



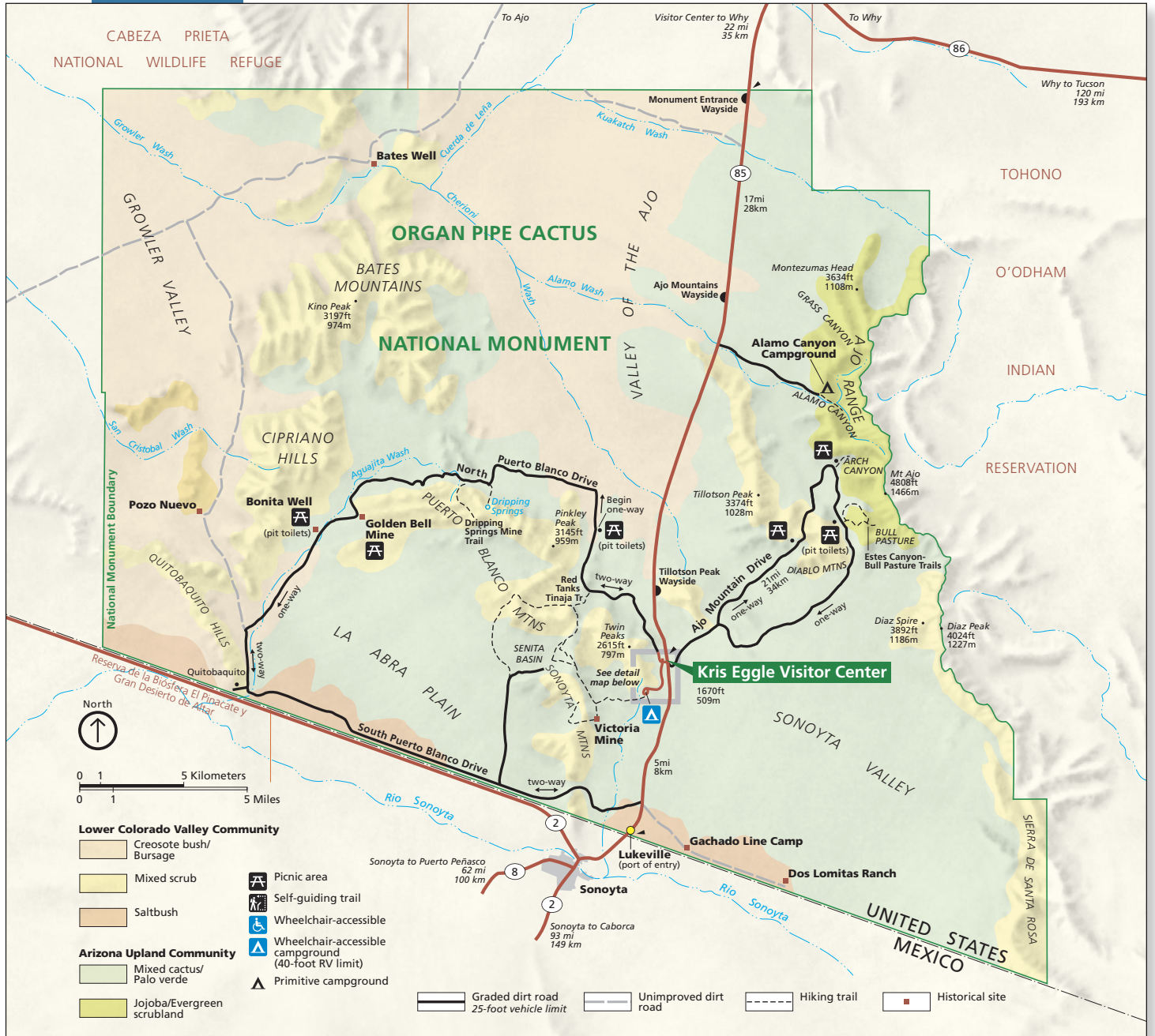
Foundation Document

Organ Pipe Cactus National Monument

Arizona

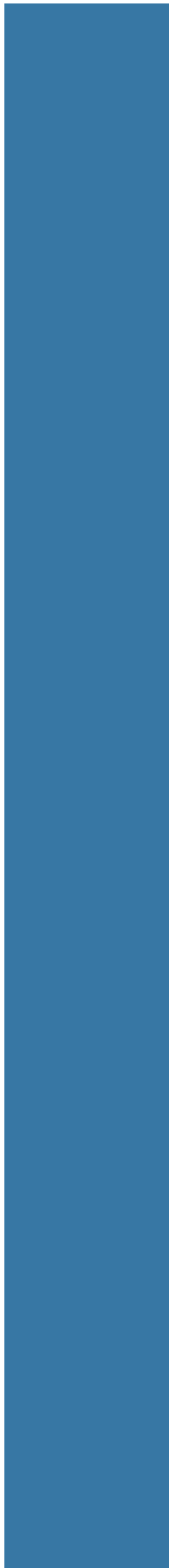
May 2016





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Mission of the National Park Service

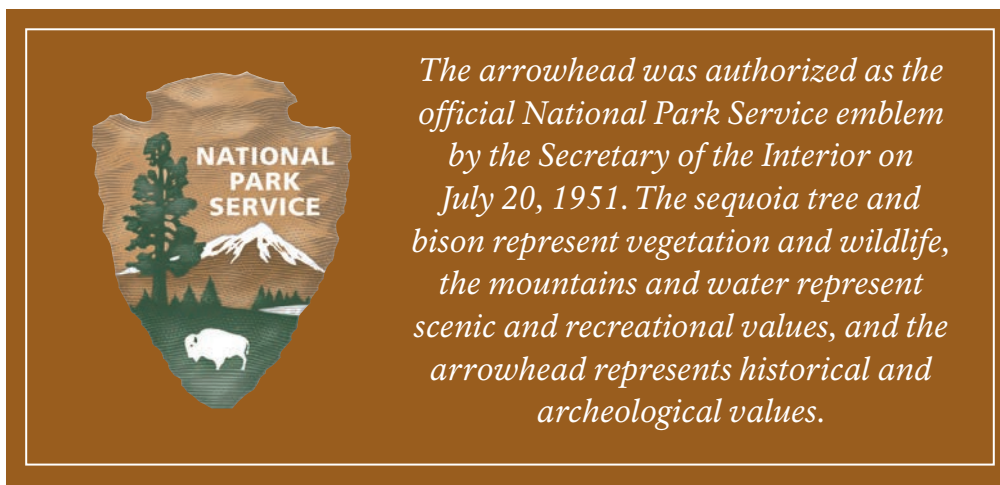
The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural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

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

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

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

The national park system continues to grow and comprises more than 400 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the US 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.



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, 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 Organ Pipe Cactus 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, 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 Monument

Organ Pipe Cactus National Monument is in southwestern Arizona, with the southern boundary of the monument comprising 30 miles of the international border between the United States and Mexico, approximately 40 miles south of Ajo. The monument was established by presidential proclamation on April 13, 1937, to preserve more than 330,000 acres and protect a representative part of the Sonoran Desert that contains organ pipe cactus (*Stenocereus thurberi*), a large, columnar cactus rarely found in the United States. Approximately 95% of the monument (about 312,600 acres) is also designated wilderness, with another 1,240 acres designated as potential wilderness.

The monument's mountains, bajadas, valleys, and washes support unique communities of Sonoran Desert life, including the critically endangered Sonoran pronghorn and the endangered lesser long-nosed bat. The monument is also home to many plants and animals that have adapted to extreme temperatures, intense sunlight, and little rainfall, including 26 species of cactus, notably the endangered acuña cactus, and a number of rare plants. Quitobaquito, a critically important desert spring and pond system that lies just north of the Mexican border, continues to support uniquely adapted plants and animals, including the endangered Quitobaquito pupfish and other species of conservation concern.

Organ Pipe Cactus National Monument also has a rich 15,000-year human history, serving as an important cultural center to the local American Indians. Hohokam trade routes bisect what is now the monument, and allowed for ease of movement through the Sonoran Desert as people looked to acquire resources and trade with neighboring cultures. To the Tohono O'odham people, the fruits of saguaro and organ pipe cactus provided food during the hot Sonoran summer. The presidential proclamation for the monument provides for the continued harvesting of cactus fruits by the "Indians of the Papago Reservation," now called the Tohono O'odham Reservation. Human use continued at the site in the form of mining and ranching activities, which occurred from the late 19th and early 20th century through the 1970s. The effects of these activities can still be seen on the landscape today, as can remnant features such as prospecting holes, wells, and structures that are scattered across the monument.

In 1976, Organ Pipe Cactus National Monument was designated an international biosphere reserve by the United Nations Educational, Scientific and Cultural Organization (UNESCO) under the direction of the Man and the Biosphere Program. Organ Pipe Cactus National Monument is one of several protected areas that help preserve the Sonoran Desert ecosystem along the international border with Mexico, including Cabeza Prieta National Wildlife Reserve (US Fish and Wildlife Service) and Sonoran Desert National Monument (Bureau of Land Management) in the United States, and El Pinacate y Gran Desierto de Altar Biosphere Reserve in Mexico. These areas collectively comprise the largest multiagency, international protected area in the Sonoran Desert Region of North America.



Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Organ Pipe Cactus National Monument was drafted through a careful analysis of its presidential proclamation and the legislative history that influenced its development. The monument was established by presidential proclamation on April 13, 1937 (see appendix A for presidential proclamation and legislative history). The purpose statement lays the foundation for understanding what is most important about the monument.

ORGAN PIPE CACTUS NATIONAL MONUMENT preserves and provides for public enjoyment and scientific understanding of diverse Sonoran Desert natural resources, including the organ pipe cactus; multicultural connections and resources; and an expansive designated wilderness area.

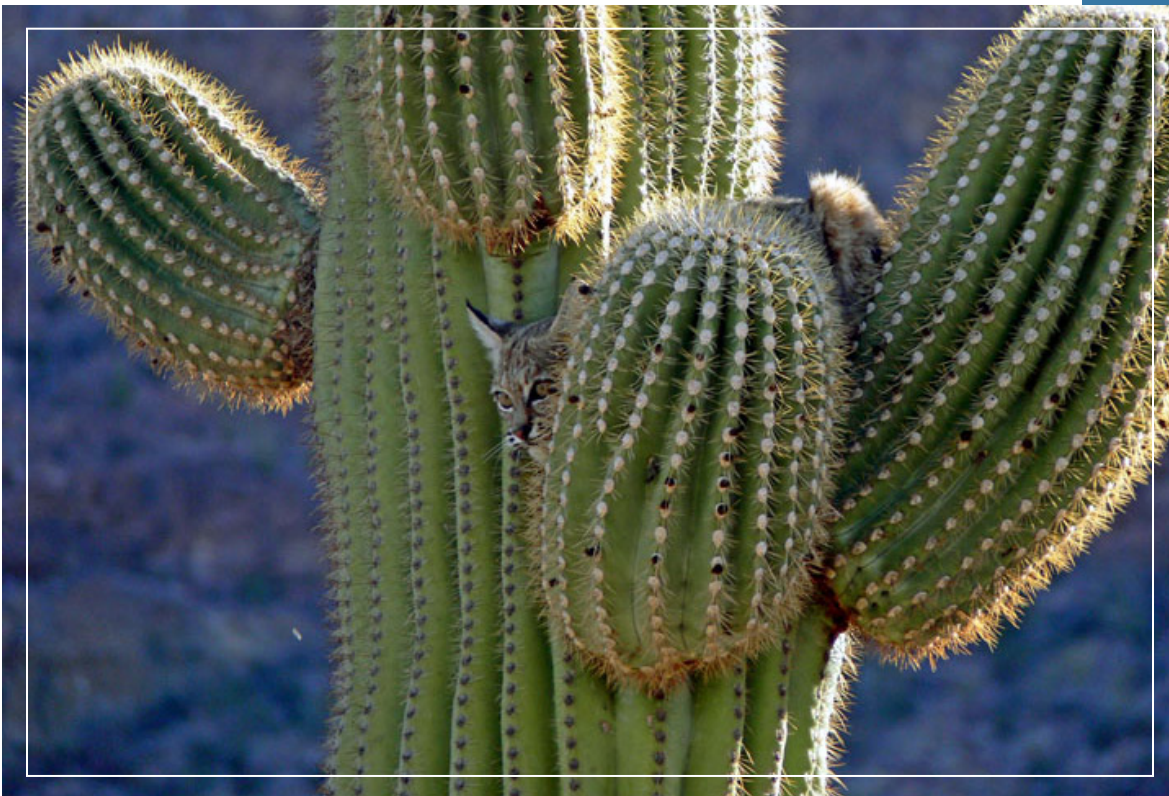


Park Significance

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 Organ Pipe Cactus 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 Organ Pipe Cactus National Monument. (Please note that the sequence of the statements does not reflect the level of significance.)

1. Organ Pipe Cactus National Monument is a vast Sonoran Desert designated wilderness area that protects wilderness values, such as opportunities to experience solitude and primitive recreation, expansive vistas, and dark night skies.
2. Distinct summer and winter rainy seasons and rare freezes contribute to the stature and diversity of Sonoran Desert natural communities at Organ Pipe Cactus National Monument. This environment supports a rich assemblage of tropical desert endemic species, including a number of endangered species and the largest protected concentration of organ pipe, senita, and saguaro cactus in the United States.
3. The monument has been continuously studied since the early 1940s, serving an international role in research, conservation, and education, and has been recognized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as a globally important biosphere reserve that is representative of the natural Sonoran Desert ecosystem.
4. For more than 15,000 years, Organ Pipe Cactus National Monument has been a place of trade, travel, and convergence, as evidenced through prehistoric and historic sites such as Quitobaquito Springs and other culturally significant features, and is still being used today.



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 Organ Pipe Cactus National Monument:

- **Columnar Cacti, including the Organ Pipe Cactus.** Organ Pipe Cactus National Monument exhibits an extraordinary collection of rich tropical flora, Pleistocene relict woodlands, and animals that have specially adapted to the conditions of the Sonoran Desert, including 26 species of cactus and three species of columnar cactus—the organ pipe, saguaro, and senita. The columnar cacti are iconic of the Sonoran Desert, and serve as indicators of overall ecosystem health.
- **Wilderness.** Ninety-five percent of Organ Pipe Cactus National Monument is designated wilderness, cooperatively managed with a number of monument partners to protect the wilderness character of the landscape. The largely undeveloped and primitive landscape is a natural haven for flora and fauna of the Sonoran Desert. Though the monument welcomes thousands of visitors a year, it is not difficult for visitors to experience remote solitude, primitive recreation, expansive vistas, and natural night skies in this immersive wilderness landscape.
- **Quitobaquito.** Quitobaquito, the location of several springs and seeps, is a unique desert oasis that has provided a constant source of water for desert travelers and residents for more than 15,000 years. Prehistoric Paleo-Indian, Archaic, and Hohokam groups, as well as Papago, Spanish, Mexican, and Anglo groups all interacted with the environment, and in some cases, with each other. A former village, camp, and agricultural site, human habitation ended at Quitobaquito in 1957, though ongoing use of this tribal cultural place still continues by traditionally associated tribes and groups. This oasis is also an ecological singularity, where water and high moisture contrast with the surrounding arid desert. As such, Quitobaquito is home to a diverse range of plants and animals, including many rare and endangered species such as the Quitobaquito pupfish, Sonoyta mud turtle, and Quitobaquito tryonia.
- **Continuum of Human History.** Organ Pipe Cactus National Monument's diverse range of cultural resources document thousands of years of human presence and adaptation to the arid Southwestern environment. Among the monument's important cultural resources are prehistoric American Indian sites; traces of the Salt Trail and El Camino del Diablo; place names for early Spanish explorers and missions; and 19th and 20th century homesteads and mining sites. For contemporary people, including American Indians and European American descendants of explorers and pioneers, many of the monument's cultural sites, objects, landscapes, and natural resources remain important touchstones that contribute to group identity and heritage.
- **Science and Research.** The long and highly active legacy of scientific study and scholarly research at Organ Pipe Cactus National Monument illuminates the area's natural and cultural history, including the stories of American Indians and pioneers, and their interaction with the natural environment. The monument's designation as a UNESCO International Biosphere Reserve further demonstrates the special diversity of the monument's Sonoran Desert ecosystem, and its importance for continued scientific research and education.

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 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 Organ Pipe Cactus National Monument:

- Organ Pipe Cactus National Monument’s vast, tropical Sonoran Desert wilderness, and its more than 15,000 years of human history, offer unique opportunities to appreciate cultural and natural extremes—inviting us to examine our sense of place.
- The official interaction of the tri-nations (Tohono O’odham, Mexico, and the United States) and their ancestral convergence in this place attests to human resilience and our evolving relationship with dynamic landscapes.
- Organ Pipe Cactus National Monument is a globally important, Sonoran Desert living laboratory—a biosphere reserve—advancing scientific discovery and exploration that seeks to satisfy curiosity, and continually inspires us to pursue understanding.
- Organ Pipe Cactus National Monument’s sensory-immersing experiences within vistas of cacti, mountains, and changing light and shadow—even into the night—unveil stark contrasts, humbling beauty, perspective, and personal rejuvenation.



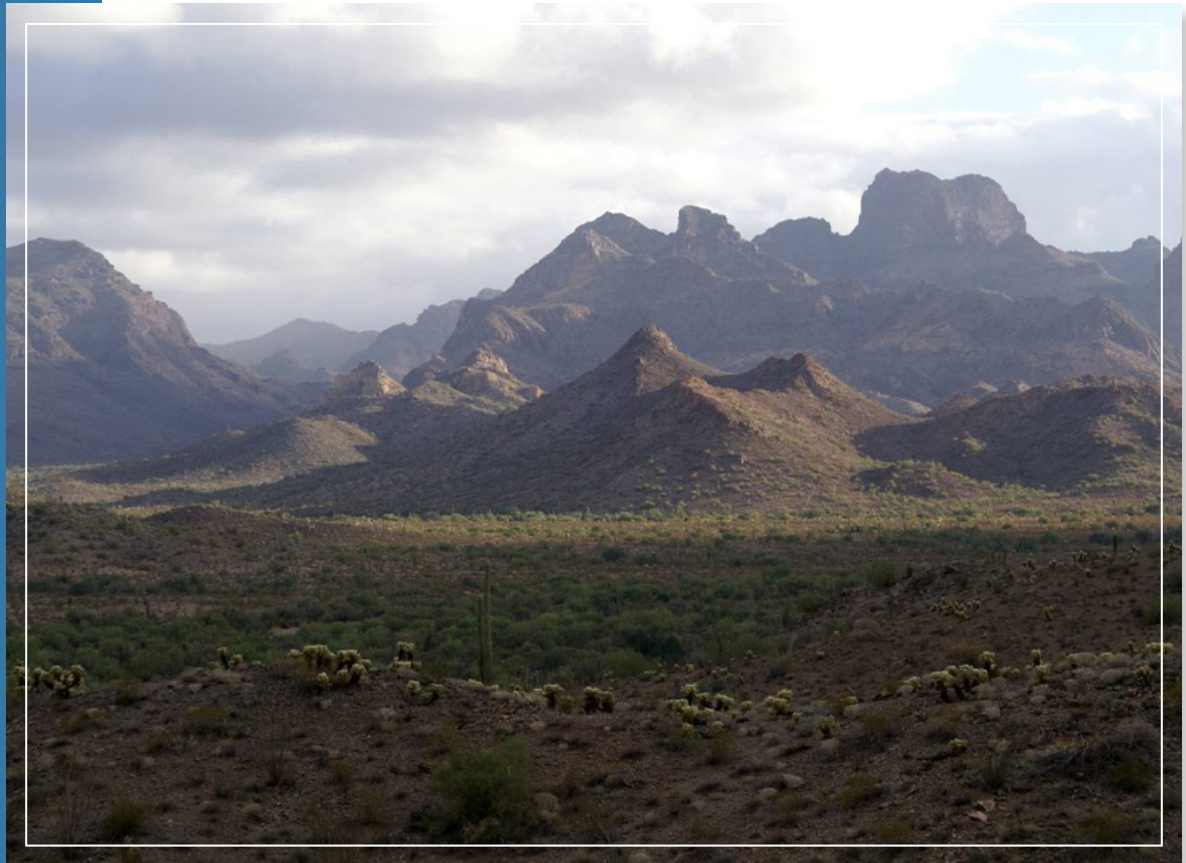
Part 2: Dynamic Components

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 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 Organ Pipe Cactus National Monument.

For more information about the existing special mandates, special designations, and administrative commitments for Organ Pipe Cactus 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 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 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 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	Columnar Cacti, including the Organ Pipe Cactus
Related Significance Statements	Significance statements 1, 2, 3, and 4.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Cactus communities are large and healthy, exhibiting a good age distribution, abundance of new recruits, and indicators of good health (i.e., flowers and fruit). • Temperature cooling in valley bottoms as a result of temperature inversions makes organ pipe cacti appear more on slopes. • Columnar cacti are a keystone species and an indicator of overall Sonoran Desert ecosystem health. Many other species depend on them as a source of food and shelter, including the lesser long-nosed bats, deer, rabbits, woodpeckers, and birds that use cavities in the cacti for nesting, such as pygmy owls. • The Sonoran Desert ecosystem in the monument is fairly intact, with the exception of the continued spread of invasive buffelgrass and other nonnative invasive species. <p>Trends</p> <ul style="list-style-type: none"> • Trends related to columnar cacti are typically unknown, but as the temperature warms, the range of these species and others found just south of the border may be expanding into formerly cooler environments.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Climate change predictions for the region implicate persistent drought, warming temperatures, and shortening winters. These drivers are likely to change the distribution of many species, including columnar cacti and high-elevation species. Increased wildfire is likely. Loss of plant species in the drier, western part of the monument could also occur, along with the loss of Pleistocene relicts. • Monument ecosystems are highly sensitive to nutrient-enrichment effects of nitrogen deposition. Excess nitrogen deposition from coal-fired power plant emissions, vehicle exhaust, and agriculture can help invasive plant species to grow faster and out-compete native vegetation adapted to lower nitrogen conditions. Biological crust's role in soil fertility can also be affected. • High wind and wet soil as a result of severe weather events can lead to blowdown of cacti; during a noteworthy event in 2010, more than 160 large specimens were found blown over within view of Puerto Blanco Drive. • Sub-freezing temperatures may kill young tissue at the end of the stems, as many cactus species are at their northern distributional limit in or near the monument and are intolerant of hard freezes. • Isolated incidences of graffiti on cacti occur. • There are isolated incidences of vehicles colliding with cacti along Arizona Highway 85, some of which occur as a result of interdiction of undocumented aliens. • Buffelgrass and fountain grass are well-established invasive plants that, if left unmanaged, would have long-term and widespread impacts on the ecosystem by outcompeting native vegetation. In managed areas, buffelgrass and fountain grass have been declining, but in other vast areas of the monument where management is more difficult, buffelgrass has been increasing. • Off-road vehicle activity has been abundant in the monument, and has caused long-term, widespread impacts to soils, vegetation, and associated ecosystem processes.

Fundamental Resource or Value	Columnar Cacti, including the Organ Pipe Cactus
<p>Threats and Opportunities</p>	<p>Opportunities</p> <ul style="list-style-type: none"> • Continue collection of columnar cacti phenology to assess a trend in changes related to cacti blooming. • Expand opportunities for research and monitoring related to cacti, potentially through a citizen science program, or increased collaboration with educational institutions. • Continue to collaborate with neighbors and partners to share data and cooperate in conservation efforts related to the Sonoran Desert ecosystem. Collaboration could include working together to implement measures to reroute illegal traffic around ecologically sensitive areas, if needed. • Expand interpretation of cacti and the important role of cacti in the broader ecosystem. • Continue collaborating with the US Border Patrol (USBP) to educate USBP staff to minimize impacts to the natural resources of the monument. • Continue working with partners to assess off-road vehicle impacts, and develop and implement restoration projects where opportunities exist. • Continue coordinating with the NPS Sonoran Desert Ecosystem Inventory and Monitoring (I&M) network and the NPS Exotic Plant Management Team. • Investigate buffelgrass control methods, including if biological control agents are being used elsewhere and how effective they are. The monument could work with Saguaro National Park to coordinate management and share management strategies between the park units in order to maximize resources and effectiveness of treatments and control. • Continue working with members of the O’odham Nation and other associated traditional tribes and groups allowing them to harvest cactus fruit while effectively managing the resources and areas being harvested.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Cactus age/size/structure data. • Survey and mapping of invasive species. • Investigate air pollution impacts to sensitive park ecosystems.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Integrated pest management plan. • Comprehensive interpretive plan. • Wayside plan. • Planning for adaptation to climate change.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • The Wilderness Act of 1964 • Endangered Species Act of 1973, as amended • National Invasive Species Act of 1990 • Lacey Act of 1900, as amended • Migratory Bird Treaty Act • Bald and Golden Eagle Protection Act • National Environmental Policy Act of 1969 • Federal Noxious Weed Act of 1974, as amended • Clean Water Act of 1972 • Clean Air Act of 1977 • Executive Order 13112, “Invasive Species” • Executive Order 13514, “Federal Leadership in Environmental, Energy, and Economic Performance” • Executive Order 13423, “Strengthening Federal Environmental, Energy, and Transportation Management” • Secretarial Order 3206, “American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act” • Secretarial Order 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources”

Fundamental Resource or Value	Columnar Cacti, including the Organ Pipe Cactus
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS <i>Management Policies 2006</i> (§4.1) "General Management Concepts" • NPS <i>Management Policies 2006</i> (§4.1.4) "Partnerships" • NPS <i>Management Policies 2006</i> (§4.4.1) "General Principles for Managing Biological Resources" • NPS <i>Management Policies 2006</i> (§4.7.2) "Weather and Climate" • NPS Director's Order 18: <i>Wildland Fire Management</i> • NPS Director's Order 77: <i>Natural Resource Management</i> • NPS <i>Natural Resource Management Reference Manual 77</i> • NPS <i>Wildland Fire Management Reference Manual 18</i>





Fundamental Resource or Value	Wilderness
Related Significance Statements	Significance statement 1.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • The natural quality of wilderness character varies widely in condition, due to both natural and human influences. • Wilderness management values and strategies closely reflect those of the UNESCO Biosphere Reserve Program. • The undeveloped quality of wilderness character is substantially degraded by human impacts, mostly due to cross-border activity. Vehicle use, low-level aircraft overflights, and illegal camps and associated impacts are common; infrastructure exists within and adjacent to wilderness and is visible from deep within wilderness. • The untrammled quality of wilderness is commonly impacted by activities to manipulate the wilderness' biophysical environment. These include trespass by invasive livestock and feral animals, backcountry vehicle travel, and sometimes restoration actions. • Opportunities for solitude or primitive and unconfined recreation are available, though sometimes impeded by the presence of cross-border activity and the evidence of human presence that pervades wilderness (trash, footprints, vehicle tracks, aircraft, etc.). The wilderness does not see a large number of visitors at this time, in part due to the recent reopening of a number of areas to visitor travel. • Road restoration efforts have lessened the impact of incursions to wilderness as a result of cross-border activity. About 200 miles of informal roads (undesigned vehicle routes) in the wilderness, previously used by the US Border Patrol, have been closed to vehicle traffic in order to be restored. <p>Trends</p> <ul style="list-style-type: none"> • Generally, wilderness character within the monument is improving, in large part due to the road restoration efforts, closer coordination with the US Border Patrol, and other subsequent efforts. • The monument expects increasing visitation to the wilderness (in the forms of hiking, backpacking, and camping) following the relatively recent reopening of the entire monument; some areas have been designated for overnight backcountry use. • The preservation of wilderness character continues to be important at the monument. This has become even more important as the American West becomes increasingly urbanized and developed, and there is currently no apparent end to cross-border pressures.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Average annual temperature is increasing due to climate change, causing increased wildfire, tree mortality, reduced flow of springs and rivers, shifting of lower-elevation desert and woodland ecosystems upslope, and a shifting of bird species northward. • Climate change may indirectly increase the spread of buffelgrass and Africanized bees, thereby affecting the wilderness character. • Air quality indicators, including deposition and ozone, are impacted by international, regional, and local sources of air pollution such as agriculture, power plants, industry, and urban sprawl. If the port in Puerto Peñasco becomes heavily used, vehicle traffic (vacationers and trucks), and industrialization of that area will likely increase. • Undocumented migrants, drug smugglers, and law enforcement efforts and related activities can all degrade wilderness character. Associated threats and impacts may include increased fire risk, wildlife disturbance, habitat destruction or modification, increased noise and artificial light, spread of invasive species, trash, and human waste, increased/continued vehicle use (ground and air), and the creation of trails by migrants and/or law enforcement personnel. These activities may also impact the safety of visitors and staff at the monument.

Fundamental Resource or Value	Wilderness
<p>Threats and Opportunities</p>	<p>Threats (continued)</p> <ul style="list-style-type: none"> • Brassica, buffelgrass, and fountain grass are well-established invasive plants that, if left unmanaged, would have long-term and widespread impacts on the ecosystem by outcompeting native vegetation. In managed areas, buffelgrass and fountain grass have been declining, but in other vast areas of the monument where management is more difficult, buffelgrass has been increasing. • Actions authorized by the monument that intentionally manipulate the biophysical environment, such as use of heavy equipment for backcountry road restoration, threaten the untrammeled quality of wilderness character (although these management actions may be necessary to protect and enhance other qualities of wilderness character). • Grazing incursions sometimes result from the alteration or cutting of the monument's border fence by undocumented migrants and drug smugglers, or through interdiction efforts. Cattle grazing manipulates the biophysical environment, alters vegetation, and leads to the spread of invasive species as seeds are deposited into the soil through manure. • Although the wilderness is mostly free from modern human development, there are a few non-recreational structures, installations, and developments. These structures include Blue Light of Life beacons, multiagency communication relay stations, and several monument-managed weather stations. Additionally, United States Border Patrol communications and monitoring towers are visible from within wilderness, though they are not in wilderness. • There is a significant amount of fencing on the monument and wilderness boundaries, including 30 miles of international border fence between the US and Mexico that serves as a vehicle barrier (5.5 miles is substantially larger to also function as a pedestrian barrier). While the fencing often prevents some cross-border activity and illegal grazing incursions, the use of fencing prevents the movement of other animals and exists as a modern human development on the landscape. The pedestrian fence is a significant visual intrusion and, in addition to preventing wildlife movement, also causes significant issues during flood events. • Scenic vistas are sometimes obscured by pollution-caused haze. At night, air pollution scatters artificial light, increasing the effect of light pollution on the night sky. • Military overflights continue to compromise wilderness values in much the same way as some law enforcement interdiction activities. • The solitude or primitive and unconfined recreation quality may be threatened by increased noise from vehicles and aircraft, light pollution from development, and human-made impediments on the viewshed. • Visitation to the wilderness may negatively impact the natural quality, through soil compaction and erosion from social trails and horse use, as well as spread of invasive species, trash, and human waste. <p>Opportunities</p> <ul style="list-style-type: none"> • Continue collaborating with the US Border Patrol to educate United States Border Patrol staff to minimize impacts to the resources of the monument (including wilderness). The monument currently organizes on- and off-site wilderness training through the Arthur Carhart National Wilderness Training Center, as well as National Environmental Policy Act, National Historic Preservation Act, and Endangered Species Act trainings. • Work cooperatively with other federal, state, and Mexican agencies and local stakeholders to increase awareness about the monument's resources and the importance of protection of wilderness. • Investigate what other wilderness areas do to accommodate mandated uses (such as US Border Patrol activities) while still providing protection for sensitive wilderness resources. Similarly, explore how other wilderness managers are using less-invasive management actions to protect wilderness. Apply any lessons learned to management of the wilderness at the monument.

Fundamental Resource or Value	Wilderness
<p>Threats and Opportunities</p>	<p>Opportunities (continued)</p> <ul style="list-style-type: none"> • Increase efforts to control invasive nonnative species like buffelgrass and fountain grass, in coordination with the NPS Southwest Exotic Plant Management Team. • Continue efforts underway to bury the power line running parallel to Arizona Highway 85, and convert the existing right-of-way into a wilderness hiking and horseback riding trail. • Increase communication about the beauty of the monsoon season in the wilderness to draw more summertime visitors. • Expand opportunities for research and monitoring related to wilderness and the International Biosphere Reserve program, potentially through a citizen science program, or increased collaboration with educational institutions and the NPS Research Permit and Reporting System. • Increase interpretation and educational programming at the monument, as well as in neighboring communities and schools, related to what a wilderness designation means, protection of wilderness character, and wilderness recreation. This is also an opportunity to further educate visitors about Leave No Trace and wilderness stewardship. • Increase or expand night sky interpretive programs.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Visitor use survey. • Wilderness character assessment. • Night sky condition assessment. • Visual resource inventory. • Acoustic condition monitoring. • Survey and mapping of invasive species. • Soils and biocrust surveys and assessments.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Wilderness stewardship plan. • Comprehensive interpretive plan. • Wayside plan. • Monument lighting plan. • Resource management and restoration plan for Quitobaquito Springs and site. • Erosion abatement plan / backcountry roads management plan. • Visual resource management plan.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Wilderness Act of 1964 <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS <i>Management Policies 2006</i> (§4.9) "Soundscape Management" • NPS <i>Management Policies 2006</i> (§4.10) "Lightscape Management" • NPS <i>Management Policies 2006</i> (chapter 6) "Wilderness Preservation and Management" • Director's Order 41: <i>Wilderness Stewardship</i> • NPS <i>Reference Manual 41: Wilderness Stewardship</i> • NPS <i>Keeping It Wild in the National Parks User Guide</i>



Fundamental Resource or Value	Quitobaquito
Related Significance Statements	Significance statements 2 and 4.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Generally, the cultural landscape of Quitobaquito is degraded, largely due to past management practices and benign neglect. All historic buildings, fences, and corrals were formerly razed from the Quitobaquito site. Some roads, trails, irrigation channels, ceremonial sites, and orchard remnants are still in their historic sites, as are the pond and springs. • Loss of heritage planting, absence of historic structures, changes in plant communities, aging of cottonwood trees, and soil erosion are all visible changes to the Quitobaquito environment. • In 2006, the water level of Quitobaquito pond dropped precipitously, and after several unsuccessful attempts to reverse the trend, it was determined that a leak was occurring in the pond liner from plants growing on the retaining berm. The pond was drained in that area and the retaining berm reconstructed to remove vegetation and repack the liner with bentonite clay. A cement inner wall was installed within the existing berm. This effort has proven largely successful in restoring depth and surface area of the pond. However, some of these repairs are more temporary in nature, as evidenced by the earthen dam and pond bottom continuing to leak, and may need to be revisited in the near future. • One of the major features at the site, a senescent cottonwood tree which has cultural importance, is currently further compromising the integrity of the earthen dam as the tree continues to degrade with age. The tree's hollow stems are also conduits for water to pass through the dam. • Quitobaquito pupfish and Sonoyta mud turtle populations have rebounded following restoration of the pond. • The fauna and flora of Quitobaquito are in good condition. Wildlife uses the area and native vegetation has continued to colonize the bosque, but have compromised the Ak-Chin and canal structures. <p>Trends</p> <ul style="list-style-type: none"> • Visitation to Quitobaquito has increased due to the recent expansion of access at the monument. However, there are limited facilities to accommodate visitor use at the site (i.e., waysides, restrooms, accessible trails, etc.). • The pond and earthen dam continue to leak in areas other than those included in the restoration efforts in 2006. • Traffic continues to increase on Mexico Highway 2, just across the international border fence from Quitobaquito, impacting the natural sounds at the site and potentially posing increased threats from contamination as a result of hazardous material spills. • The orchard remnants at the site are in poor condition and continue to worsen.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • The significance of the Quitobaquito site is not well understood by visitors, which may affect how they treat or care for the site when they visit (related to littering, social trails, soil erosion, and improper disposal of human waste). • This area has long been used as a staging area for cross-border activity, including associated impacts related to trampling of natural and cultural resources, littering, and potential impacts to visitor experience.

Fundamental Resource or Value	Quitobaquito
<p>Threats and Opportunities</p>	<p>Threats (continued)</p> <ul style="list-style-type: none"> • Water quality in this region is highly variable, and is susceptible to contamination from human activities and atmospheric deposition of chemicals. To date, there have been no large deviations from baseline water quality measures at Quitobaquito Pond, but even small fluctuations could pose a threat to the threatened and endangered wildlife that depends upon this area, especially if climate change comes with reduced rainfall in the region that recharges the springs. • Evapotranspiration is an additional factor that decreases water levels, in addition to leaking water from the earthen dam and pond bottom. • A hazardous material spill from traffic on nearby Mexico Highway 2 could, depending on the nature of the spill, greatly impact the ecological integrity of Quitobaquito and Quitobaquito Springs. • Due to an accumulation of vegetation in the area and an increase in dead wood, fire is a regular threat at the site. • Introduction and proliferation of invasive plants and animals could greatly impact the ecological integrity of the site, including the threatened and endangered species. <p>Opportunities</p> <ul style="list-style-type: none"> • Create a more robust visitor experience at the site, through an increase in visitor services and interpretation of the natural and cultural resources of Quitobaquito. • Investigate working with traditionally associated tribes and groups to restore the tribally important site. • Continue working with the Desert Botanical Garden in Phoenix, Arizona, to propagate cuttings of the original figs and pomegranates from the cultural landscape, and reintroduce those cuttings to the landscape in order to restore the orchards. • The monument should continue propagating efforts already initiated as well—these have been mostly for the cottonwood and willow trees, but could be expanded to other species. The monument’s nursery should be utilized to its fullest potential. • Continue work on the fire management plan and implement fuel reduction strategies.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • GIS mapping of cultural resources at Quitobaquito. • Archeological surveys. • Archeological overview and assessment. • Ethnographic overview and assessment. • Cultural landscape inventories. • Groundwater assessment.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Resource management and restoration plan for Quitobaquito Springs and site. • Comprehensive interpretive plan. • Cultural landscape reports. • Cultural resource management plan. • Wayside plan. • Planning for adaptation to climate change.

Fundamental Resource or Value	Quitobaquito
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Clean Water Act • The Antiquities Act of 1906 • Historic Sites, Buildings, and Antiquities Act of 1935 • National Historic Preservation Act of 1966, as amended; 54 USC §300101 et seq. • Endangered Species Act of 1973, as amended; 16 USC §1531 et seq. • Archeological and Historic Preservation Act of 1974 • American Indian Religious Freedom Act of 1978 • Archaeological Resources Protection Act of 1979 • Native American Graves Protection and Repatriation Act of 1990 • Museum Act (54 USC 102501 through 102504) • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • Executive Order 11988, "Floodplain Management" • Executive Order 12088, "Federal Compliance with Pollution Control Standards" • National Flood Insurance Program • Executive Order 13007, "Indian Sacred Sites" • Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" • Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and other Natural and Cultural Resources" • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • "Protection of Historic Properties" (36 CFR 800) <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS <i>Management Policies 2006</i> (chapter 5) "Cultural Resource Management" • NPS <i>Management Policies 2006</i> (§4.6.1) "Protection of Surface Waters and Groundwaters" • NPS <i>Management Policies 2006</i> (§4.6.2) "Water Rights" • NPS <i>Management Policies 2006</i> (§4.6.4) "Floodplains" • Director's Order 24: <i>NPS Museum Collections Management</i> • Director's Order 28: <i>Cultural Resource Management</i> • Director's Order 28A: <i>Archeology</i> • Director's Order 77-2: <i>Floodplain Management</i> • Special Directive 93-4 "Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance" (1993) • <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i> • <i>Department of the Interior Policy on Consultation with Indian Tribes</i> • NPS <i>Museum Handbook</i>, parts I, II, and III



Fundamental Resource or Value	Continuum of Human History
Related Significance Statements	Significance statement 4.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • At this time, only 8% of the monument has been surveyed for archeological resources, with 471 sites recorded in the Archeological Sites Management Information System (ASMIS) database (365 prehistoric and 106 historic). The current condition of archeological sites ranges from good to poor. • Condition databases are not currently up to date (e.g., ASMIS, List of Classified Structures, etc.). The needed information has not been gathered and formally recorded to make comprehensive updates. • Remnants of the nationally significant Salt Trails pass through the monument. They are currently being documented, and evidence of their presence can be found throughout the monument. • There has been no evidence of vandalism noted at any rock art sites in the monument, most likely due to their remote locations. • Historic structures range from good to poor condition based on what is recorded in the List of Classified Structures database. • Tribal relations are good, but could be improved. The tribes have access to sacred sites at the monument, as well as harvesting privileges per special mandates. Tribes are consulted and the Native American Graves Protection and Repatriation Act (NAGPRA) process has resulted in the transfer of human remains to their possession. • There are several national register sites in the monument, including archeological sites, historic structures, and geological features. • The monument has lost some features and structures due to vandalism and arson in areas of the monument that were previously closed to visitation. <p>Trends</p> <ul style="list-style-type: none"> • Relationships are improving between the monument and associated tribes due to proactive inclusion efforts and regular engagement through formal consultation and meetings. • Mandated condition assessments and maintenance cannot be regularly completed due to increasing constraints on budget and staffing. • The monument has seen increases in visitation. While this is generally welcomed, it could increase the potential for vandalism and theft of objects.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Vandalism, arson, and theft have been an issue, which are likely associated with illegal cross-border activities. These threats are difficult to manage because locations of such activities are not always known or are remote. • Impacts from cross-border activities are known to be occurring; however, the extent and frequency of these impacts are currently poorly understood. • Environmental threats such as erosion, heavy rains and flooding, high winds, sun and high heat exposure degrade the historic ranching, farming, and mining sites, as well as historic roads and trails within the monument. <p>Opportunities</p> <ul style="list-style-type: none"> • The monument will continue to pursue Cooperative Ecosystem Studies Units (CESU) agreements and / or citizen science to gather more information on cultural resources and to assist with monitoring. • Museum objects could be more widely loaned for use in exhibits at educational or research institutions. • The monument could work toward expanding interpretation and education regarding cultural resources.

Fundamental Resource or Value	Continuum of Human History
<p>Threats and Opportunities</p>	<p>Opportunities (continued)</p> <ul style="list-style-type: none"> • The monument could expand its involvement with the Arizona Site Stewards Program if the Arizona State Parks changes some of its procedures that are currently incompatible with NPS policy. This program provides trained volunteers to assist with assessments and surveys of archeological sites. • The monument should continue working closely with tribal representatives, the Arizona State Historic Preservation Office, and other stakeholders to improve resource protection and expand capacity to manage important cultural sites. • There are a number of sites that could be nominated to the National Register of Historic Places.
<p>Data and/or GIS Needs</p>	<ul style="list-style-type: none"> • Cultural resources condition assessment. • Archeological surveys. • Full documentation and GIS mapping of archeological sites. • Archeological overview and assessment. • Ethnographic overview and assessment. • Cultural landscape inventories. • Administrative history. • National register eligibility documentation.
<p>Planning Needs</p>	<ul style="list-style-type: none"> • Comprehensive interpretive plan. • Cultural resource management plan. • Cultural landscape reports. • Site surveys and updates to ASMIS database. • Site surveys and updates to and LCS database. • Collections management plan. • Scope of collections statement. • Historic structure reports. • Wayside plan.
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • The Antiquities Act of 1906 • Historic Sites, Buildings, and Antiquities Act of 1935 • National Historic Preservation Act of 1966, as amended; 54 USC §300101 et seq. • Archeological and Historic Preservation Act of 1974 • American Indian Religious Freedom Act of 1978 • Archaeological Resources Protection Act of 1979 • Native American Graves Protection and Repatriation Act of 1990 • Museum Act (54 USC 102501 through 102504) • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • Executive Order 13007, "Indian Sacred Sites" • Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" • Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and other Natural and Cultural Resources" • "Curation of Federally Owned and Administered Archaeological Collections" (36 CFR 79) • "Protection of Historic Properties" (36 CFR 800)

Fundamental Resource or Value	Continuum of Human History
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" • Director's Order 24: NPS Museum Collections Management • Director's Order 28: Cultural Resource Management • Director's Order 28A: Archeology • The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation • Department of the Interior Policy on Consultation with Indian Tribes • NPS Museum Handbook, parts I, II, and III



Fundamental Resource or Value	Science and Research
Related Significance Statements	Significance statements 2 and 3.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • There are continual research requests and ongoing research at the monument. • The monument does not currently have formal education or citizen science programs. The monument has implemented a Teacher Ranger Teacher Program, and has hired a dedicated position for educational outreach. • The monument has visitor observation cards for wildlife, which is currently the only form of citizen science. • The monument has strong partnerships with local universities, non-governmental organizations, governmental agencies, and other science- and research-focused groups. • The monument co-created the Tri-National Sonoran Desert Symposium, which is a biennial intergovernmental symposium where science and research is discussed and celebrated, leading to increased awareness and targeted management actions. <p>Trends</p> <ul style="list-style-type: none"> • The monument has been using more CESU agreements and task agreements. • The number of requests for research has been increasing, including international requests. • Monument staff has noticed an increased interest more generally in the desert ecosystem. • The Tri-National Sonoran Desert Symposium is continually recognized by participants as a valuable event, and as such, planning is underway for the fourth meeting.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • There are many research needs, and it is difficult to keep up with meeting those needs. There is also a backlog of research data that has not been inventoried. • Because of staff commitment to managing border issues, it is difficult to keep pace with necessary inventory and monitoring, as well as exploring new, innovative approaches to science and research. • The temperature extremes and the size of the monument make research difficult (i.e., long travel times). This is complicated by other elements of the environment, including extreme ruggedness and valley floor to mountaintop elevation differences. Dangers such as Africanized bees may also pose added complications to field work. • There is the potential for a loss of institutional knowledge as long-term monument scientists are nearing retirement. • There is a constant need for increased IT infrastructure to address improvements in IT technology and to help log information that is currently held in paper files. <p>Opportunities</p> <ul style="list-style-type: none"> • The monument would like to generate new visitor research and citizen science. This could be achieved through an app for reporting invasive species, identifying species, etc. • Phoenix and Tucson are population centers, and monument staff will continue to reach out to residents there for assistance with generating science and research. • The monument would like to become involved in NPS initiatives regarding hiring diverse natural resource researchers. • The monument could continue to participate in and fund the Sonoran Symposium to share scientific information. This is a tri-national, biennial, multiagency event. • The monument should increase coordinated research efforts with Pinacate Biosphere Reserve and other neighbors in environmental protection, and continue to share information. These types of efforts are aided by efficiencies in cross-border policies through NPS, US Department of the Interior, and US Department of State. • The monument should continue collecting long-term data sets to assist with establishing trends over time.

Fundamental Resource or Value	Science and Research
Threats and Opportunities	<p>Opportunities (continued)</p> <ul style="list-style-type: none"> • The monument should continue to actively share scientific data with visitors to increase natural resource interest, and improve relevancy regarding natural resource protection. This should involve continued coordination between monument divisions (i.e., between resource management and interpretation). • The monument should review and organize existing data to eliminate backlog of information that has not been reviewed. • The monument could work with the NPS Sonoran Desert I&M Network to digitize and upload information to the Integration of Resource Management Applications (IRMA) database. • The monument should continue to coordinate with I&M and the Exotic Plant Management Team to address invasive issues and to perform restoration work. • The monument should increase coordination with the Ajo School District to increase outreach and education across all divisions. • The monument could work with educational and museum organizations to increase display of museum collections. To accomplish these goals, monument staff should work with the Western Archeological and Conservation Center, which houses the Organ Pipe Cactus National Monument collections. • The monument should coordinate with the NPS Southern Arizona Office (SOAR) to help generate content regarding science and research and upload it to the monument's website. • The monument could pursue a data manager to help with quality assurance/quality control of weather information, which is regularly collected. This could be accomplished through sharing of a data manager. • Monument scientists should take advantage of every opportunity to get research and findings published.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Catalog of research needs.
Planning Needs	<ul style="list-style-type: none"> • Resource stewardship strategy. • Comprehensive interpretive plan. • Communication strategy.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • None identified. <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (§1.4) "Park Management" • NPS Management Policies 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS Management Policies 2006 (§2.3.1.4) "Science and Scholarship" • NPS Management Policies 2006 (§5.1) "Research"

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 resources and values. For example, a key issue may pertain to the potential for a fundamental 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 Organ Pipe Cactus National Monument and the associated planning and data needs to address them:

- **Border Issues.** Organ Pipe Cactus National Monument runs along approximately 30 miles of the international border with Mexico, in a region with relatively high levels of cross-border activities. The monument must work with other federal agencies to balance the needs of both national security and resource protection, including cooperation between the US Department of the Interior and US Department of Homeland Security.

The National Park Service has supported and actively engaged in several interagency border enforcement activities, including joint operations, the construction of a vehicle barrier and pedestrian fence, and the establishment of a network of temporary tactical infrastructure and other technologies.

Cross-border activities and the associated responses have at times made resource protection challenging. Throughout the monument, and largely within designated wilderness, the monument has documented hundreds of miles of undesignated vehicle routes and trails, as well as trash, graffiti, abandoned vehicles, vandalism, the spread of invasive plants and animals, altered ecological processes, increased noise and artificial light, damage to cultural structures and sites, and degraded habitats.

In recent years, the monument has taken a more proactive approach to interagency cooperation, leading to increased resource protection and visitor use. NPS management has been working with US Customs and Border Protection (UCBP) to coordinate and implement agency missions and needs. Significant coordination and focus is specifically placed on the evaluation and implementation of necessary tactical infrastructure, such as vehicle access in designated wilderness. This ongoing process includes the removal and rehabilitation of undesignated vehicle routes that are no longer needed and providing access in other areas when and where necessary, while affording the greatest protection of resources.

While border activities have influenced the visitor experience and perception, these activities also create unique opportunities to discuss and explore contemporary social and worldly issues. The staff has placed a renewed emphasis on the visitor experience and the development of public engagement strategies, as well as evolved opportunities for visitor immersion in the monument.

Associated planning needs:

- Resource stewardship strategy
- Comprehensive interpretive plan
- Communication strategy
- Interagency coordination plan
- Erosion abatement plan / backcountry roads management plan

Associated data needs:

- Wildlife movement study
 - Vegetation study
 - Archeological surveys
 - Cultural resources condition assessment
 - National register eligibility documentation
 - Monitoring of road restoration
 - Visitor use survey
- **Environmental Safety.** The rugged desert environment at Organ Pipe Cactus National Monument can pose a safety threat to both staff and visitors that are not adequately prepared for rugged dirt roads, extreme temperatures, limited amenities, limited cell service, and little available water. While this is a bigger issue in the summer season, it is always a consideration, especially since public access was recently expanded deeper into the backcountry of the monument. Communicating current and continuing safety risks associated with road conditions and the lack of water and services to visitors is a challenge with multiple access points, limited staff, and extended all-risk response times. Visitors are currently educated through non-personal services such as signage and pamphlets, and personal services such as reminders from NPS staff at the visitor center and other areas within the monument.



NPS staff places a very heavy emphasis on safety with the implementation of local safety plans and standard operating procedures. Training is provided to all NPS staff on potential hazards, in line with NPS Operational Leadership policies. Employees are highly trained in performing emergency medical services and search and rescue functions.

The presence of US Customs and Border Protection has served to improve visitor and employee safety; their rescue beacons are made available in case individuals are lost or stranded, and agents are able to assist stranded or distressed individuals during their regular patrols. Their air assets are heavily relied upon in responding to emergencies. The monument is also working with collaborators to establish cell service within monument boundaries, in case visitors need assistance between safety patrols.

Associated planning needs:

- Emergency response plan
- Preventive Search and Rescue (PSAR) messaging plan

Associated data needs:

- Review and update of visitor safety statistics

- **Development and Uses Adjacent to the Monument.** While much of the land surrounding the monument is protected by other government agencies (both US and Mexican) or is rural in character, development and uses adjacent to the monument boundaries are still an important consideration. There is potential for more extensive development on neighboring private lands, most notably in the border towns of Lukeville, Arizona, where development has expanded to accommodate US Customs and Border Protection presence, and Sonoyta, Mexico, just over the international border.

There are currently impacts to monument viewsheds related to US and Mexican roadways, power lines, the border fence, cell towers, and US Border Patrol operations towers. Any development in Lukeville or elsewhere would further compromise key viewsheds from the monument. The monument is currently working to better protect its viewsheds and wilderness character by proposing the burial of the power line paralleling Arizona Highway 85, and converting the existing right-of-way into a hiking or horseback trail.

Uses nearby that encroach on the monument include groundwater withdrawal, poaching, ranching, and overflights. Traffic along Arizona Highway 85, which runs through the monument, and along Mexico Federal Highway 2, which parallels the monument’s southern boundary, contributes to the spread of invasive species, affects the soundscape and night skies, impacts regional air quality, and poses the threat of hazardous material spills.

Associated planning needs:

- Integrated pest management plan

Associated data needs:

- Visual resource inventory
- Water quality testing

- **Infrastructure Challenges Related to the Monument’s Remote Location.** The monument’s location in an isolated, remote portion of southwestern Arizona creates a number of infrastructure challenges. Service types are limited and outages are a frequent occurrence as a result of the monument’s “end-of-the-line” location, and frequent powerful storms amplify the issue.

Because of the extensive backcountry road system, it is difficult for staff to be able to assess the condition of and maintain the dirt roads in a timely manner. The lack of abundant water for the maintenance of dirt roads (e.g., fixing potholes, grading, etc.) further complicates road maintenance.

The remoteness of the monument presents challenges in procuring services and products, particularly for construction and maintenance projects required to maintain facilities. Many vendors significantly inflate prices due to the location and/or are unwilling to travel to the monument’s remote location.

In part to help address some of these issues, staff has taken many actions to promote and incorporate sustainability and environmental leadership into monument operations, such as providing water refill stations, using hybrid vehicles, and using a van shuttle system for employees who commute. Additionally, the monument has partnered with the University of Arizona doctoral program to perform an energy audit intended to guide the monument toward its goal of implementing green energy and become a net-zero unit of the National Park Service. This will reduce reliance on external energy sources, reduce energy costs, and help achieve servicewide goals of reducing emissions.

Associated planning needs:

- Climate friendly parks 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 or Parkwide Issue?	Planning Needs	Priority (H, M, L)	Notes
All FRVs; Parkwide Issue	Comprehensive interpretive plan	H	An update to the monument’s interpretive plan is needed, as the last plan was drafted in 2007 (never finalized), and conditions and management of the monument have evolved since that time. The plan will address different methods for outreach to inform the public and local communities about opportunities within the monument. The plan will also guide the development of an interpretive database to serve as a tool in forming future interpretive and educational materials. This database will be developed as part of a multi-divisional effort.
Wilderness; Quitobaquito	Resource management and restoration plan for Quitobaquito Springs and site	H	This plan is needed to address issues at this naturally and culturally significant site. The plan would include management strategies related to the failing cottonwood tree, increased interpretation at the site, re-engineering of the 40-year-old pond stabilization efforts, and the protection of federally listed endangered and threatened species that depend on the spring for their survival.
Science and Research; Parkwide Issue	Resource stewardship strategy	H	The monument’s Natural and Cultural Resources Management Plan (1994) is outdated, and the monument needs updated guidance for strategizing how to achieve desired natural and cultural resource conditions.
Quitobaquito; Continuum of Human History	Cultural resource management plan	H	The monument’s planning documents for cultural resources are outdated, and the monument needs updated guidance for strategizing how to achieve desired cultural resource conditions and to provide treatment recommendations.
Continuum of Human History; Science and Research; Parkwide Issue	Communication strategy	H	The monument has recently expanded public access, and seeks to encourage new visitation and enhanced visitor services. Communication and outreach are critical to notifying the public, stakeholders, tribes, and partners about these changes. This communication strategy would serve as a blueprint to guide communication, including key messaging, outreach strategies, and communication protocols. It would also serve as a tool for relationship building.
Parkwide Issue	Climate friendly parks plan	H	This plan would help provide support, management tools, and resources to address sustainability, environmental leadership, and climate change aspects within monument boundaries and in partnership with surrounding communities.
Wilderness; Parkwide Issue	Erosion abatement plan / backcountry roads management plan	H	A guide for local management of erosion and impacts on backcountry roads is sorely needed. This plan would provide information for developing temporary and long-term routes for public and/or border patrol use, as well as best strategies for maintaining such routes.

Planning Needs – Where A Decision-making Process Is Needed			
Related to an FRV or Parkwide Issue?	Planning Needs	Priority (H, M, L)	Notes
Parkwide Issue	Preventive Search and Rescue (PSAR) messaging plan	H	Communicating potential hazards (heat, lack of water, etc.) to visitors is critically important to maintain visitor safety. Information from a preventive search and rescue plan will aid staff in developing written materials and interacting with visitors.
Wilderness	Wilderness stewardship plan	M	According to NPS <i>Management Policies 2006</i> , the superintendent of each park unit containing wilderness resources is to develop and maintain a wilderness stewardship plan or equivalent planning document to guide the preservation, management, and use of these resources, and enhance the area's wilderness character. This plan may also include considerations for protection of important viewsheds within the monument.
Columnar Cacti; Parkwide Issue	Integrated pest management plan	M	This plan would coordinate knowledge of pest biology, the environment, and available technology to prevent unacceptable levels of pest damage (e.g., packrats, buffelgrass, etc.). This plan would include the components of an invasive species management plan.
Continuum of Human History	Historic structure reports	M	A guide for treatment and use of a number of different cultural resources within the monument is needed, including historic mines, Bates Well, ranches, haciendas, etc.
Columnar Cacti; Quitobaquito	Planning for adaptation to climate change	M	Climate change adaptation planning is needed to help understand the future of weather in the region related to climate change, as well as actions to mitigate potential impacts to monument resources. Climate change considerations can be incorporated into all relevant planning needs.
Wilderness	Visual resource management plan	M	This plan would use information from the visual resource inventory to set goals for viewshed protection and identify strategies for achieving those goals.
Quitobaquito; Continuum of Human History	Cultural landscape reports	L	These reports would guide management and preservation treatment decisions for those sites with completed cultural landscape inventories. For example, the cultural landscape report for the Quitobaquito Springs could address how to treat or replant the failing historic pomegranate trees, using historical data.
Continuum of Human History	Site surveys and updates to ASMIS database	L	Need to complete annual mandated surveys and update information in databases.
Continuum of Human History	Site surveys and updates to LCS database	L	Need to complete annual mandated surveys and update information in databases.
Continuum of Human History	Scope of collections statement	L	This plan would define the scope of the monument's collection activities, define the purpose of the collection, and ensure the collections are relevant to, and support, the monument's mission.

Planning Needs – Where A Decision-making Process Is Needed			
Related to an FRV or Parkwide Issue?	Planning Needs	Priority (H, M, L)	Notes
Continuum of Human History	Collections management plan	L	This plan would provide guidance for the management and care of museum and archival and manuscript collections. Each park unit must have a collections management plan.
Columnar Cacti; Wilderness; Quitobaquito; Continuum of Human History	Wayside plan	L	This plan is needed to update existing waysides, and direct the design and siting of new waysides outside of wilderness. They could be updated to include information about the wilderness as visitors travel into the wilderness from a number of locations.
Wilderness	Monument lighting plan	L	This plan would address recommendations for lighting of monument facilities in order to reduce light pollution and enhance the quality of the night sky. This plan could be completed in collaboration with monument neighbors or local communities.
Parkwide Issue	Interagency coordination plan	L	This plan would guide how the monument, neighbors, other agencies, and US Border Patrol would work together and communicate in the future, in order to better protect and manage the area surrounding the monument.
Parkwide Issue	Emergency response plan	L	The monument has a current emergency response plan that needs to be expanded to include response to threats from hazardous materials. This plan would be applicable to all monument employees, rather than just the law enforcement division.



Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV or Parkwide Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
Quitobaquito; Continuum of Human History; Parkwide Issue	Archeological surveys	H	Only 8% of the monument has been surveyed for archeological resources, though potential impacts to archeological resources as a result of cross-border activity are substantial. A more comprehensive assessment is needed to identify and survey areas of potential impacts, in order to survey those areas and protect any identified resources. If sensitive sites are discovered, these sites can be set aside from border patrol access until the monument is able to study and document the resources and plan for appropriate protection measures.
Continuum of Human History	Administrative history	H	A history of the decision-making processes in the monument, and changes over time, would be helpful for informing future management decisions across all divisions. The monument currently has a collection of superintendent's files that was used to assess road access decisions, but a more comprehensive history would be useful for future management and interpretation of the monument.
Wilderness; Parkwide Issue	Visitor use survey	H	A visitor survey needs to be designed in order to obtain information for monument management. Questions could include why visitors came to the monument, where they are traveling from, what sort of opportunities or experiences they are interested in, and whether the monument is meeting visitor expectations. These surveys would help adaptation of management actions and interpretive and educational materials, in order to ensure the monument is increasing its relevancy into the future.
Columnar Cacti; Wilderness	Survey and mapping of invasive species	M	This information is needed largely related to buffelgrass as it continues to become a bigger issue at the monument, but would also apply to other invasive species.
Parkwide Issue	Monitoring of road restoration	M	The monument has dedicated much funding and staff time to road restoration. Monitoring of these efforts is needed to determine the effectiveness of those restoration efforts and inform any needed changes to restoration approaches for future efforts.
Continuum of Human History; Parkwide Issue	Cultural resources condition assessment	M	This condition assessment needs to be completed per NPS standards and policy. It will help focus resource managers to protect those most vulnerable resources within the monument.
Science and Research	Catalog of research needs	M	This catalog would help define goals for future research at the monument, and help determine what data collection efforts should be promoted to other agencies, partners, or educational institutions, or be pursued in-house.
Wilderness	Wilderness character assessment	M	This effort would identify conditions and trends with regard to the five qualities of wilderness character, and to track changes over time. Information from the assessment would be fed into the NPS wilderness character monitoring database. The assessment would help inform the wilderness stewardship plan. This effort would help protect both the wilderness and international biosphere reserve designations within the monument.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV or Parkwide Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
Quitobaquito; Continuum of Human History	Cultural landscape inventories	M	These inventories are needed for historic sites and some archeological sites in the monument. They would identify cultural landscapes and provide information on their location; and to record information about resources related to their identification, description, historical development, landscape characteristics and features, and management.
Quitobaquito	GIS mapping of cultural resources at Quitobaquito	M	This information would include canals, foundations of structures, gravesites, etc. Some of this has already been accomplished, but more information could be gathered.
Wilderness	Night sky condition assessment	M	This effort has not been completed in the monument since the 1990s, and reassessing the condition could help inform trends in light pollution. This info may be cross-walked with available satellite data. Interpretive programs could incorporate the outcomes of this effort.
Parkwide Issue	Wildlife movement study	M	Data is needed related to impacts to wildlife movement across habitats that are obstructed by man-made barriers or human activities such as the border fence or related cross-border activity.
Wilderness	Soils and biocrust surveys and assessments	M	This data would be used to understand the composition and extent of biocrust, as well as impacts of various activities (backcountry road use, border activity, etc.). Data would drive restoration and management plans.
Quitobaquito	Groundwater assessment	L	This assessment would help the monument determine the causes of diminishing groundwater, and could be used to inform management actions to address this issue.
Quitobaquito; Continuum of Human History	Archeological overview and assessment	L	To describe the historical context of archeological resources in the monument.
Continuum of Human History	Full documentation and GIS mapping of archeological sites	L	Following archeological surveys in order to identify resources and protect them before they are irreversibly damaged, the monument will prioritize how to fully document and map the sites. This information will assist with preparing a national register nomination, if applicable.
Quitobaquito; Continuum of Human History	Ethnographic overview and assessment	L	To describe the historical context of cultural associations with the monument and continued relationships. This could relate to American Indian tribes, Hispanic, or Anglo connections.
Columnar Cacti	Cactus age/size/structure data	L	This would include collecting data related to cacti age, size, and structure in different microclimates within the monument, in order to discern any shifts in the range of the cactus.
Wilderness; Parkwide Issue	Visual resource inventory	L	This data is particularly needed along the international border (as this corresponds with the highest degradation of viewsheds as a result of increased development). Information may also be collected from some key or iconic viewsheds in other areas within the monument. In the past, the monument collected some photos of viewsheds over time, but additional information would help establish a trend based on current baseline data.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV or Parkwide Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
Wilderness	Acoustic condition monitoring	L	The monument has previously measured acoustic conditions, and could repeat measurements into the future in order to establish a trend related to impacts to natural soundscapes.
Parkwide Issue	Vegetation study	L	This data would identify impacts to vegetation related to cross-border activity and development along the international border.
Continuum of Human History; Parkwide Issue	National register eligibility documentation	L	Formal national register documentation is needed related to historic roads and circulation routes, cultural sites, and archeological resources. Some of the data may need to be completed following more data gathering related to the condition and historic context of cultural resources.
Parkwide Issue	Review and update of visitor safety statistics	L	The monument has visitor safety statistics that will need to be compiled and updated. This will help NPS staff address any safety issues in the monument.
Parkwide Issue	Water quality testing	L	Continued testing is needed for surface waters within the monument, including Quitobaquito.
Columnar Cacti	Investigate air pollution impacts to sensitive park ecosystems	L	This study would help the monument understand the impacts of air pollution on ecosystems that are particularly sensitive. It would include the potential impact of mercury and other toxics on biota in the park, such as bird, bat, insect, and fish species.



Part 3: Contributors

Organ Pipe Cactus National Monument

Brent Range, Superintendent

Scott Babinowich, Supervisory Park Ranger, Interpretation

Bob Bryant, Facilities Manager

Peter Holm, Ecologist

Rijk Morawe, Chief of Natural and Cultural Resource Management

Ami Pate, Biological Technician

Amy Stasch, Chief of Business Management

Matt Vandzura, Chief Ranger

Sue Walter, Chief of Interpretation, Education, Partnerships, and Visitor Services

NPS Intermountain Region

Skip Meehan, Planner, Regional Liaison

Denver Service Center, Planning Division

John Gerbich, Project Manager and Community Planner

Sarah Conlin, Natural Resource Specialist and Project Manager

Neal Jander, GIS Specialist

Nancy Shock, Foundations Coordinator

Danielle Stevens, Contract Editor

Laura Watt, Contract Editor

Angie Wing, Contract Visual Information Specialist





Appendixes

Appendix A: Presidential Proclamation and Legislative Acts for Organ Pipe Cactus National Monument

Establishment: Presidential Proclamation 2232 – April 13, 1937

PROCLAMATIONS, 1937

1827

ORGAN PIPE CACTUS NATIONAL MONUMENT—ARIZONA

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

April 13, 1937
[No. 2232]

A PROCLAMATION

WHEREAS certain public lands in the State of Arizona contain historic landmarks, and have situated thereon various objects of historic and scientific interest; and

Organ Pipe Cactus National Monument, Ariz. Preamble.

WHEREAS it appears that it would be in the public interest to reserve such lands as a national monument, to be known as the Organ Pipe Cactus National Monument:

NOW, THEREFORE, I, FRANKLIN D. ROOSEVELT, President of the United States of America, under and by virtue of the authority vested in me by section 2 of the Act of June 8, 1906 (ch. 3060, 34 Stat. 225; U. S. C. title 16, sec. 431), do proclaim that, subject to existing rights, the following-described lands in Arizona are hereby reserved from all forms of appropriation under the public-land laws and set apart as the Organ Pipe Cactus National Monument:

Reserving certain lands for national monument. 34 Stat. 225. 16 U. S. C. § 431.

GILA AND SALT RIVER MERIDIAN

Description.

Beginning at a point on the southern boundary of the Papago Indian Reservation which is the point for the corner of secs. 5, 6, 31, and 32, Tps. 17 and 18 S., R. 3 W.; thence south approximately five and one-half miles to the International Boundary; thence northwesterly along the International Boundary to the intersection with the position for the third meridional section line through unsurveyed T. 17 S., R. 8 W.; thence north on the third meridional section line through Tps. 17, 16, 15 and 14 S., R. 8 W. (unsurveyed), to the point for the corner of secs. 15, 16, 21 and 22; thence east on the third latitudinal section line through T. 14 S., Rs. 8, 7, 6 and 5 W., to the corner of sections 13, 18, 19 and 24, T. 14 S., Rs. 4 and 5 W., on the west boundary of the Papago Indian Reservation; thence southerly and easterly along the west boundary of the Papago Indian Reservation to the point for the corner of secs. 5, 6, 31, and 32, Tps. 17 and 18 S., R. 3 W., which is the point of beginning, containing approximately 330,690 acres.

Warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any of the lands thereof.

Warning against unauthorized acts.

The Director of the National Park Service, under the direction of the Secretary of the Interior, shall have the supervision, management, and control of the 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 (ch. 408, 39 Stat. 535; U. S. C., title 16, secs. 1 and 2), and acts supplementary thereto or amendatory thereof; *Provided*, that the administration of the monument shall be subject to: (1) Right of the Indians of the Papago Reservation to pick the fruits of the organ pipe cactus and other cacti, under such regulations as may be prescribed by the Secretary of the Interior; (2) Proclamation of May 27, 1907 (35 Stat. 2136); (3) Executive Order No. 5462 of October 14, 1930; and (4) Executive Order of November 21, 1923, reserving a 40-acre tract as a public water reserve.

Supervision.

39 Stat. 535. 16 U. S. C. §§ 1, 2.

Proviso. Rights reserved.

35 Stat. 2136.

The reservation made by this proclamation supersedes as to any of the above-described lands affected thereby the temporary withdrawal for classification and other purposes made by Executive Order No. 6910 of November 26, 1934, as amended.

Executive Order 6910 superseded.

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PROCLAMATIONS, 1937

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 13 day of April in the year of our Lord nineteen hundred and thirty-seven and of the [SEAL] Independence of the United States of America the one hundred and sixty-first.

FRANKLIN D ROOSEVELT

By the President:

CORDELL HULL

Secretary of State.



Wilderness Designation: From Public Law 95-625 – November 10, 1978

92 STAT. 3490

PUBLIC LAW 95-625—NOV. 10, 1978

16 USC 1131
note.

ness, and any designation of such areas as wilderness shall be accomplished in accordance with said subsections of the Wilderness Act.

(3) Everglades National Park, Florida, wilderness comprising approximately one million two hundred and ninety-six thousand five hundred acres and potential wilderness additions comprising approximately eighty-one thousand nine hundred acres, depicted on a map entitled "Wilderness Plan, Everglades National Park, Florida", numbered 160-20,011 and dated June 1974, to be known as the Everglades Wilderness.

(4) Guadalupe Mountains National Park, Texas, wilderness comprising approximately forty-six thousand eight hundred and fifty acres, depicted on a map entitled "Wilderness Plan, Guadalupe Mountains National Park, Texas", numbered 166-20,006-B and dated July 1972, to be known as the Guadalupe Mountains Wilderness.

(5) Gulf Islands National Seashore, Florida, and Mississippi, wilderness comprising approximately one thousand eight hundred acres and potential wilderness additions comprising approximately two thousand eight hundred acres, depicted on a map entitled "Wilderness Plan, Gulf Islands National Seashore, Mississippi, Florida", numbered 635-20,018-A and dated March 1977, to be known as the Gulf Islands Wilderness.

(6) Hawaii Volcanoes National Park, Hawaii, wilderness comprising approximately one hundred and twenty-three thousand one hundred acres and potential wilderness additions comprising approximately seven thousand eight hundred and fifty acres, depicted on a map entitled "Wilderness Plan, Hawaii Volcanoes National Park, Hawaii", numbered 124-20,020 and dated April 1974, to be known as the Hawaii Volcanoes Wilderness.

(7) Organ Pipe Cactus National Monument, Arizona, wilderness comprising approximately three hundred and twelve thousand six hundred acres and potential wilderness additions comprising approximately one thousand two hundred and forty acres, depicted on a map entitled "Wilderness Plan, Organ Pipe Cactus National Monument, Arizona", numbered 157-20,001-B and dated October 1978, to be known as the Organ Pipe Cactus Wilderness.

(8) Theodore Roosevelt National Memorial Park, North Dakota, wilderness comprising approximately twenty-nine thousand nine hundred and twenty acres, depicted on maps entitled "Theodore Roosevelt National Memorial Park, North Dakota" (North Unit and South Unit) numbered 387-20,007-E and dated January 1978, to be known as the Theodore Roosevelt Wilderness.

MAP AND DESCRIPTION

Public
availability.

Filing with
congressional
committees.

SEC. 402. A map and description of the boundaries of the areas designated in this title shall be on file and available for public inspection in the office of the Director of the National Park Service, Department of the Interior, and in the Office of the Superintendent of each area designated in this title. As soon as practicable after this Act takes effect, maps of the wilderness areas and descriptions of their boundaries shall be filed with the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the United States Senate, and such maps and descriptions shall have the same force and effect as if included in this Act: *Provided*, That correction of clerical and typographical errors in such maps and descriptions may be made.



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

Special Mandates

- **Presidential Proclamation 758: Reserving Public Lands within 60 Feet of the International Boundary between the US and Mexico (May 27, 1907).** Dictates that all public lands within 60 feet of the international boundary between the US and Mexico are reserved from the operation of the public land laws and are kept free from obstruction as a protection against the smuggling of goods between the two countries.
- **Presidential Proclamation 2232: Organ Pipe Cactus National Monument (April 13, 1937).** Establishes the rights for the Indians of the Papago Reservation (now known as Tohono O’odham) to continue to harvest the fruits of the organ pipe cactus and other cacti.
- **Public Law 95-625 (November 10, 1978).** Establishes wilderness in Organ Pipe Cactus National Monument.

Special Designations

- **National Register of Historic Places.** Seven areas are in the National Register of Historic Places and two additional sites have been nominated. Those seven sites are Montezuma’s Head, Blankenship Well and Ranch, Bull Pasture, Gachado Well and Line Camp, Victoria Mine, Growler Mine area, and Milton Mine. Quitobaquito and Bates Well and Ranch have been nominated but not listed.
- **International Biosphere Reserve.** October 26, 1976, the United Nations Educational, Scientific and Cultural Organization (UNESCO) recognized and designated Organ Pipe Cactus National Monument as a biosphere reserve, which are internationally recognized protected areas where management seeks to achieve sustainable use of natural resources while ensuring conservation of the biological diversity of the areas.
- **Sister Park Relationship.** Organ Pipe Cactus National Monument maintains a sister park relationship with the adjacent El Pinacate y Gran Desierto de Altar Biosphere Reserve in Mexico. Both the monument and park have been designated as International Biosphere Reserves, and the staffs of both cooperate on many projects to protect the unique resources that exemplify the Sonoran Desert landscape.



Title / Agency / Organization	Purpose / Description	Expiration Date	Responsible Party
Memorandums of Understanding (MOU)			
2006 Cooperative National Security and Counterterrorism Efforts on Federal Lands along the United States' Borders	National memorandum of understanding to establish goals, principles, and guidance related to securing the borders, addressing emergencies involving human safety, and minimizing the environmental damage arising from illegal cross-border activities on federal lands. Agreement between the Department of the Interior, Department of Agriculture, Department of Homeland Security.	Indefinite	Secretary of the Interior
Pima County Sheriff's Department	Mutual law enforcement assistance (Saguaro National Park and Organ Pipe Cactus National Monument).	December 31, 2014 (renewal pending)	Superintendent & Chief Ranger
Ajo Ambulance, Inc.	Cooperative assistance regarding emergency medical services.	January 15, 2006 (renewal pending)	Superintendent
Ajo/Gibson Volunteer Fire Departments	Cooperative structural fire services.	September 22, 2019	Superintendent
Arizona National Guard	Arizona National Guard provides support and assistance of NPS drug enforcement operations, including aerial detection, surveillance, and interdiction.	Annual review / recertification FY16 pending	Chief Ranger
US Fish & Wildlife Service	Radio frequency use agreement for shared use of radio frequencies.	July 8, 2017	Chief Ranger
Memorandums of Agreement (MOA)			
Highway 85 Maintenance and Clearing / Arizona Department of Transportation (DOT)	Arizona DOT to maintain Highway 85 and routinely clear brush along roadway.	Currently in draft	Chief of Maintenance, Chief of Resource Management
Interagency Agreements (IA)			
US Forest Service Interagency Tucson Dispatch Center	Non-law enforcement dispatch for Forest Service, US Fish and Wildlife Service, Bureau of Land Management, and National Park Service fires.	September 30, 2019	Southern Arizona Office (SOAR) Superintendent
Federal Law Enforcement Communications Center (FLECC) Radio Dispatching Agreement	Law enforcement / emergency services dispatch. (Service First Authority).	September 30, 2015 (renewal pending)	Southern Arizona Office (SOAR) Superintendent
Department of Homeland Security	Restoration of undesignated vehicle routes to benefit the endangered Sonoran pronghorn and lesser long-nosed bat.	September 30, 2016	Resource Management

Title / Agency / Organization	Purpose / Description	Expiration Date	Responsible Party
Interpark Agreements			
Saguaro National Park and 11 Southern Arizona NPS Units and Offices	Cooperative fire management.	January 29, 2020	Fire Management Officer
International Sister Park Agreement / Arrangement with Mexico	Agreement with the Comisión Nacional de Áreas Naturales Protegidas (CONANP) to define a relationship with the monument's sister park (El Pinacate y Gran Desierto Altar).	Unknown; initially signed in 2006	Chief of Resource Management
Cooperative Agreements			
Various Cooperative Agreements with CESUs, and SCA	Monument maintains a number of agreements with the University of Arizona in support of various monument projects, particularly resource research.	Varies by agreement	Various monument staff, primarily Resource Management
International Sonoran Desert Alliance (P12AC10302)	Educational and outreach events.	September 30, 2017	Superintendent
Cooperating Association Agreement Between the National Park Service and Western National Parks Association, Cooperating Association	Work together to provide monument visitors with interpretive and educational materials to facilitate an expanded appreciation of the national park system.	February 24, 2016	Chief of Interpretation
General Agreements			
Research permits	Generally 12-15 annually. Some are short-term 1-2 week projects, and some have been ongoing for decades.	Varies by permit	Chief of Resources, and Superintendent
Special Park Uses			
Special use permits	Generally fewer than five permits annually, primarily for special events and filming.	Varies by permit	Superintendent
Forward operating base and other temporary infrastructure use by Department of Homeland Security	1-2 permits.	Varies by permit; annual renewal	Superintendent
Special use permit for Humane Borders	Allows for the placement of 50-gallon water barrels for humanitarian aid in 4-6 locations throughout the monument.	Recurring, annual	Superintendent
US Customs and Border Protection right-of-way	To provide access for tactical infrastructure.	Recurring; renewed every 10 years	Superintendent
Arizona Public Service Co. (APS) right-of-way	Power line paralleling Highway 85. Permit number RW 8660-05-001.	Recurring; renewed every 10 years	Superintendent
Table Top Telephone Co. right-of-way	Underground line paralleling Highway 85.	Recurring; renewed every 10 years	Superintendent
Commercial Services			
Monument is currently developing a commercial use authorization program with an expectation of 3-10 permits issued annually. The chief of business management coordinates such permits, with superintendent signature.			



Appendix C: Traditionally Associated Tribes and Groups

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

Cocopah Tribe of Arizona
Cocopah Tribe of Arizona Tribal Council
14515 South Veterans Drive
Somerton, AZ 85350

Fort Mojave Indian Tribe of Arizona, California, and Nevada
Fort Mojave Indian Tribal Council
500 Merriman Avenue
Needles, CA 92363

Gila River Indian Community of the Gila River Indian Reservation, Arizona
Gila River Indian Community Tribal Council
PO Box 97
Sacaton, AZ 85147

Hia C'ed O'odham
PO Box 447
Ajo, AZ 85321

Hopi Tribe of Arizona
Hopi Tribal Council
PO Box 123
Kykotsmovi, AZ 86039

Pascua Yaqui Tribe of Arizona
Pascua Yaqui Tribal Council
7474 South Camino De Oeste
Tucson, AZ 85746

Quechan Tribe of the Fort Yuma Indian Reservation, California, and Arizona
Fort Yuma-Quechan Tribal Council
PO Box 1899
Yuma, AZ 85366

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

Yavapai-Prescott Indian Tribe
Yavapai-Prescott Tribal Board of Directors
530 East Merritt Street
Prescott, AZ 86301

Zuni Tribe of the Zuni Reservation, New Mexico
Pueblo of Zuni Tribal Council
PO Box 339
Zuni, NM 87327



Appendix D: Past and Ongoing Monument Planning and Data Collection Efforts

Document Name	Year
<i>Ethnohistory of Organ Pipe Cactus.</i>	Unknown
Brown, W.E., and W. Hoy. <i>Historic Sites and Structures Inventory for Organ Pipe Cactus National Monument.</i>	1967
<i>The Milton Mine Historic Structures Report Organ Pipe Cactus National Monument.</i>	1969
Appleman, R.E., and R. Jones. <i>Victoria Mine Historic Structures Report Organ Pipe Cactus National Monument, Arizona.</i>	1969
<i>Blankenship Ranch Historic Structure Report Organ Pipe Cactus National Monument, Arizona.</i>	1969
<i>Soil Survey – A Special Report: Organ Pipe Cactus National Monument, Pima County, Arizona.</i>	1972
<i>Environmental Assessment Proposed Master Plan.</i>	1975
Anderson, K.M. <i>Organ Pipe National Monument: Archeological Survey and Mapping of Quitobaquito Springs.</i>	1977
Greene, J.A. <i>Historic Resource Study Organ Pipe Cactus National Monument, Arizona.</i>	1977
<i>Natural and Cultural Resources Management Plan and Environmental Assessment: Organ Pipe Cactus National Monument.</i>	1977
<i>National Register of Historic Places Inventory - Nomination Form: Gachado Wall and Line Camp.</i>	1978
<i>National Register of Historic Places Inventory - Nomination Form: Milton Mine.</i>	1978
<i>National Register of Historic Places Inventory - Nomination Form: Bull Pasture.</i>	1978
<i>National Register of Historic Places Inventory - Nomination Form: Victoria Mine, La Americana Mine.</i>	1978
<i>National Register of Historic Places Inventory - Nomination Form: Growler Mine Area.</i>	1978
<i>Addendum to Land Protection Plan for Organ Pipe Cactus National Monument.</i>	1987
<i>National Register of Historic Places Registration Form: Quitobaquito Springs.</i>	1988
Nagel, C. <i>Report on Treaties, Agreements, and Accords Affecting Natural Resource Management at Organ Pipe Cactus National Monument.</i>	1988
Fisher, S.G. <i>Cooperative National Park Resources Studies Unit - Arizona. Technical Report No. 22: Hydrologic and Limnologic Features of Quitobaquito Pond and Springs, Organ Pipe Cactus National Monument.</i>	1989
Nagel, C. <i>Report on Treaties, Agreements, and Accords Affecting Natural Resource Management at Organ Pipe Cactus National Monument Special Report No. 8 (Supplement).</i>	1991
Brown, B. <i>Land Use Trends Surrounding Organ Pipe Cactus National Monument Technical Report No. 39.</i>	1991
Barnett, J.J., and D. Sharrow. <i>Water Resources Management Plan Organ Pipe Cactus National Monument.</i>	1992
<i>Organ Pipe Cactus National Monument Interpretive Prospectus.</i>	1992
Fink, R.P. <i>Sonoran Pronghorn Habitat Study Plan.</i>	1993
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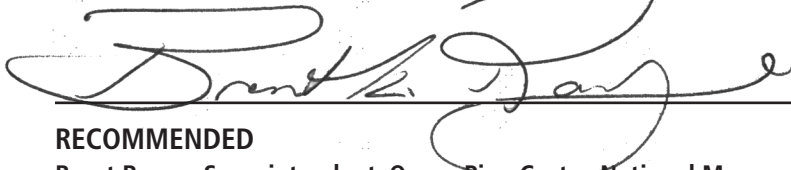




Intermountain Region Foundation Document Recommendation Organ Pipe Cactus National Monument

April 2016

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



4-7-16

RECOMMENDED

Brent Range, Superintendent, Organ Pipe Cactus National Monument

Date

 ACTING

4/18/16

APPROVED

 Sue E. Masica, Regional Director, Intermountain Region

Date



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

ORPI 157/132289

May 2016

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