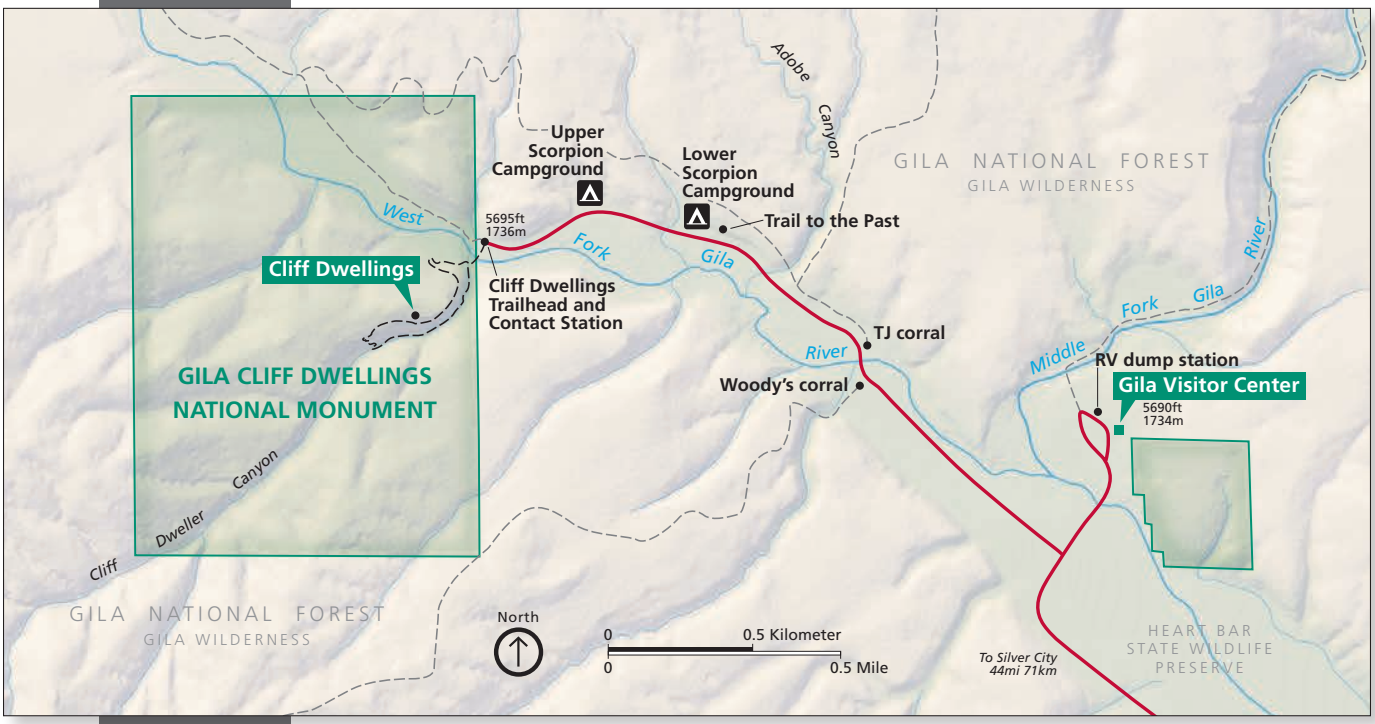
NATIONAL PARK SERVICE • U.S. DEPARTMENT OF THE INTERIOR

# Foundation Document

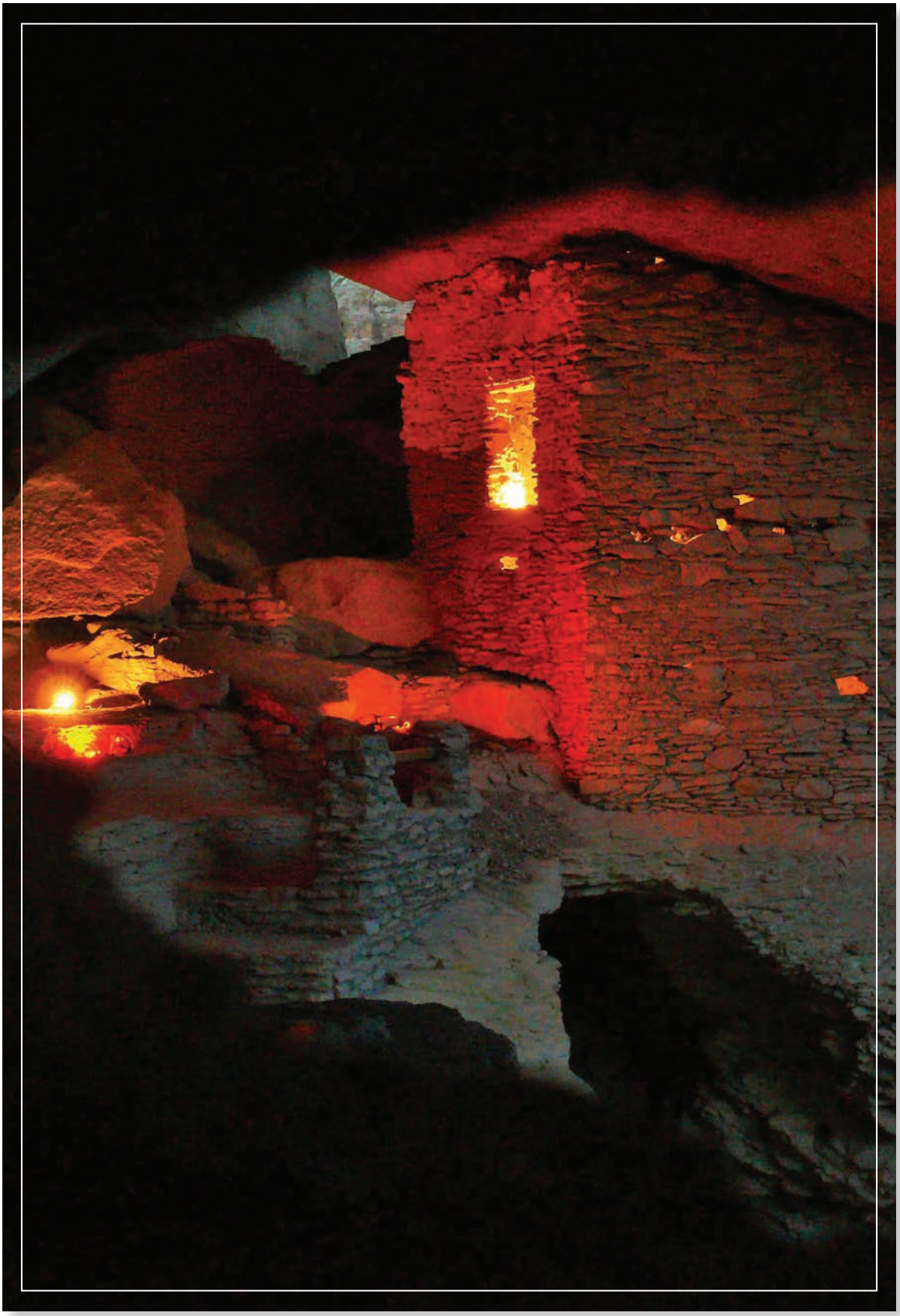
## Gila Cliff Dwellings National Monument

**New Mexico**

**June 2016**


Adobe Canyon
Upper Scorpion Campground
Lower Scorpion Campground
GILA NATIONAL FOREST
GILA WILDERNESS
West Fork Gila River
5695ft 1736m
Trail to the Past
Cliff Dwellings
Cliff Dwellings Trailhead and Contact Station
TJ corral
Middle Fork Gila River
RV dump station
Gila Visitor Center
5690ft 1734m
Woody's corral
GILA CLIFF DWELLINGS NATIONAL MONUMENT
Cliff Dweller Canyon
GILA NATIONAL FOREST
GILA WILDERNESS
North
0 0.5 Kilometer
0 0.5 Mile
To Silver City 44mi 71km
HEART BAR STATE WILDLIFE PRESERVE

# 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 Gila Cliff Dwellings 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

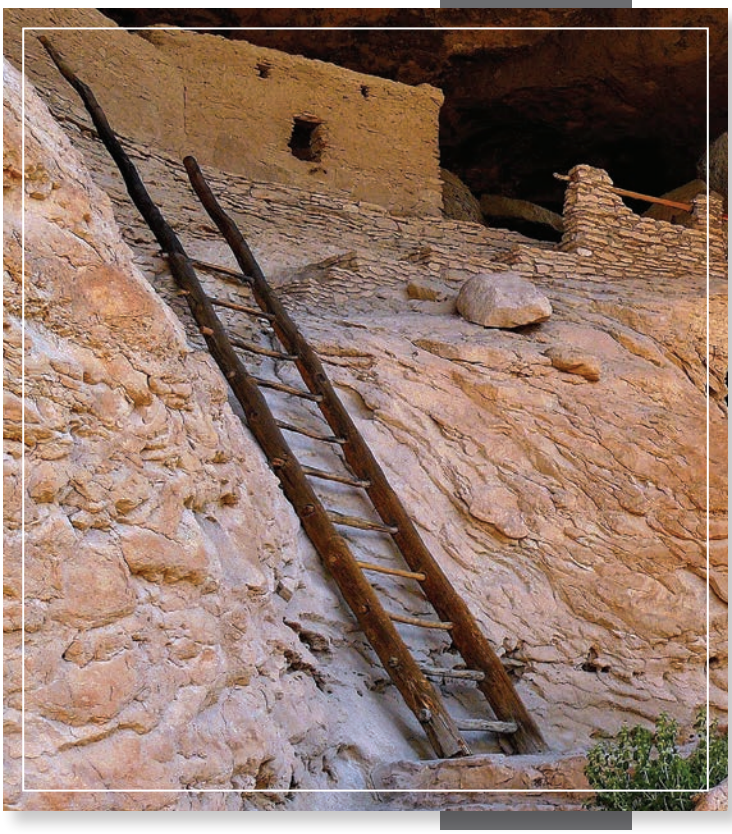
Gila Cliff Dwellings National Monument was established in 1907 to preserve the remains of a remarkably intact group of cliff dwellings within the Gila National Forest. A 1-mile loop trail brings visitors through Cliff Dweller Canyon and into several natural caves containing about 40 rooms built more than 700 years ago.

Although best known for its namesake dwellings built by the Tularosa-phase Mogollon in the late 13th century, the monument contains a total of 45 precontact sites within its 533 acres, the majority of which are not open to the public. The monument consists of two separate units; the larger includes the cliff dwellings, and the smaller TJ unit, added in 1962, preserves one of the last known unexcavated Mogollon pueblos of its size from the Classic Mimbres phase. Gila Cliff Dwellings National Monument is the sole unit of the National Park Service established to protect and interpret remains of the Mogollon culture, one of the three major precontact cultures of the southwestern United States.

The cultural resources of the monument comprise a collection of archeological sites that include Archaic rock shelters, Early and Late Pithouse and Classic Mimbres Pueblo period structures, cliff dwellings, Salado building foundations, and several small Apache sites that together represent at least 2,000 years of human occupation of the Gila River headwaters area. The rich diversity of natural resources that supported Archaic, Mogollon, and Apache people in the past continues to thrive in an area free from encroaching development along the banks of New Mexico's last free-flowing river.

The hunter-gatherer Apaches became prominent later and their legendary warrior, Geronimo, was born near the Gila River headwaters in the early 1820s. Many current Apache bands remain interested in the management of the area.

Located in southwest New Mexico within the 3.3 million-acre Gila National Forest, the monument is in the heart of the 560,000-acre Gila Wilderness. An interagency agreement provides for National Park Service and U.S. Forest Service use of area roads and facilities, and both agencies have managed the monument throughout its history. Management of the monument was the responsibility of the U.S. Forest Service from 1907 to 1933, at which time it was transferred to the National Park Service. Under a 1975 memorandum of understanding, management of the monument returned to the U.S. Forest Service. Since 2003, Gila Cliff Dwellings National Monument has again been under NPS management. Monument staff are responsible for managing 533 acres. Approximately 47,000 people visited the monument in 2015.



## Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Gila Cliff Dwellings 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 President Theodore Roosevelt under Presidential Proclamation No. 781 on November 16, 1907 (see appendix A for presidential proclamations). The purpose statement lays the foundation for understanding what is most important about the park.

*As the only unit of the national park system dedicated to the Mogollon culture, the purpose of Gila Cliff Dwellings National Monument is to protect, preserve, and interpret the cliff dwellings and associated sites and artifacts of that culture, set apart for its educational and scientific interest and public enjoyment within a remote, pristine natural setting.*

## 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 Gila Cliff Dwellings 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 Gila Cliff Dwellings National Monument. (Please note that the sequence of the statements does not reflect the level of significance.)

1. Gila Cliff Dwellings National Monument protects the largest known Mogollon cliff dwellings site and interprets for the public well-preserved structures built more than 700 years ago. Architectural features and associated artifacts are exceptionally preserved within the natural caves of Cliff Dweller Canyon.

2. The TJ site of the monument includes one of the last unexcavated, large Mimbres Mogollon pueblo settlements and was occupied intermittently by multiple cultures for approximately 1,000 years (400 CE–1400 CE). The TJ unit of Gila Cliff Dwellings National Monument offers outstanding research potential due to the high integrity of its unexcavated condition.

3. The combination of springs, rivers, narrow canyons, and unique caves, and the resulting biodiversity in and around Gila Cliff Dwellings National Monument, enticed and sustained human cultures for thousands of years. The cultural resources of the monument are preserved within their natural setting due to their remoteness and location within the Gila Wilderness—the world's first designated wilderness area.

4. Gila Cliff Dwellings National Monument provides visitors an unparalleled opportunity to step back in time by walking through well-preserved structures built by Mogollon people more than 700 years ago. The pristine natural setting, particularly in Cliff Dweller Canyon, surrounded by profound wilderness, provides opportunities for visitors to experience a wide range of emotional and personal connections.

## 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 Gila Cliff Dwellings National Monument:

- **Archeological Resources.** The monument's archeological sites, field records, and associated artifacts provide evidence of long-term human use of the area, especially by the Mogollon culture. The national monument includes all major architectural representations of the Mogollon, including cave habitations, a large pueblo, pithouse villages, and smaller limited activity sites. In addition, Archaic rock shelters, Early and Late Pithouse features, Classic Mimbres Pueblo period structures, Tularosa period cliff dwellings, Salado-like building foundations, and Apache artifacts represent 2,000 years of cultural development in the Gila River headwaters area. These resources not only preserve evidence of long-term precontact human use of the area but also document changing patterns in human adaptive response to continuous climatic fluctuations.
- **Scientific Value.** The pristine, multicomponent TJ unit and the remarkably intact cliff dwellings offer outstanding opportunities for ongoing and future scientific inquiry including comparison with other Tularosa and Mimbres Mogollon sites as well as other major southwestern precontact cultures. The monument's cultural resources exhibit a continuum of human use for anthropologic and ethnographic study. Research of the ongoing erosional processes that created the unique complex of caves and narrow Cliff Dweller Canyon could provide insight into the timing of major geologic events that helped shape the region. Comparisons of natural resources in the area today with similar resources within the archeological record may provide opportunities for ethnobiological studies and can also be used to gauge the impact of climate change over time. The park is surrounded by more than 558,000 acres of wilderness with minimal historic impacts from humans. These ecosystems are a unique living laboratory of near-pristine conditions, providing an important reference site for more impacted areas within the region.

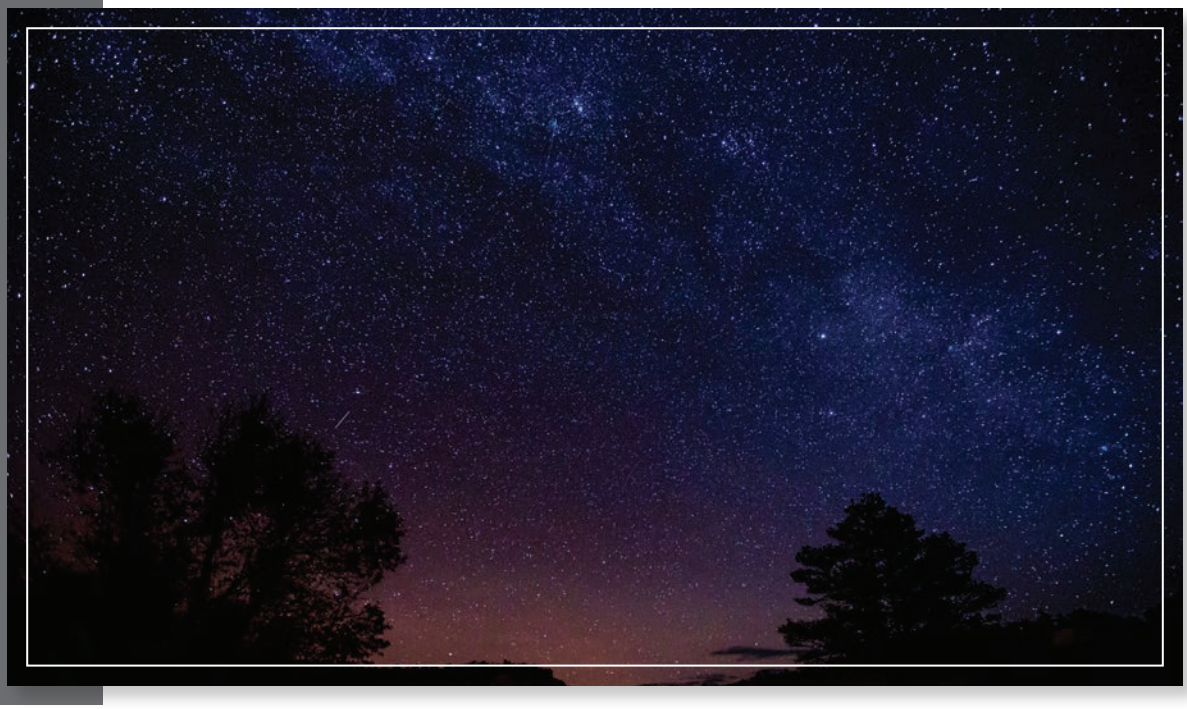
- **Setting and Natural Resources.** The monument is near the intersection of the three forks of the Gila River, bordered on three sides by the high mountains of the Mogollon, Black, and Pinos Altos ranges. A unique combination of geophysical and hydrological processes have made the upper Gila River watershed diversely rich in plants and animals, attracting and sustaining American Indians for at least 2,000 years. The western unit occupies most of Cliff Dweller Canyon, where a permanent spring and perennial Cliff Dweller Creek provided a dependable water source for many generations. A variety of pine, fir, and other riparian plants grow at the bottom of the canyon and along the river below. The canyon opens to the West Fork of the Gila River—New Mexico's last free-flowing river. Reaches of the river through the park contain rare cold-water fisheries, including habitat for the endangered Gila Trout. The TJ unit is on a mesa overlooking the confluence of the West Fork and Middle Fork of the Gila River. On the lowlands below the canyon and mesa are pockets of soil adequate for farming. The moderate climate and well-watered land of the valley support diverse wild plants suitable for gathering. The various components of the monument including the highlands, the valley, and the waters support abundant wildlife. The elevation in the immediate vicinity of Gila Cliff Dwellings National Monument ranges from 5,700 to about 6,000 feet above sea level. The rugged terrain of the monument is characterized by narrow canyon bottoms, steep canyon sides, cliff faces, and wooded ridge tops.
- **Opportunities to Connect to Resources.** The precontact structures and landscapes preserved and interpreted at the monument, along with museum exhibits and guided interpretive tours, allow visitors to learn about earlier peoples and their ways of life. Visitors can also understand the continuum of human use from indigenous occupation to historic use to current resource management. In addition, the remoteness of the monument and the surrounding Gila Wilderness provides opportunities to experience solitude in an untrammeled natural environment of unimpaired soundscapes, viewsheds, and night skies.

## Other Important Resources and Values

Gila Cliff Dwellings 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 Gila Cliff Dwellings National Monument:

- **Wilderness.** Though none of the designated wilderness is within the park boundary, the park is surrounded by it. Pristine viewsheds, natural soundscapes, dark night skies, opportunities for solitude, and the unimpaired natural condition of the area is important in maintaining the monument's natural setting and visitor experience and protecting its fundamental resources. Remoteness and lack of development in the area that includes the monument is a key factor in the preservation of cultural resources. The Gila Wilderness also gives context to understanding of how earlier cultures existed in an evolving environment that changed dramatically through time but has been largely unaffected by modern human activities. The upper Gila River watershed, which created the environmental conditions that drew humans to settle the area, is entirely within the wilderness, and the West Fork of the Gila River enters the monument after winding through the wilderness. The establishment of the Gila Wilderness in 1924, the nation's first designated wilderness, represented a change in social thinking regarding land management at the time and is considered the starting point for the modern wilderness movement in the United States.
- **Traditional and Contemporary Cultural Connections.** Three American Indian tribes—the Acoma, Hopi, and Zuni—trace their possible descent from the Mogollon people; thus the National Park Service considers them traditionally associated tribes of the monument. Also, the Chiricahua and Mescalero, and possibly other Apache bands, maintain their own cultural ties to the Gila headwaters area and therefore, the monument. In addition, more than 20 other tribes attribute cultural significance and interest in the Gila Cliff Dwellings.



## 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 following interpretive themes have been identified for Gila Cliff Dwellings National Monument:

- Exploring the caves and rooms of the cliff dwellings provides uniquely intimate opportunities for firsthand discovery and contemplation of what life was like for the people who once lived here, and the chance to compare and contrast their way of living to our lifestyles today.
- Immersion within the diverse natural resources and wild, rugged beauty of the Gila River headwaters area heightens awareness of the interdependent relationships of people to this land, and the important values of the natural environment and wilderness to the human experience—from survival to cultural identity to recreation to stewardship.
- Gila Cliff Dwellings National Monument, the only NPS unit that protects Mogollon Culture sites, possesses a great diversity of archeological sites and the human stories that may come from artifacts and structures. This provides a multitude of opportunities to discover, interpret, and share 2,000 years of Mogollon history and cultural development.
- Gila Cliff Dwellings National Monument offers a near-perfect natural laboratory for scientists and visitors to learn about changes in landscape and climate that happened in the past as well as those currently occurring. Findings may have a powerful effect in helping people understand the importance of protecting the environment to reduce and mitigate human-caused impacts.

# 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 Gila Cliff Dwellings National Monument.

### Special Mandates

From Presidential Proclamation 3467 (1962): ". . . any of the lands reserved for such national monument which lie within 150 feet, by horizontal measurement, of the center of the West Fork of the Gila River shall be available to the Secretary of Agriculture as a route of ingress to or egress from the Gila National Forest and he may place such trails or roads thereon and permit such use thereof . . ."

For more information about the existing administrative commitments for Gila Cliff Dwellings National Monument, please see appendix C.

## 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.

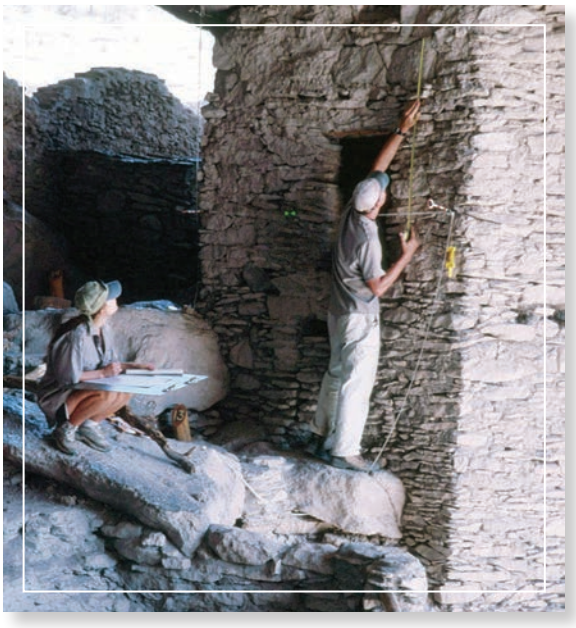
### Analysis of Fundamental Resources and Values

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 Resources |
|---|---|
| **Related Significance Statements** | Significance statements 1, 2, 3, and 4. |
| **Current Conditions and Trends** | **Conditions**<br>• The entire monument was listed in the National Register of Historic Places in 1966.<br>• In the monument are six caves containing approximately 50 masonry structures built in the late 1200s. Each of the caves is in the National Park Service's List of Classified Structures database.<br>• The last complete cultural condition assessment of the cliff dwellings and Javelina House was conducted in March 2007. The assessment determined that all structures are in good condition though some rodent burrowing is occurring and several portions of the structures could use minor stabilization work as preventative measures. Sites are monitored periodically.<br>• Four archeological sites in the monument are better protected than others from erosion because of Zuni check dams.<br>• Most rock art is inaccessible to visitors.<br>• The TJ site appears as low, saltbush-covered mounds on a lower cliff edge; precise structural outlines are muted by the thick covering of brush and a mantle of mixed refuse and melted adobe. The site remains unexcavated and as a result is undisturbed below the ground surface. Surface assessment on a regular basis provides information about the site.<br>• The entire monument has been surveyed for archeological sites.<br>• In 2009 fuel reduction was done on approximately 10 archeological sites, including the TJ site.<br>• The 2011 Miller fire superficially impacted archeological sites on the South Mesa and TJ Mesa, but because of fuel reduction there was no significant damage to the sites. The fire did destroy the down trail in Cliff Dweller Canyon.<br>• The Miller fire also destabilized rocks at high elevations in Cliff Dweller Canyon; in 2013 rock fall from above the cliff dwellings required closing the monument to the public. The National Park Service performed mitigation to remove hazardous rocks and trees above the cliff dwellings and on the trails. This effort is 80% complete.<br>• Most collected artifacts are stored at the National Park Service's Western Archeological and Conservation Center and some are on display in the visitor center. There is a limited amount of additional collections at universities. The U.S. Forest Service also maintains an extensive collection of artifacts.<br>• Original components show some minor degradation, as would be expected from allowing visitors access through much of the dwellings.<br>• Visitation to the TJ unit requires special permission.<br>**Trends**<br>• Site conditions remain relatively stable.<br>• Sites including the cliff dwellings and Javelina House are monitored periodically.<br>• Monument personnel (including volunteers) continuously monitor conditions inside the dwellings and make suggestions on ways to reduce impacts and improve visitor experience. Monument staff ultimately make decisions on how to mitigate impacts on the resources.<br>• No vandalism to the rock art has occurred to date. The natural process of exfoliation is occurring. |

| Fundamental Resource or Value | Archeological Resources |
|---|---|
| **Threats and Opportunities** | **Threats**<br>• At the cliff dwellings and Javelina House, there is potential degradation to the resources, especially to exposed surfaces, due to natural impacts.<br>• Rodent burrowing has been observed at all archeological sites in the monument.<br>• Saltbush encroachment at the TJ site is a concern due to possible damage from root growth. Another threat is the possibility of a catastrophic wildfire that could burn over the site with enough heat to damage or destroy the resources if continuous fuel reduction is not performed over the site.<br>• Some of the rock art within the monument is exposed to natural elements such as sunlight and rain and thus subject to exfoliation and fading.<br>• Small-scale looting and vandalism infrequently occurs to a number of the archeological resources in the monument. Looting of pottery sherds and wall damage from modern graffiti threaten preservation of resources in the cliff dwellings.<br>• The TJ unit is vulnerable to trespassing and clandestine excavation, especially at night.<br>• Water accumulation from rain and snowmelt on the trail in front of the cliff dwellings (specifically in front of cave 3) undermines the foundation of major walls of the structure. Water also impacts mortar.<br>• Precipitation causes erosion to steeper slopes that could impact archeological sites at these locations.<br>• Hazardous rocks and trees above the cliff dwellings present a threat to the resources and the safety of visitors and staff. Removal was done in 2013 and should continue.<br>• Increase in mean annual temperature and storm frequency and intensity projected for the region due to climate change could increase erosion events, wildfire frequency, geologic hazards (e.g., rockfall), and invasive species that could impact archeological resources.<br>**Opportunities**<br>• Stabilization work as a preventative maintenance measure needs to be conducted. Opportunities exist for sharing NPS Vanishing Treasures resources to accomplish this work.<br>• Additional archeological sites have been located and documented since the nomination to the national register was submitted. The nomination should be updated with new information pertaining to archeological sites.<br>• A complete stabilization history of the cliff dwellings would provide a comprehensive assessment of previous work that would help the monument plan for future stabilization efforts.<br>• A stabilization assessment of the structures in the cliff dwellings should be conducted and identified needs implemented.<br>• Remote sensing at the TJ unit potentially including ground penetrating radar, magnetometry, soil conductivity and resistivity, and LiDAR, should be conducted to meet both research and management needs.<br>• The collections catalogue database (Interior Collections Management System) contains errors and should be updated with regard to cultural resources.<br>• Research on collections at the NPS Western Archeological and Conservation Center facility should be conducted for interpretive purposes.<br>• Artifacts collected by visitors and given to volunteers and monument staff should be correctly managed by the monument.<br>• Museum exhibits should be improved to meet security and environmental standards.<br>• With a projected law enforcement presence on site, there is increased opportunity to install and maintain intrusion monitoring equipment for the TJ unit. |

| Fundamental Resource or Value | Archeological Resources |
|---|---|
| **Data and/or GIS Needs** | • Climate change vulnerability assessment.<br>• Stabilization history and assessment of the cliff dwellings.<br>• GIS layer of archeological sites for park atlas.<br>• Cultural landscape inventory.<br>• Oral histories.<br>• Location of pre-NPS historic photos.<br>• Archeological overview and assessment (update).<br>• Ethnographic overview and assessment.<br>• Remote sensing in the TJ unit. |
| **Planning Needs** | • Resource stewardship strategy.<br>• Collections management plan (archives, artifacts, natural history specimens).<br>• Stabilization implementation plan.<br>• Integrated pest management plan.<br>• Strategic plan.<br>• Climate change scenario plan.<br>• Law enforcement needs assessment.<br>• Collections management plan.<br>• Cultural landscape report. |
| **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**<br>• American Indian Religious Freedom Act of 1978 (42 USC 1996 and 1996a, P.L. 95-341. 92 Stat. 469)<br>• Antiquities Act of 1906 (54 USC 320301-320303, 34 Stat. 225)<br>• Archeological and Historic Preservation Act of 1974 (54 USC 312502 et seq.)<br>• Archaeological Resources Protection Act of 1979 (54 USC 302902)<br>• Historic Sites Act of 1935 (54 USC 320101 et seq.)<br>• Museum Act of 1955, as amended (54 USC 102501-102504)<br>• National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.)<br>• Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001)<br>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"<br>• Executive Order 13007, "Indian Sacred Sites"<br>• Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments"<br>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"<br>• "Curation of Federally Owned and Administered Archaeological Collections," 36 CFR 79<br>• "Protection of Historic Properties," 36 CFR 800<br>**NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)**<br>• "Department of Interior Policy on Consultation with Indian Tribes"<br>• NPS *Management Policies 2006* (chapter 5) "Cultural Resource Management"<br>• Director's Order 24: *NPS Museum Collections Management*<br>• Director's Order 28: *Cultural Resource Management*<br>• Director's Order 28A: *Archeology*<br>• NPS *Museum Handbook*, parts I, II, and III<br>• *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* |



| Fundamental Resource or Value | Scientific Value |
|---|---|
| **Related Significance Statements** | Significance statements 1, 2, 3, and 4. |
| **Current Conditions and Trends** | **Conditions**<br>• Most collected artifacts are stored at the NPS Western Archeological and Conservation Center facility; some are on display in the visitor center.<br>• Some natural history collections are stored at universities.<br>• The unexcavated TJ site remains undisturbed and, as a result, offers above average research potential.<br>• The monument relies heavily on internal and external partners for resource information. Information collected by external partners should be entered into the National Park Service Research Permit and Reporting System (RPRS). In addition, as leadership changes at the park, managers need to be made aware of previous and ongoing research efforts undertaken by all partners.<br>• The relatively pristine condition of nonvisitor areas of the monument makes them ideal for scientific research.<br>• Any archeological research conducted by non-NPS personnel in the monument requires an Archaeological Resources Protection Act permit and scientific collecting permit.<br>• Flaking and deterioration of rock faces inside the cliff dwellings is rapidly destroying pictographs making them difficult to study.<br>• Historic visitation and the resulting vandalism and looting have impacted the resources and reduced their scientific value.<br>• Analysis of the artifact collection by Anderson, et al., is outdated relative to current archeological standards.<br>**Trends**<br>• Limited staff and funding prevents the initiation of studies beyond those currently underway.<br>• Data collection and mapping for vegetation is ongoing.<br>• The condition of pictographs is declining and there is potential for their loss. |

| Fundamental Resource or Value | Scientific Value |
|---|---|
| **Threats and Opportunities** | **Threats**<br>• There are no significant threats to the scientific value of the monument.<br>**Opportunities**<br>• Because the TJ site is undisturbed, it would be an ideal showcase for noninvasive archeological investigation techniques such as remote sensing methods including ground-penetrating radar, magnetometer inventories, and techniques that may be developed in the future.<br>• Study of the ongoing erosional processes that created the unique complex of caves and narrow Cliff Dweller Canyon could provide insight into the timing of major geologic events that helped shape the monument.<br>• The monument continues to rely on and could potentially increase reliance on outside researchers to support scientific studies and data acquisition.<br>• There is an opportunity for greater collaboration with increased coordination of efforts and result sharing of research done in the monument with that being conducted at other similar sites.<br>• The monument should coordinate with the NPS Sonoran Desert Network and others to compile an inventory of information that has been collected. The Sonoran Desert Network and others should locate and catalog all specimens and associated field records resulting from previous investigations.<br>• Use of the Cooperative Ecosystem Studies Units network for research activities in the monument could be increased.<br>• The monument should enhance coordination with the U.S. Forest Service to use and leverage data and information collected.<br>• New technologies could enable new kinds of scientific inquiry such as laser scanning and 3D reconstruction.<br>• Re-evaluation and analysis of the artifact collection held by the NPS Western Archeological and Conservation Center could provide new insights into the lifeways and history of the cliff dwellers. |
| **Data and/or GIS Needs** | • Ethnobotanical study to investigate possible Mogollon uses of native plants in the area.<br>• Cultural landscape inventory.<br>• Ethnographic overview and assessment.<br>• Archeological overview and assessment (update).<br>• Stabilization history and assessment of the cliff dwellings.<br>• Climate change vulnerability assessment.<br>• Night sky monitoring data.<br>• Obtaining tribal perspective on changes to the environment resulting from climate change.<br>• Soil inventory mapping. |
| **Planning Needs** | • Resource stewardship strategy.<br>• Cultural landscape report.<br>• Stabilization implementation plan.<br>• Strategic plan.<br>• Climate change scenario plan.<br>• Collections management plan.<br>• Cultural landscape report. |

| Fundamental Resource or Value | Scientific Value |
|---|---|
| **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**<br>• Antiquities Act of 1906 (54 USC 320301-320303, 34 Stat. 225)<br>• Archeological and Historic Preservation Act of 1974 (54 USC 312502 et seq.)<br>• Archaeological Resources Protection Act of 1979 (54 USC 302902)<br>• Clean Air Act of 1977 (42 USC 7401 et seq.)<br>• Clean Water Act of 1972 (33 USC 1251-1387, 33 USC 1151)<br>• Endangered Species Act of 1973, as amended (16 USC 1531 et seq.)<br>• Federal Cave Resources Protection Act of 1988 (16 USC 4301-4310 (2000))<br>• Federal Noxious Weed Act of 1974, as amended (7 USC 2801 et seq.)<br>• Historic Sites Act of 1935 (54 USC 320101 et seq.)<br>• Museum Act of 1955, as amended (54 USC 102501-102504)<br>• National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.)<br>• National Invasive Species Act of 1966 (16 USC 4701)<br>• Paleontological Resources Preservation Act (2009) (16 USC 470aaa-470aaa-11 (2012))<br>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"<br>• Executive Order 13112, "Invasive Species"<br>• "Curation of Federally-Owned and Administered Archaeological Collections," 36 CFR 79<br>• "Protection of Historic Properties," 36 CFR 800<br>**NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)**<br>• NPS *Management Policies 2006* (§1.6) "Cooperative Conservation Beyond Park Boundaries"<br>• NPS *Management Policies 2006* (§2.3.1.4) "Science and Scholarship"<br>• NPS *Management Policies 2006* (§4.1) "General Management Concepts"<br>• NPS *Management Policies 2006* (§4.1.4) "Partnerships"<br>• NPS *Management Policies 2006* (§4.2) "Studies and Collections"<br>• NPS *Management Policies 2006* (§4.4.1) "General Principles for Managing Biological Resources"<br>• NPS *Management Policies 2006* (§4.7.2) "Weather and Climate"<br>• NPS *Management Policies 2006* (§5.1) "Research"<br>• NPS *Management Policies 2006* (§8.10) "Natural and Cultural Studies, Research, and Collection Activities"<br>• Director's Order 24: *NPS Museum Collections Management*<br>• Director's Order 28: *Cultural Resource Management*<br>• Director's Order 28A: *Archeology*<br>• NPS *Museum Handbook*, parts I, II, and III<br>• NPS-75 *Natural Resources Inventory and Monitoring Guideline*<br>• NPS *Natural Resource Management Reference Manual 77* |

| Fundamental Resource or Value | Setting and Natural Resources |
|---|---|
| **Related Significance Statements** | Significance statements 3 and 4. |
| **Current Conditions and Trends** | **Conditions**<br>• Geologic conditions at the monument are relatively stable; however, the ongoing formation of alcoves by erosion continues.<br>• The West Fork of the Gila River is listed as impaired by the New Mexico Department of Environmental Quality due to its elevated water temperature. After the Miller fire, it was also listed for turbidity, but that is no longer an impairment concern. In 2012 a Sonoran Desert Network study identified elevated levels of aluminum as a result of the fires of 2011 and 2012. Fires expose substrate material containing high levels of aluminum, which is then carried into the river by runoff.<br>• The natural setting of the monument has changed little since precontact times; however, fire suppression during the past century has created excessive fuel buildup, resulting in the unnatural succession of vegetation communities.<br>• Large portions of the monument were burned in the 2011 Miller fire.<br>• A total of 547 native and nonnative plant species have been recorded in the monument and immediately adjacent U.S. Forest Service lands. These results indicate high species richness for such a small area (533 acres), particularly at its elevation and geographic location. This diversity of plant species is due to the wide variety of soils and microclimates and availability of water.<br>• No rare or endangered plants have been identified within the monument boundary. Four species of rare or endangered plant species are suspected to occur in the Gila River headwaters region but have not been documented in the monument.<br>• Three native amphibian and nineteen reptile species have been recorded within the national monument, along with the nonnative American bullfrog. Historically, the federally threatened Chiricahua leopard frog was present in and around the monument but has since been extirpated from the area. Three other amphibian species, the Mexican spadefoot toad, Woodhouse's toad, and red-spotted toad, once recorded as common in the area, were not found during a recent NPS survey. The ornate tree and eastern fence lizards are the most widespread native reptiles in the monument, and the nonnative American bullfrog has the highest relative abundance of any amphibian species found in the park.<br>• A total of 148 bird species have been recorded within the monument. The representative bird species from a wide range of families and genera within the monument is considered extremely diverse for such a small area. The peregrine falcon, Bell's vireo, and common black hawk are listed as threatened by the state of New Mexico. The peregrine falcon also is listed as a species of conservation concern by the U.S. Fish and Wildlife Service. Mexican Spotted Owls, a threatened and endangered species, may be nesting in the park and surveys are planned for 2016-2017. The zone-tailed hawk, belted kingfisher, and grey catbird are listed as sensitive species in the region by the U.S. Forest Service.<br>• Thirty-eight mammal species have been documented in or immediately adjacent to the monument. No nonnative mammal species or species with special conservation designations have been recorded during official NPS inventories. Twelve bat species have been documented within the monument, of which the Mexican free-tailed and silver haired bats are the most common. Eight small mammal species are present in the monument and the brush mouse and western harvest mouse are the most common. Sixteen mid-sized and large mammals have also been identified within the monument. For such a small monument, there is an abundance of large mammals that use the area, including the American black bear, mountain lion, elk, mule deer, and white-tailed deer. The grizzly bear and black-tailed prairie dog have been extirpated from the area in and around the national monument.<br>• Twenty-nine species of dragonflies and damselflies, including species rare and newly discovered in the US, were identified in the immediate vicinity of the monument. |

| Fundamental Resource or Value | Setting and Natural Resources |
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| **Current Conditions and Trends** | **Conditions (continued)**<br>• The Mexican grey wolf is known to be present in the area as a result of a reintroduction effort. It is a listed endangered species under a special designation.<br>• The National Park Service has identified 15 species of fish in the monument including 7 that are native and 8 that are nonnative. Three of the native species are threatened and endangered. The most abundant fish species observed are the native speckled dace and Sonora sucker. Other native species include the longfin dace, roundtail chub, spikedace, loach minnow, and desert sucker. The loach minnow and spikedace are listed as threatened by the U.S. Fish and Wildlife Service, and the roundtail chub is being considered for protection under the Endangered Species Act. The West Fork of the Gila River, which flows for 0.6 miles through the monument, is designated as critical habitat for the spikedace and loach minnow. The nonnative crayfish have detrimental impacts to the native aquatic invertebrate communities and, to a lesser extent, native amphibians.<br>• Human impact on the natural setting of the monument is low, but some trampling of vegetation does occur along the one-mile loop trail.<br>• Aside from the loop trail, the remainder of the monument is closed to the general public and in that area there are no known human impacts on the natural setting.<br>• The narrow-headed garter snake and the Arizona toad are recognized as sensitive species by the U.S. Forest Service and species of conservation concern by the U.S. Fish and Wildlife Service. The narrow-headed garter snake is listed as threatened by the state of New Mexico.<br>• The mean impact sound level in the monument is predicted to be 1.9 decibels, and the predicted existing sounds level of about 2 decibels above natural ambient sounds level indicates a prominence of natural sounds at the monument.<br>• The nighttime landscape is near its natural condition. The Milky Way is clearly visible from horizon to horizon, and there is negligible impact to dark adaptation of eyesight.<br>• The monument is supported by the NPS Sonoran Desert Network of the Inventory and Monitoring's program for natural resource management.<br><br>**Trends**<br>• In the past an increase in woody plants such as pinyon juniper due to fire suppression affected the hydrologic regime of the area. The proliferation of these plant species can draw down the water table, affecting infiltration and evapotranspiration rates, water runoff, and stream flow. The 2011 Miller fire has mostly mitigated this concern in the area of the monument and surrounding forest.<br>• Flash flooding of the Gila River and its tributaries is typical during heavy storm events, particularly after thawing of snowmelt each spring. Flash flooding is increasing as a result of both climate change and fire damage to the watershed.<br>• Water quality monitoring in both the West Fork of the Gila River and the spring is done on a quarterly basis by the Sonoran Desert Network. Aquatic species monitoring is done twice yearly by the Sonoran Desert Network. Vegetation monitoring is done regularly and was part of the vegetation mapping project. Other monitoring by the Sonoran Desert Network includes birds, climate, riparian vegetation, terrestrial vegetation and soils, and exotic plants and eventually will include medium and large mammals by using wildlife cameras. |
| **Threats and Opportunities** | **Threats**<br>• Climate change may lead to more severe, long-term droughts, increased frequency and severity of fire and flood events, and other extreme weather conditions that could alter the historic natural setting of the monument.<br>• Fires upstream of the monument in the Gila Watershed have resulted in degraded aquatic habitat, episodic exceedances of water quality criteria, and increased threat of flooding, erosion, and sedimentation, a situation that will be present for several years.<br>• Hydrological changes could affect the distribution and abundance of plants and animals. |

| Fundamental Resource or Value | Setting and Natural Resources |
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| **Threats and Opportunities** | **Threats (continued)**<br>• Flooding on the West Fork results in major erosion events and could inundate the trailhead parking lot and visitor contact station. Strength and periodicity of flooding events are increasing due to climate change and fires. In addition to threatening natural resources, flooding may impact the road to the monument and associated infrastructure.<br>• Fire suppression and the resultant fuel buildup in the form of unnatural succession vegetation communities, along with climate change, have the potential to threaten native species that cannot adapt to these changes.<br>• Invasive species within the monument compete with native plants and animals for limited resources such as food and nesting habitat. The American bullfrog is an invasive species of particular management concern because both adults and tadpoles are voracious predators and competitors. The bullfrog is thought to be partly responsible for the decline of many native fish, reptiles, and amphibians in the area. The large numbers of nonnative fish and crayfish are also impacting the native fish and herpetofauna communities of the monument.<br>• Aircraft overflights above the monument and surrounding wilderness, mainly by military aircraft, impact natural ambient sound levels.<br>• Air quality is threatened by any significant burn event.<br>• Any development in the region could introduce artificial light to the nighttime environment.<br>• Ground-level ozone can reach levels that cause injury to ozone-sensitive plants. Although the monument's generally dry conditions are likely to limit ozone uptake by plants and subsequent injury, a wet year could increase the risk of ozone injury. Similarly, ozone uptake could increase along riparian corridors and result in the risk of ozone damage to vegetation in these areas. There are several ozone-sensitive plants in the monument including ponderosa pine, boxelder, silver sage, narrowleaf willow, and cut-leaf coneflower.<br>• The park's semiarid ecosystem, meadows, and wetland may be vulnerable to nutrient-enrichment effects of excess nitrogen from atmospheric deposition that can help invasive plant species grow faster and out-compete native vegetation adapted to lower nitrogen conditions.<br><br>**Opportunities**<br>• Native plant and animal diversity and natural processes of the monument, including natural functioning conditions of the Gila River and its tributaries, should be maintained or improved.<br>• The high diversity of dragonfly and damselfly species has the potential to establish the monument and the adjacent Gila Wilderness as a dragonfly viewing destination and presents an opportunity for more formal research by the Sonoran Desert Network of Inventory and Monitoring and other research institutions.<br>• Restoring natural fire regimes and controlling nonnative species (especially American bullfrogs) would have a positive effect on the monument's native species.<br>• Revegetation of the areas burned above the down trail during the Miller fire in conjunction with the Sonoran Desert Network would be a benefit in Cliff Dweller Canyon.<br>• Work with New Mexico State Highway Department and the U.S. Forest Service on solutions for the undermining of the road to the monument would benefit the monument.<br>• Opportunities for joint studies and sharing of data regarding natural resource management between the National Park Service and U.S. Forest Service should be explored.<br>• Interpretative and educational tools should be expanded to communicate the connections between sensitive natural resources, cultural landscapes, air quality and pollution (even in remote settings), scenic views, night sky, wilderness, human health, climate change, and other associated resources. |

| Fundamental Resource or Value | Setting and Natural Resources |
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| **Data and/or GIS Needs** | • Soil inventory maps to better understand the natural processes of the area and their effect on plant and animal communities.<br>• Identification of precontact vegetation communities of the monument.<br>• Ethnobotanical study to investigate possible Mogollon uses of native plants in the area.<br>• Climate change vulnerability assessment.<br>• Night sky monitoring.<br>• Soil inventory mapping.<br>• Regional air quality monitoring for visibility, ozone, and atmospheric deposition (ongoing).<br>• Pollution studies. |
| **Planning Needs** | • Resource stewardship strategy.<br>• Climate change scenario plan.<br>• Strategic plan.<br>• Law enforcement needs assessment.<br>• Collections management plan. |
| **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**<br>• Clean Air Act of 1977 (42 USC 7401 et seq.)<br>• Clean Water Act of 1972 (33 USC 1251-1387, 33 USC 1151)<br>• Eagle Protection Act (16 USC 668)<br>• Endangered Species Act of 1973, as amended (16 USC 1531 et seq.)<br>• Federal Noxious Weed Act of 1974, as amended (7 USC 2801 et seq.)<br>• Federal Cave Resources Protection Act (1988) (16 USC 4301-4310 (2000))<br>• Lacey Act, as amended (16 USC 3371-3378)<br>• Migratory Bird Treaty Act of 1918 (16 USC 703-712)<br>• Museum Act of 1955, as amended (54 USC 102501-102504)<br>• National Environmental Policy Act of 1969 (42 USC 4321)<br>• National Invasive Species Act of 1996 (16 USC 4701)<br>• National Parks Overflight Act of 1987 (54 USC 100101, 49 USC app. 1348, PL 100-91)<br>• Paleontological Resources Preservation Act (2009) (16 USC 470aaa et seq. (2012))<br>• Wilderness Act of 1964 (16 USC 1131 et seq.)<br>• Executive Order 11514, "Protection and Enhancement of Environmental Quality"<br>• Executive Order 11988, "Floodplain Management"<br>• Executive Order 12088, "Federal Compliance with Pollution Control Standards"<br>• Executive Order 13112, "Invasive Species"<br>• National Flood Insurance Program<br>• Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act"<br>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"<br>• "Audio disturbances," 36 CFR 2.12 |

| Fundamental Resource or Value | Setting and Natural Resources |
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| **Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance** | **NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)**<br>• NPS *Management Policies 2006* (§1.4) "Park Management"<br>• NPS *Management Policies 2006* (§1.6) "Cooperative Conservation Beyond Park Boundaries"<br>• NPS *Management Policies 2006* (§4.1) "General Management Concepts"<br>• NPS *Management Policies 2006* (§4.1.4) "Partnerships"<br>• NPS *Management Policies 2006* (§4.4.1) "General Principles for Managing Biological Resources"<br>• NPS *Management Policies 2006* (§4.6.1) "Protection of Surface Waters and Groundwaters"<br>• NPS *Management Policies 2006* (§4.6.2) "Water Rights"<br>• NPS *Management Policies 2006* (§4.6.4) "Floodplains"<br>• NPS *Management Policies 2006* (§4.7) "Air Resource Management"<br>• NPS *Management Policies 2006* (§4.7.2) "Weather and Climate"<br>• NPS *Management Policies 2006* (§4.9) "Soundscape Management"<br>• NPS *Management Policies 2006* (§4.10) "Lightscape Management"<br>• NPS *Management Policies 2006* (§5.3.1.7) "Cultural Soundscape Management"<br>• NPS *Management Policies 2006* (§8.4) "Overflights and Aviation Uses"<br>• NPS *Management Policies 2006* (§8.2.3) "Use of Motorized Equipment"<br>• Director's Order 18: *Wildland Fire Management*<br>• Director's Order 24: *NPS Museum Collections Management*<br>• Director's Order 47: *Soundscape Preservation and Noise Management*<br>• Special Directive 93-4 "Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance" (1993) (replaced by Director's Order 77-2: *Floodplain Management)*<br>• NPS *Wildland Fire Management Reference Manual 18*<br>• NPS *Natural Resource Management Reference Manual 77* |

| Fundamental Resource or Value | Opportunities to Connect to Resources |
|---|---|
| **Related Significance Statements** | Significance statements 1, 2, 3, and 4. |
| **Current Conditions and Trends** | **Conditions**<br>• A visit to Gila Cliff Dwellings National Monument is different from visits to other cultural sites because of the opportunity to walk into the cliff dwellings. The monument's remoteness and general lack of crowding add to this unique experience.<br>• Volunteers provide guided tours of the cliff dwellings at varying levels of quality. Content and delivery of themes and monument resource messages is inconsistent and of varying quality because of inadequate training, lack of capacity to oversee the volunteer program, frequent turnover in volunteers, and difficulty recruiting volunteers. Volunteers provide basic operational functions.<br>• The monument has an existing agreement with Western National Parks Association to support the monument in interpretive programming. Western National Parks Association is also authorized under a regional concession contract to sell visitor convenience items at the visitor center.<br>• Through cooperation with Western National Parks Association, tablet computers for training and interpretive services have been provided for volunteers.<br>• The monument's fee collection function is staffed by volunteers and leads to issues with background investigations and regulatory compliance. The monument is a 100% fee park.<br>• Education and outreach programs are at a minimal level because of a lack of capacity.<br>• The U.S. Forest Service provides some maintenance functions for the monument. The visitor center and contact station are owned by the U.S. Forest Service and co-managed by the U.S. Forest Service and National Park Service.<br>• Lack of NPS housing limits recruitment of staff and volunteers.<br>• The museum is Mission 66 and has not been updated.<br>• There are no public utility services to provide water, electricity, and telephone and internet at the visitor contact station. There is solar generated electricity.<br>• Interpretive materials (monument film, Junior Ranger program, brochures, interpretive signage, wayside exhibits, monument newspaper, contact station exhibits and interpretation) are either outdated or nonexistent. The monument film is not compliant with the Americans with Disabilities Act standards.<br>• An active Facebook page has more than 2,000 followers since its creation in October 2014.<br>• Fishing is permitted in the monument under New Mexico Game and Fish regulations.<br>• There is no organic onsite medevac or transport capability in case of an emergency.<br>• The entire visitor experience is dramatically impacted by the method of staffing.<br>**Trends**<br>• Fishing activity is declining because of damage to the fisheries as a result of flooding.<br>• The U.S. Forest Service and National Park Service are coordinating to improve interpretive opportunities for visitors.<br>• Although currently there are no cultural demonstrations, there are plans to renew the programs for the 2016 NPS Centennial.<br>• Visitation declined during the last 5–8 years, but most recently (2015) has increased.<br>• Use of social media is increasing. The Facebook page is active and both visitors and staff are adding content. Plans are underway to broaden social media outreach with the creation of an Instagram account.<br>• Interactive electronic media is being introduced to enrich interpretation.<br>• There is 98% visitor satisfaction based on visitor surveys; however, visitor understanding is lower (80%) because of a lack of effective and consistent interpretation (signage, antiquated museum exhibits, lack of trained interpreters).<br>• The improving relationship between the National Park Service and U.S. Forest Service is resulting in joint interpretation, outreach, and management. |

| Fundamental Resource or Value | Opportunities to Connect to Resources |
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| **Threats and Opportunities** | **Threats**<br>• The monument is using a volunteer program in place of an official NPS presence. Increased scrutiny of volunteer programs could end the long-term viability of this model.<br>• Operation of the fee program could be dramatically impacted if the particular volunteers who manage the program were to leave.<br>• Continuous turnover of volunteer staff focuses slender resources on continual recruitment, basic training, and in-processing of volunteers to the detriment of longer term interpretive programs and projects.<br>• Rodents burrowing throughout the monument present a risk of disease transmission to visitors and staff.<br>• Flooding, rock fall, and other natural disasters in Cliff Dweller Canyon could result in injury to visitors and staff and/or closure of the monument.<br>• Washout of the state road and associated infrastructure could close the monument and prevent any vehicular transport to and from the monument.<br>• Visitor safety could be impacted by closure of the state road leading to the monument.<br>• Adverse management decisions by the U.S. Forest Service (for example, closure of restroom facilities or campgrounds) would directly impact operations of the monument.<br>• Emergency medical services evacuation from the monument is not available.<br>• Tribal, pioneer, and NPS oral histories concerning the monument have not been documented.<br>• The monument's viewsheds of distant scenery are sometimes obscured by pollution-caused haze. During the 2004-2013 decade, visibility improved. At night, air pollution scatters artificial light, increasing the effect of light pollution on the night sky.<br>**Opportunities**<br>• Information obtained from scientific research could be used to inform the visiting public as well as the scientific community. Newly acquired information could serve to enrich interpretation and education programs at the monument.<br>• Interpretation of and education regarding the influences of climate change on the monument's resources could be increased.<br>• Outreach to local schools and civic groups, including educational and other programs, is underway.<br>• Building a local constituency could result in a friends group.<br>• A comprehensive and effective interpretive program could be developed and implemented.<br>• Volunteers, interns, and other staff from associated tribes could be recruited to address multiple-perspective interpretation and inclusion of associated tribes at the monument.<br>• New museum exhibits, interpretive signage for the Cliff Dweller trail, and interpretive materials for the contact station could be developed.<br>• Electronic media (video and slide) programs to enrich interpretation could be developed.<br>• A new Junior Ranger book could be developed.<br>• A new monument film could be made that is ADA compliant and corrects errors present in the existing film.<br>• The use of NPS and U.S. Forest Service interns to improve visitor services could be increased.<br>• Relationships with universities and other academic programs to aid in bolstering interpretive programing could be strengthened.<br>• Reintroduction of Gila Trout (T&E species) by the U.S. Fish and Wildlife Service could benefit the visitor experience within the monument. |

| Fundamental Resource or Value | Opportunities to Connect to Resources |
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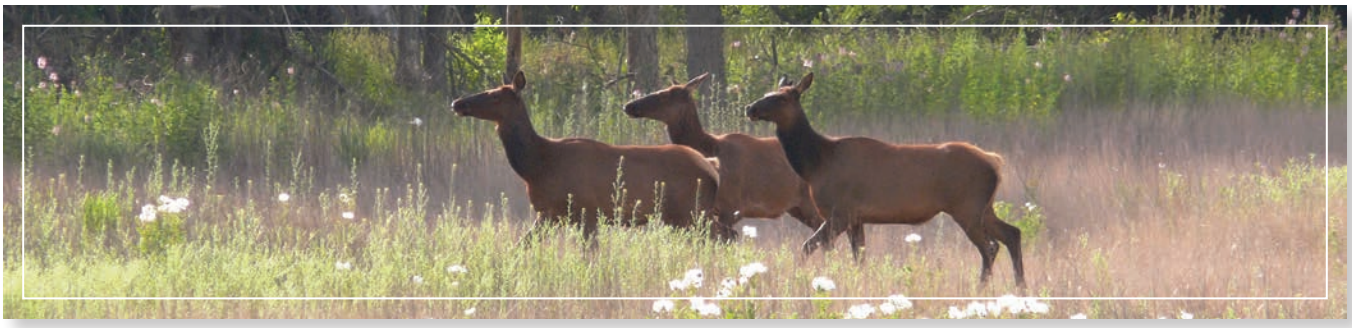
| **Data and/or GIS Needs** | • Locate pre-NPS historic photos.<br>• Stabilization history and assessment of the cliff dwellings.<br>• Oral histories. |
| **Planning Needs** | • Comprehensive interpretive plan.<br>• Fishery management plan.<br>• Stabilization implementation plan.<br>• Strategic plan.<br>• Accessibility self-evaluation and transition plan.<br>• Emergency response plan.<br>• Safety plan.<br>• Climate change scenario plan.<br>• Law enforcement needs assessment. |
| **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**<br>• Americans with Disabilities Act of 1990 (42 USC 12101 et seq.)<br>• Architectural Barriers Act of 1968 (42 USC 4151 et seq.)<br>• Clean Air Act of 1977 (42 USC 7401 et seq.)<br>• Museum Act of 1955, as amended (54 USC 102501-102504)<br>• National Park Services Concessions Management Improvement Act (54 USC 101912)<br>• Rehabilitation Act of 1973 (29 USC 701 et seq.)<br>• Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments"<br>• "Architectural Barriers Act (ABA) Accessibility Guidelines," 36 CFR 1191.1<br>**NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)**<br>• NPS *Management Policies 2006* (chapter 7) "Interpretation and Education"<br>• NPS *Management Policies 2006* (chapter 8) "Use of the Parks"<br>• NPS *Management Policies 2006* (chapter 9) "Park Facilities"<br>• NPS *Management Policies 2006* (chapter 10) "Commercial Visitor Services"<br>• Director's Order 6: *Interpretation and Education*<br>• Director's Order 24: *NPS Museum Collections Management*<br>• Director's Order 42: *Accessibility for Visitors with Disabilities in National Park Service Programs and Services*<br>• NPS *Transportation Planning Guidebook* |

## Analysis of Other Important Resources and Values

| Other Important Resource or Value | Wilderness |
|---|---|
| **Current Conditions and Trends** | **Conditions**<br>• The land surrounding the monument has been managed as wilderness by the U.S. Forest Service since 1924 and continues to retain a high degree of wilderness character and natural integrity.<br>• Near pristine viewsheds, natural soundscapes, opportunities for solitude, exceptional dark night skies, and the unimpaired natural condition of the area allow visitors to imagine and appreciate the Mogollon way of life. The rugged nature of the land provides opportunities to challenge oneself in primitive, unconfined recreation.<br>• The wilderness continues to protect the headwaters of the Gila River, which is currently the longest undammed stretch of river in the contiguous 48 states and New Mexico's last free-flowing river.<br>• Ongoing protection of the wilderness continues to support the monument in the protection of its resources.<br>• Many visitors come to experience both the surrounding wilderness and the monument.<br>• The West Fork has been heavily impacted (scouring and sediment deposition) by major flash floods in 2013–2014 as a result of major fires in the watershed in 2011–2012. These events have had a negative impact on threatened and endangered species in the West Fork.<br>• The West Fork of the Gila River is listed by the state of New Mexico as impaired under the Clean Water Act for elevated water temperatures. Research by the Sonoran Desert Network identified elevated levels of aluminum as a result of the fires of 2011 and 2012. Fires expose more substrate material that have higher aluminum levels, which is then carried into the river as runoff.<br>• Flash flooding increases turbidity in the river and has impacts on aquatic species.<br>• Flash flooding from the West Fork and Cliff Dweller Canyon impacts monument trails, roads, and infrastructure.<br><br>**Trends**<br>• Existence and proximity of the wilderness continues to benefit the monument.<br>• The Miller fire of 2011 and the Mogollon Baldy fire of 2012 created massive areas of fire damage in the middle and upper watersheds of the West Fork. This damage has led to a short term increase in the periodicity of flash flood events, both minor events on Cliff Dweller Canyon and major events on the West Fork itself. The overall stability of both the geomorphology and the ecosystems of the area are in a state of flux due to the fire damage, flooding, and increased major storm events attributed to the changing climate. It is anticipated that this flux will continue into the indefinite future. |
| **Threats and Opportunities** | **Threats**<br>• An increase in aircraft overflights could lessen visitors' perception of the remoteness and wildness of the area, as well as degrade the natural soundscape.<br>• An increase in light pollution from new developments in Silver City and other surrounding communities could degrade the darkness of the night sky. At night, air pollution scatters artificial light, increasing the effect of light pollution on the night sky.<br>• The park's viewsheds of distant scenery are sometimes obscured by pollution-caused haze. Air pollution associated with new developments (particularly fossil-fuel burning power plants) throughout Arizona and New Mexico and impacts from fires obscure the natural viewsheds of the monument and surrounding wilderness.<br>• Ecosystem changes resulting from climate change impacts, including changes in species composition and increases in wildfire, flood events, and invasive species, could impact wilderness values.<br>• There is potential for increasing flash floods due to a denuded watershed. |

| Other Important Resource or Value | Wilderness |
|---|---|
| **Threats and Opportunities** | **Opportunities**<br>• The Gila River is listed on the Nationwide Rivers Inventory, meaning it may be eligible for designation as a national Wild and Scenic River, which would add to the visitor experience.<br>• Reintroduction of Gila Trout (T&E species) by the U.S. Fish and Wildlife Service could benefit visitor experience within the monument.<br>• Interpretative and educational tools could be expanded to communicate connections between wilderness, air quality and pollution (even in a remote setting), scenic views, night sky sensitive natural resources, cultural landscapes, human health, climate change, and other associated resources.<br>• Cooperative efforts with other federal and state air quality agencies and local stakeholders could help reduce air quality impacts in the park from sources of air pollution. Partnering with potential nearby developers or planners could similarly help increase awareness about the importance of park viewsheds, air quality, and night sky.<br>• Status as an International Dark Sky Park could be pursued. |
| **Data and/or GIS Needs** | • Climate change vulnerability assessment.<br>• Night sky monitoring data.<br>• Soil inventory mapping.<br>• Ongoing regional air quality monitoring for visibility, ozone, and atmospheric deposition. |
| **Planning Needs** | • Resource stewardship strategy.<br>• Climate change scenario plan.<br>• Strategic 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**<br>• Clean Air Act (42 USC 7401 et seq.)<br>• Wilderness Act of 1964 (16 USC 1131 et seq.)<br>• Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act"<br>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"<br>**NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)**<br>• NPS *Management Policies 2006* (§1.4) "Park Management"<br>• NPS *Management Policies 2006* (§1.6) "Cooperative Conservation Beyond Park Boundaries"<br>• NPS *Management Policies 2006* (§4.7) "Air Resource Management"<br>• NPS *Management Policies 2006* (chapter 6) "Wilderness Preservation and Management"<br>• Director's Order 41: *Wilderness Stewardship*<br>• NPS Reference Manual 41: *Wilderness Stewardship*<br>• *NPS Keeping It Wild in the National Park Service User Guide* |



| Other Important Resource or Value | Traditional and Contemporary Cultural Connections |
|---|---|
| **Current Conditions and Trends** | **Conditions**<br>• Multiple American Indian tribes have traditional associations with the land and natural and cultural resources in the monument and their ancestors who lived here. Some may wish to use the monument for traditional uses and/or share stories about their connections to the sites.<br>• The Eastern Bands of the Chiricahua Apache and the Mescalero Apache recognize the Gila River headwaters area as their traditional homeland and consider the mountain ranges to be both spiritually and culturally important to their people.<br>• The identity of many modern American Indian family groups or clans comes from the natural resources that are significant to them. Some modern tribes continue to value the monument and its resources for traditional uses.<br>• Although no tribes have informed the National Park Service of any sacred sites on the monument, this does not mean that none exist.<br>• Entry fees are waived for members of traditionally associated tribes.<br>**Trends**<br>• Associated tribes having any implied or explicit rights to use lands or resources on the monument continue to have these rights honored in accordance with law and NPS policy. |
| **Threats and Opportunities** | **Threats**<br>• Potential threats to traditionally associated sites may include inappropriate modern uses, intrusion of modern amenities, disruption of sites from natural or human-caused factors, impacts on soundscapes, and vandalism.<br>• Tribal, pioneer, and NPS oral histories concerning the monument have not been documented.<br>• Interpretation may suffer from lack of multiple perspectives and occasionally be culturally insensitive due to lack of training.<br>**Opportunities**<br>• The National Park Service will continue ongoing consultation with traditionally associated American Indian tribes.<br>• As new museum exhibits and waysides are developed, the perspective of traditionally associated tribes will be included.<br>• Oral histories could be collected from traditionally associated tribes, the pioneer period, and the National Park Service and U.S. Forest Service.<br>• There could be great opportunities for partnerships and engagement of local artisans and tribal members through bringing back cultural demonstrations and programs. |
| **Data and/or GIS Needs** | • Ethnobotanical study to investigate possible Mogollon uses of native plants in the area.<br>• Collection and documentation of oral histories from traditionally associated tribal members, pioneer period descendants, and the National Park Service and U.S. Forest Service.<br>• Ethnographic overview and assessment.<br>• Obtaining tribal perspective on changes to the environment resulting from climate change. |

| Other Important Resource or Value | Traditional and Contemporary Cultural Connections |
|---|---|
| **Planning Needs** | • Resource stewardship study.<br>• Stabilization implementation plan.<br>• Strategic plan.<br>• Climate change scenario 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**<br>• American Indian Religious Freedom Act of 1978 (PL 95-341. 92 Stat. 469)<br>• Antiquities Act of 1906 (54 USC 320301-320303, 34 Stat. 225)<br>• Archeological and Historic Preservation Act of 1974 (54 USC 312502 et seq.)<br>• Archaeological Resources Protection Act of 1979 (54 USC§302902)<br>• Historic Sites Act of 1935 (54 USC 320101 et seq.)<br>• National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.)<br>• Native American Graves Protection and Repatriation Act of 1990 (25 USC§3001)<br>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"<br>• Executive Order 13007, "American Indian Sacred Sites"<br>• Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments"<br>• Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act"<br>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"<br>• Treaty of Guadalupe Hidalgo<br>• "Protection of Historic Properties," 36 CFR 800<br>**NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)**<br>• NPS *Management Policies 2006* (chapter 5) "Cultural Resource Management"<br>• Director's Order 28: *Cultural Resource Management*<br>• Director's Order 28A: *Archeology*<br>• *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*<br>• *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* |

## 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 or 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 Gila Cliff Dwellings National Monument and the associated planning and data needs to address them:

- **Infrastructure for Communication and Transportation.** Infrastructure in and around the monument is inadequate to meet the monument's needs for reliable communication and transportation. Because of the remote location and small population of the area, there is limited demand for the necessary infrastructure to economically justify reliable phones and internet access supplied by the large telecomm companies. Phone service using landlines is unreliable for monument staff and volunteers, and wireless phone service is nonexistent within a 45-mile radius of the monument. There is no phone at the cliff dwellings or visitor contact station so response to an emergency situation must be relayed by radio to the visitor center where staff or volunteers can make a call using a land line. The limited, spotty coverage area of the monument radios is also problematic. There is a U.S. Forest Service relay at the visitor center, but there are numerous locations throughout the monument where radios do not work. Monument volunteers do not always know how to use the radios appropriately to address issues or problems. With regards to internet, there are intermittent outages that make service insufficient to meet operational needs. Some basic NPS systems will not function at all on the current system. It is unlikely that the National Park Service or the U.S. Forest Service could facilitate bringing the required telecommunication infrastructure to the area to accommodate the necessary changes to existing technology, but the current infrastructure is not adequate to meet communication needs of monument and U.S. Forest Service staff and visitors. If the current telecomm infrastructure simply needs a manageable upgrade, it might be something that the National Park Service and the U.S. Forest Service could partner to facilitate, but if it requires an entire overhaul of the system, it would be beyond the capabilities of the government agencies and the large telecom companies likely would not make the investment.

  Aside from communication difficulties, transportation to and around the monument is also difficult. The only access road to the various units of the monument is a state road. Recent natural impacts including fires and flooding are undermining the road. Federal Highways and the New Mexico Department of Transportation have agreed to a re-armoring of the riverbed in the worst area during the summer of 2015. This may fix the problem at that location. If similar or worse road problems arise in the future, the monument would need to be closed to the public due to inadequate access. In addition, a significant portion of the physical infrastructure for the monument including the road, vehicle bridge, pedestrian bridge, and other U.S. Forest Service facilities used by monument visitors such as the campgrounds are in the floodplain. Flood events are increasing in frequency and magnitude, making this issue even more relevant. An NPS emergency response plan is needed to coordinate closely with the U.S. Forest Service emergency response plan. An asset management condition assessment would also be useful but cannot formally be done because technically none of the assets belong to the National Park Service.

- **Safety.** Safety is a concern in several respects at the monument. First, the problems with infrastructure could pose a risk to staff and/or visitor safety. Without effective infrastructure for communication and transportation, any type of hazard or emergency cannot be properly managed. In addition to limited communications and the high potential for road closures in a hazardous situation, travel time can take hours for responding emergency personnel, posing a threat to both people (staff, volunteers, visitors) and to the protection of resources. The nearest larger town, Silver City, is more than an hour's drive away and the long winding road is, from time to time, impassable. Currently, the U.S. Forest Service has a safety plan for the area, but it is not applicable to the monument and a National Park Service safety plan would be useful for the park to address these issues. Safety plan jurisdiction for buildings owned by the U.S. Forest Service but operated by the National Park Service needs to be clarified.

  In addition to the basic logistics for safety, there are issues with law enforcement at the monument. The National Park Service has no law enforcement capacity and the single USFS law enforcement ranger is often hours away in other areas of the forest. Because the monument is at the staff limit, it is unable to employ any law enforcement personnel. The monument has worked on creating a co-funded position between the National Park Service and U.S. Forest Service, but so far that has not been approved. Another possible solution would be for the USFS law enforcement captain to oversee an NPS law enforcement ranger, but roadblocks to that solution have been put in place. In coordination with nearby Chamizal National Memorial, the two park units are attempting to work out a solution in which a seasoned law enforcement ranger, experienced in working in remote areas, would be shared by the park units. As it stands, the limited staff at Gila Cliff Dwellings National Monument has to respond to issues beyond their area of expertise. The monument has spectacular natural and cultural resources, but is remote and easily lost in the larger perspectives of both federal agencies concerned with its oversight and operation. A law enforcement needs assessment would evaluate the needs and propose solutions for this issue.

- **Volunteer Program.** The restriction on hiring employees beyond the current two full-time year round staff members and as many as two full-time seasonal staff members has led the monument to rely heavily on volunteers to take on a large amount of work in the monument, specifically with regard to the fee program and interpretive programming. Although the monument staff is appreciative of the volunteers, there are some problems with the program that make it difficult to manage. The monument has between 10 and 15 volunteers at any given time and more than 100 total on an annual basis. Of late, however, recruitment has made it difficult to have 15 volunteers seasonally. The transient nature and continual turnover of the volunteer pool creates ongoing difficulty in the recruitment, training, and retention of high-quality volunteers able to meet NPS expectations of operational performance. Because of the remoteness of the monument, and therefore the difficulty with communication (phone/internet) and accessibility to nearby services, many volunteers find living conditions too difficult to stay at the monument for an extended period of time or to return to the monument for repeated volunteer duty. Another area of difficulty is training and volunteer performance. The monument staff does not have the resources to conduct an in-depth training program for the volunteers, and, although there is a digital training program, it has not yet been successfully implemented among volunteers. Because of the lack of consistent training, the performance of volunteers can suffer. They deliver inconsistent messaging to visitors on interpretive programs and, because they work on a volunteer basis, can sometimes be difficult to manage and supervise, preferring to contribute to the monument in their own way rather than how the monument staff would like them to or how the needs of the National Park Service should be met (such as providing false or exaggerated interpretive programming that can frequently be culturally insensitive or entirely misrepresent cultural beliefs of traditionally associated tribes). In some circumstances when it might be better to dismiss a volunteer, there are not adequate channels to do so, especially if the volunteer is one of the few who can legally collect fees from visitors based on background checks and fee program regulations. Relying on a few volunteers to operate the fee program leads to consistent problems in operating within NPS fee regulatory guidelines. Separation of duties, dual controls, and other normal accountability procedures cannot be followed due to limited and volunteer staff. In addition, volunteers often find themselves responsible for visitor safety and do not have adequate training or equipment for emergency response. An internship program might be a promising opportunity to improve the volunteer program, but so far the monument has been unable to create such a program. Some data needs that might address these issues include a housing needs assessment, but building housing for volunteers is not permitted. A staffing needs assessment might provide insight for the monument's interpretive needs when it comes to actual staffing needs of the monument.

- **Climate Change.** Climate change data analysis conducted by the NPS Inventory and Monitoring Division and the NPS Climate Change Response Program indicates that recent climatic conditions are shifting beyond the historical range of variability. Temperature variables data indicate extreme warming at Gila Cliff Dwellings National Monument. Ongoing and future climate change would likely have impacts on monument management, specifically for resource protection, monument operations, and visitor experience. Specifically at the monument, monument managers are observing increased instances and intensity of fires and flooding, resulting in changes to the biota of the monument. Data needs with regards to this issue include obtaining and interpreting observed climate data and assessment of modeled climate projections for the region and capturing significant amounts of species data information to understand if species are changing in and around the monument due to climate change. A climate change vulnerability assessment for select resources would assist the monument going forward and would provide input for climate change scenario planning. In addition, a resource stewardship strategy would provide information to assess climate change impacts to the resources in the monument.

- **Interagency Cooperative Management.** The National Park Service and U.S. Forest Service are co-located in a very remote area of southwestern New Mexico in the greater Gila Wilderness. Management of the monument between the National Park Service and U.S. Forest Service is difficult because jurisdiction overlaps to such a great degree. Much of what the National Park Service does, aside from the protection of resources and visitor experience, is done on USFS land, creating an extremely challenging management situation for both agencies. Despite being a very old national monument, the National Park Service owns no facilities, but rather operates using those of the U.S. Forest Service. The National Park Service is forced to try to get money to work on the facilities and infrastructure that provide the basis of service for monument staff and visitors, but none of this infrastructure is owned by the National Park Service. The National Park Service uses USFS structures for the visitor center, visitor contact station, NPS offices, and employee and volunteer housing. The National Park Service contributes some of its funding per year for "rent" and USFS maintenance for use of the buildings. It commonly is unclear which agency has responsibility or authority to take action when action is necessary. The agencies have been operating with a lapsed cooperative agreement and are working toward writing a new one; however, the agreement is not always followed depending on the staff in the National Park Service and U.S. Forest Service who are implementing it. The management of both agencies changed in recent years and currently relationships are much improved and in good standing. The two site managers are working to again formalize operations by seeking approval for a service first authority.

## 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 Key Issue?** | **Planning Needs** | **Priority (H, M, L)** | **Notes** |
| Opportunities to Connect to Resources; Key Issue | Emergency response plan | H | There is currently no NPS plan for emergency response and there are a number of factors that would preclude an entirely successful response, including communication difficulties, transportation problems, and personnel issues. An emergency response plan should also include an emergency evacuation plan in the case of natural disaster. A spill prevention countermeasure control plan was previously submitted to PMIS and should also be included in this plan. |
| Archeological Resources; Setting and Natural Resources; Scientific Value; Wilderness; Traditional and Contemporary Cultural Connections | Resource stewardship strategy | H | Data should be collected and consolidated to inform "desired conditions" for this strategy. This is more important at this monument than at some other park units because there is no resource management staff at the monument and current staff relies heavily on outside researchers and advisors for resolution to resource management issues. There is a USFS forestwide plan for the surrounding Gila Wilderness, and the resource stewardship strategy should be coordinated and linked to existing USFS plans. In addition, this strategy was recommended in the Natural Resource Stewardship and Science Directorate (NRSS) climate change issue paper and should be coordinated with the data collected for climate change vulnerability assessment and the climate change scenario plan. |
| Archeological Resources; Scientific Value; Opportunities to Connect to Resources; Traditional and Contemporary Cultural Connections | Stabilization implementation plan | H | After an inventory and assessment of previous stabilization efforts is compiled, it will be easier to assess and implement future stabilization efforts, which are critical to maintaining the integrity of the cliff dwellings. |
| All FRVs/OIRVs; Key Issues | Strategic plan | H | Gila Cliff Dwellings National Monument has the fewest number of staff of any NPS park unit that maintains staff. Visitor services, maintenance, and fee collection are almost exclusively managed by volunteers, which is a nonsustainable approach to monument management. Law enforcement and emergency response depend entirely on USFS law enforcement or local sheriff's deputies who are stationed long distances from the monument. A strategic plan should address the use of volunteers to support monument operations and interpretive programming. It should also evaluate and identify opportunities to strengthen recruitment of employees, including internships and career development paths. |
| Opportunities to Connect to Resources; Key Issues | Safety plan | M | There are currently a number of standard operating procedures concerning safety issues but no overriding plan. The monument is in the NPS Intermountain Region Safety Zone 11 under Carlsbad Caverns National Park. There is a general USFS safety plan that may not be adaptable for the National Park Service because it addresses a number of actions that are not applicable within the monument. |

| Planning Needs – Where A Decision-Making Process Is Needed | | | |
|---|---|---|---|
| **Related to an FRV, OIRV, or Key Issue?** | **Planning Needs** | **Priority (H, M, L)** | **Notes** |
| All FRVs/OIRVs; Key Issues | Climate change scenario plan | M | After a climate change vulnerability assessment is completed, a scenario plan should be conducted. Because the monument is surrounded by wilderness, it may be more susceptible to adverse impacts from climate change. There is a USFS climate change plan and any future NPS planning efforts should be coordinated with USFS plans. Outcomes from a climate change scenario plan could be integrated into other plans such as the resources stewardship study and management decisions at the monument. |
| Archeological Resources; Setting and Natural Resources; Opportunities to Connect to Resources; Key Issue | Law enforcement needs assessment | M | This assessment would identify those factors creating a law enforcement workload in the monument and assess how they are currently being addressed and how they should be addressed going forward. This assessment should identify staffing and organizational needs that may not be currently addressed and provide guidance for position management planning and a framework for budgeting with specific regards to law enforcement. |
| Archeological Resources; Setting and Natural Resources; Scientific Value | Collections management plan | M | Although there is a scope of collections statement with a standard operating procedure for what to acquire and when, there is no comprehensive plan to manage museum collections. Collecting goals, including in response to climate change, should be reflected in the scope of collections statement and possibly be evaluated during a collections management plan. In addition, this plan should include a collection condition survey and a housekeeping plan. |
| Opportunities to Connect to Resources | Comprehensive interpretative plan | M | The existing comprehensive interpretive plan was identified in PMIS and completed in 2008. Because interpretation is such an important part of the visitor experience and is mostly conducted by volunteers, there should be a solid comprehensive interpretive plan to ensure that visitors get the appropriate interpretive messaging. |
| Key Issue | Park partnership strategy | M | This strategy would assess opportunities for partnerships to support the monument in education and interpretation. It should explore the involvement of universities and academic institutions and support provided by Western National Parks Association. It should also assess the possibility of a friends group and the involvement of the local community. |
| Archeological Resources | Integrated pest management plan | L | This plan should include both archeological sites and museum collections and storage. |
| Opportunities to Connect to Resources | Accessibility self-evaluation and transition plan | L | Accessibility is being addressed through interpretation, but a plan is needed to address this in a more comprehensive way. There are three existing PMIS projects for addressing accessibility at the monument. |
| Archeological Resources; Scientific Value | Cultural landscape report | L | This report should be prepared after the cultural landscape inventory is completed. |

| Planning Needs – Where A Decision-Making Process Is Needed | | | |
|---|---|---|---|
| **Related to an FRV, OIRV, or Key Issue?** | **Planning Needs** | **Priority (H, M, L)** | **Notes** |
| Opportunities to Connect to Resources | Fishery management plan | L | The fishery management plan was recommended in the NRSS water resources issue paper. This plan would be done in coordination with New Mexico Department of Fish and Game and U.S. Fish and Wildlife Service. It should address the potential impacts of nonnative fish on native fish, river ecosystem, and, particularly, the two species of fish that are federally listed as endangered. There is only a quarter of a mile of the West Fork of the Gila River within the monument where fishing occurs. |

| Data Needs – Where Information Is Needed Before Decisions Can Be Made | | | |
|---|---|---|---|
| **Related to an FRV, OIRV, or Key Issue?** | **Data and GIS Needs** | **Priority (H, M, L)** | **Notes** |
| Archeological Resources; Scientific Value; Opportunities to Connect to Resources | Stabilization history and assessment of the cliff dwellings | H | A stabilization history is being conducted by the NPS IMR archeology program. After it is completed, a stabilization assessment is needed as part of a future stabilization plan. |
| Archeological Resources; Setting and Natural Resources; Scientific Value; Wilderness; Key Issue | Climate change vulnerability assessment | H | This assessment was recommended in the NRSS climate change issue paper. Because the monument is surrounded by wilderness, it may be more susceptible to adverse impacts from climate change. There is a USFS climate change plan, and any planning efforts should be coordinated with current USFS plans. As part of the vulnerability assessment, the monument should obtain and interpret climate data including weather data (precipitation, temperature, storm events) and assessment of climate models (projected climate futures) for the geographic region to support park planning and management decision regarding climate change. |
| Archeological Resources; Scientific Value | Archeological overview and assessment (update) | H | An update to the 1990 assessment is needed. A suggested inclusion for such an assessment is digitization of wall elevations and plan maps from architectural documentation for compilation with GIS data. |
| Archeological Resources; Scientific Value | Cultural landscape inventory | H | This inventory was recommended by the NPS IMR historic preservation program. It could provide additional information for a national register nomination. In addition, it would provide the basis for a cultural landscape report. |
| Archeological Resources; Scientific Value; Traditional and Contemporary Cultural Connections | Ethnographic overview and assessment | M | This assessment would provide more information with which to understand and interpret the fundamental resources of the monument. |
| Setting and Natural Resources; Scientific Value; Wilderness | Night sky monitoring data | M | The monument will be applying for dark sky designation and monitoring must be done to acquire data for this designation. |
| Archeological Resources | Remote sensing in TJ unit | M | Remote sensing should be conducted at the TJ unit for both research and management needs. It would potentially include ground penetrating radar, magnetometry, soil conductivity/resistivity, and LiDAR. |

| Data Needs – Where Information Is Needed Before Decisions Can Be Made | | | |
|---|---|---|---|
| **Related to an FRV, OIRV, or Key Issue?** | **Data and GIS Needs** | **Priority (H, M, L)** | **Notes** |
| Setting and Natural Resources; Wilderness | Regional air quality monitoring | M | Regional air quality monitoring in and around the park should be conducted in an ongoing effort to monitor for visibility, ozone, and atmospheric deposition. |
| Archeological Resources | GIS layer of archeological sites for park atlas | L | An accurate layer of spatial data for all archeological sites in the monument would help with site management and resource protection. Total station and 3D measurements should be included in the metadata. |
| Archeological Resources; Opportunities to Connect to Resources; Traditional and Contemporary Cultural Connections | Oral histories | L | Oral histories from traditionally associated tribes, pioneer period, and NPS/USFS period would provide a greater understanding of the resources and the history of the monument. |
| Scientific Value; Traditional and Contemporary Cultural Connections; Key Issue | Tribal perspective on changes to the environment resulting from climate change | L | A tribal perspective could inform micro- and macro-level changes to the environment that have impacts on the ecosystems and resources within the monument. |
| Setting and Natural Resources; Scientific Value; Traditional and Contemporary Cultural Connections | Ethnobotanical study to investigate possible Mogollon uses of native plants in the area | L | An ethnobotanical study would help to understand what drew the earliest people to settle the area and how they used and may continue to use the resources available in the region. |
| Setting and Natural Resources; Scientific Value; Wilderness | Soil inventory mapping | L | Soil inventory mapping would help to understand the natural processes of the area and their effect on plant and animal communities. |
| Archeological Resources; Opportunities to Connect to Resources | Locate pre-NPS historic photos | L | The National Park Service has tried to interpret the time frame of the monument before it was in the care of the National Park Service, but little information is available. Historic photos would be an asset to understanding the monument in its past, including assessing the condition of the resources. Previous staff members suggested there is a specific historic photo collection, the Morris Collection, which has never been located for monument use. |
| Setting and Natural Resources | Pollution studies | L | Studies should be conducted of pollution dose-response relationships in sensitive park ecosystems, including the potential impact of mercury and other toxics on biota in the park, including bird, bat and fish species. |
| Setting and Natural Resources | Studies of precontact vegetation communities of the monument | L | Studies of precontact vegetation communities of the monument would help to better understand the natural setting within which the cliff dweller inhabitants lived. |

# Part 3: Contributors

## Gila Cliff Dwellings National Monument

Hugh Hawthorne, Superintendent

Rita Garcia, Chief of Interpretation

John Heisey, Volunteer-in-Park

Kathy Heisey, Volunteer-in-Park

## NPS Intermountain Region

Jim Bradford, workshop participant, Intermountain Regional Archeologist

Art Hutchinson, Chief of Intermountain Region Planning and Compliance

Sami Powers, Project Manager, Intermountain Region Planning and Compliance

Wendy Berhman, Planner, workshop facilitator, Intermountain Region Planning and Compliance, and Washington Support Office, Park Planning and Special Studies

## Other NPS Staff

Gus Sanchez, Superintendent, Chamizal National Monument

Nancy Shock, Foundation Coordinator, Denver Service Center, Planning Division

Pam Holtman, Quality Assurance Coordinator, Washington Support Office, Park Planning and Special Studies

Laura Pernice, GIS Specialist, Denver Service Center, Planning Division

Melody Bentfield, Contract Librarian, Denver Service Center, Planning Division

John Paul Jones, Visual Information Specialist, Denver Service Center, Planning Division

Judith Stoeser, Contract Editor, Denver Service Center, Planning Division

## Partners

Ray Torres, U.S. Forest Service, District Ranger

David Velk, Western National Parks Association

# Appendixes

## Appendix A:Presidential Proclamations for Gila Cliff Dwellings National Monument



November 16, 1907.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

Gila Cliff-Dwellings National Monument, N. Mex. Preamble. Vol. 34, pp. 3123, 3126.

WHEREAS, the group of cliff-dwellings, known as the Gila Hot Springs Cliff-Houses, which is situated upon public land in the Mogollon Mountains, within the Gila National Forest, in the Territory of New Mexico, is of exceptional scientific and educational interest, being the best representative of the Cliff-Dwellers' remains of that region, and it appears that the public interest would be promoted by reserving these ruins as a National Monument, with as much land as may be necessary for the proper protection thereof;

National monument, New Mexico. Vol. 34, p. 225.

Now, therefore, I, Theodore Roosevelt, President of the United States of America, by virtue of the power in me vested by section two of the Act of Congress, approved June eighth, nineteen hundred and six, entitled, "An Act For the preservation of American antiquities," do proclaim that there are hereby reserved from appropriation and use of all kinds under all of the public land laws, subject to all prior valid adverse claims, and set apart as a National Monument, all the tracts of land, in the Territory of New Mexico, shown as the Gila Cliff-Dwellings National Monument on the diagram forming a part hereof.

Forest uses not affected.

The reservation made by this proclamation is not intended to prevent the use of the lands for forest purposes under the proclamation establishing the Gila National Forest, but so far as the two reservations are consistent they are equally effective. In all respects in which they may be inconsistent the National Monument hereby established shall be the dominant reservation.

Reserved from settlement, etc.

Warning is hereby given to all unauthorized persons not to appropriate, injure or destroy any feature of this National Monument or to locate or settle upon any of the lands reserved by this proclamation.

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 16th day of November, in the year of our Lord one thousand nine hundred and seven, [SEAL.] and of the Independence of the United States the one hundred and thirty-second.

THEODORE ROOSEVELT

By the President:
ELIHU ROOT
*Secretary of State.*

# Presidential Documents

## Title 3—THE PRESIDENT

### Proclamation 3467

### ADDITION TO GILA CLIFF DWELLINGS NATIONAL MONUMENT, NEW MEXICO

**By the President of the United States of America**
**A Proclamation**

WHEREAS the Gila Cliff Dwellings National Monument in the State of New Mexico, established by Proclamation No. 781 of November 16, 1907, was reserved and set apart for its scientific and educational interest, being the best representation of the Cliff Dwellers' remains of that region; and

WHEREAS approximately three hundred and seventy-five acres of land near the present boundaries of the monument, under the jurisdiction of the Forest Service, Department of Agriculture, contain additional cliff dwellings and pit-house sites which are needed to round out the interpretive story of the Gila Cliff Dwellings National Monument; and

WHEREAS it appears that the public interest would be promoted by adding to Gila Cliff Dwellings National Monument these lands now within the Gila National Forest; and

WHEREAS these lands are essential for the proper care, management, protection, interpretation, and preservation of the Gila Cliff Dwellings National Monument:

NOW, THEREFORE, I, JOHN F. KENNEDY, President of the United States of America, under and by virtue of the authority vested in me by section 2 of the Act of Congress approved June 8, 1906 (34 Stat. 225; 16 U.S.C. 431), do hereby proclaim that, subject to any valid interest or rights, the following-described tract of land, which comprises the original site of the monument and the additional lands needed for the purposes stated above, shall constitute the Gila Cliff Dwellings National Monument:

"T. 12 S., R. 14 W., N. Mex. Prin. Mer.
Detached Section—T. J. Ruins
"Section 25
S½S½SW¼NE¼
SE¼SE¼SE¼NW¼
NE¼NE¼NE¼SW¼
E½W½SE¼NE¼NE¼SW¼
E½SE¼NE¼NE¼SW¼
E½NE¼SE¼NE¼SW¼
N½NW¼SE¼
N½S½NW¼SE¼
N½S½S½NW¼SE¼
"Gila Cliff Dwelling Area
"Section 22
S½SE¼
SE¼SW¼
"Section 27
NE¼
E½NW¼
NE¼SW¼
N½SE¼

Proclamation No. 781 of November 16, 1907 (35 Stat. 2162) establishing the Gila Cliff Dwellings National Monument is amended accordingly.

The lands which pursuant to this proclamation comprise the Gila Cliff Dwellings National Monument hereafter shall not be administered as a part of the Gila National Forest and they are hereby transferred to the administrative jurisdiction of the Department of the Interior.

The lands described above shall be subject to all the laws and regulations applicable to the Gila Cliff Dwellings National Monument: *Provided*, That any of the lands reserved for such national monument which lie within 150 feet, by horizontal measurement, of the center of the West Fork of the Gila River shall be available to the Secretary of Agriculture as a route of ingress to or egress from the Gila National Forest and he may place such trails or roads thereon and permit such use thereof as he may find desirable or necessary for administration and protection of the national forest and utilization of the resources thereof, including use by the general public for passage and transportation of property for use on national forest lands. Public use of the area within 150 horizontal feet of the center of the West Fork of the Gila River is to be in accordance with such conditions of use as the Secretary of Agriculture, after consultation with the Secretary of the Interior, finds necessary or desirable.

Warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any of the features or objects of this monument and not to locate or settle upon any of the lands reserved by this proclamation.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the United States of America to be affixed.

DONE at the City of Washington this seventeenth day of April in the year of our Lord nineteen hundred and sixty-two [SEAL] and of the Independence of the United States of America the one hundred and eighty-sixth.

JOHN F. KENNEDY

By the President:

DEAN RUSK,
*Secretary of State.*

[F.R. Doc. 62-3944; Filed, Apr. 19, 1962; 10:24 a.m.]

## Appendix B: Traditionally Associated Tribes

**Apache Tribe of Oklahoma**
**PO Box 1330**
**Anadarko, OK 730051220**

**Fort Sill Apache Tribe of Oklahoma**
**43187 U.S. Hwy 281**
**Apache, OK 73006**

**Hopi Tribe of Arizona**
**PO Box 123**
**Kykotsmovi, AZ 86039**

**Jicarilla Apache Nation, New Mexico**
**PO Box 507**
**Dulce, NM 87528**

**Kewa Pueblo, New Mexico (formally known as Pueblo of Santo Domingo)**
**PO Box 99**
**Santo Domingo Pueblo, NM 87052**

**Mescalero Apache Tribe of the Mescalero Reservation, New Mexico**
**PO Box 227**
**Mescalero, NM 88340**

**Navajo Nation, Arizona, New Mexico and Utah**
**PO Box 7440**
**Window Rock, AZ 86515**

**Ohkay Owingeh, New Mexico**
**PO Box 1099**
**Ohkay Owingeh, NM 87566**

**Pueblo of Acoma, New Mexico**
**PO Box 309**
**Acoma, NM 87034**

**Pueblo of Cochiti, New Mexico**
**PO Box 70**
**Cochiti, NM 87072**

**Pueblo of Isleta, New Mexico**
**PO Box 1270**
**Isleta, NM 87022**

**Pueblo of Jemez, New Mexico**
**PO Box 100**
**Jemez Pueblo, NM 87024**

**Pueblo of Laguna, New Mexico**
**PO Box 194**
**Laguna, NM 87026**

**Pueblo of Nambe, New Mexico**
**Route 1, Box 117-BB**
**Santa Fe, NM 87506**

**Pueblo of Picuris, New Mexico**
**PO Box 127**
**Penasco, NM 87553**

**Pueblo of Pojoaque, New Mexico**
**78 Cities of Gold Road**
**Santa Fe, NM 87506**

**Pueblo of San Felipe, New Mexico**
**PO Box 4339**
**San Felipe Pueblo, NM 87001**

**Pueblo of San Ildefonso, New Mexico**
**2 Tunyo Po**
**Santa Fe, NM 87506**

**Pueblo of Sandia, New Mexico**
**481 Sandia Loop**
**Bernalillo, NM 87004**

**Pueblo of Santa Ana, New Mexico**
**2 Dove Road**
**Santa Ana Pueblo, NM 87004**

**Pueblo of Santa Clara, New Mexico**
**PO Box 580**
**Espanola, NM 87532**

**Pueblo of Taos, New Mexico**
**PO Box 1846**
**Taos, NM 87571**

**Pueblo of Tesuque, New Mexico**
**Route 42, Box 360-T**
**Santa Fe, NM 87506**

**Pueblo of Zia, New Mexico**
**135 Capitol Square Drive**
**Zia Pueblo, NM 870536013**

**San Carlos Apache Tribe of the San Carlos Reservation, Arizona**
**PO Box 0**
**San Carlos, AZ 85550**

**Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado**
**PO Box 737**
**Ignacio, CO 81137**

**Tonto Apache Tribe of Arizona**
**Tonto Reservation #30**
**Payson, AZ 85541**

**Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico, and Utah**
**PO Box JJ**
**Towaoc, CO 81334**

**White Mountain Apache Tribe of the Fort Apache Reservation, Arizona**
**PO Box 700**
**Whiteriver, AZ 85941**

**Yavapai-Apache Nation of the Camp Verde Indian Reservation, Arizona**
**2400 W. Datsi Street**
**Camp Verde, AZ 86322**

**Ysleta Del Sur Pueblo of Texas**
**PO Box 17579**
**El Paso, TX 79917**

**Zuni Tribe of the Zuni Reservation, New Mexico**
**PO Box 339**
**Zuni, NM 873270339**

# Appendix C: Inventory of Administrative Commitments

| Title/Agency/ Organization | Purpose/Description | Dates | Responsible Party/ Parties |
|---|---|---|---|
| **Special Park Uses** | | | |
| State of New Mexico Tourism | Two special use permits were issued for filming in the monument. | 2014 | |
| **Commercial Services** | | | |
| Concession Contract | CC-IMFA001-13: Western National Parks Association | February 22, 2013, to December 31, 2022 | Category III concession contract for sale of visitor convenience items (VCI) by Western National Parks Association. The contract is managed by IMR Concessions, and IMR Concessions is the recipient of the franchise fee paid on an annual basis. |
| **Interagency Agreements** | | | |
| U.S. Forest Service and NPS Interagency Operational Agreement | Operation of the monument within the Gila National Forest and the use of U.S. Forest Service-owned facilities is being written. | Pending | National Park Service (Gila Cliff Dwellings National Monument) and U.S. Forest Service (Gila National Forest) |
| U.S. Forest Service | P15PG00340: Agreement to transfer money from the National Park Service to U.S. Forest Service for cyclic maintenance on the Cliff Dweller Trail. | August 1, 2015, to April 30, 2016 | U.S. Forest Service, National Park Service |
| **Cooperating Association Agreement** | | | |
| Western National Parks Association (WNPA) | National Cooperating Association Agreement with Western National Parks Association to provide support and assistance to the interpretive, educational, and research activities of the National Park Service and to provide interpretive and educational materials to visitors. | February 24, 2011, to February 24, 2016 | NPS WASO Coordinator for Cooperating Associations; Regional Coordinators for Cooperating Associations; Park Coordinators; and WNPA Executive Director and/or onsite WNPA manager |
| **Interpark Agreement** | | | |
| Safety Zone | NPS IMR Safety Zone 11 | | Carlsbad Caverns National Park |

# Appendix D: Management Actions

During the assessment of planning and data needs, a number of management actions were identified that could not be accomplished through data acquisition or a plan. These are actions that need to be accomplished by monument staff, volunteers, or partners. Currently, the monument either is working on completing these actions or would like to develop the capacity to do so.

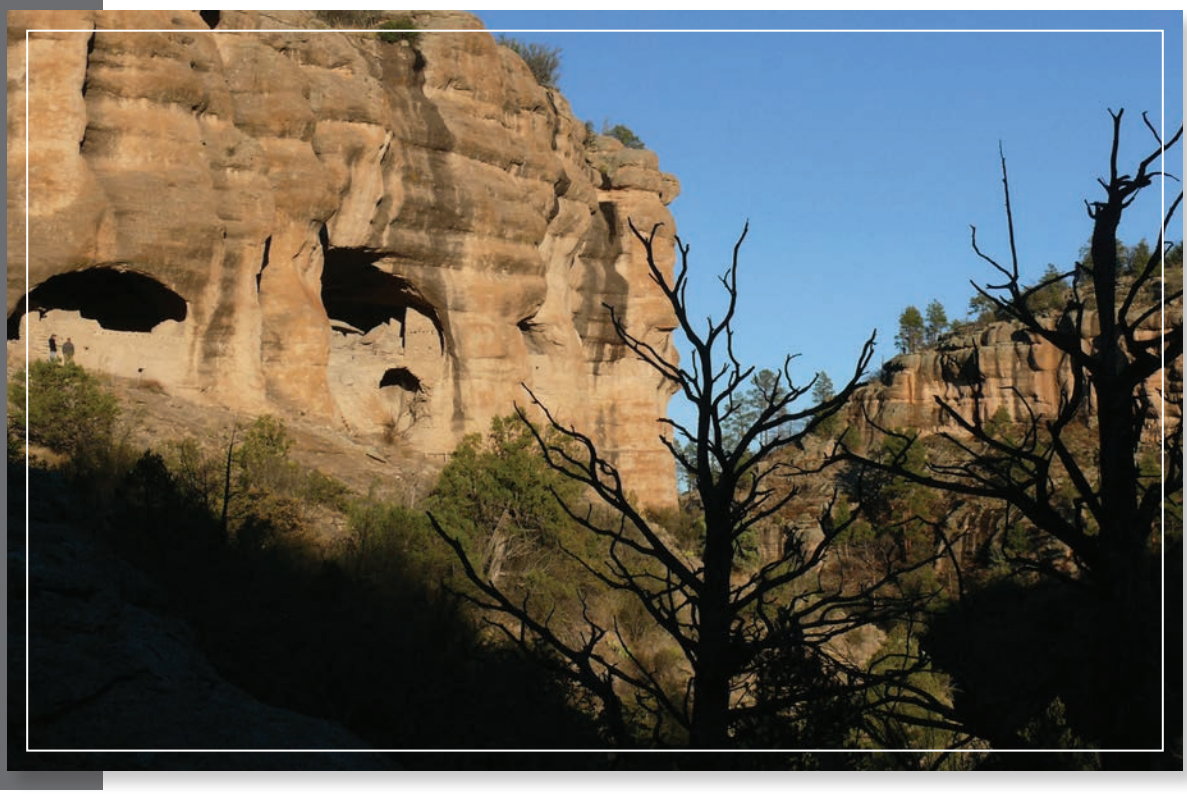
| Management Actions – Where Data or Planning is not Necessary, but Action on Behalf of Management is Needed | | |
|---|---|---|
| **Related to an FRV, OIRV, or Key Issue?** | **Management Action** | **Notes** |
| Key Issue—Interagency Cooperative Management | Cooperative agreement with U.S. Forest Service | Document the roles and responsibilities of the National Park Service and U.S. Forest Service in order to ensure long-term sustainability of operations and continued cooperative management. Identify shared facilities and responsibilities concerning those facilities, and seek approval for a service first authority. |
| Key Issue—Interagency Cooperative Management | Inventory of U.S. Forest Service plans | The ongoing monitoring and data collected by the U.S. Forest Service can be used by the National Park Service to inform planning documents. A number of planning documents developed by the U.S. Forest Service, such as fire management, emergency response, identify roles and responsibilities of parties and should be communicated to monument staff and/or referenced when the National Park Service is developing planning products or standard operating procedures. Creating an inventory of resources that can be a reference for the monument would improve effectiveness in cooperative management and, where applicable, inform monument planning products. |
| Key Issue—Safety | Fire management plan | Fire management is handled by the U.S. Forest Service. Fire management should be addressed in a standard operating procedure. |
| Wilderness | Exchange of information collected through resource inventory and monitoring | Co-management within a wilderness setting has implications for NPS management of the monument. Responsibilities should be coordinated with the U.S. Forest Service. Data and plans that might impact this include any data collected for a resource stewardship strategy. |
| Opportunities to Connect to Resources; Scientific Value | Expand and improve quality of reference library | A better reference library would provide the necessary background information for a more thorough analysis of the resources and more accurate interpretive programming by the Volunteers-in-Parks interpreters. Reference libraries at similar parks should be used for guidance. Scope of collection and acquisition should be addressed. |
| Setting and Natural Resources; Wilderness | Continued water quality monitoring on the West Fork of the Gila River | Both the state of New Mexico and the Sonoran Desert Network do water quality monitoring and with ongoing climate change resulting in increased fires and flooding, monitoring should continue. |
| Scientific Value | Inventory of scientific collecting permits issued | An inventory of scientific collecting permits would allow the monument to track ongoing research where permits are issued outside the monument or for groups that are undertaking research without a scientific collecting permit issued directly from the monument (such as the Sonoran Desert Network). In addition, such groups should locate and catalog all specimens from monument lands and any associated field records. |

# Appendix E: Past and Ongoing Park Planning and Data Collection Efforts

| Document Name | Year |
|---|---|
| Steen, C. *Ruins Stabilization at Gila Cliff Dwellings National Monument.* | 1942 |
| *Gila Cliff Dwellings National Monument Master Plan Development Outline.* | 1954 |
| Roland, R. *Ruins Stabilization Report, Gila Cliff Dwellings National Monument, Catron County, New Mexico. Southwestern National Monuments Stabilization Unit.* | 1955 |
| *Gila Cliff Dwellings National Monument Master Plan Narrative, Volumes I and III.* | 1965 |
| Morris, D. *Stabilization Report, Gila Cliff Dwellings.* | 1968 |
| *Gila Cliff Dwellings National Monument Statement for Management.* | 1976 |
| *Air Quality Reports, Gila Cliff Dwellings National Monument.* | 1979 |
| Federal Highway Administration. *The Road Inventory and Needs Study for Gila Cliff Dwellings National Monument.* Denver, CO. | 1981 |
| *Interpretive Prospectus for Gila Cliff Dwellings National Monument.* | 1981 |
| Anderson, K.M., et.al. *The Archeology of Gila Cliff Dwellings.* | 1986 |
| Morgart, J.T. *Completion Report: Ruins Stabilization at Gila Cliff Dwellings National Monument, New Mexico.* | 1987 |
| National Register of Historic Places Inventory - Nomination Form, Gila Cliff Dwellings National Monument. | 1987 |
| *Resource Management Plan for Gila Cliffs Dwellings National Monument.* Silver City, NM. | 1988 |
| McKenna, P.J., and J.E. Bradford. *The TJ Ruin: Gila Cliff Dwellings National Monument.* Santa Fe, NM. | 1989 |
| Russell, P. *Gila Cliff Dwellings National Monument: An Administrative History.* Santa Fe, NM. | 1992 |
| Bradford, J.E. *Archeological Survey Gila Cliff Dwellings National Monument.* Santa Fe, NM. | 1993 |
| *Resource Management Plan for Gila Cliff Dwellings National Monument.* | 1997 |
| *Baseline Water Quality Data Inventory and Analysis: Gila Cliff Dwellings National Monument.* | 1998 |
| Powell, B., et.al. *Biological Inventory Report for the Sonoran Desert Network: 2002.* Tucson, AZ. | 2002 |
| Central Federal Lands Highway Division, Federal Highway Administration. *Gila Cliffs National Monument Engineering Road Study.* | 2002 |
| Gebow, B., et.al. *Assessing the State of Ecological Resources in 11 Southwestern National Parks.* Tucson, AZ. | 2004 |
| Kohut R.J. *Ozone risk assessment for Sonoran Desert Network.* National Park Service. Fort Collins, CO. | 2004 |

| Document Name | Year |
|---|---|
| U.S. Geological Survey. *Water-quality data for selected National Park units, southern and central Arizona and west-central New Mexico, water years 2003 and 2004, U.S. Geological Survey Open-File Report 2005-1291.* | 2005 |
| *Hydrogeology and Water Supply Wells at Gila Cliff Dwellings National Monument.* | 2005 |
| *Gila Cliff Dwellings National Monument -- Fire Management Plan.* | 2005 |
| Federal Highway Administration. *The Road Inventory of Gila Cliff Dwellings National Monument.* | 2006 |
| Powell, B., et.al. *Vascular Plant and Vertebrate Inventory of Gila Cliff Dwellings National Monument.* Tucson, AZ. | 2006 |
| Mau-Crimmins, T., and E. Porter. *Air Quality Monitoring Protocol and Standard Operating Procedures for the Sonoran Desert Network.* Tucson, AZ. | 2007 |
| Davey, C. A., K. T. Redmond, and D. B. Simeral. *Weather and Climate Inventory, National Park Service, Sonoran Desert Network.* Fort Collins, CO. | 2007 |
| *Gila Cliff Dwellings National Monument Foundation for Planning and Management.* | 2007 |
| *Gila Cliff Dwellings National Monument Comprehensive Interpretive Plan, Fiscal Years 2008-2012.* | 2008 |
| *Gila Cliff Dwellings National Monument Environmental Management System (EMS) Manual.* | 2008 |
| KellerLynn, K. *Geologic Resource Evaluation Scoping Summary for Gila Cliff Dwellings National Monument, New Mexico.* | 2008 |
| Richardson, D.J. *Intermountain Region New Deal Resources: Research Findings for Gila Cliff Dwellings National Monument.* | 2008 |
| King, E., et.al. *Investigator's Annual Report, 2008 - Warriors Project: The Gila Archaeological Project.* | 2009 |
| *Sonoran Desert Network Air Quality Monitoring Brief: Atmospheric Deposition at Gila Cliff Dwellings NM.* Tucson, AZ. | 2010 |
| *Gila Cliff Dwellings Resource Brief: Landbird Monitoring.* Tucson, AZ. | 2010 |
| *Sonoran Desert Network Monitoring Brief: Uplands Monitoring at Gila Cliff Dwellings NM.* Tucson, AZ. | 2010 |
| *Sonoran Desert Network Air Quality Monitoring Brief: Visibility at Gila Cliff Dwellings NM.* Tucson, AZ. | 2010 |
| King, E., et.al. I*nvestigator's Annual Report, 2009 - Warriors Project: The Gila Archaeological Project, 2009 Season*. | 2010 |
| King, E., et.al. R*eport on the Survey of the TJ Ruins - Warriors Project: The Gila Archaeological Project, 2009 Season*. | 2010 |
| Hubbard, J. A., and S. E. Studd. *Terrestrial vegetation and soils monitoring at Gila Cliff Dwellings National Monument: 2009 status report*. Fort Collins, CO. | 2010 |
| Bennetts, R. E. *Landbird monitoring in the Sonoran Desert Network: annual report, 2009*. Fort Collins, CO. | 2010 |
| Nordby, L.V. *Architecture at the Gila Cliff Dwellings: An Interpretive Summary.* | 2011 |

| Document Name | Year |
|---|---|
| Sullivan, T. J., et.al. *Evaluation of the sensitivity of inventory and monitoring national parks to nutrient enrichment effects from atmospheric nitrogen deposition: Sonoran Desert Network (SODN).* Denver, CO. | 2011 |
| Sullivan, T. J., et.al. *Evaluation of the sensitivity of inventory and monitoring national parks to acidification effects from atmospheric sulfur and nitrogen deposition: Sonoran Desert Network (SODN).* Denver, CO. | 2011 |
| Sullivan, T. J., et.al. *Evaluation of the sensitivity of inventory and monitoring national parks to acidification effects from atmospheric sulfur and nitrogen deposition: main report.* Denver, CO. | 2011 |
| Nauman, T. *Soil inventory results and relationships to vegetation monitoring data at Gila Cliff Dwellings National Monument.* Fort Collins, CO. | 2011 |
| List of Classified Structures Database for Gila Cliff Dwellings National Monument. | 2013 |
| *Hydrographic and Impairment Statistics for Gila Cliff Dwellings National Monument.* | 2013 |
| Visitor Use Statistics for Gila Cliff Dwellings National Monument. | 2013 |
| Ali, M., et.al. *Landbird Monitoring in the Sonoran Desert Network 2013 Annual Report.* Ft. Collins, CO. | 2014 |
| *Climate Change Resource Brief: Recent Climate Change Exposure of Gila Cliff Dwellings National Monument.* Ft. Collins, CO. | 2014 |
| KellerLynn, Katie. *Geologic Resources Inventory Report.* Denver, CO. | 2014 |
| Gonzalez, P. *Climate Change Summary, Gila Cliff Dwellings National Monument, New Mexico.* Washington, DC. | 2014 |



# Intermountain Region Foundation Document Recommendation
# Gila Cliff Dwellings National Monument

**June 2016**

**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.**

6/20/16

**RECOMMENDED**
**Hugh Hawthorne, Superintendent, Gila Cliff Dwellings National Monument** **Date**

6/30/16

**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.

GICL 349/133293
June 2016

# Foundation Document • Gila Cliff Dwellings National Monument

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