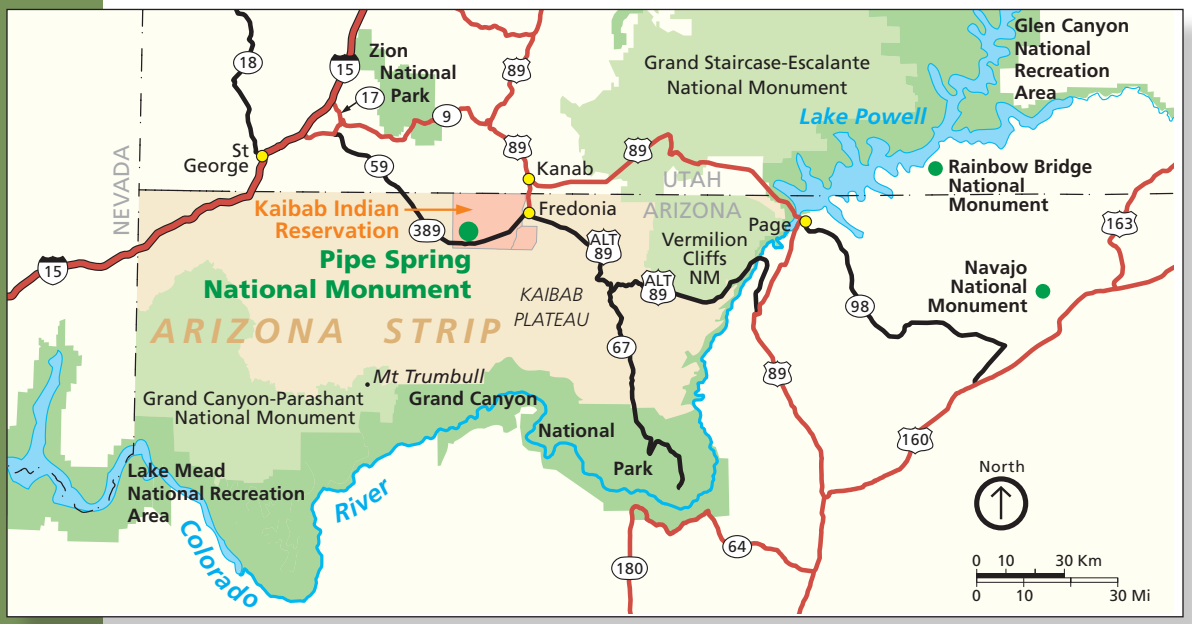
NATIONAL PARK SERVICE • U.S. DEPARTMENT OF THE INTERIOR

Foundation Document

Pipe Spring National Monument

Arizona

November 2015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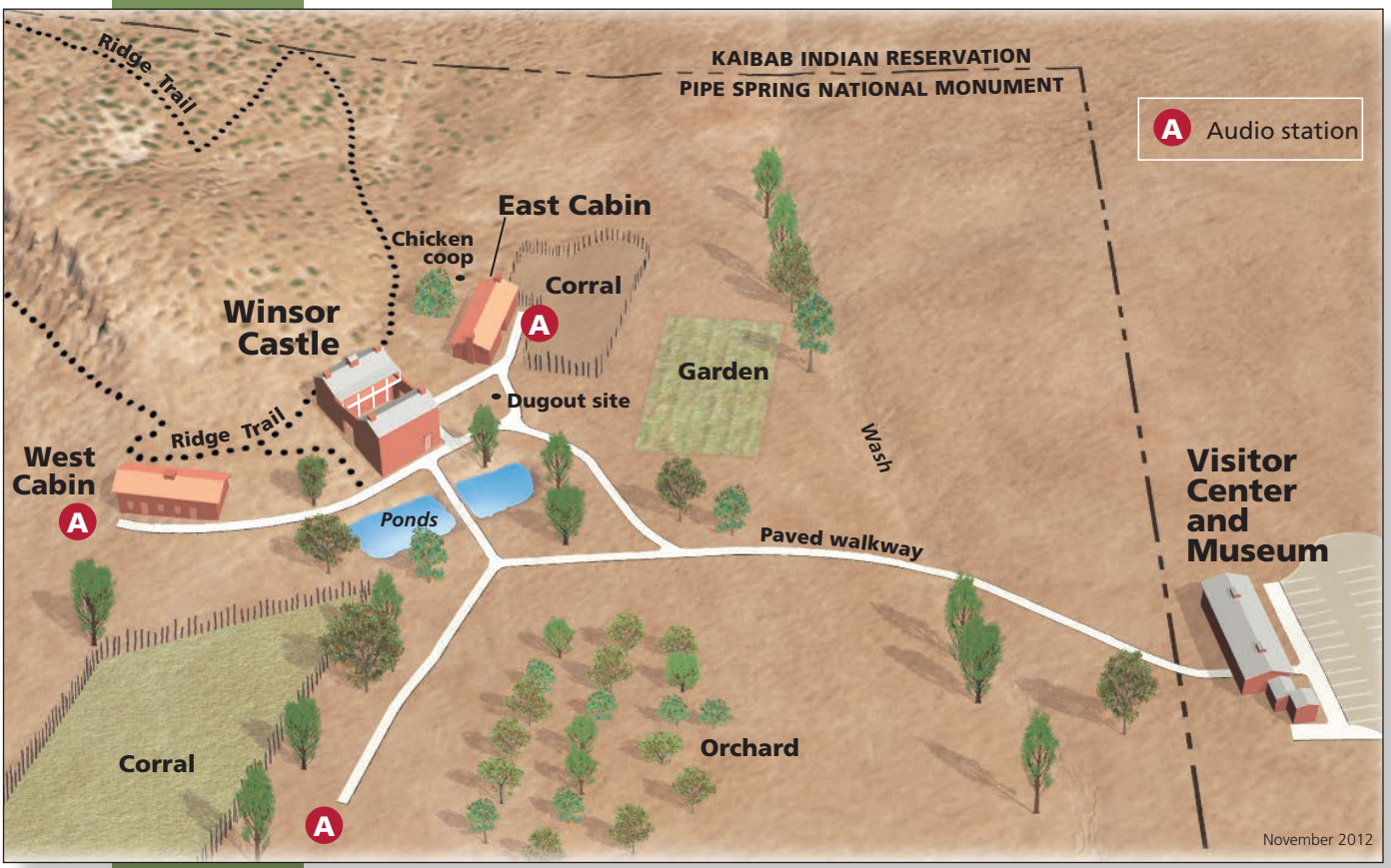

KAIBAB INDIAN RESERVATION
PIPE SPRING NATIONAL MONUMENT
A Audio station
Ridge Trail
East Cabin
Chicken coop
Corral
Winsor Castle
Garden
Dugout site
Ridge Trail
West Cabin
Wash
Ponds
Paved walkway
Visitor Center and Museum
Corral
Orchard
November 2012

Contents

Mission of the National Park Service

The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

The NPS core values are a framework in which the National Park Service accomplishes its mission. They express the manner in which, both individually and collectively, the National Park Service pursues its mission. The NPS core values are:

- **Shared stewardship:** We share a commitment to resource stewardship with the global preservation community.
- **Excellence:** We strive continually to learn and improve so that we may achieve the highest ideals of public service.
- **Integrity:** We deal honestly and fairly with the public and one another.
- **Tradition:** We are proud of it; we learn from it; we are not bound by it.
- **Respect:** We embrace each other's differences so that we may enrich the well-being of everyone.

The National Park Service is a bureau within the Department of the Interior. While numerous national park system units were created prior to 1916, it was not until August 25, 1916, that President Woodrow Wilson signed the National Park Service Organic Act formally establishing the National Park Service.

The national park system continues to grow and comprises more than 400 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the Virgin Islands. These units include, but are not limited to, national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, and the White House. The variety and diversity of park units throughout the nation require a strong commitment to resource stewardship and management to ensure both the protection and enjoyment of these resources for future generations.

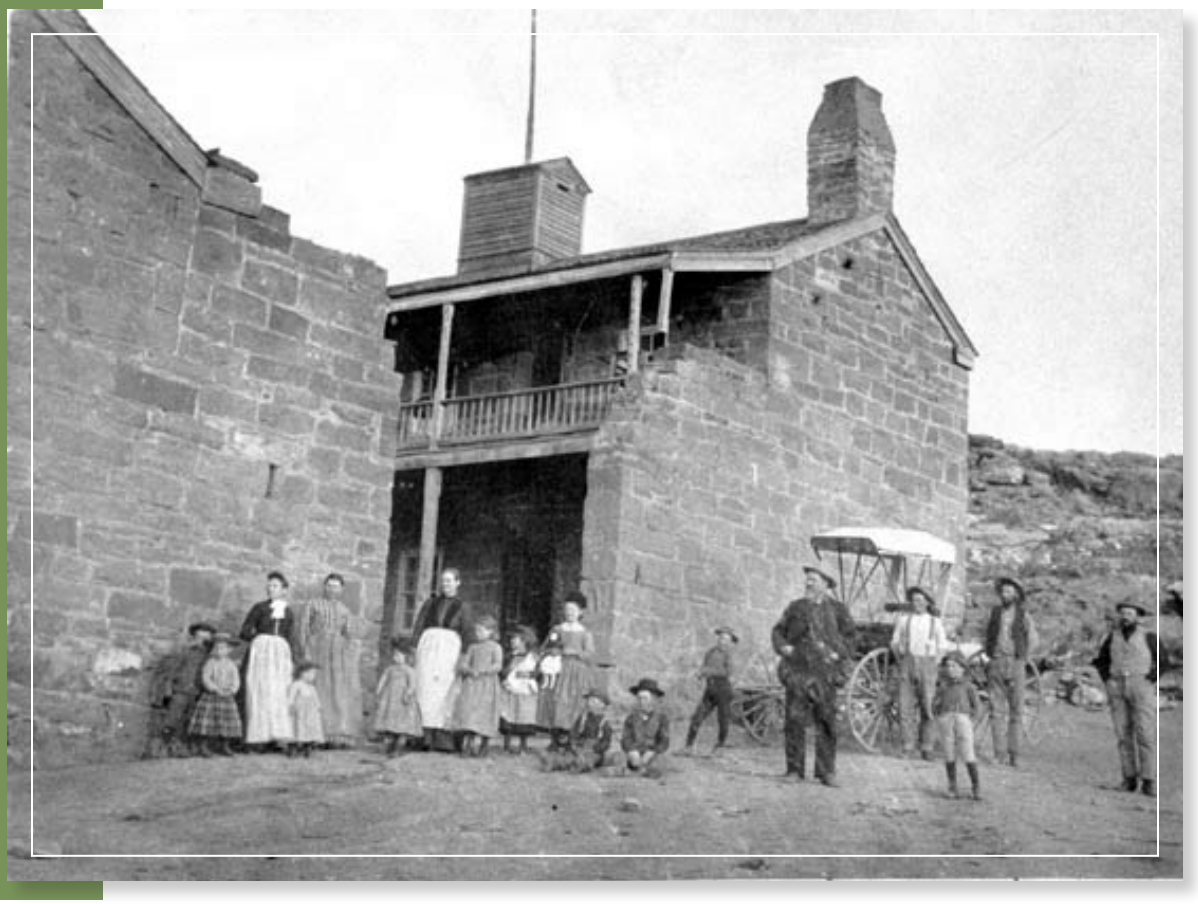
The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archeological values.

Introduction

Every unit of the national park system will have a foundational document to provide basic guidance for planning and management decisions—a foundation for planning and management. The core components of a foundation document include a brief description of the park as well as the park's purpose, significance, fundamental resources and values, other important resources and values, and interpretive themes. The foundation document also includes special mandates and administrative commitments, an assessment of planning and data needs that identifies planning issues, planning products to be developed, and the associated studies and data required for park planning. Along with the core components, the assessment provides a focus for park planning activities and establishes a baseline from which planning documents are developed.

A primary benefit of developing a foundation document is the opportunity to integrate and coordinate all kinds and levels of planning from a single, shared understanding of what is most important about the park. The process of developing a foundation document begins with gathering and integrating information about the park. Next, this information is refined and focused to determine what the most important attributes of the park are. The process of preparing a foundation document aids park managers, staff, and the public in identifying and clearly stating in one document the essential information that is necessary for park management to consider when determining future planning efforts, outlining key planning issues, and protecting resources and values that are integral to park purpose and identity.

While not included in this document, a park atlas is also part of a foundation project. The atlas is a series of maps compiled from available geographic information system (GIS) data on natural and cultural resources, visitor use patterns, facilities, and other topics. It serves as a GIS-based support tool for planning and park operations. The atlas is published as a (hard copy) paper product and as geospatial data for use in a web mapping environment. The park atlas for Pipe Spring National Monument can be accessed online at: http://insideparkatlas.nps.gov/.



Part 1: Core Components

The core components of a foundation document include a brief description of the park, park purpose, significance statements, fundamental resources and values, other important resources and values, and interpretive themes. These components are core because they typically do not change over time. Core components are expected to be used in future planning and management efforts.

Brief Description of the Park

Pipe Spring National Monument was established by President Warren G. Harding's proclamation No. 1663 (43 Stat. 1913) of May 31, 1923, and is a testament to former NPS Director Stephen Mather's promotion and development of the early parks of the western United States. The 40-acre national monument is situated in the northeast part of Mohave County, Arizona. It lies 10 miles south of the Arizona-Utah border in part of the vast, isolated region known as the Arizona Strip, and is entirely surrounded by the Kaibab Paiute Indian Reservation. Primary access is provided by Arizona State Highway 389.

The geologic processes, which produced these desert springs, have made the site a focal point for area wildlife, and these waters have supported human habitation for millennia. The springs were well known by ancestral people and bands of Southern Paiutes long before the arrival of Mormons in 1858. James Whitmore, a Texas convert to Mormonism, received a land certificate for 160 acres around Pipe Spring in 1863 and established a ranch. In 1866, Whitmore and his ranch hand, Robert McIntyre, rode out of the ranch to check on reports of stolen cattle and sheep, and their bodies were later found by the Mormon militia about four miles south of Pipe Spring. Following the ill-fated ranching efforts of James Whitmore, in 1870 Brigham Young and the Church of Jesus Christ of Latter-day Saints (sometimes known as the Mormon Church) constructed a fort (Winsor Castle) for protection from American Indians and as a potential strategic outpost related to its struggles with the federal government. It also established a tithing ranch enterprise based at the site. The monument thus provides opportunities to understand the Mormon colonial expansion into southern Utah and Arizona and its complex interchange with American Indians and the federal government.

Besides the business of ranching, Pipe Spring was linked to other Mormon church outposts and Salt Lake City by the Deseret Telegraph. A spur line of the Deseret Telegraph was established through Pipe Spring in 1871, creating the first telegraph station in the Arizona Territory. It continued to operate between Rockville and Kanab, Utah until the late l880s.

The springs, emanating from a local, regional fault-controlled groundwater aquifer, are unique from a geohydrologic standpoint and serve as the basis of the local natural and cultural history present at the site. Various cultures and peoples were attracted to and used the site because of the presence of readily available water—including Ancestral ("Archaic" and "Puebloan") cultures, Southern Paiute, Spanish and Mexican explorers and traders, and Mormons and other European Americans.

The springs also support a variety of plants and wildlife. Several vegetative communities are present, including woodlands, shrublands, and grasslands. About 166 species of birds are present in the monument, including bald and golden eagles, peregrine falcons, and occasionally the endangered California condor. Reptiles, amphibians, and a number of mammals are also present, including bighorn sheep, deer, mountain lions, and bobcats.

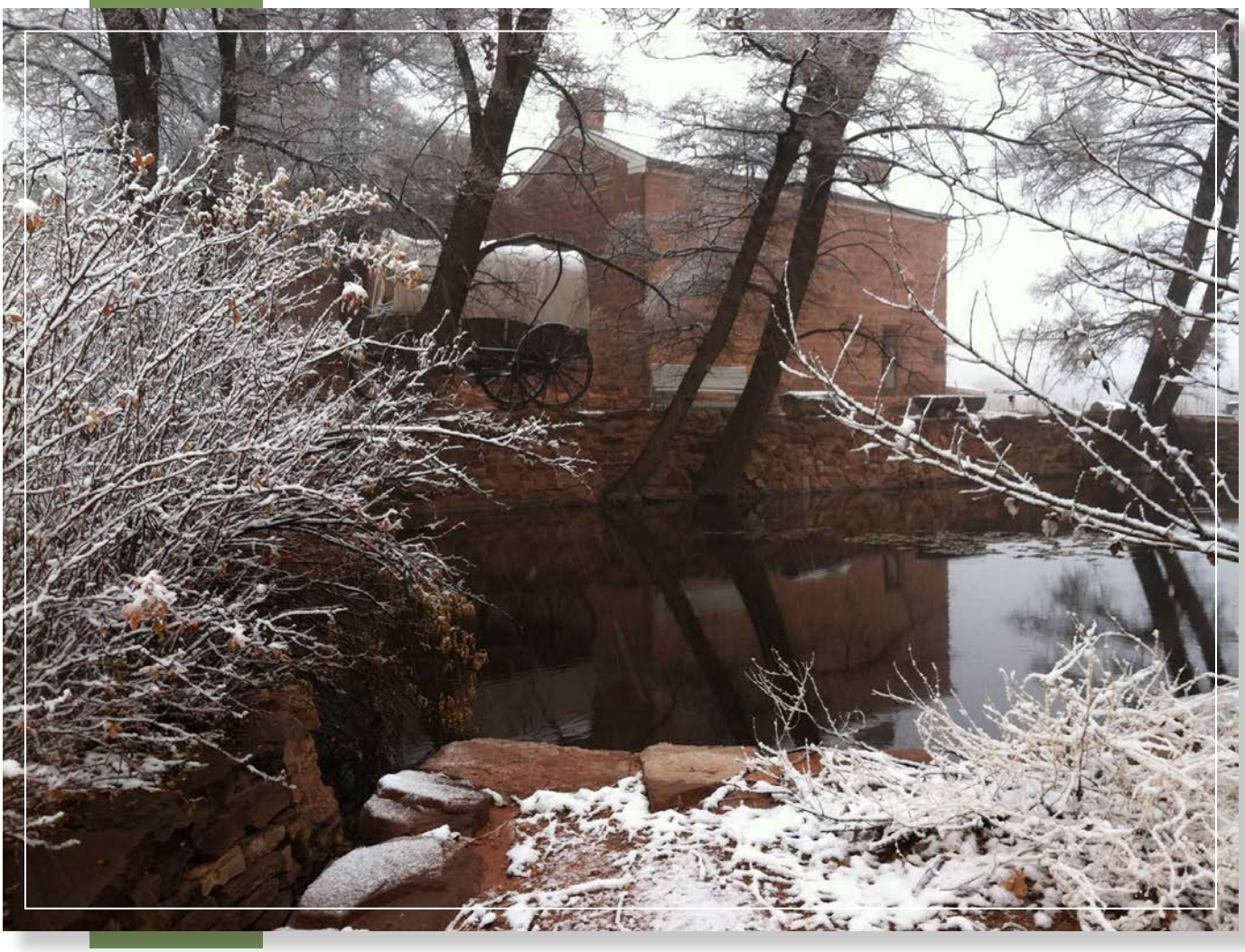
In 1907, the Kaibab Paiute Indian Reservation was established. The reservation surrounded the springs, but the ranch buildings and grounds immediately around them remained in private ownership until their sale and transfer to the National Park Service in 1923. The water of the springs was divided for equal use by the National Park Service, the Kaibab Band of Paiute Indians, and an independent, private cattlemen's association. The monument today has a close relationship with the Kaibab Band of Paiute Indians. The two share several facilities, including a museum collections storage facility and visitor center / cultural museum, which, in partnership, interprets the full spectrum of monument history and Kaibab Paiute culture and history.

In 2013, more than 51,000 visitors stopped at the monument. Visitors can walk several short trails, take self-guided tours of the grounds (including cabins, ponds, corrals, orchard, and garden), and take a guided tour of Winsor Castle. The joint tribal-NPS visitor center / cultural museum offers information on the monument, other public lands (with specific partnerships and information on the remote northern stretches of Grand Canyon National Park, and all of Grand Canyon – Parashant National Monument), and the Kaibab Band of Paiute Indians.

Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Pipe Spring National Monument was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The monument was established by presidential proclamation on May 31, 1923 (see appendix A for presidential proclamation). The purpose statement lays the foundation for understanding what is most important about the monument.

The purpose of Pipe Spring National Monument is to preserve and protect a natural water source and resources associated with human history in the remote high-desert of the Arizona Strip, and to interpret complex historic interactions between Mormons, American Indians, and the US Government.



Park Significance

Significance statements express why a park's resources and values are important enough to merit designation as a unit of the national park system. These statements are linked to the purpose of Pipe Spring National Monument, and are supported by data, research, and consensus. Statements of significance describe the distinctive nature of the park and why an area is important within a global, national, regional, and systemwide context. They focus on the most important resources and values that will assist in park planning and management.

The following significance statements have been identified for Pipe Spring National Monument. (Please note that the sequence of the statements does not reflect the level of significance.)

1. The 19th century Mormon fort, ranch, and enterprise at Pipe Spring National Monument is directly representative of, and key to the organizational, political, economic, and societal complexities and strategies of Brigham Young's leadership of The Church of Jesus Christ of Latter-day Saints and its relationships and/or conflicts with American Indians, and relationships and struggles with the federal government.

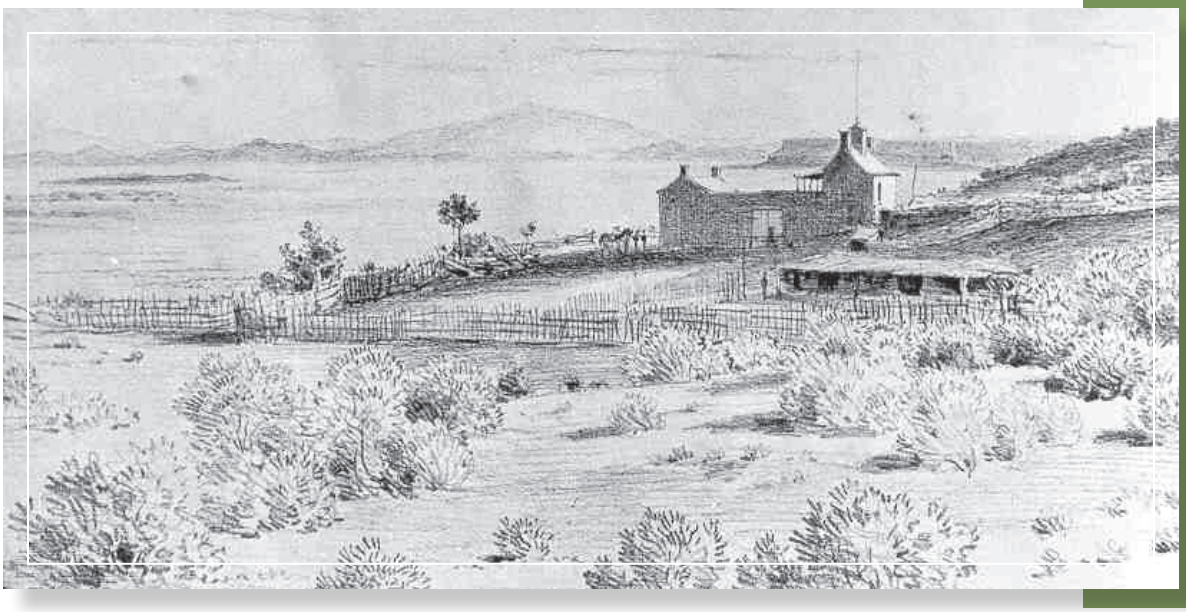
2. The large-scale 19th century ranching enterprises at Pipe Spring—both Mormon, and subsequently private—were connected to and influenced the cattle business of the American West, reaching throughout the Intermountain West and as far as markets in Chicago, Omaha, and the Pacific Coast.

3. The monument preserves an assemblage of 19th century historical Mormon structures and artifacts, including the massive and remarkably intact Winsor Castle, other historic stone buildings and artifacts related to day-to-day living, westward expansion, western ranching, and the first telegraph station in Arizona.

4. Emerging at the foot of the towering Vermillion Cliffs of the Grand Staircase of the Colorado Plateau, a significant and year-round spring has both attracted and provided for flora and fauna and multicultural transit and human occupancy for thousands of years in a remote, rugged, and sparsely populated region of the Intermountain West.

5. Pipe Spring National Monument's geographic location between early iconic and scenic national parks, its role in the promotion of the newly established National Park Service under Director Stephen Mather's leadership, and Mather's personal involvement in the site's establishment, are important in the history of the service.

6. Pipe Spring National Monument's continued partnership with the Kaibab Band of Southern Paiute since the establishment of the monument, and its location within their reservation lands, offers unique opportunities to preserve, explore, and interpret the tribe's culture and history.



Tissandier drawing courtesy of the Utah Museum of Fine Arts

Fundamental Resources and Values

Fundamental resources and values (FRVs) are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to warrant primary consideration during planning and management processes because they are essential to achieving the purpose of the park and maintaining its significance. Fundamental resources and values are closely related to a park's legislative purpose and are more specific than significance statements.

Fundamental resources and values help focus planning and management efforts on what is truly significant about the park. One of the most important responsibilities of NPS managers is to ensure the conservation and public enjoyment of those qualities that are essential (fundamental) to achieving the purpose of the park and maintaining its significance. If fundamental resources and values are allowed to deteriorate, the park purpose and/or significance could be jeopardized.

The following fundamental resources and values have been identified for Pipe Spring National Monument:

- **Archeological Sites and Resources.** Pipe Spring National Monument includes and protects significant prehistoric and historic archeological sites and resources. The presence of human occupancy is readily obvious, yet largely unexcavated. These resources include prehistoric Puebloan structures, petroglyphs, and artifacts; historic structures associated with European American and Mormon settlers such as the Whitmore-McIntyre dugout and Mormon lime kilns; and remnants of a significant Civilian Conservation Corps (CCC) camp.

- **Historic Structures.** Pipe Spring National Monument protects several historic structures constructed between 1862 to approximately 1885 by the Mormon militia and Mormon Church, and they reflect a diversity of human occupation at the site. Five of these structures are listed in the List of Classified Structures database and contribute to the Pipe Spring National Monument Historic District, including the imposing Winsor Castle—a fortified Mormon ranch house; the East and West Cabins that flank the fort; the fort ponds; and the east retaining wall.

- **Cultural Landscape.** The Pipe Spring National Monument cultural landscape encompasses a National Register of Historic Places listed historic district that includes the historic structures described above, as well as other associated sites and structures such as the lime kilns, the quarry trail, the retaining walls northeast of the fort, and a variety of transportation corridors identified as trails. Winsor Castle and the associated structures were strategically located at the springs, while the position of the complex within the broader landscape enticed travelers through the years, from early exploration through settlement and into the modern age of tourism, to stop at Pipe Springs.

  Some features of the historic landscape have been recreated, but they are still important to interpretation of the stories of the monument. Reconstructed and/or recreated features include the Deseret telegraph line, two sections of retaining wall, the corral complex and livestock, the outhouse, the chicken coop, the orchard, and the gardens. These are noncontributing features to the monument's historic district, but they are considered compatible with the designation.

  Additionally, Pipe Spring National Monument is located on, or is proximate to, various historic trail routes. All known historical information points to the probability that the first traveled route of the Old Spanish Trail—the Armijo Route, which was traversed by Antonio Armijo from New Mexico to California and back in 1829—went to and through Pipe Spring. That route is acknowledged as a portion of the Old Spanish National Historic Trail. In addition, the 1776 expedition of Escalante and Dominguez passed close to Pipe Spring, though the exact route is presently unknown. The Honeymoon Trail, or Arizona Trail, between St. George, Utah, and Mormon settlements in the vicinity of the Little Colorado River in Arizona passed directly through Pipe Spring, and has a definite connection to Pipe Spring history. The Honeymoon Trail is listed in the monument Cultural Landscape Inventory database as a contributing feature and eligible for listing in the National Register of Historic Places.

- **Springs and Water.** The natural springs that emerge at Pipe Spring National Monument have been and are one of very few water sources in the Arizona Strip. Wildlife, prehistoric people, Paiute Indians, Mormon pioneers, monument visitors, and NPS staff have all used this oasis as a life-sustaining area. As far as is known, as of the 1870s there were two original spring discharge points at the site: (1) a principal spring (which likely came to be known as Pipe Spring) that emanated from the hillside, which Winsor Castle was built directly above; and (2) a seep spring immediately west of West Cabin. During the historic period, the principal spring was modified by Mormons at the ranch to flow both through the Spring Room of Winsor Castle, and outside to a spring pool, sometimes known as Main Spring. In addition, there is a human-made, horizontal water-producing feature known as Tunnel Spring, constructed by ranchers in approximately 1904. As of 1999, the only springs or water features continuing to produce water were West Cabin Spring and Tunnel Spring.

  The total output of the springs and water production features at the monument is divided into three parts by order of the Secretary of the Interior. By virtue of that order, the Kaibab Band of Paiute Indians is entitled to use one-third; an independent, private cattlemen's association is entitled to one-third (via a pipeline running from the monument); and the National Park Service is entitled to retain one-third on the monument. Under an additional agreement between the National Park Service and the Kaibab Band of Paiute Indians dating from 1972, the tribe's one-third of the water is also retained by the National Park Service on the monument.

  The two-thirds of the spring water retained by the National Park Service is pumped from Tunnel Spring to and through the Main Spring pool and Winsor Castle, and ultimately into historic ponds adjacent to the castle. This water flow route serves to recreate the original historic scene and provide water to local flora and fauna, demonstrating to visitors the importance of water to survival in the region.

- **Museum Collections.** The monument's museum and archival collections preserve items related to the American Indian, Mormon, early NPS history, and natural history at Pipe Spring. The collections contain approximately 45,000 items, including historical documents, associated research, and items of material culture (archeological, ethnographic, and historic) which are central to understanding the history and managing the resources at the monument. The items in the collections help ensure interpretation is based on accurate historical evidence, and help monument management maintain certain resources to appropriate historical standards. Museum collection items are stored in a partnership facility on the Kaibab Indian Reservation, which is one of a limited number of such facilities in the NPS Intermountain Region.

Other Important Resources and Values

Pipe Spring National Monument contains other resources and values that are not fundamental to the purpose of the park and may be unrelated to its significance, but are important to consider in planning processes. These are referred to as "other important resources and values" (OIRV). These resources and values have been selected because they are important in the operation and management of the park and warrant special consideration in park planning.

The following other important resources and values have been identified for Pipe Spring National Monument:

- **Partnerships.** Pipe Spring National Monument has strong connections to the surrounding Kaibab Paiute community. The ancestry of the Kaibab Paiute connects directly to the site of the monument and dates back centuries. This important relationship and partnership plays a pivotal role in the preservation of the interconnected landscape, the use of shared facilities, as well as efforts to provide broader regional education and interpretation.
- **Natural Landscape.** The natural landscape of the monument includes vegetation, wildlife, clear views of the surrounding expansive landscape, dark night skies, and natural sounds. Park management actively works to protect this landscape both within the monument boundaries and in collaboration with nearby landowners and partners. The monument seeks to continue preserving and restoring these features, as they complement and support the preservation of the cultural resources of the monument.
- **Ethnographic Resources.** Prior to the arrival of Europeans to North America, small bands of Southern Paiutes gathered the natural plants and hunted the fauna of this ecologically diverse and arid region. Water was then, as now, a key resource available at only a few places, and these places governed band movement and territories. These same resources similarly attracted the European-American pioneers who made Pipe Spring their home. Many of the resources within the monument continue to hold strong significance to the descendants of these people, and their histories are critical to accurately and adequately interpret the history and significance of Pipe Spring.

Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from, and should reflect, park purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park staff to develop opportunities for visitors to explore and relate to all park significance statements and fundamental and other important resources and values.

Interpretive themes are an organizational tool that reveal and clarify meaning, concepts, contexts, and values represented by park resources. Sound themes are accurate and reflect current scholarship and science. They encourage exploration of the context in which events or natural processes occurred and the effects of those events and processes. Interpretive themes go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the park and its resources. These themes help explain why a park story is relevant to people who may otherwise be unaware of connections they have to an event, time, or place associated with the park.

- The various lifeways and subsistence strategies used at Pipe Spring and their impacts offer diverse opportunities to experience and reflect on the difficulties of survival and adaptation in an arid environment and the results of our day-to-day decisions about where and how we live.
- Winsor Castle, East Cabin, and other significant aspects of Pipe Spring's history attest to the complex approaches of the US government and Church of Jesus Christ of Latter-day Saints in interacting with American Indians—inviting us to explore and appreciate US history and build understanding and acceptance of differing cultural viewpoints.
- The US government's 19th century perception that the Church of Jesus Christ of Latter-day Saints might threaten the integrity of the young nation and the church's perception that the United States might imperil its communal organization and religious freedom created a unique relationship that challenges us to compare and contrast past and present conflicts between religious freedom and organizations and separation of church and state.
- National Park Service Director Stephen Mather's personal involvement in Pipe Spring National Monument's establishment and related leadership and promotion of the national park system serves as an example of personal vision and inspires conservation and enjoyment of our shared heritage.

Part 2: Dynamic Components

The dynamic components of a foundation document include special mandates and administrative commitments and an assessment of planning and data needs. These components are dynamic because they will change over time. New special mandates can be established and new administrative commitments made. As conditions and trends of fundamental and other important resources and values change over time, the analysis of planning and data needs will need to be revisited and revised, along with key issues. Therefore, this part of the foundation document will be updated accordingly.

Special Mandates and Administrative Commitments

Many management decisions for a park unit are directed or influenced by special mandates and administrative commitments with other federal agencies, state and local governments, utility companies, partnering organizations, and other entities. Special mandates are requirements specific to a park that must be fulfilled. Mandates can be expressed in enabling legislation, in separate legislation following the establishment of the park, or through a judicial process. They may expand on park purpose or introduce elements unrelated to the purpose of the park. Administrative commitments are, in general, agreements that have been reached through formal, documented processes, often through memorandums of agreement. Examples include easements, rights-of-way, arrangements for emergency service responses, etc. Special mandates and administrative commitments can support, in many cases, a network of partnerships that help fulfill the objectives of the park and facilitate working relationships with other organizations. They are an essential component of managing and planning for Pipe Spring National Monument.

For more information about the existing special mandates, special designations, and administrative commitments for Pipe Spring National Monument, please see appendix B.

Assessment of Planning and Data Needs

Once the core components of part 1 of the foundation document have been identified, it is important to gather and evaluate existing information about the park's fundamental and other important resources and values, and develop a full assessment of the park's planning and data needs. The assessment of planning and data needs section presents planning issues, the planning projects that will address these issues, and the associated information requirements for planning, such as resource inventories and data collection, including GIS data.

There are three sections in the assessment of planning and data needs:

1. analysis of fundamental and other important resources and values
2. identification of key issues and associated planning and data needs
3. identification of planning and data needs (including spatial mapping activities or GIS maps)

The analysis of fundamental and other important resources and values and identification of key issues leads up to and supports the identification of planning and data collection needs.

Analysis of Fundamental Resources and Values

The fundamental resource or value analysis table includes current conditions, potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value.

Fundamental Resource or Value	Archeological Sites and Resources
Related Significance Statements	Statements 1, 2, 3, 4, and 6.
Current Conditions and Trends	**Conditions** • The monument has a 100% archeological survey of all monument land. • Condition assessments are conducted regularly, and all archeological sites are currently in good condition. • Eight archeological sites exist within the monument. They are reported in the Archeological Sites Management Information System (ASMIS). • A large portion of the monument housing and maintenance area is currently on top of an archeological site. • The known petroglyphs in the monument have been 3D scanned. **Trends** • Ground disturbance is regularly monitored at the monument to prevent impacts to the abundance of archeological sites.
Threats and Opportunities	**Threats** • Maintenance activities could unintentionally impact archeological sites if not appropriately monitored. • There have been incidents of minor vandalism and inappropriate visitor activities (i.e., collecting/moving of objects, scratching of petroglyphs). • Increase in mean annual temperature and storm frequency/intensity projected for the region due to climate change could impact archeological resources through flooding, erosion, and an increase in pests and/or invasive species. • Rodent activity and mineral deposits can impact the integrity of archeological resources. **Opportunities** • Collaborate with the Kaibab Band of Paiute Indians to monitor, protect, and interpret archeology on the Kaibab Paiute Reservation. Virtually all of these adjacent sites are connected to the presence of water at Pipe Spring and archeological resources on the monument. • Partner with the Kaibab Band of Paiute Indians to study and protect historic archeological resources on the reservation directly related to the 19th and 20th century history of Pipe Spring. • Increase interpretation of archeological resources to enlist public understanding and support. • Monitoring related to ground disturbance could result in the identification of new objects, including Native American Graves Protection and Repatriation Act (NAGPRA) items. • Nominate monument archeological sites already determined eligible for national register listing.
Data and/or GIS Needs	• Analysis of archeological resources. • Write determination of eligibility for archeological sites. • Climate change vulnerability assessment for select resources.

Fundamental Resource or Value	Archeological Sites and Resources
Planning Needs	• Develop an inadvertent discovery plan for archeological resources and potential NAGPRA resources. • Comprehensive interpretive plan. • Resource stewardship strategy. • Climate change scenario planning, or planning for climate change adaptation in the range of planning efforts and management decisions.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • Antiquities Act of 1906 • National Environmental Policy Act of 1969 • National Historic Preservation Act of 1966, as amended • Archeological and Historic Preservation Act of 1974 • Archaeological Resources Protection Act of 1979 • Native American Graves Protection and Repatriation Act • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • Executive Order 13007, "Indian Sacred Sites" • Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • "Protection of Historic Properties" (36 CFR 800) • Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" • Secretarial Order 3355, "Reaffirmation of the Federal Trust Responsibility to Federally Recognized Indian Tribes and Individual Indian Beneficiaries" **NPS Policy-level Guidance (*NPS Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (chapter 5) "Cultural Resource Management," including (§5.1.3) "Identification and Evaluation of Resources," and (§5.3.5.1) "Archeological Resources" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* • *Department of Interior Policy on Consultation with Indian Tribes* • NPS *Management Policies 2006* (§8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 6: *Interpretation and Education* • Director's Order 28: *Cultural Resource Management* • Director's Order 28A: *Archeology*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Fundamental Resource or Value	Historic Structures
Related Significance Statements	Statements 1, 2, 3, and 4.
Conditions and Trends	**Conditions** • There are eight contributing historic structures or features in the national register listed historic district in the monument, including three historic buildings (Winsor Castle, the West Cabin, and the East Cabin), the historic ponds, a historic retaining wall, the Whitmore-McIntyre dugout, the quarry trail, and a lime kiln. • The aforementioned retaining wall is a historic structure listed in the national register, while other retaining walls are compatible features. • The condition of historic structures varies according to the different inventories that track resource condition. Winsor Castle, the East Cabin, and the retaining wall are generally in good condition, while the West Cabin and ponds are in fair condition. • The West Cabin needs some repair work, including a roof replacement. The retaining walls have issues with vegetation, and repointing is needed in some areas. • Winsor Castle has a second floor structural issue (i.e., meeting room floor). Repair is needed at the East Gates, and drainage issues exist in the courtyard. • Spring water directed through Winsor Castle is discharged to two constructed historic ponds. This is currently water from Tunnel Spring but was formerly from Spring Room and Main Spring. The ponds are part of the historic landscape and support wildlife including birds, bats, and aquatic life. • The ponds have a history of consistent, periodic leakage due to the presence of culturally significant planted trees in pond walls, root intrusion, and a substrate of the gypsiferous Moenkopi formation. Periodic cracking of mortar and leaks in the clay-bottom pond basins have led to water loss in the surrounding soil, have muddied the area, and have left less water for landscape vegetation and garden and orchard maintenance. • There are ongoing issues with updating structures to adequately accommodate visitors and visitor uses. • Appropriate cleaning methods are used to maintain historic structures (per housekeeping plan). • Dirt floors have been stabilized in the cabins, which now require regular work to maintain. • Historic structures and associated features/components must be actively maintained in good condition through regular maintenance. They are used frequently and regularly by visitors and staff, and both preventative and cyclic maintenance are required. • Repair and rehabilitation work is also required on an as-identified basis (per historic structure report). **Trends** • Historic structures are generally stable at the monument.
Threats and Opportunities	**Threats** • Adequacy of security and structural fire provision protection and response are a challenge due to remoteness of site and ability to respond. • There are concerns that artifacts and structural resources on display are being consumptively affected by virtue of exposure to uncontrolled environmental conditions and visitation. There needs to be constant reassessment of the way that visitors are using the structures and experiencing the resources to ensure they are maintained in appropriate conditions. • Increase in mean annual temperature and storm frequency/intensity projected for the region due to climate change could impact historic structures through flooding, erosion, and increase in pests and/or invasive species.

Fundamental Resource or Value	Historic Structures
Threats and Opportunities	• "Monsoonal" flash floods, and seismic activity on the Sevier Fault, which runs directly thorough the monument and under Winsor Castle, potentially threaten the integrity of the historic structures. • Bats roosting within the structures, as well as rodents, problem insects, and other pests, may threaten the integrity of the historic structures and artifacts therein. • Everyday visitor use can put excess wear on structures (e.g., touching banisters, etc.). **Opportunities** • Fully utilize recently completed historic structure report in historic preservation planning and actions. • Implement actions prescribed in plans, including the pond engineering study to address leaking issue at the ponds. • Utilize recently completed 3D scanning of structural inscriptions to aid in interpretation. • Learn more about building techniques and materials to better interpret these processes. • Continually improve monitoring of historic structures and documentation of historic preservation maintenance. • Offer programs that demonstrate the evolution of historic preservation at the site. • Work to better promote the monument and increase visitation. • The monument has sought replacement of original historic furnishings with replica items for display.
Data and/or GIS Needs	• Seismic risk assessment. • Climate change vulnerability assessment for select resources.
Planning Needs	• Historic structure treatment plan. • National register amendment. • Accessibility self-assessment and transition plan. • Comprehensive interpretive plan. • Climate change scenario planning, or planning for climate change adaptation in the range of planning efforts and management decisions.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • National Environmental Policy Act of 1969 • National Historic Preservation Act of 1966, as amended • Archeological and Historic Preservation Act of 1974 • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • "National Register of Historic Places" (36 CFR 60) • "Protection of Historic Properties" (36 CFR 800) • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" **NPS Policy-level Guidance (*NPS Management Policies 2006* and Director's Orders)** • *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* • NPS *Management Policies 2006* (chapter 5) "Cultural Resource Management" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • NPS *Management Policies 2006* (§8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 28: *Cultural Resource Management*

Fundamental Resource or Value	Cultural Landscape
Related Significance Statements	Statements 1, 2, 3, 4, and 6.
Current Conditions and Trends	**Conditions** • The 6.5-acre cultural landscape within the historic district, composed of the area immediately surrounding the fort, remains representative of the period of significance from 1863–1895 and retains historic integrity. The historic feel and function of the cultural landscape encompassing the fort, cabins, ponds, and corrals has been preserved. • There are approximately 33 features included in the cultural landscape, and the overall condition is fair. • Two of seven of the exhibit wagons (museum collections items) are listed as contributing features on the national register nomination. The condition of all seven wagons varies from poor to good. • NPS reconstruction projects within the historic district boundary have historic precedent and are compatible with the character of the original landscape. Reproductions of the telegraph line, the East Cabin corral complex, and the outhouse are all based on historic documentation and enhance the cultural landscape's historic feel. • The telegraph line, which is a compatible feature, was recently replaced. • The orchard and gardens are not within the bounds of the cultural landscape or historic district, but they are considered compatible features to both. • The Old Spanish National Historic Trail, including the Armijo Branch, is formally designated. On the basis of currently available historic research, the trail is considered to have specifically traversed Pipe Spring (Armijo campsite at "Old Woman Spring"). • Physical remnants of the Honeymoon Trail exist at the monument. Additionally, considerable knowledge exists regarding the Honeymoon Trail. • Prehistoric and historic American Indian travel routes used by ancestral peoples, Southern Paiute, Navajo, Ute, and others traversed Pipe Spring. • The 1776 Spanish Catholic expedition of Dominguez and Escalante crossed the Arizona Strip in the proximity of, and possibly at, Pipe Spring. • The aforementioned trails and related history are actively interpreted at the monument. • The monument is a member of, and regularly meets with representatives of the Old Spanish Trail Association (OSTA) and NPS Long Distance Trails Office representatives to promote the Old Spanish National Historic Trail and improve interpretation of the trail. **Trends** • The vegetation is being degraded due to old age and diminished water availability. The monument is actively managing the vegetation to improve condition, but present condition is fair. • Preventative and cyclic maintenance are regularly required for the cultural landscape. A plan is now available to guide this maintenance, so maintenance is being completed more regularly and the work is longer lasting. • There is ever-increasing interest in the exact route and any possible physical remnants of the Armijo Branch of the Old Spanish Trail, and the history of that route. • Knowledge of American Indian trails through the site is increasing with ethnohistorical and archeological studies.

Fundamental Resource or Value	Cultural Landscape
Threats and Opportunities	**Threats** • Increase in mean annual temperature, drought events, and storm frequency/intensity projected for the region due to climate change could impact the cultural landscape through flooding, erosion, decreases in water availability, and increases in wildfire, pests, and/or invasive species. • Seismic activity on the cultural landscape. • Prospective development on the Arizona Strip (e.g., waterlines, roads, mining, and energy) may impact trails and archeological resources related to trails, including information specifically related to Pipe Spring. **Opportunities** • Assess significance of the five wagons that are not listed in the national register. • Improve management and treatment of all wagons and related ranching artifacts using condition assessment and treatment recommendations completed in 2014. • Consider addition of non-museum collection replica wagons to museum collection if warranted and appropriate. • Improve condition of the cultural landscape to good condition through preventative and cyclic maintenance. • Improve knowledge and interpretation of ethnobotany (American Indian and European American). • Completion of the current Navajo ethnohistorical study should reveal additional information about Navajo transit, especially during the period of the Mormon-Navajo War. • Explore interpretive planning and media development opportunities with the Old Spanish Trail Association. New interpretive media for the Pipe Spring National Monument visitor center is planned. • Explore interpretive planning opportunities with other partners (Church of Jesus Christ of Latter-day Saints History Department and the Mormon Pioneer National Heritage Area Association) related to the Honeymoon Trail. • Completion of ethnohistorical studies with the Southern Paiute should reveal additional information about all aforementioned trails and trail impacts on the Paiute people. • Formal listing of the portion of the Honeymoon Trail within the monument in the national register would help ensure its protection and proper management. • Collect and preserve artifact and archival collections related to the aforementioned trails in the monument's collections/collections storage facility.
Data and/or GIS Needs	• Determination of eligibility for NPS and CCC cultural landscapes. • Taxonomic study of plums and grapes in the orchard. • Continued GPS mapping of vegetation. • Organization and management of existing GIS data. • Study of vegetative water needs. • Data review and additional research related to the Honeymoon Trail. • Data review related to the Armijo Route of the Old Spanish National Historic Trail.
Planning Needs	• Cultural landscape report. • Orchard/garden management plan. • Comprehensive interpretive plan. • Resource stewardship strategy.

Fundamental Resource or Value	Cultural Landscape
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • National Environmental Policy Act of 1969 • National Historic Preservation Act of 1966 • Archeological and Historic Preservation Act of 1974 • Archaeological Resources Protection Act of 1979 • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • "National Register of Historic Places" (36 CFR 60) • "Protection of Historic Properties" (36 CFR 800) • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" **NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (chapter 5) "Cultural Resource Management," including (§5.1.3) "Identification and Evaluation of Resources," (§5.3.5.1) "Archeological Resources," and (§5.3.5.3) "Ethnographic Resources" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* • Director's Order 28: *Cultural Resource Management* • Director's Order 28A: *Archeology*

Fundamental Resource or Value	Springs and Water
Related Significance Statements	Statements 1, 2, 3, 4, and 6.
Current Conditions and Trends	**Conditions** • The West Cabin Spring flow has been fairly steady with some long-term variation. Measurements of the spring flow are taken monthly. • Tunnel Spring flow has declined since 1998. • The principal spring (Pipe Spring, with emanation points described as Spring Room Spring and Main Spring) was in decline beginning in the 1970s and discharges ceased in 1999. • The groundwater aquifer, which is the source of water for the springs at the monument, is monitored at monitoring wells on a regular basis, and groundwater level trends are recorded. NPS and partial Kaibab Band of Paiute Indian use from the groundwater aquifer via wells is also monitored. Other Kaibab Band of Paiute Indian use and private use in the town of Moccasin, Arizona, from the groundwater aquifer is not monitored. Existing and available monitoring of the groundwater aquifer reveals overuse and dropping groundwater levels. Said overuse has also been determined to be the cause of the diminishment or cessation of spring flow at the monument. • There have been at least 13 papers on spring flows and the hydrogeology of Pipe Spring, and additional unpublished data. Spring flow and groundwater levels have been monitored since 1976. Data quality is good. • The ponds continue to play a key role in the cultural landscape by providing water for livestock and irrigation for the gardens and orchards. • These open water sources also benefit local wildlife. • Tree loss around the ponds has led to increased sunlight upon the water surface and increased algae within the ponds. • The springs are a key component of the monument's interpretive programming, and play a key role in the interpretation of Winsor Castle in particular, as water continues to flow through the cheese room in a trough to demonstrate historic practices. **Trends** • From NPS staff's best guess, all spring flow at Pipe Spring is declining and on a trajectory to cease within five to ten years. • Water use in the area has increased due, in part, to undetermined number and usage of wells. Arizona state law does not require water rights for groundwater extraction, or the limitation of monitoring of said extraction.
Threats	• The National Park Service, the Kaibab Paiute Tribe, and private residents of Moccasin, Arizona, have water-supply wells up-gradient from the springs. They pump enough groundwater to lower the water table, resulting in decreased spring flow. • The monument staff does not have data on water use from nearby communities and neighbors, nor, to some extent, the number of wells drilled outside the monument that use the same aquifer. This leads to uncertainty regarding the longevity of the water resources within the monument. • Climate change is expected to result in reduced snowfall and rainfall and increased temperature, which could further reduce the flow of the springs due to reduced recharge of the aquifer. • Various groups use the water that feeds the springs, and overuse by any of these groups could impact spring flow. • Though agricultural use in the area appears to be constant, irrigation practices or land use could shift in ways that may impact water use (e.g., shifting production to more water-intensive crops).

Fundamental Resource or Value	Springs and Water
Opportunities	• Continue to search for and develop alternative water sources in partnership with the Kaibab Band of Paiute Indians. Potential alternative sources include other groundwater aquifers, regional water pipeline (Lake Powell to St. George, Utah), etc. • Continue outreach and collaboration with partners and neighbors regarding sustainable water use. • Increase education of monument staff regarding water conservation. • Continue research collaboration on the Pipe Spring groundwater aquifer and alternative groundwater sources with the Kaibab Band of Paiute Indians, US Geological Survey, universities, and other partners. • Continue and expand interpretive programs and media related to the springs, water conservation, climate change, and other human impacts on landscape, and historic use and collection of water. • Increase water conservation efforts within the monument related to both culinary water (e.g., low flow faucets and toilets) and irrigation (e.g., use of drippers as opposed to flood irrigation methods). Partner with the Kaibab Band of Paiute Indians to install low-flow measures in all shared buildings and housing units. • Continue rainfall monitoring with the National Oceanic and Atmospheric Administration from the monitoring station at the visitor center.
Data and/or GIS Needs	• Data related to groundwater recharge rate and extent of the recharge area. • Seismic risk analysis. • Analyze rainfall data that has been gathered at the monument over the past 40 years. • Climate change vulnerability assessment for select resources.
Planning Needs	• Resource stewardship strategy. • Climate change scenario planning, or planning for climate change adaptation in the range of planning efforts and management decisions. • Comprehensive interpretive plan. • Water use and conservation strategy.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • National Environmental Policy Act of 1969 • The Clean Water Act • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Executive Order 12088, "Federal Compliance with Pollution Control Standards" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" **NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (§4.4) "Biological Resource Management" • NPS *Management Policies 2006* (§4.6.1) "Protection of Surface Waters and Groundwaters" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • NPS *Natural Resource Management Reference Manual #77*

Fundamental Resource or Value	Museum Collections
Related Significance Statements	Statements 1, 2, 3, 4, 5, and 6.
Current Conditions and Trends	**Conditions** • There are approximately 45,000 items in the monument's museum and archival collection, and the collections are growing. • The monument is generally up to date regarding core documentation for the museum collections. • The cultural collections document both prehistoric and historic human activity, subdivided into three disciplines: archeology, ethnology, and history. • The natural history collection comprises approximately 730 specimens divided into three disciplines: biology, paleontology, and geology. • The archival and manuscript collection includes papers, letters, documents, reports, studies, and photographs related to the history of the monument, natural and cultural resource studies conducted within the monument's boundaries, and other reports which document important monument projects. • Overall, the items in the collection are in good condition. • NPS and tribal museum collections are stored in the shared onsite curatorial storage facility, which was constructed as part of the NPS Intermountain Region Museum Collections Storage Strategy, and is operated under a cooperative agreement with the Kaibab Band of Paiute Indians. This facility is in excellent condition, and has plenty of space to accommodate all existing collections, the objects currently on display, future additional objects, and potentially objects from other parks in the area. The tribe has the same amount of space for storage, which they are able to lease if desired. • Limited cataloged collections are also currently stored offsite at Zion National Park and the University of New Mexico. • Objects are on exhibit in the historic structures (Winsor Castle, on grounds, and in the West Cabin), visitor center museum, and administrative offices. • There monument is working on an arthropod collection, a majority of which will be held at Northern Arizona University. The collection is being fully identified, accessioned, and cataloged, per curatorial standards. **Trends** • The archival collection is growing due to research, studies, and treatments. There is the potential for growth in material culture artifacts. • Archival materials continue to be donated to the monument. • The natural resource specimens have grown significantly in the last few years. • There has been an increase in research interest for the collections.
Threats	• Objects that are on display are vulnerable to environmental degradation. This is a bigger problem in Winsor Castle than the visitor center. • Items in Winsor Castle in particular are susceptible to damage related to pest damage, environmental degradation, or, potentially, fire and security issues. • Some contaminated objects (i.e., any chemical or biological material found on the object that may pose a potential hazard to those who use or care for them or other museum objects, such as heavy metals, mold spores, or rodent excrement) may enter the collection, and measures must be taken to appropriately prepare these objects for inclusion in the collection. • Organization of digital monument resource information needs improvement. • A limited number of museum collection items on the grounds, such as wagons and ranching implements, are potentially subject to damage from flash flooding. • All museum collection items may be subject to damage in a major seismic event.

Fundamental Resource or Value	Museum Collections
Opportunities	• Plan and continue conservation work on material culture collection items (e.g., leather conservation, wood conservation, textiles conservation, etc.). • Expand outreach to organizations that could contribute items to the collection. • Evaluate and consider preservation of the Old Spanish Trail collections in the monument collections. • Assist the tribe to develop their museum management program through sharing of technical assistance and professional expertise/guidance. • Develop finding aids for archival collections to improve item location. • Continue to pursue and expand cross-loans with other agencies/organizations, both providing objects and obtaining objects for exhibit purposes. The monument staff would like to expand these relationships and/or pursue longer-term loans. • Implement the monument's historic furnishings plan (2000). The plan's implementation could mitigate damage to certain unique historic objects currently on display in Winsor Castle. • Gather additional oral histories for inclusion in the collection. • Consider ways to make the collections available, such as through web exhibits or a web catalog.
Data and/or GIS Needs	• Condition surveys of collection objects. • Deaccession evaluation. • Expanded oral histories.
Planning Needs	• File/archival management plan. • Comprehensive interpretive plan. • Resource stewardship strategy.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • Museum Act of 1955; 54 USC §102501-102504 • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) **NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (§4.2) "Studies and Collections" • NPS *Management Policies 2006* (chapter 5) "Cultural Resource Management," including (§5.1.3) "Identification and Evaluation of Resources," and (§5.3.5.1) "Archeological Resources" • NPS *Management Policies 2006* (§8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 24: *NPS Museum Collections Management* • Director's Order 28: *Cultural Resource Management* • Director's Order 28A: *Archeology* • *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* • NPS *Museum Handbook, parts I, II, and III*

Analysis of Other Important Resources and Values

Other Important Resource or Value	Partnerships
Current Conditions and Trends	**Conditions** • An ongoing relationship with the Kaibab Paiute Tribe is vital to the operation, resource management, and interpretation of the monument and its resources. • The tribe owns both the visitor center and the administrative building. The National Park Service leases the administrative building. The visitor center / cultural museum is operated as a joint facility under a cooperative agreement with the tribe. Entrance fees are jointly collected for the visitor center / cultural museum and the monument, and are spilt between the partners. • The curatorial facility is owned by the National Park Service, but located on reservation land. Space is shared within the facility for NPS and tribal curators, as is other work space and a research and viewing room. The National Park Service and the tribe have separate repositories in the facility. • The National Park Service and tribe split electricity cost on shared buildings. • The tribe is responsible for maintenance of the shared buildings. • Exhibits in the visitor center were produced by the National Park Service in collaboration with the tribe. There is a sign outside of the visitor center that discusses the partnership. • Under the cooperative agreement between the National Park Service and the tribe, the National Park Service has operated a culinary water system on the reservation since 1972 in exchange for keeping the tribe's portion of spring water on the monument. The National Park Service operates a well house, storage tank, and community distribution system serving a portion of the reservation and the monument. **Trends** • The partnership with the tribe is stronger than it has been in the past, as the monument staff and the tribe continue to work together on various efforts.
Threats and Opportunities	**Threats** • The relationship with the tribe is affected by staffing changes at the monument, and by yearly electoral changes in members of the tribal council. These changes may alter the relationship between the two entities. • Diminishment and/or cessation of spring flow will not only affect monument resources and operations, but also present potential legal complications with other parties having privileges to use of water (Kaibab Band of Paiute Indians and cattlemen's association). **Opportunities** • Continue to educate the public on partnerships between the National Park Service and others – Kaibab Band of Paiute Indians, cattlemen's association. • Continue cultural sensitivity training, which helps staff understand appropriate interactions with the tribe, including the process for collaboration and decision making.
Data and/or GIS Needs	• Expand and update the ethnographic overview and assessment (1997) with comprehensive Southern Paiute ethnohistorical information.
Planning Needs	• Comprehensive interpretive plan.
Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the OIRV** • Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" • Secretarial Order 3355, "Reaffirmation of the Federal Trust Responsibility to Federally Recognized Indian Tribes and Individual Indian Beneficiaries" **NPS Policy-level Guidance (*NPS Management Policies 2006* and Director's Orders)** • *Department of Interior Policy on Consultation with Indian Tribes* • NPS *Management Policies 2006* (§2.3.1.4) "Science and Scholarship" • NPS *Management Policies 2006* (§4.1.4) "Partnerships" • NPS *Management Policies 2006* (§5.1) "Research" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • Director's Order 6: *Interpretation and Education*

Other Important Resource or Value	Natural Landscape
Current Conditions and Trends	**Conditions** • The viewshed is generally in good condition, with limited visual impediments. However, historic views are sometimes obscured by pollution-caused haze. • The monument has a relatively low Anthropogenic Light Ratio as compared to other non-urban NPS units. At these light levels, the Milky Way is visible from horizon to horizon and may show great detail, with fine details such as the Prancing Horse. Zodiacal light (the faint glow at the horizon just before dawn or just after dusk) can be seen under favorable conditions. • The monument provides important habitat for nocturnal wildlife, and with limited outdoor nighttime lighting, the monument helps to preserve the natural night sky conditions of Northern Arizona. • The tribe has recently achieved designation for the Kaibab Indian Reservation with the International Dark-Sky Association. Nearby Grand Canyon-Parashant National Monument and Bryce Canyon National Park have achieved similar designations. The monument has reviewed and altered all exterior lighting to meet dark sky designation requirements. • The soundscape at the monument is important to the natural and cultural resources, and to the visitor experience (i.e., minimizing noise to help better depict what the site would have been like previous to modern development). The monument's acoustic environment is predicted by the NPS Natural Sounds and Night Skies Division to be 4.5 decibels above the natural ambient sound level. This means that the listening area for wildlife and visitors is reduced by 65%. • The monument lies along a military aircraft training route. An agreement with the US Air Force exists for avoidance of the monument by training flights, and monitoring, reporting, and correcting violations. • The monument exhibits great diversity relative to its size, largely due to the valuable source of water within the monument. The spring is the center of the ecology at the monument, and its condition is telling of the condition of the plants and animals within the monument. • Many species use the monument as a migratory stopover, due to the presence of water. • 277 vascular plant taxa have been confirmed or reliably reported as occurring in the monument (representing 6.5% of the known flora of Arizona and 11% of the flora of northern Arizona and the Arizona Strip). Since 2008–2011, 56 new plant species have been documented as present or historical in the monument, including from examination of specimens in the herbarium, additional specimens collected or observed during vegetation mapping surveys, and plant taxa cultivated in the monument's native peoples and pioneer garden. • Bats are extremely well documented at the monument, through intensive studies, with 17 species identified as present. Other mammals in the monument include rodents, bighorn sheep, desert cottontail, cliff chipmunk, cactus mouse, bobcat, and coyote. • To date, 60 species of birds have been recorded at the monument, including four species that had not been previously recorded until 2012: the American kestrel, black-headed grosbeak, hairy woodpecker, and warbling vireo. Of particular note are the California condor and the peregrine falcon. **Trends** • There have been ongoing tribal developments on the adjacent reservation that have impacted the viewshed from the monument. • There have been slight but negligible increases in light pollution from nearby developments. Presumably these will be limited, or controlled pursuant to the dark sky designation of the reservation. • The acoustic environment and soundscape at the monument are gradually becoming more impacted by anthropogenic noise, largely resulting from increasing traffic on Arizona State Highway 389. • Plants and animal populations at the monument are generally stable, and are largely dependent upon continued spring water flow.

Other Important Resource or Value	Natural Landscape
Threats and Opportunities	**Threats** • Increase in mean annual temperature, drought events, and storm frequency/intensity projected for the region due to climate change could impact the natural landscape through changes in water on the landscape and increase in wildfires, upslope vegetation shifts, and increase in invasive species (e.g., yellow starthistle) due to climate change projected for the region. • Increased development and vehicle and air traffic nearby the monument negatively impacts the viewshed, acoustic environment and soundscapes, and night skies. • Air pollution from nearby urban centers, as well as increasing dust, smoke, and particulates from wildfires and controlled burns occurring from climate change, negatively affects expansive viewsheds, air quality, ozone-sensitive plants, and other natural resource values in the monument. At night, air pollution scatters artificial light, increasing the effect of light pollution on the night sky. • Invasive flora and fauna species are negatively impacting native species within the monument. • Future plant and animal populations and health are dependent upon water availability. Excessive water use, and possibly climate change, and continued dwindling water supply will continue to negatively impact these resources. **Opportunities** • Continue long-term monitoring of the natural resources at the monument and stay up to date with ongoing data collection efforts outside the monument, which may benefit the monument (i.e., regional air quality monitoring). • Work with surrounding communities and land management agencies to protect the natural resources of the monument. • Continue involvement in commenting and planning processes for other agencies and neighbors to stay aware of any changes that may affect the natural resources of the monument. • Work with neighbors regarding low-profile and natural future development that blends with the landscape. • Work with the NPS Natural Sounds and Night Skies Division for help interpreting the night sky and acoustic environment and soundscape at the monument, as well as continued technical assistance. • Seek dark sky designation for the monument from the International Dark-Sky Association. • Revise agreement with the US Air Force to increase the size of the avoidance/no-fly bubble around and over the monument. • Expand interpretative and educational tools to communicate the connections between natural landscapes, clear views, air quality/pollution, night skies, climate change, sensitive park resources, human health, and other associated resources. • Continue working with astronomy clubs and universities for night sky programs. • Continue educational outreach with local schools. • Continue cooperative agreement with the Kaibab Band of Paiute Indians for seed collection, storage, sharing, and restoration on the monument and the reservation. • Continue implementing portions of the vegetation management plan as funding and staffing allows.

Other Important Resource or Value	Natural Landscape
Data and/or GIS Needs	• Viewshed analysis. • Formal report synthesizing night sky baseline information. • Baseline soundscape analysis. • Temporal vegetation study. • Continued monitoring of wildlife populations, such as bats and birds. • Fuel loading/reduction data.
Planning Needs	• Viewshed management plan. • Resource stewardship strategy. • Fuel-reduction treatment plan. • Comprehensive interpretive plan. • Update vegetation management plan (2009).
Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the OIRV** • Migratory Bird Treaty Act of 1918 • The Bald and Golden Eagle Protection Act of 1940 • National Environmental Policy Act of 1969 • The Clean Water Act • Clean Air Act of 1977 • Endangered Species Act of 1973, as amended • Federal Noxious Weed Act of 1974, as amended • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" **NPS Policy-level Guidance (*NPS Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (§4.4) "Biological Resource Management," including (§4.4.2.1) "NPS Actions that Remove Native Plants and Animals" and (§4.4.2.4) "Management of Natural Landscapes," (§4.9) "Soundscape Management," (§4.10) "Lightscape Management," (§5.3.1.7) "Cultural Soundscape Management" • NPS *Management Policies 2006* (§4.6.1) "Protection of Surface Waters and Groundwaters" • NPS *Natural Resource Management Reference Manual #77* • Director's Order 47: *Preservation of Acoustic Environment and Noise Management*

Other Important Resource or Value	Ethnographic Resources
Current Conditions and Trends	**Conditions** • There is an extensive information base for understanding plant and animal ethnographic resources, so the lists for these resources are well developed. • Other ethnographic resources are less studied and documented, such as the cultural meaning of air or water in Southern Paiute culture. • Some ethnographic resources are cataloged and stored within the museum collections. These objects are in good condition. • Reference materials for ethnographic resources are included in the monument's library. • Oral histories have been an important component of furthering understanding and documentation of ethnographic resources. Some of these oral histories are used in the monument film and in interactive displays within the visitor center. Oral histories and journals are preserved within the archives. • Because the monument is surrounded by the much larger reservation with similar vegetation, tribal members don't typically come to the monument to gather plants that have ethnographic importance. However, some plants are retained within the monument's landscape to serve interpretive purposes. • An ethnohistorical study of the Mormon-Navajo War and other Navajo transit of the area is currently in progress. **Trends** • The relatively new curatorial facility and the curatorial staff member have greatly improved the protection of ethnographic resources and information in the collections. Similarly, increased research has broadened understanding of these resources.
Threats and Opportunities	**Threats** • Important information that could be gathered through oral histories could be lost as generations age. • Climate change may alter the abundance, range, and timing of ethnographic resources, such as plants and animals. • Potential loss of knowledge before it can be digitized (e.g., if a fire or flooding event damaged materials in the collections or library). **Opportunities** • Pursue, research, and document ethnohistories of Southern Paiute people related to their presence in the area and relationships with Spanish, Mexicans, Mormons, ranchers, Navajo, and federal representatives in the 18th and 19th centuries. • Continue including information about ethnographic resources used historically by both American Indians and Mormons in the monument museum exhibits and interpretive programs and media. • The monument still informally allows tribes to gather plants on the monument. The monument could look into pursuing a renewed agreement for plant gathering, or a forthcoming revision of NPS regulations to permit such uses. • Pursue additional oral history interviews and transcriptions, with Southern Paiute, Mormon descendants, and NPS employees. • Research and increase knowledge of Mormon pioneer ethnobotanical information.
Data and/or GIS Needs	• Expand and update the ethnographic overview and assessment (1997) with comprehensive Southern Paiute ethnohistorical information. • Expanded oral histories.
Planning Needs	• Comprehensive interpretive plan.

Other Important Resource or Value	Ethnographic Resources
Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the OIRV** • National Historic Preservation Act of 1966 • Archaeological Resources Protection Act of 1979 • American Indian Religious Freedom Act of 1978 • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • "Protection of Historic Properties" (36 CFR 800) • Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" **NPS Policy-level Guidance (*NPS Management Policies 2006* and Director's Orders)** • *Department of Interior Policy on Consultation with Indian Tribes* • NPS *Management Policies 2006* (§2.3.1.4) "Science and Scholarship" • NPS *Management Policies 2006* (§4.1.4) "Partnerships" • NPS *Management Policies 2006* (chapter 5) "Cultural Resource Management," including (§5.1) "Research," (§5.1.3) "Identification and Evaluation of Resources," (§5.3.5.1) "Archeological Resources," and (§5.3.5.3) "Ethnographic Resources" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • Director's Order 6: *Interpretation and Education* • Director's Order 28: *Cultural Resource Management* • Director's Order 28A: *Archeology*

Identification of Key Issues and Associated Planning and Data Needs

This section considers key issues to be addressed in planning and management and therefore takes a broader view over the primary focus of part 1. A key issue focuses on a question that is important for a park. Key issues often raise questions regarding park purpose and significance and fundamental and other important resources and values. For example, a key issue may pertain to the potential for a fundamental and other important resource or value in a park to be detrimentally affected by discretionary management decisions. A key issue may also address crucial questions that are not directly related to purpose and significance, but which still affect them indirectly. Usually, a key issue is one that a future planning effort or data collection needs to address and requires a decision by NPS managers.

The following are key issues for Pipe Spring National Monument and the associated planning and data needs to address them:

- **Dwindling Spring Discharge Due to Groundwater Pumping.** The springs and their flowing water are a key historical and natural element at Pipe Spring National Monument. A reliable source of water is necessary to interpret human use and occupation of this area in this isolated part of the West; to sustain the cultural landscape at the monument, including the ponds, orchard, cottonwood tree lines, garden, livestock, and continued flow of water through Winsor Castle; and to preserve the natural biota of the monument. The National Park Service is also legally obligated to provide a portion of the spring flow to the Kaibab Band and an independent, private cattlemen's association. In the otherwise arid, open country of the Arizona Strip, Pipe Spring is an important and rare oasis.

  Sustaining groundwater flow to the springs is one of the most important issues at Pipe Spring National Monument. In 1971, the National Park Service drilled a well along the Sevier Fault on the Kaibab Indian Reservation to supply domestic water to the Kaibab Paiute Reservation and the monument. Following completion of the NPS well and other subsequent wells, groundwater flow to the springs began to decrease. In 1975, the Kaibab Paiute Tribe drilled a well to supply water to Kaibab Village. Other groundwater wells were also drilled for irrigation purposes on the reservation and in the private inholding of Moccasin (estimate 100 population) on the reservation. All of these wells draw water from the same aquifer, and, therefore, impact spring flow at the monument.

  Today, total spring flow remaining on the monument comes primarily from Tunnel Spring. The principal spring under Winsor Castle is dry, and the flow from West Cabin Spring is negligible. Groundwater pumping is the primary cause of spring flow decline at Pipe Spring National Monument. As groundwater pumping continues the springs are projected to cease flowing within five to ten years. The rapidity of this outcome could be further increased by climate change (please see "Climate Change" below for additional information). Future decreases in spring flow and water availability would negatively impact the wetland area within the monument, the many resident and migratory wildlife species dependent upon the water, Pipe Spring's cultural landscape, and the operation of the monument.

  Continued research with the assistance of various NPS technical programs and partners is needed related to the groundwater recharge area, alternative water sources, and current water use both within the monument and by neighbors. Collaboration with monument neighbors regarding future well placement and water conservation strategies is needed to ensure sustainable use of the precious and dwindling water supply.

  Associated planning needs:

  - Water use and conservation strategy.

Associated data needs:

- Data related to groundwater recharge area, including recharge rates.
- Continued monitoring on a monthly basis of (1) spring flow, (2) aquifer levels, and (3) water usage from NPS water system.
- Research alternative water sources.
- Study of vegetative water needs.
- Study of water use.
- Pond storage analysis.

- **Climate Change.** Climate change is a far-reaching and long-term issue that will affect many aspects of Pipe Spring National Monument. The combination of high elevation and a semi-arid climate makes the Colorado Plateau, including the monument, particularly vulnerable to climate change. Climate models predict that over the next 100 years, the Southwest will become warmer and even more arid, with more extreme droughts. Warming-related changes that have been documented at the monument in the past eight decades include: an increase in annual mean temperature, an increase in the average number of days over 100°F, a decrease in the average number of days below freezing, and an earlier centroid of spring runoff than was seen 80 years ago. The mean annual temperature for the area is projected to increase 5.2°–9.2°F by the end of the century. Expected changes with the highest degree of certainty include a longer growing season and similarly longer fire seasons; earlier snow melt and more winter precipitation falling as rain rather than snow; and more evaporation from plants, resulting in less groundwater recharge and reduced spring and stream flows. There will also probably be more large fires, invasion of warm-adapted nonnative species, and large-scale die-offs of vulnerable species during droughts. Less certain is the possibility that the summer monsoon might be stronger and there may be more El Niños, which would enhance winter precipitation. Greater year-to-year variability may also be experienced.

  A warmer and drier landscape will mean a decrease in water resources, both surface and groundwater. Water is important for sustaining the existing ecological systems and the cultural landscape at Pipe Spring National Monument, including contributing factors to the cultural landscape such as the orchards and livestock (please see "Dwindling Spring Discharge Due to Groundwater Pumping" for more information about other stressors on the springs and water resources at the monument). These changes will affect a wide variety of monument resources and processes, including the diversity of high-elevation plant and animal species and pollinators (including the loss of species and establishment of new species), erosion/weathering rates, the timing and severity of floods, the health of spring and riparian ecosystems, fire regimes, and vegetation phenology. A warmer and drier climate may accelerate weathering of monument structures. A dryer landscape may increase the potential for wildland fire that could threaten historic structures and/or cultural sites. An overall warming climate could change visitation patterns and interests at the monument and invite the need for innovations to accommodate these changes (e.g., installation of shade structures, education on the changing climate and sustainability, etc.).

  The monument staff seeks to pursue collaboration on climate change vulnerability assessments with the NPS Climate Change Response Program, the NPS Northern Colorado Plateau Network Inventory & Monitoring Program, and other NPS units with similar vulnerable resources and threats.

  Associated planning needs:

  - Climate change scenario planning, or planning for climate change adaptation in the range of planning efforts and management decisions.

  Associated data needs:

  - Climate change vulnerability assessment for select resources.

- **Research on Old Spanish Trail.** Additional information is needed regarding the potential association between Pipe Spring and the Old Spanish Trail, which was used for trade caravans between New Mexico and California from 1829 to 1849. This trail was designated a national historic trail by Congress in 2002, and the Bureau of Land Management, National Park Service, Old Spanish Trail Association, and other partners work collaboratively to research and interpret the various routes of these caravans. If a study at Pipe Spring were to further enhance determinations that an association exists with the trail, this association would have ramifications for monument management, interpretive and educational programs, and future staffing and partnership needs.

  Associated planning needs:

  - Comprehensive interpretive plan.

- **Development and Uses Adjacent to the Monument.** The area surrounding the monument is largely undeveloped; however, potential tribal, federally permitted, or private development and adjacent land use could negatively impact multiple resources within the monument. These resources include historic structures, the cultural landscape, viewsheds, the acoustic environment and soundscape, night skies, and the visitor experience at the monument. One of the NPS management goals is to preserve and, where possible, to restore the historic scene. Development of these lands for inappropriate or disruptive uses could seriously affect the historic scene and visitor experience.

  Some threats to these resources include potential increases in nearby development; increases in highway traffic or expansion of the travel corridor; military and nonmilitary overflights; expanded energy development, mining operations, and utility corridors; or other developments.

  The monument staff seeks to coordinate with neighboring communities to work toward a cohesive, locally led approach to protect the historic structures and cultural landscape of the monument. This could be accomplished, in part, through engagement in planning processes.

  Associated data needs:

  - Viewshed analysis.
  - Formal report synthesizing night sky baseline information.
  - Baseline soundscape analysis.

- **Regional Presence of Invasive Species.** Nonnative/invasive species have the ability to cause harm to monument resources. Because invasions by nonnative plant and animal species are generally considered to be one of the greatest threats to biological diversity in natural areas, the present distribution and spread of nonnative plant species and the potential threats to native ecosystems are critical issues.

  Within Pipe Spring National Monument, invasive nonnative species pose threats to a variety of monument resources, and new invasives are continually discovered. Of 330 plant species within the monument, 28% are nonnative, though some of these are related to the preservation of the cultural landscape, and therefore, appropriate to maintain under careful management. The spread of cheat grass within the monument contributes to fuel loading and has implications for wildfire events in the future. Invasive birds and domestic animals, and certain "pest" species like deer mice and bats may also pose a threat to the natural and cultural resources of the monument. Air pollution (i.e., nitrogen deposition) is known to increase the distribution of nonnative invasive plants in arid ecosystems, shrublands, and grasslands.

  While the relatively small size of the monument allows monument managers to better control invasive species within the monument boundaries, its small size also increases the need for collaboration with monument neighbors and partners to help control these species just outside of monument boundaries. The monument staff is currently partnering with the NPS Northern Colorado Plateau Network for inventory and monitoring efforts, and could pursue increased collaboration with the Kaibab Band of Paiute Indians for consistent eradication and control efforts.

  Associated planning needs:

  - Update the vegetation management plan (2009).

  Associated data needs:

  - Expand and update the ethnographic overview and assessment (1997) with comprehensive Southern Paiute ethnohistorical information.

- **Facility Footprint on Monument (including Housing).** The monument housing and maintenance area occupies a small but significantly proportionate amount of the monument's acreage. These facilities were installed/built in early years prior to full-fledged mandated compliance procedures and have a definite impact on monument resources. A significant portion of the facilities and associated utility systems overlie archeological sites. The facilities also impact the viewshed from the monument's historic district and visitor use areas. The maintenance shop and associated maintenance facilities (sheds, outdoor storage, parking, etc.) are insufficient for monument purposes. A housing needs assessment was completed in 2014, and it confirmed that there is a deficit in housing, as the need for monument housing is ever increasing (due to lack of, and cost of nearby housing for employees, Volunteers-in-Parks, and cooperators). Simple elimination of these facilities is not an option, as they must be maintained and utilized as is, or replaced. An alternative option may be partnership development and relocation of such facilities on Kaibab Reservation lands.

  Associated planning needs:

  - Development concept plan for housing and maintenance area.

- **Operational Efficiencies and Relationship with the Zion Park Group.** Pipe Spring National Monument is managed as part of the Zion Park Group, which also includes Zion National Park and Cedar Breaks National Monument. This is a common practice in the national park system, as managing groupings of park units is intended to reduce operational redundancies, increase collaboration, and share staff and expertise, responsibilities, and funds. However, these groupings provide some unique challenges in addition to these benefits.

  Sharing of technical experts and specialized staff members makes it difficult at times to cover the needs of all three parks. The disparity between the park units, both in terms of difference in resources, history, and issues, as well as individual management goals at given units, presents unique challenges to the management of the group. Relationships between shared staff are positive and work effectively when staff members have adequate time to dedicate to each unit in the Zion Park Group. When technical experts are highly needed at one unit, there may be a significant delay before they can address needs at the other. This sometimes causes a lag for Pipe Spring staff as they wait for this expertise.

  Requesting funds to be shared between the three park units is a challenge and often confusing. Through the web-based NPS Operations Formula System, one park must request, or sponsor, such shared funds for the three units, often simplistically appearing as if they are requesting those funds for their sole use. The inability to articulate or segment specific funding needs for each individual unit results in confusion and makes competing for those funds difficult. The tracking of such shared Operation of the National Park System base funds is also challenging, but quite important to ensuring that each park's proportionate allocation is maintained.

  The three-park group has achieved success in unified Service-wide Combined Call / Project Management Information System project proposals and that practice should continue. Opportunities may also exist for sharing Federal Lands Recreation Enhancement Act park revenue between the group parks, however, this strategy needs further discussion, agreement, and formalization.

  Additionally, the Zion Park Group must navigate how to share funds raised by the Zion National Park Foundation, which serves all three parks. There is currently no formal agreement as to how to split those funds.

  An updated standard operating procedures document and/or strategic plan for park group management would better help the three park units determine how best to share these vital resources in order to ensure the needs of each park are being met. This continued and increased collaboration would be to the benefit of all three park units.

  Associated planning needs:

  - Develop and implement a strategic plan for Zion Park Group.

Planning and Data Needs

To maintain connection to the core elements of the foundation and the importance of these core foundation elements, the planning and data needs listed here are directly related to protecting fundamental resources and values, park significance, and park purpose, as well as addressing key issues. To successfully undertake a planning effort, information from sources such as inventories, studies, research activities, and analyses may be required to provide adequate knowledge of park resources and visitor information. Such information sources have been identified as data needs. Geospatial mapping tasks and products are included in data needs.

Items considered of the utmost importance were identified as high priority, and other items identified, but not rising to the level of high priority, were listed as either medium- or low-priority needs. These priorities inform park management efforts to secure funding and support for planning projects.

Planning Needs – Where A Decision-making Process Is Needed			
Related to an FRV, OIRV, or Parkwide Issue (PWI)?	**Planning Needs**	**Priority (H, M, L)**	**Notes**
Historic Structures	Historic structure treatment plan	H	This plan would identify how to implement recommendations in the historic structure report, pond study, and other sources of info.
Springs/Water; PWI: Dwindling Spring Discharge	Water use and conservation strategy	H	This strategy could be developed in collaboration with the local community and other users, and in partnership with the Kaibab Band of Paiute Indians. It would provide guidance for water conservation strategies, and would include community outreach and education.
Cultural Landscape	Cultural landscape report	H	This plan would include treatment recommendations for the cultural landscape (including irrigation practices) to supplement the *Pipe Spring National Monument Vegetation Management Plan* (2009). It could potentially include the orchard/garden management plan, if applicable.
Cultural Landscape	Orchard/garden management plan	H	This plan would include management strategies for the recreated orchard and garden at the monument. These strategies would address pests; the appropriate species, varieties, and types of plants; pruning methods; spacing/organization/layout; ground cover; and irrigation of the garden. This plan would incorporate the results of the taxonomic study and the ethnobotanical study.
Museum Collections	File/archival management plan	H	This plan is needed to identify a strategy for file management in order to gather, digitize, and move items from central files to the archives. This may include research that has been gathered for use in interpretive programs or private study that is not part of the archives, but could help inform monument management or future interpretive, educational, or scientific purposes. This effort would include implementation of the plan, through making gathered information accessible to staff.
All FRVs and OIRVs; PWI: Research on Old Spanish Trail	Comprehensive interpretive plan	H	To provide a vision for the future of interpretation, education, and visitor experience opportunities at the monument. This plan would identify and analyze interpretation, education, and visitor experience goals and issues. The plan would recommend the most effective, efficient, and practical way to address these goals and issues.
PWI: Facility Footprint on Monument	Development concept plan for housing and maintenance area	H	The monument needs a development concept plan to provide recommendations for use and design of the housing and maintenance area. There is a limited amount of NPS acreage at this site overall, and there are impacts associated with maintenance and housing facilities in such close proximity. This plan would reexamine the presence of both of these uses, and suggest alternate configurations/locations. It would likely be developed in cooperation with the tribe.
Archeological Sites	Develop an inadvertent discovery plan for archeological resources and potential NAGPRA resources	M	Work with affiliated tribes to determine appropriate monument response for inadvertent discovery of NAGPRA items.

Planning Needs – Where A Decision-making Process Is Needed			
Related to an FRV, OIRV, or Parkwide Issue (PWI)?	**Planning Needs**	**Priority (H, M, L)**	**Notes**
Natural Landscape	Viewshed management plan	M	This plan identifies critical views within and beyond monument boundaries and recommends steps to preserve them for scenic and as related, historic values. This plan would be informed by the viewshed analysis and monitoring protocol to be developed.
Natural Landscape; PWI: Regional Presence of Invasive Species	Update vegetation management plan (2009)	M	An update is needed to the monument's vegetation management plan (2009) related to management of vegetation at the housing area, visitor center, and maintenance area, and would also address invasive species in the developed area.
Natural Landscape	Fuel-reduction treatment plan	M	In order to clear accumulated fuels like fallen branches and dead trees through thinning, prescribed burns, or combinations of the two. This plan would help managers strategically place fuel treatments to help achieve various goals, such as preserving certain flora species and improving wildlife habitat.
PWI: Zion Park Group	Develop and implement a strategic plan for Zion Park Group	M	This plan would provide guidance regarding management and sharing staff, funds, foundation funds, and responsibilities with the Zion Park Group. The plan could also explore a more appropriate name for the "group" that is more inclusive and would recognize each park as a full partner. Addressing administrative obstacles would help the group achieve many of the operational efficiencies intended.
Historic Structures	National register amendment	L	Amend the National Register of Historic Places documents to expand the period of significance at the monument to include early-NPS and CCC history at site. The documents may also be amended to include the Honeymoon Trail as contributing feature of the historic district.
Historic Structures	Accessibility self-assessment and transition plan	L	This plan would evaluate and assess physical barriers to accessibility, both structural and programmatic. The outcome of the plan is an accessible and spatially referenced document that will guide monument staff and decision makers in assessing, prioritizing, and implementing solutions for universal accessibility, if deemed appropriate.
Archeological Sites; Cultural Landscape; Springs/Water; Museum Collections; Natural Landscape	Resource stewardship strategy	L	This document focuses on identifying and tracking indicators of desired conditions, recommending comprehensive strategies to achieve and maintain desired conditions over time, and assessing and updating these strategies periodically based on new information and the results of completed activities. This document would build off of this foundation document, and provide guidance for many cross-cutting issues at the monument.
Archeological Sites; Historic Structures; Springs/Water; PWI: Climate Change	Climate change scenario planning, or planning for climate change adaptation in the range of planning efforts and management decisions	L	This planning process develops a range of plausible science-based scenarios of the future that informs development of climate change adaptation strategies that serve monument planning needs, resources, and visitors in a rapidly changing environment. This plan builds off of information from the climate change vulnerability assessment. It should also incorporate existing monument data regarding rainfall and hydrology, including the 40-year rainfall analysis completed in 2009.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Parkwide Issue (PWI)?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes, Including Which Planning Need This Data Need Relates To**
Historic Structures; Springs/Water	Seismic risk assessment	H	A previous seismic risk assessment may have been completed, but an update is likely needed. This threat relates both to cultural resources as well as the impact to availability and timing of water from the springs.
Cultural Landscape	Organization and management of existing GIS data	H	Work with Zion National Park staff and the region to complete this effort. This effort would be ongoing as more information is obtained.
Springs/Water; PWI: Dwindling Spring Discharge	Data related to groundwater recharge rate and extent of the recharge area	H	This information would help inform monument management and would contribute to the water use and conservation plan.
Museum Collections; Ethnographic Resources	Expanded oral histories	H	This effort would include tribes, past NPS employees, and descendants of Winsor Castle occupants.
Natural Landscape; PWI: Development and Uses Adjacent to Monument	Formal report synthesizing night sky baseline information	H	Baseline information for night skies at the monument has been collected in collaboration with the NPS Natural Sounds & Night Skies Division. This information needs to be synthesized into a formal report prior to any future development at or nearby the monument. If possible, future monitoring of the night sky could also include photo documentation.
PWI: Dwindling Spring Discharge	Research alternative water sources	H	This information would help inform monument management and would contribute to the water use and conservation plan.
Cultural Landscape; PWI: Dwindling Spring Discharge	Study of vegetative water needs	H	This information would include how much water is needed for orchard trees, other vegetation, and other uses. It would inform the cultural landscape management plan and the developed area vegetation management plan.
PWI: Dwindling Spring Discharge	Study of water use	H	This information would include where and how much water is being used beyond the monument. The monument currently does not have water use data for the tribe's well for the nearby town of Moccasin, though the hydrologic systems in the area are intricately linked. It will inform the water use and conservation plan.
Cultural Landscape	Data review and additional research related to the Honeymoon Trail	H	This effort would include compiling existing historical information on the Honeymoon Trail (including past efforts toward a national register nomination by the Bureau of Land Management), evaluating the deficiencies in that information, and performing additional research to obtain missing information. This effort would help support a revision to the national register nomination for the Honeymoon Trail.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Parkwide Issue (PWI)?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes, Including Which Planning Need This Data Need Relates To**
PWI: Dwindling Spring Discharge	Continued monitoring on a monthly basis of (1) spring flow, (2) aquifer levels, and (3) water usage from NPS water system	H	This information would help inform monument management and would contribute to the water use and conservation plan. This effort is ongoing and needs to be continued into the future.
Cultural Landscape	Data review related to the Armijo Route of the Old Spanish National Historic Trail	M	This effort would include compiling existing historical information related to the Armijo Route of the Old Spanish National Historic Trail, including information on the secondary use of the Armijo Route.
Cultural Landscape	Determination of eligibility for NPS and CCC cultural landscapes	M	This information would inform the need to amend the National Register of Historic Places documents to expand the period of significance at the monument to include early-NPS and CCC history at site.
Cultural Landscape	Taxonomic study of plums and grapes in orchard	M	As recommended in *Pipe Spring National Monument Vegetation Management Plan* (2009), this data could help inform a future orchard/garden management plan, but is not necessary to its completion.
Museum Collections	Condition surveys of collection objects	M	These surveys would prioritize preservation efforts for more sensitive items like furnishings, perishable items, textiles, and items on display (i.e., wagons). Ideally it would include all collection objects, and would include treatment recommendations.
Museum Collections	Deaccession evaluation	M	This evaluation would consider removing items from the collection that are inappropriate or duplicative.
Archeological Sites; Historic Structures; Springs/Water; PWI: Climate Change	Climate change vulnerability assessment for select resources	M	This information would help the monument better understand impacts of climate change on monument resources, including the aquifer and historic structures. This effort could build off of information in the state of the monument report and the foundation document. The finished assessment will inform the climate change scenario planning effort.
Natural Landscape; PWI: Development and Uses Adjacent to the Monument	Viewshed analysis	M	A viewshed analysis would document key viewsheds within and looking out from the monument. It would include photo point monitoring from these locations. This information would inform the viewshed management plan.
Natural Landscape; PWI: Development and Uses Adjacent to the Monument	Baseline soundscape analysis	M	Information would be gathered in collaboration with the NPS Natural Sounds & Night Skies Division.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Parkwide Issue (PWI)?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes, Including Which Planning Need This Data Need Relates To**
Natural Landscape	Continued monitoring of wildlife populations, such as bats and birds	M	Previous studies have been completed on bat populations in the monument, but continual monitoring is needed. This effort would include audio recording. Monitoring of other wildlife populations (such as birds) is also needed.
Partnerships; Ethnographic Resources; PWI: Regional Presence of Invasive Species	Expand and update *Ethnographic Overview and Assessment* (1997) with comprehensive Southern Paiute ethnohistorical information	M	This update would seek to improve the information in the existing ethnographic overview and assessment (1997) as it relates to Pipe Spring National Monument. Additional information would include an ethnohistorical survey which describes the importance of place, place names, ethnobotanical information, and any information gathered through oral histories. The monument could collaborate with the tribes to complete this work, including sharing available staff in both directions. The ethnobotanical piece of this update would complement the management strategies as identified in the vegetation management plan (2009). This would help ensure that NPS staff are treating plants with ethnographic importance properly, even if they are identified as invasive species. It would also help prioritize which plants should be managed/restored at the monument and examine how management of these plants within the monument may influence the larger environment.
Natural Landscape	Fuel loading/reduction data	M	This data would consider vegetation assessment and burn times to inform the fuel loading and reduction treatment plan. If data exists from the Bureau of Indian Affairs, this effort would incorporate that existing data.
Cultural Landscape	Continued GPS mapping of vegetation	L	Continued efforts to map trees and other vegetation types in the monument (with both points and polygons to inform GIS).
Archeological Sites	Analysis of archeological resources	L	Through chemical analysis, obsidian hydration, and C-14 carbon dating, of existing or future items.
Archeological Sites	Write determination of eligibility for archeological sites	L	Assess archeological sites to determine if eligible for listing in the National Register of Historic Places. This effort would also include CCC camp.
Natural Landscape	Temporal vegetation study	L	This study would illustrate how vegetation has changed over time, and would include understanding how climate change, fire, and other factors have influenced vegetation. This effort would inform vegetation management and interpretation at the monument.
PWI: Dwindling Spring Discharge	Pond storage analysis	L	Analysis would include evaporation rates and how much water is being lost from the ponds through leaks. It would help inform the cultural landscape management plan.

Part 3: Contributors

Pipe Spring National Monument

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Appendixes

Appendix A: Presidential Proclamation for Pipe Spring National Monument

Presidential Proclamation 1663 of May 31, 1923, Established Pipe Spring National Monument (43 Stat. 1913)

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 Deseret 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,

National Monument, Arizona.
Vol. 34, p. 225.

NOW, THEREFORE, I, Warren 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 annexed and made a part hereof and more particularly described as follows:

Description.

The southeast quarter of the southeast quarter of section seventeen, township forty north, range four west, Gila and Salt River Base and Meridian.

Reserved from settlement, etc.

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.

Supervision, etc., by Director of National Park Service.
Vol. 39, p. 535.
Vol. 41, p. 732.

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 act 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 puposes, under regulations to be prescribed by the Secretary of the Interior.

IN WITNESS WHEREOF, I have hereunto 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 [SEAL.] twenty-three, and of the Independence of the United States of America the one hundred and forty-seventh.

WARREN G HARDING

By the President:
CHARLES E. HUGHES
Secretary of State.

Appendix B: Inventory of Special Mandates, Special Designations, and Administrative Commitments

Special Mandates

Water privileges from Pipe Spring. Presidential proclamation 1663 (May 31, 1923) established Pipe Spring National Monument and placed it under the direction of the Secretary of the Interior, 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." This mandate resulted in a division of the waters of the springs equally, one-third to the monument, one-third to the Kaibab-Paiute Indian Tribe, and one-third to the stockmen, as represented by a memorandum of agreement signed June 9, 1924. Subsequent Secretarial Order (1933) and memorandums of agreement (1972, 1996, and 2009) were initiated in order to more fully articulate these water privileges.

Special Designations

National Register of Historic Places. Pipe Spring National Monument was listed in the National Register of Historic Places on October 15, 1966, and the boundaries of the Pipe Spring National Monument Historic District (a portion of the monument) were expanded in October 2000. The historic district includes three historic sandstone buildings (the imposing Pipe Spring fort, flanked by two small cabins); two historic-period sites (the Whitmore-McInytre dugout and lime kiln); and three structures associated with the site's history (the quarry trail, fort ponds, and retaining walls northeast of the fort).

Old Spanish National Historic Trail. The first documented European American visit to the spring was made by Antonito Armijo on an "Old Spanish Trail" expedition in 1829, in search of a trade route to the coast. Armijo and his group returned by the same route in 1830. His route is part of the recently dedicated Old Spanish National Historic Trail.

Administrative Commitments

Title / Agency / Organization	Purpose / Description	Expiration Date	Responsible Party
Memorandums of Understanding (MOU)			
Gathering of Plant Resources for American Indian Traditional Cultural-Religious Purposes from National Park Lands	Allows tribal members to gather plants in the park for traditional cultural-religious purposes under prescribed conditions.	This agreement is formally expired, though NPS regulations are undergoing revision related to American Indian gathering of plant resources	National Park Service (Zion National Park, Cedar Breaks National Monument, and Pipe Spring National Monument); Kaibab Band of Paiute Indians, Moapa-Paiute Indian Tribe, and the Paiute Indian Tribe of Utah
General Agreements			
Water privileges from Pipe Spring	Construction and operation of a domestic water system on the Kaibab Indian Reservation in exchange for retention of tribe's one-third of spring flow on the monument.	4/13/1972; Revised / renewed 12/5/2011; expires 12/5/2036	Kaibab Band of Paiute Indians , National Park Service, Bureau of Indian Affairs
Groundwater monitoring agreement	Groundwater monitoring wells on Kaibab Indian Reservation.	12/31/2015 (extension currently sought)	Kaibab Band of Paiute Indians, National Park Service
Umbrella facilities agreement – visitor center and administrative buildings	Cooperative construction, occupancy, and operation of visitor center / rehabilitation of administrative offices.	11/01/2032	Kaibab Band of Paiute Indians, National Park Service
Administrative office agreement	Occupancy and payment for administrative office building.	11/01/2032	Kaibab Band of Paiute Indians, National Park Service
Curatorial storage facility	Cooperative construction, occupancy, and operation of curatorial storage facility.	11/01/2032	Kaibab Band of Paiute Indians, National Park Service
Visitor services agreement	Informal agreement to provide support to Grand Canyon National Park-Tuweep operations; issue Grand Canyon National Park backcountry permits.	None	Pipe Spring National Monument; Grand Canyon National Park
Visitor services agreement	Informal agreement to provide visitor information for Parashant National Monument at Pipe Spring National Monument visitor center.	None	Pipe Spring National Monument; Grand Canyon – Parashant National Monument

Title / Agency / Organization	Purpose / Description	Expiration Date	Responsible Party
Interagency Agreements (IA)			
Informal law enforcement, fire, and EMS agreements with local municipalities	Formalization of these agreements needed when appropriate.	None	Colorado City, AZ; Fredonia, AZ; Kanab, UT
Cooperative Agreements			
Zion Natural History Association	To work together with the National Park Service to provide park visitors with valuable interpretive and educational materials to facilitate an expanded appreciation of the National Park Service.	2/17/2016	Zion National Park Group; Zion Natural History Association; Zion National Park Foundation

Appendix C: Past Planning and Data Collection Efforts

Planning Document	Year
Water Resources Report	1933
Woodward, *A. Brief Historical Sketch of Pipe Springs, Arizona*	1941
Bradley, Z.A. *The Whitmore-McIntyre Dugout, Pipe Springs National Monument,* Part II: Excavation	1959
Utilities Project, Archeological Report	1971
Historic American Buildings Survey, Pipe Spring Fort	1971
Master Plan	1974
Interim Interpretive Plan	1977
Barrett, D.C. and O.R. Williams. *An Evaluation of the Decline in Spring Flow at Pipe Spring NM*	1986
National Register of Historic Places, Nomination, Pipe Spring National Monument	1986
Scope of Collection Statement	1986
Statement for Management	1987
Statement for Management	1990
Archeological Study of Historic Structures HS-2 and HS-3	1991
Heilweil, V.M. and G.W. Freethey. *Simulation of Ground-Water Flow and Water-Level Declines that Could be Caused by Proposed Withdrawals, Navajo Sandstone, Southwestern Utah and Northwestern Arizona*	1992
Statement for Management	1995
Oral History Collection, Volumes I, II, III, and IV	1996
Ethnographic Overview and Assessment: Zion National Park, Utah and Pipe Spring National Monument, Arizona	1997
Scope of Collection Statement	1997
Monitoring and Analysis of Spring Flows at Pipe Spring National Monument	1997
Strategic Plan & Annual Plan 1997	1997
Baseline Water Quality Data Inventory and Analysis	1999
Truini, M. *Geohydrology of Pipe Spring National Monument Area, Northern Arizona*	1999
Inventory Study Plan for Vascular Plants and Vertebrates: Northern Colorado Plateau Network	2000
McKoy, K.L. *Cultures at a Crossroads: An Administrative History of Pipe Spring National Monument*	2000
Historic Furnishings Report: Winsor Castle (HS-1), East Cabin (HS-2), and West Cabin (HS-3)	2000
Long-range Interpretive Plan	2000
National Register of Historic Places, Registration Form for Boundary Increase, Pipe Spring National Monument Historic District	2000
First-Year Results for Herpetofauna Inventories of Southern and Northern Colorado Plateau National Parks	2002

Planning Document	Year
Mammal Inventories of Selected Parks in the Northern Colorado Plateau Network	2002
Paleontological Resource Inventory and Monitoring, Northern Colorado Plateau Network	2002
Northern Colorado Plateau Network, Herpetofauna Inventory, Annual Report	2003
2001–2002 Mammalian Inventory Final Report for Selected Northern Colorado Plateau Network Parks	2003
Northern Colorado Plateau Vital Signs Network and Prototype Cluster Plan for Natural Resources Monitoring	2003
Water Quality Vital Signs	2003
Pipe Spring National Monument Avian Inventory, 1998–2001	2004
Climate Monitoring Protocol for the Park Units in the Northern Colorado Plateau Network	2004
Preliminary Investigation of Structural Controls of Ground-Water Movement in Pipe Spring National Monument, Arizona	2004
Truini, Margot;Fleming, J.B.; Pierce, H.A., *Preliminary investigation of structural controls of ground-water movement in Pipe Spring National Monument,* Arizona, U.S. Geological Survey, Scientific Investigations Report SIR-2004-5082, 1:7630 scale	2004
Truini, Margot;Fleming, J.B.; Pierce, H.A., *Preliminary investigation of structural controls of ground-water movement in Pipe Spring National Monument*, Arizona, U.S. Geological Survey, Scientific Investigations Report SIR-2004-5082, 1:7630 scale	2004
Billingsley, G.H., Priest, S.S., and Felger, T.J., *Geologic map of Pipe Spring National Monument and the western Kaibab-Paiute Indian Reservation, Mohave County, Arizona*, U.S. Geological Survey, Scientific Investigations Map, 1:31680 scale	2004
Road Inventory of Pipe Spring National Monument	2005
Vital Signs Monitoring Plan, Northern Colorado Plateau Inventory and Monitoring Network	2005
Inventory and Classification of Selected National Park Service Springs on the Colorado Plateau, Northern Colorado Plateau Inventory and Monitoring Network	2006
Weather and Climate Inventory, Northern Colorado Plateau Network	2006
Cultural Landscape Inventory, Pipe Spring Historic District	2006
Summary of Spring Flow Decline and Local Hydrogeologic Studies, 1969–2007	2007
Annotated Checklist of Vascular Flora	2008
Vegetation Classification and Mapping Project Report	2008
Intermountain Region New Deal Resources: Research Findings for Pipe Spring National Monument	2008
Land Bird Monitoring Protocol for the Park Units in the Northern Colorado Plateau Network	2009
Fowler, D.D. and Fowler, *C.S. John Wesley Powell's Anthropological Fieldwork*	2009
Vegetation Management Plan, Phase I, Alternative Actions	2009

Planning Document	Year
Physical Resources Information and Issues Overview Report: Pipe Spring National Monument	2009
Climate Change in the Northern Colorado Plateau Network: Current Findings and How Future Monitoring Will Detect It	2010
Geologic Resources Inventory Report	2010
Vegetation Management Plan, Phase II	2010
Land Condition Monitoring, Monitoring Brief, Northern Colorado Plateau Network	2011
Land Cover Monitoring, Monitoring Brief, Northern Colorado Plateau Network	2011
Evaluation of the Sensitivity of Inventory and Monitoring National Parks to Acidification Effects from Atmospheric Sulfur and Nitrogen Deposition, Northern Colorado Plateau Network	2011
Evaluation of the Sensitivity of Inventory and Monitoring National Parks to Nutrient Enrichment Effects from Atmospheric Nitrogen Deposition, Northern Colorado Plateau Network	2011
Remote Sensing of Vegetation Phenology and Snow-cover Extent in Northern Colorado Plateau Network Parks, Status and Trends 2010	2011
Vegetation Mapping at Pipe Spring National Monument, Information Brief, Northern Colorado Plateau Network	2011
Climate Monitoring, Monitoring Brief, Northern Colorado Plateau Network	2012
Landscape Dynamics, Monitoring Brief, Northern Colorado Plateau Network	2012
Vascular Plant Species Discoveries in the Northern Colorado Plateau Network, Update for 2008-2011	2012
Taylor, J.R., Bornemeier, A., Van Alfen, A., and C. Jack. *Bat research and interpretive programming: Increasing public interest in Pipe Spring National Monument*	2013
Visitor Survey Card Data Report	2013
Climate Monitoring in the Northern Colorado Plateau Network, Annual Report 2011	2013
Screening for Contaminants of Emerging Concern in the Northern Colorado Plateau Network, 2010 and 2012	2013
Land Surface Phenology, Monitoring Brief, Northern Colorado Plateau Network	2013
Landscape Dynamics Monitoring Protocol for the Park Units in the Northern Colorado Plateau Network	2013
Natural Resource Monitoring at Pipe Spring National Monument, Park Monitoring Brief	2013
Landbirds Monitoring, Monitoring Brief, Northern Colorado Plateau Network	2014
Landbird Monitoring in the Northern Colorado Plateau Network, 2013 Field Season	2014
Recent Climate Change Exposure of Pipe Spring National Monument, Resource Brief	2014

Appendix D: Traditionally Associated Tribes

Hopi Tribe of Arizona

Hopi Tribal Council
PO Box 123
Kykotsmovi, AZ 86039

Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona

Kaibab Paiute Tribal Council
HC 65, Box 2
Fredonia, AZ 86022

Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony, Nevada

Las Vegas Paiute Council
1 Paiute Drive
Las Vegas, NV 89106

Moapa Band of Paiute Indians of the Moapa River Indian Reservation, Nevada

Moapa Band of Paiutes Tribal Council
PO Box 340
Moapa, NV 89025

Navajo Nation, Arizona, New Mexico, and Utah

Navajo Nation Tribal Council
PO Box 7440
Window Rock, AZ 86515

Paiute Indian Tribe of Utah

Paiute Indian Tribe of Utah Tribal Council
440 N. Paiute Drive
Cedar City, UT 84721

San Juan Southern Paiute Tribe of Arizona

San Juan Southern Paiute Tribal Council
PO Box 1989
Tuba City, AZ 86045

Intermountain Region Foundation Document Recommendation
Pipe Spring National Monument

October 2015

This Foundation Document has been prepared as a collaborative effort between park and regional staff and is recommended for approval by the Intermountain Regional Director.

October 13, 2015

RECOMMENDED
John Hiscock, Superintendent, Pipe Spring National Monument **Date**

10/27/15

APPROVED
Sue E. Masica, Regional Director, Intermountain Region **Date**

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and 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 U.S. administration.

PISP 321/127543
November 2015

Foundation Document • Pipe Spring National Monument

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