Sand and Gravel, 614 Hurricane, Utah, 77, 88, 90, 92, 93, 97, 99, 100, irrigation system, 25, 62, 227, 241-243, 245, 337, 104, 107, 109, 111, 116, 120, 122, 124, 135, 357, 372, 373, 411, 469, 552, 600 142, 144, 150, 158, 172, 180, 196, 198, 255, Ise, John, 81, 88, 207, 297 305, 335, 362, 363, 379, 404, 412, 418, 419, Isenogle, James R., 577 421-423, 428, 431, 444, 448-450, 455, 458, Iversen, Phillip R., 608 463, 470, 476, 477, 479-481, 483, 487, 508, 558, 564, 576, 592, 594, 614, 634 \mathbf{J} Jackson, Earl S., 254 I Jackson, Milton, 626 Ickes, Harold L., 207, 210, 297, 319 Jacob Lake (Arizona), 393 Ikeda, Noby, 576 Jahns, Ed, 578, 603, 604, 641 Inch, S. R., 140 Jahovac, Elvira Winsor, 359 Independence Day, 149, 174, 252, 325, 433, 632 Jake, Clifford, 591 Indian Appropriation Act, 53, 54 Jake, F., 334 Indian Assistance Program, 563, 565, 570, 579 Jake, Gerald, 499 Indian Development District of Arizona (IDDA), Jake, Lorene, 591 515, 516, 518, 520, 524-527, 532, 568, 569, Jake, Lori, 586, 620 621 Jake, Lucille, 482 Indian Health Service, 581, 607, 621 Jake, Merle C., 563, 567, 568, 577, 620 Indian Irrigation Service, 130, 134, 135, 189, Jake, Morris, 482 193, 197 Jake, Vernon E., 473, 489, 495, 496, 498, 502, Indian pond (reservoir), 226, 230, 270, 373, 466, 513-515, 518, 539, 541, 555, 557, 580 483, 527, 534, 558, 625 Jake, Vivienne, 618 Indian reservations, establishment of, 24 Jensen, Elizabeth Woolley, 455, 545 Ingalls, G. W., 24 Jensen, Helen, 500 Inglis, Richard, 623, 624, 625 Jensen, Marvin, 496 insects, 168, 250, 284, 287, 351, 356, 359, 368, Jenson, Andrew, 29 391, 458 Jepson, Carl E., 427, 432, 433, 437-439, 448, inspections, 29, 76, 102, 124, 218, 230, 239, 241, 465, 470, 488 249, 275, 276, 282, 284, 285, 288, 290, 300-Jepson, Velma L., 412 302, 304, 308, 320, 322, 332, 337, 356, 357, Jesup, A., 365 361, 367, 368, 378, 379, 390, 392-394, 403, jet planes, 386, 415, 484 405, 418, 424, 427, 434, 439, 442, 446, 449, Job Corps, 485, 555 455, 458, 465, 479, 521, 538, 550, 551, 570, Job Training Partnership Act (JTPA), 627, 628 571, 579, 595, 596, 603, 607, 609, 615, 625, job training programs, 540 627, 634, 635 John, Elwin, 586, 591 interpretation, 1-4, 182-185, 187, 193, 196, 264, John, Levi, 187, 416 275, 295, 302, 303, 309, 310, 312-317, 326, Johns, Alice E., 623 333, 338, 339, 341, 345, 346, 376, 377, 380, Johnson Canyon, 447, 474, 549 399-403, 428, 429, 434, 437, 441, 444, 447, Johnson Lake, 287, 467 449, 470, 485, 487, 493, 497, 502, 503, 505-Johnson, Adeline, 584, 586, 591, 641 507, 509, 511, 512, 515, 518, 528, 530, 532, Johnson, Albert L., 337, 339 534, 538-545, 558, 561, 577, 581-590, 594, Johnson, Ann, 634, 638 Johnson, Carl W., 300, 386, 427, 428, 456, 458, 597, 601, 602, 604, 608, 613, 615-617, 621, 460, 466 628-633, 649, 650 Iranian hostage crisis, 611, 643 Johnson, Charles Ellis, 26 Iron County, 124 Johnson, David, 505, 506, 508, 512, 549, 586, 590, 592, 624, 629 Johnson, Eldon V., 454, 518

Johnson, LaVar, 454	road maintenance, 335, 366, 377, 417, 427,
Johnson, Lyndon B., 485	461, 476, 487, 491, 556, 558
Johnson, Nephi, Sr., 53	school, 56, 57, 59, 75, 349, 357, 363
Johnson, Owen, 294, 505, 544, 548, 555, 591, 593, 624	snack bar/gift shop, 525, 535, 570, 578-580, 587, 590, 626, 627, 630
Johnson, Rudy, 502	survey of boundaries, 65
Johnston, Albert Sidney, 14	trespassing, 192, 251, 360
Jolmary, Joseph, 324	value of livestock in 1917, 65
Jones, A. A., 62, 65	visitor center maintenance, 627
Jones, Glenda, 475	water supply, 60, 70, 75, 189, 193, 337, 623
Jones, Kumen, 422, 427, 438	water system, 55-57, 60, 69, 189, 299, 337,
Jones, Lehi W., 44, 365, 422, 450	415, 581, 619
Jones, Randall L., 88, 90-93, 100, 103, 104, 117,	Kaibab Mountain, 389, 392
135, 144, 196, 325	Kaibab National Forest, 52, 94, 95, 112, 119,
Judd, Asa Walter, 405, 473	142, 144, 174, 379, 544, 621, 645
Judd, Dennis, 580, 590-592	
Judd, Harvey L., 438, 439, 441, 442, 447, 458	Kaibab Paiute
Judd, Mrs. Carlos, 542	alcohol problems, 365, 417, 432, 556, 577
Judd, Olive, 495, 547	approve joint master plan, 532
Judd, Warren Dart, 495, 547	cattle ranching, 49, 54-57, 60, 65, 75, 76, 193 270, 342, 415
K	children deface fort gates, 334
Vohlan Hambant E. 226, 277	dancers, 591, 592
Kahler, Herbert E., 326, 377 Voibeb A gengy, 53, 65, 74, 76, 123, 124, 189, 100	deer hunting, 49, 52
Kaibab Agency, 53, 65, 74-76, 123, 124, 189, 190 Kaibab Indian Reservation	deny cattlemen's 1932 request, 214
	description by Woolley family, 23
1907 withdrawal of public lands, 55	desire to retain traditions, 75
1911 Means Report, 67 1913 withdrawal, 61	develop tourism complex, 486, 497, 511, 513,
	555
1914 Dietz Report, 62 1917 creation, 65	employment, 4, 36, 52, 74, 75, 193
1922 description, 74	farming, 48, 49, 52, 55, 57, 60, 75, 76, 191,
1924 Engle Report, 130	193, 226, 337, 342, 415
Arizona v. California case, 413	guides, 15, 29
campground/trailer park, 579, 627	health on the reservation in 1922, 76
fires, 349, 357, 363, 619, 646	health on the reservation in 1937, 280
grazing fees and permits, 60, 61, 68, 131, 135,	horses, 60, 75, 360, 413, 415
192, 196, 197, 201	hunger, 23
grazing leases, 65	hunting and gathering activities, 49, 52, 76
hazardous waster incinerators, 611	hunting on monument, 324
hiking trails, 580	impact of diseases, 11, 23, 25, 75, 76
housing projects, 504, 520	impact of Indian Appropriation Act, 53, 54
joint-use water system, 567, 573	impact of Latter-day Saint colonization, 20, 23-25, 53
joint-use well, 567	in Latter-day Saint settlements, 36, 53, 54
Juniper Estates, 619, 620 local whites protest 1907 withdrawal, 56	inefficient water use, 226
	late 19th century, 23
mineral exploration, 387	loss of faith in government to protect rights,
office building, 75, 293, 518, 520, 521, 526, 534, 568, 620, 627	134 material culture, 23
planning and development, 497, 511, 513, 555, 565, 567, 619	Moccasin Spring, 47-49, 53, 54, 67, 134, 189, 288, 337, 623
removal of illegal fences, 73, 74, 127, 138	288, 337, 623 multi-purpose center (gym), 577, 620
revision of boundaries, 65	mythological place of origin, 9, 448

oppose bypass road, 480, 482	400, 404-406, 416, 417, 423, 427, 428, 430,
patronize Leonard Heaton's store, 170	431, 433, 435, 438, 444, 449, 452, 454, 456,
pique visitor curiosity, 447	459, 470, 471, 473, 474, 476, 477, 479, 480,
population	483, 488, 496, 506, 518, 536, 541, 542, 546,
1910-1955, 415	547, 554-556, 580, 590, 594, 604, 614, 618,
in 1880, 48	634, 641
in 1903, 51	Kane County, 27, 72, 120, 122, 123, 442, 536
in 1907, 55	Keams Canyon, 481, 520, 521, 534, 556, 580
in 1910, 53	Kearns, Thomas, 140
in 1917, 65	Kell, John E., 325, 472
in 1952, 415	Kelly, Isabel T., 9, 10
protest 1933 marker, 187	Kennedy, John F., 485
purchase CCC infirmary, 444	Kennesaw Mountain National Battlefield Park,
relations with Anson P. Winsor, Jr., 35	511
relations with area residents, 378	Kerr, Robert I., 486, 562
relations with Kanab residents, 57, 54	Khomeini, Ayatollah, 611
relations with Moccasin residents, 53, 74, 192	King, Dale S., 311
	King, William, 151, 214
relocation of Moccasin camp, 49, 56	
resistance to colonization, 135	Kingdom of God (Zion), 14, 16, 20
slayings by Utah Territorial Militia, 26	Kingman, Arizona, 323, 393, 396, 404, 480, 505
tensions with local cattlemen, 215	518, 536, 556
traditional crafts, 171	Kittredge, F. A., 219, 222, 227, 230, 233, 237-
traditional territory, 7, 9	239, 244, 249, 250
Kaibab Paiute Tribal Council, 19, 453, 461, 477,	Klein, Maury, 96
481-483, 513, 514, 530-532, 563, 565, 568,	Kleppe, Thomas S., 561
569, 571, 612, 617, 626, 627	Knack, Martha, 52
Kaibab Plateau, 9, 19, 29, 49, 151, 621	Knell, Benjamin, 427
Kaibab Village	Knell, Rulon, 427
description, 56, 57, 75, 170, 188, 191, 307,	Knight, J. William, 140
335, 350, 377, 412, 428, 445, 470, 506,	Korean War, 2, 167, 384, 416, 561, 649
513, 520, 559, 574, 581, 646	Kowski, Frank F., 486, 499, 502, 512, 521, 524-
developments (1970s), 581	531, 534, 535, 548, 550, 562, 564, 565, 567-
relocation, 70	569, 602
road to, 307	Kuehl, Alfred C., 251, 252, 258, 267, 276-279,
source of laborers, 428	283, 284, 286, 290, 292, 297, 298, 300, 301,
Kaibab Wagon Road, 20, 152, 204, 306, 489, 544	303, 304, 307, 308, 311, 312, 325, 335, 439
Kamehameha, 497, 511	
Kanab Chamber of Commerce, 471, 618	${f L}$
Kanab Construction Company, 456	La Verkin, Utah, 92
Kanab Creek, 9, 18, 19, 23, 25, 36, 41, 54, 57,	labels, 181, 285, 346, 375, 412, 443, 449, 493,
62, 63, 471, 483	589
Kanab Creek Canyon, 9, 25	Labor Day, 405, 584, 629
Kanab Kiwanis Club, 618	Lake Mead, 377, 471, 515, 531
Kanab Ladies Civic Club, 541	Lake Mead National Recreation Area, 515
Kanab Lion's Club, 618	Lallard, Arch, 74
Kanab Stake, 37, 44, 59, 172, 187, 352, 364, 404,	Lamb Point, 449
405, 438, 546, 595	Lamb, Ed, 42, 137
Kanab, Utah, 3, 7, 9, 18, 19, 23-26, 29, 32, 35-	Lands, Ed. 42, 137 Lancaster, John O., 562, 612
37, 41-44, 46, 48, 52-54, 56, 57, 59, 60, 62,	Lancaster, John O., 302, 612 Lancaster, Samuel C., 101, 117, 119
63, 77, 86, 92, 93, 99, 120, 122, 123, 125,	landscape
129, 137, 141, 170, 172, 175, 180, 181, 187,	÷
222, 238, 244, 246, 266, 304, 312, 322, 347,	changes in 1925, 153
349, 350, 352, 363-367, 375, 377, 386, 399,	changes in late 1920s, 172, 189
	changes in the 1930s (throughout Part V), 235

existing conditions in 1932, 204	LaVerkin, Utah, 404
for permanent residences, 463	law enforcement, 417, 556, 557, 610, 647
general references, 1, 2, 20, 40, 152-154, 172-	LBJ Ranch National Historic Site, 630
174, 185, 189, 193, 195, 204, 206, 207, 218,	leach field, 550, 640
221, 227, 241, 242, 247, 250, 251, 254, 260,	leaflets and brochures, 96, 142, 182, 311, 313,
265, 267, 268, 282, 288, 310, 319, 320, 325,	345, 346, 395, 432, 433, 437, 444, 449, 500,
326, 327, 331, 351, 369, 380, 425, 439, 444,	630
449, 453, 460, 463, 490, 491, 508, 540, 568,	lease (visitor center), 37, 65, 101, 102, 104, 115,
570, 587, 588, 597, 598, 601, 602, 606, 616, 617, 636, 638, 639	116, 298, 334, 534, 535, 569, 570, 571, 573, 578, 580, 626
impact of joint-use water system, 534, 597	Leatherwood, E. O., 117
NPS debate over treatment in 1942, 325	Ledger A (Winsor Castle Stock Growing
NPS philosophy in 1920s, 152	Company), 543
proposed restoration, 227, 448, 576	Ledger B (Winsor Castle Stock Growing
provisions made for water, 206, 207	Company), 31, 542
landscape architects, 124, 166, 186, 199, 218,	Lee, Emma, 19
221, 222, 228, 249, 251, 264, 265, 290, 304,	Lee, John Doyle, 14, 19, 26
312, 319, 320, 325, 335, 351, 427, 434, 439,	Lee, Michael, 636
461, 491, 508, 515, 531, 532, 567, 637	Lee, Rella Hamblin, 455, 546, 553
Lane, Franklin K., 61, 65, 80, 81, 108	Lee's Backbone, 19
Langley, Harry, 166, 186, 218, 219, 222, 228,	legal cases
237, 241, 244, 246, 249, 250, 252, 260, 262,	Arizona v. California, 383, 413, 415, 471, 472,
265, 312, 333	523
Langston, Rulon, 413, 448	Boquillas Co. v. Curtis, 343
Lani, 497	Winters v. United States, 197, 198, 271, 272,
Larrabey, C. F., 55	340, 522
Larson, Christon Hanson, 47	Leisure World Tours, 547
Las Vegas Sierra Club, 546	leukemia, 387, 495
Las Vegas, Nevada, 103, 384, 415, 505, 536, 546,	Lewis, Cecil, 612
547, 558, 595, 614	lightning protection, 361, 362, 391, 403, 422-424,
Latimer, Melva Whitmore, 554	431, 490, 547
Latter-day Saint-Paiute alliances, 18, 54	lime, 7, 33, 297, 448, 458, 459, 507, 550, 595, 635
Latter-day Saints	lime kiln, 7, 297, 448, 459, 507, 550
abandonment of southern settlements, 27	Lindsay, LaMar W., 607
attitude toward Indians, 20	linseed oil, 321, 367, 407, 456, 458, 471
colonization, 9, 11, 13, 15, 16, 18, 19, 20, 22,	List of Classified Structures (LCS), 596
23, 36, 39, 109, 313, 314, 352, 377, 380,	Little Colorado River (Arizona), 18-20
513, 539, 542, 544, 633	Little, Loren C., 38, 422
cooperatives, 29, 59, 76, 101, 109, 126, 181,	Littleman, Stan, 557
262, 380, 487, 513, 518, 521, 531, 532,	living history program, 1, 3, 335, 485, 493, 497,
535, 557, 565, 568, 579, 604, 626	499, 502, 504-506, 509, 511, 545, 548, 561,
impact of immigrants on Indians, 25, 36	583, 585-589, 594, 602, 604, 615, 616, 628,
Indian policy, 13, 20, 22	630, 632, 633
missionaries, 13, 15, 16, 19, 314, 546	Logan, Utah, 443, 475, 509, 545
missions, 13, 16, 19, 20, 49, 54, 167, 416, 475,	Long Valley (Utah), 48, 375
504, 631	Long, Clint, 628
slave trade, 13	looms, 435, 471, 500, 505, 506, 539, 540, 594,
slayings by Indians, 27, 32, 187, 257, 260,	630
380, 441, 507, 542, 550, 615, 632	Los Angeles' Department of Water and Power,
southern migration, 15	536, 607
Lauritzen, Jacob, 328	Lost Spring Cliff, 449
Lauritzen, Jonreed, 328	Lower Colorado River Basin, 413
Lavender, David, 629	Lucas, Westley, 532

Lucero, Bernard, 556, 557	first visit to Zion National Park, 86, 375, 391, 595
Luke, Paul, 568 lumber, 45, 164, 190, 252, 295, 358, 363, 367,	general references, 80-82, 86, 88, 90-95, 99,
368, 379, 440, 460, 498, 504	100, 104-110, 112, 114-116, 122-127, 129,
Lund, A. Wm., 345	130, 134-142, 144, 145, 149, 151, 153-155,
Lund, A. Will., 343 Lund, Barbara, 541, 605	
Lund, Utah, 88, 99, 100, 103, 117, 123, 124, 149,	157-159, 164, 173, 181, 185, 187, 203, 208
606	220, 221, 225, 227, 306, 341, 399, 451,
Lund, Victor, 518	504, 512, 650 methods of promoting parks, 81, 82
	respects Latter-day Saints and their history,
Lund-Cedar City spur line (Union Pacific), 88, 100, 102, 117, 123	114
Lunt, Henry W., 144	Rockville cutoff, 144
Lusk, Gil, 528, 532	role in establishment of the monument, 104
lynx (bobcat), 52, 410, 447, 467	role in Governor's Committee on National
1911x (000cat), 32, 410, 447, 407	Park Development, 92
M	terms for Pipe Spring's transfer, 124, 126
	Virgin River Bridge, 144
Mabey, Charles R., 93, 101-103, 115, 117, 144	Maxwell, William B., 26, 27, 46, 47, 54, 67
MacDonald, Alexander F., 31	Mayo, Max Clarence, 473
Madison Productions, Inc., 557, 558	Mayo, Warren, 170, 334
Madsen, Rex E., 607	Mayo, William, 482
Madson, David H., 265	McAllister, Theo, 470
Mahan, Russell L., 316, 317	McAllister, Wesley, 435, 470, 554
Mahoney, W. P., 73	McArthur, D. D., 26
Maier, Herbert, 279, 310	McArthur, E. Durant, 606
maintenance area, 7, 242, 243, 283, 284, 294,	McCabe, Joe, 464, 469, 490, 491, 550
307, 320, 434, 490, 579, 603, 621, 637, 639,	McCarthy era, 384
640, 646	McClintock, James H., 41, 46, 48, 314, 544
Major, Fred, 375	McColm, Milton J., 290, 345
Malmquist, Allen, 497, 500, 508, 511, 539, 544,	McCormick, Rhea, 632
556, 557	McCutchen, H. E., 598, 601
Manges, Gayle E., 525, 527, 531	McDougall, W. B., 287, 312
Manti, Utah, 346, 546	McDowell, John P., 138, 139
Manuelito, 18	McEntee, James L., 248, 249, 275
manure, 638	McFarlane survey, 38
Manymule, Johnnie, 499	McFarlane, John M., 38
Marble Canyon, 19	McFee, Corwin, 499
Maringer, Lawrence, 124	McGavock, E., 564
Markagunt Plateau, 7	McGraw, L. S., 590
Marriger, Lynda J. (or T.), 40	McIntosh, Guy, 515
Marsh, Dr., 280	McIntyre, Robert, 26, 27, 31, 187, 188, 313, 454
Martz, C., 613	McIntyre, William H., 140
Marysvale, Utah, 120, 122	McKee, Edwin D., 547
Mather Training Center, 504, 512	McKee, Elizabeth, 150
Mather, Stephen T.	McKell, C. M., 509
1921 trip to Pipe Spring, 90	McKown, James C., 429-435, 437-444, 453, 455,
advocates road improvements, 99, 123	459, 461, 463, 466, 470, 473, 492, 512, 542
appointed assistant to the Secretary of the	McLane, Donald M., 569
Interior, 80	McMeekin, Andrew F., 282
description of, 81	McMurrin, Sterling, 547
efforts to acquire Pipe Spring, 90, 91	McNeil, C. G., 526
efforts to publicize parks, 80	meadow, 167, 169, 173, 189, 193, 203, 204, 207,
first visit to Pipe Spring, 90	209-211, 216, 220, 224, 225, 228, 229, 238,

239, 241, 242, 244-246, 250, 252, 255, 259,	514, 525, 529, 531, 532, 534, 535, 541,
262, 263, 269, 278, 282, 286, 287, 295, 301,	543, 544, 548, 555, 556, 557, 558, 559,
303, 320, 321, 325, 330, 333, 352, 359, 360,	564, 570, 573, 579, 582, 591, 595, 611,
362, 363, 372, 380, 391, 392, 396, 403, 410,	618, 622-625, 634, 646, 647
411, 422, 451, 454, 466, 471, 491, 492, 496,	Heatons' water system, 67, 70
504, 551, 587, 601	homestead claims, 72, 76
Means, Howard C., 57, 120, 144	Indian burials, 288
Meeks, Heber J., 137, 187, 228, 230, 244, 595	labor force (non-Indian), 50
melons, 47, 48	relations with Office of Indian Affairs, 72,
Memorial Day, 427, 584, 619, 629	189, 337
Meritt, E. B., 67, 68, 190, 193	school, 49
Mesa Verde National Park, 79, 434	source of laborers, 428
Mescalero Apaches, 18	store, 50
message repeater, 539	Moccasin Ranch, 31, 46, 47, 48, 53, 55, 67
Mexican-American War, 11	Moccasin Spring (Sand Spring), 23, 25, 29, 31,
mice, 324, 646	46, 47, 48, 49, 52, 55, 56, 57, 59, 62, 63, 65,
Mick and Molly, 591, 608, 645	67, 68, 69, 70, 72, 73, 75, 113, 130, 134, 189,
Mildner, William F., 527	190, 191, 193, 200, 226, 275, 280, 288, 310,
military, 14, 15, 26, 248, 299, 303, 319, 323, 396,	415, 543, 623, 624
416, 491, 543, 544, 561	Moccasin Ward, 506
Miller, George C., 448, 449, 491	Moccasin Wash, 564
Miller, Hugh M., 243, 258, 264, 268, 275, 276,	Moccasin Water Board, 623
285, 292-294, 298, 299, 301, 302, 305, 307,	Moenkopi, 19
308, 312-316, 320, 384, 398, 399, 403, 410,	Mohave County (Arizona), 7, 9, 27, 42, 69, 73, 113
411, 422, 427, 434, 439, 456, 461, 463, 464,	138, 168, 235, 247, 255, 305, 307, 335, 336,
472, 476, 477, 481, 482	363, 377, 379, 404, 417-419, 476, 480, 483,
millet, 57	495, 536, 556, 557, 559, 582, 583, 628, 681
Mineral Engineering Company, 388	Monair, Heber, 45, 365
mineral exploration, 383, 387, 388, 475	monitoring wells, 625
mining, 43, 92, 383, 384, 387, 564	Monson, Gale, 642
Mintzmyer, L. Lorraine, 612, 620, 626, 634, 645	Montezuma Castle National Monument, 181,
missing persons, 366, 437, 473-475, 496, 555	249, 294
Mission 66, 166, 383, 403, 421, 422, 427, 430,	monthly reports, 166, 177, 235, 321, 360, 365,
431, 434, 438, 442-444, 453, 460, 464, 476,	386, 449, 487, 542
485, 513, 577	monument road (old), 152, 167, 169, 173, 204,
Moapa Paiute, 24	222, 228, 237-239, 242, 246, 249, 266, 282,
Moccasin	304, 306, 320, 326, 330, 335, 336, 349, 354,
agriculture, 48, 49, 192	374, 379, 438, 448, 459, 480, 492, 598
attempts to develop water sources, 70, 189,	Monument Valley, 18
337, 623	Moreau, Louise Ramsey, 488
cattle, 49	Mormon Wagon Road, 20, 544
Church mission, 48, 49, 54	Morse, Walter, 124, 125, 135
general references, 2, 3, 7, 23, 25, 27, 29, 31,	Mortimore, Ronald, 434, 461
36, 38, 46-57, 59, 62, 63, 65, 67-76, 90, 95,	Morton, Rogers C. B., 561
99, 112, 113, 123, 124, 126, 127, 130, 134,	Mose, Ray (Saxaivaw), 212, 431-433, 435, 438-
135, 137, 138, 157, 158, 167, 172, 188-191,	442, 445-448, 450, 451, 457, 458, 463, 465,
193, 200, 209, 222, 225, 226, 250, 252,	466, 467, 469, 471, 474, 475, 482, 488, 496,
258, 269, 275, 280, 282, 286-289, 298, 299,	512, 552
304, 308-310, 331, 332, 340, 345, 349, 350,	Mose, Serene, 555
352, 353, 357, 363, 364, 366, 372, 377,	Moskey, George A., 185, 212, 270, 271
379, 386, 390, 391, 393, 404, 412, 415,	Mott, William Penn, 612
416, 423, 428, 429, 435, 442, 450-455, 469,	Mount Rushmore National Memorial, 617
472, 482, 487, 495-500, 502-506, 508, 512-	Mountain Meadows massacre, 14, 19, 26

Mountain States Telegraph and Telephone, 539	reorganization in 1933, 80
movies, 383, 397, 398, 439, 509, 541, 557, 604	Water Resources Division, 535, 611, 622-626
Mt. Carmel, Utah, 48, 97, 99, 112, 120, 122, 123,	Water Resources Section, 461, 471, 563
142, 144, 145, 149, 177, 178, 180, 181, 393,	Water Rights Section, 337, 339
452	Western Museum Laboratory, 314, 345, 458,
Mt. Elden (Arizona), 236, 295, 298	470, 553
Mt. Trumbull (Arizona), 18, 33, 44, 541	Western Office, Division of Plans and Design
Muddy River (Nevada), 24, 46, 48	(San Francisco), 354, 434, 435, 439, 461,
Murdock, Strafford, 509	463-465, 472, 480, 490
museum	National Parks Act (Organic Act), 80
cataloguing, 294, 443	National Park-to-Park Highway, 86, 88
collection, 1, 167, 168, 182, 183, 258, 259,	National Park-to-Park Highway Association, 86,
262, 289, 293, 294, 302, 310, 312, 315,	88
316, 322, 332, 346, 352, 353, 375, 412,	natural disasters
432, 435, 441, 443, 444, 447, 449, 455,	blizzards, 168, 177
470, 471, 487, 493, 542, 545, 549, 553,	drought, 37, 76, 112, 173, 189, 190, 192, 201,
554, 578, 603, 604, 610, 641	214, 270, 363, 413, 425, 596, 601
prospectus, 428, 492	earthquakes, 386, 439, 448, 466
storage, 434, 640, 641	floods, 88, 163, 204, 235, 241, 242, 244, 251,
Museum of Northern Arizona, 558	253, 267, 286, 298, 331, 332, 354, 356,
Muths, Thomas B., 596, 635	372, 373, 411, 412, 442, 451, 463, 469,
**	552, 568, 569, 597, 602, 609, 610, 621
N	hail, 373, 412, 636, 645
Napa Valley Tours, 546	lightning, 361, 362, 391, 403, 422-424, 431,
Naranjo, Santiago, 306	451, 490, 502, 546
Natay, Edward, 570	rainstorms, 284, 286, 332, 411, 412, 451, 549,
National Congress of American Indians, 383	552, 568, 609
National Geographic Society, 547	tornadoes, 447
National Park Service	windstorms, 370, 408, 607
50th anniversary, 491	natural history, 253, 263, 277, 287, 310, 353, 364,
Branch of Education and Research, 264	495, 605, 606, 618, 642
Branch of Historic Sites and Buildings, 257,	Navajo
327	attack on Utah Territorial Militia at Kanab, 26
Branch of Land Acquisition and Regulations,	Bosque Redondo, 18
269, 271	military defeat, 18
Branch of Plans and Design (San Francisco),	Pipe Spring fort as defense against, 32
228, 238, 243, 245, 250, 279	raiding of Southern Paiute camps, 36
Branch of Research and Interpretation, 313	resistance to U.S. military, 18
Division of Cooperative Activities, 384	slave trade, 10
Division of Design and Construction, 384,	the Long Walk, 18
	trade with Mormon settlements, 36
461, 490	Navajo Bridge, 151, 421
Division of Interpretation, 384	Navajo Lands Group, 520, 526
Division of Water Resources, 525	Navajo Well, 449
early years, 79	Navajo-McCullough transmission line, 536, 607
Indian Assistance Program, 563, 565, 570, 579	Neasham, Aubrey, 313
interpretation	Neighborhood Youth Corps (NYC), 3, 485, 497-
development of interpretive programs and	500, 502-509, 511, 513, 518, 520, 534, 538,
museums in 1920s, 181	541, 544, 548, 549, 555, 561, 562, 580-583,
Office of Archeology and Historic	587, 598, 601, 620, 628, 630
Preservation, 548, 554	Nellis Air Force Base, 614
promotion of transportation networks, 92	Nellis Air Force Range, 384
relocates to Chicago in 1942, 319	Neslen C Clarence 93 102

Nevada Test Site, 383-385, 388, 495 134, 138, 173, 189, 191-195, 200, 201, newspaper or journal articles, 10, 23, 56, 94, 95, 206-208, 213, 215, 236, 244, 270, 271, 273, 97, 99, 100, 116, 119, 144, 315, 328, 332, 346, 299, 305, 306, 335, 341-344, 418, 476, 522 352, 359, 362, 375, 376, 396, 429, 430, 439, investigates ownership of Moccasin Spring, 59 442, 466, 470, 491, 506, 507, 543, 549, 607, investigates use of Moccasin Spring, 67 630, 681 opposes creation of water reserve on Kaibab newspapers, 117, 123, 144, 314, 491, 505, 543, Indian Reservation, 131 593, 594, 604 opposes NPS intent to file on Pipe Spring Nichols, Tad, 547 water, 273 Nicholson, Malcolm S., 612 provision for Indian use of Pipe Spring water, Nielsen, Mary, 32 73, 105-107, 110, 114, 193-196, 198, 208, Nielsons Inc., 559 452, 496 Nisson, Bob, 592 recognizes cattlemen's one-third water rights, Nisson, Mrs. Edward, 543 230 Nixon, Richard M., 485, 561 relations with cattlemen in 1930s, 246 Norgard, George W., 297, 300, 301, 303, 409 requests Fredonia be excluded from Northern Arizona District Action Council, 498 reservation, 61, 62 Northern Coconino County Fair, 587, 619, 629 requests land survey of reservation be Novak, Fred, 390 suspended, 62 Nusbaum, Jesse L., 290, 305-308, 345, 354, 376 requests reservation boundary modification, 65 roads and the Hayden-Cartwright Act, 305 \mathbf{o} seeks relief for Kaibab Paiute, 52 strategy to protect Indians' access to Moccasin oats, 57 Spring, 70 Oberhansley, Francis R., 441-443, 446, 448, 450, oil companies, 387, 388, 475 455, 473, 483, 486, 513, 553-555, 558 Old Spanish Trail, 10 Office of Economic Opportunity (OEO), 485, Oldroyd, John T., 99, 101, 102, 115, 117 498, 507, 509, 512, 583 Olivieri, Lance J., 596 Office of Indian Affairs Olsen, Lauri, 512 1932 request for surplus water, 201 Olsen, Robert W., 446-450, 452, 455, 459, 471, 1933 regulations and John Collier, 214 474, 475, 484, 487-489, 491-493, 512, 537, 1933 regulations issued, 211 539, 541-543, 545, 546, 553-555, 603, 630 approached by Mather about Pipe Spring, 90 Oney, Ron, 621 asserts Winters doctrine applies to Pipe open houses, 512, 591-593 Spring, 197 Operation Mainstream, 485, 507, 508, 512, 561, challenges Charles C. Heaton's claim to 582, 583, 586 Moccasin Spring, 104 Operation Upshot-Knothole, 385 Civilian Conservation Corps program, 236 operations evaluations, 509, 577, 598, 615, 616, concern about water development in 646 Moccasin, 189, 337 oral histories, 2, 9, 92, 170, 182, 313, 316, 332, concern about water use at Pipe Spring 390, 450, 507, 536, 542-545, 589, 607 National Monument, 189, 207, 344 Orchard, Robert, 531, 535 constructs stockmen's pipeline, 245 orchards, 1, 7, 41, 77, 227, 322, 325-327, 364, development of water supply on reservation, 393, 471, 490, 507, 509, 563, 579, 582, 587, 61, 189, 337 597, 598, 602, 637, 638 develops cattle industry on Kaibab Indian Orderville Gulch, 366 Reservation, 57 Orderville, Utah, 37, 40, 48, 122, 137, 364, 366, directs 1906 Chubbuck investigation, 53 368, 386, 405, 412, 470, 475, 511, 541-543, directs 1907 investigation of Moccasin Spring, 591, 592 Oregon Caves National Monument, 497 early report on San Juan and Kaibab Paiute, 53 Oregon Short Line, 104 general references, 2, 52-54, 56, 57, 59-62, 65, owls, 359 67, 69-71, 90, 104, 105, 107-110, 113, 126,

P	picnic tables, 275, 280, 282, 285, 431, 432, 445
Devision Construction of Contract 440	picnics, 172, 275, 280, 282, 285, 320, 323, 354,
Pacific Coast Archaeological Society, 449	359, 405, 417, 431, 432, 438, 445, 453-455,
Pacific Railroad Act, 16	469, 492, 496, 497, 502, 508, 512, 531, 535,
Packer, Alma S., 255, 260, 262, 264	545, 551, 576, 597, 609, 615
Page, Arizona, 421, 491, 537, 608	Pine Creek Canyon, 122, 123
Page, John H., 77, 78	pine nuts, 49, 53
Pahlevi, Mohammed Reza, 611	Pink Coral Sand Dunes, 455
paint, 99, 288, 333, 352, 406, 407, 427, 443, 456,	Pinkley, Frank
635, 640	and early campsites, 174
Painted Desert, 19	death and funeral, 294
Paiute Earthkeepers, 618	describes 1925 landscape work, 153
Paiute-Kaibab Housing Authority, 520	directs early improvements, 153
Panguitch, Utah, 92, 120, 265, 333, 444, 455, 546	directs early repairs to fort exterior and west
Parashont Ranch, 44	cabin, 164
Pardue, Diana, 641	directs early repairs to fort interior, 159
Paria (town site), 544	general references, 125, 135-137, 141, 153-
Paria River, 9, 19, 29	155, 157-159, 162-164, 166, 168, 169, 171,
park historians, 377, 421, 422, 424, 428, 429,	173, 174, 177, 182-186, 194-196, 199-201,
443, 444, 446, 449, 450, 487, 491, 496, 511,	208-215, 218-222, 225, 227, 229, 230, 236-
512, 541, 546, 585	239, 241, 243-247, 249, 250, 252-254, 257,
Parker, Thomas C., 112, 113, 212, 215, 216, 218-	258, 260, 262-265, 267-270, 273, 275-280,
221, 230, 233, 404 parking areas, 151, 239, 241-243, 247, 250, 260,	285-290, 292, 294, 301, 303, 304, 310-312,
266, 267, 269, 275, 282, 286, 288, 304, 320,	400, 425, 451, 539
326, 331, 354, 363, 373, 421, 438, 442, 459,	Southwestern National Monuments
463, 465, 469, 480, 496, 500, 508, 532, 538,	responsibilities, 153
570, 576, 579, 598, 614, 627, 639, 640	views on Arizona's water law and Pipe Spring,
Parowan, Utah, 92, 103	194, 199, 210, 212, 221
Pasadena College, 405	Pipe Spring
pasture, 55, 57, 60, 68, 75, 201, 214, 216, 325,	as a militia supply base, 29
358, 425, 587, 597, 598, 601, 602, 608, 616,	as proposed solution to Moccasin water
640, 644	problem, 68
Patraw, Pauline, 364	base for Utah Territorial Militia, 29
Patraw, Preston P., 213	climate, 7, 263, 361, 406, 493, 576, 641
Pearce, John, 29	Heaton ownership challenged, 69, 71, 72
Pencapsula, 549	Heaton sale of water to cattlemen, 71
Perkins, Julia, 74	land certificate, 25, 27
Perpetual Emigrating Company, 39, 42	landscape
personnel, 401, 491, 507, 511, 562, 585, 614,	changes, Woolley period, 41
628, 629, Appendix IX	nicknames, 35, 41, 109
pest control (trees), 351, 391	quitclaim deed, 42, 45, 77, 129, 131, 135, 138
Peterson, Bob, 496	139, 270, 338, 341, 522
Peterson, Charles S., 22	west pasture, 68, 201
Peterson, Max P., 443, 444, 446	Pipe Spring legal ownership issues, 43, 77, 522, 528
Peterson, Preston G., 103, 123	Pipe Spring National Monument
Petrified Forest National Park, 86, 153, 181, 236,	1933 marker, 184-188, 219, 441, 550
249, 613	and the Great Depression, 235
petroglyphs, 9, 334, 408, 529, 530, 540, 580	as a gathering place, 171, 349, 362, 454, 551
Petty, Charles B., 93, 99, 100	boundary expansion proposal in 1968, 518
Phoenix Indian School, 503	boundary expansion proposals in 1930s, 257,
picnic areas, 354, 417, 438, 454, 469, 492, 496,	264
497, 508, 531, 535, 551, 576, 597, 609, 615	boundary expansion proposals in 1940s, 306, 312

boundary expansion/land exchange proposal in	229, 239, 241, 252, 253, 279, 295, 299,
1969, 527	300, 326, 328, 332, 357, 363, 371, 383,
boundary fences, 173, 238, 242, 250, 253,	390-393, 408, 409, 416, 428, 433, 438, 453,
255, 325, 391, 394, 425, 442, 536	463, 603, 609, 639
changes during first ten years, 14, 258	waste disposal, 27, 166, 253, 327, 331, 357,
development plans, 117, 218, 222, 228, 243,	372, 373, 394, 410, 411, 433, 447, 469,
249, 253, 277, 279, 292, 294, 312, 314,	513, 607, 644
320, 322, 325, 327, 335, 345, 349, 351,	water issues associated with cattlemen, 554
354, 376, 393, 410, 425, 431, 434, 435,	water issues and Reservation development,
438, 442, 443, 461, 472, 480, 481, 509,	497, 511, 513, 555
513-516, 520, 521, 530, 531, 534, 535,	water system, 243, 250, 253, 268, 293, 490
563-569, 579, 602, 639	Pipe Spring ranch
donors who contributed to its purchase, 140	Bulloch's description, 44
establishment, 81, 105, 107	cattle, 41, 44-46
fires, 357, 390	Church leases to cattlemen, 37
funding for custodian approved, 166	Church tithing ranch, 33
funding problems, 354, 360, 402, 465, 490,	desired by people of Kanab Stake, 44
513	from dairy to beef production, 36
joint-use water system, 4, 464, 567, 573, 621	known as Fort Arizona, 35
joint-use well, 4, 563, 567	legal jurisdiction, 27
landscape and the Church, 226	managed by United Order, 37
legality of its establishment defended by NPS,	ownership by A. D. Findlay, 45
137	ownership by David D. Bulloch and Lehi W.
legality of its establishment questioned by E.	Jones, 44
A. Farrow, 136	ownership by James M. Whitmore, 25
location and environment, 7	reservoir constructed by Heaton brothers, 173
national status questioned, 110	sheep, 36
personnel issues in 1930s, 220	telegraph station, 35, 539, 543
planning and development after World War II,	telephone, 41
353, 408, 422, 433, 439, 442, 445, 453,	transfer to Canaan Cooperative Cattle
459, 497, 511, 513, 555, 602, 639, 641	Company, 36
proposed name change, 361	transfer to John Taylor, 37
reasons for its establishment, 108, 111-114,	Pipe Spring springs
129	1924 agreement, 136, 189
reports on geology, 275	1933 regulations, 229, 338, 339, 341, 343,
reports on natural history, 275	344, 523
selected as weather station site, 450	1934 division box installed, 244
store/gas station, 109, 112, 157, 158, 162, 167-	1934 division weir installed, 249
170, 204, 228, 241, 243, 279, 330, 358,	1943 usage by NPS, Indians, cattlemen, 342
391, 407, 461, 516, 521, 525, 554, 565,	1959 work, 467
567, 578, 579, 603, 604	A. van V. Dunn's 1943 report, 340
store/gas station approved, 158	Arizona v. California case, 471
store/gas station proposed, 142, 158	cabin spring (seep spring), 7, 174, 221, 222,
suggested as trade to establish Capitol Reef	224, 530
National Park, 111	cattlemen suspicious of government intent, 270
terms for transfer of property from Charles C.	cattlemen's one-third right
Heaton, 124	1931 Solicitor's opinion, 210
transfer of administration to Zion National	affirmed, 136, 200, 226, 229
Park, 301, 321	and NPS interests, 273
transfer of property from Charles C. Heaton to	conflict with Kaibab Paiute, 215
U.S. government, 138	defended by Pinkley, 220
transfer to Arizona State Parks considered, 396	sale, 71, 124
utilitarian buildings, 62, 75, 101, 166, 173,	combined flow in 1933, 224

division weir, 244-247, 411, 514	Indian pond, 226, 230, 270, 373, 466, 483,
emergency use by local ranchers, 196, 201, 413	527, 534, 558, 625
importance to local ranchers, 112	meadow pond(s), 169, 173, 189, 193, 194,
Indian Service interest in 1929, 193	204, 207, 210, 224, 225, 239, 242, 245,
issue of prior use, 50, 194, 203, 523, 524	246, 255, 262, 263, 282, 287, 295, 301,
main spring, 7, 46, 59, 67, 70, 173, 189, 221,	320, 321, 325, 330, 333, 359, 363, 372,
222, 224-226, 242, 245, 246, 282, 298, 333,	380, 392, 410, 411, 466, 491, 492, 496,
342, 347, 522, 619, 624	551, 601
measurements in late 1970s, 608	pond constructed by Heaton brothers, 173
NPS considers filing on, 269, 339, 565	Pope, Charles S., 548, 554
NPS decides against filing on, 273, 344	poplar trees, 7, 255, 275, 280, 286, 288, 324, 356
NPS engineer recommends tri-partite division,	445, 463, 600, 637, 638
216	porcupines, 7
pipeline problems, 298, 373, 394, 406, 411,	Porter, Elbert, 364
469, 473, 552	potatoes, 1, 35, 49, 57, 62, 75
pipeline to cattlemen's reservoir, 244, 624	potsherds, 290, 299, 305
pipeline to Indian reservoir, 207, 208, 211,	Powell Centennial, 547
215, 245, 411	Powell National Forest, 117
places limits on monument development, 472	Powell survey baseline, 449
protest against Solicitor's 1931 opinion, 200,	Powell survey markers, 242, 257, 264, 334, 449,
201	475, 507, 518, 528, 537, 538, 580
Rick Inglis' 1990 report, 626	Powell survey photos, 449
Robert H. Rose's 1933 report, 222, 224-226,	Powell, John Wesley, 18, 19, 24, 29, 35, 54, 117,
229, 230, 340	257, 264, 334, 408, 446, 449, 475, 507, 518,
Solicitor's 1931 opinion, 198	526, 528, 529, 537-539, 542, 547, 580, 588,
Solicitor's 1942 opinion, 338-340	627
spring flow decline, 621, 622	Powell, Leslie J., 627
supply Camp G-173, 295, 298	Pratt, Alma, 305, 336
tunnel spring, 7, 45, 130, 136, 173, 206, 207,	Pratt, Parley D., 11
219, 221, 222, 224, 226, 228, 230, 238,	prehistory, 4, 7, 9, 79, 80, 153, 259, 290, 312,
239, 241, 242, 244-246, 262, 298, 304, 342,	482, 530, 607, 631
411, 551, 611, 622-624	projectile points, 183, 391
use by uranium miners, 388	Prokop, John J., Jr., 254
uses prior to monument establishment, 521	prospectors, 10, 315, 384, 387
pit toilets, 166, 228, 249, 282-286, 328, 362, 400,	Provo, Utah, 32, 100, 388, 547
410, 422, 460	public relations, 3, 4, 499, 618, 619, 631
Plomose Aggregate, 549	Public Water Reserve No. 34, 338, 340
Plume, Emma, 612	publicity, 80, 82, 117, 328, 396, 491, 505, 509,
Point Reyes National Seashore, 586	545, 594
polio, 475	Pueblo Santa Clara, New Mexico, 306
Pollack, DeVor, 635	Pulsipher, Charles, 36, 543
polygamy, 14, 22, 32, 38, 39, 41-43, 48, 377, 380,	Pulsipher, Julia, 36
395, 396, 650	Pulsipher, Sariah, 36
Pomona College, 372	Purchase, Albert R., 138, 520, 530, 531, 535, 568
Ponce, Stanley L., 622	Pyle, Howard, 396, 418
ponds fort pends 7 20 41 45 154 158 166 174	0
fort ponds, 7, 20, 41, 45, 154, 158, 166, 174, 204, 207, 209-212, 219, 224, 239, 241-244,	Q
	quarry, 7, 33, 311, 409, 447, 464, 465, 537
247, 263, 265, 280, 282, 284, 286, 287, 298, 304, 306, 333, 336, 349, 362, 372,	quilting, 1, 582, 585, 587, 632
392, 394, 406, 410, 433, 435, 456, 458,	quilts, 470, 585, 587
465-467, 473, 496, 506, 521, 551, 552, 608,	
644, 645	
011, 015	

R	approach to Pipe Spring National Monument,
rabbits, 23, 52, 324, 352	103, 167, 173, 241, 247, 282, 303-305,
radiation, 385, 387, 495	307, 320, 335, 336, 366, 377-379, 417,
	418, 427, 461, 476, 479, 487, 491, 556,
radio, 235, 354, 383, 389, 432, 594, 646	558
railroads impact of automobiles, 96, 97, 178	Bureau of Public Roads, 85, 91, 95, 119, 144,
<u>*</u>	148, 279, 303, 304, 307, 335, 378, 418,
impact of World War II, 319	476
provide commercial link for Utah, 16	Cedar City-Kanab route, 122
redefined as transportation companies, 97 role in promotion and development of parks,	Columbia River Highway, 117
1 1	construction of, 95
80, 81, 95 Penson Jay Ellis 250, 206, 401	deterrent to tourists, 92
Ransom, Jay Ellis, 359, 396, 491	development of, 96
Ratcliff, Harold M., 374	Fredonia-Toroweap route, 303
rats, 237, 324, 351	funding of, 91, 96, 103, 119, 123, 144, 147,
rattlesnakes, 169, 351, 366, 490, 502	303, 304, 335, 477
Reagan, Ronald, 611, 628 Reddoch, J. C., 260, 275, 282, 288	Hurricane-Fredonia route, 88, 92, 97, 99,
Reddoch, J. C., 200, 273, 282, 288 Reed, Erik K., 368, 369, 375, 376, 380, 428, 429,	104, 111, 142, 158, 255, 305, 325, 335,
437, 441, 443, 457, 482	362, 379, 401, 418, 419, 421, 428, 431,
Reed, William B., 135, 622	434, 444, 449, 461, 476, 477, 479-483,
Reedley College, 405	487, 492, 556, 558
Reese, Fred, 590	improvements needed, 86, 88
refrigerators, 354, 369, 371, 435	maintenance of, 103, 168, 260, 336, 483
reproductions, 315, 368, 406, 443, 604	Marysvale-Kanab route, 122
reptiles, 7, 168, 169, 184, 262, 263, 295, 310,	old monument road, 152, 167, 169, 173, 204,
334, 351, 366, 412, 490, 502	222, 238, 239, 242, 246, 249, 266, 282,
residence (seasonal), 607, 643	304, 306, 320, 326, 330, 335, 336, 349,
residences (permanent staff), 241, 292, 421, 422,	354, 374, 379, 438, 448, 459, 480, 492,
439, 440, 442, 444, 451, 453, 455, 459, 461,	598
463-465, 469, 550, 567, 611, 643	Pine Creek Canyon route, 123
residential area, 7, 227, 279, 283, 284, 286, 293,	planning of, 86, 88, 92, 94, 119, 303, 305,
294, 298, 354, 439, 465, 490, 569, 579, 597,	335, 337, 366, 377, 417, 427, 461, 476,
609, 621, 637, 639, 640, 643	487, 491, 556, 558
resource management plans, 600, 602, 638, 639	Rockville shortcut (cutoff), 97, 101, 104, 135,
retaining walls, 406, 442	144, 147-149, 175
revegetation, 374, 485, 496, 497, 500, 502, 509,	Route 66, 480
530, 538, 540, 587, 588, 597, 638, 639	specifications in 1920s, 91
Rhoads, Charles J., 192-199, 201, 203, 206, 210,	State Highway 389, 7, 20, 485, 487, 491, 492,
211, 213-215	495, 513-516, 528, 529, 536, 545, 555, 556,
Rice, Ernest, 515	558, 559, 579, 639, 640
Richards, Evelyn, 470	State Highway 40, 249, 335, 377, 395, 417,
Richey, Charles A., 265, 298-300, 304, 316, 317,	418, 425, 459, 477
345, 401	State Road Commissions, 88, 94, 103, 119,
Riefel, Ben, 568	123, 144, 476, 477, 480, 483
Riggs, B. A., 137	surveys for, 119, 148, 303, 305, 434, 480
Riggs, Brig., 57	U.S. Bureau of Public Roads, 85, 91, 95, 119,
Ritchie, John E., 531	144, 148, 279, 303, 304, 307, 335, 378,
roads	418, 476
advantages to communities, 122	U.S. Highway 89, 168, 351, 377, 391, 395,
advocacy for, 99	401, 476, 477, 479, 483
American Automobile Association, 86, 88	U.S. Highway 91, 476, 479
and tourism, 86, 88, 94, 104, 122, 377	Western Highway Association, 144
	Zion-Mt. Carmel Highway, 95, 97, 99, 104,

110, 111, 119, 122, 123, 144, 147-149, 151, San Francisco, California, 119, 123, 124, 126, 174, 175, 177, 178, 180, 319, 431, 481 166, 238, 246, 247, 337, 427, 472, 516, 521, Roak, J. C., 292, 298 522, 525, 531, 571 Robertson, Della, 555 San Juan Paiute, 53 Robertson, Nella H., 470 sand, 19, 46, 90, 174, 204, 214, 253, 287-290, Robinson, Stewart, 554 297, 331, 332, 359, 363, 373, 374, 379, 412, 451, 456, 459, 469, 558, 600, 621 rock lizard (stone-boat), 33 Rockville, Utah, 32, 35, 88, 97, 101, 104, 135, Sandaval, Andrew, 498, 500, 502, 503, 506, 518 144, 147-149, 175, 448, 471, 544, 644 Sandberg, LaNorma, 422 Rocky Mountain National Park, 86, 529 Sandberg, Lloyd Snow, 422, 427, 428, 432, 437, rodents, 7, 237, 324, 351, 554, 607, 646 439, 450, 454, 470, 541, 546 Rodman, Hugh, 117 Sandy, Utah, 470 Sangford, Mrs., 40 Rogers, Dwight, 592 Rogers, Timothy, 499, 503, 520, 555 Santa Clara River, 11, 25 Roosevelt, Franklin D., 80, 111, 181, 207, 228, Santa Clara, Utah, 11, 15, 16, 25, 31, 546 235, 247, 249, 299 Santa Gertrudis, 376 Roosevelt, Theodore, 52, 79, 613 Saunders, Benjamin F., 42-44, 77, 450, 547 Rose Report, 222 Saunders, Kenneth M., 368, 392, 409, 435, 457, Rose, Robert H., 211, 219, 222, 224-230, 340, 458, 460 Savala, Dolores, 620 roses, 149, 153, 177, 187, 269, 278, 282, 595, Savala, Gevene E., 577 sawmills, 33, 49, 349, 350, 394, 416, 440, 452, 475 618, 630, 633 Rothrock, H. E., 264, 283, 311, 312 Scattergood, J. Henry, 193, 207-209 Schaack, James W., 492, 496, 503, 521, 531, 532, Rothschild, Bill, 490 Ruesch, Walter, 99, 122, 166 534, 538, 548, 549, 562, 563, 569, 607 rugs, 470, 500, 506, 539 Scheier, Dale, 586, 594, 614, 641, 642 Schene, Mike, 634 Ruppert, David E., 170 Rural Electrification Administration, 350, 393, Schick-Sunn Classic Productions, Inc., 605 452 Schmutz, John, 137 Rust, Bill, 623 Schneider, Keith, 384 Rust, William S., 76, 77 school groups, 541, 546, 547 Ryan, Thomas, 55 Schroeder, Albert H., 528 rye, 57, 171 Schuler, Jay, 632 Scollard, Paul C., 288 S Scott, Cecil, 627 Scoyen, Eivind T., 185, 378, 427, 461, 477 safety issues, 29, 54, 152, 173, 257, 269, 285, Sears, George, 69 366, 368, 480, 484, 548, 556, 585, 600, 610, seasonal and day laborers, 50, 141, 153, 157, 163, 617, 623, 640 200, 220, 236, 286, 300, 302, 354, 367, 393-Sagan, Marc, 634 395, 397, 399, 400, 407, 409, 410, 423, 424, Sager, Merel, 427 427, 428, 430, 431, 433, 435, 439, 442, 447, Saguaro National Monument, 236, 541 448, 451, 456, 458-460, 465, 473, 488, 496, salamanders, 287 503, 505, 508, 511, 512, 549, 562, 570, 586, Salt Lake City, Utah, 13-16, 22, 25, 29, 32, 35, 587, 601, 620, 630 39, 44, 62, 86, 88, 93-95, 99, 102, 103, 105, seasonal guides, 446, 496, 500 114, 115, 117, 123, 138, 140, 185, 186, 199, seasonal rangers, 399, 403, 429 250, 251, 313, 339, 364, 385, 416, 437, 446, Secakuku, Ferrell, 524, 526, 531, 568, 570 449, 450, 454, 455, 471, 474, 505, 512, 536, Section 106, 601, 608, 621, 634, 638, 639, 643 543, 544, 547, 557, 579, 589, 594, 604, 605, security problems, 423, 431, 546 619, 631, 634 Seegmiller, Daniel, 42, 77, 78, 106, 139, 140 Sampson, E., 334 Seegmiller, Emma Carroll, 40, 42, 47, 48 San Diego State College, 545, 546 Seegmiller, William W., 99, 140 Segmiller, Leta, 170, 171, 183, 586, 593

Sells, Cato, 65	Smith, George H., 102, 103, 117
Sense, Richard, 558	Smith, Jedediah, 10
service roads, 250, 253, 322, 411, 421, 434, 442,	Smith, Joseph, Jr., 11
463, 465, 640	Smith, Mrs. Charles J., 495
servicemen, 323	Smith, Mrs. D. A., 333
setting, 2, 37, 56, 79, 109, 129, 137, 153, 166,	Smith, P. E., 464, 465
183, 198, 208, 227, 249, 313, 325, 326, 335,	Smith, Paul, 577
397, 454, 485, 486, 487, 492, 493, 499, 504,	Smith, Robert E., 409
506, 513, 514, 552, 589, 598, 600, 601, 616,	Smoot, Abraham O., 14
639, 644, 649	Smoot, Reed, 52, 56, 72, 80, 86, 88, 117, 201
Sevier County, 117, 546	Snow, Artimesia, 42
Sevier Fault, 7, 311	Snow, Erastus, 16, 19, 29, 32, 36, 37, 41, 42, 44
Sevier Valley (Utah), 15, 27	Snow, Glendora (Glendora Homer), 474, 503, 506
sewage system, 243, 290, 331, 371, 406, 408,	Snow, Joseph, 93, 95, 135
578, 609, 640	Snow, Leo A., 191, 299
sheep, 26, 36, 43, 45, 48, 52, 53, 60, 173, 196,	soil conservation, 374, 375, 497, 518, 527, 586,
324, 366, 385, 413, 446, 454	606, 624
sheep ranchers, 385	Soil Conservation Service, 497, 518, 527, 586,
Shelley, Robert J., 642	606, 624
Sherman, Lt., 295	soldiers, 18, 323, 330
Sherman, William Tecumseh, 18	Sons of Utah Pioneers, 365, 546, 590, 634
Shields, Mrs. George, 312, 345	Sontag, Bill, 634
Shirey, Capt., 264	Sorensen, Mahala, 591
Shivwits Paiute, 18, 25, 26, 55, 74	Sorenson, Ben, 137
Short Creek Bridge, 418, 483	Sorenson, Lloyd, 196
Short Creek raid, 395	sorghum, 48
Short Creek, Arizona (Colorado City), 23, 25-27,	Southern Paiute
36, 37, 46, 47, 77, 90, 95, 97, 104, 120, 144,	children, 10
172, 177, 183, 238, 297, 305, 307, 321, 323,	contact with other tribes, 9
328, 329, 336, 363, 365, 379, 380, 383, 393,	decline in contact with Latter-day Saints, 36
394, 396, 404, 417, 418, 428, 453, 472, 476,	Grand Canyon as refuge, 36
477, 479, 480, 483, 484, 487	horticulture, 9, 10, 11
Sierra Club, 181, 547	hunting and gathering activities, 9, 11, 49
Siglor, Charles R., 409	impacts of slave trade, 10
signage, 22, 168, 182, 183, 218, 268, 286, 288,	raids by Navajo, 36
290, 291, 294, 297, 298, 349, 356, 368, 383,	relation to Virgin River Anasazi, 9
393, 395, 401, 409, 410, 418, 445, 449, 463,	response to Navajo threats, 36
484, 538-540, 544, 556, 558, 640	territory, 10, 11
Silar, Hint, 45	Southern Paiute Nation, 4, 383
silver iodide generator, 388	Southern Utah Group (SOUG), 486, 508, 520,
Simms, Wayne, 424	528, 531, 562, 569, 603, 609
Simpson, Johnny, 499	Southwestern National Monuments, 51, 125, 153,
Sitka National Historical Park, 3, 497	180, 210, 219, 236-238, 243, 249, 257, 263,
Skutumpah, 29	264, 275, 294, 298, 303, 309-312, 317, 319-
slave trade, 10, 11, 13, 18, 25	322, 329, 335, 337, 345, 360, 376, 384, 393,
Slim, Melvis, 507	395, 398, 539
Slimmer, Bill, 634	Space, A. F., 304
Smith, Charles J., 125, 126, 328, 335, 345, 353,	Spencer, Daniel S., 93, 97, 99, 100, 124, 126,
354, 356, 361, 362, 369, 371, 375, 376, 378,	144
380, 383, 388, 389, 392, 495	Spendlove, Emma J., 471
Smith, Dave, 470	Springdale, Utah, 99, 101, 122
Smith, Franklin G., 430, 435, 449	Springville, Utah, 287
Smith, George Albert, 16, 91, 186, 187, 201, 203, 345	Spry, William, 105, 106

squash, 9, 35, 75, 289, 597, 638	Taylor Grazing Act, 251
squirrels, 324	Taylor, John, 37, 39, 42, 43
St. George Stake, 36, 405, 455, 545	Taylor, Joseph E., 269-272
St. George Temple, 20, 33, 36, 544, 591, 592, 594	Taylor, Robert, 557
St. George, Utah, 7, 16, 20, 23, 25-27, 29, 31-33,	telegraph exhibit, 310, 365, 390, 439, 470, 488
35, 36, 55, 77, 93, 95, 103, 126, 135, 137,	telegraph line, 7, 16, 35, 277, 380, 438, 457, 458,
149, 157, 172, 191, 255, 363, 365, 403, 405,	489
416, 418, 423, 442, 444, 450, 455, 476, 495,	telegraph room, 437, 470, 539
509, 536, 541, 542, 544-546, 549, 556, 589,	telephone, 41, 351, 389, 390, 425, 451, 492, 554
591, 592, 594, 615	television, 397, 491, 593, 594, 605, 619
stake-and-rider fence, 448, 487	Teller, Claudina, 499, 500, 503
Standing Elk, Donald, 612	Teller, Rosetta, 505
Steen, Charlie R., 429, 434, 435, 437, 443, 458	Tenney, Susan A., 643
Steiger, Sam, 529	Termination Resolution, 383, 486
Stephenson, Harlan B., 222	termites, 368, 458
Stephenson, Larry, 499	Thatcher, Georgie Snow, 40
Stevens, Lee, 379	thefts, 18, 27, 391, 405, 554, 647
Stewart, Eliza Luella, 365, 470, 486, 509, 554,	Theodore Roosevelt National Park, 613
557	Thomas, Art, 353, 357, 358, 363, 367, 369, 390,
Stewart, Levi, 35, 46	392, 398, 399, 402, 403, 405, 410, 423, 427,
Stewart, Wells, 559	434, 476
stock tanks, 625	Thomas, Clarence, 277
Stoffle, Richard W., 11, 23, 25, 36, 681	Thomas, Trent, 295
stone walls, 7, 154, 279, 354, 410, 458, 466, 548,	Thompson, Lynn H., 562
636, 644	Thompson, Richard A., 562
Stone, Forrest R., 378, 405	Thompson, Theodore R., 569
storage cellar (CCC), 390, 445	Tillotson, Minor R., 300-302, 304, 307, 308, 312
Stout Construction Company, 558	313, 320, 325, 326, 339, 343, 344, 354, 361,
Strait, Richard A., 642	362, 368, 371, 376, 378, 384, 388, 406
Stratton Brothers Construction Company, 576	timber, 74, 102, 119, 239, 242, 368
Stratton, Ralph, 434	Timpanogos Cave National Monument, 589
string bands, 591	Tissandier, Albert, 37, 471
Student Conservation Association (SCA), 627,	Toll, Roger W., 111
628	Tolson, Hillory A., 249, 250, 253, 264, 305, 306,
Sudweeks, Earl, 590	321, 335, 344, 358, 394, 479
sugar cane, 49	Tom, Bill, 324, 334, 482, 515, 518, 524, 528-532
Sunset Crater National Monument, 236, 481	534, 535, 565, 567-569, 571, 573, 581, 612,
Sutton, Dick, 409	614
Swapp, Mrs. Edward, 489	Tom, Clarence, 499
Swearingen, Jean R., 492, 554, 603	Tom, Russell, 499
Swearingen, Paul, 590, 591	Tom, Sam, 646
Swift, Bill, 617	Tonto National Monument, 249
swimming, 101, 172, 262, 263, 265, 275, 277,	topographic surveys, 242
283, 292, 295, 301, 325, 364, 366, 372, 396,	Toquerville, Utah, 9, 40, 120, 552
411, 466, 491, 492, 525, 532, 551, 601	Toroweap Valley, 247, 303, 379, 412, 470
Switzer, Gene, 515, 516	tourism
Syrett, Ruby S., 119	impact of automobiles, 86, 88, 96, 151
Sylett, Ruby 5., 117	impact of Great Depression, 180
T	impact of Great Depression, 180
1	
Tait, Patty, 500	impact on depressed economies, 82, 86
Tait, Steve, 498, 508	importance of NPS alliance with Union
Tallman, Clay, 62, 65	Pacific, 93, 145
Tanner, Josephine Snow, 39	maps and brochures, 175, 178, 180

U publicity, 80, 82, 92, 96, 111, 144, 151, 178, 180, 328, 396, 491, 509, 545, 634 U.S. Air Force, 384, 415 Tovrea, J. H., 276, 284, 286 U.S. Army, 14, 15, 18, 79, 235, 251, 252, 255, tractors, 332, 374, 390, 411, 457, 473, 619, 638, 260, 262, 263, 266-268, 275, 277, 278, 282, 645 283, 292, 298-300, 320, 336, 351, 416, 471, Tracy, Bernard G., 3, 171, 561, 563, 567, 569, 547 571, 573, 576-585, 589, 591, 592, 594-598, U.S. Army Corps of Engineers, 329 601, 608, 610, 613, 623, 632, 634, 635 U.S. bicentennial celebration, 589 Tracy, Russel L., 140 U.S. Biological Survey, 52 Tracy, Ruth, 563, 579, 608 U.S. Congress, 11, 18, 38, 43, 53, 56, 79, 80, 86, trading post, 514 88, 137, 149, 166, 181, 199, 235, 247, 248, trailers, 390, 422, 429, 432, 437-439, 446, 448, 251, 319, 383, 421, 424, 479, 573, 612, 613 453, 456, 459, 465, 497, 511, 513, 516, 525, U.S. Department of Defense, 80, 236 535, 563, 567, 578, 579, 603, 604, 607, 640, U.S. Department of Labor, 236 641, 643, 644 U.S. Fish and Wildlife Service, 236, 413, 467, trails 613 nature trail, 241, 290, 311, 312, 354, 408, 409, U.S. Forest Service, 80, 85, 94, 95, 101, 103, 117, 432, 444, 447, 454, 464, 465, 500, 502, 119, 144, 255, 277, 319, 360, 363, 379, 475, 513, 518, 537, 538, 540, 579, 580, 589, 481, 497, 504, 606, 646 606, 640 U.S. Indian Service, 57, 62, 479 quarry trail, 7, 33, 447, 464, 465, 537 U.S. Supreme Court, 39, 78, 112, 198, 208, 220, transcontinental railroad, 16 413 tree roots, 167, 324, 367, 373, 406 U.S. Weather Service, 450 trees Udall, Levi S., 470 fruit, 7, 26, 35, 44, 168, 172, 173, 189, 282, Udall, Louise L., 455, 546 283, 326, 359, 454, 463, 483, 490, 597, Udall, Luella Stewart, 365, 470 600, 601, 609, 637 Udall, Stewart L., 441, 455, 486, 546, 561, 634 shade, 1, 7, 41, 112, 172, 173, 180, 189, 206, Uinkaret Plateau, 33 228, 229, 255, 259, 275, 280, 282, 284, Uintah and Ouray Agency, 378, 476 286, 288, 292, 297, 298, 300, 304, 311, Uintah Indian Reservation, 25, 405 320, 324, 325, 356, 404, 410, 445, 454, Union of Soviet Socialist Republics (USSR), 384 463, 465, 474, 490, 550, 551, 600, 601, Union Pacific System, 2, 16, 82, 85, 88, 90-97, 637, 638 99-104, 109-111, 115-117, 119, 123, 124, 126, trout, 241, 250, 265, 269, 286, 287, 333, 372, 127, 129, 137, 140-142, 144, 148, 150-152, 466, 467, 551 154, 158, 174, 175, 178, 180, 222 trucks, 63, 75, 101, 150, 167, 177, 252, 255, 266, United Order of Orderville, 37, 40, 46, 48, 59, 279, 282, 288, 298, 308, 324, 328, 331, 333, 336, 349-352, 356, 359, 360, 361, 365, 378, United States Geological Survey (USGS), 310, 379, 390-392, 397, 402, 411, 413, 417, 446, 449, 489, 522, 525, 534, 547, 563, 564 447, 470, 473-475, 479-481, 484, 491, 556, University of Arizona, 297, 558, 681 558, 559, 598, 609, 638, 640, 646 University of California, Berkeley, 80 Tsi, Rex, 499 University of Utah, 542, 545, 547 Tso, Herman, 503 uranium mining, 383, 384, 387 Tuba City, Arizona, 534 Utah & Grand Canyon Transportation Company, Tumacacori National Historical Park, 153 148 Turner, Steve, 625, 645 Utah Expedition, 14 Tuttle, A. Theodore, 573 Utah Historical Society, 449, 455, 536, 542, 543, Two Mile Reservoir, 415 Two Mile Spring, 57, 62, 65, 75 Utah Parks Company, 101, 119, 142, 144, 145, Two Mile Wash, 203, 209, 226, 331, 415, 527, 147, 148, 150, 151, 170, 175, 180, 378 534, 553, 563, 564 Utah Pioneer Trails and Landmarks Association, typhoid, 280, 336 185, 187, 219

Utah State University, 475, 509, 551 impact of Glen Canyon Bridge, 483 Utah Territorial Militia (Nauvoo Legion), 14, 15, impact of Great Depression, 180 29, 32, 380, 544 impact of improved roads, 308 Utah Territory, 11, 13-16, 18, 27 impact of living history program, 506 Utah Trails and Landmarks Association, 27, 187 impact of opening of State Highway 389, 492, Utah Valley, 13 545 Utah War, 13, 32 impact of road improvements, 449, 453 Ute, 9-11, 13, 15, 18, 24, 25, 47 impact of World War II, 319 Utley, Robert M., 429, 441, 449, 458, 542 impact of Zion-Mt. Carmel Highway, 153, 174, 177 \mathbf{V} impact of Zion-Mt. Carmel Highway temporary closure, 431 Valanzano, Barbara, 628 post-war, 364 Valentine scrip, 42, 43, 71, 77, 78, 105, 106, 112, visitors from other countries, 454, 595 113, 124, 130, 132, 138, 139, 140, 196, 338, visitor center, 1, 4, 5, 434, 437, 444, 447, 461, 359, 522, 537 470, 481, 513, 531, 532, 534, 535, 561, 567vandalism, 107, 285, 334, 397, 403, 528 571, 573, 576-579, 585, 587, 589, 598, 603, Vandiver, Vincent W., 275, 310 606, 607, 614, 615, 617, 621, 625-627, 630, vegetable gardens, 1, 7, 29, 32, 35, 41, 63, 71, 75, 640 77, 141, 168, 169, 172, 173, 189, 190, 193, visitor contact station, 328, 491, 496, 500, 502, 194, 197, 200, 207, 211, 218, 226, 227, 244, 503, 513, 526, 552, 563, 585, 607, 609 246, 299, 322, 325, 326, 327, 332, 337, 342, Vivian, Gwinn, 558 380, 471, 483, 504, 506, 507, 579, 582, 587, volunteers, 26, 248, 360, 401, 424, 488, 500, 506, 597, 598, 600, 602, 609, 619, 630, 636, 638, 507, 522, 527, 540, 545, 547, 549, 584, 587, 644 591, 629, 642, 649 vegetation, 7, 20, 75, 166, 168, 169, 174, 189, Volunteers in Service to America (VISTA), 485, 206, 207, 210, 213, 218, 241, 242, 247, 262, 498, 549 295, 297, 311, 324, 331, 353, 359, 374, 469, Volunteers in the Parks (VIPs), 561, 562, 584, 492, 576, 587, 597, 600-602, 639 629 Vermilion Cliffs, 7, 19, 36 Volz, J. Leonard, 562, 571, 573, 603 Viet Nam, war in, 2, 384, 485, 561, 649 vineyard, 7, 26, 35, 507, 563, 598 W Vint, Thomas Chalmers, 199, 228, 241, 249, 301, Wade, Mr. and Mrs. William, 558 308, 320, 461, 480 Vipond, B. L., 107 Walker River Reservation, 338 Virgin Islands National Park, 586 Walker War, 13 Virgin River, 9, 10, 16, 32, 48, 101, 122, 144, 148 Walker, Merrill V., 353 Virgin River Anasazi, 9 Walker, Ronald H., 562 Walkup, J. D., 264 Virgin River Basin, 16 Virgin River Bridge, 148, 151 walkways, 250, 254, 255, 260, 266, 349, 354, visitation 369, 406, 409, 421, 427, 433, 439, 442, 460, Easter weekends, 172, 359, 365, 392, 403, 463, 465, 508, 550, 589, 601, 631, 633, 640 404, 410, 427, 453-455, 545 Wallace, David, 603 Establishment Day, 1, 182, 422, 427, 431, 432, Wallace, Henry C., 102, 117 437, 438, 443, 445, 466, 470, 546 Wallace, William R., 140 general references, 90, 147-149, 151, 153, Walnut Canyon National Monument, 236, 249, 166, 170, 174, 177, 178, 180, 181, 282, 292, 295 303, 308, 319, 320, 326, 329, 330, 350, Ward, R. A., 57, 60, 62, 65, 113 353, 360, 364, 378, 396, 402, 403, 427, Ward, W. J., 303, 304 444, 447, 449, 453, 455, 483, 487, 490, Washington County, 27, 95, 101, 335, 336, 536, 492, 506, 509, 545, 561, 576, 595, 633, 546 Appendix VI Washington, Utah, 32, 543, 547 impact of fuel shortages/gas prices, 595, 633 Waste-Tech Services, Inc., 617

water	Whitmore-McInytre dugout, 7, 26, 27, 32, 257,
1972 agreement, 573	260, 279, 380, 441, 454, 507, 550, 615, 632
area studies, 621, 625	Wickerham, Carl A., 277, 282, 284, 285
Arizona laws governing, 194, 212, 226, 338,	Wickman, C. S., 96
339, 340-343, 472	Wilbur, Ray Lyman, 196
dams, 70, 189, 191, 203, 212, 421, 425, 477	wildlife, 7, 52
importance to Southern Paiute, 9	Wilkins, Keith, 503, 603
population pressures, 190	William, Ross, 528
public water reserves, 65, 130, 131, 134, 138,	Williams, Jack, 495, 547, 573, 583
320, 338-340, 564	Williams, Lance R., 596
reservoirs, 41, 55-57, 62, 63, 71, 75, 173, 191,	Williams, Owen R., 622
194, 207, 212, 226, 230, 242, 267, 268,	willow grove, 41, 284, 325, 330, 351, 356, 357,
288, 337, 354, 415, 424, 464-466, 483, 527,	359, 392, 447, 500, 598
558, 576, 588, 607, 644	Wilson, Dan, 531, 532, 535
tests, 473, 621	Wilson, Woodrow, 61, 80
weirs, 63, 67, 69, 70, 189-191, 230, 233, 244,	Wilt, Richard K., 585, 606, 607
245, 247, 249, 336, 337, 471	Winder, Doyle C., 512
Water Resource Development Company, 388	Winder, John, 122
watering troughs and watering holes, 1, 33, 41,	winds, 166, 174, 183, 260, 280, 289, 325, 330,
44, 45, 109, 152, 153, 162, 172, 173, 233, 238,	352, 357, 371, 374, 404, 447, 454, 465, 490,
246, 267, 275, 278, 280, 282, 298, 336, 373,	549, 607
406, 440, 472, 507, 536, 625	Winsor, Andrew, 187
Watkins, Arthur V., 434, 452, 479	Winsor, Anson Perry, 13, 15, 26, 31-33, 35, 36,
Watt, James D., 612	155, 187, 345, 359, 365, 380, 404, 412, 443,
wayside exhibits, 312, 589, 600, 615, 631-633,	543, 547, 554, 557
640	Winsor, Anson Perry, Jr., 32
weaving, 471, 539, 582, 585, 587, 593	Winsor, Joseph F., 365, 404
Webb, Willis, 47	Winsor, L. M., 35
weeds, 251, 278, 286, 287, 327, 363, 369, 372-	Winsor, Sarah Terry, 365
374, 398, 418, 597, 606, 627, 638	Winsor, Walter, 33, 36
Welsville, Utah, 475	Winters doctrine, 197
Werrell, William, 625	Wirth, Conrad L., 264, 383, 392, 418, 421, 424,
Western Museum Laboratory, 458, 470, 553	434, 461, 476, 477, 481, 486
Western Service Center, 508, 527, 531, 563, 564,	Witucki, Gerard S., 563
569, 570, 576	Wolcott, Mary Vaux, 192
Western Tree Crew, 490, 598	Wolfe, Donald A., 254, 277
Westley, Volney J., 531, 532, 534, 535, 567, 569	Wolfskill, William, 10
Whalen, William J., 562, 612	Woodbury, Angus M., 23, 49, 86, 681
wheat, 57, 62, 167, 350, 351	Woodruff, Wilford, 43, 44, 543
Wheaton, Rodd L., 595, 634	Woodward, Arthur, 295, 314-316, 345, 376, 380,
White Sands National Monument, 495	428-430, 435, 437, 441, 443
White, Art, 531	woodwork, 154, 169, 284, 290, 293, 297, 298,
White, John E., 107, 124, 141, 153, 155, 157,	321, 352, 368, 405, 406, 457, 458, 490, 493,
189	635
White, Myrtle, 126	Woolley, Arthur, 455
Whiting Brothers Sawmill, 394, 416, 452, 475	Woolley, Caroline, 40
Whitman Mission National Historic Site, 512	Woolley, Dilworth, 41, 86, 346, 546
Whitmore, Elizabeth Carter, 25, 29, 31	Woolley, Edwin D., Jr., 23, 26, 37, 39, 41, 47, 55,
Whitmore, James Montgomery, 25, 27, 31, 187,	86, 159, 346, 545, 546
441, 454, 470, 554	Woolley, Edwin G., 86, 455
Whitmore, Junius Leo, 441, 454	Woolley, Erastus Dilworth, 546
Whitmore-McIntyre slayings, 26	Woolley, Florence (Flora) Snow, 38-41, 43, 455, 606
-	Woolley, H. E., 346

Woolley, LeGrand, 455	negotiates purchase of Pipe Spring ranch, 29
Work, Hubert, 74, 105, 106, 117, 138, 139, 142,	orders construction of Pipe Spring fort, 37
153, 164, 193, 235, 241, 242, 249, 267, 279,	orders Little Colorado mission, 19
280, 282, 288, 290, 367, 371, 373, 425, 456,	orders mission to Hopi, 15
458, 460, 463, 466, 467, 483, 497, 504, 549,	organizes exploratory parties, 11
550, 576, 596, 614, 635, 636, 638, 640, 643	organizes express company, 13
Workman, Yvonne, 475	relinquishes governorship, 15
World War II	replaced by federal appointee, 14
and women's employment, 319	succeeds Joseph Smith, 11
Civilian Public Service, 319	Young, Ewing, 10
end of war, 329	Young, John R., 29, 32, 36, 46-48
gas rationing, 319, 324, 329	Young, Joseph W., 29, 31-33, 155
impact on local cattle industry, 299	Young, Silas Smith, 36, 47
impact on monument development, 320	Young, Tamar, 32
impact on monument planning, 320	Youth Conservation Corps (YCC), 485, 502, 555
impact on monument visitation, 319, 329	Yuma, Arizona, 454, 582, 583
impact on NPS funds and positions, 319	Talia, Tillola, 15 1, 502, 505
impact on public works programs, 319	${f Z}$
impact on road construction, 337	
impact on tourism, 320	Zimmerman, William, 271
parks as a refuge, 323	Zion National Park
relocation of NPS offices, 319	1930 boundary expansion, 149
U.S. entry, 303	and Utah Parks Company, 119
Worster, Donald, 425	creation of, 86
Wright, C. C., 337	dedication of, 88
Wupatki National Monument, 236, 249, 316, 481	general references, 4, 81, 86, 88, 90, 95, 97,
Wylie, W. W., 142, 149	99, 101, 103, 104, 107, 109, 112, 114, 116,
Wyrick, Ray, 576	118-120, 122-124, 126, 135, 142, 144, 145,
wyfick, Ray, 570	147, 149, 151, 158, 177, 178, 213, 216,
Y	219, 238, 242, 249, 260, 301-303, 309, 316,
1	317, 319, 321, 328, 332, 345, 350, 361,
Yazzie, Keith, 499	375, 377, 383, 391, 392, 398, 422, 434,
Yeager, Dorr G., 314, 315, 328, 329, 332, 334,	442, 476, 481, 486, 496, 498, 499, 541,
345, 346, 369	554, 562, 573, 612, 613, 615, 640, 645,
Yellow Rock Spring, 29	646, 681
Yellow Rock Water, 29	Harding visit, 117
Yellowstone National Park, 79, 93, 95, 96, 99,	interpretation to supplement Pipe Spring story,
119, 124, 125, 144, 158, 181, 429, 443, 507,	316
641	Union Pacific developments, 100-102, 119,
Yosemite National Park, 111, 437, 473	141, 145
Young, Albina, 32	Zion Natural History Association (ZNHA), 485,
Young, Ben, 551	488, 500, 539, 542, 573, 585, 587, 589, 590,
Young, Brigham	594, 615, 618, 626, 629, 642
alerted by Winsor of Utah Expedition, 14	
appoints Anson P. Winsor to supervise Pipe	
Spring ranch, 29	
calls for reoccupation of Kanab, 29	
chooses Pipe Spring for Church tithing ranch,	
29	
death, 37	
declares martial law, 14	
declares martial law, 14 elected governor. State of Deseret, 11	
elected governor, State of Deseret, 11	

SELECTIONS from the DIVISION OF CULTURAL RESOURCES Rocky Mountain Region, National Park Service

- No. 1 Cultural Resource Inventory and Testing in the Salt Creek Pocket and Devils Lane Areas, Needles District, Canyonlands National Park, Utah by Betsy L. Tipps and Nancy J. Hewitt; 1989.
- No. 2 Gateways to Commerce: The U.S. Army Corps of Engineers' 9-Foot Channel Project on the Upper Mississippi River by William Patrick O'Brien, Mary Yeater Rathbun, and Patrick O'Bannon; 1992.
- No. 3 The Archaeology of Beaver Creek Shelter (39CU779): A Preliminary Statement by Lynn Marie Alex; 1991.
- No. 4 Archaeological Investigations at Two Sites in Dinosaur National Monument: 42UN1724 and 5MF2645 by James A. Truesdale; 1993.
- No. 5 The History of the Construction of the Road System in Yellowstone National Park, 1972-1966. Historic Resource Study Volume I by Mary Shivers Culpin; 1994.
- No. 6 The Obsidian Cliff Plateau Prehistoric Lithic Source, Yellowstone National Park, Wyoming by Leslie B. Davis, Stephen A. Aaberg, and James G. Schmitt: 1995.
- No. 7 **Holocene Archaeology near Squaw Butte, Canyonlands National Park, Utah** by Betsy L. Tipps; 1995.

CULTURAL RESOURCES SELECTIONS Intermountain Region, National Park Service

- No. 8 Cultural Landscape Report: Fruita Rural Historic District, Capitol Reef National Park by Cathy A. Gilbert and Kathleen L. McKoy; 1997.
- No. 9 **Ethnographic Overview and Assessment of Devils Tower National Monument** by Jeffry R. Hanson and Sally Chirinos; 1997.
- No. 10 A Classic Western Quarrel: A History of the Road Controversy at Colorado National Monument by Lisa Schoch-Roberts; 1997.
- No. 11 Cultural Resource Investigations Near White Crack, Island-in-the Sky District, Canyonlands National Park, Utah by Betsy L. Tipps, Andre D. La Fond, and Robert I Birnie; 1996.
- No. 12 Barrier to Crossroads: Administrative History of Capitol Reef National Park by Bradford Frye; 1998.
- No. 13 Archeology at the Fort Laramie Quartermaster Dump Area, 1994-1996, edited by Danny N. Walker; 1998.
- No. 14 Cultural Landscape Report for Hubbell Trading Post National Historic Site, Ganado, Arizona by Peggy Froeschauer-Nelson; 1998.
- No. 15 Cultures at a Crossroads: An Administrative History of Pipe Spring National Monument by Kathleen L. McKoy; 2000.