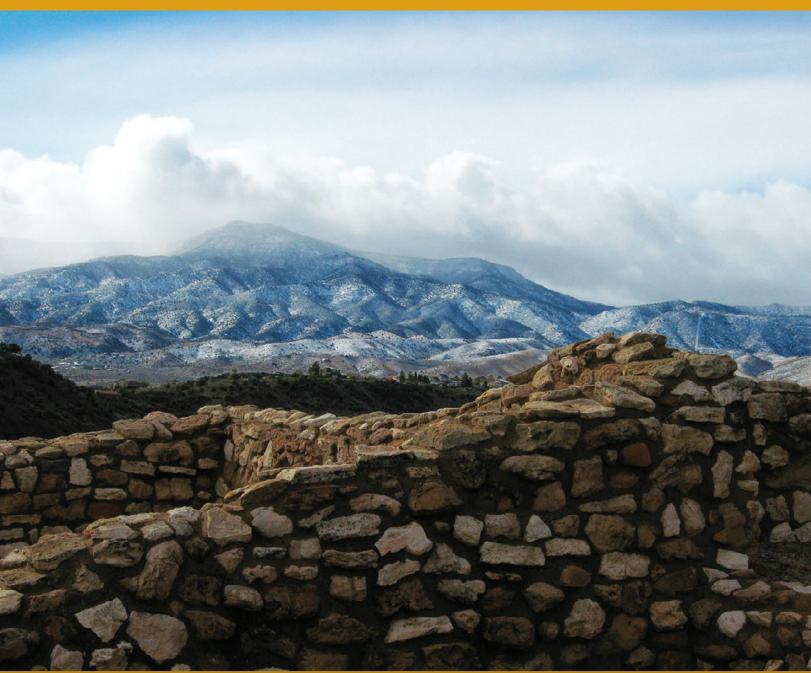


Foundation DocumentTuzigoot National Monument

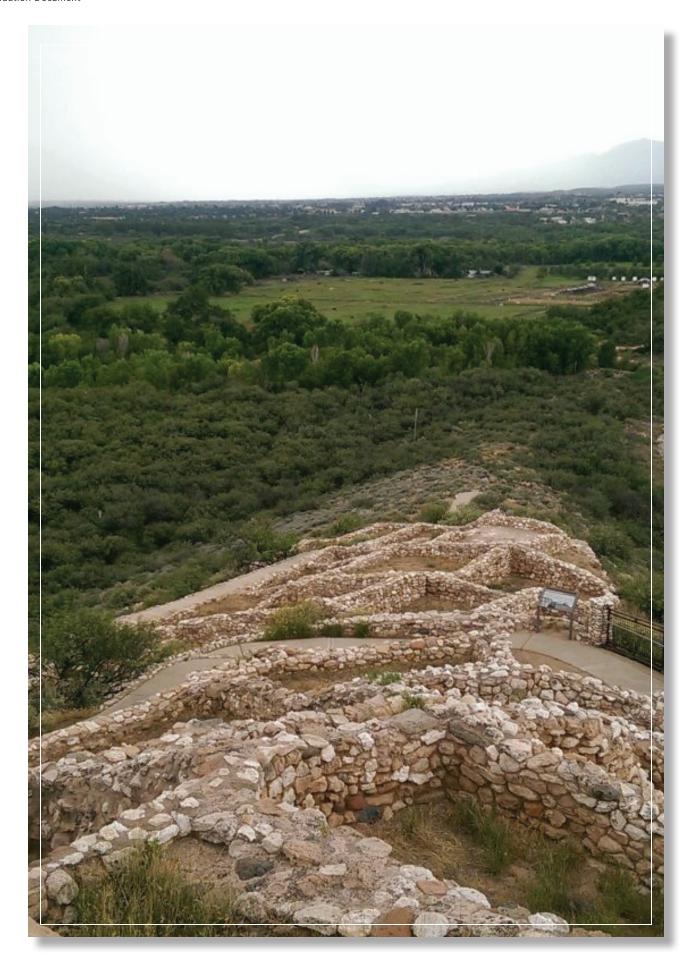
Arizona February 2016





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Mission of the National Park Service

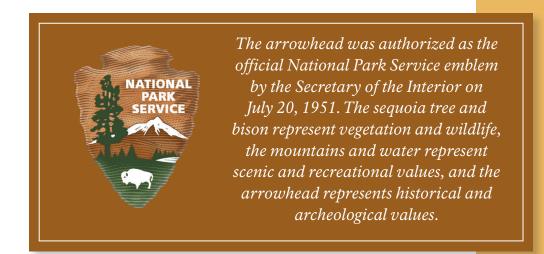
The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural 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 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, other important resources and values, and interpretive themes. The foundation document also includes special mandates and administrative commitments, an assessment of planning and data needs that identifies planning issues, planning products to be developed, and the associated studies and data required for park planning. Along with the core components, the assessment provides a focus for park planning activities and establishes a baseline from which planning documents are developed.

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

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



Part 1: Core Components

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

Brief Description of the Park

Positioned along the crest of an elevated desert hilltop overlooking the Verde River in Arizona are the remains of the large, multistoried Sinagua village of Tuzigoot. The village was well positioned to take full advantage of expansive views in all directions, a stable water supply provided by the Verde River, and the fertile soils of the Verde Valley. The pueblo is impressive in scale with up to 110 rooms including a second and third story. Tuzigoot (the Apache word for "crooked water") was built in different phases from approximately CE (Common Era) 1125 to 1400. Archeological evidence shows the village started as a small cluster of rooms housing maybe 50 or so persons. The population continued to grow and so and the pueblo expanded. Later a long drought and other conditions brought many of the outlaying farmers back to the village. The pueblo expanded again to accommodate the increasing population to the size seen today. The large pueblo had few doors or windows; access was by ladders through openings in the roof. The ceilings were low by modern standards with heights averaging 6 feet. This suited the Sinagua people as the average male was approximately 5 feet, 4 inches tall.

The Sinagua were primarily agriculturalists, however, they utilized most of the diverse species of plants found in the area. More than 25 species of native plants in the area provided medicine, dyes, baskets, building materials, food, and much more. They ground flour from seeds of buckwheat, rice grass, and amaranth. They used dried cactus fruit, beeweed flowers, and cattail root. Oils were made from sunflower seeds. Nuts were collected from pinon pines and oak trees. Fruits such as hackberry, cactus, yucca, rose, and grape were gathered at different times throughout the year. Analysis of the Sinagua diet showed it was highly nutritious, rich in vitamins and minerals, and contained antiseptics, analgesics, and stimulants. As hunters they sought deer, antelope, rabbit, bear, muskrat, turtles, and duck. But it was their agricultural skills that helped to stabilize the food supply and allowed the culture to thrive for hundreds of years. Through reuse and expansion of canals built by previous occupants of the area, the Hohokam in CE 600, they successfully farmed corn, beans, and squash.



The Sinagua were highly skilled craftsmen and adept traders with networks that extended for hundreds of miles. They built useful tools such as axes, knives, hammers, and manos and metates for grinding corn to flour. Utilizing what was available either in their environment or acquired through trade, they converted animal bones to awls and needles, wove beautiful cloths from cotton, and made decorations and ceremonial pieces from turquoise, shells, and stone.

For three centuries the Sinagua created a complex society and through blending with multiple cultures developed a lifestyle all their own. They left behind incredible examples of their architecture including Tuzigoot, Montezuma Castle, and Montezuma's Well. It is unknown why the Sinagua left the Verde Valley in the 1400s, but it is believed to be the result of a combination of causes. Hopi legends suggest that the Sinagua may have joined them on their mesas.

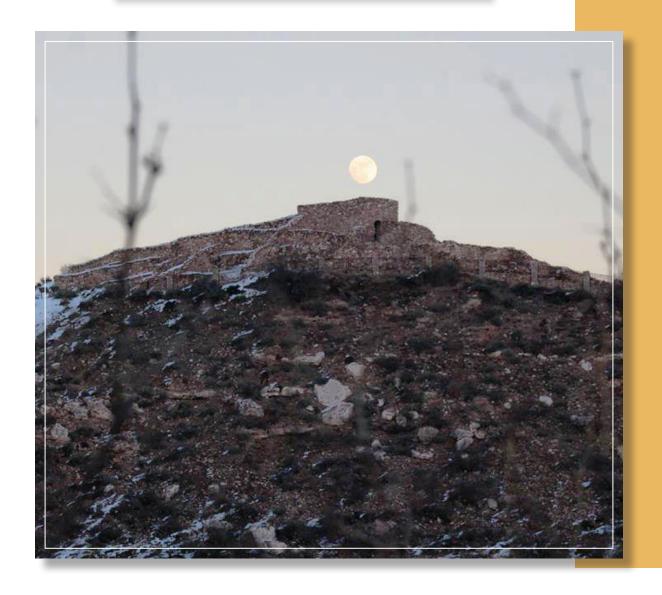
Tuzigoot National Monument was created through Presidential Proclamation 2344 on July 25, 1939, by President Franklin D. Roosevelt under the authority of the Antiquities Act thus assuring this place and the accomplishments of the Sinagua are preserved for future generations. Today visitors can explore the ruins by taking the Ruins Loop Trail and the Tavasci Marsh Overlook Trail. The Ruins Loop Trail takes visitors both in and around the ruins, allowing for first-hand experiences of Sinagua life. The Tavasci Marsh Overlook trail provides the visitor with views of the Tavasci Marsh, one of the few freshwater marshes in Arizona and one of the best places to view wildlife. Visitors also have the opportunity to explore Sinagua material culture along with an in-depth look at the natural environment at the Tuzigoot National Monument's visitor center and museum. The museum, completed in 1936 and listed in the National Register of Historic Places, is one of the last New Deal-era buildings still being used for its originally designed purpose.



Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park unit. The purpose statement for Tuzigoot National Monument was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The park was established by presidential proclamation on July 25, 1939 (see appendix A for enabling legislation and subsequent amendments). The purpose statement lays the foundation for understanding what is most important about the park.

The purpose of Tuzigoot National Monument is to preserve, study, and interpret outstanding archeological Sinagua resources including a large hilltop pueblo and related historic and prehistoric sites, associated cultural artifacts, and the ecologically sensitive Tavasci Marsh.



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

- 1. Tuzigoot National Monument represents a continuum of land use from prehistoric Sinagua culture through the present and offers enormous learning potential about the relationship between humans and their environment.
- 2. The natural and cultural resources within Tuzigoot National Monument are significant to associated tribal people as evidenced by oral histories, the archeological record, and continuing practices and beliefs. To this day, 16 tribes maintain an association with the monument.
- 3. The excavation, restoration, and development at Tuzigoot National Monument illustrate the New Deal-era civilian work programs that pioneered archeological efforts in the Southwest. These efforts were instrumental in the preservation and accessibility of this and other national monuments.
- 4. The extent of the excavation of Tuzigoot National Monument's hilltop pueblo yielded one of the largest artifact assemblages, including trade ware, of the Sinagua culture in the Verde Valley.
- 5. Tavasci Marsh, the largest freshwater marsh in Arizona outside of the Colorado River system, supports a sensitive and diverse ecosystem. Since prehistoric times, the marsh provided inhabitants with plant and animal resources for edible, medicinal, and utilitarian purposes.



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 Tuzigoot National Monument:

- **Hilltop Pueblo and Related Archeological Resources** This includes the hilltop pueblo, two 5-room structures, and archeological evidence used to understand the sociopolitical organization of its prehistoric inhabitants.
- Tavasci Marsh This marsh is one of the largest freshwater marshes in Arizona outside
 of the Colorado River system and plays a critical role in human survival, and continues
 as critical habitat for wildlife.
- Cultural Continuity and Landscapes This includes the tribal continuity of the
 prehistoric Sinagua culture to contemporary tribes living in the Southwest today;
 the cultural landscape features that provide line-of-sight relationships among the
 prehistoric pueblos and structures revealing patterns of land use; and the history of
 American preservation efforts.
- Scientific Values Research potential of natural and cultural features and the evolution of archeological investigation and preservation techniques.

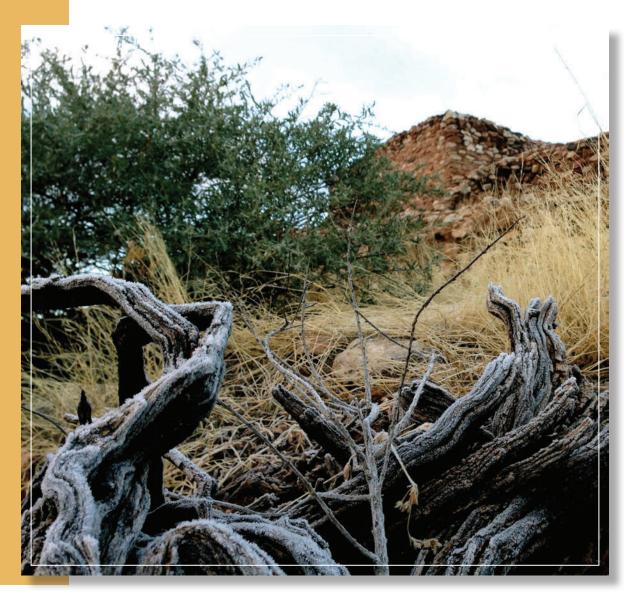


Other Important Resources and Values

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

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

- Visitor Center/Museum This historic feature with its classic interior furnishings, exhibit cases, well house, trails, and retaining walls, is the last remaining New Deal structure of its kind still in use today.
- Flora and Fauna Habitat for endangered species—Southwestern willow flycatcher, Northern Mexican gartersnake, spring snail, Gila chub fish—as well as providing critical riparian habitat and maintaining the cultural landscape.
- Recreational Values The unique landscape setting provides visitor opportunities for birding, wildlife viewing, hiking, rafting, horse riding, and special community and tribal events.



Interpretive Themes

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

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

The following interpretive themes have been identified for Tuzigoot National Monument:

- Land use patterns and human settlement of the Verde Valley illustrate the continuum of occupation in the Southwest and demonstrate how contemporary cultures are linked to, and identify with, this place.
- Riparian areas of the Verde Valley (and the Tavasci Marsh) support a diversity of plants and animals and serve an important role in scientific discovery and species survival as habitat is lost to development worldwide.
- Tuzigoot National Monument serves as a benchmark of pioneering archeological
 efforts in the Southwest and demonstrates evolving scientific inquiry, methods,
 and interpretations that help us understand past human experiences and how they
 inform the present.
- The experiences of people in the Verde Valley demonstrate how, through migration, travel, and trade along natural corridors, cultures influence and affect one another.
- The preservation and interpretation of Tuzigoot National Monument illustrate the NPS mission of protecting exemplary sites that contribute to our national identity while providing authentic places and experiences for people to connect to their heritage.
- The Verde River and its tributaries are the connection among the Verde Valley communities and have been critical to the sustenance of prehistoric, historic, and modern life in the valley.



Part 2: Dynamic Components

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

Special Mandates and Administrative Commitments

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

Special Mandates

- Most of the land within the authorized boundary is in private ownership. Monument boundaries were increased in 1978, but to date the National Park Service has not acquired all of the property. The property is in three separate ownerships. One consists of 46.93 acres of Verde River frontage owned by the State of Arizona and managed by Arizona State Parks as a part of the Verde River Greenway. The other consists of 383.43 acres of land owned by the Phelps Dodge Corporation. The latter property includes Verde River frontage, a marsh, irrigated pasture, and a mine tailings dump. In September 2005, Tuzigoot acquired 323.75 acres that included Tavasci Marsh.
- Phelps Dodge donated one 9.35-acre parcel in December 1965, and 5.76-acres in March 1966, from Clarkdale Realty Company for the entrance road. The Approach Roads Act of January 31, 1931, was the vesting power for this addition. The donations of the acreage for the entrance road included a provision requiring ownership of the lands to revert to the original owners should the entrance road ever be abandoned. In order to retain the acreage, the entrance road must remain in use. The maintenance of the road is covered by a maintenance agreement with Yavapai County. The agreement (between then Secretary of the Interior Stewart Udall and the Yavapai County Board of Supervisors) states Yavapai County assumes sole responsibility for the maintenance of the entrance road. This releases the monument from the responsibility and expense of its upkeep. It also precludes making changes to the existing roadway. The Town of Clarkdale recently annexed the road and the Phelps Dodge property proposed for development. Clarkdale, because of the annexation, is now responsible for maintenance of the road.
- In January, 1988, the Master Plan for Tuzigoot National Monument was amended to exclude the tailings, the state park property, and some adjacent lands from within the monument boundary. However, legislation has not passed to implement the proposal.

Administrative Commitments

- The monument is administered jointly with Montezuma Castle National Monument and its detached unit, Montezuma Well. The two monuments are approximately 25 miles apart with administrative offices located in the Town of Camp Verde, five miles from Montezuma Castle.
- The National Park Service has a partnership with Western National Parks Association to manage the sales of interpretation-related merchandise, such as books, at the Montezuma Castle and Tuzigoot visitor centers. This partnership is governed by the laws of the state of Arizona and NPS policy. The sale of merchandise provides a service to visitors and provides funds for management of the monuments.

Assessment of Planning and Data Needs

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

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

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

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

Analysis of Fundamental Resources and Values

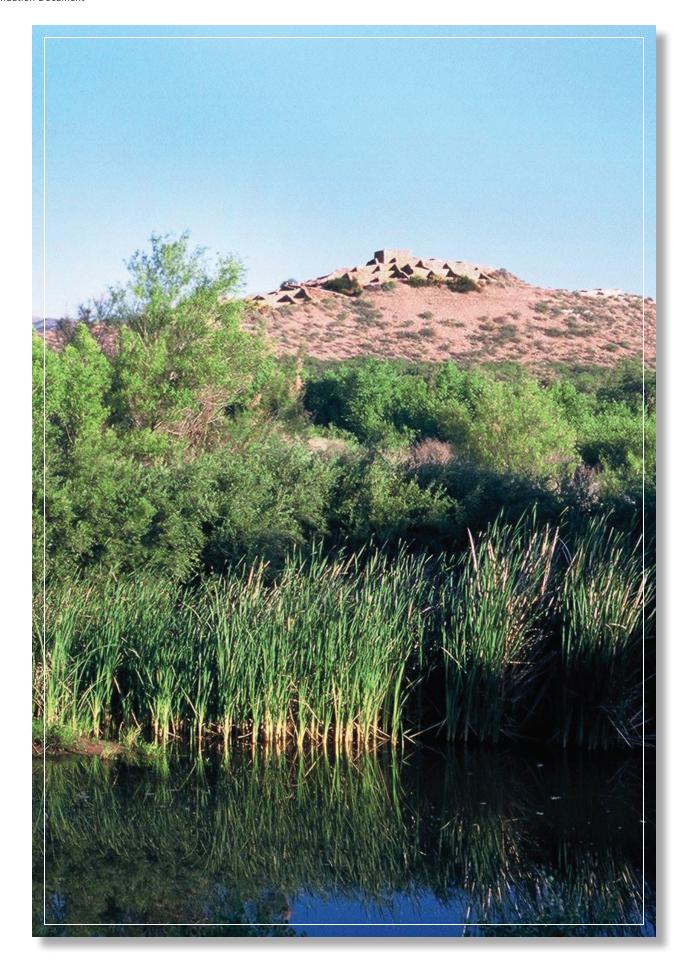
The fundamental resource or value analysis table includes current conditions, potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value.



Fundamental Resource or Value	Hilltop Pueblo and Related Archeological Resources
Related Significance Statements	The excavation, restoration, and development at Tuzigoot National Monument illustrate the New Deal-era civilian work programs that pioneered archeological efforts in the Southwest. These efforts were instrumental in the preservation and accessibility of this and other national monuments. The extent of the excavation of Tuzigoot National Monument's hilltop pueblo yielded one of the largest artifact assemblages, including trade ware, of the Sinagua culture in the Verde Valley.
Current Conditions and Trends	Conditions Current conditions of exposed surface archeological features are good. Trends Conditions remain stable due to management actions.
Threats and Opportunities	 Threats Unintentional visitor damage due to climbing or disturbing hilltop pueblo walls. Intentional visitor artifact collection and or damage to archeological surface features (vandalism and theft). Climate change and its associated influences, for example, increase in mean annual temperature and fire frequency, decrease in water resources, increase in drought events and storm frequency/intensity. Natural processes such as soil erosion, extreme weather, and improper drainage along surface pueblo walls or features. Animal damage to archeological resources caused by burrowing creatures or nesting birds. Low flying helicopter tours, over-flights, and small remote control drones used for remote viewing. Primary concerns are damage to surface adobe due to vibrations, crashes, or drone retrieval. Opportunities Address surface artifact collection or theft through visitor exhibits or related media. Turn into an educational opportunity for preservation and protection of historic areas. Increase stewardship interpretive and educational programming.
Existing Data and Plans Related to the FRV	 Monitoring data and plan. Collection of historic photos. Facility Management Software System (FMSS) data. Archeological site inventory. 1982 Verde Valley water quality management plan. 1984 land protection plan. 1987 national register archeological district documentation. 1990 statement for management. 1991 natural and cultural resources management plan. 1995 historic photograph survey. 1996 Montezuma Castle (MOCA), Tuzigoot (TUZI) conference on research and resource management. 1997 MOCA, TUZI Government Performance and Results Act strategic plan. 1998 conference on research and resource management. 2005 preliminary geophysical framework of Verde River. 2006/2007/2008 historic preservation report(s). 2007 MOCA, TUZI New Deal resources. 2008 collections management plan. 2010 MOCA, TUZI general management plan and environmental assessment. 2014 Superintendent's Compendium. LiDAR completed, have model and maps. All areas have been surveyed, archeological inventories complete.

Fundamental Resource or Value	Hilltop Pueblo and Related Archeological Resources
Data and/or GIS Needs	 Climate change vulnerability assessment. Data on stabilization methodology.
Planning Needs	Climate change scenario planning.Preservation plan for surface archeological features.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	 Preservation plan for surface archeological features. Laws, Executive Orders, and Regulations That Apply to the FRV National Historic Preservation Act of 1966, as amended; 54 USC §300101 et seq. Antiquities Act of 1906; 54 USC §320301-320303, 34 Stat. 225 Historic Sites, Buildings, and Antiquities Act of 1935; 54 USC §320101 et seq. Archeological and Historic Preservation Act of 1974; 54 USC §312502 et seq. Archaeological Resources Protection Act of 1979; 54 USC §302902 Management of Museum Properties Act of 1955, as amended National Environmental Policy Act of 1969 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 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" American Indian Religious Freedom Act of 1978; 42 USC 1996 and 1996a, PL 95-341. 92 Stat. 469 Native American Graves Protection and Repatriation Act (NAGPRA) of 1990; 25 USC §3001 Religious Freedom Restoration act of 1993 National Parks Air Tour Management Act of 2000 NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes Programmatic Agreement among the National Park Service, Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (2008) United Nations Declaration on the Rights of Indigenous Peoples (2010) Director's Order 28: Cultural Resource Management Director's Order 24: NPS Museum Col
	 Director's Order 47: Soundscape Preservation and Noise Management Director's Order 13A: Environmental Management System



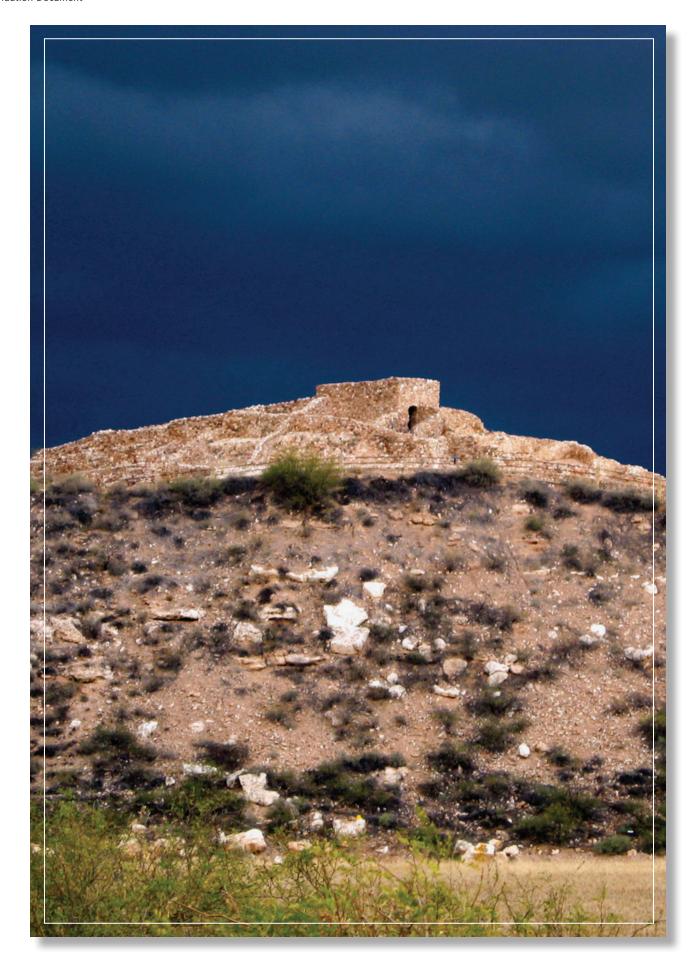


Fundamental Resource or Value	Tavasci Marsh
Related Significance Statements	Tavasci Marsh, the largest freshwater marsh in Arizona outside of the Colorado River system, supports a sensitive and diverse ecosystem. Since prehistoric times, the marsh provided inhabitants with plant and animal resources for edible, medicinal, and utilitarian purposes.
Current Conditions and Trends	 Conditions The Tavasci Marsh is in poor condition due to environmental contamination from a nearby mining interest. Night sky quality is poor due to proximity of industrial and metropolitan areas nearby. This can potentially affect wildlife in the marsh. Trends Stable because of management actions. Current levels of contamination remain; however, some are diffusing over time. Beavers and other wildlife are returning to the marsh. The Hopi tribe had traditionally collected cattails, but has discontinued the practice due to the contamination.
Threats and Opportunities	 Threats Invasive plant species have the potential for impacting habitat and environment. Climate change and its associated influences, for example, increase in mean annual temperature and fire frequency, decrease in water resources, increase in drought events, storm frequency/intensity, and changing visitor patterns. Ongoing contamination from land use practices in the surrounding area compounded by the potential impact from toxic airborne contaminants such as mercury. Unclear boundary delineation between Dead Horse Ranch State Park and Tuzigoot National Monument. Visitors to the state park will unknowingly cross over the boundary to recreate in the marsh area. The threat is in violating monument regulations; for example, fishing is allowed within the state park but not within the monument. Opportunities Continue networking with Sonoran Desert Network and Northern Arizona University. Northern Arizona University has ongoing research projects and the Sonoran Desert Network performs water sampling and other projects such as bird surveys that contribute to interpretation and resource management. Partner with the Verde Watershed Restoration Coalition and tribes for work on invasive riparian species removal and monitoring. Actively advocate for research on climate influences impacting the marsh, including invasive species, trends, visitor use, and hydrological patterns. Participate in ongoing dragonfly mercury studies to better understand current status and risk of mercury in the marsh and adjacent riparian areas. Continue to engage the Audubon Society to perform bird surveys every spring. Reach out to other park units to review templates and examples regarding contamination mitigation strategies; an example would be the Grant-Kohrs Ranch's Clark Fork River mitigation plan. Investigate working with industrial interest and local community to reduce con

Fundamental Resource or Value	Tavasci Marsh
Existing Data and Plans Related to the FRV	 2005 vascular plant and vertebrate inventory. 2007 spatial modeling of biological soil crusts to support land management decisions. 2007 invasive plant management plan. 2010 MOCA, TUZI general management plan and environmental assessment. 2011 Tavasci Marsh management and habitat plan / environmental assessment. 2014 Superintendent's Compendium – addresses trails. GPS/GIS data with attributes. Sonoran Desert Network data. NPS Water Resources Division and US Geological Survey data. Ongoing herpetological (snake) data from a Northern Arizona University researcher.
Data and/or GIS Needs	 Climate change vulnerability assessment for the Tavasci Marsh system. Audubon Society endangered species survey for the Yuma clapper rail and other rails and marsh birds. Further contaminant research (e.g., dragonfly mercury study) about the scope and extent of the problem.
Planning Needs	 Climate change scenario plan. Resource stewardship strategy (current PMIS project). Contamination mitigation plan (hazardous materials plan).
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	 Laws, Executive Orders, and Regulations That Apply to the FRV Endangered Species Act of 1973, as amended National Invasive Species Act; 16 USC §4701 Federal Noxious Weed Act of 1974, as amended The Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts American Indian Religious Freedom Act of 1978; 42 USC 1996 and 1996a, PL 95-341. 92 Stat. 469 Executive Order 11514, "Protection and Enhancement of Environmental Quality" Executive Order 11593, "Protection and Enhancement of Cultural Resources" Executive Order 11988, "Floodplain Management" Executive Order 12088, "Federal Compliance with Pollution Control Standards" Executive Order 13107, "Indian Sacred Sites" Executive Order 13112, "Invasive Species" Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" Religious Freedom Restoration act of 1993 Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"

Fundamental Resource or Value	Tavasci Marsh
	NPS Policy-level Guidance (NPS <i>Management Policies 2006</i> and Director's Orders) • The Secretary of the Interior's Standards for the Treatment of Historic Properties with
Laws, Executive Orders, and	 Guidelines for the Treatment of Cultural Landscapes Programmatic Agreement among the National Park Service, Advisory Council on Historic
Regulations That Apply to the FRV,	Preservation, and the National Council of State Historic Preservation Officers (2008) • DOI Policy on Consultation with Indian Tribes (2012)
and NPS Policy-level Guidance	 United Nations Declaration of the Rights of Indigenous Peoples (2010) Director's Order 13A: Environmental Management System
	 Director's Order 28: Cultural Resource Management Director's Order 77-1: Wetland Protection





Fundamental Resource or Value	Cultural Continuity and Landscapes
	Tuzigoot National Monument represents a continuum of land use from prehistoric Sinagua cultures through the present and offers enormous learning potential about the relationship between humans and their environment.
Related Significance Statements	The natural and cultural resources within Tuzigoot National Monument are significant to associated tribal people as evidenced by oral histories, the archeological record, and continuing practices and beliefs. To this day, 16 tribes maintain an association with the monument.
Statements	The extent of the excavation of Tuzigoot National Monument's hilltop pueblo yielded one of the largest artifact assemblages, including trade ware, of the Sinagua culture in the Verde Valley.
	Tavasci Marsh, the largest freshwater marsh in Arizona outside of the Colorado River system, supports a sensitive and diverse ecosystem. Since prehistoric times, the marsh provided inhabitants with plant and animal resources for edible, medicinal, and utilitarian purposes.
	Conditions
	 Tribal relations are good. The park is actively engaged in consultation on a number of issues (NAGPRA activities are ongoing along with Apache and Hopi oral histories). Not enough information to determine the full condition of the parks and surrounding
Current Conditions and Trends	area's cultural landscape.
and nemus	Trends
	Tribal relations are stable.
	 Clarkdale community relations are improving with staff stability. Currently partnering with community on river trail connections and events.
	Currently partnering with community on river trail connections and events.
	Threats
	Staff turnover could affect the continuity of tribal and community relations.
	 Trespassing by cattle (tearing down fences, foraging, soil compaction), human trespassing after hours from the greenway on the other side of marsh (providing unrestricted access to archeological resources).
	Visible mine tailing area (potential future development within park's legislative boundary).
	 Climate change and its associated influences, for example, increase in mean annual temperature and fire frequency, decrease in water resources, increase in drought events storm frequency/intensity, and changing visitor patterns.
	 Over flights – Cottonwood airport is nearby, planes going to Sedona, medical life flights fly fast and low.
Threats and	Industrial contamination has impacted traditional tribal use of the marsh.
Opportunities	Opportunities
	Enhanced tribal programs, cultural demonstrations, lectures, music concerts (one event a month).
	Enhance trails partnerships with community along Verde River. Notice and Notice Agreement Haritage Manage (Notice and Notice a
	 National Native American Heritage Month (November) – increase visibility within the park, make visitors more aware of its existence.
	Enhance networking with Verde Front Leadership Group, local community leaders, and US Forest Service.
	Establish community web browser map of events.
	 Strengthen personal ties to community through increased communication and expanded activities.
	Multiple generations and cultural groups view Tuzigoot National Monument as part of their heritage and as a result contribute to cultural demonstrations that increase visitor experiences.

Fundamental Resource or Value	Cultural Continuity and Landscapes
Existing Data and Plans Related to the FRV	 LiDAR underway. Archeological reports. NAGPRA inventory almost complete. Collected cultural landscape records from Arizona State University (Will Stoutamire) for historical use of landscape (farming, dairy). Research from park guides (Skip Larson). Ethnographic assessment in draft through Cooperative Ecosystem Studies Unit. Draft notices of NAGPRA inventory completion. Administrative history almost complete. Annual event plans. 2014 Superintendent's Compendium. 2014 interagency fire operating plan.
Data and/or GIS Needs	 Cultural landscape inventory including the marsh. Baseline for natural sounds. Visual resource inventory. Climate change vulnerability assessment for select resources that comprise the cultural continuity and landscapes.
Planning Needs	Cultural resource management plan.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	 Laws, Executive Orders, and Regulations That Apply to the FRV National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR 800; 16 USC 470 Antiquities Act of 1906; 54 USC §320301-320303, 34 Stat. 225 Historic Sites, Buildings, and Antiquities Act of 1935; 54 USC §320101 et seq. Archeological and Historic Preservation Act of 1974; 54 USC §312502 et seq. Archaeological Resources Protection Act of 1979; 54 USC §302902 Americans With Disabilities Act of 1990 The Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts General Authorities Act of 1976 Religious Freedom Restoration act of 1993 Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" Management of Museum Properties Act of 1955, as amended National Environmental Policy Act of 1969 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" American Indian Religious Freedom Act of 1978; 42 USC 1996 and 1996a, PL 95-341. 92 Stat. 469 Native American Graves Protection and Repatriation Act of 1990; 25 USC §3001 United Nations, Declaration of the Rights of Indigenous Peoples (2010)

Fundamental Resource or Value	Cultural Continuity and Landscapes
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	 NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes Programmatic Agreement among the National Park Service, Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (2008) DOI Policy on Consultation with Indian Tribes (2012) United Nations Declaration of the Rights of Indigenous Peoples (2010) Director's Order 28: Cultural Resource Management Director's Order 28A: Archeology Director's Order 24: NPS Museum Collections Management Director's Order 47: Soundscape Preservation and Noise Management Director's Order 77-1: Wetland Protection



Fundamental Resource or Value	Scientific Values
	Tuzigoot National Monument represents a continuum of land use from prehistoric Sinagua cultures through the present and offers enormous learning potential about the relationship between humans and their environment.
Related Significance Statements	The excavation, restoration, and development at Tuzigoot National Monument illustrate the New Deal-era civilian work programs that pioneered archeological efforts in the Southwest. These efforts were instrumental in the preservation and accessibility of this and other national monuments.
	The extent of the excavation of Tuzigoot National Monument's hilltop pueblo yielded one of the largest artifact assemblages, including trade ware, of the Sinagua culture in the Verde Valley.
	Tavasci Marsh, the largest freshwater marsh in Arizona outside of the Colorado River system, supports a sensitive and diverse ecosystem. Since prehistoric times, the marsh provided inhabitants with plant and animal resources for edible, medicinal, and utilitarian purposes.
	Conditions
	Good – ongoing research is primarily focused on material culture housed at the NPS Western Archeological and Conservation Center in Tucson, Arizona.
Current Conditions and Trends	Tuzigoot is a high profile excavation with comprehensive field notes and collections. The study of material culture is as important as studying the site. Additional research interest has been expressed for Tavasci Marsh.
and nemus	Trends
	• Improving with the addition of additional staff and the development of a resource division in 2004. This has allowed for more focused attention on key resource issues including monitoring of natural and cultural conditions, overseeing on-site researchers, and collating existing research data.
	Threats
	 Continuing lack of funding and staff continues to hamper monitoring and oversight of park scientific endeavors.
	 Access to the collections may be compromised if lease is not extended at the NPS Western Archeological and Conservation Center.
	Tavasci Marsh soil contamination limits research at this time.
	 Potential impacts from both airborne and waterborne pathways including surrounding land use practices.
	Opportunities
Threats and Opportunities	 Encourage regional universities (Arizona State University, University of New Mexico, University of Arizona, and Northern Arizona University) research requests and student interns.
	Encourage research funded through National Science Foundation and Western National Parks Association grants.
	 Continue to integrate research findings into interpretive and resource management programs.
	Continue to network with the US Forest Service and tribes to understand research conducted on lands surrounding the park.
	Communicate the importance and need for ongoing research.
	 Participate in the ongoing Dragonfly mercury study to better understand current status and the risk of mercury in the marsh and adjacent riparian areas.

Fundamental Resource or Value	Scientific Values
Existing Data and Plans Related to the FRV	Many existing documents detail possible questions and research topics.
Data and/or GIS Needs	Further contaminant research about the scope and extent of the problem.
Planning Needs	Research stewardship strategy (target and prioritize topics for research).
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	Laws, Executive Orders, and Regulations That Apply to the FRV National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR 800; 16 USC 470 Antiquities Act of 1906; 54 USC §320301-320303, 34 Stat. 225 Historic Sites Act of 1935 Archeological and Historic Preservation Act of 1974 Endangered Species Act of 1973, as amended Archaeological Resources Protection Act of 1979 Management of Museum Properties Act of 1955, as amended National Environmental Policy Act of 1969 The Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts American Indian Religious Freedom Act 1978; PL 95-341. 92 Stat. 469 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" Religious Freedom Restoration act of 1993 "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes Programmatic Agreement among the National Park Service, Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (2008) DOI Policy on Consultation with Indian Tribes (2012) United Nations, Declaration of the Rights of Indigenous Peoples (2010) Director's Order 28: Cultural Resource Management Director's Order 47: Soundscape Preservation and Noise Management

Analysis of Other Important Resources and Values

Other Important Resource or Value	Visitor Center/Museum
Current Conditions and Trends	 Conditions The museum and visitor center is in good condition. The interior was rehabilitated in 2011and the roof has been replaced within the last five years. The garage is in fair condition with needed general maintenance. Retaining walls and trail features associated with the museum are fair to poor and require some rehabilitation. Furniture designed specifically for the structure is still in use and in good condition. The furniture was listed in the national register nomination. Custom exhibit cases are in good condition although they have been modified and repaired to bring them up to contemporary display standards. Trends
	The trend is stable due to management actions.
Threats and Opportunities	 Threats Rodents can and have chewed electrical wires in the building and nearby parked vehicles, causing periodic outages, visitor inconvenience and potential fire hazards. Climate change and its associated influences, for example, increase in mean annual temperature and fire frequency, decrease in water resources, increase in drought events and storm frequency/intensity. Weathering damages to building exterior and wood trim. Drainage around the building and erosion of trails and retaining walls. Opportunities Sharing historic exhibit case designs with other institutions. Continue networking with friends groups (Clarkdale Heritage Center, Jerome Historical Society, Clemenceau Historical Society, Sedona Historical Society, Archeological societies) for project fundraising opportunities. Continue interaction with local community groups, tribes and governments with emphasis on Clarkdale, Arizona. Improve park sustainability and environmental leadership by becoming a climate friendly park.
Existing Data and Plans Related to the OIRV	 1975 master plan for Montezuma Castle and Tuzigoot National Monuments. 1984 natural and cultural management plan. 1987 national register nomination (listed). 1997 pest management plan. 2010 MOCA, TUZI General Management Plan and environmental assessment. 2010 accessibility assessment. 2014 interagency fire operating plan. Original construction design drawings. Rehab drawings/documents. Photographic documentation (before and after) photographs. Draft administrative history. FMSS data. List of Classified Structures data.

Other Important Resource or Value	Visitor Center/Museum				
Data and/or GIS Needs	 Climate change vulnerability assessment for the Tuzigoot Museum. Improve and update FMSS data. Improve and update List of Classified Structures data. 				
Planning Needs	 Climate change scenario plan for the Tuzigoot Museum. Development plan for a sheltered area for ranger talks and cultural demonstrations (current Project Management Information System (PMIS) project). Development plan for an accessible picnic area with shade. 				
Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy- level Guidance	 Laws, Executive Orders, and Regulations That Apply to the OIRV National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR 800; 16 USC 470 Historic Sites Act of 1935 Archeological and Historic Preservation Act of 1974 Americans With Disabilities Act of 1990 General Authorities Act of 1976 Management of Museum Properties Act of 1955, as amended National Environmental Policy Act of 1969 Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" Executive Order 11593, "Protection and Enhancement of Cultural Resources" Executive Order 13175, "Consultation and Coordination With Indian Tribal Governments" Religious Freedom Restoration Act of 1993 NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes Programmatic Agreement among the National Park Service, Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (2008) United Nations, Declaration of the Rights of Indigenous Peoples (2010) DOI Policy on Consultation with Indian Tribes (2012) Director's Order 13A: Environmental Management Director's Order 24: NPS Museum Collections Management Director's Order 24: NPS Museum Collections Management 				

Other Important Resource or Value	Flora and Fauna				
	The US Fish and Wildlife designated critical habitat for endangered species such as the Southwestern Willow Flycatcher and proposed critical habitat for threatened Northern				
Current Conditions	 Mexican garter snakes and Yellow-billed Cuckoos. The health of the flora and fauna within Tavasci Marsh is unknown (the soil contamination is prohibiting a complete inventory and condition assessment). 				
and Trends	Trends				
	Currently stable because of active adaptive management actions.				
	Current mitigation of contaminated areas has helped, however disturbed lands have				
	allowed for invasive plant species and heavy metals have impacted animal life and health.				
	Threats				
	• Development in the upstream watershed is draining the headwaters and catchment basin of the Verde River. This has the potential to impact the habitats along the riparian corridor of the river and surrounding systems, including the Tavasci Marsh.				
	Invasive species (mainly crayfish) are impacting the ecological balance within the river and surrounding wetlands of the Tavasci.				
	 Climate change and its associated influences, for example, increase in mean annual temperature and fire frequency, decrease in water resources, increase in drought events and storm frequency/intensity. 				
	Potential impacts from surrounding land use practices including mining, urban development, light pollution, and highway expansion could affect the water use within the Verde River, the viewshed, soundscape, visitor experience, and cultural landscape.				
Threats and	Unclear boundary delineation between Dead Horse Ranch State Park and Tuzigoot National Monument create visitor confusion of rules and regulations; for example, fishing is allowed within the state park but not within the monument.				
Opportunities	Night sky quality is poor and declining, potentially impacting wildlife habitat and plant photosynthesis.				
	Opportunities				
	Continue networking with Sonoran Desert Network and Northern Arizona University. Northern Arizona University has ongoing research projects and the Sonoran Desert Network performs water sampling and other projects such as bird surveys that contribute to interpretation and resource management.				
	Partnership with Verde Watershed Restoration Coalition for work on invasive riparian species removal and monitoring.				
	Audubon Society performs bird surveys every spring.				
	Partnerships with state parks for invasive plant management and education.				
	 Network with Natural Resources Conservation District to assist with design of education programs. 				
	 Network with Coconino Rural Environmental Corp, Student Conservation Association, and Yavapai Apache Nation to recruit youth for summer work crews (invasive plant management in park). 				
	GPS/GIS data with attributes.				
	Sonoran Desert Network data.				
Existing Data and	 NPS Water Resources Division and US Geological Survey existing water quality/quantity data on marsh and river. 				
Plans Related to the OIRV	US Geological Survey and US Fish and Wildlife Service ongoing contaminant studies.				
	2010 MOCA, TUZI general management plan and environmental assessment. Vertal material and properties of the control				
	 Vertebrate and vascular plant inventories – US Geological Survey and others. 2014 Superintendent's Compendium. 				
	2014 Superintendent's Compendium.				

Other Important Resource or Value	Flora and Fauna				
Data and/or GIS Needs	 Climate change vulnerability assessment for select flora and fauna. Threatened and endangered species survey, in particular Southwestern willow flycatcher Further contaminant research regarding scope and extent of the issue. 				
Planning Needs	Resource stewardship strategy.Climate change scenario plan.				
Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance	Aws, Executive Orders, and Regulations That Apply to the OIRV Endangered Species Act of 1973, as amended National Invasive Species Act Federal Noxious Weed Act of 1974, as amended The Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts American Indian Religious Freedom Act Executive Order 11593, "Protection and Enhancement of Cultural Resources" Executive Order 13107, "Sacred Sites" Executive Order 13112, "Invasive Species" Executive Order 13112, "Invasive Species" Secretarial Order 3289, "Addressing the Impacts of Climate Change of America's Water, Land, and Other Natural and Cultural Resources" Religious Freedom Restoration act of 1993 PS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) The Secretary of the Interior's Standards and Guidelines for Archeology and Historic				
	 The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes NPS Natural Resource Management Reference Manual 77 DOI Policy on Consultation with Indian Tribes (2012) United Nations, Declaration of the Rights of Indigenous Peoples (2010) Director's Order 28: Cultural Resource Management 				



Other Important Resource or Value	Recreational Values				
Current Conditions and Trends	 Conditions Good because of diverse, compatible recreational opportunities for all age groups. There are accessible trails through the pueblo and surrounding area. Trends Improving because of the acquisition of the Tavasci Marsh, thereby increasing the diversity of recreational opportunities. 				
Threats and Opportunities	 Threats Environmental threats include the presence of West Nile virus during spring flooding of the Verde River, and standing water within the Tavasci Marsh. Excess standing water increases the potential for breeding higher numbers of mosquitos the primary vector for disease transmission. Climate change and its associated influences. Extreme weather increases the risk of flash flooding, extreme heat and/or cold and significant wind events potentially create significant safety risks if not fully mitigated. Surrounding land use could impact the Verde River water flow impacting recreational use of the river, including rafting, tubing and fishing. Soil contamination at Tavasci Marsh may have the potential of exposing visitors to heavy metals and chemicals that may be detrimental to human health. Increasing light pollution threatens night sky interpretative programs. Opportunities Continue ongoing partnerships to enhance recreational opportunities such as: Clarkdale working though Rivers, Trails and Conservation Assistance program to create a trail system that connects the community to the monument, Verde Front (coalition of all communities within the Verde Valley). Encourage expanded cultural demonstrations and activities. Pursue potential partnerships with the Verde Valley railroad (scenic tours), Dead Horse State Park, and Jerome State Park to share information and resources, events, education opportunities, and trail maintenance. Expand interpretative and educational tools to communicate the connections between climate change, recreational values, natural and cultural resources, scenic views, night skies, air quality, human health, and other associated resources. Pursue partnership with the American Conservation Experience (out of Flagstaff) and Student Conservation Association for trail maintenance and trail building. Partnerships with the Astro				
Existing Data and Plans Related to the OIRV	 Comprehensive interpretive plan. LiDAR GIS data for trail design. Watershed management report (US Geological Survey). 2010 MOCA, TUZI general management plan and environmental assessment. 2014 Superintendent's Compendium. 				
Data and/or GIS Needs	GIS data: flood plain information and management zones (from general management plan).				
Planning Needs	 Trail management plan. Update comprehensive interpretive plan. Visitor use management plan. 				

Other Important Resource or Value	Recreational Values					
	Laws, Executive Orders, and Regulations That Apply to the OIRV					
	American Indian Religious Freedom Act					
	Executive Order 11593, "Protection and Enhancement of Cultural Resources"					
	Executive Order 13007, "Sacred Sites"					
	Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments"					
	• The Clean Air Act (42 USC 7401 et seq.) gives federal land managers the responsibility for protecting air quality and related values, including visibility, plants, animals, soils, water quality, cultural resources, and public health, from adverse air pollution impacts					
Laws, Executive	Secretarial Order 3289, "Addressing the Impacts of Climate Change of America's Water, Land, and Other Natural and Cultural Resources"					
Orders, and Regulations That	National Parks Air Tour Management Act of 2000					
Apply to the OIRV,	NPS Policy-level Guidance (NPS <i>Management Policies 2006</i> and Director's Orders)					
and NPS Policy-level Guidance	DOI Policy on Consultation with Indian Tribes (2012)					
Guidance	Director's Order 47: Soundscape Preservation and Noise Management					
	NPS Management Policies 2006 (chapter 7) "Interpretation and Education"					
	NPS Management Policies 2006 (chapter 8) "Use of the Parks"					
	NPS Management Policies 2006 (chapter 9) "Park Facilities"					
	NPS Management Policies 2006 (chapter 10) "Commercial Visitor Services"					
	Director's Order 6: Interpretation and Education					
	Director's Order 42: Accessibility for Visitors with Disabilities in National Park Service Programs and Services					
	NPS Transportation Planning Guidebook					



Identification of Key Issues and Associated Planning and Data Needs

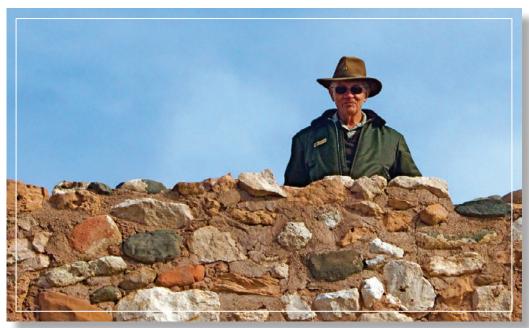
This section considers key issues to be addressed in planning and management and therefore takes a broader view over the primary focus of part 1. A key issue focuses on a question that is important for a park. Key issues often raise questions regarding park purpose and significance and fundamental and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

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

Preservation and study of key resources – The necessary condition assessments, preservation, and study of key monument resources cannot be fully completed due to lack of funding and staffing. These conditions create an ever expanding need to maintain and foster new park partnerships. Establishing a partnership plan will help direct efforts to secure additional funding to support preservation efforts, public outreach, oral history activities, and educational and interpretive programs.

Overflights activity – The park has observed an increase in overflights, especially scenic air tour and use of unmanned aerial systems (drones) in the surrounding area. The park will work proactively to gain a better understanding of baseline conditions for natural sounds, potential impacts of overflights on park resources, and Federal Aviation Administration codes and regulations to help develop options to protect park resources. Careful engagement with tribes, local communities, and stakeholders would be crucial to the success of this effort. An overflight management plan would support this. Tuzigoot is currently exempt from air tour management planning per an NPS Intermountain Region response to the field memo dated November 2014. One operator has reported interim operation authority, but has never reported any air tours over the park unit. In order to develop and air tour management plan or voluntary agreement the exemption would need to be withdrawn.

Soil contamination at Tavasci Marsh – Recent efforts to initiate restoration of the marsh revealed a serious soil contamination issue that will require extensive revisions to Phelps Dodge's current restoration plan. The park is working with the US Geological Survey, US Fish and Wildlife Service, to develop a contamination mitigation plan.



Declining visitation – With a national park unit located only 25 miles from a major interstate highway, the pattern of low visitation at the monument is disappointing. Given this concern, monument staff would like to increase their public outreach efforts and explore opportunities with social media and other methods to reach potential visitors. Assistance is needed to help guide NPS efforts to market the park and identify the demographics of potential visitors through a marketing plan.

Climate change –The average annual temperature for the region that includes Tuzigoot National Monument has increased 3.2°F over the past century. Average annual temperature for the region is projected to increase between 5°F and 9°F by 2100, with a decrease in average annual precipitation between -2% to a slight increase of +1%. A warmer and drier landscape will mean a decrease in water resources. Water is important for sustaining the existing ecological systems and cultural landscape at the monument. Water is important for sustaining park operations, including visitor services. A warmer and drier climate may accelerate weathering of pueblo remnants, historic visitor center/museum and trails, and other park infrastructure. A warming climate could change visitation patterns and interests and invite the need for innovations to accommodate these changes (e.g., installation of shade structures, education on the changing climate and sustainability, and alternative water supplies). A climate change vulnerability assessment would help the park to develop plausible science-based scenarios that would inform strategies and adaptive management activities that would allow the park to mitigate or adjust to climate realities.

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 Process is Needed			
Related to an FRV or OIRV?	Planning Needs	Priority (H, M, L)	Notes
FRV/OIRV	Resource stewardship strategy	Н	This would develop strategies linking qualitative statements of desired conditions for resources and resource condition-dependent visitor experiences. The strategy would focus on identifying and tracking indicators of desired resource conditions, recommend strategies to achieve and maintain desired conditions over time, and assess and update these periodically based on new information and results of completed activities. This strategy would also evaluate an approach for investing both human and fiscal resources along with accountability toward progress. This would also aid in identifying and prioritizing new research topics.
FRV/OIRV	Visitor use management plan	Н	A visitor use management plan would help the monument understand how visitors are using the resources and identify ways of better managing some of those activities. It would also work to identify possible new visitor experiences and activities.
FRV	Preservation plan	М	This plan would document prior preservation treatment and stabilization of the hilltop pueblo, along with identifying appropriate treatment for past efforts and establishing new needs. It would help to focus fiscal resources and prioritize areas for treatment.
FRV/OIRV	Climate change scenario plan assessment and adaptation strategy	М	These would provide reliable data and planning to address the uncertainty associated with climate change. Data are needed in preparation for this plan and for the resource stewardship strategy. Scenario planning explores a range of plausible climate futures, based on credible science, and identifies the associated impacts and management implications. The information is also integrated into other park planning documents as well. The adaptation strategy is an ongoing process.
Key Issue	Overflights management plan (air tour)	М	The National Parks Air Tour Management Act of 2000 requires the park, in consultation with the Federal Aviation Administration (FAA), to establish an air tour management plan whenever a person applies for the authority to conduct commercial air tour operations over the park. Amendments enacted in 2012 allow voluntary agreements between the NPS and FAA, and commercial air tour operators.
FRV	Cultural resource management plan	М	A cultural resource management plan would integrate a variety of plans and studies to enhance understanding and treatment of the park's historic properties and cultural resources.
FRV/OIRV	Trail management plan	М	Access to new areas within the monument, primarily Tavasci Marsh, would allow for a greater variety of visitor experiences and enhance educational and interpretive opportunities. The plan would develop alternatives to move visitors through safely and maximize those opportunities while optimizing resource protection.

Planning Needs - Where a Decision Process is Needed			
Related to an FRV or OIRV?	Planning Needs	Priority (H, M, L)	Notes
FRV/OIRV	Update comprehensive interpretive plan	М	The current interpretive plan is outdated and does not take into consideration the new areas added to the park. Nor is it useful for contemporary interpretive programming or valid as a potential funding tool. A new plan would bring the park to contemporary standards and take full advantage of the foundation document effort.
OIRV	Development plan for a sheltered area for ranger talks and cultural demonstrations	М	The park has identified in the long-range interpretive plan and general management plan the ongoing need for a sheltered picnic and public gathering space in an area within proximity to the visitor center to provide interpretive programs and American Indian activities. Currently drafted and submitted in PMIS through the Recreation Fee program.
FRV/OIRV	Accessibility conceptual site plan	М	The park has identified a need to develop an accessible picnic area with shade for recreational use and interpretive programs along with full evaluation of the park's access and media for all audiences.
OIRV	Marketing plan	L	This plan would develop vision, goals and objectives, and strategies for promoting the resources of the park to different and diverse audiences along with evaluation techniques to measure success.
FRV	Partnership plan	L	This plan would clarify laws and responsibilities and set the groundwork for agreements that allow the structuring of relationship with partners in a way that benefits the National Park Service and partner groups or organizations.



Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV or OIRV?	Data and GIS Needs	Priority (H, M, L)	Notes
FRV	Further contaminant research about the scope and extent of the problem (Tavasci Marsh); Tavasci Marsh contamination mitigation plan	Н	The monument has completed an environmental assessment for restoration of Tavasci Marsh but cannot carry out the restoration due to possible contaminant disturbance. More information is needed regarding the scope of contamination and mitigation strategy, as is more data regarding long- and short-term impacts on wildlife.
FRV	Climate change vulnerability assessment	M	Collection of climate data, for example, temperature and precipitation.
FRV	Accessibility evaluation	М	This data would inform opportunities to improve existing facility access and programmatic access along with critical information to inform accessibility conceptual site planning.
FRV	Complete cultural landscape inventory, including Tavasci Marsh	М	A completed cultural landscape inventory, including the new acquisition of Tavasci Marsh. These data are needed in order to complete the cultural landscape report.
FRV	Complete cultural landscape report	М	A completed cultural landscape report is needed because the park has not currently inventoried for cultural landscapes. These data are required in order to integrate with the cultural resource management plan.
FRV	Improve FMSS data and LCS data (parkwide)	М	Keeping these data updated and complete is critical to allocation of fiscal resources and time.
FRV	Data on hilltop pueblo stabilization methodology	М	Understanding past preservation efforts and the processes and materials used would help inform current preservation efforts and future preservation planning needs.
OIRV	GIS data: flood plain information and management zones (from general management plan)	L	This would be a valuable addition to the GIS database and would be used in a variety of efforts including fire management and related cultural and natural resource management. This would also help with visitor use and public safety.
FRV	Establish baseline conditions for natural sounds	L	This is needed information in order to monitor trends, desired conditions, and indicators, and ties into resource stewardship strategies.
FRV	Visual resource inventory	L	This would help to establish a baseline in order to be able to determine the extent of impacts or changes to the landscape.
FRV/OIRV	Threatened and endangered species survey	L	Continued survey of threatened and endangered species and numbers, including the Yuma Clapper Rail and other marsh birds.
FRV/OIRV	Visitor use survey update	L	The park requires updated information regarding visitor use and demographics. This information could feed multiple efforts.

Part 3: Contributors

Tuzigoot National Monument

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Wendell Bailey, Chief of Maintenance

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Appendixes

Appendix A: Presidential Proclamation and Legislative Acts for Tuzigoot National Monument

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PROCLAMATIONS-JULY 25, 1939

[53 STAT.

NATIONAL AVIATION DAY

July 25, 1939 [No. 2343]

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

National Aviation Day. Preamble.

WHEREAS the development of aeronautics in recent years has been so rapid that aviation in its many phases has come to exert a profound influence on the course of events throughout the world; and

WHEREAS American initiative and industry have contributed greatly to this development and should be encouraged to continue such contribution in order that the United States may retain its outstanding position in the field of aeronautics; and

Ante, p. 739.

WHEREAS Public Resolution No. 14, 76th Congress, approved

May 11, 1939 (53 Stat. 739), provides:

Statutory authorization.

"That the President of the United States is authorized to designate August 19 of each year as National Aviation Day, and to issue a proclamation calling upon officials of the Government to display the flag of the United States on all Government buildings on that day, and inviting the people of the United States to observe the day with appropriate exercises to further and stimulate interest in aviation in the United States.":

August 19, 1939, and August 19 of each succeeding year designated as.

NOW, THEREFORE, I, FRANKLIN D. ROOSEVELT, President of the United States of America, do hereby designate August 19, 1939, and August 19 of each succeeding year as National Aviation Day, and call upon officials of the Government to display the flag of the United States on all Government buildings on that day, and invite the people of the United States to observe the day with appropriate exercises to further and stimulate interest in aviation in this country.

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

DONE at the City of Washington this 25" day of July in the year

DONE at the City of Washington this 25" day of July in the year of our Lord nineteen hundred and thirty-nine, and of the [SEAL] Independence of the United States of America the one hundred and sixty-fourth.

FRANKLIN D ROOSEVELT

By the President:
CORDELL HULL
Secretary of State.

TUZIGOOT NATIONAL MONUMENT—ARIZONA

July 25, 1939 [No. 2344] BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

Tuzigoot National Monument, Ariz. Preamble. WHEREAS certain Government-owned lands in the State of Arizona have situated thereon historic and prehistoric structures and other objects of historic or scientific interest; and

WHEREAS it appears it would be in the public interest to reserve such lands as a national monument to be known as the Tuzigoot

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, c. 3060, 34 Stat. 225 (U. S. C., title 16, sec. 431), do proclaim that, subject to all valid existing rights, the following-described lands in the State of

34 Stat. 225. 16 U. S. C. § 431.

AREA: TUZIGOOT NATIONAL MONUMENT, ARIZONA

AUTHORIZATION

Proclamation #2344, July 25, 1939 (53 Stat. 2548)

*ACQUISITION AUTHORITY

*Act of November 10, 1978, P.L. 95-625 (92 Stat. 3475) authorizes acquisition of lands in the revised boundary by donation, purchase with donated or appropriated funds, exchange, or otherwise and subject to such terms, reservations, conditions applied to the acquired lands as the Secretary may deem satisfactory.

ESTABLISHED

July 25, 1939

*BOUNDARY REVISIONS

*Act of November 10, 1978, P.L. 95-625 (92 Stat. 3475) authorizes addition of approximately 791 acres.

*ACREAGE LIMITATIONS

Proclamation #2344, July 25, 1939, authorizes approximately 42.665 acres.

*Act of November 10, 1978, P.L. 95-625 (92 Stat. 3475) cites area as generally depicted on the map entitled "Master Proposal, Tuzigoot National Monument," numbered 378-30,000D, and dated January, 1973.

*STATUTORY CEILING FOR LAND ACQUISITION

*Act of November 10, 1978, P.L. 95-625 (92 Stat. 3475) authorizes the appropriation of \$1,350,000 for acquisition of lands in the area added.

*AREA NUMBER

MIS - 8700 PFM - 8700

*Denotes revised sections.

3/8/79

Appendix B: Traditionally Associated Tribes

Tribal Name	Organization
Colorado River Indian Tribes of the Colorado River Indian Reservation, Arizona and California	Colorado River Tribal Council
Fort McDowell Yavapai Nation, Arizona	Fort McDowell Yavapai Tribal Council
Fort Mojave Indian Tribe of Arizona, California, and Nevada	Fort Mojave Indian Tribal Council
Gila River Indian Community of the Gila River Indian Reservation, AZ	Gila River Indian Community Tribal Council
Havasupai Tribe of the Havasupai Reservation, AZ	Havasupai Tribal Council
Hopi Tribe of Arizona	Hopi Tribal Council
Hualapai Indian Tribe of the Hualapai Indian Reservation, AZ	Hualapai Tribal Council
Salt River Pima-Maricopa Indian Community of the Salt River Reservation, AZ	Salt River Pima-Maricopa Indian Community Council
San Carlos Apache Tribe of the San Carlos Reservation, AZ	San Carlos Tribal Council
Tohono O'odham Nation of Arizona	Tohono O'Odham Tribal Council
Tonto Apache Tribe of Arizona	Tonto Apache Tribal Council
Ak Chin Indian Community of the Maricopa (Ak Chin) Indian Reservation, AZ	Ak-Chin Indian Community Tribal Council
White Mountain Apache Tribe of the Fort Apache Reservation, AZ	White Mountain Apache Tribal Council
Yavapai-Apache Nation of the Camp Verde Indian Reservation, AZ	Yavapai-Apache Tribal Council
Yavapai-Prescott Indian Tribe	Yavapai-Prescott Tribal Board Of Directors
Zuni Tribe of the Zuni Reservation, NM	Pueblo of Zuni Tribal Council



Intermountain Region Foundation Document Recommendation Tuzigoot National Monument

February 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.

RECOMMENDED

Dorothy FireCloud, Park Superintendent, Tuzigoot National Monument

Date

02-12-2016

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.

TUZI 378/129846 February 2016

Foundation Document • Tuzigoot National Monument

