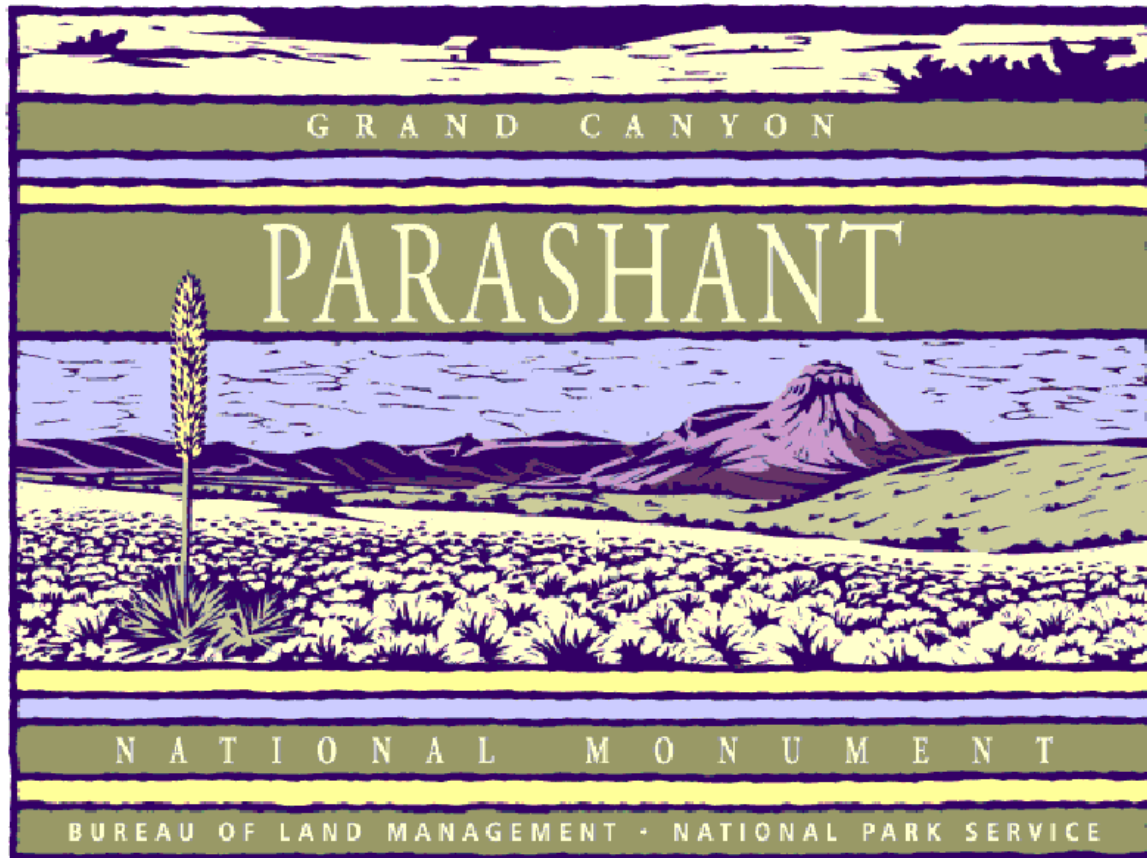


**Grand Canyon-Parashant,
A Service First National Monument
Fiscal Year 2011 Monument Managers Report
(October 1, 2010 – September 30, 2011)**



Introduction

1. Grand Canyon Parashant-National Monument (GCPNM)

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Website: www.blm.gov/az/st/en/prog/blm_special_areas/natmon/gcp.html
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2. BLM Manager: Pamela McAlpin / NPS Superintendent: Rosie Pepito

3. Arizona Strip District, Arizona State Office; Lake Mead National Recreation Area, Pacific West Region

4. Grand Canyon-Parashant National Monument was designated by Presidential Proclamation #7265 on January 11, 2000. The GCPNM was established to ensure protection of a wide variety of biological objects at the junction of the Mojave Desert and Colorado Plateau and a long and rich human history, which have been preserved by remoteness and limited travel corridors. The Monument encompasses geological treasures, is full of natural splendor and offers visitors a sense of solitude.



5. Total acres - 1,048,316 (808,744 acres BLM administered, 208,447 acres NPS administered, 23,205 acres of Arizona State Trust lands, 6,000 acres of private land).

6. The estimated annual visitation was 72,655.

Grand Canyon-Parashant National Monument Map as of 2011



1. Natural and Heritage Resources Conditions

An issue of major concern is the loss of native plant diversity in the Mojave Desert caused by a significant change in the fire regime. From 2005 to 2007, a total of 183,343 acres burned in that area. The biological diversity and critical habitat for the threatened desert tortoise in the Mojave Desert continue to be threatened and the conversion to annual exotics continues to be a significant challenge. In July 2011, the Hidden Fire burned an additional 17,000 acres. It was located in an area that has repeatedly burned over the years. Fire behavior was once again driven by exotic annuals.

- **Natural resources trends:**

- In 2011 a monitoring program was established through the NPS' Mojave Desert Inventory and Monitoring Network (I&M) for a water quality program using protocols and parameters for selected springs and surface water sources.
- Planning for an air quality program was initiated. Stations will monitor ozone, dust particulates, nitrogen and sulfate depositions among the varied topography, weather patterns, and prevailing winds of the Monument.
- Noxious weeds continue to be inventoried and treated. Numerous noxious and invasive weeds, including Scotch Thistle and Bromes continue to be an issue on the Parashant.
- At Pakeon Springs efforts were continued to reduce the population of aquatic invasives.

- **Heritage resources trends:**

- The condition trend seems fairly flat with only a minor decrease in the condition due to wildfire, fire rehabilitation efforts, forestry restoration activities, fuels management activities, vandalism, and adverse impacts due to natural phenomena such as erosion and weathering.

- **Land Health Assessments:**

- Eighty-four percent of the "permitted" grazing allotment assessments under the oversight of the Monument have been completed using the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration.
- The remaining 16% are in draft. These assessments evaluated upland, riparian/wetland and Desired Resource Conditions standards. Two additional allotments on NPS lands will be assessed using the NPS Vital Signs standards.
- Report annual accomplishments toward assessing and meeting land health standards.
 - According to the assessments, 38% of the allotments are meeting standards for rangeland health and 62% are progressing toward meeting standards. During Fiscal Year 2011 two assessments were completed.
 - Compliance and monitoring was conducted for 29 allotments.

- **Inventory:**

- Natural Resource Inventories
 - Cave biological inventories were conducted at four caves known to have unique biodiversity and endemic species to the GCPNM.
 - Results of this inventory included the largest *Myotis* bat hibernacula in the state of Arizona. Cave biological inventories continue as a method to monitor for any symptoms of white nose syndrome, a disease responsible for over 5 million bat mortalities in the Eastern US.
- Heritage Resources Inventories
 - Prehistoric: Contractors, field schools, and NPS and BLM archaeologists conducted archaeological survey work on both BLM and NPS lands on the Monument. 3302 acres were inventoried at a Class II or III level yielding 125 new sites of which 65 are potentially eligible for the National Register. Nevada State College continued their field school inventories near Mt. Trumbull. The GIS database was maintained and expanded to include the NPS portion of the Monument and to include feature-level details for the site records. A complete inventory of all cultural archives and collections was initiated.
 - Historic: The second year of the GCPNM American Indian Youth Cultural Resource Internship, jointly funded with Youth Initiative funding by both BLM and NPS, focused primarily on stabilizing and restoring the historic Pine Ranch Headquarters located near Mt. Dellenbaugh. The structure was cleaned, reset on its post foundations, the shake roof was replaced, and the exterior sheathing and porch were restored. In addition to the Historic Preservation work, the project conducted 800 acres of Class III inventory that identified 56 new cultural properties.

- **Restoration:**

- The Lake Mead Exotic Plant Management Team (EPMT) worked on a Service First project with GCPNM to control tamarisk. Treatment methods included cutting stumps with chainsaws and applying low volume basal spray with herbicide. This project was efficiently implemented by supplementing and partnering with the expertise of the EPMT. Follow up treatments are being planned for FY12 including any retreatment and revegetation if necessary.



- The GCPNM maintains and monitors two forage reserve allotments. 6,258.5 hours of restoration projects were completed by BLM employees, American Conservation Experience crews and Southern Utah University Internship crews. Work included repairing 15 miles of fenceline, replacing 3 livestock watering troughs, and repairing 7.25 miles of pipeline.
- The Arizona Strip Fire Management Program completed five restoration fuels treatments over 2,610 monitored acres. Two were multiple objective fires that achieved hazardous fuels reduction in order to protect the late succession Ponderosa pine. One was a shaded fuel break to prevent crown fires. Two were thinning and burning of overstocked ponderosa pine/piñon-juniper.



2. Recreation Facilities, Roads, and Trails Conditions

- **Overview:**

- Overall, physical facilities, including roads and trails are in good condition and provide for a positive user experience.



GCPNM has 941 required data elements, of which 796 are populated in FAMS for a percent complete of 84.6 elements. The total number of owned constructed assets in the GCPNM is 127. One hundred eleven are in Quadrant 1 and three are in Quadrant 2, for a total of 114 high priority assets. The percentage of high priority assets in adequate condition is 97 percent.



- **Construction:**

- One hundred twenty feet of new ADA accessible sidewalks were constructed at the NPS Mt. Dellenbaugh Administrative Site.

- **Maintenance:**

- There is a deferred maintenance backlog of \$ 2,664,212 on a current replacement value of 14,658,318.
- Annual maintenance is meeting the needs of the BLM and visitors.

- **Signage:**

- A sign plan was completed by Harpers Ferry Center Interpretive Design Center in 2005. The sign plan is being implemented to provide a common vision and identity while providing for directional and interpretive support.
- Replacement signs comply with the jointly developed BLM and NPS sign plan which incorporated design elements from BLM Sign Manual and NPS **UNI**sign System.

- **Travel Management Implementation:**

- In the summer 2011, four summer interns marked routes in the Mt. Logan, Mt. Trumbull and Whitmore Canyon regions. Specific routes identified to be closed in the 2008 RMP were reviewed by Range Management, as having the least possible known conflicts with permittees. In addition to the closures, inventories of Route “*Closures/ Limited to Admin*” use only routes began. This data will populate a spreadsheet that will be integrated into our TMP GIS, which will allow us to:
 - Develop an accurate picture of what structures are needed to implement our TMP decisions.
 - Develop a budget that accurately reflects the on-the-ground situation.
 - Plan field work to implement *Closures/ Limited to Admin* use only priorities.
 - Develop a monitoring program to track effectiveness of route closure treatment.
- Last year development began for an accurate depiction of the structures needed to implement TMP decisions. In the regions that crews worked in last year (Mt. Trumbull to Whitmore canyon), many roads slated for “closure”, appeared to be reclaiming.

o In FY 2011, 54 specific actions were accomplished:

- 7 “Route Closed” Signs Posted
- 8 Routes “Closed for Resource Use”



- 27 Routes were reclaiming and fit into the “No Action Needed” category



- 12 Routes that were designated for Administrative use only had their condition monitored (GPS, physical condition indicated and photographed).



3. Outreach, Environmental Education, Interpretation, and Volunteers

- **Outreach:**

- Mt. Trumbull “Back to School Day” held on September 17, 2011 was an event put together to honor the people who settled the Arizona Strip and the Arizona Centennial. Speakers included local historians, the Arizona Strip District Manager, the Arizona BLM Deputy State Director, and Mohave County School Superintendent. Period time activities such as square dancing, a cake walk, and quilting and roping demonstration were also included. This event drew nearly 200 people to the Mt. Trumbull Schoolhouse, located 2 hours south of St. George, UT. On the morning of the event oral histories were taken from Alumni that attended school in the Mt. Trumbull Schoolhouse.



- A PowerPoint presentation at the Kanab Earth Fest provided a virtual tour of the monument and an oral history account to a small audience in Kanab Utah by Monument staff. This tour informed the public of many of the public use sites, natural resources and historical accounts on the monument.
- The Junior Ranger Program implemented in FY10 continues for the Monument. Upon completing six of the activities in the Junior Ranger Booklet, children are eligible to become a Junior Ranger and receive a badge for their efforts. The handbooks are distributed at the information center and in local schools and various outreach events. Because of the GCPNM’s remote location and difficult access, the activities were designed so that they can be completed on the Monument or at home.

- The fourth annual Yevingkarere Camp was held from September 17 – 19. This Southern Paiute youth camp involved youth from tribal bands in Arizona, Utah and Nevada that gathered near Mt. Trumbull to camp and



learn about their culture from respected tribal elders. The camp provides youth opportunities to experience natural and cultural resources associated with a portion of traditional homelands on the GCPNM. The three-day, two-night event includes camping and activities geared to immerse participants in their traditional practices, ancestral and cultural ties to the land, monument resources and stewardship responsibilities. Camp activities ranged from making tools, rope, moccasins and brush huts, to playing with Skumpa dolls and the hockey-like Que'pauck game. Language skills, cultural beliefs and sampling of native foods were also introduced at the fall outing. The camp was developed with NPS Youth Partnership Program and BLM Take It Outside initiative funding.

- **Visitor Center:**

- The interagency visitor center is staffed by BLM, NPS, US Forest Service employees and volunteers who answer questions and update visitors on the monument resources. The Dixie/Arizona Strip Interpretive Association operates a bookstore and assists in presenting on and off-site interpretive programs.

- **Environmental education:**

- GCPNM staff participated in the second Junior Ranger Evening at the Tonaquint Nature Center in St. George on September 24. Approximately 200 youth participated in the event centered on helping families and youth (ages 5-14) gain a greater appreciation for public lands by engaging them in educational activities. The event included partner staffed stations that provided age appropriate interpretive talks and educational materials. Activities included a vegetation identification scavenger hunt, leaf rubbing, artists' corner, tree and shrub identification, tree ring lab, geology yoga, recycling game, water cycle game, fire prevention and many others. Partners included Dixie Arizona Strip Interpretive Association, Dixie National Forest, Pipe Spring National Monument, Washington County Recycling Committee and Water Conservancy District, Red Cliffs Desert Reserve, BLM Arizona Strip and St. George Field Offices and Vermilion Cliffs National Monument.
- In cooperation with Southern Utah University (SUU), the Monument staff hosted for a fourth year Partners in the Parks an experiential learning camp for honors students from across the United States in early June. The six-day camping program is a unique "immersion" experience with Monument resource specialists providing information and assistance on specific resource study areas.

- In cooperation with Nevada State College an In-service Class worked with Monument resource specialists, who provided information and assistance on developing environmental education lessons in the field. The specialists provided educators with ideas for teaching climate change and data collection procedures for lesson plans.



- The Color Country Natural Resource Camp is a week-long outdoor experience designed to interest young adults, grades 10-12, in careers in natural resources. It is filled with hands-on activities, outdoor recreation, and fun instruction from natural resource professionals. The camp was conducted from May 30-June 4, 2011. Interns from Parashant assisted with conducting the camp and Take It Outside and Youth Intern Program funding was used to support camp activities.



- **Interpretation:**

- The GCPMN interpretation efforts has been directed toward cultivating the next generation of public land stewards through outreach events that focus on natural resource management, climate change, enjoying public lands, and getting outside.
- Monument staff and a Northern Arizona University education contractor continued working with Southern Paiute cultural resource specialists from the Shivwits, Koosharem, and Moapa bands and local Washington County teachers on development of a Southern Paiute Cultural History and Archeology curriculum for middle grade students. The curriculum, funded

through the NPS “Parks as Classroom,” program is geared to grades 7-9 and focuses on the cultural history and traditions of the Southern Paiute people of Southwest Utah and Northwest Arizona. The project will be completed in FY12.

- In accordance with the enabling proclamation for the GCPNM noting the early history of the Monument’s exploration, ranching and mining, the Monument management instituted an oral history program. To date some sixty oral histories from original and descendants of homesteaders, ranchers, lumbermen and miners have been collected. In addition photos, journals and documents of historical value have been scanned and copied for Monument archives. This material is used for interpretive, educational and research purposes.
- **Volunteers:**
 - The interagency visitor center is staffed by BLM, NPS, US Forest Service employees and volunteers who answer questions and update visitors on the monument resources. The Dixie/Arizona Strip Interpretive Association (D-ASIA) enhances visitors' understanding of GCPNM and the rest of the Arizona Strip by operating the Interagency Visitor Center in St. George, providing a wide range of materials and services to assist the public, including hosting environmental education programs, answering questions about the local area, and issuing permits - mineral, woodcutting, and Christmas trees. D/ASIA maintains a sales area that offers a variety of maps and publications on local history and resources, and gifts, operates a bookstore and assists in presenting on-site interpretive programs.
 - A “brownbag lecture” series is presented at the Information Center each Friday from October thru April. Twenty six programs, on a variety of local topics including history and natural resources, were presented in 2011 with a total attendance of over 1500.
 - In the summer of 2011 the GCPNM hosted 5 interns for approximately 2500 hours. These interns were introduced to a variety of land and resource management strategies both in the field and the office. The interns completed tasks such as, installing fence lines, repairing water lines to springs, seed collection, road closures, weed control, and digitizing botanical collection reports from Brigham Young University.

4. Science

Research activities on GCPNM range from botanical inventory to geologic and hydrologic characterization of limited water in the West, potential spread of disease to native mammal populations and the quality of the soundscape in our remote Monument.

- GCPNM is working with partner agencies on three projects that span the biological and physical sciences: Natural Resource Condition Assessment and Mojave Desert Inventory and Monitoring Network: Vital Signs Monitoring (springs and upland vegetation/soils). These projects, developed in collaboration with USGS and NPS, will provide long-term monitoring sites for vegetation, soil chemistry and water quality. Data collection for these projects will commence in 2012.
- Several projects focus on the flora of the GCPNM:
 - An Investigation of Bryophyte Diversity and Distribution on the GCPNM. This project, by UNLV, has been completed and resulted in an increase of 87 known taxa of bryophytes on the Monument, 23 taxa newly reported for the state of Arizona, and 3 taxa either new or previously undescribed.
 - Annotated Checklist of the Vascular Plant Flora of Grand Canyon-Parashant National Monument Phase II (SUU). Currently, the annotated checklist has revealed that the flora of GCPNM represents 26% of the 4,241 native and naturalized vascular plant taxa documented for Arizona, and within Mohave County, the Monument flora captures 71% of the 1,588 reported plant taxa.
 - Mapping the Vegetation of the Grand Canyon Using ADS40 Imagery, Image Segmentation and CART (Grand Canyon National Park).
 - Seeds of Success (BLM with several partners).



- Rangeland Condition Assessment (USGS).
- Mojave Desert Tortoise Habitat Restoration (USGS).
- Rangeland Condition Assessment (USGS).
- Mojave Desert Tortoise Habitat Restoration (USGS).
- Other research areas focus on the geology, hydrology, paleontology and soundscape of the Monument.
- Ice Age Natural History in the Western Grand Canyon (ETSU).



- Bat Hibernaculum Inventory and Microclimate Study.



- Archaeological field school run by California State University Long Beach and hosted on the GCPNM. The field school runs 3-6 weeks and teaches students the basics of inventory, mapping, and site recording techniques. Results have been presented in poster and paper formats at the Great Basin Anthropological Conference, Three Corners Conference, and the Society for American Archaeology Annual Meetings.

5. Partnerships

- The Parashant Partnership is a diverse group of more than 20 stakeholders comprising local, regional, and national non-governmental groups along with regional state and federal land management agencies working together to restore the GCPNM landscape. The Parashant Partners are coming together to learn from current projects, develop management tools, and inform future management actions so that fire and other natural and human processes can coexist and the landscape can be restored to ecological health and resiliency.
- The Dixie/Arizona Strip Interpretive Association (DASIA) and partners continue to implement the Strategic Plan signed the previous year. The strategic plan outlines mutual goals for supporting operation of the interagency information center, building DASIA's capacity, supporting agency missions and programs (particularly support for NLCS units), and providing interpretive and educational programs with an emphasis on youth. DASIA sponsored the annual Evening on the Arizona Strip fund-raising event with western cowboy singing legend Michael Martin Murphy at the Dixie State College on November 10.
- Partnerships with Southern Utah University continued with a weeklong experiential learning camp in early June for students in the Partners in Parks program. Two student interns from SUU also worked in the Monument and gained career skills working on a wide variety of projects.
- The BLM implemented a grant from the Arizona Water Protection Fund to continue the rehabilitation of the Pakoon Springs and has entered into a Cooperative Agreement with the Grand Canyon Wildlands Council to conduct the restoration project.
- Monument staff are partnering in the Mojave Desert Initiative (MDI) with other federal, state, and local agencies, as well as non-government organizations throughout the northeast Mojave region. The MDI has targeted protection and restoration of unburned habitat as a top priority throughout the region.

- Monument and Arizona Game and Fish Department staffs held their annual meeting in Kanab in February to discuss wildlife management issues and coordinate 2011 projects on the AZ Strip.
- The Northern Arizona University's Ecological Restoration Institute and the Arizona Game and Fish Department have played a major cooperative role in the Mt. Trumbull Ecosystem Restoration Project for the past 17 years.
- The BLM participates in the Forest Restoration Partnership Group. The FRPG is a public/private partnership including land management agencies throughout Southwest Utah and Northwest Arizona with the purpose of providing a sustainable supply of forest and woodland products to meet economic development and restoration goals.

6. Planning and Business Practices

- **Planning:**
 - Overview
 - A copy of the approved Resource Management Plan (RMP) includes two Records of Decision (ROD), one for BLM and one for NPS, dated February 2008 that can be found at http://www.blm.gov/az/st/en/info/nepa/environmental_library/arizona_resource_management/gcp_ROD.html.
 - Implementation-Level Planning
 - Staff began preparing a Travel Management Plan for the Monument, including detailed tables and maps of each designated route. The text portion of plan is being completed under a contract issued at the end of FY10 to Ecosystems Management Inc. A draft Travel Management Plan is expected to be available for review in 2012. The plan will reflect travel management on designated routes, recommend closure methods and identify monitoring actions for implementation.
 - Land Use Plan Implementation
 - Staff continued to conduct administrative work during FY11, in response to the lawsuit filed against the BLM in 2009 to overturn the RMP. Implementation has begun, however a few projects been delayed due to

potential conflict of interest in working with litigants on projects/issues directly related to the lawsuit.

7. Manager's Corner

Grand Canyon-Parashant National Monument (Parashant) is a Service First Monument, jointly managed by the Bureau of Land Management (BLM) and National Park Service (NPS). Protected within the Monument is a variety of biological, geological, cultural and paleontological resources. Layers of rock have been uncovered by the eroding Colorado River and associated tributaries, exposing two billion years of geologic history and providing breathtaking vistas. Within the one million plus acres, the elevation and vegetation are diverse, ranging from Joshua trees down in the Mojave Desert at 1247 feet above sea level up to ponderosa pine forested mountain peaks above 8000 feet. Four designated BLM wilderness areas and 188,121 acres of NPS proposed wilderness, along with numerous caves and rare desert springs are listed among the many wonders of GCPNM. The landscape provides numerous learning and working opportunities for youth activities. The Parashant is taking full advantage of these opportunities by leveraging funding, but just as important is leveraging the strengths of each of the agencies.

Youth Engagement

Last year, 2011, marked the fourth year that camps have been held for Southern Paiute youth from tribal bands in Arizona, Utah and Nevada. Each of the past four years, they have gathered near Mt. Trumbull to camp and learn about their culture from respected tribal elders. The camp provides youth opportunities to experience natural and cultural resources associated with a portion of traditional homelands on the Parashant. The three-day, two-night event includes camping and activities geared to immerse participants in their traditional practices, ancestral and cultural ties to the land, monument resources and stewardship responsibilities.

The Color Country Natural Resource Camp is a week-long outdoor experience designed to interest young adults, grades 10-12, in careers in natural resources. Local land management agencies, including BLM and NPS, partner with Washington County School District to provide hands-on activities, outdoor recreation, and fun instruction from natural resource professionals. Interns from Parashant assist with conducting the camp which averages 30 participants. BLM Take It Outside and NPS Youth Intern Program funding is used to support camp activities. The Utah Department of Natural Resources and Red Cliffs Desert Reserve also provide six week field internship assignments for six camp graduates.

Youth Employment

The BLM and NPS partnered in 2010 to begin a The Grand Canyon-Parashant National Monument American Indian Youth Internship project. With BLM Youth Initiative Program and Challenge Cost-Share (CCS) dollars and Youth Intern Program funding from the NPS, three Native American youth interns were hired and trained under the supervision of a work crew leader. They completed projects such as emergency stabilization of historic structures at the Grand Gulch Mine. Last year, 2011, the seven member crew began a historic preservation project on the Pine Ranch.

The Parashant hosts youth interns affiliated with the Inter-Governmental Internship Cooperative sponsored by Southern Utah University in Cedar City, Utah and funded through the NPS Youth Partnership Program. The interns complete a variety of assignments including education and outreach activities, range, recreation, and other resource management projects on BLM and NPS managed lands throughout the monument. 2011 was the second and very successful year the Parashant hosted the internship program.

Several American Conservation Experience (ACE) youth crews work on the Parashant each year, mainly on fencing projects within the monument. Labor costs are primarily funded by NPS and supplies are frequently purchased by BLM. The group conducts projects on both BLM and NPS managed lands.

The value of the Parashant BLM/NPS Service First Partnership cannot be overstated. Combining the strengths of the two agencies, and leveraging funding enables the Monument to seamlessly plan and execute youth opportunities that would otherwise be either very difficult or impossible to accomplish.

State Name: Arizona
Unit: Grand Canyon-Parashant NM
BLM: Pam Mc Alpin
Manager: NPS: Rosie Pepito

Table 1: SCIENCE (table continues on next page, please scroll to the right)										
Location	Project Name	Discipline	Research Contributor/ Collaborator/ Partnering	Project Description	Status	Products	Applications	Outreach Options	BLM Contributions	Partner Contributions
		Geology, Paleontology, Hydrology,			Ongoing, 1st year, or completed	Provide citations and web addresses where applicable	How the research has or will be used	Identify projects or stories that may be of interest to the public	To date by year	To date by year
Grand Canyon-Parashant National Monument, AZ (GCPNM)	Bat Hibernaculum Inventory and Microclimate Study	Cave Ecology	Northern Arizona University (NAU)	Multi-year research project on cave ecology and bat wildlife located at selected caves. This project involves species identification, multiple year inventory and analysis of existing bat populations including arthropod communities. Microclimate research included a three dimensional analysis of selected caves with datalogging instruments to create a thermal model of the caves in order to characterize the specific environment conditions that facilitate bat hibernacula. This thermal modeling also aided in the identification of white-nose syndrome (WNS) risks which can be present at certain cave soil temperatures.	Ongoing	1) Annual report: "Bat Hibernacula and Torpor Caves of Northwestern Arizona (Mohave County)Explorers Club Flag Report, Flag #139" Jut Wynne, NAU.	1) Provides baseline data on cave ecology and identification of endemic species 2) Monitors bat wildlife health and identify preferable hibernacula characteristics 3) Offers original research in cave thermal modeling in the US Southwest	Project used to develop further research opportunities and allow Monument managers to assess risks to cave wildlife	BLM contributed access to caves adjacent to the Monument and data on nearby bat populations.	NPS and CESU contributed \$15,370 in 2011
Grand Canyon-Parashant National Monument, AZ (GCPNM)	Soundscape Monitoring	Ecology	NPS Air Quality, Dark Skies, and Soundscape Division	Multi-year research project on impacts stemming from natural and unnatural sound sources along proposed Wilderness areas and proposed air tour routes. Study consists of four acoustical monitoring stations positioned at selected sites which quantify and identify these sound sources which vary from aircraft, vehicles and natural sources. Largely these stations are positioned along the North Rim of the Grand Canyon as this remotes area sustains the bulk of air tour traffic.	Ongoing	1) Raw data from the acoustical stations have yet to be processed	1) Provides baseline data on Soundscape impacts 2) Monitors impacts to rodent and avian wildlife health as behavior is altered due to sound impacts 3) Quantifies aircraft and vehicle use within the Monument	Project demonstrates the importance of natural soundscapes, how they are entwined with wildlife behavior, and wilderness experience for visitors.	BLM contributed access to acoustic monitoring sites.	NPS contributed \$40,000 in 2009, along with staff to maintain the stations from 2009 to 2011
Grand Canyon-Parashant National Monument, AZ (GCPNM)	Ice Age Natural History and Test Excavations in the Western Grand Canyon	Paleontology	Eastern Tennessee State University, (ETSU)	Multi-year research project on paleontological Pleistocene resources located in selected caves. Study will identify and inventory fossil remains as well as explore additional related research agendas.	Ongoing	1) Annual report: Still in draft from Principal investigator, Dr. Jim Mead, ETSU	1) Provides baseline data on paleontological resources 2) Aids other researchers of similar disciplines in understanding Pleistocene cave resources	Project used to develop further research opportunities and add to the body of knowledge of Natural History.	BLM contributed paleontology permit	NPS and CESU contributed: In 2010, \$2412 In 2011, \$2410
GCPNM	Annotated Checklist of the Vascular Plant Flora of Grand Canyon-Parashant National Monument Phase II	Botany	Southern Utah University (SUU), Moenave Botanical Consulting	Expansion of "Annotated Checklist of the Vascular Plant Flora of Grand Canyon-Parashant National Monument Phase I". Field inventories and floristic collections in targeted portions of the Monument. Includes hands-on service project for SUU botany students.	ongoing	1) Final Report: "Annotated Checklist of the Vascular Plant Flora of Grand Canyon-Parashant National Monument Phase II " 2) GIS layer: "Soil Map and	1) Increase known species for the Monument	1) Teach SUU students field collecting and herbarium methods		2010-2011: NPS \$9733
GCPNM	Natural Resource Condition Assessment		University of California, Davis	Define suite of focal biotic and abiotic resources at each of 6 National Park units (Death Valley National Park, Joshua Tree National Park, Lake Mead National Recreation Area, Manzanar National Historic Site, Mojave National Preserve, and Grand Canyon–Parashant National Monument). Implement assessments of measurable status and trends of resources.	ongoing	1) Natural resource condition assessment final report 2) Summary of field variables necessary to monitor resources of interest that currently cannot be quantified.	1) Provide guidance to managers on future management priorities and directions			2011: NPS project startup and cooperator selection

GCPNM	Mapping the Vegetation of the Grand Canyon Using ADS40 Imagery, Image Segmentation and CART	botany	Grand Canyon National Park Kass Green & Assoc.	Create vegetation map for Grand Canyon National Park and nearby portions of GCPNM.	ongoing	1) Vegetation map	1) Provide guidance to managers on future management priorities and directions 2) Provide current baseline for vegetation characteristics on a portion of GCPNM.			wholly funded through NPS
GCPNM	Mojave Desert Tortoise Habitat Restoration	wildlife, botany, T&E	USGS	Mojave tortoise habitat restoration research project on eight separate fires in the Pakoon Basin. Each fire includes a set of four treatments: 1) Aerially seed, 2) Aerially seed and then incorporate the seed; 3) No seeding, fenced only; and 4) No seeding, no fencing.	ongoing	1) Effectiveness of seeding report 2) Herbicide interaction report	1) Provide guidance to managers on future management priorities and directions, especially in the Mojave Desert		wholly funded through BLM	
GCPNM	Seeds of Success	botany, fire rehabilitation, T&E	Eastern Nevada Landscape Coalition, MDI	Collect and characterize seeding plants in the Mojave Desert	ongoing	1) herbarium specimens of seed plants collected during field season	1) create seed bank for Mojave Desert plants			funded through various agencies
GCPNM	Rangeland Condition Assessment	Botany, T&E, Soil	USGS	Assessment of rangeland ecosystem conditions in selected portions of GCPNM to identify resource management needs pertinent to livestock grazing, ecological restoration and long-term monitoring.	ongoing	1) synthesis report 2) geo-referenced assessment dataset and images	1) Provide guidance to managers on future management priorities and directions		time of Range Specialist	funded by NPS
GCPNM	Mojave Desert Inventory and Monitoring Network:	Botany, Soil, Hydrology	NPS (PWR)	Long-term monitoring of selected sites on the Monument, including upland vegetation (sagebrush steppe), large springs and small, arid land springs.	ongoing	1) annual reports of activities and findings	1) Provide guidance to managers on future management priorities and directions		time of Range Specialist, Archeologist,	funded by NPS
Grand Canyon-Parashant National Monument, AZ (GCPNM)	Mexican Spotted Owl Survey	Wildlife	Montana State University	Conduct surveys for Mexican spotted owls in canyon habitats.	First year of surveys.			This project helps the Monument reduce conflicts between resource uses and this threatened species.	In FY 2011, BLM contributed \$85,000 in funding and assisted in conducting surveys. However, only a portion of the funds were spent on the Monument and the rest were spent on the Arizona Strip Field Office.	In FY 2011 MSU provided technical expertise and field crews to conduct surveys.

State Name: Arizona Unit: Grand Canyon - Parashant National Monument Manager: BLM: Pam McAlpin / NPS: Rosie Pepito								
Table 2: PARTNERSHIPS (table continues on next page, pleas scroll to the right)								
Location	Project Name	Partners	Project Description	Status	Results	Outreach Options	BLM Contribution	Partner Contribution
						<i>Identify projects or stories that may be of interest to the public</i>	<i>Funding To date by year</i>	<i>To date by year</i>
Grand Canyon-Parashant National Monument, AZ (GCPNM)	DASIA	Dixie-Arizona Strip Interpretative Association	DASIA and its agency partners signed the Dixie/Arizona Strip Interpretive Association (DASIA) Strategic Plan on July 27, 2010. The strategic plan outlines mutual goals for supporting operation of the interagency information center, building DASIA's capacity, supporting agency missions and programs (particularly support for NLCS units), and providing interpretive and educational programs with an emphasis on youth.	Ongoing		The Dixie/Arizona Strip Interpretive Association (D/ASIA) is a non-profit corporation formed in 1994. Its mission is primarily to enhance the understanding of the Arizona Strip and Southern Utah region including its history and resources. D/ASIA is a cooperating association partnering with the BLM, USDA Forest Service, and National Park Service to provide interpretation, education, and customer service related materials to area visitors while	\$30,000 in an Assistance Agreement, a physical space to operate a retail store in the Interagency Visitor Center, office space, warehouse space, IT support, logistical support, GCPNM staff to support outreach efforts.	
Grand Canyon-Parashant National Monument, AZ (GCPNM)	Bat Hibernaculum Inventory and Microclimate Study	Northern Arizona University (NAU)	Multi-year research project on cave ecology and bat wildlife located at selected caves. This project involves species identification, multiple year inventory and analysis of existing bat populations including arthropod communities. Microclimate research included a three dimensional analysis of selected caves with datalogging instruments to create a thermal model of the caves in order to characterize the specific environment conditions that facilitate bat hibernacula. This thermal modeling also aided in the identification of white-nose syndrome (WNS) risks which can be present at certain cave soil temperatures.	Ongoing	1) Annual report: "Bat Hibernacula and Torpor Caves of Northwestern Arizona (Mohave County)Explorers Club Flag Report, Flag #139" Jut Wynne, NAU.	Project used to develop further research opportunities and allow Monument mangers to assess risks to cave wildlife	BLM contributed access to caves adjacent to the Monument and data on nearby bat populations.	CESU contributed \$15,370 in 2011

Grand Canyon-Parashant National Monument, AZ (GCPNM)	Ice Age Natural History and Test Excavations in the Western Grand Canyon	Eastern Tennessee State University, (ETSU)	Multi-year research project on paleontological Pleistocene resources located in selected caves. Study will identify and inventory fossil remains as well as explore additional related research agendas.	Ongoing	1) Annual report: Still in draft from Principal investigator, Dr. Jim Mead, ETSU	1) Provides baseline data on paleontological resources 2) Aids other researchers of similar disciplines in understanding Pleistocene cave fossil formation 3) Informs the public of Pleistocene resources and in BLM 4.	BLM contributed paleontology permit	CESU contributed: In 2010, \$2412 In 2011, \$2410
Grand Canyon-Parashant National Monument, AZ (GCPNM)	Seeds of Success	Eastern Nevada Landscape Coalition, MDI	Collect and characterize seeding plants in the Mojave Desert	Ongoing	1) herbarium specimens of seed plants collected during field season			funded through various agencies
Grand Canyon-Parashant National Monument, AZ (GCPNM)	Coordination	AZ-Fish and Game	wildlife management issues and coordinate 2011 projects on the AZ Strip.	Ongoing				
Grand Canyon-Parashant National Monument, AZ (GCPNM)		Forest Restoration Partnership Group	•RestoreStrategically Located Islands, Key Habitat Areas, and Corridors.	Ongoing				
Grand Canyon-Parashant National Monument, AZ (GCPNM)		Ecological Restoration Institute	A project to apply ecological restoration treatments across portions of a large (approximately 4000 acres) landscape between Mount Trumbull and Mount Logan, and to measure the effects of the treatments on associated plant and animal	Ongoing				
Grand Canyon-Parashant National Monument, AZ (GCPNM)	Partners in Parks program	Southern Utah University National Park Service	a weeklong experiential learning camp in early June for students in the Partners in Parks program includes exposure new career skills	Third Year	Continues Exposure to Natural Resource , recreation	Continues Exposure to Natural Resource, Recreation, and physical science related issues on GCPNM	Nixon Administrative facilities and logistical support	Faculty and administrative and project oversight
Grand Canyon-Parashant National Monument, AZ (GCPNM)	Mexican Spotted Owl Survey	Montana State University	Conduct surveys for Mexican spotted owls in canyon habitats.	First year of surveys.	Parashant Canyon was surveyed.	This project helps the Monument reduce conflicts between resource uses and this threatened species.	In FY 2011, BLM contributed \$85,000 in funding and assisted in conducting surveys. However, only a portion of the funds were spent on the Monument and the rest were spent on the Arizona Strip Field Office.	In FY 2011 MSU provided technical expertise and field crews to conduct surveys.

State Name: Arizona

Unit: Grand Canyon - Parashant National Monument

Manager: BLM: Pam McAlpin / NPS: Rosie Pepito

Table 3. STAFF & WORK MONTHS		
Work Months and Funding (12 wms = 1 work year)	Work Months (#)	Funding (\$)
Grand Canyon - Parashant National Monument Staff		
Manager	7.72	96,299
Superintendent (NPS)		89,685
Other permanent staff		
Chief of Interpretation (NPS)		88,197
Chief Ranger (NPS)		137,637
Law Enforcement	1.57	16,563
3 Law Enforcement (NPS)		219,679
Project Manager (BLM)	9.81	101,115
Lead Wildlife Biologist (BLM)	1.34	11,592
Rangeland Management Specialist (BLM)	10.44	78,292
Administration Assistant (2) (BLM)	11.32	69,977
Archaeologist (BLM)	9.71	67,766
Outdoor Recreation Planner (BLM)	4.65	37,520
Budget Tech (NPS)		64,155
Bio Science Tech (NPS)		53,541
Dispatcher (NPS)		56,415
Physical Science Tech (NPS)		35,020
Seasonal Staff		
4 Maintenance Workers (NPS)		63,233
3 Interpretation (NPS)		41,420
Range Technician (Fire) 6 each	9.86	63,710
Totals for NPS Staff		848,982
Totals for BLM Staff	56.56	542,835
Total for Grand Canyon - Parashant NM Staff	56.56	1,391,817
Arizona Strip District and Field Office Staff Support Funded by Grand Canyon		
Budget (BLM)	0.87	5,615
Archaeologist (BLM)	0.50	4,744
Public Affairs (BLM)	1.18	5,208
Lands and Realty Specialist	0.18	1,843
Wildlife Biologist (BLM)	0.39	1,881
Lead Rangeland Management Specialist (BLM)	0.25	2,762
Recreation Staff (BLM)	0.87	10,011
Supervisory Law Enforcement (BLM)	0.96	12,576
Tribal Liason (BLM)	0.87	7,853
Safety Officer (BLM)	0.04	410
Management Assistant (Range) (BLM)	0.47	2,408
GIS Specialist (BLM)	0.21	1,446
Environmental Coordinator (BLM)	0.46	4,730
Ecologist (BLM)	0.36	3,238
Engineering (BLM)	2.43	21,476
Road Maintenance (BLM)	0.76	5,889
Rangeland Management Specialist (BLM)	0.11	650
Law Enforcement (BLM)	0.23	1,905
Information Specialist (BLM)	0.19	943
Totals for Arizona Strip Field Office	11.33	95,587
Other National Park Service Staff Support Funded by Grand Canyon Parashant National Monument (NPS)		
Interpretation Specialists, Harpers Ferry Center		5,235
Vegetation Specialists, Lake Mead NRA		23,149
Cultural Resource Specialists, Lake Mead NRA		101,174
Totals For Other NPS Units		129,558
Totals For All Grand Canyon- Parashant -NM Staff		1,616,962

Table 4. PRIORITY STAFFING NEEDS		
Position	Perm or Term	Position on Approved Table of Org? Y/N
Facility Manager (NPS)	Perm	Y
Maintenance Work Leader (NPS)	Perm SFT	Y
Maintenance Laborer (NPS)	Seasonal	Y
Park Ranger (NPS)	Perm SFT	Y
Forester (BLM)	Perm	Y
Lead Bio Science Tech (NPS)	Term	Y
Bio Science Tech (NPS)	Seasonal	Y
Bio Science Tech (BLM)	Seasonal	Y

State Name: Arizona

Unit: Grand Canyon - Parashant National Monument

Manager: BLM: Pam McAlpin / NPS: Rosie Pepito

Table 5. CONTRIBUTIONS	
EXAMPLE: Friends Of Yaquina Lighthouses - Installation of historically accurate windows in the oil house of the lighthouse.	<i>\$17,737</i>
EXAMPLE: Volunteer Hosts – Value of 4,018 donated hours	<i>\$72,324</i>
Visitor Center Volunteers	\$47,208
National Public Land Day	\$2,625
Las Vegas Archeological Field Study School	\$65,520
Arizona Site Steward	\$39,333
Hosted Workers Volunteers (internship)	\$52,500
Environmental Ed./Interpretation	\$43,443
<i>TOTAL Contributions</i>	<i>\$250,629</i>