



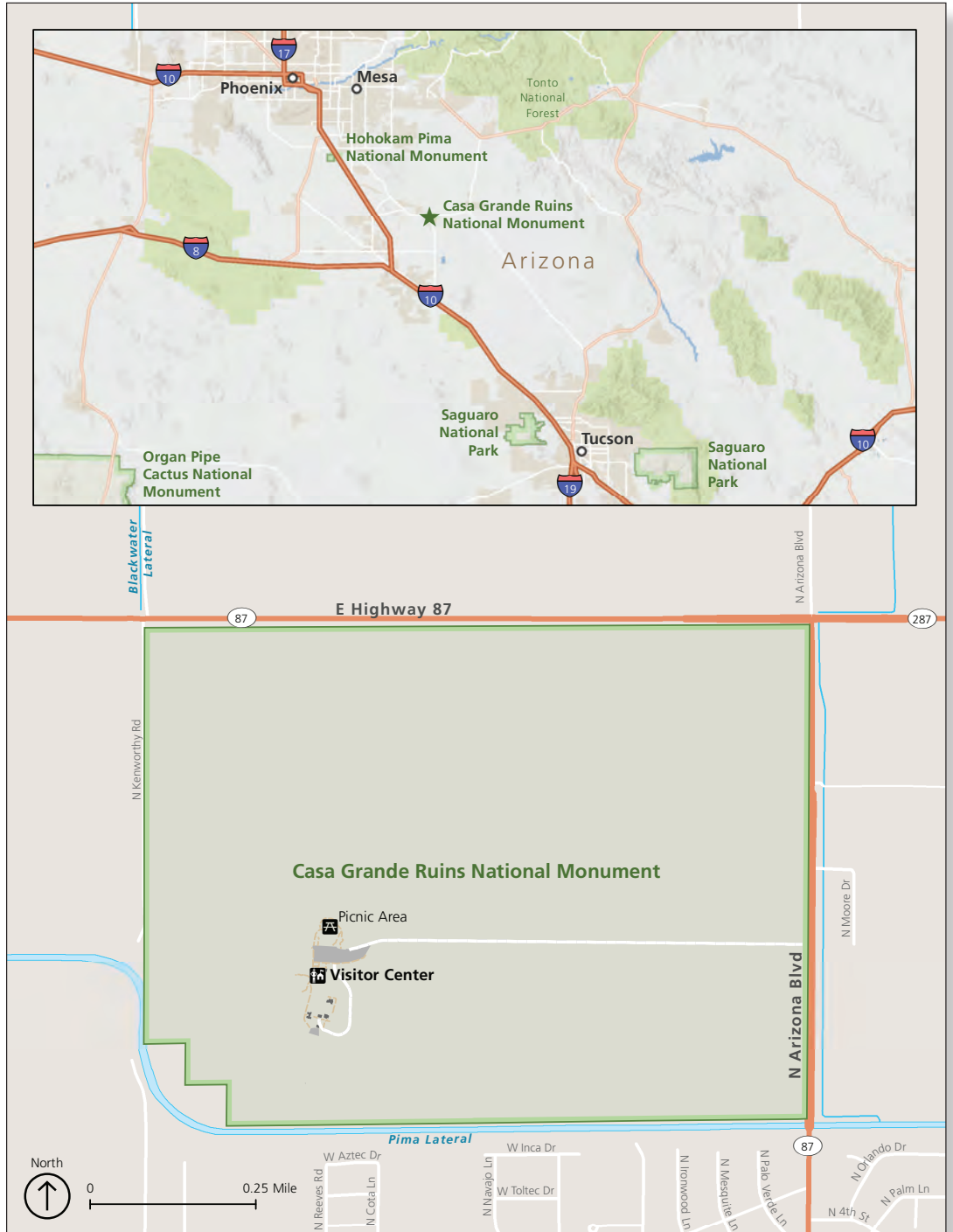
# Foundation Document

## Casa Grande Ruins National Monument

Arizona

March 2017





# Contents

<b>Mission of the National Park Service</b>	<b>1</b>
<b>Introduction</b>	<b>2</b>
<b>Part 1: Core Components</b>	<b>3</b>
Brief Description of the National Monument	3
Park Purpose	5
Park Significance	6
Fundamental Resources and Values	7
Other Important Resources and Values	8
Interpretive Themes	9
<b>Part 2: Dynamic Components</b>	<b>10</b>
Special Mandates and Administrative Commitments	10
Special Mandates	10
Administrative Commitments	10
Assessment of Planning and Data Needs	10
Analysis of Fundamental Resources and Values	10
Analysis of Other Important Resources and Values	24
Identification of Key Issues and Associated Planning and Data Needs	30
Planning and Data Needs	33
<b>Part 3: Contributors</b>	<b>39</b>
Casa Grande Ruins National Monument	39
NPS Intermountain Regional Office	39
Other NPS Staff	39
<b>Appendixes</b>	<b>40</b>
Appendix A: Presidential Proclamation and Legislative Acts for Casa Grande Ruins National Monument	40
Appendix B: Inventory of Administrative Commitments	44
Appendix C: Traditionally Associated Tribes	45





## 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, Saipan, 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 Casa Grande Ruins 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 National Monument

On June 22, 1892, President Benjamin Harrison, through executive order, set aside the “Casa Grande Ruin Reservation” in central Arizona for the purpose of protecting the large multistoried adobe Hohokam structure known as Casa Grande. This represented one of the first formal efforts of the federal government to protect the nation’s archeological heritage. On August 3, 1918, President Woodrow Wilson expanded that protection by proclaiming Casa Grande Ruins a national monument and allocating its management to the National Park Service.

The Casa Grande was named by early Spanish explorers and means “great house.” Archeological evidence indicates the structure was completed about 1350 CE (of the Common Era.) Six hundred years or so later, while being continuously exposed to the harsh Sonoran Desert environment, what remains is still impressive. Rising four stories high and 60 feet long, it is the largest known structure of its type constructed by the Ancestral Sonoran Desert People. The Casa Grande was constructed using more than 3,000 tons of local caliche, a hard concrete-like mixture of sand, clay, and calcium carbonate (limestone). The mud was layered to form walls 4 feet thick at the base and tapering in thickness toward the top. Hundreds of juniper, pine, and other trees, some gathered from more than 60 miles away, were used to anchor the walls, with timbers supporting both the ceiling and floor.

Structurally, it was an amazing feat of engineering and demonstrates evidence of thoughtful and careful design. The walls are oriented to the four cardinal points of the compass. Near the top of the western-facing wall there is a circular hole through the wall that aligns with the setting sun on the summer solstice. Other strategic openings in its wall align with the sun and moon at other specific times of the year. The height of the Casa Grande provides visibility over a large expanse. Fires ignited on the structure’s roof could have been seen for miles in any direction and used as signals to outlying communities.

The Ancestral Sonoran Desert People who built the Casa Grande, along with other prehistoric structures in the monument, were a mostly sedentary, agriculturally based people. The term “Hohokam” has been used by archeologists studying the Ancestral Sonoran Desert People to define the set of chronologic periods within a broad cultural time frame. Evidence indicates their early origins were as groups of migratory hunter-gatherers, and by 500–750 CE (known as the pioneer period), they transitioned from hunter-gatherers to occupying permanent settlements based on agriculture.







The later colonial period (750–950 CE) saw increases in local populations. Trade extended over a vast area and was common between today’s California, the Great Plains, the Colorado Plateau, and Northern Mexico. Archeological investigations have unearthed macaw feathers, mirrors, and copper bells that provide evidence of links to the tropical cultures of Central Mexico. Large, oval pits found in major (Hohokam) villages have been linked to ball courts used for games similar to those the Aztecs played on or used for large gatherings.

During the sedentary period (950–1175 CE) the culture, trade, and influence thrived and expanded. Toward the end of this period the Ancestral Sonoran Desert People gradually left the outlying settlements and concentrated in large villages like Casa Grande. The classic period (1175–1450 CE) saw open villages with wide, central plazas give way to walled compounds. It was during this period that Casa Grande and surrounding structures were built.

The culture and influence of the Ancestral Sonoran Desert People has become well known in southwest archeology, along with the importance of Casa Grande. In 1932, Frederick Law Olmsted Jr., along with National Park Service architect Thomas Vint, designed and built a large protective structure over the Great House replacing an older wooden protective cover. This unique structure has survived high winds, frequent storms, and blasting heat, yet endures and still offers protection to the Casa Grande ruins from the elements.

During the Great Depression years, the Civilian Conservation Corps (CCC) was active in the early development of the monument’s infrastructure. Between 1931 and 1939, CCC members built 14 structures to support the monument’s preservation, research, and public education. The buildings are now part of the historic landscape and associated historic district. These structures were designed and built with minimal intrusion on the site’s archeological features.

Today, the monument encompasses 472.5 acres of Sonoran Desert landscape bounded by the agricultural and urban setting of the City of Coolidge, Pinal County, Arizona. Visitors can enjoy firsthand experiences with the archeological features and landscape, including the Casa Grande. The monument’s visitor center has outstanding examples of objects used in everyday life and opportunities to learn about the incredible history and survival of the Ancestral Sonoran Desert People and their descendants, many of whom still inhabit the region.



## Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Casa Grande Ruins National Monument was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The park was established through a presidential proclamation on August 3, 1918 (see appendix A). The purpose statement lays the foundation for understanding what is most important about the park.

*CASA GRANDE RUINS NATIONAL MONUMENT  
was set aside for the preservation and  
interpretation of the Casa Grande and  
surrounding features and objects of  
prehistoric interest.*



## 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 Casa Grande Ruins 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 Casa Grande Ruins National Monument. (Please note that the sequence of the statements does not reflect the level of significance.)

- Casa Grande is the only surviving example of a multistory, freestanding earthen Great House structure from the Hohokam culture. It represents the final evolution of the architectural tradition of the late classic period.
- The establishment of Casa Grande Ruins National Monument as the first archeological reserve in 1892 initiated the U.S. government's archeological preservation movement. The integrity of the resources remains high due to the early date of the site's establishment.
- Casa Grande Ruins National Monument is a sacred place for many American Indians who have an affiliation with the Ancestral Sonoran Desert People.
- Casa Grande Ruins National Monument exemplifies early adaptation to the desert environment by the Ancestral Sonoran Desert People, including use of nearby Gila River and others for creating the most extensive prehistoric irrigation-based agricultural desert society in North America.





## 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 Casa Grande Ruins National Monument:

- **Casa Grande Ruin.** The Ancestral Sonoran Desert People completed the Casa Grande about 1350 CE during the classic Hohokam period. The builders used a hard building material found throughout the area called caliche, a concrete-like mix of sand, clay, and calcium carbonate (limestone). Rising four stories high, the Great House was layered to form walls 4 feet thick at the base and tapering to the top.
- **Compounds and Associated Archeological Sites.** Many of the Ancestral Sonoran Desert People lived in large compounds, several of which are found at Casa Grande Ruins National Monument. Compound A remains partially exposed while the others that were previously excavated have been reburied for their protection. The compounds are monumental remains of the products of these agricultural people who lived here and are a reminder of how the people adapted to survive in this harsh desert climate.
- **The Sonoran Desert Setting (viewshed and night sky).** The setting is what prompted the construction of the Casa Grande and the surrounding compounds. The proximity to the Gila River, one of the few riparian corridors in the Sonoran Desert, along with the Salt River, Santa Cruz River, and San Pedro River, fostered the extraordinary engineering of an approximately 1,000-mile network of irrigation ditches and canals stretching from modern-day Phoenix to modern-day Tucson. Views of key landscape features and the astronomical alignments were integrated into the architecture of the Casa Grande. Nearby mountains provided timber, minerals, and large game. The setting is also important to traditionally associated tribal groups.
- **Ethnographic Resources (sacred animal and plant life, stories/songs about the site, petroglyphs, and ceremonies).** The monument is rich in ethnographic resources. Native plants and animals are often the center of ongoing traditions and stories of the monument's traditionally associated tribes. Though not collected within the monument boundaries, native plants, soils, and minerals found here are still used as medicines, dyes, pottery, and in ceremonies.



- **Museum Collections and Archives.** The collections contain the scientific wealth of more than 25,000 objects and multiple archives collected at the site since the late 1800s. The objects have been instrumental in understanding much of the key prehistoric cultures of the American Southwest including settlement, trade, and influence. The archives document the beginning of archeological preservation and protection in the United States, as well as a critical record of images and research over the last 100 years. Much of the collections and archival material are housed and cared for at the NPS Western Archeological and Conservation Center (WACC), in Tucson, or at other repositories.

## Other Important Resources and Values

Casa Grande Ruins 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 Casa Grande Ruins National Monument:



- **The Shelter Over Casa Grande.** Designed by landscape architect Frederick Law Olmsted Jr. and NPS architect Thomas Vint, the structure is listed in the National Register of Historic Places. Constructed in 1932, the shelter has been instrumental in the protection of the Casa Grande and by itself reflects an enduring style of architecture fitting form and function and withstanding the rigors of the harsh desert environment over time.
- **Civilian Conservation Corps Historic District.** The 14 historic structures and associated landscapes were built between 1931 and 1939. Both the historic district and the corresponding cultural landscape are carefully maintained to serve as a fully functioning infrastructure with minimal intrusion on the site’s archeological features. The historic district is listed in the National Register of Historic Places.
- **Sonoran Desert Ecosystem.** As urban encroachment draws nearer and agricultural use in the area envelops the boundaries of the monument, the desert oasis, protected by monument boundaries, provides critical habitat for desert flora and fauna to sustain populations in an already fragile, shrinking ecosystem.



## 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 Casa Grande Ruins National Monument:

- Diverse oral traditions of the Ancestral Sonoran Desert People and the evocative Casa Grande Ruins provide insight into the ability of humans to thrive within the constraints of challenging natural conditions, which raises questions about the sustainability of modern society that does not live within those constraints.
- The Ancestral Sonoran Desert People applied traditional knowledge of engineering, hydrology, and astronomy, and practiced economic and resource planning that enabled them to live comfortably throughout the region.
- The cultural landscape of the Gila River Valley, which includes Casa Grande Ruins and surrounding communities, has been home to the Ancestral Sonoran Desert People and their descendants for thousands of years. This landscape is sacred to the people of eight traditionally associated tribes and speaks of ancestral homeland, identity, and tradition.
- The establishment of Casa Grande Ruins as the first archeological reserve in 1892 initiated the beginning of America's archeological preservation movement, from which we all benefit today.
- The physical prominence and sophisticated construction of the Casa Grande made it a landmark in early European exploration and western migration and it continues to be a dominant feature on the landscape today.



## 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 Casa Grande Ruins National Monument.

#### Special Mandates

June 13, 1930: An act to authorize the use of a right-of-way by the United States Indian Service through Casa Grande Ruins National Monument in connection with the San Carlos irrigation project.

#### Administrative Commitments

For information about the administrative commitments for Casa Grande Ruins National Monument, please see appendix B.

### Assessment of Planning and Data Needs

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

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

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

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

#### Analysis of Fundamental Resources and Values

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





Fundamental Resource or Value	Casa Grande Ruin
Related Significance Statements	<ul style="list-style-type: none"> <li>• Casa Grande is the only surviving example of a multistory, freestanding earthen Great House structure from the Hohokam culture. It represents the final evolution of the architectural tradition of the late classic period.</li> </ul>
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• The Great House is constructed of puddled adobe, a technique where caliche mud is stacked in layers. It is a four-story, multiple-room structure incorporating a platform mound. Since 1892, a variety of preservation treatments have been employed, some with detrimental effects.</li> <li>• Occasional “calving” of large chunks of the walls occurs. The structure is in fair condition but cannot be preserved indefinitely; deterioration can only be delayed.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• The overall preservation of the Casa Grande is generally stable due to management actions.</li> <li>• Populations of Mexican free-tailed bats (<i>Tadarida brasiliensis</i>) are increasing in the Great House, along with their associated droppings.</li> <li>• Populations of nesting birds and associated droppings within the Great House are increasing.</li> </ul>

Fundamental Resource or Value	Casa Grande Ruin
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Exterior erosion caused by visitors handling the walls either intentionally or accidentally</li> <li>• Damage to structure and adobe walls caused by burrowing mammals, insects such as beetles, nesting hornets and bees, along with active bird nesting</li> <li>• Exterior surface erosion caused by extreme weather events including frequent high wind, storms during monsoon season, dust storms, and local flooding</li> <li>• Special uses and events draw many visitors and resulting visitor surges; if not carefully managed can put resources and the sacred value of the site at risk through soil compression and erosional impacts</li> <li>• Extreme weather events due to climate change and its associated influences have the potential to accelerate erosion of both Casa Grande and archeological features</li> <li>• Nearby crop dusting activities on neighboring agricultural lands are having multiple impacts. Numerous passes of low-flying aircraft can cause fluctuating vibrations within the structure, potentially accelerating erosion and cracking of caliche construction material. Low-flying planes could potentially collide with the shelter. Overspray from insecticides or related payloads can impact the cultural landscape and monument features.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Expand engagement with tribal communities to support continued work with the Native American Youth Corps (tribal engagement and steward development) to foster tribal participation in Casa Grande preservation, along with internships and general volunteer work in the monument</li> <li>• Promote and encourage special astronomical evening events. These events would encourage the local community and other interest groups to visit the monument and would focus on astro-archaeology</li> <li>• Continue to engage the state historic preservation officer and tribal historic preservation officer, along with tribal consultations in monument management decisions and engage tribal support and participation in communicating monument values</li> <li>• Provide public transportation access to Casa Grande Ruins National Monument</li> </ul>
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• Pinkley’s report (1931)</li> <li>• History of Casa Grande (1971)</li> <li>• Adobe preservation research (1978)</li> <li>• Architecture of Casa Grande and interpretation (1981)</li> <li>• Natural and cultural resources management plan and environmental assessment (1984)</li> <li>• “An Archaeological Survey Plan for the Western Region of the National Park Service” (1994)</li> <li>• First conference on resource management in southern Arizona national park areas (1998)</li> <li>• Second conference (“A Century of Research and Resource Management in Southern Arizona”) (1998)</li> <li>• Cultural landscape inventory (2002)</li> <li>• Resource protection study (2003)</li> <li>• Great House Condition Assessment and Treatment Plan (2014–2015), University of New Mexico</li> <li>• Weather data from local weather station and additional data from other regional weather stations</li> <li>• Preservation plan (draft)</li> <li>• LiDAR data</li> <li>• Photo-documentation</li> <li>• Historic American Buildings Survey / Historic American Engineering Record (HABS/HAER) documentation</li> </ul>



Fundamental Resource or Value	Casa Grande Ruin
Data and/or GIS Needs	<ul style="list-style-type: none"> <li>• LiDAR data baseline condition assessment</li> <li>• Monitoring weather parameters</li> <li>• Assessment of wildlife and plant impacts on archeological resources</li> <li>• Accessibility assessment</li> <li>• Visitor use trend analysis</li> </ul>
Planning Needs	<ul style="list-style-type: none"> <li>• Visitor use management plan</li> <li>• Climate change vulnerability assessment and adaptation strategy</li> <li>• Comprehensive accessibility plan</li> </ul>
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Antiquities Act of 1906 (54 USC 320301-320303, 34 Stat 225)</li> <li>• Historic Sites Act of 1935 (54 USC 320101 et seq )</li> <li>• National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq )</li> <li>• Archeological and Historic Preservation Act of 1974 (54 USC 312502 et seq )</li> <li>• American Indian Religious Freedom Act of 1978 (42 USC 1996 and 1996a, PL 95-341 92 Stat 469)</li> <li>• Clean Air Act (42 USC 7401 et seq )</li> <li>• Archaeological Resources Protection Act of 1979 (54 USC 302902)</li> <li>• Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001)</li> <li>• Museum Properties Management Act of 1955, as amended (54 USC 102501-102504)</li> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> <li>• Executive Order 13007, "Indian Sacred Sites"</li> <li>• Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments"</li> <li>• "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79)</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> <li>• "Protection of Historic Properties" (36 CFR 800)</li> <li>• Architectural Barriers Act of 1968 (42 USC 4151 et seq )</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i></li> <li>• <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes</i></li> <li>• Programmatic Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (2008)</li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> <li>• Director's Order 28A: <i>Archeology</i></li> <li>• Director's Order 24: <i>NPS Museum Collections Management</i></li> <li>• NPS Management Policies 2006 (chapter 5) "Cultural Resource Management"</li> </ul>

<b>Fundamental Resource or Value</b>	<b>Compounds and Associated Archeological Sites</b>
<b>Related Significance Statements</b>	<ul style="list-style-type: none"> <li>The establishment of Casa Grande Ruins National Monument as the first archeological reserve in 1892 initiated the U S government’s archeological preservation movement The integrity of the resources remains high due to the early date of the site’s establishment</li> </ul>
<b>Current Conditions and Trends</b>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>Archeological site conditions vary from year to year The majority of sites are in good condition Others are in fair condition, with issues related to erosion and burrowing animals</li> <li>The larger site, Compound A, along with the ball court (although partially exposed to the elements) is in good condition All of the other prehistoric structural compounds (B–F) are in good condition</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>Construction of the perimeter fence encompassing the monument in 1998–1999 has provided a higher level of security This has led to declining theft of surface objects and pot hunting</li> <li>Overall conditions of sites are improving because of adaptive management actions</li> <li>In the valley, agricultural practices and urbanization have increased</li> <li>Seasonal haboobs (sand storms) that sand blast standing structures and accelerate erosion are occurring with increasing frequency</li> </ul>
<b>Threats and Opportunities</b>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>Vandalism and theft is an ongoing concern as the population continues to increase in the surrounding area, but to date, little damage has occurred</li> <li>Invasive plant encroachment is changing the appearance of cultural landscapes, along with potential impacts on known and unknown archeological sites</li> <li>Unrestricted visitation and lack of funding for monitoring can result in both intentional and unintentional resource damage</li> <li>Current special monument uses and events have drawn many visitors Large crowds gathering in single locations can unintentionally impact both archeological resources and natural resources</li> <li>Increase in storm frequency and intensity projected for the region due to climate change could negatively impact historic structures and in situ archeological resources</li> <li>Long-term declination of the water table has resulted in loss/change of vegetation cover and the subsequent surface exposure has led to impacts on some archeological sites</li> <li>Overpopulation of burrowing animals due to imbalances of the predator/prey relationships threaten sites by either direct damage or impact the scientific value by altering the integrity of evidence not currently excavated</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Actively research the spectrum of cultures in the greater area, along with methods and activities to attract visitation and foster stewardship</li> <li>Continue to work with on-site researchers to share their knowledge and expertise through visitor interaction and engagement</li> <li>Develop a new generation of stewards through educational programming and expand outreach to local schools</li> <li>Create internship opportunities to work with visitors or resource management</li> <li>Continue to work with the Native American Youth Corps (tribal engagement and steward development) to foster tribal participation in internships and volunteer work in the monument</li> <li>Expand academic partnerships with local universities to review research opportunities and cooperation with state institutions</li> <li>The monument will continue to monitor burrowing animals to determine what mitigation measures should be taken to limit damage to archeological sites</li> </ul>

Fundamental Resource or Value	Compounds and Associated Archeological Sites
<p><b>Existing Data and Plans Related to the FRV</b></p>	<ul style="list-style-type: none"> <li>• “Casa Grande Ruins National Monument Compound B Test Excavation” (1973)</li> <li>• Natural and cultural resources management plan and environmental assessment (1984)</li> <li>• “An Archeological Survey Plan for the Western Region of the National Park Service” (1994)</li> <li>• Archeological monitoring and data recovery (NPS Western Archeological and Conservation Center 1996B) (1997)</li> <li>• First conference on resource management in southern Arizona national park areas (1998)</li> <li>• Second conference (“A Century of Research and Resource Management in Southern Arizona”) (1998)</li> <li>• Cultural landscape inventory (2002)</li> <li>• Resource protection study (2003)</li> <li>• Weather data from local weather station and additional data from other regional weather stations</li> <li>• Preservation plan (currently in draft)</li> <li>• Existing LiDAR data</li> <li>• Ongoing and long-term photo-documentation of features and landscape</li> <li>• HABS/HAER documentation</li> <li>• Resource management plan</li> <li>• Backcountry preservation treatment plan (underway)</li> <li>• Compound A preservation treatment plan (2016)</li> </ul>
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• LiDAR data baseline condition assessment</li> <li>• Archeological site survey(s)</li> <li>• Ground penetrating radar surveys and include consultation with tribal representatives</li> <li>• Assessment of wildlife and plant impacts on archeological resources</li> <li>• Accessibility assessment (Compound A)</li> <li>• Archeological site density analysis</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Preservation plan</li> <li>• Resource stewardship strategy</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Antiquities Act of 1906 (54 USC 320301-320303, 34 Stat 225)</li> <li>• Historic Sites Act of 1935 (54 USC 320101 et seq )</li> <li>• National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq )</li> <li>• Archeological and Historic Preservation Act of 1974 (54 USC 312502 et seq )</li> <li>• American Indian Religious Freedom Act of 1978 (42 USC 1996 and 1996a, PL 95-341 92 Stat 469)</li> <li>• Archaeological Resources Protection Act of 1979 (54 USC 302902)</li> <li>• Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001)</li> <li>• Museum Properties Management Act of 1955, as amended (54 USC 102501-102504)</li> <li>• Executive Order 11593, “Protection and Enhancement of the Cultural Environment”</li> <li>• Executive Order 13007, “Indian Sacred Sites”</li> </ul>



Fundamental Resource or Value	Compounds and Associated Archeological Sites
<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV (continued)</b></p> <ul style="list-style-type: none"> <li>• Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments"</li> <li>• "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79)</li> <li>• "Protection of Historic Properties" (36 CFR 800)</li> <li>• Architectural Barriers Act of 1968 (42 USC 4151 et seq )</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> <li>• National Environmental Policy Act of 1969, as amended</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i></li> <li>• <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes</i></li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> <li>• Director's Order 28A: <i>Archeology</i></li> <li>• Director's Order 24: <i>NPS Museum Collections Management</i></li> <li>• Director's Order 47: <i>Soundscape Preservation and Noise Management</i></li> <li>• <i>NPS Management Policies 2006</i> (chapter 5) "Cultural Resource Management"</li> </ul>





<b>Fundamental Resource or Value</b>	<b>Sonoran Desert Setting (viewshed and night sky)</b>
<b>Related Significance Statements</b>	<ul style="list-style-type: none"> <li>• Casa Grande Ruins National Monument exemplifies early adaptation to the desert environment by the Ancestral Sonoran Desert People, including use of nearby Gila River and others for creating the most extensive prehistoric irrigation-based agricultural desert society in North America</li> </ul>
<b>Current Conditions and Trends</b>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• The “long views” remain, but cell towers and radio/television towers and planned housing developments make their loss imminent</li> <li>• Only a portion of the larger Hohokam complex of which Casa Grande is a part is within current monument boundaries</li> <li>• Increased height of the canal berm to increase water volume in canal has impacted the viewshed</li> <li>• Proximity to large urban areas has impacted the night sky with an anthropogenic light ratio rating of approximately 2.0. While impacted by high levels of ambient light, occasional evening programs are still being provided to illustrate the astronomical connection between the resource and culture</li> <li>• American Indians still conduct occasional ceremonies at the site that require a dark night sky and natural soundscape</li> <li>• The current mean impact of sound is predicted to be 14.5 decibels (dBA)</li> <li>• Natural sounds are occasionally impacted by adjacent land use and NPS activities</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• External energy and mineral extraction throughout the surrounding area is increasing</li> <li>• Urban sprawl / surrounding development is increasing</li> <li>• An increase in particulates from agricultural activity and regional development is impacting air quality and viewsheds</li> <li>• U.S. Environmental Protection Agency requirements for Arizona power plant emission reductions and cleaner engines and fuels for vehicles have reduced emissions significantly in the past decade to reduce ozone and fine particulates. The reductions should also improve air quality conditions at the monument</li> <li>• Population increases, traffic, and related agricultural use indicate an increase in the mean impact of sound levels</li> </ul>

<b>Fundamental Resource or Value</b>	<b>Sonoran Desert Setting (viewshed and night sky)</b>
<b>Threats and Opportunities</b>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Development along monument boundaries results in the loss of related archeological features</li> <li>• Changing water management practices in the Gila River Valley could impact landscape conditions (e.g., the declining water table and damming the Gila River in the 1930s have had detrimental effects on key cultural and natural setting components)</li> <li>• As development on the periphery of the monument increases, natural sounds, dark night skies, and historic viewsheds are diminished</li> <li>• Coal-fired power plants and mobile sources, such as highway vehicles, are believed to be major contributors to air quality impacts in the monument and regionally in the Southwest</li> <li>• There is continued pressure to develop or extend energy and/or transportation corridors (commuter train between Tucson and Phoenix and a new interstate (Interstate 11) between Nogales and Las Vegas. Interstate 11 as currently planned, would include highway, rail, and utilities. Ease of transportation to major metropolitan areas has the potential to increase urbanization throughout the area. This can impact surrounding archeological features that are not fully protected by the monument and alter the desert environment</li> <li>• Increases in mean annual temperature, storm frequency and intensity, along with increases in extreme heat events and droughts projected for the region due to climate change could impact natural processes and ecological communities, which comprise the landscape and viewshed</li> <li>• New Circle K service station being constructed south of Walmart has potential visual, light, sound, and vibrational impacts on the monument</li> <li>• There is the potential for a new hotel across from the monument entrance that could have potential visual, light, sound, and vibrational impacts on the monument</li> <li>• The potential for traffic control devices at or near the monument's entrance (the intersection of Ruins Drive and Arizona Boulevard [Arizona State Route 87] could potentially have visual impacts on the monument)</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Continue to partner with local community groups to educate them about the fundamental values inherent in the monument's viewshed, night sky, and sound levels, along with how impacts on those resources and values can alter and change visitor experiences and wildlife</li> <li>• Communicate with local farmers and developers regarding the importance of the monument's viewshed, air quality, night sky, soundscape preservation, and the collective need to protect the process of science in the monument and landscape and continue to provide public enjoyment</li> <li>• Continue to monitor impacts and ensure that science-based resource information is factored into communication regarding potential real estate development and neighborhood zoning</li> <li>• Continue to be an active participant with the City of Coolidge in drafting the city's management plans and zoning changes</li> <li>• The development of public transportation modes to the monument has the potential for providing access to new and diverse audiences and reducing motor vehicle presence and impacts</li> </ul>



Fundamental Resource or Value	Sonoran Desert Setting (viewshed and night sky)
Existing Data and Plans Related to the FRV	<ul style="list-style-type: none"> <li>• Natural and cultural resources management plan and environmental assessment (1984)</li> <li>• Fire management plan environmental assessment (2013)</li> <li>• Viewshed analysis by the City of Coolidge</li> <li>• Night sky condition assessment (needs to be finalized)</li> <li>• Soundscape study</li> <li>• Regional air quality monitoring including visibility, ozone, and deposition</li> <li>• City of Coolidge management plan</li> <li>• Resource protection study / environmental assessment (2003)</li> </ul>
Data and/or GIS Needs	<ul style="list-style-type: none"> <li>• Monitoring weather parameters</li> <li>• Visual resource inventory</li> <li>• Accessibility assessment</li> </ul>
Planning Needs	<ul style="list-style-type: none"> <li>• Scenery conservation strategy</li> <li>• Resource stewardship strategy</li> <li>• Comprehensive accessibility plan</li> </ul>
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• National Invasive Species Act (16 USC 4701)</li> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> <li>• Executive Order 13007, "Indian Sacred Sites"</li> <li>• National Environmental Policy Act of 1970 (42 USC 4321)</li> <li>• Federal Noxious Weed Act of 1974, as amended (7 USC 2801 et seq )</li> <li>• Clean Air Act (42 USC 7401 et seq )</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS Management Policies 2006 (§1 6) "Cooperative Conservation Beyond Park Boundaries"</li> <li>• NPS Management Policies 2006 (§4 1) "General Management Concepts"</li> <li>• NPS Management Policies 2006 (§4 1 4) "Partnerships"</li> <li>• NPS Management Policies 2006 (§4 4 1) "General Principles for Managing Biological Resources"</li> <li>• NPS Management Policies 2006 (§4 7 2) "Weather and Climate"</li> <li>• NPS Natural Resource Management Reference Manual 77</li> <li>• Director's Order 18: Wildland Fire Management</li> <li>• NPS Reference Manual 18: Wildland Fire Management</li> </ul>



Fundamental Resource or Value	Ethnographic Resources
Related Significance Statements	<ul style="list-style-type: none"> <li>• Casa Grande Ruins National Monument is a sacred place for many American Indians who have an affiliation with the Ancestral Sonoran Desert People</li> </ul>
Current Conditions and Trends	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Current condition of the variety of ethnographic resources as a whole is unknown and needs to be assessed</li> <li>• American Indians still conduct ceremonies at the site</li> <li>• There are eight traditionally associated tribes</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• Indigenous animal and plant life has remained but has become less diversified</li> <li>• The ethnographic landscape is decreasing as urban growth and agricultural needs are impacting natural and cultural resources</li> </ul>
Threats and Opportunities	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• As tribal elders age it becomes increasingly difficult to gather oral records regarding historic and traditional use of the site</li> <li>• Lack of management knowledge of traditionally associated tribal uses could result in unintentional encumbrances to access resources or possible destructive or inappropriate management actions</li> <li>• Invasive species could outcompete traditional plant habitat</li> <li>• Increases in mean annual temperature, storm frequency and intensity, along with increases in extreme heat events and droughts projected for the region due to climate change could impact indigenous flora and fauna habitat</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Actively engage with tribal representatives, including both tribal cultural resource staffs, as well as tribal museum staffs to secure more information regarding traditional use and information about the monument</li> <li>• Continue to provide a venue for visitors who come to see tribal demonstrations of dance, music, crafts, or related programming</li> <li>• Continue to support nonextractive traditional use of the monument</li> <li>• Pursue more formalized relationships with tribal museums</li> </ul>

Fundamental Resource or Value	Ethnographic Resources
Existing Data and Plans Related to the FRV	<ul style="list-style-type: none"> <li>• Pinkley's report (1931)</li> <li>• Administrative history of Casa Grande (1971)</li> <li>• Collection management plan (2013)</li> <li>• Oral traditions (stories and songs) collected by Julian Hayden</li> <li>• Museum collections and archives</li> </ul>
Data and/or GIS Needs	<ul style="list-style-type: none"> <li>• Ethnographic overview and assessment</li> <li>• Monitoring weather parameters</li> </ul>
Planning Needs	<ul style="list-style-type: none"> <li>• None identified</li> </ul>
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Antiquities Act of 1906 (54 USC 320301-320303, 34 Stat 225)</li> <li>• Historic Sites Act of 1935 (54 USC 320101 et seq )</li> <li>• National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq )</li> <li>• Archeological and Historic Preservation Act of 1974 (54 USC 312502 et seq )</li> <li>• American Indian Religious Freedom Act of 1978 (42 USC 1996 and 1996a, PL 95-341 92 Stat 469)</li> <li>• Archaeological Resources Protection Act of 1979 (54 USC 302902)</li> <li>• Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001)</li> <li>• Museum Properties Management Act of 1955, as amended (54 USC 102501-102504)</li> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> <li>• Executive Order 13007, "Indian Sacred Sites"</li> <li>• Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments"</li> <li>• "Gathering of Certain Plants or Plant Parts by Federally Recognized Tribes for Traditional Purposes" (36 CFR 2.6)</li> <li>• "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79)</li> <li>• "Protection of Historic Properties" (36 CFR 800)</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i></li> <li>• <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes</i></li> <li>• Programmatic Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (2008)</li> <li>• <i>NPS Management Policies 2006</i> (chapter 5) "Cultural Resource Management"</li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> <li>• Director's Order 28A: <i>Archeology</i></li> <li>• Director's Order 24: <i>NPS Museum Collections Management</i></li> </ul>



<b>Fundamental Resource or Value</b>	<b>Museum Collections and Archives</b>
<b>Related Significance Statements</b>	<ul style="list-style-type: none"> <li>• Casa Grande is the only surviving example of a multistory, freestanding earthen Great House structure from the Hohokam culture. It represents the final evolution of the architectural tradition of the late classic period.</li> <li>• The establishment of Casa Grande Ruins National Monument as the first archeological reserve in 1892 initiated the U.S. government's archeological preservation movement. The integrity of the resources remains high due to the early date of the site's establishment.</li> <li>• Casa Grande Ruins National Monument is a sacred place for many American Indians who have an affiliation with the Ancestral Sonoran Desert People.</li> <li>• Casa Grande Ruins National Monument exemplifies early adaptation to the desert environment by the Ancestral Sonoran Desert People, including use of nearby Gila River and others for creating the most extensive prehistoric irrigation-based agricultural desert society in North America.</li> </ul>
<b>Current Conditions and Trends</b>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• The monument does not have on-site collections / archival storage facilities that meet NPS standards for security or climate control. Heating, ventilation, and cooling improvements in the visitor center were recently completed, which should aid in preservation of organic material on display.</li> <li>• Currently, there are more than 25,000 objects in the monument's museum collection.</li> <li>• Collection items not on display and archival materials are housed at the NPS Western Archeological and Conservation Center and are in good condition.</li> <li>• Material housed at the WACC facility is available electronically and in the public domain.</li> <li>• There are few research requests for access to materials.</li> <li>• The remoteness of the repository from the site and lack of staffing at the WACC facility has created scheduling issues regarding accessing collections by monument staff and researchers.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>• The current collection of museum and archival material is stable with no ongoing activity at the site(s) increasing collection size or altering the scope.</li> </ul>
<b>Threats and Opportunities</b>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• On-site theft or vandalism of museum collections on display. The value of prehistoric material is increasing, potentially stimulating illegal sales and purchasing of prehistoric artifacts. Current security at the WACC facility is adequate to protect collections.</li> <li>• Structural fire at museum. The monument has recently added fire detection and environmental controls in the museum complex.</li> <li>• Pest infestation of museum exhibits. While much of the display material is inorganic, some organic material remains. Displays are monitored for infestation and promptly removed and treated if insect activity is discovered.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Work with universities to identify additional research questions using the collections.</li> <li>• Continue to rotate collections and archives to provide new information to encourage visitors to return and to protect collections from environmental deterioration.</li> <li>• Work with the NPS Western Archeological and Conservation Center to provide digital access to museum collections to aid in research and usability.</li> </ul>
<b>Existing Data and Plans Related to the FRV</b>	<ul style="list-style-type: none"> <li>• Bibliography of archeological work</li> <li>• Integrated pest management plan (2009)</li> <li>• Fire management plan environmental assessment (2013)</li> <li>• Collections management plan (has a list of data needs and information—refer to this) (2013)</li> </ul>

Fundamental Resource or Value	Museum Collections and Archives
Data and/or GIS Needs	<ul style="list-style-type: none"> <li>• Research needs assessment</li> <li>• Detailed bibliography of archived material</li> <li>• Digitization of park archive collections</li> </ul>
Planning Needs	<ul style="list-style-type: none"> <li>• Museum exhibit plan</li> <li>• Structural fire plan</li> </ul>
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p><b>Laws, Executive Orders, and Regulations That Apply to the FRV</b></p> <ul style="list-style-type: none"> <li>• Antiquities Act of 1906 (54 USC 320301-320303, 34 Stat 225)</li> <li>• Historic Sites Act of 1935 (54 USC 320101 et seq )</li> <li>• National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq )</li> <li>• Archeological and Historic Preservation Act of 1974 (54 USC 312502 et seq )</li> <li>• American Indian Religious Freedom Act of 1978 (42 USC 1996 and 1996a, PL 95-341 92 Stat 469)</li> <li>• Archaeological Resources Protection Act of 1979 (54 USC 302902)</li> <li>• Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001)</li> <li>• Museum Properties Management Act of 1955, as amended (54 USC 102501-102504)</li> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> <li>• "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79)</li> <li>• "Protection of Historic Properties"( 36 CFR 800)</li> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i></li> <li>• <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes</i></li> <li>• Programmatic Agreement among the National Park Service, Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (2008)</li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> <li>• Director's Order 28A: <i>Archeology</i></li> <li>• Director's Order 24: <i>NPS Museum Collections Management</i></li> <li>• <i>NPS Management Policies 2006</i> (§2 3 1 4) "Science and Scholarship"</li> <li>• <i>NPS Management Policies 2006</i> (§4 2) "Studies and Collections"</li> <li>• <i>NPS Management Policies 2006</i> (§5 1) "Research"</li> <li>• <i>NPS Management Policies 2006</i> (§8 10) "Natural and Cultural Studies, Research, and Collection Activities"</li> <li>• <i>NPS Museum Handbook</i>, parts I, II, and III</li> </ul>

## Analysis of Other Important Resources and Values

Other Important Resource or Value	The Shelter Over Casa Grande
<b>Importance</b>	<ul style="list-style-type: none"> <li>Designed by landscape architect Frederick Law Olmsted Jr and NPS architect Thomas Vint, the structure is listed in the National Register of Historic Places. Built in 1932, the shelter has been instrumental in the protection of the Casa Grande and by itself reflects an enduring style of architecture fitting form and function and withstanding the rigors of the harsh desert environment over time.</li> </ul>
<b>Current Conditions and Trends</b>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>The shelter over the ruins is a steel frame and concrete structure that is in good condition.</li> <li>The cultural landscape around the structures is maintained.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>The structure is currently stable.</li> </ul>
<b>Threats and Opportunities</b>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>Vandalism either affecting the structural integrity of the shelter, external spray-painted tagging, or related damage.</li> <li>Potential for low-flying aircraft (crop dusting) to collide with the structure.</li> <li>Increase in storm frequency and intensity projected for the region due to climate change could negatively impact the shelter.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>None identified.</li> </ul>
<b>Existing Data and Plans Related to the OIRV</b>	<ul style="list-style-type: none"> <li>Original drawings of the shelter are available in hard copy and digital versions.</li> <li>Condition assessment.</li> <li>National register nomination.</li> <li>University of Pennsylvania preliminary structural review (1999).</li> <li>University of Pennsylvania documentation and assessment of wall conditions (1999).</li> <li>Natural and cultural resource management plan and environmental assessment (1981).</li> <li>Cultural landscape inventory (2002).</li> <li>Fire management plan environmental assessment (2013).</li> <li>List of Classified Structures data (2014).</li> </ul>
<b>Data and/or GIS Needs</b>	<ul style="list-style-type: none"> <li>LiDAR data baseline condition assessment.</li> <li>Structural assessment of Great House shelter.</li> </ul>
<b>Planning Needs</b>	<ul style="list-style-type: none"> <li>None identified.</li> </ul>



Other Important Resource or Value	The Shelter Over Casa Grande
<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV</b></p> <ul style="list-style-type: none"> <li>• Historic Sites Act of 1935 (54 USC 320101 et seq )</li> <li>• National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq )</li> <li>• Archeological and Historic Preservation Act of 1974 (54 USC 312502 et seq )</li> <li>• Executive Order 11593, "Protection and Enhancement of the Cultural Environment"</li> <li>• Executive Order 13007, "Indian Sacred Sites"</li> <li>• "Protection of Historic Properties" (36 CFR 800)</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i></li> <li>• <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes</i></li> <li>• Programmatic Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (2008)</li> <li>• Director's Order 28: <i>Cultural Resource Management</i></li> <li>• <i>NPS Management Policies 2006</i> (chapter 5) "Cultural Resource Management"</li> </ul>



Other Important Resource or Value	Civilian Conservation Corps Historic District
<p><b>Importance</b></p>	<ul style="list-style-type: none"> <li>The 14 historic structures and associated landscape were built between 1931 and 1939. Both the historic district and the corresponding landscapes are carefully maintained to serve as a fully functioning infrastructure with minimal intrusion on the site's archeological features. The historic district is listed in the National Register of Historic Places.</li> </ul>
<p><b>Current Conditions and Trends</b></p>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>Overall condition of the historic structures and exterior landscaping of the district is fair to good based on current management actions, although the building utility systems (electric, plumbing, etc.) are in need of upgrades and vegetation (invasive and native) encroachment is impacting the cultural landscape and some historic structures.</li> <li>The theater has been recently integrated into the existing visitor center structure.</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>Deferred maintenance on historic structures increases future maintenance/stabilization costs and jeopardizes funding for other structures.</li> <li>Overall, the historic district structures are stable due to management actions.</li> </ul>
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>There are special uses and events that draw many visitors; resource damage is a potential result.</li> <li>Actions need to be taken to continue the historic use of these structures; these could also result in damage to historic fabric.</li> <li>Termites and rodents pose threats to the historic buildings and require constant management through the integrated pest management process.</li> <li>Lack of proper exterior drainage away from some of the structures and features.</li> <li>Structural fire.</li> <li>Increase in storm frequency and intensity projected for the region due to climate change could negatively impact historic structures.</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Use state-of-the-art rehabilitation and repair techniques for maintaining the historic fabric of the structures. Document results for future repair or training for similar structures servicewide.</li> <li>Continue to enlist and recruit local scouting organizations and other youth groups to assist with preservation efforts.</li> <li>Implement Green Parks Plan (continuing sustainability improvements).</li> <li>Develop new interpretive programming on the value of historic structures and their role in the National Park Service.</li> </ul>
<p><b>Existing Data and Plans Related to the OIRV</b></p>	<ul style="list-style-type: none"> <li>Master plan design analysis (1962)</li> <li>History of Casa Grande (1971)</li> <li>National Register of Historic Places determination of eligibility (1994)</li> <li>Historic resource protection study (2003)</li> <li>Cultural landscape inventory and determination of eligibility (2002)</li> <li>Fire management plan environmental assessment (2013)</li> <li>List of Classified Structures data (2014)</li> </ul>

Other Important Resource or Value	Civilian Conservation Corps Historic District
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Asset information needs to be updated in Facility Management Software System (FMSS)</li> <li>• Historic structure report (entire CCC district)</li> <li>• Accessibility assessment</li> <li>• Utility locations (GIS)</li> <li>• Topographic data to address drainage issues (GIS)</li> <li>• Research on the CCC spike camp</li> <li>• Monitoring weather parameters</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Preservation plan</li> <li>• Preventive maintenance plan (drainage)</li> <li>• Structural fire plan (CCC district)</li> <li>• Adaptive reuse plan</li> <li>• Cultural landscape report</li> <li>• Climate change vulnerability assessment and adaptation strategy</li> <li>• Comprehensive accessibility plan</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV</b></p> <ul style="list-style-type: none"> <li>• Antiquities Act of 1906 (54 USC 320301-320303, 34 Stat 225)</li> <li>• Historic Sites Act of 1935 (54 USC 320101 et seq )</li> <li>• National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq )</li> <li>• Archeological and Historic Preservation Act of 1974 (54 USC 312502 et seq )</li> <li>• Executive Order 11593, “Protection and Enhancement of the Cultural Environment”</li> <li>• “Protection of Historic Properties” (36 CFR 800)</li> <li>• Programmatic Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (2008)</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director’s Orders)</b></p> <ul style="list-style-type: none"> <li>• <i>The Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation</i></li> <li>• <i>The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes</i></li> <li>• NPS Management Policies 2006 (chapter 5) “Cultural Resource Management”</li> <li>• Director’s Order 24: <i>NPS Museum Collections Management</i></li> <li>• Director’s Order 28: <i>Cultural Resource Management</i></li> <li>• Director’s Order 28A: <i>Archeology</i></li> <li>• Programmatic Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (2008)</li> </ul>



Other Important Resource or Value	Sonoran Desert Ecosystem
<p><b>Importance</b></p>	<ul style="list-style-type: none"> <li>As urban encroachment draws nearer and agricultural use in the area envelops the boundaries of the monument, the desert oasis that is protected by monument boundaries provides critical habitat for desert flora and fauna to sustain populations in an already fragile ecosystem</li> </ul>
<p><b>Current Conditions and Trends</b></p>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>The integrity of the local ecosystem has been impacted by agricultural activity and development surrounding the monument</li> <li>Daytime scenic views are sometimes obscured by pollution-caused haze. At night, air pollution scatters artificial light, increasing the effect of light pollution on the night sky</li> <li>As the water table has dropped, much of the plant life has changed, favoring plants and trees that survive on less moisture</li> <li>Predator/prey imbalance is causing an abundance of rodents</li> <li>Isolated pockets of invasive plant species (red brome/Mediterranean grass)</li> </ul> <p><b>Trends</b></p> <ul style="list-style-type: none"> <li>Indigenous animal life has remained but has become less diversified and may become isolated, leave, or die out as development around the monument continues and/or the plant life these animals depend on changes</li> <li>There is potential for an increase in nonnative species that have adapted to a drier climate</li> </ul>
<p><b>Threats and Opportunities</b></p>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>Urbanization and agriculture have altered the predator/prey relationship causing an imbalance that favors prey species</li> <li>Increases in mean annual temperature, storm frequency and intensity, along with increases in extreme heat events and droughts projected for the region due to climate change could impact natural processes and ecological communities that comprise the Sonoran Desert ecosystem</li> <li>Overspray from aerial crop dusting and biological pest management creates potential safety hazards for visiting public and wildlife</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Enhance educational opportunities pertaining to the ecosystem (invasive species, climate change impacts on Sonoran Desert)</li> <li>Expand the sample landscape garden of native species</li> <li>Enhance community engagement related to ecosystem management issues</li> </ul>
<p><b>Existing Data and Plans Related to the OIRV</b></p>	<ul style="list-style-type: none"> <li>Sonoran Desert Inventory and Monitoring surveys (bird inventories, vascular plant inventory, invasive species monitoring, etc )</li> <li>Regional air quality monitoring including visibility, ozone, and deposition</li> <li>U S Geological Survey vertebrate survey</li> <li>Biological soil crust inventory</li> <li>Aerial LiDAR data</li> <li>Mesquite tree and barrel cactus inventory</li> <li>Weather data</li> <li>Integrated pest management plan</li> <li>Resource management plan</li> </ul>

Other Important Resource or Value	Sonoran Desert Ecosystem
<p><b>Data and/or GIS Needs</b></p>	<ul style="list-style-type: none"> <li>• Aerial pesticide impacts</li> <li>• Monitoring weather parameters</li> <li>• Predator/prey surveys</li> <li>• Assessment of wildlife and plant impacts on archeological resources</li> <li>• Monitor invasive plants and animals</li> <li>• Hydrographic analysis and monitoring of water table</li> <li>• Safety assessment</li> </ul>
<p><b>Planning Needs</b></p>	<ul style="list-style-type: none"> <li>• Climate change vulnerability assessment and adaptation strategy</li> <li>• Resource stewardship strategy</li> <li>• Wildland fire plan</li> </ul>
<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance</b></p>	<p><b>Laws, Executive Orders, and Regulations That Apply to the OIRV</b></p> <ul style="list-style-type: none"> <li>• Endangered Species Act of 1973, as amended (16 USC 1531 et seq )</li> <li>• National Invasive Species Act (16 USC 4701)</li> <li>• Lacey Act, as amended (16 USC 3371-3378)</li> <li>• National Environmental Policy Act of 1969, as amended (42 USC 4321)</li> <li>• Federal Noxious Weed Act of 1974, as amended (7 USC 2801 et seq )</li> <li>• Clean Water Act (33 USC 1251-1387, 33 USC 1151)</li> <li>• Clean Air Act (42 USC 7401 et seq )</li> <li>• Executive Order 13112, "Invasive Species"</li> <li>• Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"</li> </ul> <p><b>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</b></p> <ul style="list-style-type: none"> <li>• NPS <i>Management Policies 2006</i> (§1 6) "Cooperative Conservation Beyond Park Boundaries"</li> <li>• NPS <i>Management Policies 2006</i> (§4 1) "General Management Concepts"</li> <li>• NPS <i>Management Policies 2006</i> (§4 1 4) "Partnerships"</li> <li>• NPS <i>Management Policies 2006</i> (§4 4 1) "General Principles for Managing Biological Resources"</li> <li>• NPS <i>Management Policies 2006</i> (§4 7 2) "Weather and Climate"</li> <li>• NPS <i>Natural Resource Management Reference Manual 77</i></li> <li>• NPS <i>Reference Manual 18: Wildland Fire Management</i></li> <li>• NPS Director's Order 18: <i>Wildland Fire Management</i></li> </ul>



## 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 Casa Grande Ruins National Monument and the associated planning and data needs to address them:

- **Preservation of the Great House.** Preservation of the Great House has been an ongoing effort since the establishment of the preserve. Some early preservation practices have resulted in unintentional impacts on the Great House and the surrounding ruins of Compound A. There are ongoing efforts to study and treat these resources to meet the Secretary of the Interior’s standards for historic preservation. Full enclosure of the Great House or allowing slow deterioration of the structure would potentially cause adverse impacts. The University of New Mexico, through a Cooperative Ecosystem Studies Unit agreement, is developing a preservation treatment plan for the Great House and backcountry archeological sites. The issue of “treating treatments” needs to be explored in depth in Compound A because there is some evidence that the monument is no longer preserving the actual prehistoric structures, but rather preserving previous treatment efforts and the form and outline of the prehistoric walls. Preservation efforts also need to be balanced with tribal wishes regarding preservation and how the site is interpreted to the public.
  - *Associated planning and data needs:* Preservation plan, lower compound (A) condition assessments





- **Boundary Expansion.** Since 2001, there has been considerable interest and support for a boundary expansion to encompass additional archeological resources and to resolve a minor inholding by the Bureau of Land Management in a corner of the monument. Questions remain regarding the associated feasibility and management of additional lands. Planning should begin to develop alternatives of land use. Feasibility concerns should be assessed against the threat of local development and cultural resources related to the purpose/significance of the monument, along with local economic benefit.
  - *Associated planning and data needs:* General management plan
- **Urban Encroachment and Land Use/Development.** Casa Grande Ruins National Monument is within the City of Coolidge, Arizona. On the east side, across the highway, new commercial development of a large retail complex is attracting new housing prospects for the future. Agricultural land surrounds the northern and western borders of the monument. New housing development has been an ongoing concern and despite it being temporarily on hold, the potential exists for its return. Proposals for the development of a high-speed commuter train from Tucson to Phoenix, along with new access to the west through high-speed freeways, are being promoted. Zoning surrounding the monument is residential except from the east boundary, which is commercial. Currently, communications with the City of Coolidge and the county are good. The City of Coolidge is an active partner and good neighbor. The monument considers it very important to maintain interactive relationships with the surrounding community and will continue to work with all stakeholders to determine the kinds of development that would complement the monument setting.
  - *Associated planning and data needs:* Scenery conservation strategy, light bleed analysis, light management plan
- **Resource Access.** The monument has received requests from visitors to provide trails into the undeveloped areas of the monument. There is a legacy of holding special events at the monument that generates concern surrounding the volume of visitation and the ability of the resources to withstand potential impacts. There also have been requests for access into the Great House. There are resource protection and tribal concerns about additional access and recreational opportunities. A study is needed to evaluate a range of options to potentially accommodate these requests, while balancing the need for resource protection and tribal sensitivity.
  - *Associated planning and data needs:* Visitor survey, archeological sites surveys, visitor use management plan, trails management plan, accessibility self-evaluation and transition plan, accessibility assessment
- **Climate Change.** Climate data shows a statistically significant rise in mean annual temperature at a rate of 3.8 degrees Fahrenheit (°F) per century. This trend is projected to accelerate, with an increase up to 8.8°F projected between 2000–2100 for the region. Increases in storm intensity/frequency, extreme heat events, and droughts are also projected for the region due to a changing climate. Fire frequencies could increase up to 25% by 2100, with vegetation such as the Sonoran tree and shrub species becoming more vulnerable to mortality. Visitation could be impacted by increases in temperature and extreme events and cultural resources could become more vulnerable to increased storm events and fire frequency.
  - *Associated planning and data needs:* Species distribution data, LiDAR data baseline condition assessment, climate change vulnerability assessment and adaptation strategy, monitoring weather parameters



- **Visitor Satisfaction, Enjoyment, and Relevancy.** Casa Grande Ruins National Monument is one of the closest national park units to Phoenix, Arizona, which is the sixth-largest city in the United States and has a limited ability to outreach and engage the diverse urban population due to small staff size. Currently, there is not enough staff or volunteers to respond to visitor inquiries regarding the history and significance of the site. The monument needs more interpretive staff or visitor use assistants in uniform to provide more in-depth connections to the resource in meaningful ways and continued relevancy. Issues with staffing and retention are critical. Currently, there are nine permanent employees with five subject to furlough. During high visitation seasons, public contact occurs mostly through volunteers or cooperating association staff. Lack of on-site housing or accommodations has resulted in high volunteer turnover. This has at times impaired monument staff's ability to address call to action items based on resources available to the monument.
  - *Associated planning and data needs:* Ethnographic overview and assessment, visitor center (museum) exhibit plan, accessibility assessment, accessibility self-evaluation and transition plan, visitor use management plan, market analyses, communication and media plan, digitization and creation of online/virtual museum
- **Overflights.** Crop dusting aircraft (U.S. Department of Agriculture regulates crop dusting activities), ultralight planes, and related low-flying aircraft have short- and long-term impacts on the natural environment through chemical contamination and visitor enjoyment through audio and visual disruption by low-flying aircraft.
  - *Associated planning and data needs:* Pollution analysis, aerial pesticide impacts, vibration impact analysis, environmental management plan

- **Funding.** Currently, the monument is among the lowest funded units in the national park system given the level of visitation and amount of acreage. With a substantial historic district and more than 60 archeological sites, meeting visitor needs through monument maintenance, resource management, and proper interpretation are essential to fulfilling the NPS mission. The monument relies heavily on volunteers for visitor contact. At times, this has resulted in fewer guided tours or presentations due to a lack of monument staff, interpretive training and development, or because of the limitations of volunteers. Recent additions to the visitor center have provided many new opportunities to diversify the levels of experience and resource stewardship messaging; however, a lack of staff and trained volunteers are unable to take full advantage of the upgraded facilities. The small staff has, by necessity, generated an all-purpose approach to duties and at times the professional staff cannot focus on their assigned jobs because of the broad nature of monument responsibilities. Staff retention has been an issue requiring new starts on similar or ongoing projects. A partnership coordinator would enhance ongoing programs. For example, the American Indian partnerships assisting with preservation efforts, along with alleviating the pressure on existing staff. A partnership plan is needed to help leverage outside sources to enhance monument stewardship.
  - *Associated planning and data needs:* Partnership plan, staffing/position management plan, volunteer program strategic plan

### 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
FRV / OIRV / Key Issue	Preservation plan	H	This plan is currently underway and needs to be completed. It addresses the primary purpose of the monument and establishes a good science-based approach to long-term preservation of monument features. This could also address the historic district.
FRV / OIRV / Key Issue	Climate change adaptation strategy Climate change vulnerability assessment	H	Part of this effort would be the climate change scenario planning, an effort to develop a range of plausible futures that would inform adaptation strategies for the monument. This effort could also develop action strategies that could reduce greenhouse gas emissions and provide communication tools to park visitors.
FRV / Key Issue	Visitor use management plan	H	The monument needs a collaborative vision for providing and managing visitor use. This plan would allow the monument to be proactive in addressing visitor needs and access to park features, along with fostering preservation of resources. It could be integrated with other park planning efforts and provide guidance for large visitation surges such as large school tours, special events, or backcountry use. Part of the effort would establish carrying capacity and adaptive management strategies.
FRV / Key Issue	Visitor center (museum) exhibit plan	M	This plan would link the thematic overarching park themes to the visual media of exhibits in the newly remodeled visitor center. The ability to use both object facsimiles and artifacts to tell the story would enhance visitor experience and provide a useful educational tool for school groups. The plan would help identify options for tactile elements, various audio-visual formats, and related exhibit techniques.
FRV / OIRV	Resource stewardship strategy	M	This could help the monument firmly establish both natural and cultural resource desired conditions and resource tracking indicators. It would provide recommended strategies to achieve and maintain those conditions over time.
FRV / OIRV / Key Issue	Accessibility self-evaluation and transition plan	M	This is needed overall for the monument. Director's Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i> , commits the park to identifying barriers that limit access to park programs, facilities, and services, and to develop plans identifying how those barriers would be removed.
OIRV	Preventive maintenance plan (drainage)	L	The monument would benefit from a comprehensive plan to proactively address key preventive maintenance actions for park infrastructure.
Key Issue	General management plan	L	The monument has never had a general management plan and would benefit from this overarching management plan in many ways, including potential land acquisition, boundary adjustments, and appropriate use of areas within the monument. A key benefit would be the high level of public and stakeholder engagement. The plan would set long-term goals for the monument and would provide broad direction for resource preservation and public use.
Key Issue	Environmental management plan	L	The monument is in an urban developed area and also bordered by agricultural tracts. Aerial spraying for both fertilization and pest control is a common occurrence. Large trucks and vehicle traffic pose the risk of large quantities of hazardous materials. The monument is in need of specific direction in managing resource protection needs and visitor and staff safety.



Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
Key Issue	Digitization and creation of online/virtual museum	L	This would link with an exhibit plan for the newly renovated visitor center. The monument is in need of upgrading its web presence and developing this type of content would be engaging and useful in reaching younger audiences with key educational messages related to the monument's purpose. This plan would provide content material and direction for implementation. Integral to this effort would be alternative formats, for example, captioning and audio descriptions in foreign languages.
FRV / OIRV	Structural fire plan	L	This is critical to monument safety and protection of historic resources. It would also help establish protocols to follow in the event of an emergency.
OIRV	Wildland fire plan	L	This would help determine needed actions to protect structures and archeological features.
OIRV	Adaptive reuse plan	L	This plan would allow the monument to adjust to changing needs and uses of space. It would provide clear guidance of potential uses and issues and work toward establishing priorities for changes and modifications.
OIRV	Cultural landscape report	L	This plan would assure that conditions and related landscape, gardens, circulation, etc., are up to date. Sustainable landscaping in the historic district has often been problematic. Drainage issues, irrigation, choice of plantings, and impacts on or benefits to the natural environment could provide clear direction to monument staff. This could assist with preservation by the district of a greater integrated historic/pre-contact landscape by providing a holistic, proactive, integrated resource approach to preservation.
Key Issue	Partnership plan	L	The monument is studying development of a partner action strategy to establish direction and guidance for new relationships between organizations, energize existing relationships, define roles and responsibilities, and organize and develop special events. Increasing the diversity of partners would be integral to this process.
Key Issue	Trails management plan	L	This monument has some, but limited, backcountry areas and is interested in developing visitor access to carefully defined areas to increase the level of activities featured by the monument. Newly developed trails would be fully accessible for those with mobility, sensory, and cognitive disabilities.
Key issue	Staffing/position management plan	L	This would help the monument in establishing staffing priorities based on accomplishing core mission operations.
Key Issue	Volunteer program strategic plan	L	This could be integrated with the comprehensive interpretive plan or treated as an internal strategy.
Key Issue	Light management plan	L	This could support both internal light mitigation as well as support efforts in community consultation.
Key Issue	Communication and media plan	L	This could augment the monument's efforts in outreach and programming for diverse audiences. It would also aid in future programmatic changes in the monument.
FRV / Key Issue	Scenery conservation strategy	L	Public meetings and other avenues of presenting monument values and associated resources (Casa Grande) would be part of this conversation and study. Recognition of the value of landscapes and development on the impacts and purposes of the monument as demonstrated through GIS modeling would be an important tool in presenting impacts on planning boards and meetings.

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
Key Issue	Market analyses	H	This type of analysis would provide critical data to support the monument’s identified high priority visitor use management plan. The data could support the development of new programming activities to engage new audiences and youth. This effort would need to address the demographics of those who are not visiting the monument and identify barriers that are keeping them from visiting. It should also make recommendations for eliminating barriers and attracting all demographics.
Key Issue	Visitor survey	H	This form of reference data would offer critical demographic information relevant to monument experience and enjoyment. It is important to understanding how to be effective in offering services to diverse audiences. This would aid in identifying visitor patterns and subsequent use of the resource. It would also support the high-priority planning need of a visitor use management plan.
FRV / OIRV / Key Issue	Accessibility assessment	M	The monument would benefit from a full assessment of visitor and administrative facilities. This would need to be inclusive of both programmatic and physical accessibility.
FRV / Key Issue	Ethnographic overview and assessment	M	The monument acknowledges a lack of information in this area and that much is not fully understood regarding use of the site.
FRV	Data analysis of existing LiDAR	M	The monument has invested time, energy, and money in data collection and needs the analysis for future planning, decision making, and preservation.
FRV	Detailed bibliography and enhanced access to archived material	L	Having this information would provide a valuable tool to both the monument resource management team and researchers and monument interpreters using monument archeological data in the production of their respective reports and programs.
OIRV	Structural assessment of Great House shelter	L	There has never been a comprehensive assessment of the Great House shelter and it is unknown what stressors could impact the shelter without knowing its current level of structural integrity.
FRV / Key Issue	Archeological sites surveys	L	These data would help inform comprehensive condition surveys and monitor for impacts. This would provide a baseline for future research. Researchers have moved on and the data are there but they have not been fully analyzed or organized. Most of what needs to be done is recording and reporting. The monument needs to seek additional funding to make this happen.
Key Issue	Species distribution data	L	Understanding speciation, not just within monument boundaries but throughout the general area, would aid in the prevention and management of invasive species.
FRV / OIRV / Key Issue	LiDAR data baseline condition assessment	L	Accumulation of LiDAR data among other structures within the monument would assist in ongoing conservation and preservation issues.

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
FRV / OIRV / Key Issue	Monitoring weather parameters	L	This information would augment climate change vulnerability planning. Data and modeling would establish baseline information establishing triggers for adaptive management and protection of monument resources. Triggers could include precipitation, temperature, storm events, and assessment of projected climate futures.
OIRV / Key Issue	Aerial pesticide impacts	L	These data would help support the development of the environmental management plan and provide indicator data for the resource stewardship strategy. The current impact of defoliant and insecticides are unknown and more information would assist in mitigating impacts.
FRV	Research needs assessment	L	This could help the monument establish priorities and use of the collections to address critical science regarding the archeologic sites and the Great House.
FRV	Digitization of park archive collections	L	Would help to assure preservation and usability of archives and collections into the future. This could also assist in developing an online/virtual museum.
FRV	Visitor use trend analysis	L	These data would support the development of the visitor use management plan.
Key Issue	Pollution analysis	L	Current impacts of specific pollutants are unknown. Data in the areas of noise, air, water, and sediment pollution would help to determine current or future impacts on archeological features.
Key Issue	Vibration impact analysis	L	As urban traffic increases and large transport vehicles, low-flying aircraft, and potential development of larger Tucson/Phoenix transportation strategies moves forward, vibration impacts on the Great House and other archeological sites are not fully understood. These data would help determine adaptive management strategies to mitigate future and contemporary damage.
FRV / OIRV	Assessment of wildlife and plant impacts on archeological resources	L	Would help inform preservation planning.
FRV	Safety assessment	L	This reflects the need for both an operational assessment as well as visitor safety.
OIRV	Asset information needs to be updated in FMSS	L	Operational and data needs for updating information in the FMSS database.
OIRV	Historic structure report (entire CCC complex)	L	This would help both to document the current conditions and to prioritize maintenance funding.
OIRV	Utility location (GIS)	L	Operational efficiency and cost savings, along with monument staff and visitor safety, would benefit by having a GIS layer that documents the location of buried lines and utility locations.



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
OIRV	Topographic data to address drainage issues (GIS)	L	Development of this GIS layer would assist with landscaping strategies and preventive maintenance of trails and structures
OIRV	Research on the CCC spike camp	L	Systemwide study would be of value, both in sharing preservation techniques and also understanding environmental impacts of similar or like structures. Some information may be available at Colossal Cave (a privately owned resource near Tucson, Arizona), Saguaro National Park, and Chiricahua National Monument
Key Issue	Light bleed analysis	L	Surrounding development is impacting the night sky. A light bleed analysis would give tangible data to support efforts to preserve night sky values
FRV	Visual resource inventory	L	The inventory would identify the scenic character of important views as well as NPS and visitor values. This would help inform the scenery conservation strategy identified in planning needs
FRV	Archeological site density analysis	L	Performed by Arizona State University
FRV	Ground penetrating radar surveys	L	The potential for new sites or extensions of existing sites or related features could be located and plotted. Review with tribes prior to and after implementation
OIRV	Monitoring invasive plants and animals	L	Data used to adaptively manage invasive species
OIRV	Predator/prey surveys	L	Useful data for resource management strategies
OIRV	Hydrographic analysis and monitoring of the water table	L	Useful data for resource management strategies
Key Issue	Lower compound (A) condition assessments	L	Data would inform preservation plan and management actions



## Part 3: Contributors

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# Appendixes

## Appendix A: Presidential Proclamation and Legislative Acts for Casa Grande Ruins National Monument

50TH CONGRESS, }  
2d Session. }

SENATE.

{ MIS. Doc.  
No. 60.

### IN THE SENATE OF THE UNITED STATES

FEBRUARY 4, 1889.—Presented by Mr. Hoar, referred to the Committee on Public Lands, and ordered to be printed.

**MEMORIAL OF OLIVER AMES, JOHN G. WHITTIER, MARY HEMENWAY, AND OTHERS, PRAYING LEGISLATION FOR THE PROTECTION FROM DESTRUCTION OF THE ANCIENT RUIN OF THE TEMPLE CASA GRANDE, SITUATED IN PINAL COUNTY, NEAR FLORENCE, ARIZ.**

*To the Congress of the United States :*

The undersigned respectfully represent that the ancient and celebrated ruin of Casa Grande, an ancient temple of the prehistoric age of the greatest ethnological and scientific interest, situated in Pinal County, near Florence, Arizona Territory, upon section 16 of township 5 south, range 8 east, immediately to the north of the first standard south, Gila and Salt River base, and about two miles south of the Gila River, is at present entirely unprotected from the depredations of visitors ; and that it has suffered more in eleven years from this source than in the three hundred and fifty years preceding ; and,

Your petitioners, believing that this ruin is worthy of the care of Government, respectfully pray that it may be protected by proper legislation from destruction or injury.

BOSTON, *January 30, 1889.*

OLIVER AMES.  
MARY HEMENWAY.  
MARY B. CLAFLIN.  
WILLIAM CLAFLIN.  
R. CHARLOTTE DANA.  
ANNA CABOT LODGE.  
FRANCIS PARKMAN.  
EDWARD E. HALE.  
O. W. HOLMES.  
SAMUEL DALTON.  
JOHN FISKE.  
JOHN G. WHITTIER.  
WM. T. HARRIS.  
W. E. BARRETT.

**14. Casa Grande National Monument**

Reservation of the Casa Grande ruin: Executive Order of June 22, 1892.....	Page 140
Revision of boundaries: Proclamation (No. 884) of Dec. 10, 1909.....	140
Establishment of the national monument: Proclamation (No. 1470) of August 3, 1918 .....	142

DEPARTMENT OF THE INTERIOR,

WASHINGTON,

June 20, 1892.

Sir:

I have the honor to recommend that the SW.  $\frac{1}{4}$  SW.  $\frac{1}{4}$ , SE.  $\frac{1}{4}$  SW.  $\frac{1}{4}$ , SW.  $\frac{1}{4}$  SE.  $\frac{1}{4}$  section 9, NW.  $\frac{1}{4}$ , NW.  $\frac{1}{4}$  NE.  $\frac{1}{4}$ , SW.  $\frac{1}{4}$  NE.  $\frac{1}{4}$ , NW.  $\frac{1}{4}$  SW.  $\frac{1}{4}$ , NE.  $\frac{1}{4}$  SW.  $\frac{1}{4}$  and NW.  $\frac{1}{4}$  SE.  $\frac{1}{4}$  section 16, all in township 5 south, range 8 east, Gila and Salt River Meridian, Arizona, containing 480 acres more or less, and including the Casa Grande Ruin, be reserved in accordance with the authority vested in you by the act of March 2, 1889—25 Stat., 961, for the protection of the ruin.

The Director of the Bureau of Ethnology requests that the reservation be made and the Acting Commissioner of the General Land Office knows of no objection to such action.

Very respectfully,

JOHN W. NOBLE,  
*Secretary.*

The President.  
6144-'92.

(The following appears on the back of this letter)

THE SECRETARY OF THE INTERIOR

June 21, 1892.

Recommends the reservation of certain lands in Arizona for the protection of the Casa Grande ruin.

(E. O. of June 22, 1892—No. 28-A)

EXECUTIVE MANSION

June 22, 1892.

Let the lands described within be reserved for the protection of the Casa Grande ruin as recommended by the Secretary of the Interior.

BENJ. HARRISON.



August 3, 1918.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

Casa Grande National Monument, Ariz. Preamble. Vol. 25, p. 961.

Vol. 36, p. 2504.

Vol. 34, p. 225.

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

Description.

Vol. 36, p. 2504.

Reserved from settlement, etc.

Supervision, etc., by Director of National Park Service.

WHEREAS, by authority of the Act of Congress approved March 2, 1889 (25 Stat., 961), there was set aside and reserved by Executive Order dated June 22, 1892, certain land in the State of Arizona on which is located the prehistoric ruin known as Casa Grande, the boundaries of which reservation were later amended by proclamation of December 10, 1909 (36 Stat., 2504); and

WHEREAS it is in the public interest that this reservation be made a national monument under authority of the Act of Congress entitled "An Act for the preservation of American antiquities," approved June 8, 1906 (34 Stat., 225), in order that better provision may be made for the protection, preservation and care of the ruins of the ancient buildings and other objects of prehistoric interest thereon;

NOW, THEREFORE, I, WOODROW WILSON, President of the United States of America, by virtue of the power in me vested by section two of the aforesaid Act of Congress, do proclaim as the Casa Grande National Monument the land heretofore reserved and set aside as aforesaid, to-wit: the northwest quarter, the northeast quarter, the north half of the southwest quarter, and the north half of the southeast quarter of section sixteen, township five south, range eight east, Gila and Salt River meridian, State of Arizona, the boundaries of said national monument being as shown on diagram annexed to said proclamation of December 10, 1909 (36 Stat., 2504), which diagram is made a part hereof.

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

The Director of the National Park Service, under the direction of the Secretary of the Interior, shall have supervision, management and control of this monument, as provided in the Act of Congress entitled "An Act to establish a National Park Service, and for other purposes," approved August 25, 1916 (39 Stat., 535).

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE in the District of Columbia This 3d day of August in the year of our Lord one thousand nine hundred and eighteen, and of the Independence of the United States of America the one hundred and forty-third.

WOODROW WILSON

By the President  
FRANK L. POLK  
Acting Secretary of State.

December 10, 1909.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA,  
A PROCLAMATION.

Casa Grande Ruin  
Reservation, Ariz.  
Preamble.  
Vol. 25, p. 961.

WHEREAS, by Executive Order of June 22, 1892, certain lands in Sections nine and sixteen, Township five South, Range eight East, Gila and Salt River Base and Meridian in the Territory of Arizona, were withdrawn under the Act of Congress approved March 2, 1889, entitled, "An Act to make appropriations for sundry civil expenses of the Government for the fiscal year ending June thirty, eighteen hundred and ninety, and for other purposes", and it appears that the land located in said Section nine does not contain any of said Ruin, and that the additional land in said Section sixteen contains a part of said Ruin and should be reserved for the protection thereof;

Location corrected.

Now, therefore, I, WILLIAM H. TAFT, President of the United States of America, by virtue of the power in me vested by said Act of March 2, 1889, do restore to the public domain the southwest quarter of the southeast quarter and the south half of the southwest quarter of said Section nine, and do hereby reserve from appropriation and use of all kinds under the public land laws, subject to any valid adverse claims, the north half, the north half of southwest quarter and the north half of the southeast quarter of said Section sixteen, as shown upon the diagram hereto attached and made a part of this proclamation.

Reserved from settlement, etc.

Warning is hereby expressly given to all unauthorized persons not to excavate, appropriate, injure or destroy any of the objects hereby reserved, nor to settle upon any of the lands contained within the boundaries of this reservation.

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 10th day of December in the year of our Lord one thousand nine hundred and nine, [SEAL] and of the Independence of the United States the one hundred and thirty-fourth.

WM H TAFT

By the President:  
P C KNOX  
*Secretary of State.*

CASA GRANDE RUIN RESERVATION  
ARIZONA

*Embracing the north half, the north half of the south-west quarter and the north half of the south-east quarter of Section sixteen, Township 5 South, Range 8 East, Gila and Salt River Mer.*

*Reservation boundary*



DEPARTMENT OF THE INTERIOR  
GENERAL LAND OFFICE  
Fred Dennett, Commissioner

## Appendix B: Inventory Of Administrative Commitments

Title / Agency / Organization	Purpose / Description	Dates	Signatories
<b>Special Park Uses – Rights-of-Way</b>			
Highway Easement Deed from National Park Service to Arizona Department of Highways	From the entrance road north to the intersection of Arizona State Routes 87 and 287, the monument boundary is the fenceline. From the entrance road south to the canal, the property line extends to the highway centerline, all of which is within the 75-foot legal highway right-of-way as granted in the easement deed.	02/02/99 Ongoing	Arizona Department of Highways and the National Park Service
RW-IMR-CAGR-02-01	Allows overhead and underground transmission lines along highway right-of-way	09/03/2002–2012 (Renewal in process)	Arizona Public Service
<b>Memorandum of Understanding</b>			
City of Coolidge, AZ	Structural fire-fighting and wildfire assistance	03/28/2016–2021	City of Coolidge, Arizona and the National Park Service
<b>Special Use Permits</b>			
WRO Casa Grande 5100 001	Permit granted to City of Coolidge to erect a sign	The permit is out of date and needs to be renegotiated	City of Coolidge, Arizona, and the National Park Service
<b>Cooperating Association Agreements</b>			
Western National Parks Association	Cooperating association agreement, authorized through Director's Order 32	Ongoing	Western National Parks Association and the National Park Service



## Appendix C: Traditionally Associated Tribes

Tribal Name	Organization Name	Address
Ak-Chin Indian Community of the Maricopa (Ak-Chin) Indian Reservation, Arizona	Ak-Chin Indian Community Tribal Council	42507 West Peters and Nall Road Maricopa, AZ 85138
Fort McDowell Yavapai Nation, Arizona	Fort McDowell Yavapai Tribal Council	PO Box 17779 Fountain Hills, AZ 85268
Gila River Indian Community of the Gila River Indian Reservation, Arizona	Gila River Indian Community Tribal Council	PO Box 97 Sacaton, AZ 85247
Hopi Tribe of Arizona	Hopi Tribal Council	PO Box 123 Kykotsmovi, AZ 86039
Pascua Yaqui Tribe of Arizona	Pascua Yaqui Tribal Council	7474 S Camino De Oeste Tucson, AZ 85746
Salt River Pima-Maricopa Indian Community of the Salt River Reservation, Arizona	Salt River Pima-Maricopa Indian Community Council	10005 East Osborn Road Scottsdale, AZ 85256
Tohono O'odham Nation of Arizona	Tohono O'odham Tribal Council	PO Box 837 Sells, AZ 85634
Zuni Tribe of the Zuni Reservation, New Mexico	Pueblo of Zuni Tribal Council	PO Box 339 Zuni, NM 87327







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**Intermountain Region Foundation Document Recommendation  
Casa Grande Ruins National Monument**

February 2017

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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

*Karl M. Pierce*

*02/21/2017*

RECOMMENDED

Karl Pierce, Superintendent, Casa Grande Ruins National Monument

Date

*Sue E. Masica*

*3/24/17*

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.

CAGR 303/133289  
March 2017

Foundation Document • Casa Grande Ruins National Monument

