



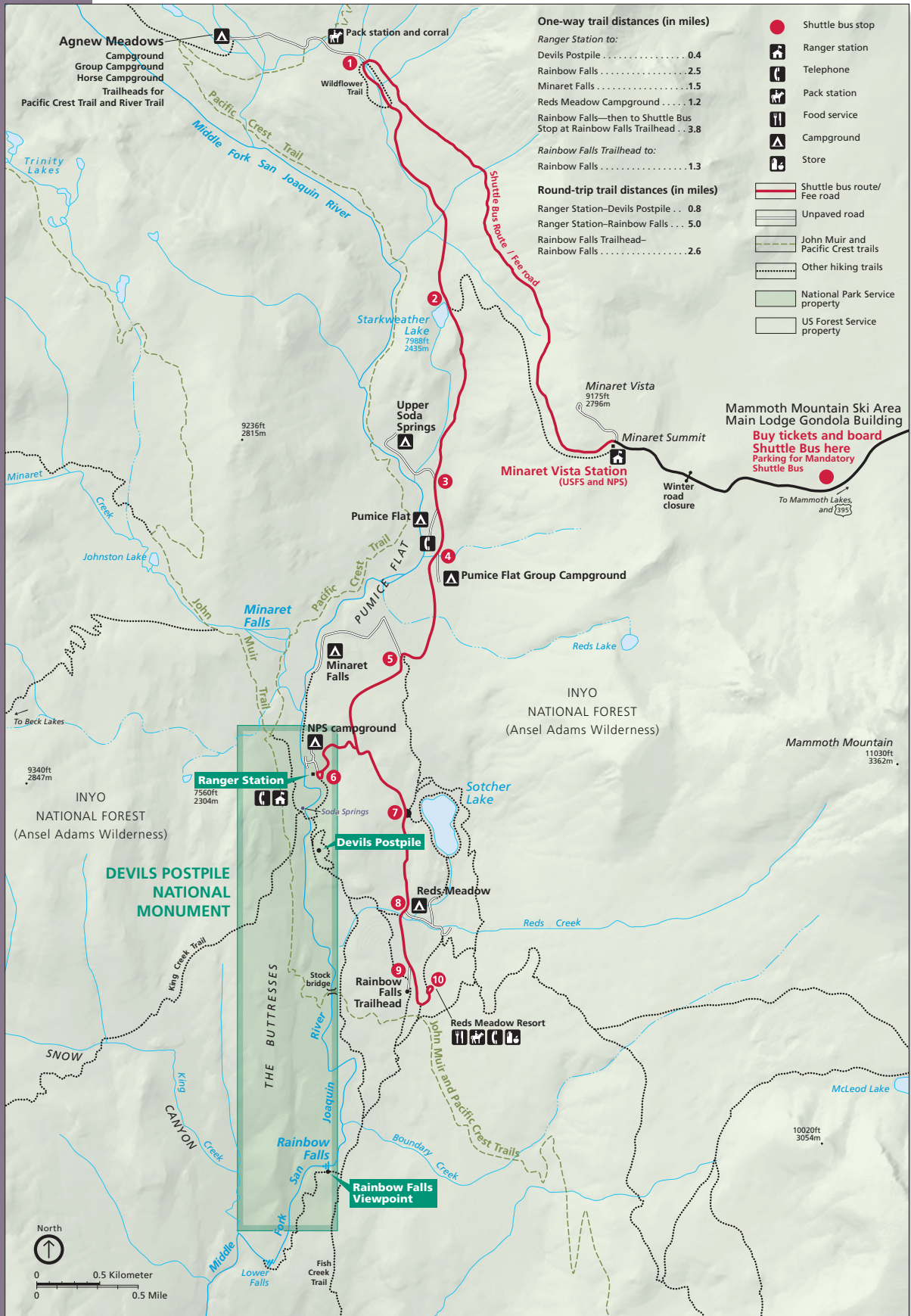
# Foundation Document Devils Postpile National Monument

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*Signatures*  
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## Mission of the National Park Service

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

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

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

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

The national park system continues to grow and comprises more than 400 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the Virgin Islands. These units include, but are not limited to, national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, and the White House. The variety and diversity of park units throughout the nation require a strong commitment to resource stewardship and management to ensure both the protection and enjoyment of these resources for future generations.



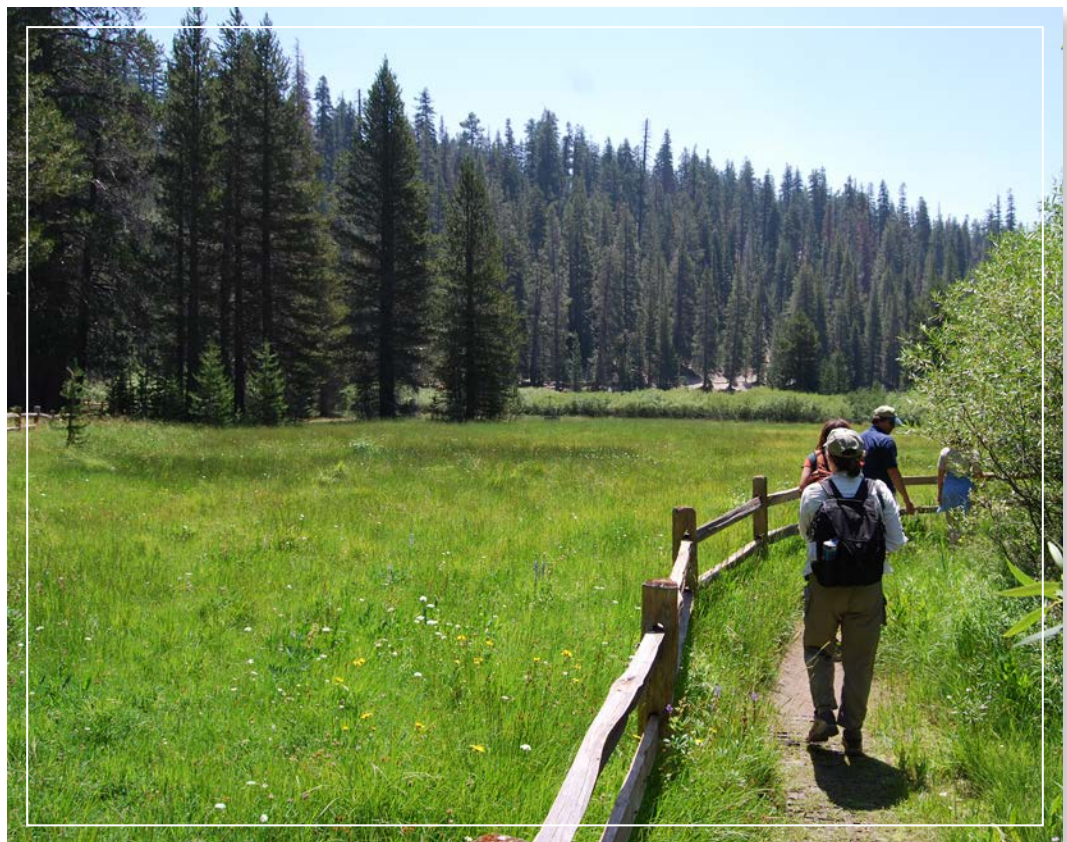
*The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archeological values.*

## Introduction

Every unit of the national park system will have a foundational document to provide basic guidance for planning and management decisions—a foundation for planning and management. The core components of a foundation document include a brief description of the park as well as the park’s purpose, significance, fundamental resources and values, other important resources and values, and interpretive themes. The foundation document also includes special mandates and administrative commitments, an assessment of planning and data needs that identifies planning issues, planning products to be developed, and the associated studies and data required for park planning. Along with the core components, the assessment provides a focus for park planning activities and establishes a baseline from which planning documents are developed.

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

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



## Part 1: Core Components

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

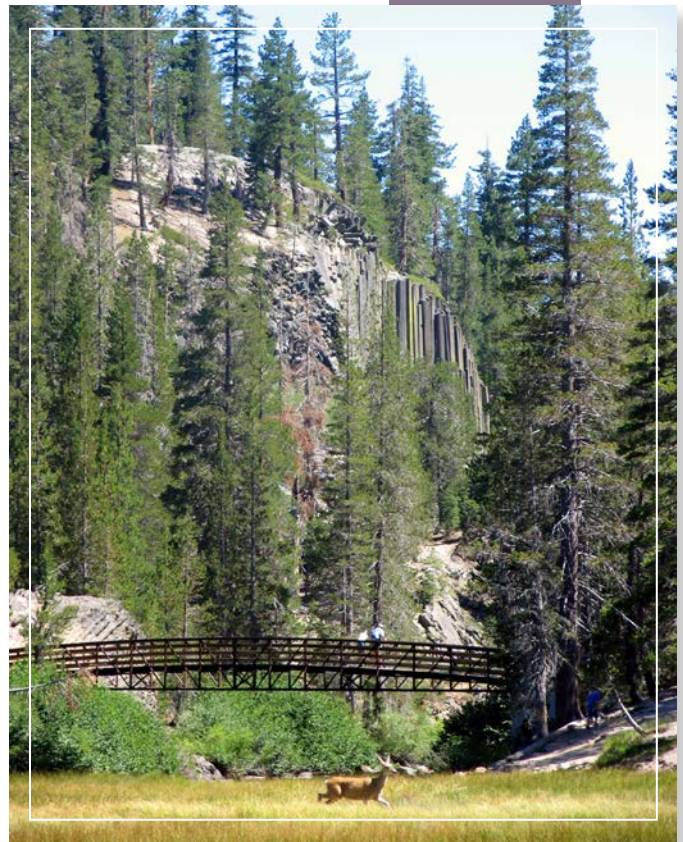
### Brief Description of the Park

Devils Postpile National Monument was established on July 6, 1911, by Presidential Proclamation 1166. Devils Postpile National Monument is in Reds Meadow Valley, within the central Sierra Nevada of California, surrounded by the Inyo National Forest and attached to one of the largest contiguous wilderness complexes in the lower 48 states.

Devils Postpile National Monument comprises approximately 800 acres of geologic formations, riparian and wetland areas, and mixed conifer forests, with an elevational gradient ranging from 7,200 feet at the southern monument boundary to nearly 8,400 feet at the summit of Granite Dome. Approximately 85% (687 acres) of the monument is federally designated wilderness. The monument provides access to a greater wilderness experience that includes both the 231,279-acre Ansel Adams Wilderness (of which it is a part) and the adjacent 651,992-acre John Muir Wilderness. The Upper Middle Fork of the San Joaquin River flows through the monument and has been determined to be eligible for designation as a wild and scenic river. The closest communities to the monument are Mammoth Lakes to the east, Lee Vining and June Lake to the northeast, and Bishop to the southeast.

The peak season of visitation to the monument is mid-June through Labor Day. During September and early October, visitation can be high, with parking lots exceeding capacity, when weather is pleasant and fall colors vibrant. The primary access point (and the only vehicular access) is through Mammoth Lakes, off of U.S. Highway 395. Heavy snows limit vehicular access and force a road closure in winter. Visitor services in the valley cease after October 31, or when the road to the monument is closed due to snow and ice after October 15. The road typically reopens and visitor services resume in early- to mid-June, though winters with exceptionally high snowfall have pushed opening day into late June.

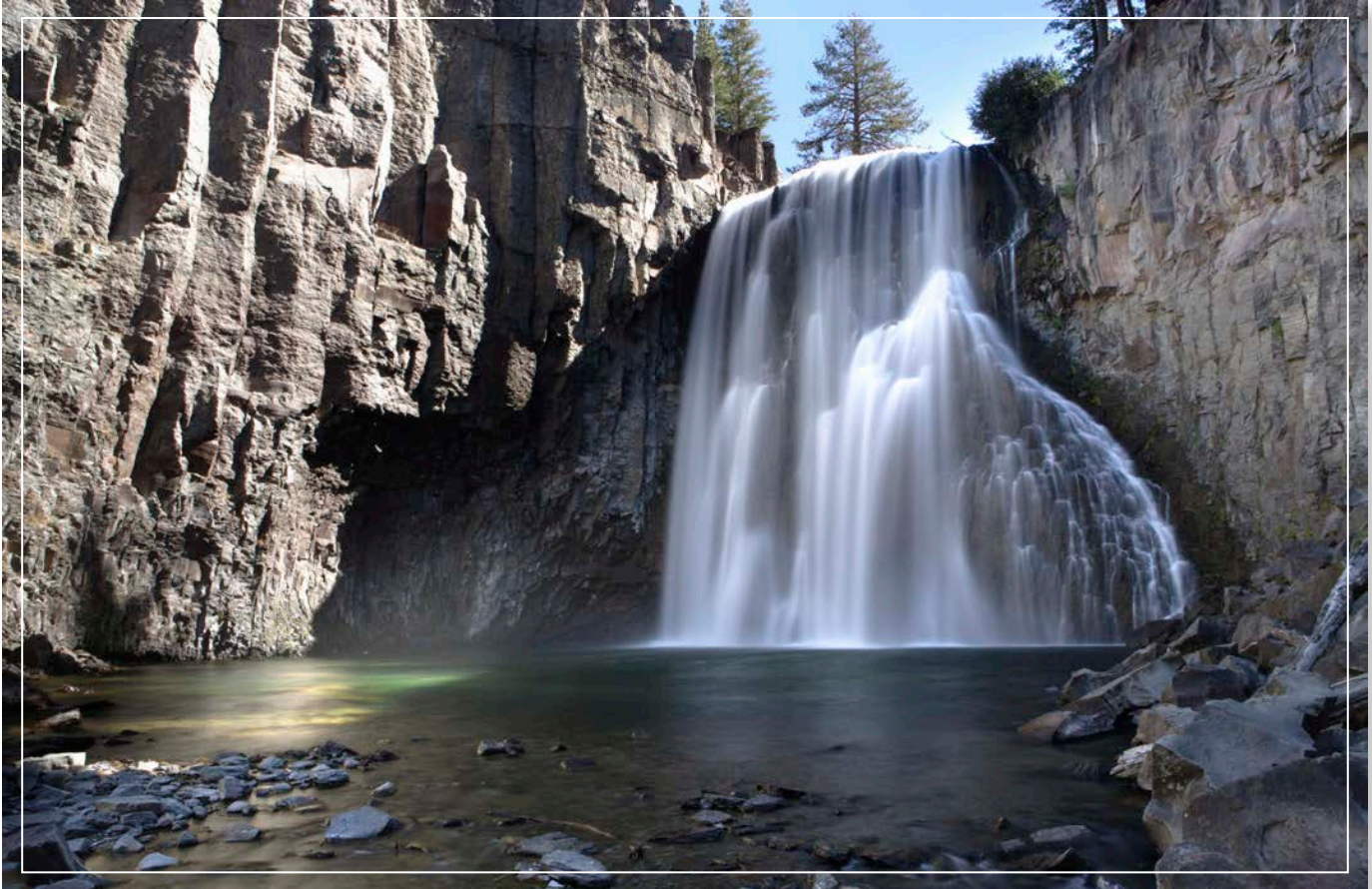
Private vehicle use is regulated during most of the summer season when mandatory shuttle service brings visitors in and out of the monument. Currently, visitation averages approximately 150,000 per year. The average length of stay for day use is four to five hours and for overnight use is two and one-half days. The monument is used as an access point for backcountry hikers heading for the Pacific Crest Trail and the John Muir Trail, estimated at 6,000 hikers each summer, as well as approximately 1,500 equestrians, most of which are commercial day trips to Rainbow Falls from the Reds Meadow Pack Station. Access to the monument in the fall when the shuttle buses are not in operation is primarily via private vehicles. The number of visitors accessing the monument during the cold winter months is very small, though winter use has been increasing in recent years. Legal winter access is by backcountry skiing or snowshoeing, although snowmobiles that are allowed on the adjacent Inyo National Forest lands occasionally trespass into the monument.



## Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Devils Postpile National Monument was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The park was established by presidential proclamation on July 6, 1911 (see appendix A for the presidential proclamation and subsequent legislative acts). The purpose statement lays the foundation for understanding what is most important about the park.

*DEVILS POSTPILE NATIONAL MONUMENT  
preserves and protects the glacially exposed  
columns of the Devils Postpile, the scenic  
Rainbow Falls, and the wilderness landscape  
of the upper Middle Fork San Joaquin River  
in the Sierra Nevada for scientific value,  
public interest, and inspiration.*





## Park Significance

Significance statements express why a park's resources and values are important enough to merit designation as a unit of the national park system. These statements are linked to the purpose of Devils Postpile National Monument, and are supported by data, research, and consensus. Statements of significance describe the distinctive nature of the park and why an area is important within a global, national, regional, and systemwide context. They focus on the most important resources and values that will assist in park planning and management.

The following significance statements have been identified for Devils Postpile National Monument. (Please note that the sequence of the statements does not reflect the level of significance.)

- Devils Postpile is one of the world's finest examples of columnar jointing, displaying volcanic rock columns polished by glaciers and revealing a mosaic of polygons on its dome-shaped top.
- Devils Postpile National Monument is nested in one of the largest contiguous designated wilderness areas in the lower 48 states that includes three national forests and three national parks in the Sierra Nevada.
- For a small area, Devils Postpile National Monument supports and maintains unusually rich ecological diversity reflective of its location at the intersection of three biogeographic regions. The physical setting and context create exceptional opportunities for scientific study and shared learning.
- Devils Postpile National Monument provides a traditional national park experience in a rustic setting that promotes learning and intimate, time-honored visitor experiences that include enjoying the sights and sounds of nature.
- The establishment of Devils Postpile National Monument provides compelling insight into the history and evolution of national parks and national forests, beginning in the early years of the public lands conservation and preservation movement.



## Fundamental Resources and Values

Fundamental resources and values (FRVs) are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to warrant primary consideration during planning and management processes because they are essential to achieving the purpose of the park and maintaining its significance. Fundamental resources and values are closely related to a park’s legislative purpose and are more specific than significance statements.

Fundamental resources and values help focus planning and management efforts on what is truly significant about the park. One of the most important responsibilities of NPS managers is to ensure the conservation and public enjoyment of those qualities that are essential (fundamental) to achieving the purpose of the park and maintaining its significance. If fundamental resources and values are allowed to deteriorate, the park purpose and/or significance could be jeopardized.

The following fundamental resources and values have been identified for Devils Postpile National Monument:

- **Distinct Geologic Features.** The Postpile, Rainbow Falls, and other geologic features provide textbook quality evidence of volcanism, glaciation, and mountain building forces. An outstanding example is the Postpile, formed 82,000 years ago when basaltic lava flowed down the river canyon, pooled, and then cooled to form very symmetrical columns. Glaciers dug deeply into the hardened flow and exposed the columns and polished the tops of the columns that we see today.
- **Upper Middle Fork San Joaquin River.** Naturally functioning and unpolluted surface and groundwater systems sustain a free-flowing river, mineral springs, wetlands, riparian areas, and other water-dependent features and communities. Dynamics of river flow such as flooding and good water quality maintain these ecosystems and the multitude of species that depend on them. The San Joaquin River links the monument ecologically to both the headwaters of the watershed and to downstream lands and waters.
- **Component of a Larger Ecosystem.** The monument is a functional part of several converging biogeographic regions affected by dynamic physical processes such as fire and hydrology that influence a diverse and evolving biota. Diversity in climate, topography, and geology supports numerous native plant communities, including forest, shrub, meadow, and riparian systems, that provide habitat for many species. The San Joaquin River corridor and proximity to the low passes adjacent to the monument facilitate the connection of migratory corridors for birds, animals, and plants from nearby and more distant ecosystems, thus increasing species diversity relative to other similarly sized areas in the range.





- **Body of Knowledge.** A body of knowledge and material evidence documents the monument’s natural and administrative history, cultural significance, and topographic importance in the Sierra Nevada ecoregion. Monument staff are working with partners to develop and sustain a historical archive of inventories of flora and fauna, climate, weather, hydrologic, and ecological conditions for the past and present. The body of knowledge establishes reference baselines, can be integrated into decision making, and can inform models to project future conditions and trends and to develop adaptation strategies.
- **Opportunities for Science and Learning.** Scientific interpretation has been a major theme in the monument’s management history, and is articulated in the enabling legislation that states that the unit will be protected for its “scientific value” and public interest. The monument continues to offer important opportunities for scientific study and shared learning about past, present, and future environmental conditions and connected ecological processes. The monument’s staff contribute to efforts that strengthen the scientific partnerships and landscape-level coordination, and encourage the public to participate in interpretive, educational, and stewardship opportunities.
- **Natural Soundscapes, Clean Air, and Clear Views.** The monument provides natural soundscapes, dark night skies, clean air, clear water, and unspoiled natural vistas. These are important for the health and viability of native flora and fauna, and are a key component of a high quality visitor experience.
- **Wilderness Portal.** Most of Devils Postpile National Monument is designated as wilderness. The internationally recognized John Muir and Pacific Crest Trails pass through the monument. Visitors sense this place is an entryway to exploration, understanding, and appreciation of the qualities of wilderness character. Visitors’ experiences range from a glimpse to an immersion into the vast Sierra wilderness.
- **Traditional Undeveloped Park Experience.** Visitors are offered time-honored park experiences in a setting that emphasizes the enjoyment of natural sights and sounds and promotes a sense of place and history.

## Other Important Resources and Values

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

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

- **Cultural resources.** Archeological evidence suggests that people have been present in the Devils Postpile and surrounding area, crossing the Sierra Crest west of present day Mammoth Lakes, as far back as 7,500 years ago. In addition, obsidian found within the monument suggests that the valley was used seasonally by tribes on the east and west sides of the Sierra and was probably part of a trade route from the Casa Diablo geothermal area, where the obsidian originated. Volcanic activity, erosion, animals, and harsh winters have erased much of the evidence of the region’s past, yet evidence of human presence remains and cultural resource specialists have identified historic and archeological sites, objects, trails, and places. Although access, heavy snowpack, high elevation, frequent volcanic activity, and territorial conflict has insulated the area from development occurring in more populated areas to the east and west, Devils Postpile National Monument preserves landscape features and historic resources reflecting the varied activities of many groups of people, including American Indians, miners, shepherders, conservationists, scientists, park managers, rangers, local residents, and tourists. Both the historic Ranger Station and remains of the Postpile Cabin are listed in the National Register of Historic Places for their historic significance. Today, contemporary local American Indian tribes identify that their relationship between the lands in and around the monument plays an important role in perpetuating cultural ties and spiritual practices.



## Interpretive Themes

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

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

The following interpretive themes have been identified for Devils Postpile National Monument:

- The Devils Postpile challenges the intellect and inspires the imagination in our efforts to understand how lava, ice, and other forces forged and sculpted this scenic and scientific wonder.
- Complex natural processes shape and support the diverse and dynamic Devils Postpile landscape, creating inspirational scenery and opportunities for significant scientific discovery and understanding.
- Devils Postpile provides a gateway for myriad wilderness experiences, providing opportunities for personal renewal, inspiration, artistic expression, connection to the landscape, and the prospect of hope for the future.
- The establishment of Devils Postpile National Monument provides compelling insight into the ongoing evolution of our relationship to the land, environmental citizenry, stewardship ethic, and the internationally shared heritage of public lands conservation.
- The rustic setting and traditional park experience at Devils Postpile brings us closer to the land by providing opportunities for solitude, exploration, experiencing simple pleasures, and developing a sense of place.
- The monument reveals unusually rich ecological diversity for an 800-acre area. Self-directed or interpretive talks provide opportunities for intimate understanding and appreciation of the monument's connection to the larger Sierra Nevada ecosystem and the world.
- Each visitor is part of a proud and enduring legacy of stewardship that catalyzed the creation of Devils Postpile National Monument and inspires us to protect and preserve the environment as a whole for future generations.
- Evidence of powerful physical change due to past ice ages within the monument, as well as ongoing scientific climate studies, make Devils Postpile National Monument an ideal location to teach visitors about the causes and effects of natural and anthropogenic climate change.



## Part 2: Dynamic Components

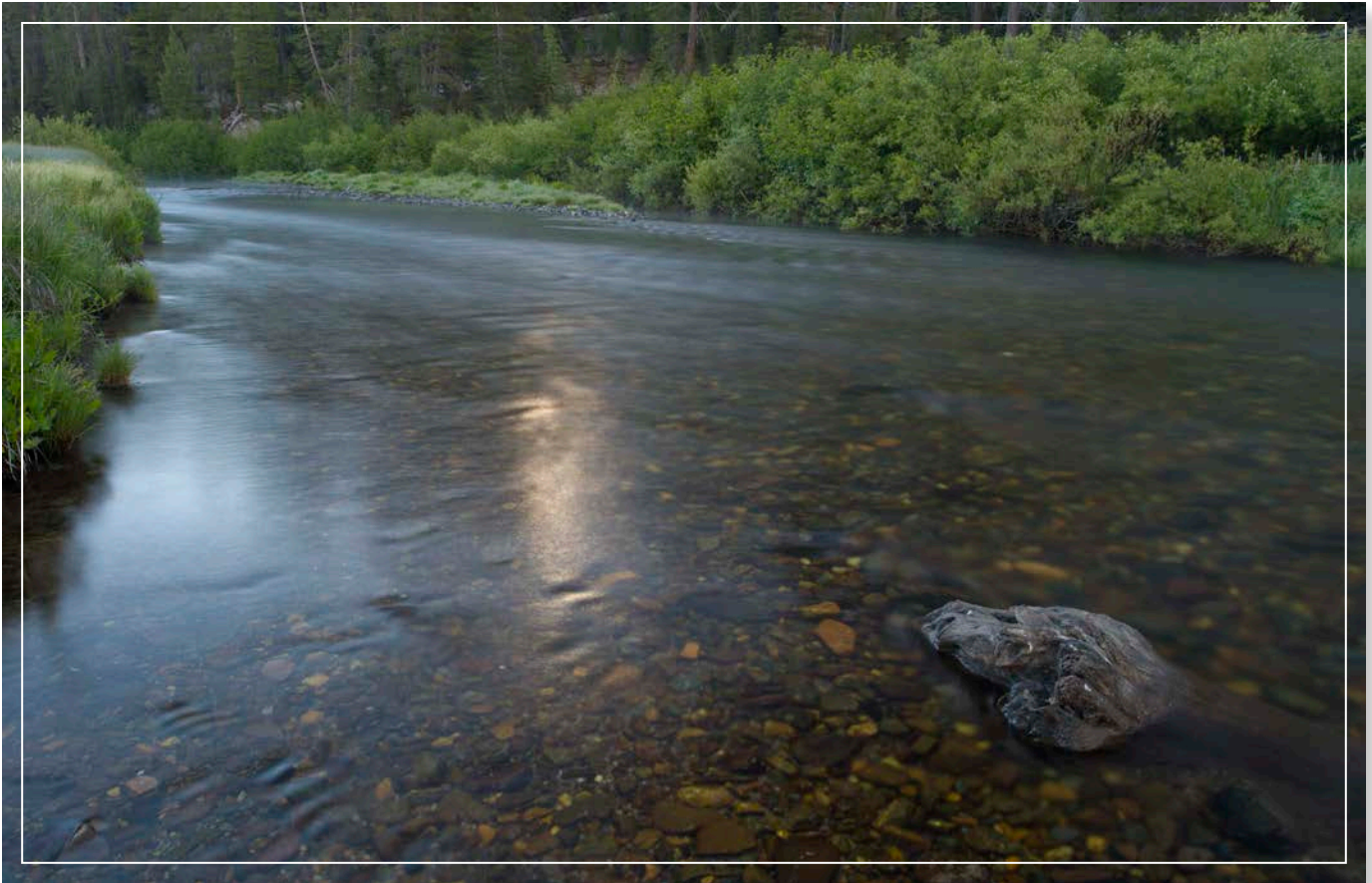
The dynamic components of a foundation document include special mandates and administrative commitments and an assessment of planning and data needs. These components are dynamic because they will change over time. New special mandates can be established and new administrative commitments made. As conditions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

### Special Mandates and Administrative Commitments

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

#### Special Mandates

- **Wilderness Designation.** The John Muir Wilderness includes approximately 651,000 acres of designated wilderness in the Sierra Nevada. The Ansel Adams Wilderness includes approximately 231,000 acres of designated wilderness in the Sierra Nevada. Originally established as the Minarets Wilderness in 1964 (PL 88-577), the California Wilderness Act of 1984 (PL 98-425) expanded this wilderness area and changed the name to Ansel Adams, honoring the famous photographer. Approximately 687 acres of monument lands are located within designated wilderness. The legal and policy requirements of the Wilderness Act and NPS wilderness policy apply to wilderness within Devils Postpile National Monument.
- **Clean Air Act.** Although Devils Postpile National Monument is not designated as a Class I park, 85% of the monument is within the Ansel Adams Wilderness, a Class I area under the Clean Air Act Amendments of 1977 (42 USC 7401 et seq.), which provides special protection for air quality, sensitive ecosystems, and clean, clear views. Thus, the monument is managed as a Class I area. Class I areas are afforded the highest degree of protection under the Clean Air Act. This designation allows very little additional deterioration of air quality.
- **Pacific Crest and John Muir Trails.** The Pacific Crest National Scenic Trail is a trail of approximately 2,350 miles, extending from the Mexican-California border northward generally along the mountain ranges of the west coast states to the Canadian-Washington border near Ross Lake. Under the National Trails System Act (PL 90-543, as amended through PL 111-11, 2009), the trail is administered by the Secretary of Agriculture. Portions of the Pacific Crest Trail overlap with the John Muir Trail. Although it has no formal designation, the John Muir Trail is one of the oldest trails in the Sierra Nevada. The monument contains approximately 2 miles of the Pacific Crest and John Muir Trails. The legal and policy requirements that apply to these trails also apply to the sections within Devils Postpile National Monument.



- **Determination of Eligibility and Suitability for Wild and Scenic River Designation.** The Middle Fork of the San Joaquin River was found eligible for wild and scenic river designation, under section 5(d)(1) of the Wild and Scenic Rivers Act, in a 1991 eligibility study (Sierra National Forest). This eligibility analysis was reaffirmed and updated in 2015, along with a suitability analysis finding the river to be suitable for designation. Due to its eligibility, the river must be protected as a potential addition to the national system of wild and scenic rivers. Protective management of federal lands in the river area begins at the time the river segment is found eligible and includes these elements:
  - **Free-Flowing Values.** The free-flowing characteristics of eligible river segments cannot be modified to allow stream impoundments, diversions, channelization, and/or rip-rapping to the extent authorized under law.
  - **River-Related Values.** Each segment is managed to protect outstandingly remarkable values (subject to valid existing rights) and, to the extent practicable, such values are enhanced.
  - **Water Quality.** Water quality must be protected.
  - **Classification Impacts.** Management and development of the eligible river and its corridor cannot be modified, subject to valid existing rights, to the degree that its eligibility or classification would be affected.

For more information about administrative commitments for the monument, please see the *Devils Postpile National Monument Draft General Management Plan and Environmental Assessment* (2015), page 31.

## Assessment of Planning and Data Needs

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

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

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

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

### Analysis of Fundamental Resources and Values

The fundamental resource or value analysis includes current conditions, potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value. The analysis of fundamental resources and values is not included in this foundation document. Descriptions of Devils Postpile National Monument fundamental resources and values are included in the affected environment chapter of the park's general management plan and environmental assessment, which was published in draft form in 2014, then finalized in 2015.

### Identification of Key Issues and Associated Planning and Data Needs

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

The *Devils Postpile National Monument General Management Plan and Environmental Assessment* (general management plan) was approved in January 2015 and identifies and describes key park issues. Input on park issues was gathered from NPS staff, stakeholders, and the general public. Issue topics include: management and preservation of natural and cultural resources, preservation of wilderness character, addressing the potential impacts of climate change, coordinating facilities and services with the Inyo National Forest, and providing appropriate types and levels of visitor use, access, and transportation, as well as visitor, administrative, and operational facilities. The following planning and data needs assessment prioritizes the list of plans, studies, and data needs included in the general management plan as well as additional planning and data needs required to implement the general management plan.



## Planning and Data Needs

To maintain connection to the core elements of the foundation and the importance of these core foundation elements, the planning and data needs listed here are directly related to protecting fundamental resources and values, park significance, and park purpose, as well as addressing key issues. To successfully undertake a planning effort, information from sources such as inventories, studies, research activities, and analyses may be required to provide adequate knowledge of park resources and visitor information. Such information sources have been identified as data needs. Geospatial mapping tasks and products are included in data needs.

Items considered of the utmost importance were identified as high priority, and other items identified, but not rising to the level of high priority, were listed as either medium- or low-priority needs. These priorities inform park management efforts to secure funding and support for planning projects.

**Criteria and Considerations for Prioritization.** The following criteria were used to evaluate the priority of each planning or data need:

- Implements actions in the general management plan
- Addresses multiple interrelated issues
- Emergency or urgency of the issue
- Protects fundamental resources and values or prevents resource degradation
- Enhances visitor experience
- Utilizes opportunities, including interagency partnership or other assistance

## High Priority Planning Needs

### Site Plan for Day Use and Campground Redesign, Accessibility, and Comfort Stations Replacement.

*Rationale and Scope* — A comprehensive site design for the developed area of Devils Postpile National Monument, including the Visitor Contact / Ranger Station, comfort stations, campground, day use area, parking areas, and administrative area is needed. Goals include improving accessibility for visitors with disabilities, ecologically restoring and protecting the riparian corridor of the Middle Fork of the San Joaquin River, improving visitor experience and recreational opportunities near the river, developing a covered interpretation/information area, and providing an improved camping experience with better delineated sites and added walk-in sites. The redesign would focus on separating car and walk-in camping from day use by improving parking and circulation for shuttle buses, cars, and pedestrians.

The site design would also address cultural resource compliance and maintain the rustic character of the exterior architecture including the Visitor Contact / Ranger Station, a newly listed National Register of Historic Places site. To ensure that facilities, including exhibits, signs, and infrastructure, are designed or modified in a style of rustic architecture that complements the natural setting and scenic views, design standards guidelines would be developed. These standards would also guide any modifications to the Visitor Contact / Ranger Station.

### **Visitor Experience and Resource Protection Plan for the Middle Fork of the San Joaquin River.**

*Rationale and Scope* — The monument needs a visitor experience and resource protection plan to maximize resource protection of the Middle Fork of the San Joaquin River (found eligible for wild and scenic river designation) in the northern section of Devils Postpile National Monument, while continuing to provide visitor access and enjoyment. Visitors inadvertently impact natural and cultural resources along the river corridor, and an assessment of the impacts, types of uses, and development of effective ways to protect the river is needed. Management concerns for the river and riparian corridor include vegetation loss and accelerated riverbank erosion from recreational use, inadequate knowledge of location and condition of sensitive wildlife habitat, and the articulation of policies regarding commercial and special uses. A holistic assessment of current conditions is needed to refine project design and objectives. This plan would consider condition assessments, resource condition thresholds, user capacities, protocols to monitor impacts, and management actions to mitigate impacts in order to maintain the integrity of the resources and visitor enjoyment. This would be the first step in ensuring protection of the river and the outstandingly remarkable values that make it eligible to be a wild and scenic river. This document would provide management guidance for the Middle Fork of the San Joaquin River for the foreseeable future, as well as outlining a positive way for managing visitor use through education and interpretation. This project would ensure that visitors enjoy a naturally functioning riverine and riparian ecosystem while providing recreational opportunities such as fishing, hiking, camping, and bird watching along the river.

### **Fire and Fuels Management Plan Revision/Update.**

*Rationale and Scope* — To continue proactive management, the monument would revise the existing fuels and fire management plan (2005) to minimize wildfire danger / type conversion, evaluate the effects of fire and fuels management activities on natural and cultural resources, continue to reintroduce fire onto the landscape, and refine the management activities and objectives. This plan would be site-specific to the monument for approval by the National Park Service. In addition NPS staff would collaborate with Inyo National Forest staff to develop and implement valleywide fuels and fire management strategies and provide clarity in the Fire Protection Unit's response to lightning strike fires in the monument that would be in a potential prescription.

### **Climate Change Adaptation Plan.**

*Rationale and Scope* — This project could help Devils Postpile National Monument achieve the NPS Climate Change Response Strategy science objectives. In a changing climate, focusing on understanding and protecting climate refugia (areas less impacted by the extremes of climate change due to their topographic, meteorological, and biogeographic location) may be a key adaptation strategy at the monument. This plan is needed due to the ecological importance of the Soda Springs Meadow and San Joaquin River riparian corridor. Like most wetland systems in the Sierra Nevada, these ecologically vital areas are at risk from climate change impacts.

Leading interagency and academic climate change scientists have identified that cold air pooling occurs in the monument and that this may play an important role in maintaining climate refugia, in addition to its other physical characteristics creating refugia conditions. The combination of the monument's size, ecological diversity, topographic location, interagency and academic studies, and partnerships create a valuable study site and transferable case study for adaptation plan development. The adaptation plan would identify vulnerability of resources, stressors, and migratory corridors. The plan would examine climate change scenarios focused on short-, medium-, and long-term management actions needed to manage the area as a climate refugia and to increase resilience. Conversely, the scenario that indicates a decline in the conditions that provide the buffering effects would focus on management actions needed to respond to the heightened vulnerability due to an intensified rate of change.

## Rainbow Falls Site Plan.

*Rationale and Scope* — In order to promote a greater sense of discovery and an introductory wilderness experience for visitors, as well as implement the general management plan goals, the monument would redesign the Rainbow Falls area. The monument would generally maintain the alignment of the main trail to Rainbow Falls to continue to allow for the current volume of visitors. The monument would also explore redesigning the main Rainbow Falls trail from the wilderness boundary to the viewing platforms in a manner that is more consistent with wilderness character. For example, the logs that line the trail could be replaced with smaller-diameter logs or stones that harmonize with the surroundings. The stock trail would be realigned where necessary to separate pedestrian and stock use to reduce impacts on visitor experience. The interpretive panels at Rainbow Falls would be removed and relocated outside of designated wilderness. If possible, they would be relocated to the Boundary Creek trail junction. The monument would maintain the two viewing platforms, preserving both their size and character for visitors to enjoy the views of Rainbow Falls. The monument would also maintain safe visitor access to the river at the base of Rainbow Falls. A minimum tool requirement analysis would be completed to determine the type of access most compatible with the area's wilderness character. Options include maintaining the rock and concrete stairs or removing the staircase and replacing it with a switchback trail.



## High Priority Data Needs

### Reds Meadow Road Interagency Strategy.

*Rationale and Scope* — The Reds Meadow Road from Minaret Vista to the Reds Meadow Resort (eight miles to road's end) is the only road that accesses the monument. Most of the road is within the Inyo National Forest. Ninety percent of the visitors using this road are coming to the monument. Traveling the road is part of the visitor experience and integral to accessing the monument. The U.S. Forest Service and Mono County worked on a regional plan in 1979 to pave the dirt road in response to growing visitation and resource damage. The paving was a thin layer of asphalt over the existing soil and in some cases over trees that had been downed in the avalanche chutes. As the road approaches 50 years old, there are numerous concerns about its functionality, and a search was undertaken to determine the needs and alternatives for resurfacing, restoration, rehabilitation, and realignment. The minimum estimated construction cost is \$2.5 million upwards to \$29 million with two lanes on the upper two miles, which contain the most dangerous vertical descent, eroding edges, and undermining of the road. This strategy would explore ways that the National Park Service and U.S. Forest Service can work together to support funding for these critical improvements.

### Climate Change Refugia Research.

*Rationale and Scope* — The Sierra Nevada parks are striving to develop climate change adaptation strategies to protect the vast ecological diversity of the region. With a changing climate, scientific research is focusing on the potential importance of cold air pools as a physical factor in providing refugial conditions. Cold air pools are temperature inversions that occur in regions of confined terrain where cold, dense air becomes trapped and concentrated, resulting in very stable air conditions that are typically cooler and moister than the surrounding, often higher elevation, area. An understanding of the location, physical and biological characteristics, and distribution of cold air pools across the Sierran landscapes, and a focus on the potential importance of refugia, would provide the National Park Service an opportunity to protect these potential climate change refugia as an adaptation strategy.

### Prepare Archeological Research Design and Management Strategy.

*Rationale and Scope* — To improve general knowledge and protection of archeological resources, the monument would develop a synthesis of archeological information and create research design (strategy) and make information available to the public, staff, researchers, and tribal partners as appropriate. The information would also identify climate vulnerabilities and recommend mitigation.

### Design Standards Guidelines.

*Rationale and Scope* — The general management plan identified the need for design guidelines that would help to provide consistent visitor experiences across NPS and U.S. Forest Service boundaries, preserve wilderness character, and protect the traditional and rustic style of infrastructure that harmonizes with the natural setting and scenic views. Preferably, this would be accomplished in cooperation with the Inyo National Forest and the guidelines would be applied valleywide.

See appendix B for recently completed and ongoing planning and data collection efforts that address park issues.

Summary of Planning and Data Needs		
Planning or Data Needs	Priority (H,M,L)	Notes
<b>Plans</b>		
Site plan for day use and campground redesign, accessibility, and restroom replacement	H	
Visitor experience and resource protection plan for the Middle Fork of the San Joaquin River	H	
Fire and fuels management plan update	H	
Climate change adaptation plan	H	
Rainbow Falls site plan	H	
Water resources monitoring plan	M	Monitor monument groundwater and surface water resources.
Visual resource management plan	M	The plan would use the visual resource inventory as a baseline to develop goals, objectives, and management strategies for the protection of important views.
Postpile site plan including the cabin remains site	M	Primary goals would be to improve visual quality, reduce congestion, and reduce inadvertent resource impacts on glacial polish and historic resources. The plan would seek to enhance the visitor experience at the Postpile through several small site improvements, as well as through an evaluation of opportunities to improve accessibility. At the cabin remains site, the goal would be protecting the archeological site surrounding the historic cabin ruins and providing enhanced, but unobtrusive, interpretation.
Research plan	M	The monument plans to work with the U.S. Forest Service and other federal agencies to create a short- and long-term research plan and strategy to identify research needs for the greater watershed and monument. Plan objectives would be to prioritize and coordinate research opportunities, and streamline the process for granting research permits.
Museum collection management plan	M	Baseline document to direct the park's museum collection priorities and to ensure proper preparation, documentation, and storage for wet and dry specimens.
Interagency plan and agreement to manage wastewater	M	Due to increased visitation and aging facilities, an interagency review and agreement on wastewater management would develop solutions to prevent future problems.
Spill prevention, control, and countermeasure plan	M	Develop prevention strategies; provide direct references for standardized reporting procedures. Provide a response plan for hazardous spills.
Stormwater management plan	M	Inventory and evaluate facilities and roads that discharge into water sources; mitigate threats to water resources and hydrologic processes.

Summary of Planning and Data Needs		
Planning or Data Needs	Priority (H,M,L)	Notes
<b>Data Needs and Studies</b>		
Reds Meadow Road interagency strategy	H	
Climate change refugia research	H	Find and protect refugia as climate adaptation response.
Prepare archeological research design and management strategy	H	
Design standards guidelines	H	
Visual resource inventory	M	The inventory would identify the scenic qualities and NPS/visitor values of important views and serve as the baseline for the development of a visual resource management plan.
Map of the Postpile flow	M	Complete high-resolution map of the extent and character of the Postpile formations (including location and extent of glacial polish).
Climate change vulnerability assessment for ecological viability of species and habitats, and connectivity to watershed	M	Scientific research related to understanding the effects of climate change on park resources and/or the broader region, and to develop adaptation strategies.
Groundwater research	M	Research regarding groundwater flow paths between Mammoth Mountain and springs, tributaries, and wetlands to understand connectivity and protect resources.
Air quality monitoring	M	Need for a long-term air quality monitoring program to determine on-site conditions and management of ground-level ozone and particulate matter.
Fire effects report	M	Summarize more than 20 years of fire effects monitoring data to help guide future fire and fuels management.
Complete ethnographic overview and assessment	M	Part of a multipark ethnographic overview and assessment to increase knowledge and collaborative opportunities with tribes.
Identify cultural resources and evaluate National Register of Historic Places eligibility of Mammoth Pass, John Muir, and Pacific Crest Trails	M	Documentation on the historic trails in and around the monument and determination of appropriate protection and/or eligibility for listing in the national register.

## Part 3: Contributors

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## Photo Credits

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# Appendixes

## Appendix A: Presidential Proclamation and Legislative Acts for Devils Postpile National Monument

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

July 6, 1911.

### A PROCLAMATION

WHEREAS the natural formations known as the Devil Postpile and Rainbow Falls, within the Sierra National Forest, in the State of California, are of scientific interest, and it appears that the public interests will be promoted by reserving said formations as a National Monument;

Devil Postpile National Monument, Cal. Preamble.

Now, therefore, I, William H. Taft, President of the United States of America, by virtue of the power in me vested by section two of the Act of Congress approved June eighth, nineteen hundred and six, entitled "An Act For the preservation of American antiquities," do proclaim that there are hereby reserved from all forms of appropriation under the public land laws, subject to all prior valid adverse claims, and set apart as a National Monument, all the tracts of land in the State of California shown as the Devil Postpile National Monument on the diagram forming a part hereof.

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

The reservation made by this proclamation is not intended to prevent the use of the lands for Forest purposes under the proclamation establishing the Sierra National Forest. The two reservations shall both be effective on the land withdrawn, but the National Monument hereby established shall be the dominant reservation and any use of the land which interferes with its preservation or protection as a National Monument is hereby forbidden.

Forest uses not impaired. Vol. 36, p. 2728.

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

Reserved from settlement, etc.

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

Done at the City of Washington this sixth day of July, in the year of our Lord one thousand nine hundred and eleven, and of the Independence of the United States the one hundred and thirty-sixth.

WM H TAFT

By the President:

P C KNOX

Secretary of State.

87618°—VOL 37—PT 2—50

**1984 California Wilderness Act  
Public Law 98-425, 98 STAT. 1619**

**DESIGNATION OF WILDERNESS**

SEC. 101. (a) In furtherance of the purposes of the Wilderness Act, the following lands, as generally depicted on maps, appropriately referenced, dated July 1980 (except as otherwise dated) are hereby designated as wilderness) and therefore, as components of the National Wilderness Preservation System-

[...]

(15) certain lands in the Sierra and Inyo National Forests, California, which comprise approximately nine thousand acres, as generally depicted on a map entitled "Minarets Wilderness Additions-Proposed", and which are hereby incorporated in, and which shall be deemed to be a part of the Minarets Wilderness as designated by Public Law 88-577: Provided, That the existing Minarets Wilderness and additions thereto designated by this title henceforth shall be known as the Ansel Adams Wilderness.

[...]

**ADMINISTRATION OF WILDERNESS AREAS**

SEC. 103. (a) Subject to valid existing rights, each wilderness area designated by this title shall be administered by the Secretary concerned in accordance with the provisions of the Wilderness Act: Provided, that any reference in such provisions to the effective date of the Wilderness Act shall be deemed to be a reference to the effective date of this title.

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

### Resource Stewardship Strategy

The plan identifies all known cultural and natural resources in the monument, identifies current conditions and trends (if possible), and prioritizes management strategies for data needs and protection. The resource stewardship strategy identifies conservation objectives and potential activities for managing resources, as well as implementation strategies, including inventory and monitoring, project management, restoration, and research. The document also considers resource condition in addition to funding and staffing requirements. In addition to several efforts identified elsewhere in the document, ongoing efforts include:

- Resource management monitoring
- Air quality monitoring: conditions, trends, and impacts
- Archeological site condition assessments to ensure no sites have irreparable damage
- Cold air pooling: data collection and coordination with partners
- Meteorological station: weather and climate monitoring and trend analysis
- Postpile integrity monitoring plan: tracking status and identify protection measures
- Hydrology: discharge on San Joaquin River / tributaries, water quality monitoring, and groundwater level monitoring
- Photopoints: key features, changes in river course, and restoration results
- Snow surveys: partnership with California Department of Water Resources
- Soundscapes: monitor trends in human-caused noise
- Wetland condition assessments: within the Sierra Nevada Network protocol





### **Accessibility Evaluation and Transition Plans**

This plan will identify key experience areas, program areas, and locations. An interdisciplinary team is conducting on-site assessments of facilities and programs. The team will develop recommended accessibility improvements, and time frames for implementation. The team will develop a transition plan. Public outreach will be conducted on the draft plan. A final plan will guide future projects including the campground, comfort stations, and day use area redesign.

### **Strategic U.S. Forest Service / National Park Service Interagency Plan – Sustainable Visitor Use Management and Operations at Minaret Vista, Reds Meadow Valley, and Devils Postpile**

Responding to crowding, dust, environmental damage, and huge increases in visitor use of the narrow, winding road departing from Minaret Vista to Devils Postpile and Rainbow Falls, the Inyo National Forest recreation plan and 1976 mono plan recommended a solution for providing a high-quality visitor experience and resource protection of the outstanding beauty and resources of the Reds Meadow Valley. Thereby, the U.S. Forest Service and National Park Service implemented a visitor use management strategy of coupling the paving of the narrow road from Minaret Vista through the Reds Meadows Valley that would increase visitation, with the initiation of a mandatory shuttle bus. This is the longest operating mandatory shuttle system on public lands, and allows two to three times as many visitors per season to visit the valley while enjoying a safe ride on the mandatory shuttle and providing for multiple locations to hike and enjoy loop trail options.

The needs for the shuttle and managed visitor use and access to the Reds Meadows Valley and the monument continue to this day. Pressures from increasing visitation require strategic plans for interagency coordination of visitor use management both during the mandatory shuttle bus season and the post-mandatory shuttle operations. Currently, on a busy day when the shuttle is not operating, the parking capacity at the monument is exceeded three- to seven-fold. Additional paving of parking spots is not feasible at the monument, nor supported by the public as evidenced in public comments during the general management plan planning effort.

Integral topics for developing a solution include developing a sustainable strategy for operational costs of managing the Vista entrance station; revenues and expenditures of fees; and coordination of managing parking capacity at the monument, which 90% of visitors plan as their destination. This plan is identifying costs, revenues and expenditures of fees collected at Minaret Vista, and providing a sustainable funding strategy for current and future operations and staffing requirements.

## Visitor Capacity Indicators and Standards

The general management plan identified indicators and standards for visitor capacity to define the types and levels of visitor and other public use that can be accommodated while sustaining the desired resource and social conditions for each management zone. Monitoring strategies are in development to test the effectiveness of management actions and provide a basis for informed adaptive management of public use. Some standards have been established but need refinement and additional monitoring, particularly with increased visitation.

## Invasive Plant Management Plan

Eleven nonnative species are known to occur in the monument and three of these—bull thistle (*Cirsium vulgare*), woolly mullein (*Verbascum thapsus*), and cheatgrass (*Bromus tectorum*)—are considered invasive by the California Invasive Plant Council (Cal-IPC 2006) while the other species are considered nonnative but not invasive. Ongoing manual treatments outlined in the plan appear to be effective on most species but the monument is considering alternative treatment methods to control the spread of cheatgrass.

## Prepare Archives Survey and Records Management Plan

This is a two-phase project, to develop an archival survey of all Devils Postpile National Monument archival materials, and a records plan for ongoing evaluation of resource management records and their placement in the museum archives collection. More than 5,000 items are to be processed, including historic archival, oral history, and other resource management items; oversized drawings, maps, plans; photographic materials (negatives, prints, slides); compact disks and digital video disks; VHS video and mini-digital videotapes; and audiocassettes. Important reference documents from the historic resource study, including revealing maps about the proposed Trans-Sierra Highway, are irreplaceable history of the monument. Objects are dispersed in several locations and need to be consolidated. Phase One would be accomplished by an archivist on staff at Yosemite National Park, familiar with the NPS Interior Collections Management System (ICMS) database and cataloging procedures related to NPS resource management records and museum archives. The archivist will complete an archives survey of all materials and create a records plan for ongoing evaluation of park resource management records for placement in the museum archives collection. Phase Two involves completing the project under the direction of an archivist/museum professional. Work will include the following:

1. Re-house material.
2. Arrange, describe, and create finding aids.
3. Cataloging including data entry into the NPS museum cataloging software (ICMS), creating records in both the archives and collection modules, and producing appropriate container lists and finding aids for staff education and reference.

## Hazard Tree Management

The monument works with Yosemite National Park to ensure effective hazard tree management. A plan is in process to outline standards for hazard tree management for visitor and staff safety, and protection of infrastructure in both the developed and undeveloped areas of the monument.



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## Pacific West Foundation Document Recommendation Devils Postpile National Monument

January 2017

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

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### RECOMMENDED

Deanna Dulen, Superintendent, Devils Postpile National Monument

Date

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### APPROVED

Laura E. Joss, Regional Director, Pacific West Region

Date



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

DEPO 120/134151  
January 2017

## Foundation Document • Devils Postpile National Monument

