



General Management Plan and Finding of No Significant Impact

July 2024



This page intentionally blank.

ABSTRACT

The Tule Springs Fossil Beds National Monument was the 405th unit of the national park system that was established through the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law [Pub. L.] 11-291, 128 Sta. 3861, Sec. 3092) and the transfer of 22,650 acres of land from the Bureau of Land Management to the National Park Service.

The purpose of this general management plan (“the plan” or “plan”) is to articulate a vision and overall management philosophy for the Tule Springs Fossil Beds unit that will inform long-term decision-making by current and future managers.

The Tule Springs Fossil Beds National Monument General Management Plan and Environmental Assessment (GMP/EA) was released for public review in February 2024. It was an integrated document that included two possible management strategies or “alternatives”: an action alternative (alternative A) and a “no action” alternative (alternative B). This general management plan is alternative A, as described in the GMP/EA. All references to appendixes are located in the GMP/EA February 2024 document.

This general management plan addresses resource protection and preservation, education and interpretation, visitor use and facilities, land protection and boundaries, and long-term operations and management and responds to issues identified during a preliminary planning process. The plan establishes management zones to guide use and management activities, and the park’s organizational structure will reflect the scientific, resource protection, and operational needs of the park and support an interdisciplinary staff with varied experience, education, and skillsets that highlight and showcase the unique paleontological and other resources within the park’s boundary. The plan also provides guidance for fostering consultation and coordination with governmental and nongovernmental stakeholders to reduce redundancy and leverage partnerships to create a living laboratory for the public that is of both local and global significance.

Tule Springs Fossil Beds National Monument will help preserve a dynamic perspective of resources that are part of a changing ecosystem spanning the Late Pleistocene, including the Last Glacial Maximum, which was a period of dramatic climatic and palaeoecological change. Park staff will emphasize collaboration with conservation partners and actively field test new practices and methods for conserving sensitive natural and cultural resources. Science is one part of the park’s visitor experiences, and this hands-on approach to experiencing resources will demonstrate to visitors the need to protect these rare resources. The park will offer formalized science and education programming, while also offering other traditional NPS programming to the public so that visitors could experience the park in a way that best suits their needs and preferences. Under this plan, a boundary adjustment will be considered to include additional property, if acquired.

This plan articulates the overarching management vision for the park and addresses the statutory requirements for general management planning at a programmatic level.

The plan does not describe how particular programs or projects should be implemented but rather provides direction for the park that supports the National Park Service's valuable relationships with their legislated and community partners.

The National Park Service must comply with laws and policies to protect environmental quality and resources, preserve cultural resources, and provide public services. Applicable laws and policies related to resource management include the National Historic Preservation Act of 1966, as amended; the Archaeological Resources Protection Act of 1979; the Native American Graves Protection and Repatriation Act of 1990; the Clean Water Act of 1972; the Endangered Species Act of 1973; and Executive Order 11990, "Protection of Wetlands." Laws and policies related to public services and access include the Americans with Disabilities Act of 1990, the Architectural Barriers Act Accessibility Act Standards, the Final Outdoor Developed Area Guidelines, and the Rehabilitation Act of 1973.

CONTENTS

Abstract.....	i
Part I: General Management Plan	
Chapter 1: Introduction to the Plan.....	1
Background and Overview.....	1
Park Description.....	1
Tribal Engagement Guiding Principles.....	2
Purpose and Need for the General Management Plan.....	3
Rationale for General Management Planning	3
Tule Springs National Monument General Management Plan.....	4
Scope.....	5
Planning Issues and Opportunities	5
Resource Protection	5
Experiencing the Park	6
Responding to Climate Change and a Dynamic Environment.....	7
Partnerships.....	8
How Tule Springs Fossil Beds National Monument Is Addressing the Four Statutory GMP Requirements.....	9
Resource Preservation.....	9
Types and General Intensities of Development.....	10
Visitor Capacity.....	10
External Boundary Modifications.....	10
Chapter 2: The Plan.....	13
Introduction	13
Mitigation Measures and Best Management Practices.....	13
Management Vision.....	14
Management Zones.....	14
Desired Conditions.....	16
Strategies to Achieve Desired Conditions.....	26
Parkwide Management Actions	26
Aliante Loop and Durango Loop Trails.....	30
Visitor Use Management Elements.....	31

Visitor Capacity.....	32
Consideration of Boundary Adjustments.....	33
Boundary Modifications.....	34

Part II: Finding of No Significant Impact

Finding of No Significant Impact	FONSI 1
Attachment A: Errata Indicating Text Changes to the General Management Plan and Environmental Assessment.....	A-1
Attachment B: Response to Substantive Public Comments.....	B-1
Attachment C: A Non-Impairment Determination.....	C-1
Attachment D: Biological Assessment Concurrence Letter.....	D-1

FIGURES

Figure 1. Map of Tule Springs Fossil Beds National Monument	2
Figure 2. Proposed Management Zones for Tule Springs Fossil Beds National Monument.....	15
Figure 3. Potential Boundary Amendments for Tule Springs Fossil Beds National Monument.....	35

TABLES

Table 1. Parkwide Desired Conditions	16
Table 2. Management Zone Desired Conditions.....	20

Part I: General Management Plan



This page intentionally blank.

Chapter One: Introduction to the Plan

1



This page intentionally blank.

CHAPTER 1: INTRODUCTION TO THE PLAN

BACKGROUND AND OVERVIEW

Park Description

Tule Springs Fossil Beds National Monument (the park) was established as the 405th unit of the national park system on December 19, 2014, through the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 (Pub. L. 113-291, 128 Stat. 3861, Sec. 3092) and the transfer of 22,650 acres of land from the Bureau of Land Management (BLM) to the National Park Service (NPS).

Within the geology of the park, ancient deposits preserve one of the largest and most diverse late Pleistocene vertebrate fossil assemblages in the southern Great Basin and Mojave Deserts. The Tule Springs local fauna includes large mammals and other vertebrates that dates from approximately 100,000 to 12,500 years ago. Invertebrates, plant microfossils, and pollen also are present in these deposits. The extensive and complex paleospring deposits of the park record vast desert wetland ecosystems that covered much of the Las Vegas Valley during the late Pleistocene. The depositional history of these marsh, wet meadow, and flowing stream environments provides the baseline climate record that serves as a standard of comparison for similar deposits throughout the American Southwest. The park preserves thousands of fossils that help tell the story of an ever-changing ecosystem. Some of the animals of the ancient Tule Springs are still alive today, including the coyote, jackrabbit, and aquatic snails.

The park sits in the upper Las Vegas Wash (Figure 1). The park is a key open space to the neighboring communities in the Las Vegas area and is made up of two distinct areas termed the south unit and north unit. The south unit of the park is an easy access point for neighboring communities and provides important open space immediately adjacent to a densely populated urban area. The north unit is situated farther from the Las Vegas developed areas, and a large portion of it has less visitation than the south unit.

Neighbors of the park include the cities of Las Vegas and North Las Vegas, Clark County, Tribal lands of the Las Vegas Paiute Tribe, federal lands managed by the Bureau of Land Management and the US Fish and Wildlife Service, lands owned by the State of Nevada, and Nellis and Creech Air Force Bases, which use the airspace over the park for training missions.

At an elevation between 2,000 and 3,000 feet, the park landscape is situated on gently sloping bajadas (alluvial slopes) that occur along the front of the Sheep Mountain Range and Las Vegas Range. Receiving less than 5 inches of precipitation per year, the sandy soils support a desert scrubland of widely spaced creosote and white bursage shrubs and various cacti, as well as saltbush scrub in the park’s north unit.

Human use of the Las Vegas Valley stretches back more than 10,000 years (NPS 2019). The area’s natural springs and resources were vital to the Southern Paiute, other Native American Tribes, and eventually, European Americans who traveled and resided in the area. Archeological resources found throughout the park are representative of the diverse cultural

heritage of the region's inhabitants and present a valuable record of human use and adaptation to changing environmental conditions throughout the area. Many of these sites and the landscapes upon which they reside hold enduring cultural and spiritual significance to Native American Tribes.

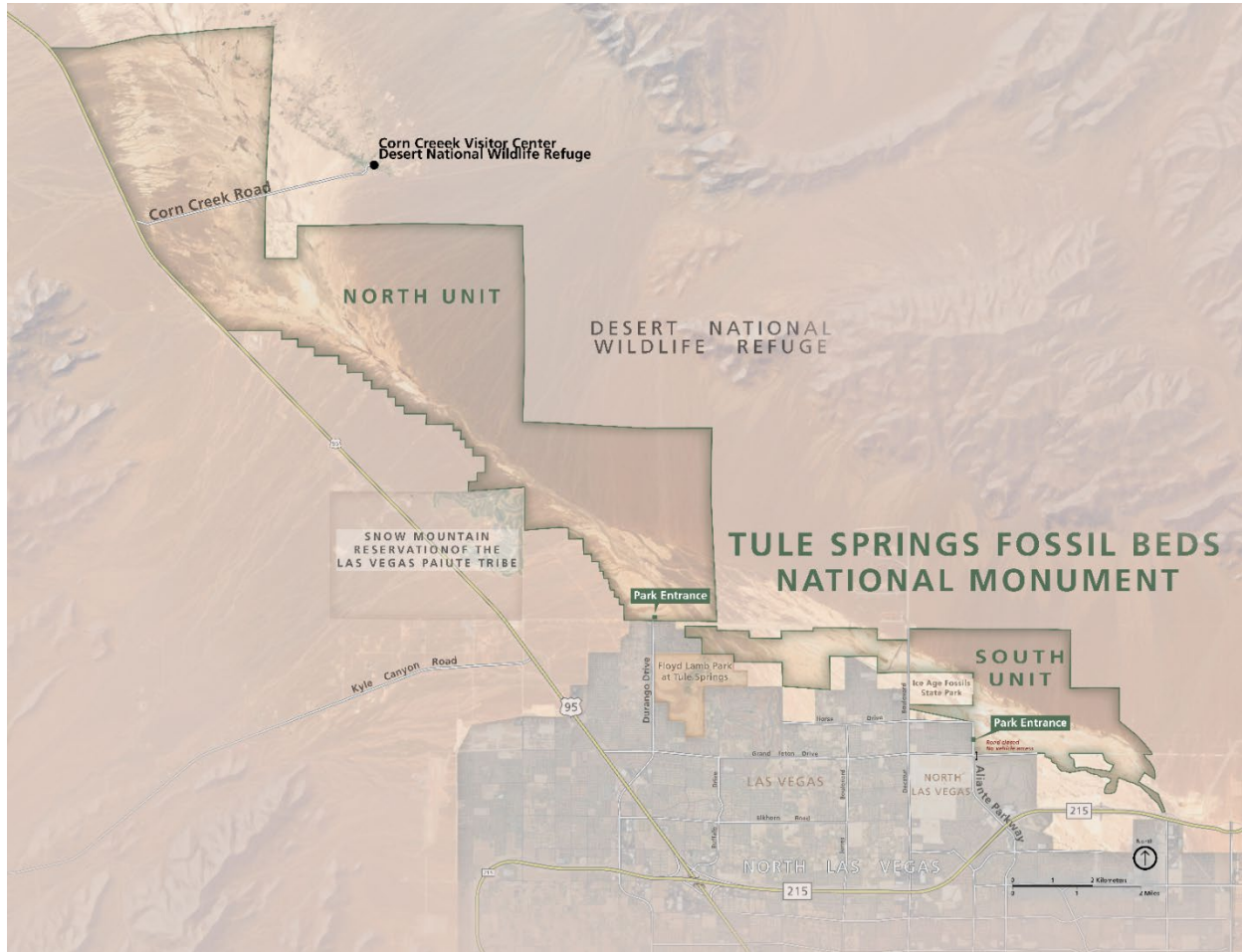


FIGURE 1. MAP OF TULE SPRINGS FOSSIL BEDS NATIONAL MONUMENT

Tribal Engagement Guiding Principles

To understand the landscapes within Tule Springs Fossil Beds National Monument, one must consider the insights of culturally affiliated Tribal Nations about how the land is considered alive with feelings and purpose since the beginning of time when the world was new. Tribal representatives of Nuwu/Nuwuvi (Southern Paiute/Chemehuevi) Tribal Nations (from the federally recognized Las Vegas Paiute Tribe) met with NPS, Portland State University, and Southern Nevada Conservancy staff in February 2023 to discuss proposed Nuwu/Nuwuvi engagements with Tule Springs Fossil Beds National Monument at this early stage in the park's establishment. The following preliminary guiding principles are based on Tribal perspectives obtained during the February 2023 workshop. They will serve as a basis for future discussions between the Nuwu/Nuwuvi and the National Park Service, including the discussions and decision points outlined in this general management plan (GMP):

- The land at Tule Springs Fossil Beds National Monument and everything in it is alive with feelings and a purpose. Nuwu/Nuwuvi Tribal Nations in Nevada, Utah, Arizona, and California are human relatives of the land since the beginning of time when the world was new. For Nuwu/Nuwuvi, there is no division between natural and cultural resources. The land requires Nuwu/Nuwuvi interactions to remain in balance, which was mandated by the Creator.
- The fossils and geologic features at Tule Springs Fossil Beds National Monument represent resources that Nuwu/Nuwuvi ancestors interacted with thousands of years ago that continue into the present and future.
- The land at Tule Springs Fossil Beds National Monument requires healing. Collaboration between Nuwu/Nuwuvi, the National Park Service, and other partners is critical to the healing process. Healing needs to be rooted in Indigenous knowledge and braided with other ways of knowing, such as western science, when required.
- Tribal-NPS engagements need to be proactive and not reactive. Rapport and trust can be cultivated through mutual respect, transparency, and open communication. Sharing information about Indigenous relationships with the park landscape requires rapport and trust built over time. New NPS staff and the next generation of Nuwu/Nuwuvi Tribal leaders and representatives need to be folded into the Tribal program accordingly to avoid losing momentum in the collaborative process.
- Progressive and adaptive information sharing, applied ethnographic research, resource co-stewardship/management, and public education are paramount to healing the land and sustaining meaningful Tribal engagements.

PURPOSE AND NEED FOR THE GENERAL MANAGEMENT PLAN

Rationale for General Management Planning

The National Parks and Recreation Act of 1978 and NPS *Management Policies 2006* require each unit of the national park system to have a general management plan. Director's Order 2: *Park Planning* (2021) specifies that a general management plan refers to (1) a stand-alone general management plan or (2) the planning documents in a park's planning portfolio that collectively meet the statutory requirements for a general management plan. A general management plan is needed to address legal and policy requirements and fulfill park planning priorities for resource protection, access, use, and development identified in:

- Pub. L. 113-291, 128 Stat. 3861, Sec. 3092, which established Tule Springs Fossil Beds National Monument; and
- 54 United States Code (U.S.C.) 100502 (general management plans). The statutory requirements, as described in the National Parks and Recreation Act, are the following:

- measures for resource preservation
- indications of the types and general intensities of development (visitor circulation and transportation patterns, systems, and modes), including general locations, timing of implementation, and anticipated costs
- identification and implementation of commitments for visitor carrying capacities
- indications of potential boundary modifications and the reasons for the modifications

For additional information regarding NPS general management planning and other applicable laws and policies, see appendix B.

Tule Springs National Monument General Management Plan

The Tule Springs Fossil Beds National Monument General Management Plan builds on park legislation, laws, and policies and on the park's foundation document to develop a management vision for the park. The general management plan provides needed guidance for addressing parkwide issues and opportunities in the context of the park's purpose, significance, and special mandates, including cultural and natural resource preservation, facilities and infrastructure planning, climate change response, visitor use and experience, and partnerships.

Through civic engagement with the public, the plan provides a management vision based on a shared understanding of the conditions and level of development that will best achieve the park's purpose and conserve its fundamental resources and values. A general management plan is comprehensive and parkwide, addressing critical issues; for example, connected conservation beyond park boundaries, climate change adaptation and sustainability, socioeconomic environment, and equity and inclusion.

The purposes of this general management plan for Tule Springs Fossil Beds National Monument are as follows:

- Create a vision and clear direction for the future management of the park.
- Provide management guidance for the park's fundamental resources and values, including paleontological resources.
- Provide guidance for supporting and managing use of the park.
- Establish desired conditions and management zones.
- Establish priorities for allocating resources.
- Set and achieve goals for management to foster cooperative partnerships.
- Comply with public law and policies.

SCOPE

This plan articulates the overarching management vision for the park and addresses the statutory requirements for general management planning at a programmatic level. The plan does not describe how particular programs or projects should be implemented but rather provides direction for the park that supports the National Park Service's valuable relationships with their legislated and community partners. This plan provides high-level guidance for the management of the park's natural, cultural, geological, and paleontological resources. The plan supports partnerships and co-stewardship to achieve and maintain desired conditions for all resources and visitor experiences. The plan is comprehensive in nature and provides broad strategies for addressing issues and opportunities in the context of the park's purpose, significance, and special mandates. The scope of the plan includes the entire park for zoning purposes. Where management differences between the north and south unit exist, those differences are explained.

The approval of this plan does not guarantee that the funding and staffing needed to implement all elements of the plan will be forthcoming. The implementation of the approved general management plan will depend on future funding, and it could be affected by factors such as changes in NPS staffing, visitor use patterns, and unanticipated environmental changes. Full implementation could occur many years into the future.

More detailed planning, environmental compliance, consultations, and studies will be completed, as appropriate, before certain actions in the plan will be carried out. Future program and implementation plans that describe specific park management actions will be derived from the desired conditions and long-term goals set forth in this plan.

PLANNING ISSUES AND OPPORTUNITIES

In 2019, preliminary project planning identified key issues with input from NPS staff; the Tule Springs National Monument Advisory Council; representatives from county, state, and city agencies and various organizations; and the public. It was determined that these issues would best be addressed with long-term, comprehensive guidance and management strategies. In 2022, the National Park Service invited park stakeholders and the public to provide comments, concerns, and ideas about Tule Springs National Monument at public meetings, through planning newsletters, and through the National Park Service's online public comment platform. Over the course of this comprehensive planning effort, the following issues emerged: the preservation of cultural, natural, archeological, paleontological resources; experiencing the park; responding to climate change and a dynamic environment; and partnerships. These issues are described in more detail below.

Resource Protection

The park's fundamental resources include, but are not limited to, Pleistocene fossils; scientific research; cultural resources; museum collections; the paleoecosystem, geologic processes, and features; and public understanding and education.

Currently, research into the full extent and conditions of these tangible fundamental resources and values within the park boundaries is still in progress. The park may need to update its approach to resource management as new information becomes available. Previous and future surveys and studies completed before and after this general management plan will include documentation and specific guidance for resource management, visitor experience programming, and facility needs, as appropriate. Completed studies and assessments include the completion of vertebrate paleontology, stratigraphy, and paleohydrology (field guide); biological inventories (birds, bats, and large mammals); baseline conditions inventories (e.g., soundscape), and native and invasive plant inventories, and a climate change exposure report. Other surveys, assessments, and studies are ongoing and include the ethnographic overview and assessment; a climate change exposure report (NPS Climate Change Response Program); a scope of collections statement to define the scope of the park's museum collection holdings; an environmental remediation plan following the completion of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) site inspection; and continued wildlife inventories.

The fossil resources at the park the primary purpose for the establishment of the park. Research conducted at Tule Springs Fossil Beds National Monument has been collaborative, involving scientists from other agencies and institutions across the country. More than 100 years of research and fossil collection prior to national monument designation have generated widely dispersed paleontological collections. Additionally, there are currently over 700 known fossil sites that are preserved in place at the park within soft, unlithified sediments. The upper Las Vegas Wash, which courses through the park, has the greatest potential for disturbances to these fundamental archeological and paleontological resources, such as damage or loss from weathering, erosion, and flash floods.

The park is located at a wildland-urban interface and near US Highway 95, making it easily accessible to the public. Before Tule Springs Fossil Beds became a unit of the national park system, the Bureau of Land Management authorized activities in the area, such as the use of firearms and off-highway vehicles and the collection of rocks and invertebrate fossils. These activities are not permitted under NPS law and policy; regardless, they continue to occur and have caused resource and environmental degradation. Additionally, park staff have documented incidents of illegal trash dumping and vandalism or theft of NPS property and resources. In some areas of the park, soils are contaminated with lead from accumulated bullets and expended shells/casings, with mercury from improperly disposed electronics and a variety of other pollutants associated with trash dumping. While remediation of 50 years' worth of trash dumping and ammunition debris is a long-term process, managing visitor issues and establishing new expectations for public use of these areas are critical resource protection steps.

Experiencing the Park

Park managers need comprehensive guidance on providing for and managing visitor access and opportunities, particularly for connecting visitors with the park's fundamental resources and values, as outlined in the foundation document. This is particularly important given the park's proximity to a major metropolitan population of nearly 2.3 million people (Las Vegas

metropolitan statistical area; US Census American Community Survey Data 2020). The wildland-urban interface at Tule Springs Fossil Beds National Monument presents numerous opportunities and challenges to balance resource protection and conservation with meaningful educational and recreation opportunities. The abundance of unique natural, cultural, archeological, and paleontological resources could provide a wealth of experienced-based learning and stewardship opportunities in the future as the park develops new educational programs, partnerships, and facilities to support visitor learning. A need also exists to help current and potential visitors better understand the transition of the park lands from former BLM management practices to those of a national park system unit. Further, as noted above, public neighboring lands are managed with differing missions, objectives, laws, and policies. Without clear boundaries and sufficient on-site information, the distinctions between management regulations are difficult for the public to understand. Finally, while park staff have acquired some data to understand patterns of visitor use, a need exists to further understand the number of visitors and their destinations within the park to inform future management.

Responding to Climate Change and a Dynamic Environment

Tule Springs Fossil Beds National Monument provides a record of ecological change in response to shifts in global climate that spans hundreds of thousands of years. The National Park Service recognizes the importance of addressing the effects of current and future climate change in its planning and operations, an approach known as climate adaptation. Adaptation is a form of risk management that seeks to reduce climate-related vulnerabilities or take advantage of potential benefits. The NPS Climate Change Response Program prepared a climate futures summary for the park (NPS in prep.) examining plausible future climate conditions, including more than one climate scenario to help the park address uncertainty in how climate change might play out and develop forward-looking goals that account for changing conditions.

Tule Springs Fossil Beds National Monument has already experienced warming temperatures. The average annual temperature has increased over 2°F since 1900, and the rate of warming has increased dramatically since 1970. Precipitation has declined since 1970, and while annual precipitation totals remain highly variable, years with higher precipitation totals are occurring less frequently.

Over the coming years (2025–2055), climate projections for the park indicate that average annual temperature will increase between +1.8°F and +5.3°F compared to historical (1979–2012) annual averages. Extreme temperatures are expected to increase at the park, with a 243% increase in days exceeding the dangerous heat index threshold (when heat index >105°F) under a modest warming scenario and a 535% increase of those incidents under a more extreme warming scenario.

Climate projections indicate a range of annual precipitation change from -0.3 inches (-6%) to +1.5 inches (+29%) compared to historical (1979–2012) annual averages. However, extreme precipitation is expected to increase. Under a wetter climate scenario, the frequency of extreme rainfall events (where the park receives more than 1.5 inches of rain in a day) will increase, as will the amount of rain that falls during such events. Under a drier climate

scenario, the frequency of extreme rainfall events would decrease; however, more rain would fall during those events than what the park experienced historically.

The combination of increasing temperatures and changes in precipitation patterns has implications for drought conditions. Drought frequency, severity, and duration would all remain similar to historical conditions under a wetter climate scenario. However, under a drier scenario, drought conditions will occur more often, be more intense, and last longer.

Climate change will likely increase the survivability and recruitment of certain invasive species as ecosystems and habitat conditions change. Invasive species compete with and threaten native plants and wildlife, whose suitable habitat has already become degraded and condensed from urban development.

Climate change adaptation will play an increasingly important role in park resource management. Both historical trends and future projections suggest that park managers should prepare for increases in temperature, extreme precipitation events, and extreme heat and drought. These changes will compound many of the other issues described in this section and have direct implications on resource management, recreational facilities, park operations, and visitor use and experience. Some impacts are already occurring, and others are expected within the time frame of this plan. For example, temperature shocks may cause significant damage to future buildings and paved surfaces such as sidewalks. Extreme heat may impact visitor and staff safety as well. Much of the park sits in a wash that is prone to flash flooding, creating a constantly changing and dynamic environment. Climate change will exacerbate these processes, creating challenges for safely managing resources and visitor experiences in the park. This and future plans must consider that a dynamic landscape will continue to change and how park managers can proactively protect resources to the greatest extent possible.

This plan broadly establishes desired conditions based on the park's purpose and significance. More detailed studies on issues and associated facilities and services will be climate-informed and consider plausible climate scenarios. Although beyond the scope of this plan, park managers acknowledge the need to develop tools and strategies to adapt to climate change impacts on natural and cultural resources and visitor opportunities. The National Park Service will work in cooperation with federal agencies and states, counties, and communities to explore how best to model and adapt to the impacts of climate change on NPS-managed areas. Management strategies will be based on the best science available, conform to the mission of the National Park Service and relevant policies, and be within the park's available financial resources.

Partnerships

The park shares boundaries with state, county, city, military, federal, Tribal, and private lands, creating an opportunity to increase collaboration and strengthen partner relationships. Partnerships can support the park by expanding the park's organizational capacity and providing expertise, resources, and collaboration for law enforcement activities. Some partnerships fulfill mutual needs for natural and cultural resource knowledge and field research opportunities, such as the US Geological Survey and the Desert Research Institute

(Nevada System of Higher Education). Others facilitate multiagency efforts for resource protection, special projects, and law enforcement, such as Desert National Wildlife Refuge (US Fish and Wildlife Service); the Cities of Las Vegas and North Las Vegas, Clark County; and Nellis Air Force Base (US Air Force). A current key partner that supports operations is the park's friends' group, the Protectors of Tule Springs, which assisted in the designation of the national monument as a national park unit and provided critical feedback during the development of this general management plan. Tule Springs Fossil Beds National Monument also has a cooperating association, the Western National Parks Association, which supports NPS-led interpretation, education, and research activities through retail sales.

Tule Springs Fossil Beds National Monument places special importance on its partnerships with Tribes and other traditionally associated peoples who have a relationship to the lands within the park's boundary. The park has an existing relationship with the Las Vegas Paiute Tribe, but the park has opportunities to expand its partnerships with other Tribes and traditionally associated peoples. A lasting and meaningful partnership with all traditionally associated peoples ensures valuable Indigenous knowledge is applied where deemed appropriate by the holders of that knowledge and that those with ancestral connections to these lands are able to maintain that important relationship. Park managers and staff recognize that the lands within park boundaries are more than just a national monument but also the ancestral homeland to the original stewards of the land.

HOW TULE SPRINGS FOSSIL BEDS NATIONAL MONUMENT IS ADDRESSING THE FOUR STATUTORY GMP REQUIREMENTS

This plan articulates the overarching management vision for the national monument and, at a programmatic level, addresses the four statutory requirements: resource preservation, types and general intensities of development, visitor carrying capacity, and external boundary modifications. Given the dynamic nature of park operations and issues, the descriptions for each requirement include references to subsequent planning needs to better meet the statutory requirements through the park's planning portfolio. The general management plan will be complemented by the collective of existing and subsequent plans in the park's planning portfolio. These complementing plans can be programmatic, strategic, or direct/implementation. Subsequent plans would be consistent with the approved general management plan and the *Tule Springs Fossil Beds National Monument Foundation Document*; they would require additional analysis and compliance for implementation.

Resource Preservation

This plan identifies desired conditions for natural, cultural, paleontological, and archeological resources in the park's management zones. Subsequent plans, inventories, surveys, and assessments would be consistent with the approved general management plan and would include specific recommendations for the preservation of the park's resources—for example, the park's north unit archeological survey, historic resource study, and others.

Types and General Intensities of Development

Through identifying zoning and establishing desired conditions, this plan indicates the types and general intensities of development to support appropriate public enjoyment and use. While this plan does not propose any facility development, it does establish desired conditions in each management zone that would inform and direct any potential future facility development. Subsequent management direction and implementation plans, which would be consistent with the approved general management plan, would include more extensive details and analysis to support the park's future strategic facility investment needs.

Visitor Capacity

This plan identifies desired conditions for visitor use and experience, as well as indicators, thresholds, objectives, and a range of potential management strategies that would respond to changes in visitation (appendix C). The plan also identifies general intensities of use and activities associated with public enjoyment and use of the park. Visitor use data are limited for the park due to its recent establishment; therefore, this plan does not identify visitor capacities but rather establishes baseline conditions for visitation and indicators and thresholds, as well as actions for data acquisition that would support the identification of visitor capacities in future implementation plans. With a local population of more than 2 million people and a local tourism and hospitality industry that draws 40 million tourists annually, potential visitation to the park could grow rapidly as public awareness increases. As needed, subsequent plans would be developed that include more detailed management strategies to support visitor use and experience.

External Boundary Modifications

The National Park Service, in accordance with the National Parks and Recreation Act of 1978 (Pub. L. 95-625), also requires that general management plans determine whether park boundaries are adequate for protecting resources or whether they need to be adjusted to carry out park purposes. National Park Service *Management Policies 2006* states that the National Park Service will conduct studies of potential boundary adjustments and may make boundary revisions to include significant resources or opportunities for public enjoyment related to the purposes of the park; to address operational and management issues, such as boundary identification by topographic or other natural features; or to protect park resources critical to fulfilling park purposes. National Park Service policies also instruct that any recommendation to expand park boundaries be preceded by determinations that the added lands will be feasible to administer considering size, configuration, ownership, cost, and other factors and that other alternatives for management and resource protection have been considered and are not adequate.

Activities adjacent to the park's boundaries have the potential to impact park resources. Resources don't stop at the park's boundary. The general management plan will address how to best protect the park's resources and evaluate whether any boundary changes should be recommended.

Chapter Two: Alternatives

2



This page intentionally blank.

CHAPTER 2: THE PLAN

INTRODUCTION

This general management plan provides high-level guidance for park management and fulfills the purpose and need, as described in chapter 1. The plan was developed by an interdisciplinary planning team, with recommendations from the Tule Springs Advisory Council, stakeholders, and public comments.

This chapter includes the following:

- the general management planning framework for Tule Springs Fossil Beds National Monument, Nevada
- desired conditions
- management strategies and actions
- management zones
- user capacity guidance
- boundary modifications guidance

As strategies presented in this plan are further developed, additional compliance will be completed as necessary.

MITIGATION MEASURES AND BEST MANAGEMENT PRACTICES

Mitigation measures and best management practices have a central role in implementing planning actions and are designed to prevent or minimize adverse impacts or to contain impacts within acceptable limits during and after implementing a federal action. As a result, the National Park Service routinely evaluates resources and implements mitigation measures and best management practices whenever conditions are present that could adversely affect the sustainability of national park system resources.

The Council on Environmental Quality describes mitigation measures as the following (CEQ 2022):

- avoiding an impact through not taking an action or parts of an action
- minimizing impacts through limiting the degree or magnitude of an action
- rectifying impacts by repairing, rehabilitating, or restoring the affected environment
- reducing or eliminating impacts by preservation and maintenance operations during the life of the action and compensation for the impact by replacing or providing substitute resources or environments

Should development be pursued in the future, mitigation measures and best management practices would be applied. Refer to appendix E of the GMP/EA for a detailed list of mitigations measures and best management practices that would be applicable to this plan.

Management Vision

Tule Springs Fossil Beds National Monument managers aspire to work closely with stakeholders and cultivate partnerships to meet the scientific, resource protection, interpretation, and operational needs of the park. Park managers envision the park as a living laboratory that supports scientific research with both local and global significance. Park staff collaborate with partners to explore new practices and methods for the conservation of sensitive natural and cultural resources. Science is integrated into the park experience, making research accessible to visitors to spark curiosity, understanding, and stewardship. Interpretive programs and media are designed to complement surrounding public land visitor experiences. Tule Springs Fossil Beds National Monument is a place where visitors feel connected to park stories and resources and understand how they are intertwined.

Management Zones

The National Park Service uses management zoning to identify and describe the variety of resource conditions and visitor experiences to be achieved and maintained in different areas of a park unit. In most cases, zoning is the spatial application of statements of desired conditions, where they describe the conditions, outcomes, and opportunities for specific areas of a park.

The plan relies on three management zones to define specific desired conditions and visitor experiences to achieve and maintain in each area of the park—Resource Protection and Research, Visitor Experience, and Orientation and Development. Each management area applies to a different geographic location (see descriptions below and Figure 2). Each management zone is associated with a general level of management guidance or direction, including the types of activities and facilities that are appropriate in that management area (Table 1). The management zones are consistent with and help achieve the specific purpose, significance, and special mandates for Tule Springs Fossil Beds National Monument. Descriptions of the management zones are in Table 2.

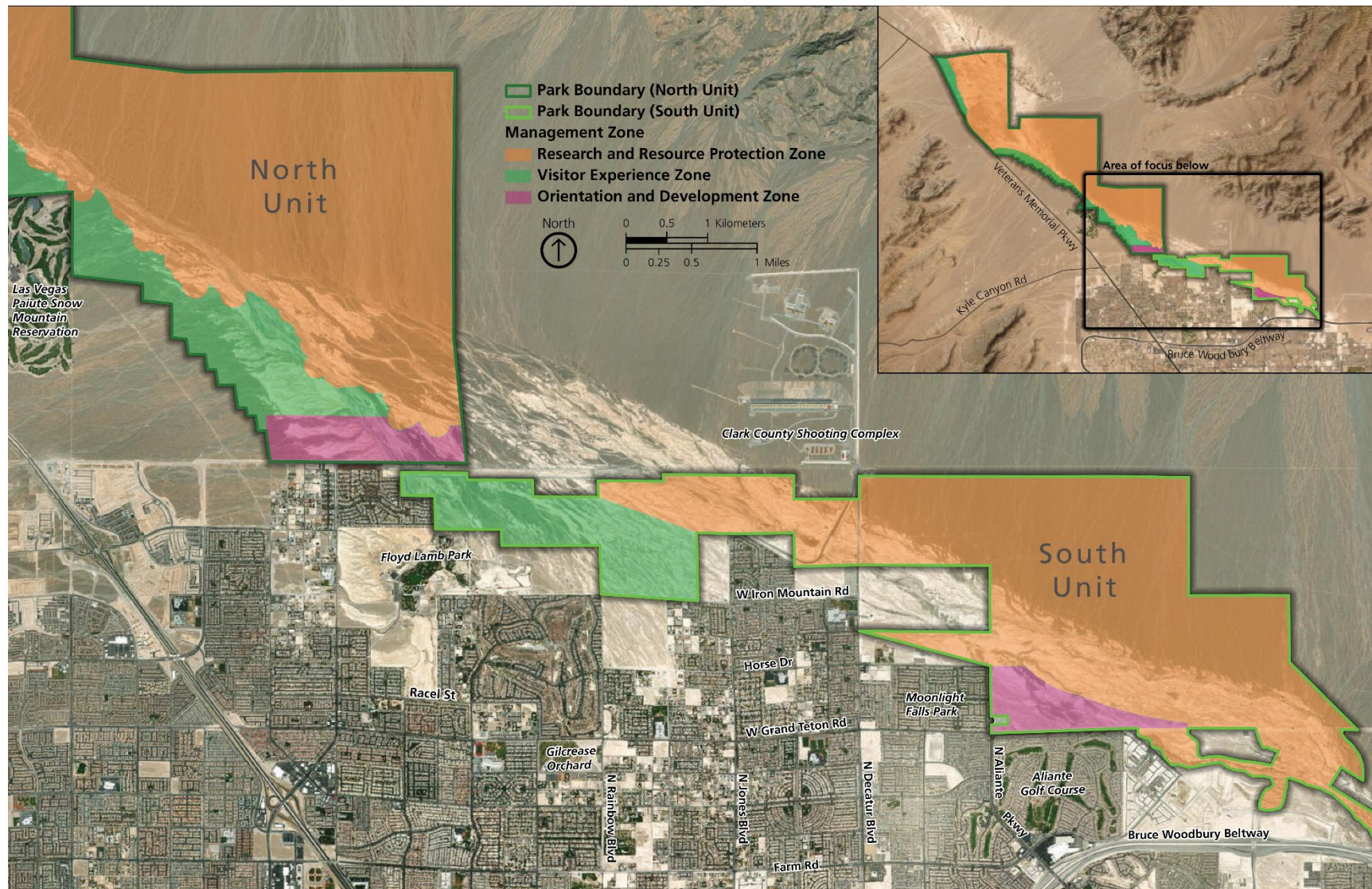


FIGURE 2. PROPOSED MANAGEMENT ZONES FOR TULE SPRINGS FOSSIL BEDS NATIONAL MONUMENT

Desired Conditions

Desired conditions are statements of aspiration that describe resource conditions, visitor experiences and opportunities, and facilities and services that the National Park Service strives to achieve and maintain in a particular area (IVUMC 2016). Desired conditions help bring to life the vision for resources, visitor experiences and opportunities, facilities, and services that the National Park Service aims to provide and maintain, including the appropriate areas for potential facilities and services. Since desired conditions are aspirational by nature, they are written in the present tense and describe what an area strives to achieve. Desired conditions focus on fundamental resources and values (see appendix A of the GMP/EA); the visitor experience and opportunities associated with them; and the types and levels of management, development, and access that are appropriate throughout Tule Springs Fossil Beds National Monument or in a particular location in the park.

Parkwide Desired Conditions

Table 1 lists desired conditions that apply parkwide.

Table 1. Parkwide Desired Conditions

Theme	Desired Conditions
Paleontological Resources	<ul style="list-style-type: none"> Fossils and other paleontological resources are showcased and interpreted as the most fundamental resources and learning tools in the park that connect both visitors and researchers to the Pleistocene epoch. Paleontological resources are recognized and valued for their inherent value as teaching tools from the past that communicate themes related to extinctions and survival and promote to a sense of stewardship and conservation among those who interact with them today. The park is a leader in paleontology management programs by incorporating multidisciplinary techniques and Tribal involvement. New, traditional, and multidisciplinary approaches ensure the park incorporates multiple ways of understanding fossils and other paleontological resources. Researchers have opportunities to study paleontological resources and share information to better promote the importance of these resources in relation to changing environments and extinction. Park staff strive to fulfill the park's enabling legislation for on-site exhibition and the interpretation of paleontological resources. Paleontological collections from the park, including externally managed collections, are accessible to support research efforts. Tule Springs Fossil Beds National Monument's museum program maintains interdisciplinary records for paleontological collections to preserve its geologic and cultural context in perpetuity.
Cultural Resource	<ul style="list-style-type: none"> The park honors, values, and prioritizes the history of and relationships with Tribes and Indigenous peoples associated with lands in and around the park. All cultural resources, including archeological, ethnographic, historic, and other related resources, are managed to promote co-stewardship among the park and all with Tribes and Indigenous peoples associated with lands in and around the park. Tribes and Indigenous peoples associated with lands in and around the park continue to have access to collections to maintain cultural practices and deepen the public's understanding of the importance of sustaining these practices. Archeological resources found throughout the park are representative of the diverse cultural heritage of the region's inhabitants and present a valuable record of human use and adaptation to the changing environmental conditions of the area. These archeological resources are documented and managed consistently with archeological best practices and traditional knowledges deemed appropriate by those who uphold this knowledge.

Theme	Desired Conditions
	<ul style="list-style-type: none"> • Historic sites and cultural landscapes, including the Tule Springs Archeological Site, Las Vegas-Tonopah Railroad and Wagon Road, and Native American Salt Song Trail and other travel routes are preserved to the extent possible to reflect their period of significance given erosion, climate change, and other drivers of change. Historical information related to the Tule Springs area is researched to identify historic themes related to the park. • Artifacts from the Tule Springs expedition and other historic expeditions unearthed during archeological surveys speak to the historical significance of the park and communicate the history of science at Tule Springs and how perspectives change over time. • The historic landscape demonstrates the work and contributions of scientists and the role they played in supporting studies of Ice Age megafauna and their relationship with early peoples, in addition to the site's role in the early use and application of radiocarbon dating. • Archives related to the history of Tule Springs area are consolidated, well preserved and accessible to researchers and the public. This information is digitized, when possible, to further increase accessibility.
Natural Resource	<ul style="list-style-type: none"> • The park recognizes and celebrates that many of its unique natural resources are considered important traditional, cultural, and ethnographic resources by Tribes and Indigenous peoples associated with lands in and around the park. Co-stewardship and continued traditional access to the landscape and its resources is critical for not only the health of the resources, but the continuation of these partnerships and the park itself. • The park is prepared for the potential effects of global climate change on its local environment. The impact of changed hydrologic processes on park resources is well understood, and management decisions are informed by scientific findings. The park protects and maintains an important climate record and supports on-site research and collaboration to further understand the effects of climate change. • All natural resource management remains dynamic and adaptive and considers the potential impacts of climate change. Damage to natural resources is mitigated to the greatest extent possible given the effects of a changing climate. • The park functions as a gateway to al desert ecosystem from the surrounding urban environment. The interface between undeveloped and developed areas prioritizes resource protection and reflects the values of the National Park Service and the surrounding community. • Stewardship, resource protection, and innovation are not only promoted, but also celebrated. • Damaged sensitive resources and areas are mitigated so that they may be restored to their best possible condition so that they can continue to benefit the ecosystem, key cultural associations, park's mission and history, and visitor experience. • Wildlife research promotes region-wide conservation strategies for sensitive species. • The park prioritizes and promotes research, conservation measures, and regionwide conservation efforts for sensitive species to minimize negative impacts. • Wildlife, vegetation, and their habitats are left undisturbed to the highest degree possible to maintain a healthy ecosystem. • Habitat connectivity for native plants and wildlife, including threatened and sensitive species, is managed to enhance the conservation and well-being of these species to the extent possible, given the effects of climate change. • The health and growth of native plants is promoted in all parts of this zone to support the local ecosystem and natural setting and support connective habitat. • Designated preserves and conservation areas are managed and monitored with the highest levels of protection and conservation relative to other areas of the park. Some species and habitats in these areas are some of the most fundamental features.

Theme	Desired Conditions
Visitor Experience	<ul style="list-style-type: none"> • Tule Springs Fossil Beds National Monument staff provide an immersive experience where visitors feel a strong sense of place and time. Interpretive experiences highlighting the rich cultural and natural history of the park give visitors the opportunity to make connections to the past and include a human history and the fossil record. • Visitors of all abilities and outdoor skill levels have opportunities to experience and recreate in the park to make meaningful connections to its resources and become stewards. • Learning and understanding are key components of the visitor experience and can happen throughout the park and in the larger community. Interpretive media communications (on-site, virtual, and digital) and both self-guided and staff-guided experiences are designed to empower visitors to connect park resources with broader values and experiences, while being accessible and meaningful to diverse audiences. • Visitors experience various scientific and cultural perspectives, including emerging and traditional methods, that promote the conservation and enjoyment of the park and its resources while visiting. • The park links recreational, scientific, educational, and other critical park experiences to surrounding urban infrastructure for easier and more accessible visitation. The visitor experience at the park complements the experiences found in the surrounding area. Interpretive information about park resources can be found in the local community in the form of exhibits, waysides, and publications to connect overlapping interpretive themes. • Recreational opportunities are prioritized in areas that do not compromise sensitive resources and sites, and all applicable types of use are thoroughly analyzed for compatibility in a designated area to promote a range of visitor opportunities. • Wildlife enthusiasts can experience a sense of time transcendence knowing that some species found in the fossil record can be observed today. • Citizen science programming and educational conservation projects are supported, where applicable, and visitors have opportunities to report resource sightings/discoveries, understanding that their participation helps further resource conservation at the park. • The park creates a welcoming environment for neighbors, local communities, and the public to engage in various types of recreation for well-being and to experience the park's resources and scenery. • The park offers a variety of visitor facilities that support and enhance visitor enjoyment, learning, collaboration, and recreation. Visitor facilities, including, but not limited to, trails, waysides, parking, and contact facilities, are designed to make the facility or area as accessible as possible, given environmental and landscape constraints, and use context-sensitive designs to minimize contrast and intrusion to the natural setting.
Partnerships	<ul style="list-style-type: none"> • Partnerships remain critical for managing the park so that staff may accomplish the park's mission and do so in a sustainable, thoughtful, and meaningful way. Shared and collaborative interests allow the park to effectively maintain access for Tribes and Indigenous groups, manage resources, educate visitors, and create recreational opportunities. • Relationships with all interested Tribes and other traditionally associated peoples who call the area in and around the park their ancestral home are critically important. These partnerships are lasting and mutually beneficial relationships characterized by trust, transparency, and positivity. • Cultural practices of traditionally associated peoples continue to preserve their ties to the lands, resources, and stories in the park. • Park managers regularly consult with Tribes and other associated peoples to ensure original place names, histories, and stories and that ongoing uses are accurately represented and appropriately shared in interpretive materials. • As deemed appropriate by Tribes and other Indigenous peoples, traditional ecological knowledges and history are incorporated to maintain and improve resources to their healthiest state possible. This knowledge aids in the protection of historically, spiritually, and culturally significant sites and resources in the park, and park staff will prioritize procedures and practices in support of co-stewardship with Tribal Nations.

Theme	Desired Conditions
	<ul style="list-style-type: none"> • Research and co-stewardship opportunities for researchers and scientists of varied backgrounds are abundant in the park. These efforts help further the park’s mission, protect its fundamental resources and values, and conserve its cultural and natural resources. • Park managers collaborate with and support the efforts of partner organizations, such as the Protectors of Tule Springs, to conduct educational programs, research, community involvement, youth engagement, recreation, and conservation. • Park managers maintain a collaborative network of Pleistocene research-focused institutions to further understand new scientific methodology and findings. • Park managers maintain positive working relationships with neighboring public land managers, including Ice Age Fossils State Park and Desert National Wildlife Refuge, for resource stewardship, interpretation, and visitor recreation in support of the purpose of the park. • Reaching diverse audiences that represent the communities surrounding the park and around the nation are critical to maintaining quality visitor experiences. Park managers remain open to building new and mutually beneficial relationships with interested parties and organizations to advance educational, recreational, collaborative, and research opportunities.

Desired Conditions by Management Area

Table 2 contains a detailed description of each zone and its associated desired conditions zone.

TABLE 2. MANAGEMENT ZONE DESIRED CONDITIONS

Theme	Resource Protection and Research Zone	Visitor Experience Zone	Orientation and Development Zone
Zone Description	<ul style="list-style-type: none"> The Research and Resource Protection Zone has mostly unmodified features and a natural-appearing environment. Critical resource protection and strategic research opportunities are the guiding concepts for managing this zone and takes precedent over visitor use and development. In areas zoned for research and resource protection that are expected to receive more visitation than more remote areas of the park (such as Eglington Preserve), strategies can be used to maintain desired conditions for resource protection, including, but not limited to, increased ranger presence, interpretive opportunities directing people to designated trails within that zone, increased resource monitoring, and interpretive signage as needed. This zone protects areas with highly sensitive fundamental paleontological, geological, cultural, and natural resources. These resources are the most highly managed within the park boundary to ensure their protection and study. Resource management seeks to retain the inherent and natural value of soundscapes, views, and plant communities and all other resources and features. This zone has the highest potential for rich scientific field research and inventory and monitoring programs compared to other zones. 	<ul style="list-style-type: none"> The Visitor Experience Zone has key features and resources, a mostly natural-appearing environment, and some development that supports the visitor experience. The balance between visitor use and resource protection is the guiding concept for overall management in this zone, which may result in varied visitor opportunities and some development. Resources in this zone are highly protected and managed but are more accessible for visitors to connect with compared to the Resource Protection and Research Zone. Although resources are more easily accessible in this setting, resource protection takes precedent over visitor use and is prioritized and/or mitigated when creating new visitor opportunities. Visitors are able to experience visual and physical connectivity to fundamental resources. This safely connects visitors with resources from the past and present, while still providing a wide range of visitor experiences. Although some outdoor skills and familiarity may be required in some areas, accessible opportunities for visitors of all abilities are provided as both guided and unguided experience. There are low-to-moderate levels of day use that may range from a few hours to all day, and visitors expect to encounter each other on a regular 	<ul style="list-style-type: none"> The Orientation and Development Zone has contemporary structures and amenities, some natural features, a modified landscape, and the presence of both visitors and staff. The harmonious conceptual and physical interface between the undeveloped setting of the park and proximate urban environment is the guiding feature and concept for the management of this zone. The Orientation and Development Zone supports visitor use and park operations, serving as primary locations for recreation, visitor interpretation, research, park administration, and maintenance functions. Resources are managed in a way that balance resource protection with all other Tribal, visitor, and staff functions. Although resources in this zone may be disturbed, their protection is considered a high priority in relation to all other activities. Resources found in a more natural setting may be less common compared to other zones but are showcased in a protected and developed environment. Visitor use levels are likely to be highest in this zone, and visitor use focuses on orientation and education. Although opportunities for visitor experiences in a natural setting may be limited, this zone provides a wealth of trip planning and scientific information about the park and its

Theme	Resource Protection and Research Zone	Visitor Experience Zone	Orientation and Development Zone
	<ul style="list-style-type: none"> Visitor use in this zone is supplementary to resource protection and research and is prioritized in other zones. Any trails and limited modifications that occur in this zone maintain a natural appearance to the greatest extent practicable, while avoiding sensitive natural and cultural features. Although there may be limited self-guided experiences in this zone, most visitor interaction with sensitive resources is managed in this area with guided interpretive experiences that focus on the conservation and the scientific process which provide experiences for varied skill levels. Navigation may be challenging due to limited signage and rugged terrain. Overall, visitor use is low compared to the two other zones. This zone may accommodate commercial use that is compliant with park values, management priorities, resource protection, and visitor safety. This zone is the least developed in the park and contains limited visitor amenities. Any development that occurs in this zone is related to visitor safety and scientific research and is temporary, when possible. The zone retains a relatively undeveloped character that prioritizes the natural environment and its resources. 	<p>basis in this zone. Finally, this zone may have opportunities for commercial use authorizations that are compatible with resource protection.</p> <ul style="list-style-type: none"> Development in this zone is most typically implemented to support the visitor experience and protect park resources, where necessary. Although development is limited to mostly simple and unobtrusive directional signs and visitor amenities that interface well with the undeveloped nature of this setting, there may be instances of human-made structures in some areas that create the least impact on resources as possible. There are low-to-moderate levels of day use, and the potential for commercial use authorizations is accommodated. 	<p>resources. This area may have some trails, including accessible trails, but experiences are more likely to prioritize self-guided wayfinding and exhibits that focus on learning about fundamental resources and history. Visitors should expect to frequently encounter other visitors here, and visitors do not need a high degree of outdoor skills in this area. Some commercial use may be present in this area, as authorized by park management, that includes orientation areas, equipment storage, and other visitor experiences.</p> <ul style="list-style-type: none"> Facilities and amenities are managed to provide safe, secure, and appropriate functions required for park management and visitor experiences. This area is the most developed of the three zones, but this development is completed so that it does not significantly impact fundamental resources or mitigate these impacts. Only necessary facilities, structures, and amenities are established to support park operations and visitor experiences and the park's overall mission, goals, and enabling legislation.
Paleontological Resources	<ul style="list-style-type: none"> Pleistocene fossils are the main focal points in this zone and are prioritized for research, protection, and excavation, when possible. All paleontological resources are documented, monitored, and protected by park resource staff to the greatest extent 	<ul style="list-style-type: none"> Fossil sites are monitored regularly by resource staff, according to the park's paleontological monitoring schedule. Fossil photographs and replicas may be shown to visitors as a substitute for visiting sensitive paleontological sites. 	<ul style="list-style-type: none"> Guided interpretive experiences may be limited in this zone but serve as the main repository for fossils collected in the park and provide additional learning opportunities for paleontologists to study Pleistocene fossils.

Theme	Resource Protection and Research Zone	Visitor Experience Zone	Orientation and Development Zone
	<p>possible. Some of the most sensitive paleontological resources in the park are in this zone and may be more highly managed.</p> <ul style="list-style-type: none"> Paleontological resources in this living research area are managed so that they are left undisturbed when not formally excavated. Data generated from this area are vetted, reviewed, and shared with the paleontological community to promote research and an understanding of the fossils in the park. 	<ul style="list-style-type: none"> Sensitive resources exist in this area to be learned about and appreciated but are protected from potential damage. Leave-No-Trace and resource protection language is used in signage and park messaging that emphasizes and clearly communicates the importance and sensitive nature of the paleontological resources. 	<ul style="list-style-type: none"> Paleontological resources are not likely to be found in their natural state and are moved for their protection and study.
Cultural Resources	<ul style="list-style-type: none"> The Tule Springs Archeological Site is maintained and preserved, to the extent possible given the effects of erosion, for its historic and scientifically significant value. Archeological and paleontological techniques that were innovative during the excavation of this site are showcased and interpreted. Researchers benefit from reinvestigating these sites and the body of knowledge that originated at this site. All cultural resources are documented, monitored, and protected by park resource staff to the greatest extent possible. Some of the most sensitive cultural resources in the park are in this zone and may be more highly managed. Visitors may have opportunities to engage with cultural resources in this zone; however, this would nearly always involve staff-guided interpretation. Specific sites and areas deemed culturally and spiritually significant by partner Tribes are protected. These significant sites are preserved to maintain the spiritual and 	<ul style="list-style-type: none"> Cultural resources are documented, monitored, and protected by park resource staff to the greatest extent possible, and their protection is prioritized. Opportunities for the guided interpretation of cultural resources' significance and history do not compromise the integrity and protection of these resources. These experiences include accurate information that is collaboratively produced under the guidance of Indigenous peoples associated with park lands. Interpretive signs in this zone share and emphasize the culture and history of those who have lived on this land for time immemorial. These interpretive materials are created in conjunction with those who have been identified as having ancestral relationships with the Tule Springs area to communicate honest and culturally significant messages. Specific sites and areas deemed culturally and spiritually significant by partner Tribes are protected. These significant sites are 	<ul style="list-style-type: none"> Cultural resources in this zone may be housed in a secure facility that supports their research, understanding, Tribal engagement, and interpretation. Engagement with cultural resources is encouraged, though it is primarily done so through exhibits and waysides at locations deemed safe for self-guided experiences based on resource conditions and sensitivity. Visitors may have opportunities for staff-guided experiences at additional sites. Cultural resources are not likely to be found in the natural environment and are moved for their protection.

Theme	Resource Protection and Research Zone	Visitor Experience Zone	Orientation and Development Zone
	cultural connection and may be closed off to the general public.	preserved to maintain the spiritual and cultural connection and may be closed off to the general public.	
Natural Resources	<ul style="list-style-type: none"> • Sensitive habitat and natural resources in this zone are protected to the highest degree in the park to prioritize natural resource management and conservation, which may include seasonal and permanent closures. • Wildlife and the associated environment are protected in a manner that preserves the connected nature of an ecosystem's past, present, and future. Wildlife protection is prioritized over visitor use and research. • Past and present geologic and hydrologic features and processes are protected so that they may continue to add to the unique features of the landscape. These natural systems and processes also provide opportunities for scientific learning and an improved understanding of the environment. • Research is conducted so that natural resources are minimally impacted, and researchers gain a better understanding of local wildlife through field work. 	<ul style="list-style-type: none"> • Wildlife and natural resource protection is prioritized and balanced with visitor use and study. • Natural resources can be found in their natural state and are both managed and interpreted to promote their protection, interpretation, and stewardship. • Where possible and needed, natural resources receive supplementary management to mitigate the increasing intensity of processes like erosion and runoff. 	<ul style="list-style-type: none"> • Wildlife, sensitive vegetation, and other natural resources are less likely to be spotted in this zone. • Resources in this zone are considered valuable assets to the landscape and are integrated or mitigated in the area's design. • Natural resources are considered in the mitigation of processes, like erosion and runoff, especially as these processes become more intense as the effects of climate change become more apparent.
Visitor Use and Experience	<ul style="list-style-type: none"> • Visitors have the opportunity to learn about and appreciate the sensitive nature of fossils and other resources in the park. Visitors also gain an understanding of the importance of a highly managed visitor experience in this zone. • Visitors experience this zone and engage with resources by foot and necessary adaptive equipment when not on designated roads. 	<ul style="list-style-type: none"> • Visitors likely have the opportunity to experience a formal, guided interpretive experience in this zone where they can learn about fossils, human history, wildlife, vegetation, and other important features of the landscape. • Visitors have some opportunities for self-guided experiences to explore and learn about resources in the park. Trails and other 	<ul style="list-style-type: none"> • This zone remains highly accessible to visitors of all abilities and is well marked so visitors can orient themselves to the special resources and experiences in the park and plan their visit. • Visitors can expect to find amenities in this zone, which may include water, restrooms, and other conveniences. • This zone contains the most concentrated amounts of visitor use. Visitors are adjacent

Theme	Resource Protection and Research Zone	Visitor Experience Zone	Orientation and Development Zone
	<ul style="list-style-type: none"> Although visitors have opportunities to experience park resources, present and historic uses of the land, and other important information at various sites through self-guided and collaborative experiences, fossil sites are only accessible through guided experiences. These experiences create a sense of connection and care for the fossils and artifacts and other resources in the park. This zone has limited opportunities for immersive self-guided interpretive experiences where visitors are able to understand, in clear and straightforward language, the landscape and resources around them. Visitor experiences are more dispersed in a near more natural setting compared to other zones. Visitors may encounter few-to-no other visitors compared to other zones. Navigating this zone may require a high degree of self-reliance, as visitors may be far from the urban interface, developed areas, and emergency services. Visitors may have opportunities to view wildlife from a distance that is safe and protects both the wildlife and the visitors. 	<p>amenities that disturb the environment at little as possible may aid in visitor learning.</p> <ul style="list-style-type: none"> Visitors can expect to frequently encounter other visitor groups and are relatively close to the urban interface. Although a high level of outdoor skill level is likely not be required in this zone, visitors need to be comfortable with some level of self-reliance for short periods of time. Guided hikes may be offered to highlight excavation quarries, geologic features, or other areas of interest and connect visitors to scientific exploration beyond fossils. Transportation and visitor use on roads and trails are considered based on changing resource conditions and proximity that allow visitors and staff to travel throughout this zone safely and efficiently. This may result in temporary changes, reroutes, or closures that prioritize resource safety. 	<p>to the urban interface and other modern conveniences. Visitors can expect to frequently encounter other visitors and staff in this area. Few-to-no outdoor skills are necessary to have a meaningful visitor experience this area.</p> <ul style="list-style-type: none"> This zone is the optimal area to educate visitors on fundamental values and resources, wildlife, wayfinding, and other park safety and orientation information. Visitors are educated through interpretative materials, species guides, written planning information, staff supervision, and other means. Visitors have opportunities to learn about and admire current Pleistocene knowledge, mainly through self-guided experiences, such as the fossil repository and museum exhibits. Self-guided experiences, such as interpretive exhibits, are the most accessible and readily available way for visitors to learn about and connect with all resources in the park.
Degree and Character of Development	<ul style="list-style-type: none"> Relative to all other zones, the Resource Protection and Research Zone is the least-developed zone and retain nearly all of its natural features and processes. Mitigation measures and development does not impact natural, paleontological, and archeological resources, to the greatest extent possible. 	<ul style="list-style-type: none"> Messaging regarding Leave No Trace principles and potential visitor impacts on resources is clear and in multiple languages to inspire a sense of respect and responsibility in visitors. Mitigations at historic paleontological sites, such as historic excavation sites, match the character of the landscape and are developed in a way that reflects the look 	<ul style="list-style-type: none"> The Visitor Contact Zone is the most developed area in the park. This space is set aside for park staff to carry out scientific study, complete administrative duties, and act as a maintenance hub. Development supports Tribal engagement, allowing space for meetings, consultations, and collections access for groups who have

Theme	Resource Protection and Research Zone	Visitor Experience Zone	Orientation and Development Zone
	<ul style="list-style-type: none"> • Administrative roads maintained throughout this zone support park operations and emergency access. • Currently, existing roads/pathways may be modified or restored to be used as pedestrian-only trails. • Trailheads have minimal signs but provide sufficient information for visitor orientation and safety. Trails are marked with natural-appearing elements and vary in length and difficulty. These rugged, yet varied, trails have adventurous and relaxing opportunities so that visitors can find their right sized adventure while remaining mostly self-reliant. • Efforts to remediate damage to natural or cultural resources due to human or environmental forces match the character of the landscape. Resources are left in situ to the extent possible, and if they are removed from the park for educational or preservation purposes, priority given to maximizing interpretation of them and allowing for researcher access. • There are few or no facilities and amenities constructed in this zone. Resource sensitivity guides the development of trails, and amenities are prioritized in areas that do not involve ground disturbance. 	<p>and feel of the surrounding environment, preventing visual obtrusions and supporting resource preservation.</p> <ul style="list-style-type: none"> • Amenities follow best practices for environmental sustainability and are adapted to current and potential future hazards. Sustainable, climate-adapted facilities also provide interpretive opportunities. • Potential facilities and amenities can include the following: trails and trailhead parking, waysides, bathrooms, drinking water, benches, and multiuse recreation-based amenities and shade structures and be location dependent. • Infrastructure, facilities, and wayfinding in this zone welcome visitors to the national monument and provide information that prepares them for their trip, whether it be limited to a more frontcountry or backcountry experience. 	<p>ancestral ties to the lands within the park's boundary.</p> <ul style="list-style-type: none"> • Consistent with the enabling legislation, potential facilities and amenities would prioritize the on-site exhibition and curation of the resources to the extent practicable. • Night-sky friendly lighting is used in this zone to minimize disturbances to nocturnal wildlife.

Strategies to Achieve Desired Conditions

This section identifies management strategies and actions that would be used to achieve and maintain the desired conditions and resolve issues and leverage opportunities.

Actions directed by the general management plan or in specific implementation plans will be accomplished over the years following the plan, as funding and staffing allows, and will be updated as needed. Park managers will continue to look for creative and diverse funding opportunities.

Parkwide Management Actions

Science, Monitoring, and Research

- Support research to increase the understanding of the park's natural resources and processes, including studies on dynamic processes, such as erosional processes, which can lead to loss of nonrenewable fossil resources and contextual information.
- Support opportunities for internally and externally conducted natural resource inventory, surveys, and monitoring that may include activities such as desert tortoise monitoring, special status species monitoring, common raven nest monitoring, and LeConte's thrasher surveys.
- Support inventory and monitoring programs for paleontological, archeological, and other priority resources.
- Develop policies and protocols to expand permissible and safe permitted research of all park resources; utilize the NPS Research Permit and Reporting System to facilitate and monitor research access within the park boundary.
- Stay current in paleontological research through the use of emerging technologies and best practices.
- Collaborate with partners to maintain relevant and practical management strategies to respond to climate change.

Facilities

- Develop a comprehensive sign plan and wayfinding plan to provide consistent wayfinding throughout the park. Plan implementation may include, but is not limited to, the availability of maps, road-based signs, NPS boundary markers, and signs to indicate the type and intensity of trail use (pedestrian, bicycle, equestrian).
- Develop parkwide planning for trail use and potential trail development in the appropriate management zones, including the following:
 - Inventory and assess existing roads and trails in the park.
 - Prioritize the use of existing roads for future circulation and transportation.

- Identify and designate types of use on trails, including accessible, pedestrian, equestrian, and bicycle use.
 - Identify necessary actions to maintain visitor and staff safety on trail systems during extreme heat and precipitation events.
- Determine and prioritize optimal locations for visitor amenities.
- Identify the most suitable sites for development and methods to minimize ground disturbance for fossil resources protection.
- Conduct a feasibility study to determine potential facilities and visitor amenities that would prioritize the on-site exhibition and curation of resources.
- Determine the locations for and the extent of concessions.

Operations

- Collect visitor use counts and statistics.
- Collaborate with local agencies for law enforcement support in the park.
- Evaluate staff organization and assess for efficiencies in shared services.
- Develop standard operating procedures for the disposal of dumped trash and toxic materials from within park boundaries, including mitigation of contaminated soils as needed.
- Develop standard operating procedures or conduct hazards analysis planning to inform appropriate management and response to storm/disaster events.
- Assess visitor use types, as needed, and identify where use types support desired conditions to support a variety of visitor experiences in the park.
- Where possible, integrate accessibility principles and universal design in future planning processes and management decisions.
- Mitigate and plan for current and potential environmental hazards regarding visitor flow and facility design.

Outreach and Partnerships

- Conduct partner evaluations for Desert National Wildlife Refuge and Ice Age Fossils State Park to streamline activities and programs and develop joint work plans in the future.
- Increase collaboration between law enforcement and researchers to maintain awareness of resource protection issues.
- Create and maintain out-of-state and international contacts to promote tourism and research opportunities.

- Develop and maintain communication strategies with nearby homeowner associations (e.g., attend board meetings, events).
- Further reinforce the “National Park Service/Monument Tule Springs” identity to distinguish the park from other organizations and places named Tule Springs.
- Leverage existing partnerships to assist with waste collection and other small-scale maintenance.

Interpretation and Education

- Partner with the US Fish and Wildlife Service at the Desert National Wildlife Refuge to provide interpretive media about Tule Springs Fossil Beds National Monument.
- Develop educational programming to benefit from professional scientific research and protect resources.
- Integrate Indigenous knowledge into interpretive materials and programs, as appropriate.
- Develop internal and public-facing communications to increase the exposure of the park’s research potential to a global scientific audience.
- Develop a comprehensive visitor communication strategy that includes clear signage, virtual media, and other internet-based technologies and platforms.
- Communicate visitor safety information both physically throughout the park and virtually online to enhance visitor preparedness and safety.
- Provide information on pet safety concerning resource protection, environmental hazards, leash rules, and visitor conflicts.
- Educate visitors on multiuse trail etiquette.
- Create volunteer opportunities that serve as stewardship and education opportunities.
- Share partner opportunities from nearby sites that have similar interpretive themes.
- Provide guidance and safe opportunities for photography and wildlife viewing.
- Develop a communication guide for staff, visitors, and researchers for protecting the desert tortoise.
- Where and when appropriate, incorporate Native language place, plant, and animal names in interpretative materials.
- Assemble a selection of photographs and replicas that may serve as a substitute for visiting cultural sites for visitors.
- Interact with visitors through ranger-led activities, roving rangers, and other interpretive experiences.

- Develop an interpretive plan that reaches and engages visitors before entering the park.
- Highlight science communication in park programming.
- Provide information on traffic, vehicle circulation, safety for visitors.
- Develop a long-range interpretive plan for consistent delivery of accurate and relevant information to visitors.
- Develop programming and messaging about “urban conservation strategies.”
- Create communication, messaging, and materials that distinguishes Tule Springs Fossil Beds National Monument from other sites and organizations with similar names.
- Create maps that clearly illustrate endorsed entrances to the park.
- Develop communications materials for visitor staging areas (e.g., highway directional signs, street signs, bus depots).
- Provide interpretive opportunities for sites with easy access, such as badlands and other significant sites in the park.

Natural and Cultural Resources

- Develop and implement a vegetation management strategy.
- Use and explore innovative and emerging technology to maximize resource protection.
- Develop a curriculum, objectives, and support for law-enforcement-provided education.
- Develop educational materials to address keeping wildlife wild, such as recommendations for safe distances for viewing wildlife, and picnic area, food handling, and waste disposal etiquette.
- Use wildlife-proof/safe collection containers to reduce wildlife habituation and raven use.
- Collaborate with Tribal partners to delineate and protect resources and places of spiritual and cultural significance.
- Develop a parkwide integrated pest management plan (prevention and management of nonnative and invasive plant and animal species).
- Develop a parkwide integrated vegetation plan and/or restoration plan to promote native plant communities and habitats (applicable to rehabilitation of areas with past

disturbances, rights-of-way management, areas where potential ground disturbance is planned, among others).

- Develop a strategy to provide proxies for sensitive resources to reduce disturbance to those resources (e.g., paleontological resources, birds).
- Prioritize sites for protection and emphasize an NPS staff presence and patrol at these sites, or build fencing, if appropriate.
- Monitor boundary fence conditions, identify where breaches are most common, and develop a response-and-repair strategy.
- Where appropriate, implement and communicate seasonal and/or long-term closures for visitor use in areas with sensitive or threatened resources.
- Inventory and monitor archeological and paleontological sites after extreme weather events.
- Use, test, and improve new and emerging archeological and paleontological best practices.

Wilderness Resources

- Conduct a review of the Bureau of Land Management's wilderness eligibility assessment and determine whether an additional NPS-led wilderness eligibility assessment of the park lands is needed.

Aliante Loop and Durango Loop Trails

The temporary 3.5-mile Aliante Loop trail and the two Durango Loop trails (2.25 miles) are now designated as official park trails as part of the park's intent to provide visitor use opportunities. Over time, pedestrian use stemming from adjacent housing developments created these trails through the monument and follow relatively flat terrain along their lengths. Park staff evaluated the trails to monitor their use in providing visitor access while protecting sensitive park resources. Within this evaluation, park staff assessed the trails for the potential for environmental impacts. Park staff determined that impacts on sensitive natural resources along the existing visitor-created trails were not a concern and that new trail development on previously undisturbed areas of the park would create more disturbance compared to using an existing visitor-created trail. Park staff determined that there were no extraordinary circumstances that would require a higher level of NEPA analysis. Establishing these trails as official, permanent park assets would not require additional ground disturbance or widening of the footprint. Advancing the trails to a permanent park asset simply changes the trails' status and designation.

The trails feature the natural landforms of the park, including mountain vistas, desert washes, and desert plant communities and would accommodate both pedestrian and bicycle use.

Visitor Use Management Elements

Indicators and Thresholds

This general management plan incorporates aspects of the Visitor Use Management Framework (IVUMC 2016) to develop long-term strategies for monitoring and managing visitor use in the park. Key aspects of visitor use management incorporated into the plan include the identification of desired conditions (see above) and indicators, thresholds, and objectives.

Indicators are specific resource or experiential attributes that can be measured to track changes in conditions so that progress toward achieving and maintaining desired conditions can be assessed. Thresholds are the minimum acceptable conditions associated with each indicator. An objective is a specific result that the National Park Service aims to achieve within a specified time frame, and it reflects conditions that are affected directly by NPS action. Although all indicators have an associated threshold, only some indicators have an identified objective. Objectives are markers to help ensure positive progress toward achieving and maintaining desired conditions, especially if conditions are not currently meeting desired conditions. Indicators, thresholds, and objectives provide park managers with monitoring tools to ensure that desired conditions for resources and visitor experiences are achieved and maintained over time.

The planning team identified three indicator topics and four indicators that would be the most important to monitor the effectiveness of the strategies and actions described in this chapter. The three indicator topics monitor visitor-created trails, site conditions at sensitive paleontological and cultural resource sites, and illegal dumping. The team also identified three other issues that require monitoring but do not have an associated indicator or objective. This other monitoring is related to visitor-created trails (that do not originate from designated trails), condition of sensitive habitat and the health of associated species, and domestic animal waste.

The planning team also identified management strategies associated with each indicator. Several of these management strategies are currently in use or are called for above in the plan but may be increased in response to changing conditions. The selected indicators, thresholds, and objectives are listed below. See appendix C of the GMP/EA for detailed descriptions of the indicators, thresholds, and objectives; rationales for selecting the indicator or objective; monitoring protocols; and potential management strategies.

Indicator: Number of informal visitor-created trails annually

Threshold: No more than three visitor-created trails leaving designated trails per mile annually

Indicator: Annual number of documented incidents of downgraded site conditions (poor, fair, good, excellent, destroyed, cannot be found) due to human-caused disturbances at sensitive paleontological resources sites, as recorded on the Tule Springs Fossil Beds National Monument Paleontological Condition Form

Threshold: No more than one documented incident of downgraded site condition to sensitive paleontological resources sites per year due to human-caused disturbances, as recorded on the Tule Springs Fossil Beds National Monument Paleontological Condition Form

Indicator: Annual number of documented incidents of downgraded site conditions (poor, fair, good, excellent, destroyed, cannot be found) due to human-caused disturbances at sensitive cultural sites, as recorded in the NPS Cultural Resources Inventory System

Threshold: No more than one documented incident of downgraded site condition to sensitive cultural resource sites per year due to human-caused disturbances, as recorded in the NPS Cultural Resources Inventory System

Indicator: Number of new illegal dumping sites within the park boundary annually

Objective: By 2030, the number of new illegal dumping sites within the park boundary will be reduced to zero from the current count of eight new illegal dumping sites per year.

Visitor Capacity

This plan also incorporates relevant guidance to initially address visitor capacity. Visitor capacity is defined as the maximum amounts and types of visitor use that an area can accommodate while achieving and maintaining desired resource conditions and visitor experiences that are consistent with the purposes for which the area was established (IVUMC 2016).

Pursuant to Director's Order 2: *Park Planning*, standalone general management plans like this one do the following:

... initially address the requirement to identify visitor capacity by assessing current levels of visitor use and baseline conditions for resources and visitor experiences. They typically include qualitative statements about the types and levels of visitor use that a park could accommodate, while achieving and maintaining desired resource conditions consistent with park purposes.

This general management plan delineates and designates management areas, outlines the management vision, and identifies desired conditions for visitor use and experience in the park's management areas. This plan also identifies indicators and thresholds and high-level strategies and actions to achieve desired conditions. The plan provides guidance on the general intensities of use and activities in different zones throughout the park through the related description of desired conditions. Director's Order 2: *Park Planning* goes on to state the following:

The identification of and implementation commitments for visitor capacity will be addressed as part of a park's planning portfolio. For parks that do not identify visitor capacity and implementation commitments in a stand-alone [general management plan] GMP, these requirements will be met through plans that have a significant focus on visitor use . . .

This standalone general management plan does not fully identify visitor capacity or related implementation commitments since more detailed planning and further visitor use-related data are needed to inform a meaningful analysis. As needed, subsequent plans (e.g., a long-range interpretive plan and site-specific planning, visitor use management plans, trail management plans, or similar) will be developed that include more detailed management strategies to support visitor use and experience and will identify and/or refine visitor capacity as additional information and management guidance becomes available.

The guidance in this plan, including desired conditions applied by zones and the indicators, thresholds, and objectives, will continue to inform future planning and guide the management of the types and levels of visitor use to sustain the quality of park resources and visitor experience consistent with the park's purpose. See appendix C of the GMP/EA for further details on considerations for identifying future visitor capacities, areas periodized for identification, potential future actions, and data needs.

Consideration of Boundary Adjustments

A statutory requirement for general management planning is to consider “potential modifications to the external boundaries of the park—if any—and the reasons for the proposed changes” (1978 National Parks and Recreation Act (16 U.S.C. 1a-7). Through the general management planning process, several sites were identified as potential amendments to the park's boundary. Please note that major boundary adjustments must be authorized by Congress.

This boundary adjustment analysis examines the paleontological, cultural, historic, and natural significances of those properties to determine if they are appropriate additions to the boundary of Tule Springs Fossil Beds National Monument. The analysis also examines the potential for those properties to address management issues or resource protection needs.

The properties under consideration are evaluated according to criteria set forth in section 3.5 of *NPS Management Policies 2006*. For a property to be included in a boundary expansion, the property must meet at least one of the following three criteria:

1. Protect significant resources and values or enhance opportunities for public enjoyment related to park purposes.
2. Address operational and management issues, such as the need for access or the need for boundaries to correspond to logical boundary delineations (e.g., topographic features or roads).
3. Otherwise, protect park resources that are critical to fulfilling the park's purposes.

In addition to meeting one of the three criteria above, potential additions must also meet both of the following criteria from section 3.5 of *NPS Management Policies 2006*:

1. The added lands will be feasible to administer, considering size, configuration, and ownership costs; the views and impacts on local communities and surrounding jurisdictions; and other factors such as the presence of structures, hazardous substances, or exotic species.
2. Other alternatives for management and resource protection are not adequate.

The general management planning process considered whether modifications to the park's external boundaries were needed to help the park meet its purpose, maintain its significance, preserve its fundamental and other important resources, ensure high-quality visitor experiences, and/or address operational and management issues. A summary of the properties considered, and analysis of each site, is given in appendix D of the GMP/EA. For any property that met the criteria for analysis, the planning team moved to the next column of criteria questions to determine whether a boundary adjustment was warranted.

Boundary Modifications

National Park Service policies require park managers to evaluate the adequacy of boundaries for protecting resources and providing visitor opportunities in general management plans. Appendix D of the GMP/EA includes an analysis of boundary modification and land protection that reviews the criteria for boundary adjustments as applied to Tule Springs Fossil Beds National Monument. In accordance with this analysis, the plan proposes one parcel for inclusion within the boundary of the park, which meets the boundary adjustment criteria (see Figure 3).

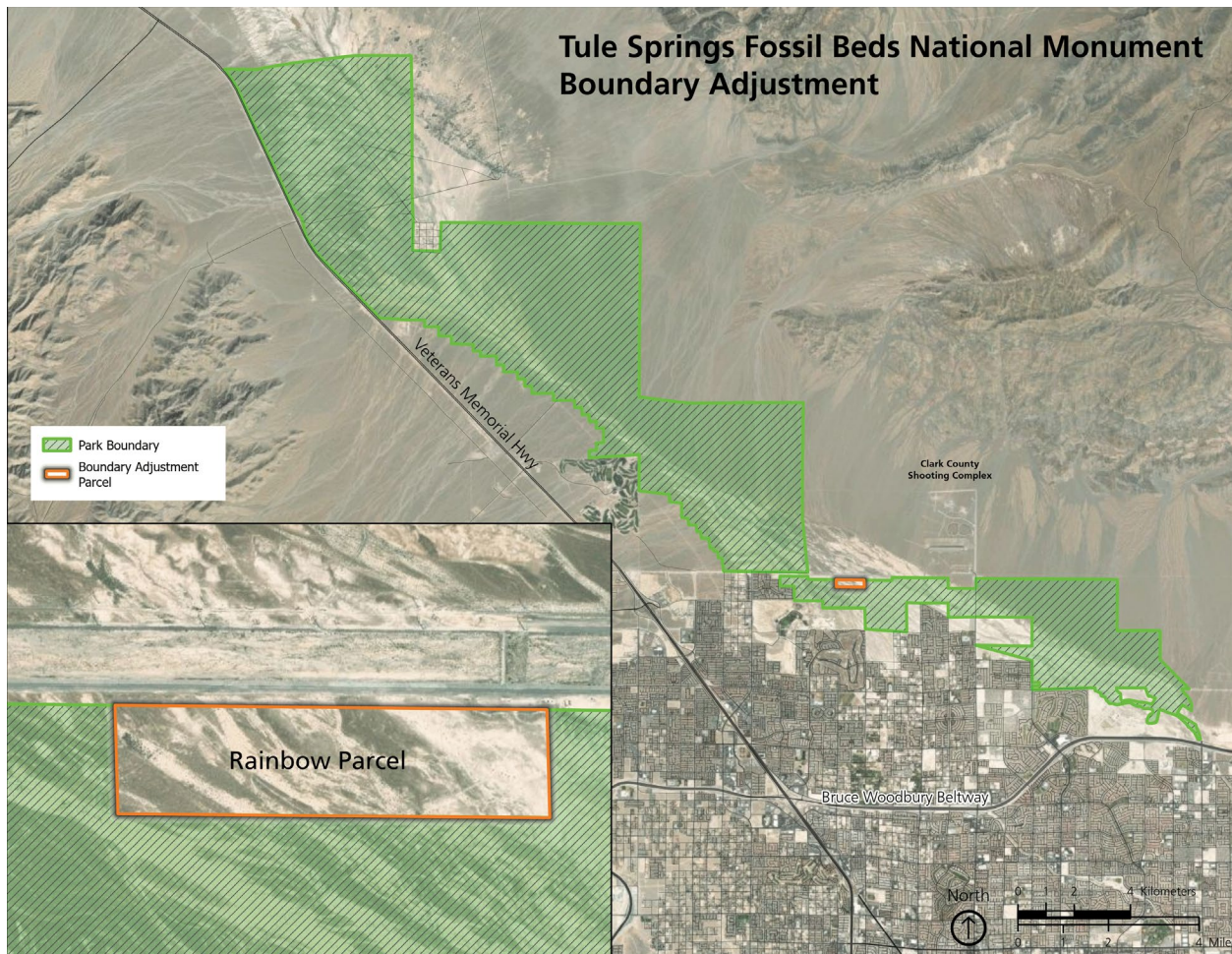


FIGURE 3. POTENTIAL BOUNDARY AMENDMENTS FOR TULE SPRINGS FOSSIL BEDS NATIONAL MONUMENT

With this plan, park managers will pursue an amendment of the park boundary to include acquisition of the Rainbow parcel. This privately owned parcel is 44 acres and is located along the northern boundary of the south unit of the park and south of the Clark County Shooting Complex. The landowners have approached park managers about the potential for NPS acquisition. The site contains habitat for Las Vegas bearpoppy (*Arctomecon californica*), which is a Nevada state critically endangered species, and the Las Vegas buckwheat (*Eriogonum corymbosum* var. *nilesii*), which is a rare species monitored by the Nevada Department of Conservation and Natural Resources, is a high-priority evaluation species under the Clark County Multiple Species Habitat Conservation Plan and is listed as a sensitive species under the Bureau of Land Management's Sensitive Species List for Nevada (BLM 2023a; USFWS 2014). In addition, there are known paleontological and archeological sites in the vicinity of this property.

This page intentionally blank.

Part II:
Finding of
No Significant Impact



This page intentionally blank.

National Park Service
U.S. Department of the Interior

Tule Springs Fossil Beds National Monument
General Management Plan and Environmental Assessment – FONSI



FINDING OF NO SIGNIFICANT IMPACT
General Management Plan
and Environmental Assessment
Tule Springs Fossil Beds National Monument

June 2024

Recommended: **DEREK CARTER** Digitally signed by DEREK CARTER
Date: 2024.06.24 15:02:16 -07'00'

Derek Carter, Superintendent
Tule Springs Fossil Beds National Monument

Date

Approved: **RANDOLPH LAVASSEUR** Digitally signed by RANDOLPH
LAVASSEUR
Date: 2024.07.02 11:32:39 -07'00'

David Szymanski, Regional Director
Interior Regions 8, 9, 10, and 12
National Park Service

Date

This page intentionally blank.

FINDING OF NO SIGNIFICANT IMPACT

1. INTRODUCTION

The National Park Service (NPS) has determined that the Tule Springs Fossil Beds National Monument General Management Plan will have no significant impact on the human environment. This finding of no significant impact (FONSI) is based on the Tule Springs Fossil Beds National Monument General Management Plan and Environmental Assessment (plan/EA). The plan/EA was prepared in compliance with the National Environmental Policy Act of 1969. The plan/EA has been determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an environmental impact statement (EIS) is not required.

This FONSI documents the decision of the National Park Service to adopt the preferred alternative, alternative A, in the Tule Springs Fossil Beds National Monument General Management Plan and Environmental Assessment. The selected alternative addresses resource protection and preservation, education and interpretation, visitor use and facilities, land protection and boundaries, and long-term operations and management and responds to issues identified during a preliminary planning process. The plan/EA provides needed guidance for addressing parkwide issues and opportunities in the context of the park's purpose, significance, and special mandates, including cultural and natural resource preservation, facilities and infrastructure planning, climate change response, visitor use and experience, and partnerships.

2. SELECTED ALTERNATIVE AND RATIONALE FOR THE DECISION

Based on the analysis presented in the plan/EA, the NPS selected alternative (the NPS preferred alternative), as described, is depicted in the /plan/EA (pages 14–34).

The selected alternative establishes desired conditions, management zones, and associated strategies and actions to guide use and management activities. The park's organizational structure will reflect the scientific, resource protection, and operational needs of the park and support an interdisciplinary staff with varied experience, education, and skillsets that highlight and showcase the unique paleontological and other resources within the park's boundary. Additionally, the selected alternative will provide guidance for fostering consultation and coordination with governmental and nongovernmental stakeholders to reduce redundancy and leverage partnerships to create a living laboratory for the public that is of both local and global significance. Tule Springs Fossil Beds National Monument will help preserve a dynamic perspective of resources that are part of a changing ecosystem spanning the Late Pleistocene, including the Last Glacial Maximum, which was a period of dramatic climatic and palaeoecological change. Park staff will emphasize collaboration with conservation partners and actively field test new practices and methods for conserving sensitive natural and cultural resources. Science is one part of the park's visitor experiences, and this hands-on approach to experiencing resources will demonstrate to visitors the need

to protect these rare resources. The park will offer formalized science and education programming, while also offering other traditional NPS programming to the public so that visitors could experience the park in a way that best suits their needs and preferences. The selected alternative establishes indicators and thresholds for visitor use management. Park managers will designate the temporary 3.5-mile Aliante Loop trail and the two Durango Loop trails (2.25 miles) as official park trails. Park managers are pursuing an amendment of the park boundary to include acquisition of the 44-acre Rainbow parcel along the northern boundary of the south unit of the park.

2.1 Rationale

Alternative A was selected because it best responds to the purpose and need of the plan without having significant impacts on park resources. The selected alternative will address legal and policy requirements and fulfill park planning priorities for resource protection, access, use, and development.

3. MITIGATION MEASURES

The selected alternative incorporates, by reference, the mitigation measures and best management practices described in “Chapter 2: Alternatives” (page 13) and detailed in appendix E (pages E-1–E-7) in the plan/EA. The National Park Service has the authority to implement the mitigation measures presented in appendix E of the final plan/EA under the Organic Act, the National Historic Preservation Act, NPS *Management Policies 2006*, park-specific regulations in 36 CFR Part 13 Subpart N (Code of Federal Regulations), and other federal and state applicable requirements.

4. OTHER ALTERNATIVES CONSIDERED

The planning team initially developed two draft zoning schemes and presented them to the public in July 2022. These draft zoning schemes consisted of four proposed zone types. Draft zoning scheme A limited the area for administrative purposes to the park’s south unit and incorporated more resource protection zoning. Draft zoning scheme B contained administrative areas in both the north and south units and incorporated more frontcountry zoning in the park’s south unit. After analyzing the two zoning schemes and reviewing public comments on the management zones that emphasized resource protection, the planning team combined the two zoning schemes to produce the zoning scheme presented in the selected alternative. The “backcountry zone” was eliminated and combined with the “resource protection zone” to form the “research and resource protection zone.” Because the two zoning schemes were substantively similar with minor differences in the application of the zones on the landscape, they were dismissed in favor of one combined zoning scheme for the selected alternative in the plan/EA (page 15).

5. PUBLIC INVOLVEMENT/AGENCY OUTREACH AND CONSULTATION

The process of consultation and coordination was an important component of this plan (page 65).

5.1 US Fish and Wildlife Service

The National Park Service initiated informal consultation with the US Fish and Wildlife Service (USFWS) Southern Nevada Ecological Services Field Office on January 3, 2023. During informal consultation, the National Park Service informed them about the plan and the potential impact on federally listed species and their critical habitats. A review of this list was completed on January 3, 2023, by USFWS staff, and accuracy of the list was verified on the same date. The list was updated on July 3, 2023. No change was made to the list at that time. A biological assessment describing impacts on the federally threatened desert tortoise (*Gopherus agassizii*) was delivered to the USFWS Southern Nevada Fish and Wildlife Office on December 4, 2023, with a request for their concurrence on the NPS determination that the planning effort “may affect, but is not likely to adversely affect” this species. The National Park Service received a response from the US Fish and Wildlife Service on May 21, 2024, that the US Fish and Wildlife Service concurs with the NPS determination of effect through informal consultation under section 7 of the Endangered Species Act (see appendix E of the plan/EA).

5.2 Nevada State Historic Preservation Office

Tule Springs Fossil Beds National Monument staff informed the Nevada State Historic Preservation Office about the planning effort and plan/EA in a letter dated January 4, 2023. The letter stated that the National Park Service did not anticipate the general management planning effort to engage a section 106 review process under the National Historic Preservation Act and its regulations in 36 CFR 800 due to the plan/EA not including proposed actions to historic properties or other cultural resources. In an e-mailed reply dated June 6, 2023, the Nevada State Historic Preservation Office (Nevada SHPO) confirmed receipt of the NPS correspondence that described the general management planning effort.

The National Park Service e-mailed a copy of the plan/EA to the Nevada SHPO on May 15, 2024. In the accompanying e-mail, the National Park Service stated that while the plan/EA combined two zoning maps into one and further defined the management zones, historic properties and other cultural resources would not be affected by the high-level strategies outlined in the plan. The National Park Service affirmed that the bureau would consult separately with the Nevada SHPO on any future management actions not covered by the plan/EA. In an e-mailed response dated May 29, 2024, the Nevada SHPO stated that they had no additional comments on the plan/EA.

5.3 Tribal Outreach and Coordination

Tule Springs Fossil Beds National Monument staff initiated Tribal consultation for the plan/EA on May 19, 2022. The National Park Service sent letters to 27 Native American

Tribes affiliated with the Tule Springs Fossil Beds National Monument inviting consultation (see pages 65–66 of the plan/EA). Tribal representatives attended several of the stakeholder meetings held in conjunction with the development of this plan. Park staff will continue to engage with affiliated Tribes and conduct formal consultation when undertaking management actions at the park.

5.4 Advisory Council

As established in Tule Springs Fossil Beds National Monument’s enabling legislation, a 10-member advisory council¹ is in place to provide guidance for the management of the park. The National Park Service consulted with the advisory council and shared progress on the development of the plan/EA on six separate occasions.

The general management planning process was introduced to the advisory council at a March 2, 2022, meeting. National Park Service representatives attended the meeting to provide information on who was involved in the development of the plan/EA and what milestones would be accomplished at different stages.

In a subsequent meeting on June 8, 2022, the National Park Service provided updates to the advisory council following the completion of the planning team’s first workshop in April 2022. While acknowledging the educational information that had been shared during the workshop, the members of the advisory council used the June meeting to express their interest in participating more actively in future workshops.

A third advisory council meeting was held on November 16, 2022, in which the National Park Service provided information on the civic engagement period for the plan/EA, as well as the outcomes of the planning team’s second workshop in October 2022. An update on the project’s schedule was also provided.

The fourth meeting between the National Park Service and the Tule Springs Fossil Beds National Monument Advisory Council took place on February 15, 2023. The National Park Service shared information on the outcomes of the planning team’s third workshop in January 2023.

On September 6, 2023, a fifth meeting between the advisory council and the National Park Service occurred. During this meeting, the National Park Service reported on the schedule and time line for the planning process and responded to questions about the status of the planning process.

On March 6, 2024, a sixth meeting occurred in which the National Park Service summarized outcomes of the public meetings held on February 28 and 29, 2024. The advisory council provided feedback with suggested language changes to the plan/EA. The National Park Service also responded to questions about the zoning schema of the selected alternative. At

1. The advisory council includes one nominated representative from each of the following entities: Clark County Commission, Las Vegas City Council, North Las Vegas City Council, Las Vegas Paiute Tribe, Southern Nevada conservation community, Nellis Air Force Base, State of Nevada, a county resident with a background that reflects the monument’s purposes, and two individuals from the same or adjacent counties with paleontology experience.

this time, advisory council members indicated that they would comment individually on the plan/EA using the Planning, Environment and Public Comment (PEPC) website.

5.5 Civic Engagement

Park staff hosted two separate rounds of civic engagement for the general management planning effort. The first round of civic engagement began on July 20, 2022, for a 30-day comment period. The National Park Service shared preliminary management zones and desired conditions and solicited comments or concerns with the proposal to develop a plan/EA.

Park staff hosted an in-person meeting for the park's partners and stakeholders to present details about the planning process and respond to questions or comments. Representatives from the following partners and stakeholders attended: Moapa Band of Paiute Indians, Protectors of Tule Springs, Nevada Division of State Parks, Parashant National Monument, Pacific Oak SOR Park Highlands TRS, LLC (formerly known as KBS SOR Park Highlands TRS, LLC), a representative from Councilwoman Michele Fiore's office (Ward 6), Desert National Wildlife Refuge Center (US Fish and Wildlife Service), and the City of North Las Vegas. The meeting was attended by 12 people.

Park staff hosted an in-person public meeting on August 4, 2022, to share details about the planning process, answer questions from the public, and receive public comments. The meeting was attended by 24 people. In addition, the National Park Service collected 11 correspondences through the PEPC website.

The second round of civic engagement began on February 15, 2024, for a 30-day comment period. The purpose of the comment period was to share the plan/EA with the public and stakeholders and provide opportunities to discuss the plan and receive comments.

In February 2024, park staff hosted one virtual and two in-person meetings. The virtual meeting was held on February 28, 2024, via Microsoft Teams webinar and was attended by 10 people. On February 29, 2024, two in-person meetings were held. The first in-person meeting was for the park's stakeholders in the afternoon at the Sun City Aliante in North Las Vegas, Nevada; 8 people attended. The last in-person meeting was held on the evening of February 29, 2024, at the Sun City Aliante in North Las Vegas, Nevada; 37 people attended. During this period, the park received a total of 10 correspondences through the PEPC website.

6. FINDING OF NO SIGNIFICANT IMPACT

Using the criteria defined in the Council on Environmental Quality's (CEQ) NEPA regulations (section 1501.3[b]) and based on the information contained in the plan/EA, the National Park Service has determined that the selected alternative does not constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement will not be prepared.

6.1 Potentially Affected Environment

The project potentially affects the following resources, and their impacts were analyzed in the plan/EA (beginning page 37): federally listed species, special status species and habitat, paleontological resources, geologic resources (tufa), archeological resources, cultural resources – Tule Springs Archeological Site, and visitor use and experience.

6.2 Degree of Effects of the Action

The National Park Service considered the following actual or potential project effects in evaluating the degree of effects (40 CFR 1501.3[b][2]) for the selected alternative.

No significant impacts on resources were identified that would require analysis in an EIS. Whether taken individually or as a whole, the impacts of the selected alternative, including direct, indirect and cumulative effects, do not reach the level of a significant effect because most adverse impacts associated with implementation will be minimal or temporary, lasting only as long as actions are being executed. The selected action will result in substantial long-term beneficial impacts. Best management practices and mitigation measures as outlined above will further minimize any potential adverse impacts.

Federally Listed Species (Desert Tortoise)

As discussed in chapter 3 of the plan/EA, the selected alternative will result in limited adverse impacts on the desert tortoise and its habitat. These impacts include, primarily, the risk of loss or degradation of desert tortoise occurrence, habitat, and habitat use; however, over the long term, the implementation of management actions in the plan/EA will be expected to provide improved habitat conditions for desert tortoises.

Under the selected alternative, planning projects under consideration could include developing standard operating procedures for illegal dumping remediation, creating a fencing response-and-repair strategy, assessing administrative and visitor facilities development and establishment, and developing landscape and vegetation restoration plans. The planning of these management actions and strategies will consider the potential impacts on desert tortoises and their habitat conditions and connectivity, even if the impacts in some situations are expected to be temporary.

For any of these activities, mitigation measures (appendix E of the plan/EA) will be applied to reduce the effects on desert tortoises in the event that those activities are implemented. Given that the combined effect of these future management strategies and actions, if implemented, will be expected to improve the condition of park lands overall, there likely will be overall negligible effects on desert tortoises compared to their baseline condition and status.

Under the selected alternative, the management zoning that outlines visitor capacities for each zone is proposed in a manner that reflects current landscape condition and access by visitors and park staff. The proposed orientation and development zone is closest to the urban-park interface. At present, wildlife, sensitive vegetation, and other natural resources are less likely to occur in this area and when present, are protected (when possible) from human impacts. Specifically, for the potential construction of facilities, park management

will consider the impacts from the footprint size of a given facility and the expected area of influence outside the facility.

The remaining two proposed management zones (resource protection and research zone and visitor experience zone) are focused on the protection and preservation of resources. Where visitor use is anticipated to be higher, human impacts on desert tortoises will be mitigated using educational communications and materials, as well as supervision by park staff.

Under the selected alternative, the expected support for research and the monitoring of natural resources, including desert tortoises, will likely increase awareness of the importance of protecting the desert tortoise species and its habitat. Planned education and communication for staff, visitors, and researchers will also emphasize protecting the desert tortoise. This communication will include Leave No Trace ethics, pet safety and education, programming and messaging about conservation strategies along urban boundaries, and wayfinding and circulation to reduce impacts on the desert habitat. The selected alternative also outlines the potential for using advanced technologies to accomplish paleontological research that will reduce the need for ground disturbance. If implemented, these management actions and strategies, will be expected to have overall benefits to the park land condition, including desert tortoise habitat.

The selected alternative will change the status of the temporary trails to official park trails as part of the park's intent to accommodate visitor use. Because establishing these trails as official park assets will not require additional ground disturbance, the presence of and expected maintenance to the trail system will not be expected to change the current baseline condition of desert tortoise habitat.

A boundary adjustment and potential acquisition of the Rainbow parcel will not be expected to impact the desert tortoise since the parcel will likely remain in an undeveloped condition sited along an urban boundary. If acquired by the National Park Service, the Rainbow parcel will allow the protection of the habitat from further urban development and continue to provide habitat use by desert tortoises.

Special Status Species and Habitat – Las Vegas Bearpoppy

As discussed in chapter 3 of the plan/EA, the selected alternative will result in the loss or degradation of individual bearpoppy occurrences and/or its habitat, though over the long term, it will be expected to provide improved habitat conditions for the bearpoppy.

Under the selected alternative, potential future projects could include providing administrative camping, developing standard operating procedures for illegal dumping remediation, creating a fencing response-and-repair strategy, assessing developing areas for facilities administrative and visitor facilities, and developing landscape and vegetation restoration plans. The planning of these management actions and strategies will consider the potential impacts on Las Vegas bearpoppy habitat. However, mitigation measures (appendix E of the plan/EA) will be applied to the planning processes for those activities to reduce the effects on the bearpoppy in the event those activities are implemented. Given that the combined effect of these future management strategies and actions, if implemented, will be

expected to improve the condition of park lands overall, there likely will be overall negligible effects on the bearpoppy compared to their baseline condition and status.

Under the selected alternative, the management zoning that outlines visitor capacities for each zone is proposed in a manner that reflects current landscape condition and access by visitors and park staff. The proposed orientation and development zone is closest to the urban-park interface. At present, wildlife, sensitive vegetation, and other natural resources are less likely to occur in this area, and when present, are protected (when possible) from human impacts. Specifically for the potential construction of facilities, park management will have to consider the impacts from the footprint size of a given facility and the expected area of influence outside the facility (i.e., access to and from the facility, pedestrian use, vehicle parking, refuse management, vegetation management, provision of comfort facilities, trails, sidewalks) regarding the impacts already occurring to bearpoppy occurrences at the urban interface.

The remaining two proposed management zones (resource protection and research zone and visitor experience zone) are focused on the protection and preservation of resources. Where visitor use is anticipated to be higher, human impacts on the bearpoppy will be mitigated using educational communications and materials.

Under the selected alternative, the expected support for research and the monitoring of natural resources, including the bearpoppy, will likely increase awareness of the importance of the bearpoppy and its habitat. Planned education and communication for staff, visitors, and researchers will also emphasize protecting the bearpoppy. This communication will include Leave No Trace ethics, programming and messaging about conservation strategies along urban boundaries, and wayfinding and circulation to reduce impacts on the bearpoppy habitat. The selected alternative also outlines the potential for using advanced technologies to accomplish paleontological research that will reduce the need for ground disturbance and the presence of people. These management actions and strategies, if implemented, will be expected to have overall benefits to park land condition, including the bearpoppy habitat.

The selected alternative will change the status of the temporary trails to official park trails as part of the park's intent to accommodate visitor use. Because establishing these trails as official park assets will not require additional ground disturbance, the presence of and expected maintenance to the trail system will not be expected to change from the current baseline condition of the bearpoppy habitat.

A boundary adjustment and potential acquisition of the Rainbow parcel will not be expected to impact bearpoppy habitat since the parcel will likely remain in an undeveloped condition sited along an urban boundary. If acquired by the National Park Service, the Rainbow parcel will allow the protection of the habitat from further urban development and continue to provide potential habitat for bearpoppy.

Paleontological Resources

As discussed in chapter 3 of the plan/EA, the selected alternative could result in a permanent loss or degradation of paleontological resources where they exist.

Under the selected alternative, planning projects could include providing administrative camping, developing standard operating procedures for illegal dumping remediation, creating a fencing response-and-repair strategy, assessing developing areas for facilities administrative and visitor facilities, and developing landscape and vegetation restoration plans. The planning of these management actions and strategies will consider the potential impacts on known paleontological resources. Site surveys will be conducted ahead of any ground-disturbing activities to minimize and avoid impacts on paleontological resources to the extent possible. In addition, mitigation measures (appendix E of the plan/EA) will be applied to the planning processes for those activities to reduce the effects on paleontological resources in the event those activities are implemented.

Under the selected alternative, for each management zone, park staff will establish visitor capacities based on the current landscape condition, park staff access, desired conditions, and other guidance from the Interagency Visitor Use Management Council. The proposed orientation and development zone is closest to the urban-park interface. At present, wildlife, sensitive vegetation, and other sensitive natural resources are less likely to occur in this area, and when present, are protected (when possible) from human impacts through monitoring and educational signs. The potential development of facilities is not anticipated to impact paleontological resources, as the potential for paleontological resources to be found in this zone is anticipated to be low.

The remaining two proposed management zones (resource protection and research zone and visitor experience zone) focus on protecting and preserving paleontological resources. In areas where visitor use could be higher, human impacts on paleontological resources will be mitigated using educational communications and materials about appropriate behavior when encountering paleontological resources to discourage vandalism and theft.

Under the selected alternative, the expected support for research and the monitoring of natural resources, including paleontological resources, will likely increase awareness of the importance of protecting these resources and their contribution to the knowledge of the paleontological environment. Planned education and communication for staff, visitors, and researchers will also emphasize protecting paleontological resources. Communication topics addressed will include Leave No Trace ethics, programming and messaging about conservation strategies along urban boundaries, and wayfinding and circulation to reduce impacts on paleontological resources.

The selected alternative also outlines the potential for using advanced technologies to accomplish paleontological research that will reduce the need for ground disturbance. These management actions and strategies will be expected to have overall benefits to the areas where paleontological resources are a site-defining component of the landscape.

The selected alternative will change the status of the temporary Aliante and Durango Loop trails to official park trails as part of the park's intent to accommodate visitor use. Establishing these as official park trails will not require additional ground disturbance or actions, and the presence of and expected maintenance to the trail system will not be expected to change the current baseline condition; therefore, no impacts on paleontological resources are anticipated.

A boundary adjustment and potential acquisition of the Rainbow parcel will not be expected to impact paleontological resources since the parcel will likely remain as an area in an undeveloped condition sited along an urban boundary. If acquired by the National Park Service, the Rainbow parcel will allow the protection of the habitat from further urban development and subsequent loss of paleontological resources.

Geologic Features

As discussed in chapter 3 of the plan/EA, the selected alternative could result in a permanent loss or degradation of tufa, where it exists.

Under the selected alternative, planning projects could include providing administrative camping, developing standard operating procedures for illegal dumping remediation, creating a fencing response-and-repair strategy, assessing developing areas for facilities administrative and visitor facilities, and developing landscape and vegetation restoration plans. The planning of these management actions and strategies will consider the potential impacts on the tufa geological resource. Site surveys will be conducted before any ground-disturbing activities to minimize and avoid impacts on tufa geological resources to the extent possible in areas where ground-disturbing activities are implemented.

Under the selected alternative, management zoning that outlines visitor capacities for each zone is proposed in a manner that reflects current landscape conditions and access by visitors and park staff. The proposed orientation and development zone is closest to the urban-park interface. At present, wildlife, sensitive vegetation, and other natural resources are less likely to occur in this area, and when present, are protected (when possible) from human impacts through monitoring and educational messaging. Specifically for the potential construction of facilities in this zone, the potential for tufa formations in this area is anticipated to be low.

The remaining two proposed management zones (resource protection and research zone and visitor experience zone) focus on protecting and preserving resources. In areas where visitor use is anticipated to be higher, human impacts on tufa will be mitigated using educational communications and materials to inform visitors of the resource and its protection.

Under the selected alternative, the expected support for research and the monitoring of natural resources, including tufa formations, will likely increase awareness of the importance of tufa formations and its contribution to the knowledge of the paleontological environment. Planned education and communication for staff, visitors, and researchers will also emphasize protecting tufa formations. This communication will include Leave No Trace ethics, programming and messaging about conservation strategies along urban boundaries, and wayfinding and circulation to reduce impacts on tufa formations. The selected alternative also outlines the potential for using advanced technologies to accomplish paleontological research that will reduce the need for ground disturbance. These management actions and strategies will be expected to have overall benefits to park land condition, including the areas where tufa is a site-defining component of the landscape.

The selected alternative will change the status of the temporary Aliante and Durango Loop trails to official park trails as part of the park's intent to accommodate visitor use. Since the establishment of these trails as official park assets will not require additional ground

disturbance or actions and the presence of and expected maintenance to the trail system will not be expected to change the current baseline condition, no impacts on tufa are anticipated.

The potential for tufa resources in the Rainbow parcel is anticipated to be low, and a boundary adjustment and potential acquisition of the Rainbow parcel will not be expected to impact this resource since the parcel will likely remain as an area in an undeveloped condition sited along an urban boundary.

Archeological Resources

As discussed in chapter 3 of the plan/EA, the selected alternative will result in increased protection for the park's archeological resources.

Under the selected alternative, multiple management actions will be implemented to achieve desired conditions for resource conditions and visitor experiences and opportunities in the established management zones. Park staff will work to document, monitor, and protect the cultural resources, including archeological resources, to the greatest extent possible across the three zones.

In the resource protection and research zone, archeological research by both park staff and nonpark researchers will be permitted. The resource and research protection zone facilitates visitor connections to the resources through staff-guided interpretive experience. Through collaborative experiences and shared understanding, data on archeological resources will be made more easily accessible, and the resources themselves will be given additional layers of protection, as described below.

In the resource protection and research zone, additional management strategies will be considered for archeological resources. This zone will allow the park's resource staff to use, test, and improve new and emerging archeological best practices. In this zone, management actions will be taken to minimize erosion and theft at archeological sites. Specific sites and areas deemed culturally and spiritually significant by the park's Tribal partners will be protected. These significant sites will be preserved to maintain the spiritual and cultural connections, with the option to close these sites to the general public.

Should potential facilities for scientific and education be developed in the orientation and development zone, park staff will seek to house cultural resources, including archeological resources, in a secure facility. Additional actions are not part of this alternative, but they may occur during the lifespan of this plan/EA. Archeological surveys will be conducted ahead of site selection for a facility to avoid and/or minimize impacts on archeological resources, and other mitigation measures (appendix E of the plan/EA) will be applied to any activities that have the potential to adversely impact this resource. Such a facility will serve multiple functions, providing a place where staff and nonpark researchers could conduct research on sensitive resources, and staff could provide interpretive services on archeological resources and will have a long-term beneficial impact on their protection. The information on archeological resources delivered in interpretive and educational programming will be informed through the development of a long-range interpretive plan.

Cultural Resources – The Tule Springs Archeological Site (Location of the 1962–1963 Tule Springs Expedition)

As discussed in chapter 3 of the plan/EA, the selected alternative will result in increased protection for the park’s cultural resources.

Under the selected alternative, the establishment of management zones will result in numerous management actions related to cultural resources of the Tule Springs Archeological Site. The fossil sites in the resource protection and research zone will be actively monitored by the park’s resource staff according to a set paleontological monitoring schedule. Special attention will be paid to the Tule Springs Archeological Site, which will be maintained and preserved to the extent possible given the effects of climate change, for its historic and scientific values. Visitors will have opportunities to learn about the techniques used during the expedition and why they were innovative. Although there would be the potential for visitor-caused adverse impacts on the resources of the Tule Springs Archeological Site under this alternative, mitigation measures will be implemented to avoid and minimize these impacts (see appendix E of the plan/EA for a complete description of mitigation measures).

Researchers will be able to use the existing work at the site for their own purposes. New and emerging best practices for archeological resources will be used, tested, and improved in this zone. In the orientation and development zone, visitors will be exposed to current Pleistocene knowledge, including records uncovered at the Tule Springs Archeological Site, mainly through self-guided experiences that could include museum exhibits and access to a fossil repository.

The National Park Service initiated Tribal consultation in May 2022 through e-mailed correspondence that invited Tribes to share their ideas and concerns about Tule Springs Fossil Beds National Monument. Additional correspondence, including maps with zoning schema, was sent in May 2023. Park staff will continue to engage with affiliated Tribes and conduct formal consultation when undertaking management actions at the park.

The public did not express concerns related to cultural resources. Monument staff consulted with Tribes, as described above, and with the Nevada SHPO. Based on these efforts and conversations, the National Park Service determined that the selected alternative will not have adverse effects on the monument’s archeological resources and cultural resources, including the prehistoric and historic features at the Tule Springs Archeological Site. In an e-mailed response received May 29, 2024, the Nevada SHPO acknowledged receipt and review of the plan and had no additional comments.

6.3 Degree to Which the Selected Alternative Affects Public Health and Safety

No significant impacts will occur on public health, public safety, or unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the NPS selected alternative will not violate any federal, state, or local environmental protection law.

6.4 Effects That Will Violate Federal, State, Tribal, or Local Law Protecting the Environment

Implementing the selected alternative will not cause effects that will violate federal, state, Tribal, or local environmental protection laws.

7. CONCLUSION

As described above, the selected alternative does not constitute an action meeting the criteria that normally requires preparation of an EIS. This finding is based on consideration of CEQ criteria for significance (40 CFR 1501.3 [b]) regarding the potentially affected environment and degrees of effects of the impacts described in the plan/EA.

Based on the foregoing, it has been determined that an EIS is not required for this project and thus, will not be prepared.

ATTACHMENT A: ERRATA INDICATING TEXT CHANGES TO THE GENERAL MANAGEMENT PLAN AND ENVIRONMENTAL ASSESSMENT

These errata documents changes to the text of the plan/EA due to comments received on the plan/EA during the public review process, as well as other corrections.

Changes to the text below are noted by page number. Original text from the plan/EA is included to provide context and to allow for comparison to the text change. Additions to the text are denoted by underlined text, and deletions are denoted by ~~strikeouts~~

CHAPTER 1: INTRODUCTION TO THE PLAN

Page 10: Revised text. Partnerships

A current key partner that supports operations is the park's friends' group, the Protectors of Tule Springs, which assisted in the designation of the national monument as a national park unit, and later was represented on the Tule Springs Fossil Beds Advisory Council and provided critical feedback during the development of this general management plan.

CHAPTER 2: ALTERNATIVES

Page 20: Additional text. Table 2, Desired Conditions by Management Area – Zone Description: Resource Protection and Research Zone column

- The Research and Resource Protection Zone has mostly unmodified resources and a natural-appearing environment.

Page 20: Additional text. Table 2, Desired Conditions by Management Area – Zone Description: Resource Protection and Research Zone column

- [...] Critical resource protection and strategic research opportunities are the guiding concepts for managing this zone and take precedence over visitor use and development.
- In areas zoned for research and resource protection that are expected to receive more visitation than more remote areas of the park (such as Eglington Preserve), strategies can be used to maintain desired conditions for resource protection, including, but not limited to, increased ranger presence, interpretive opportunities directing people to designated trails within that zone, increased resource monitoring, and interpretive signage as needed.
- This zone protects areas with highly sensitive fundamental paleontological, geological, cultural, and natural resources [...]

Page 28: Additional text. Interpretation and Education

- Partner with the US Fish and Wildlife Service at the Desert National Wildlife Refuge to provide interpretive media about Tule Springs Fossil Beds National Monument.

Page 30: Additional text. Before Aliante Loop and Durango Loop Trails section

Wilderness Resources

Conduct a review of the Bureau of Land Management's wilderness eligibility assessment and determine whether an additional NPS-led wilderness eligibility assessment of the park lands is needed.

CHAPTER 3: AFFECTED ENVIRONMENTS AND IMPACT ANALYSIS

Page 49: Revised text. Paleontological Resources – Affected Environment, first paragraph

[...] in the sediments exposed in the wash between Corn Creek Springs and Tule Springs (USGS 2018; Springer et al. 2018a, 2018b).

Page 49: Revised text. Paleontological Resources – Environmental Trends and Planned Actions, second paragraph

[...] excavation techniques and massive earth moving activities (USGS 2018; Springer et al. 2018a, 2018b).

[...] further conducted comprehensive and systematic paleontological excavations of the area (USGS 2018; Springer et al. 2018a, 2018b; Springer et al. 2017).

Page 53: Revised text. Geologic Features (Tufa), first paragraph

[...] preserves nearly 23,000 acres of the fossil-rich Las Vegas Formation (USGS 2018; Springer et al. 2018a, 2018b; Springer et al. 2015).

APPENDIX G: REFERENCES

Page G-4: Revised text

~~Springer, Kathleen, Craig R. Manker, and Jeffrey S. Pigati. 2015. "Dynamic response of desert wetlands to abrupt climate change." Proceedings of the National Academy of Sciences of the United States of America, Vol. 112, No. 47. November 24, 2015. Springer, K. B., C. R. Manker, and J. S. Pigati. 2015. "Dynamic response of desert wetlands to abrupt climate change." Proceedings of the National Academy of Sciences USA 112, 14522–14526. <https://www.pnas.org/doi/epdf/10.1073/pnas.1513352112>.~~

Page G-1: Additional text

Rosentreter, R., and J. Belnap. 2003. "Biological soil crusts of North America," J. Belnap and O. L. Lange, eds. "Biological Soil Crusts: Structure, Function, and Management." Berlin, Springer-Verlag: 31–50.

Springer, K. B., J. S. Pigati, C. R. Manker, and S. A. Mahan. 2018a. *The Las Vegas Formation*. U.S. Geological Survey Professional Paper 1839: 62, doi:10.3133/pp1839.

Page G-5: Revised text

US Geological Survey (USGS). 2018 “The Geology and Paleontology of Tule Springs Fossil Beds National Monument, Nevada.” Fact Sheet 2018-3038. The US Geological Survey Geosciences and Environmental Change Center. December. Springer, K. B., J. S. Pigati, and E. Scott. 2018b. “The geology and paleontology of Tule Springs Fossil Beds National Monument.” US Geological Survey Fact Sheet #2018-3038: 4. doi.org/10.3133/fs20183038.

ATTACHMENT B: RESPONSE TO SUBSTANTIVE PUBLIC COMMENTS

The National Park Service released the Tule Springs Fossil Beds National Monument General Management Plan/Environmental Assessment for public review and comment from February 15 through March 16, 2024.

The National Park Service received nine correspondences from individuals, which were documented on the NPS PEPC website. In addition, the National Park Service collected public comments during three meetings. A substantive comment is defined by NPS Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-Making* as one that does one or more of the following:

- questions, with reasonable basis, the accuracy of information in the environmental analysis
- questions, with reasonable basis, the adequacy of the environmental analysis
- presents reasonable alternatives other than those presented in the environmental analysis
- causes changes or revisions in the proposal

In other words, substantive comments raise, debate, or question a point of fact or analysis. Comments that merely support or oppose a proposal or that merely agree or disagree with NPS policy are not considered substantive and do not require a formal response. The following text summarizes the substantive comments received during the comment period and is organized into concern statements and responses. The page numbers referenced are from the February 2024 Tule Springs Fossil Beds National Monument General Management Plan and Environmental Assessment. In some cases, the text of the plan/EA was updated, changed, or clarified in response to comments. Those changes are documented in appendix A.

Concern Statement: One commenter stated that they believed it would help if the document had a more defined overall mission or objective statement for the management vision of Tule Springs Fossil Beds National Monument. The objective statement would weigh the priorities of the objectives. The commenter included an example of such a statement.

NPS Response: The plan/EA outlines the priorities and objectives for managing Tule Springs Fossil Beds National Monument. The National Park Service believes that including a new mission or objective statement would be redundant with the content that already exists in the document.

Concern Statement: One commenter suggested that the discussion of partnerships could be expanded to partnerships and stakeholders (which this commenter defined as “individuals and organizations with a vested interest in the Monument.”) The commenter noted that the complexity of managing these stakeholders could be essential to the future success of the monument.

NPS Response: The list of planning issues and opportunities, including the issue entitled “Partnerships,” was developed in close collaboration with the public and stakeholders as this general management planning effort was beginning to take shape. While stakeholders were not directly called out in the name of the issue, the National Park Service is grateful to Tule Springs Fossil Beds National Monument’s stakeholders and will continue to work closely with them to inform the current and future management of the monument.

Concern Statement: One commenter noted that Tule Springs Fossil Beds National Monument exists in a large ecosystem of a rapidly growing urban area, with many similar parks, including Ice Age Fossils State Park and Floyd Lamb Park at Tule Springs, a nearby park managed by the City of Las Vegas. The commenter encouraged the discussion of partnerships be expanded to include a stakeholder management strategy.

NPS Response: The list of planning issues and opportunities was developed in collaboration with members of the public and monument stakeholders. A stakeholder management strategy was not identified as a need during these discussions; therefore, it is not included here. The National Park Service will continue to develop additional planning documents for Tule Springs Fossil Beds National Monument in the future.

Concern Statement: One commenter expressed that there are two large zones that should be reviewed due to potential conflicts regarding use in these areas. The commenter noted that areas adjacent to urban areas may become urban parks, with many local entry points in the form of trails. The remaining areas of these zones would, in the commenter’s estimation, likely be more focused on research and conservation of the environment. The commenter suggested that these two functions may need to be separated and addressed separately.

NPS Response: The National Park Service is tasked with providing visitor access and enjoyment while preserving and conserving resources in the bureau’s enabling legislation, the Organic Act of 1916. In establishing the general management plan for Tule Springs Fossil Beds National Monument, the planning team sought to balance those two objectives in a responsible manner. Due to the shape of the park boundary, some research and resource protection zones are immediately adjacent to urban areas (such as Eglington Preserve). For management purposes, the National Park Service has chosen to keep these areas with a higher level of protection and management to protect and preserve the sensitive resources in these areas and offset potential impacts from visitor use. The National Park Service has decided not to change the zones of these areas into the visitor experience zone, as any visitor facilities that are established are intended to keep park visitors on designated interpretive trails, and there is no intention to expand visitor services beyond those predesignated areas. The differences between the visitor experience zone and the research and resource protection zone will be further delineated by monument managers as they work to implement the plan.

Concern Statement: One commenter expressed concerns about the actions outlined in the plan. The commenter stated that the plan adopted a reactive perspective rather than articulate a proactive vision and noted that immediate actions seemed absent.

NPS Response: General management plans are intended to provide broad direction for resource preservation and visitor use. In providing management direction at the broadest level, plans/EAs afford flexibility for decision-making and serve as a basis for future implementation planning.

As detailed in the plan/EA, Tule Springs Fossil Beds National Monument is a relatively recent addition to the national park system, having been established on December 19, 2014. Monument managers are actively working with partners and stakeholders to determine how to address resource preservation and visitor use needs. The National Park Service intends for this plan/EA to provide a broad management direction, with more specific and targeted implementation level planning to follow as the monument develops further.

Concern Statement: One commenter stated that they felt there was an important need to define appropriate recreation at Tule Springs Fossil Beds National Monument. The commenter noted that monument neighbors likely have a different concept than monument managers and that inappropriate recreation can be damaging, perhaps to an irreversible degree, in its negative impacts on the monument's unique resources.

NPS Response: As of June 2024, hikers, leashed pets, bicyclists, and equestrians are permitted on the Tule Springs Fossil Beds National Monument's temporary trails. These allowable uses are specified on the monument's website at <https://www.nps.gov/tusk/planyourvisit/trails.htm>. Neighbors who may have different concepts than monument managers on what recreation entails are nonetheless obligated to use temporary trails in compliance with monument policies.

Additional planning for recreational uses is outside the scope of this plan/EA. The establishment of new trails, reroutes of existing trails, and allowable uses on the different trails will be addressed in a future trail management plan.

Concern Statement: One commenter stated that while the zones established in the plan/EA are fine, how they would be achieved is absent from the plan.

NPS Response: General management plans are intended to provide broad direction for resource preservation and visitor use. In providing management direction at the broadest level, these plans afford flexibility for decision-making and serve as a basis for future implementation planning. The plan/EA for Tule Springs Fossil Beds National Monument is no exception. How the zones will be achieved and what actions and strategies need to be implemented to ensure their viability will be outlined in more specific and targeted implementation-level planning documents.

Concern Statement: One commenter stated that the Native American presence and vision of the monument and its resources as a sacred place needs to be an addition to the significance of the monument. Such an addition would provide an important visionary framework for the park in addition to the focus on being a scientific living laboratory. The commenter emphasized that all monument visitors should be aware of the Native American vision for the lands on which the monument sits.

NPS Response: The National Park Service values its relationship with its Tribal partners. The Native American vision for the lands on which Tule Springs Fossil Beds National Monument sits are outlined in the Tribal engagement guiding principles section of the plan/EA beginning on page 2. These guiding principles will ensure that monument managers continue to strengthen their relationship with their Tribal partners and that Tribal perspectives continue to inform how the monument is managed.

Concern Statement: One commenter stated that Eglington Preserve should not be included in the research and resource protection zone due to the development adjacent to this area. The commenter emphasized that the preserve needs to be treated differently.

NPS Response: All lands within the boundary of Tule Springs Fossil Beds National Monument were included in one of the three zones developed for the plan/EA. The resource protection and research zone was developed to “protect areas with highly sensitive fundamental paleontological, geological, cultural, and natural resources.” The description for this zone notes that “these resources are the most highly managed within the park boundary to ensure their protection and study.” The National Park Service agrees that Eglington Preserve needs to be preserved and protected and believes that including Eglington Preserve in the resource protection and research zone provides monument managers with the best ability to do so.

Concern Statement: One commenter stated their concern that the plan/EA may not communicate the zone descriptions clearly enough for future park leadership. The commenter emphasized that the zone descriptions in the plan/EA need to be rewritten to make them clearer.

NPS Response: General management plans provide broad direction for resource preservation and visitor use, which includes the type of description that are included in the zone descriptions. The National Park Service believes that what is included in the zone descriptions will provide the needed direction and flexibility to guide monument management for the next 10 to 15 years or more.

Concern Statement: One commenter stated that the map in the plan/EA is misleading and that there are 10,000 homes in the area between Bruce Woodbury Beltway and Eglington Preserve.

NPS Response: The National Park Service is aware of the planned Villages of Tule Springs development and includes the development as an example of a reasonably foreseeable action associated with future projects in chapter 3 the plan/EA. As the development has not yet fully materialized, its presence cannot be reflected on the maps shown in the document. The National Park Service will engage with property owners in this development on any implementation efforts related to this plan/EA.

Concern Statement: One commenter stated that a research and resource protection zone designation was incompatible with the planned construction of the Eglington Preserve Tufa Trail. The commenter argued that if there is not a focus on research in the area then the area should be rezoned to focus on recreation.

NPS Response: The National Park Service is tasked with providing visitor access and enjoyment while preserving and conserving resources in the agency's enabling legislation, the Organic Act of 1916. In establishing the general management plan for Tule Springs Fossil Beds National Monument, the planning team sought to balance those two objectives in a responsible manner.

The description for the research and resource protection zone notes that "visitor use in the zone is supplementary to resource protection and research." Conducting research, particularly on bearpoppy and other native and rare plants, is and will remain a priority for monument managers in Eglington Preserve. The zone description goes on to note that any trails and limited modifications that occur in this zone will avoid sensitive natural and cultural features and that most visitor interactions with sensitive resources is managed in this area with guided interpretive experiences that focus on the conservation and scientific process. The National Park Service will adhere to these guidelines in designing and constructing the Eglington Preserve Tufa Trail. Guiding visitor use on a maintained, accessible, interpretive trail is in the best interest of protecting vulnerable and scientifically and culturally important resources.

ATTACHMENT C: A NON-IMPAIRMENT DETERMINATION

IMPAIRMENT PROHIBITION

The NPS Organic Act of 1916 directs the US Department of the Interior and the National Park Service to manage units “. . . to conserve the scenery and the natural and historic objects and wildlife in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (54 USC 100101[a]). Congress reiterated this in the Redwood National Park Expansion Act of 1978 by stating that the National Park Service must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which the System units have been established, except as directly and specifically provided by Congress” (54 USC 100101[b]).

IMPAIRMENT DEFINITION

According to NPS *Management Policies 2006*, section 1.4.5, an action is considered an impairment when its impacts “. . . harm the integrity of Park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.” Section 1.4.5 goes on to state that “An impact to any park resource or value may, but does not necessarily, constitute an impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- identified as a goal in the park’s general management plan or other relevant NPS planning documents as being of significance.”

IMPAIRMENT DETERMINATION

This impairment determination has been prepared for the selected action described in this finding of no significant impact and chapter 2 of the plan/EA.

The determination is made for federally listed species under the Endangered Species Act, special status species and habitat, paleontological resources, geologic features, archeological resources, and cultural resources – the Tule Springs Archeological Site. A non-impairment determination is not necessary for visitor use and experience because this impact topic is not generally considered to be a park resource or value under the Organic Act and cannot be impaired in the same way.

The selected alternative will have no significant impact on the desert tortoise (a federally listed species under the Endangered Species Act), the Las Vegas bearpoppy (special status

species and habitat), paleontological resources, geologic features (tufa), archeological resources, and cultural resources – the Tule Springs Archeological Site.

Federally Listed Species – Desert Tortoise and Las Vegas Bearpoppy

Management actions implemented through general management planning for the desert tortoise and Las Vegas bearpoppy are expected to improve habitat conditions over the long term, especially those activities that will reduce the need for ground disturbance to potential desert tortoise and Las Vegas bearpoppy habitat. Continued engagement with the US Fish and Wildlife will further protect the desert tortoise as the park carries out activities that are associated with the plan.

Paleontological and Geologic Features (Tufa Resources)

Paleontological and tufa resources will be protected through visitor capacities for management zones, as well as wayfinding and circulation that are designed to protect areas of the most sensitive resources from visitor impacts.

Archeological and Cultural Resources (Tule Springs Archeological Site)

Archeological and cultural resources will be protected through continued engagement with Tribal partners. Archeological and cultural resources will also be protected through documenting and monitoring resources to the greatest extent possible across the three zones through the implementation of best practices using emerging technologies.

All management strategies noted here will integrate education and communication for staff, visitors, and researchers to emphasize protection of these resources. These actions will improve the National Park Service's ability improve management and protection of the desert tortoise, the Las Vegas bearpoppy, paleontological resources, geologic features (tufa), archeological resources, resources important to Tribal partners, and cultural resources (the Tule Springs Archeological Site). Therefore, the selected action will not impair the desert tortoise, the Las Vegas bearpoppy, paleontological resources, geologic features (tufa), archeological resources, resources important to Tribal partners, and cultural resources (the Tule Springs Archeological Site).

CONCLUSION

The National Park Service has determined that implementing the selected action is not anticipated to constitute an impairment of the park's resources or values. This conclusion is based on consideration of the park's purpose and significance, a thorough analysis of the environmental impacts described in the plan/EA, the comments provided by the public and others, and the professional judgment of the decision-maker guided by the direction of NPS *Management Policies 2006*.

ATTACHMENT D: BIOLOGICAL ASSESSMENT CONCURRENCE LETTER



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Southern Nevada Fish and Wildlife Office
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130



IN REPLY REFER TO:
2024-0093641,
and 84320-2009-F-0145.R001

May 21, 2024
Sent electronically

Memorandum

To: Superintendent
National Park Service
Tule Springs Fossil Beds National Monument
Boulder City, Nevada

From: Field Supervisor
Southern Nevada Fish and Wildlife Office
Las Vegas, Nevada

Subject: Amendment of the Biological Opinion for the Lake Mead National Recreation Area Programmatic, to include the Tule Springs Fossil Beds National Monument General Management Plan, Clark County, Nevada

This transmits the U.S. Fish and Wildlife Service's (Service) response to the letter received December 4, 2023, requesting a consultation amendment for the National Park Service's (NPS) Tule Springs Fossil Beds National Monument (TUSK) General Management Plan (GMP), Clark County, Nevada. This plan is intended to support desired resource conditions and visitor experiences that should be achieved and maintained based on the park's purpose and significance as described by the park's authorizing legislation and foundation document. Development of the TUSK GMP was identified as an NPS course of action within the re-initiation of the Lake Mead National Recreation Area Programmatic Biological Opinion (File No.84320-2009-F-0145.R001).

The Lake Mead National Recreation Area programmatic biological opinion includes the proposal to implement various programmatic activities over a 10-year period, beginning with the 2017 calendar year, that occur within the action area consisting of Federal lands within TUSK in Nevada. All future actions proposed to occur within TUSK that may result in adverse effects to the federally threatened Mojave desert tortoise (*Gopherus agassizii*) would be appended to the programmatic biological opinion. NPS actions considered within the programmatic biological opinion included rights-of-way (ROW), road construction and maintenance, and infrastructure development and maintenance.

The TUSK GMP was recognized within the consultation as under development at the time of completion of the Lake Mead National Recreation Area programmatic biological opinion. The programmatic biological opinion acknowledges the TUSK GMP would further guide

management strategies and development concepts applicable to future actions within the TUSK lands. The GMP provides needed guidance for addressing parkwide issues and opportunities within the context of the park's purpose, significance, and special mandates, including cultural and natural resource preservation, facilities and infrastructure planning, climate change response, visitor use and experience, and partnerships.

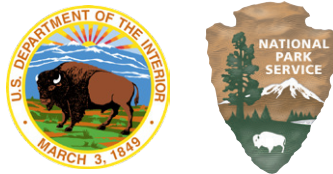
Recent collaboration between NPS and Service staff regarding the development of the TUSK GMP has identified the plan would be used by park management for an estimated duration of 20 years. The temporary Aliante and Durango Loop Trails are proposed to be formalized and would not require additional ground disturbance. Additionally, the plan acknowledges the potential for future acquisition of lands that could alter park boundaries. If lands are acquired in the future, or the existing Lake Mead National Recreation Area programmatic biological opinion reaches its 10-year term, NPS will seek further consultation with the Service.

We have reviewed your request and concur that the inclusion of a developed TUSK GMP will currently remain within the scope of effects analyzed in the formal consultation for the re-initiation of the Lake Mead National Recreation Area Programmatic Biological Opinion and will not result in effects to the desert tortoise beyond those considered in the original consultation. The total acreage of disturbance considered within the existing programmatic biological opinion has not changed; the number of tortoises affected by the proposed action will not change, therefore, the original incidental take statement will remain the same. All other NPS-proposed measures to minimize effects to Mojave desert tortoise in the project area remain valid as described in the original biological opinion. This response constitutes formal consultation under regulations promulgated in 50 CFR § 402.14, which establish procedures governing interagency consultation under section 7 of the Act.

If we can be of further assistance regarding this consultation, please contact Kelly Douglas in the Southern Nevada Fish and Wildlife Office at kelly_douglas@fws.gov. Please reference Service file number 2024-0093641 on any future correspondence relating to this consultation.

cc:

Supervisory Biologist - Habitat, Nevada Department of Wildlife, Las Vegas, Nevada
Integrated Resources Program Manager, Tule Springs Fossil Beds National Monument, National Park Service, Boulder City, Nevada



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.

TUSK 236/192591a
July 2024



Tule Springs Fossil Beds National Monument | Nevada
General Management Plan and Finding of No Significant Impact | July 2024