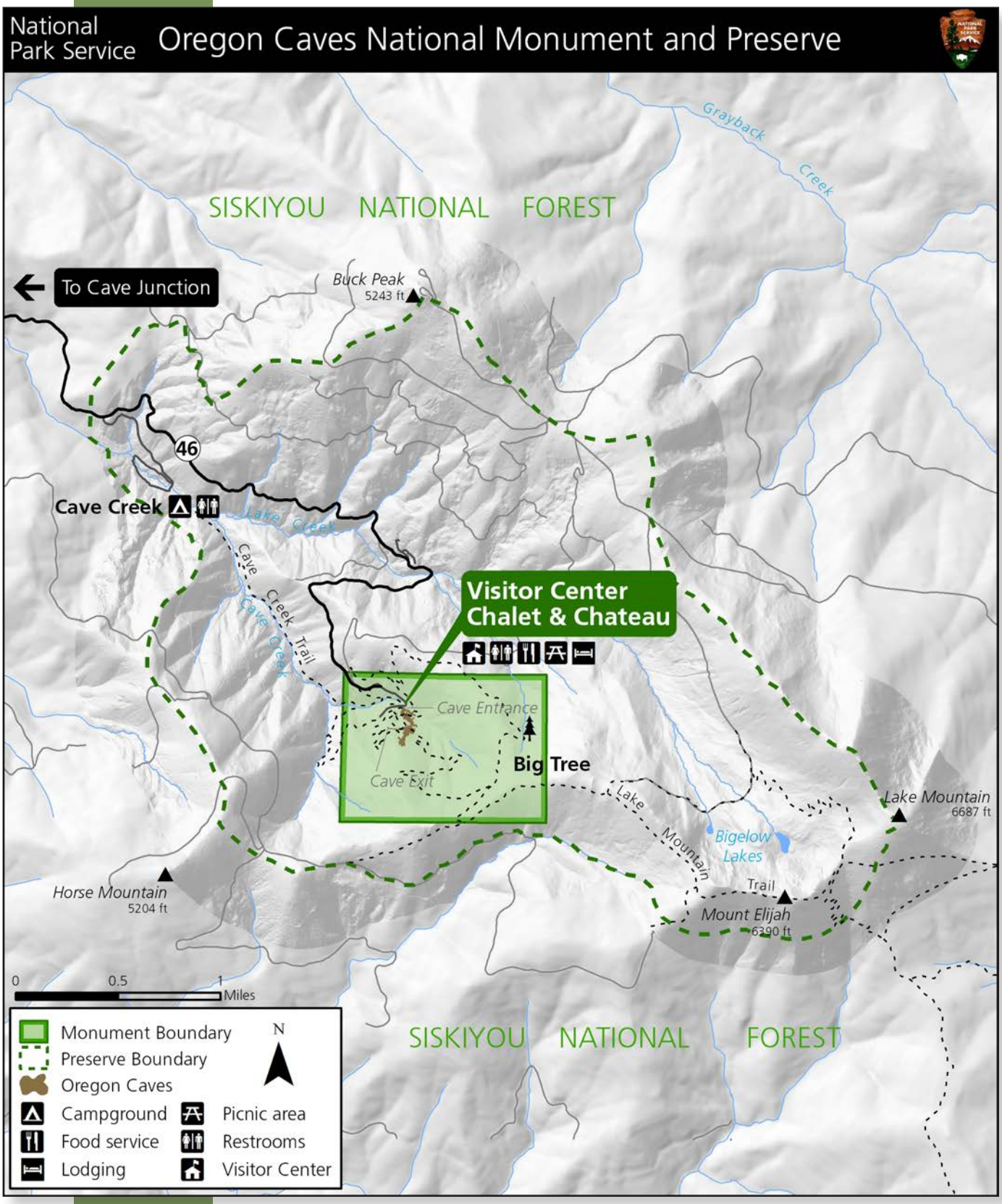
NATIONAL PARK SERVICE • U.S. DEPARTMENT OF THE INTERIOR

Foundation Document

Oregon Caves National Monument and Preserve

Oregon

August 2015


National Park Service
Oregon Caves National Monument and Preserve
SISKIYOU NATIONAL FOREST
Grayback Creek
To Cave Junction
Buck Peak
5243 ft
46
Cave Creek
Lake Creek
Cave Creek Trail
Cave Creek
Visitor Center
Chalet & Chateau
Cave Entrance
Cave Exit
Big Tree
Lake Mountain Trail
Bigelow Lakes
Lake Mountain
6687 ft
Mount Elijah
6390 ft
Horse Mountain
5204 ft
0
0.5
1
Miles
N
Monument Boundary
Preserve Boundary
Oregon Caves
Campground
Picnic area
Food service
Restrooms
Lodging
Visitor Center
SISKIYOU NATIONAL FOREST

Contents

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.

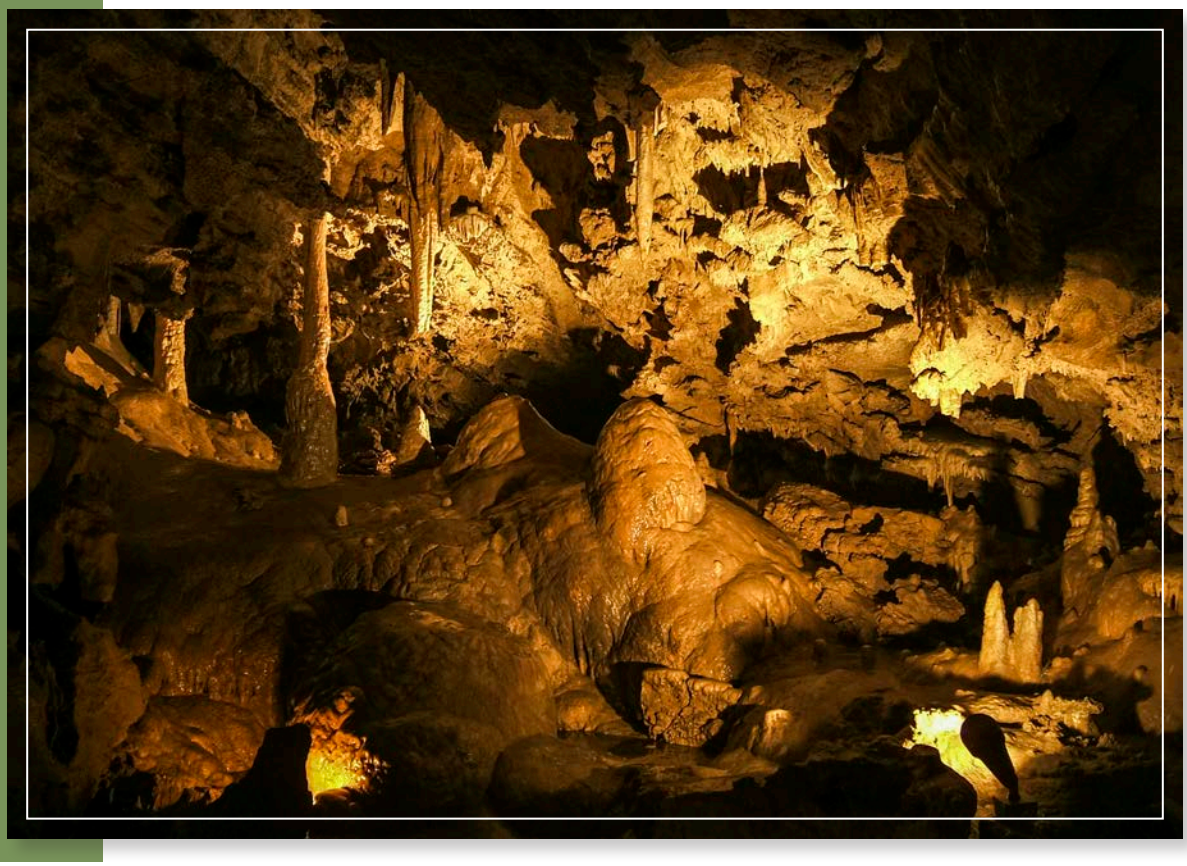
The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archeological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

Located in southwestern Oregon in the Siskiyou Mountains at 4,000 to 4,360 feet in elevation, there exists a dynamic system of marble caves with limestone formations that started forming 330,000 years ago through calcium carbonate deposition. In 1909, by presidential executive order, Oregon Caves and its surrounding environment were identified as nationally significant and designated as a national monument for the enjoyment of future generations.

The original designation was 480 acres. This small size almost immediately led to legislative proposals and plans for monument expansion so that the watershed that supports the caves, including old-growth mixed coniferous and deciduous forests, would be preserved.

The addition of the 4,070-acre national preserve, signed into law on December 19, 2014, by an act of Congress, included the surrounding watershed and forest, adding new visitor opportunities and cultural and natural resources to the park unit. Visitors to the national monument and preserve will see natural waterfalls, mountain and subalpine meadows, alpine rock gardens, dozens of vegetation communities, and vistas of Mount Shasta. Glacial features in the preserve include cirques, tarns, montane ponds, erratics, windblown loess deposits, hanging valleys, faceted boulders, and moraines.

Preservation and protection of resources include management of fifteen plant communities, such as forests, wetlands, and grasslands. Assuring that the airflow, water flow, biology, and chemistry of surface and subsurface watersheds are reflective of natural cycles is essential to maintaining subsurface and surface environments and their interactions. Within the cave is a large assemblage of endemic cave-adapted invertebrates. The caves also provide a hibernaculum and roost for several bat species, including the Townsend's big-eared bat, listed as threatened by the state of Oregon. All the caves in the park unit provide foraging and nesting sites for woodrats, which are a major food of the northern spotted owl, a federally listed species. Cougars and bears are common in the park. Deer are seen and Douglas squirrels are heard daily. For the past two decades, there has been a healthy population of fishers in or near the major waterways in the preserve. It has been proposed for federal listing as threatened.

Visitors to the park's main and only developed cave can tour through large twisted catacombs and view spectacular calcite-flowstone formations. During a tour with a guide, visitors can also learn about many other rich natural and cultural resource features of the caves and of the surrounding ecosystem.

The area is one of the most concentrated examples of geodiversity in this hemisphere due to the presence of tilted rock slabs from back-arc and forearc basins, mid-ocean ridges, island arcs, and rifting volcanism from sinking seafloors, all stacked by massive tectonic forces against the continent and soldered by granitic welding.

Five buildings and their associated landscape features, such as stone benches and original trails were designed and constructed by a private public partnership and are listed in the National Register of Historic Places as a historic district. The centerpiece of the historic district is the Chateau, a national historic landmark. This unique six-story, cedar bark-sided building was built in 1934 and still operates today, providing lodging and food service to park unit visitors. The nationally significant Chateau was designated a national historic landmark in 1987 because of its architecture and design. Other buildings in the national register historic district include the Chalet, Guide Dormitory, Ranger Residence, and the Kiosk.

Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Oregon Caves National Monument and Preserve was drafted through a careful analysis of the presidential proclamation for the monument signed into law on July 12, 1909, and legislation that created the preserve expansion on December 19, 2014, along with history that influenced the development of this park unit. The purpose statement lays the foundation for understanding what is most important about the park.

Oregon Caves National Monument and Preserve protects and preserves the scientific interest and the unusually diverse and concentrated biology and geology of an important solution cave system and watershed within the Siskiyou Mountains for the benefit, understanding, and enjoyment of the public.

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 Oregon Caves National Monument and Preserve, 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 Oregon Caves National Monument and Preserve. (Please note that the sequence of the statements does not reflect the level of significance.)

- **Complex Geology.** Oregon Caves National Monument and Preserve is an outstanding place to view one of the world's most complete and complex arrays of geology. Visitors can see beautiful glacial features, along with marble cave passages that were transformed deep within the earth.
- **Solution Cave Access.** Oregon Caves is an excellent example of solution cave geology in the Pacific Northwest region and is easily reachable by the public.
- **Fossils.** The cave possesses a significant collection of well-preserved fossils, including one of the oldest American grizzly bear bones, the remains of a jaguar, and a bone tentatively identified as being from a short-faced bear. There also is a unique assemblage of trace fossils and subfossils that record much older and more recent habitat change.
- **Historic Resources.** The Oregon Caves Chateau, a national historic landmark, and the Oregon Caves Historic District are outstanding examples of public and private efforts to develop, manage, and protect the monument's natural and recreational resources. The Chateau and designed landscape of the historic district exemplify the rustic–romantic architectural style of developed national park tourist facilities built in the early 20th century.
- **Genetic Biodiversity.** Oregon Caves National Monument and Preserve contains a rich variety of habitat types that support unusually high genetic diversity, including one of the highest concentrations of endemics in North America and more single-cave endemics than any other cave in the western United States.
- **Climate History.** Oregon Caves National Monument and Preserve protects dripstone chemistry and fossil deposits that record half a million years of detailed and accurate climate history and drastic climate change a quarter of a billion years ago. These caves thus provide an opportunity for scientific research and education about climate and habitat change.
- **Wild and Scenic Rivers.** Oregon Caves is home to the first subterranean National Wild and Scenic River, the River Styx. The River Styx and the other rivers in this watershed are critical to the sustained health of the cave and karst features.

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.

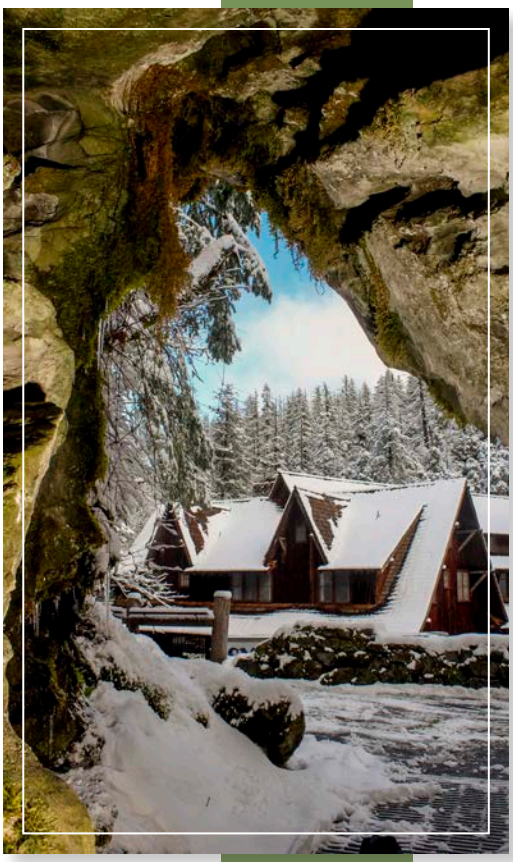
The following fundamental resources and values have been identified for Oregon Caves National Monument and Preserve:

- **Fossils and Diversity of Features.** Oregon Caves National Monument and Preserve contains a nationally significant collection of fossils that were preserved in the undisturbed confines of the cave environment for thousands of years. The past record of life at Oregon Caves consists of fossils, fossil traces, and subfossils. Fossils include one of the oldest American grizzly bear bones, dating back more than 50,000 years; jaguar remains dating back approximately 38,000 years; and a bone tentatively identified as being from a short-faced bear, the largest American land carnivore since the dinosaurs. There also is a unique assemblage of trace fossils and subfossils that record much older and more recent habitat change. Fossil traces, which date back approximately 250,000 years, include claw marks, paw prints, and carbon from microbes. Subfossils are less than 10,700 years old and include diverse assemblages of amphibians and the remains of half a dozen vertebrates no longer living at Oregon Caves.

- **Endemic Species.** The five scientifically described species endemic to Oregon Caves National Monument and Preserve are part of one of the largest assemblages of single cave endemics in the United States. A high habitat diversity largely results from a high climate and soil diversity due to the region being next to oceans and geologically active plate margins for more than half a billion years. The habitat integrity of the area also contributes to habitat diversity and health of various species and wildlife populations. Whereas the cave reduces surface fluctuations that cause extinctions, a trout lily hybrid, an entire millipede family, and a grylloblattid insect on the surface also appear to be endemic to the park unit. A high habitat diversity on the surface ensures the successful establishment of migrants (some of which become cave endemics) and offers places to move to and survive climate change.

- **Geologic Features and Processes.** Oregon Caves National Monument and Preserve features a concentrated variety of rock types, which provide visitors with opportunities to see and understand the geologic record from the inside out and in four dimensions. The cave features all three major rock types and their main subdivisions (volcanic, plutonic, chemical, clastic, contact, and regional). At least three ophiolites (seafloors on land) and other terranes (displaced rock formations with shared history) also illustrate the concentrated complexity of the park unit.

- **Biodiversity from Surface and Subterranean Interaction, Including Cave and Noncave Endemics.** The caves provide refuge for a vast diversity of species that are supported by the natural processes that occur between the caves and the surface. These processes include airflow, water flow, and migration of species. Biodiversity and healthy habitats are also supported by minimal disturbances within areas of the caves, such as lack of artificial light, noise, and habitat fragmentation. Accelerated climate change has been recorded as affecting or predicted to affect cave/surface biotic interactions, including the effects of reduced seasonal waterflow from less snowpack, more floods and droughts, migrations changes, and a greater metabolic need in certain species for food and water.



- **The Chateau and the Historic District.** The Chateau and the historic district strongly support the significance of the park unit. The architecturally significant Chateau includes the largest publicly owned collection of Monterey furniture, one of two styles that are purely American. The naturalistic design of the historic district (built waterfall, ponds, and a stream in the Chateau) helps augment the visitor experience. This district has 14 individual features that comprise a historic landscape in terms of form and function. They include

  - buildings and structures – Chateau, Chalet, Ranger Residence, Guide Dormitory, rock walls of local stone, and Kiosk

  - circulation features – road system, walkways, trail system, parking areas

  - small-scale structural features – rock-lined Cave Creek diversion pool system, four drywall benches on Big Tree Trail, peeled log pole roadway lighting standards

- **Opportunity to Explore and Access the Complex Geology of the Cave System and Its Relationship to the Mountain Watershed.** Visitors to the park have opportunities to explore the complex geologic beauty of the caves and to observe how water shapes lands from above and below the surface. The tight twisting and turning cave route provides visitors with opportunities to connect with a sense of discovery, adventure, and wonder. Trails lead visitors to scenic mountain vistas, glacial lakes, meadows, and waterfalls.

- **Free-Flowing Water and Dependent Systems.** Oregon Caves National Monument and Preserve protects the first subterranean National Wild and Scenic River, the River Styx, as well as 15 miles of free-flowing and undeveloped watercourses, the surrounding area of Bigelow Lakes, and other wetlands. These rivers, streams, and mountain meadow wetlands have a large number of significant species that support habitats for unique communities of aquatic, riparian, terrestrial, and cave species. This pristine watershed is part of the headwater tributaries of the Illinois River, one of the last major undammed rivers in the Pacific Northwest. The complex, dynamic cave ecosystem is dependent on the pristine waters in the park unit for its continued existence and integrity.

Other Important Resources and Values

Oregon Caves National Monument and Preserve 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 Oregon Caves National Monument and Preserve:

- **Partnerships.** Support from public and private organizations has been essential in the creation or sustainability of Oregon Caves National Monument and Preserve. With long-term connections to the local community and a passion for the park unit, these partnerships are crucial for the protection of important resources such as the Chateau and allow expanded opportunities for visitors to understand and connect with the monument and preserve.

Interpretive Themes

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

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

The following interpretive themes have been identified for Oregon Caves National Monument and Preserve:

- Oregon Caves National Monument and Preserve entices, enthralls, and overwhelms the imagination in our efforts to understand the astounding complexity of the awesome geological forces that sculpted glacial features, forged the mountains, and crystalized rock in and around the park.
- The Oregon Caves provide visitors with opportunities for a wondrous adventure through a marble cave in the Pacific Northwest where solution caverns are rare.
- The remarkable collection of fossils preserved within the Oregon Caves inspires us to contemplate past times, evolution, and the realization of our own impermanence.
- Nestled in the rugged contours of the Siskiyou Mountains, the Chateau, in the complementary context of the historic district, stirs the imagination and conjures nostalgic memories of travel, recreation, and affordable luxury in a bygone era.
- The concentration of biodiversity of the Siskiyou Mountains, which can be experienced on a small scale at Oregon Caves National Monument and Preserve, provides opportunities for intimate understanding and appreciation of the natural processes that are foundational to our survival.
- The Oregon Caves preserve a remarkable record of ecological, paleontological, and geological climate history dating back to before the dinosaurs, and provide opportunities for awe and understanding changes through time.
- The splashing burble of the River Styx echoes through the Oregon Caves, compelling us to explore its sources deep within the mountain and to understand the dynamic role of water as the life blood of a cave's creation.

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 Oregon Caves National Monument and Preserve.

Special Mandates

National Wild and Scenic Rivers (2014).
In 2014, the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (PL 113-291) designated the subterranean segment of Cave Creek, known as the River Styx, for inclusion in the National Wild and Scenic Rivers System. The Wild and Scenic Rivers Act (PL 90-542) requires the National Park Service to protect and enhance the water quality, free-flowing condition, and outstandingly remarkable values of the River Styx. The river is to be managed with the goal of nondegradation and the enhancement of the values for which it was established. Section 4.3.4 of NPS *Management Policies 2006* states that no management actions may be taken that could adversely affect the values that qualify a river for inclusion in the national wild and scenic rivers system.

Grazing and Voluntary Grazing Lease or Permit Donation Program (2014).
Grazing may continue on preserve lands where this activity is currently under permits or leases until the termination or retirement of those permits [PL 113-291; sec 3041 (c)(4)(A)].

With respect to the grazing permits for the Big Grayback Grazing Allotment and the Billy Mountain Grazing Allotment, the Secretary of the Interior shall accept the donation of grazing leases or permits and subsequently terminate these grazing permits or leases and ensure a permanent end to grazing on the lands covered by these grazing permits or leases [PL 113-291; sec 3041 (d)(1)(B)].

Fire Management (2014).
In accordance with the forthcoming revised fire management plan, the park unit will carry out hazardous fuel management activities within the boundaries of the national monument and preserve [PL 113-291; sec 3041 (c)(2)(B)].

Hunting and Fishing (2014).
Hunting and fishing will be allowed on land and waters within the national preserve in accordance with applicable federal and state laws. The unit may, in consultation with the Oregon Department of Fish and Wildlife, designate zones and periods where no hunting or fishing is permitted for reasons of public safety, administration, or compliance by the Secretary with any applicable law (including regulations) [PL 113-291; sec 3041 (c)(5)].

Existing Forest Service Contracts (2014).
The National Park Service will allow for the completion of any stewardship or service contracts that are already underway on preserve lands as of the date of transfer from the US Forest Service. The US Forest Service will be responsible for administering and closing out these contracts in accordance with the terms currently listed in those contracts [PL 113-291; sec 3041 (c)(3)].

Administrative Commitments

For more information about the existing administrative commitments for Oregon Caves National Monument and Preserve, please see appendix C.

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 (see appendix B)
2. identification of key issues and associated planning and data needs
3. identification of planning and data needs (including spatial mapping activities or GIS maps)

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

Analysis of Fundamental Resources and Values

The fundamental resource or value analysis table includes current conditions, potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value. Please see appendix B for the analysis of fundamental and other important resources and values.

Identification of Key Issues and Associated Planning and Data Needs

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

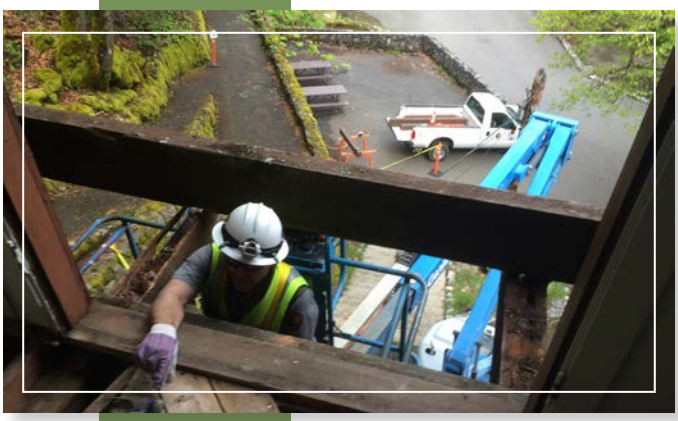
The following are key issues for Oregon Caves National Monument and Preserve and the associated planning and data needs to address them:

- **Planning for Adaptation to Climate Change.** Climate change, in conjunction with other stressors, is impacting many aspects of park management from natural and cultural resources to park operations and visitor experience. Regional warming may be moving invasive species northward, inland, or to higher elevations. Climatic change may affect some of the intersections of climate and soil gradients that yield the park unit's current density of habitats, refugia, and niches. Climate change has the potential to change surface environments, which will affect potential organic input into the cave systems and the cave itself. Organic input into the park unit's main cave consists mainly of molecules dissolved in water and secondarily of organic matter deposited by wildlife feces, urine, and corpses (resident bats, plants, and invertebrates) and plant matter. The primary main source supports bacterial populations that are the main food base for the cave's invertebrates, both species only found in Oregon Caves and those more widespread. Climate change not only affects the amount of organics entering the cave but also affects the amount of wet surfaces in which microbial grazers are active. Although the caves may provide refugia for endemics even as surface conditions change for some time, sustained climate change may eventually change extinction rates of Oregon Caves' endemics more than the variation in such rates from the past 10 million years. One possibility could be less organic input due to higher evaporation from soils and trees, while at the same time higher temperatures penetrating the cave would increase metabolic activity (including waking up bats) and oxidation of food. This would result in the need for more food at a time when there would be even less food in an already low food environment. Throughout the monument and preserve, infrastructure or vegetative resiliency will probably be threatened by an increased occurrence of catastrophic wildfires, and in the case of cultural resources, accelerated deterioration of historic structures due to higher temperatures and/or rainfall. Under some of the climate modeled projections for the region, fire frequencies could increase by 25% by 2100, snowpack may continue to decrease and reduce summer streamflow, and the frequency of heavy precipitation events could double. Studies in the last decade suggest that shrinking wetlands will release methane, regional warming will decrease dew points, and smoke from fires will reduce precipitation, thus increasing the likelihood of more extensive fires and smoke.

  Associated high priority planning and data needs: Watershed infrastructure study, slope failure study, resource stewardship strategy, natural resources condition assessment

- **Concession Sustainability.** The park unit's concentrated area of visitation, short season, and remote location make a sustainable concession operation difficult—this will continue to be an ongoing issue. Recently, funding and length of closure due to construction has dramatically increased the risks associated with concession operation, leading to an immediate issue with securing bids for a new contract. Any lapse in a concession contract would make reinstatement much more difficult.

  Associated high priority planning and data needs: Strategic plan



- **Maintenance of Facilities and Infrastructure.** The park unit contains expensive building infrastructure with significant ongoing maintenance costs and a growing maintenance backlog, including a newly acquired campground in need of rehabilitation. Maintaining and upgrading all facilities and infrastructure and ensuring visitor use facilities are safe and accessible are complicated by funding cycles and restrictions. The designs of historic buildings, especially, create challenges for updates and improvements. Both the Chateau and Chalet require expensive upgrades and restoration. The unique and historic Chateau siding is made of Port Orford cedar (there is no source for replacing this siding if needed). Slope movement uphill of the Chateau threatens its long-term stability. Some irreplaceable National Register of Historic Places properties are in extremely confined and indefensible space settings, adding another element of risk to investment. Available financial resources may never completely address ongoing facility needs, perhaps requiring difficult decisions about retention and uses. The sources and piping for the park unit's drinking water within the monument and preserve boundary and will probably need to be replaced with better infrastructure.

  Associated high priority planning and data needs: Watershed infrastructure study, slope failure study, resource stewardship strategy, natural resources condition assessment, strategic plan, preserve recreational and operations management plan

- **Reaching Visitors and Building Support.** Determining the acceptable amount of time that visitors wait for a cave tour is a challenge. Recruitment and retention of qualified guides to give cave tours is difficult. As of 2015, long wait times and daily tour closures 3–5 hours before the advertised time is common during the summer months. Ensuring consistent and high-quality staffing, both below and above ground, to serve arriving visitors efficiently would require the balancing of many factors. Most visitors waiting for a cave tour do not express much interest in interpretive programs or activities, including hiking, other than the cave tour.

  As the monument and preserve face increasing challenges from climate change and watershed impacts, building visitor appreciation of these issues and building local support for the park unit becomes increasingly important. The interpretive program lacks sufficient staff and tools, including identification of priorities, to capitalize on these opportunities. Many people are unaware of the park-related science, ecosystem benefits, and economic impacts that have increasing relevance to their lives and those of their children.

  The park lacks the capacity to sustain existing social media and recognize and respond to new and popular media trends needed for key visitor demographic groups. Because of this, many opportunities to prepare and disseminate information about the surface areas of the monument and preserve are lost.

  Associated high priority planning and data needs: Long-range interpretive plan, strategic plan

- **Watershed Management and Protection.** The recently designated preserve lands add to the list of species, ecosystems, roads, and infrastructure managed by the National Park Service. Long-term protection of the watershed is important to ensure enduring conservation of the park unit's fundamental resources and values and water for drinking, fire protection, and sanitation. The caves, creeks, and water supply are affected by land uses in and adjacent to the monument and preserve, which are surrounded by a managed forest ecosystem. Dissolved organics entering the caves have been altered by past land uses and by fire suppression within the park unit. Important risk factors for the caves and water supply include fuel loads, forest and soil health, and the effects of livestock grazing. Port Orford cedar, an important species in watershed management for shading streams while alive and making diverse slope gradients (plunge pools, etc.) for aquatic life when they fall, is threatened by a root disease caused by a water mold.

  Associated high priority planning and data needs: Watershed infrastructure study, resource stewardship strategy, natural resources condition assessment, preserve recreational and operations management plan, wild and scenic rivers eligibility and suitability study, comprehensive river management plan

Other Important Issues

In addition to the key issues described above, several other important monument and preserve issues were identified:

- **White-Nose Syndrome.** Bat populations and public cave tours are potentially threatened by the arrival of white-nose syndrome, a fungus that is jeopardizing bat populations nationwide as it moves across the country. If the fungus eventually reaches Oregon, management might have to suspend cave tours to protect remnant populations or at least initiate more intensive decontamination for all visitors so as to possibly delay the spread of white-nose syndrome into Oregon Caves.

- **Information Management.** The park lacks an organized analysis of data already collected to support active, consistent, and streamlined management of natural resources. Archival collections require updating by professional archivists, for which funding is not readily available.

- **Social Science.** There are few studies or even literature searches on relevant studies outside the park unit on communication, ethnography, politics, and economics, yet these sciences are crucial for understanding the cultural history of the monument and preserve.

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:

- emergency / urgency of the issue
- prevention of resource degradation or impairment
- ability of the plan to address multiple or interrelated issues
- ability to impact visitor use and experience
- funding availability
- feasibility of completion

High Priority Planning Needs

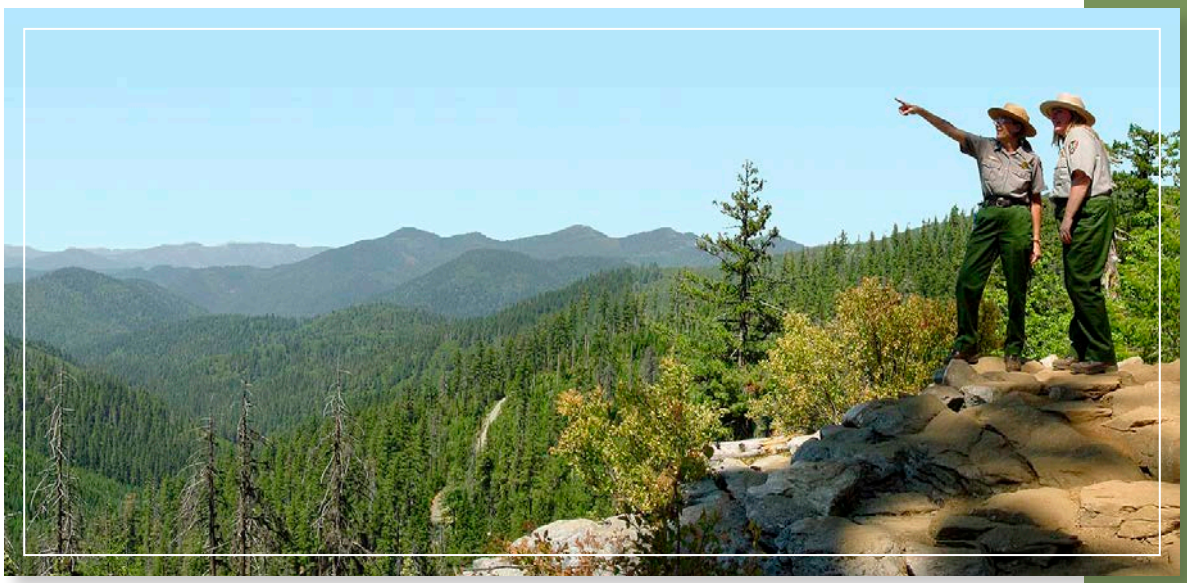
Preserve Recreational and Operations Management Plan.

Rationale and scope — The new preserve includes a variety of facilities including a campground, roads, water lines and trails, as well as new management responsibilities, including managing of hunting, fishing, and a legacy grazing allotment. In addition, the gateway communities view the designation of the preserve as an opportunity to provide expanded recreation opportunities to visitors which would entail starting a program for commercial use authorization permits and initiating new interpretive programs. This plan would address these issues and others with a comprehensive approach to management of the preserve. The fire management plan revision, comprehensive river management plan for the River Styx, wild and scenic river eligibility and suitability studies, and boundary survey of preserve lands or some combination of these, could also be included within this planning effort.

Strategic Plan.

Rationale and scope — Oregon Caves National Monument and Preserve lacks a multiyear plan for operations and funding that is guided by a long-term vision for the park. A strategic plan would address this need by setting goals and priorities to address the most pressing operational, organizational, administrative, and resource issues, including budget resiliency, commercial services, and the alignment of staff, partners, and project funding with park unit priorities. Specific components of the process include identifying the most significant challenges and opportunities facing the park or program, figuring out how to address those challenges and opportunities, and following through with effective implementation. The overall intent of strategic planning is to focus employee attention and energy on effectively addressing the biggest issues in a timely manner.

The strategic planning process would evaluate what can be accomplished within the constraints of funding limitations, and would include a “drop duty analysis.” This evaluation helps to identify staff positions that need to be filled. The strategic plan would also help assess current operations and gaps in the context of the budget and would inform development of a potential workforce management/staffing management plan.



Long-Range Interpretive Plan.

Rationale and scope — The 2002 long-range interpretive plan was written at a time when the monument had not been conducting cave tours for very long. With the benefit of an additional 12 years of experience, the monument and preserve needs a plan that better addresses visitor demographics, relevancy, interpretive techniques, and staff considerations. The long-range interpretive plan would identify interpretive programs, techniques, products, and locations, training needs, and funding sources. Staff recruitment and retention would be addressed, as well as partner opportunities. Interpretive themes would be refined. Relevancy to diverse audiences, particularly youth and millennials, would be emphasized.

Resource Stewardship Strategy.

Rationale and scope — The park needs to define integrated and specific desired future natural and cultural resource condition goals. Adaptive management approaches to mitigate threats from human land use and increase the resiliency of ecological resources and processes to account for changing climate scenarios need to be developed in a multidisciplinary format. The plan would identify all known cultural and natural resources in the park unit, identify current conditions and trends if possible, and prioritize management strategies to protect resources. The resource stewardship strategy would identify conservation objectives and potential activities for managing resources as well as implementation strategies, including inventory and monitoring, project management, restoration, and research. The document would also consider resource condition in addition to funding and staffing requirements.

Fire Management Plan Revision.

Rationale and scope — In December 2014, Oregon Caves was expanded to include additional lands. As a part of this legislation (PL 113-291), Oregon Caves was directed to "revise the fire management plan for the monument and preserve to include the [newly added lands]." This updated fire management plan would help this park unit to carry out hazardous fuel management activities within the boundaries of the national monument and preserve.

Comprehensive River Management Plan.

Rationale and scope — To meet the requirements of the Wild and Scenic Rivers Act, section 3(d)(1), the monument shall prepare a comprehensive management plan for the River Styx to provide for the protection of its values. The plan shall address resource protection, development of facilities, user capacities, and other management practices necessary or desirable to achieve the purposes of the act.

High Priority Data Needs

Slope Failure Study.

Rationale and scope — The monument and preserve needs additional information to protect important assets, including the Chateau and lower parking lot, from slope failure on the hillsides above, ensuring continued public access, as well as protecting visitor experiences in the historic district. The study would determine the probability and speed of failure, as well as the rates of impact on park unit assets. Data collection techniques would probably include ground-penetrating radar, water pressure core analysis, and stress testing. A comparison of data to determine rates of change would follow. The outcomes of the study would help determine annual measurement and mitigation needs. If slope failure is found to be advancing, further investigation to determine whether conditions of closure and/or evacuations exist and would be necessary.

Watershed Infrastructure Study.

Rationale and scope — A watershed infrastructure study is needed to support water supply protection. A consistent water supply from the surrounding watershed, in quantity and quality, is needed to sustain natural resources, provide for visitor and staff consumption and sanitation, and ensure the park unit's ability to protect its natural, cultural, and structural assets from fire. A better understanding of the sources, flows, and slope failure potential within the watershed would assist the park in preparing for future scenarios. Data collection would include all related factors, including source points, flow, discharge, system input, loss, gains, potential climate futures, and identification of secondary and tertiary sources. New and previously known springs would be mapped as needed.

Wild and Scenic Rivers Eligibility and Suitability Study.

Rationale and scope — In December of 2014, section 5(a) of the Wild and Scenic Rivers Act (16 USC 1276(a) was amended to designate five segments of rivers and streams as potential additions to the national wild and scenic rivers system. (These include Cave Creek, Lake Creek, No Name Creek, Panther Creek and Upper Cave Creek.) This study would be conducted in accordance with the guidelines established in sections 4(a), 5(c), and 6(c) for wild and scenic river designation to determine the eligibility, suitability, and classification for these segments of river.

Natural Resources Condition Assessment.

Rationale and scope — A necessary precursor to the resource stewardship strategy, the natural resource condition assessment would summarize the current conditions of natural resources within the boundaries of the preserve and monument for a subset of natural resources and resource indicators. The assessment would report on trends and data gaps and report the general level of confidence for final assessments.

Planning Needs and Data Needs		
Planning or Data Needs	**Notes**	**Priority (H, M, L)**
Natural Resources		
Plans		
Preserve recreational and operations management plan		High
Resource stewardship strategy		High
Fire management plan revision	Legislated Plan (PL 113-291)	High
Comprehensive river management plan	To meet requirements of WSRA, section 3(d)(1)	High
Subsurface management plan update	Sufficient but needs updating	Medium
Surface management plan	Needs complete revisions	Medium
Integrated pest management plan	Outdated and incomplete	Medium
Climate action plan update	Complete but needs some updating	Medium
Environmental management system update	Fairly complete but some updating needed	Medium
Hazard tree management plan	Potentially addressed under resource stewardship strategy	Medium
Winter cave access plan	Potentially addressed under resource stewardship strategy	Medium
GIS management plan		Medium
Fossil management plan	Potentially addressed under resource stewardship strategy	Medium
Cave room monitoring plan		Medium
Data Needs and Studies		
Watershed infrastructure study		High
Wild and scenic rivers eligibility and suitability study	Legislated Study (PL 113-291)	High
Natural resource condition assessment		High
Research on effects of climate and microbial change on extinction rates of park unit endemics		Medium
A thorough, ongoing survey of plant cover within the monument and preserve	This would provide a valuable indicator of global warming, plant disease, and other long-term environmental impacts on the region; the frequency and degree of monitoring would be determined by design plan, funding, and rates of climate change	Medium
GIS data in the cave , including complete mapping/ survey of all fossil/paleontological sites in the cave		Medium
Radiocarbon dating	For bear and a variety of other significant fossils	Medium
Identification and documentation of a possible wolf or short-faced bear		Medium
Complete scientific descriptions of endemic species		Medium
Study of organic inputs into the cave and fuel reduction effects		Medium
Resurvey of Port Orford root rot		Medium
Inventory and monitoring of barred and spotted owls		Medium

Planning Needs and Data Needs		
Planning or Data Needs	**Notes**	**Priority (H, M, L)**
Natural Resources		
Data Needs and Studies		
Fire fuels inventory of the preserve		Medium
Cave water isotypes study for comparison to paleoclimate record		Medium
Additional mapping of endemic caves species		Medium
Seismic study on speleothems on the fallen blocks in the cave		Medium
Bat population survey before white-nose syndrome arrives at the park unit		Medium
Continued inventory and monitoring of water flow and biotic input and effects of fuel reduction		Medium
Data need is to determine if and how much fuel reduction, artificial introduction of organics, and/or reduction in drying airflow in the caves is needed to protect cave species from extinction		Medium
Collection of continuous weather data to validate climate model projections for the region		Medium
Cultural Resources		
Plans		
Resource stewardship strategy		High
Archeological survey of new preserve		Medium
Port Orford cedar root disease management plan		Medium
Historic structure report (Chalet)		Medium
Historic furnishings plan (Chateau)		Medium
Structural protection plan		Medium
Data Needs and Studies		
Visual Resource Inventory and climate effect assessment of historic viewsheds	Includes all preserve vistas and climate and fire suppression effects on viewsheds	Medium
Vulnerability assessment for cultural resources	Includes structures and furnishings, etc.	Medium
Condition assessment of archeological sites in new preserve		Medium
Visitor Experience, Interpretation, and Education		
Plans		
Long-range interpretive plan		High
Visitor use management plan	Parking, visitor information, ranger contact	Medium
Transportation assessment and plan	This would address new roads, trails, the use of bikes, and pack animals included with the monument and preserve as a result of the acquisition of expansion land	Medium
Hunting management plan	To address new uses on preserve lands as a result of unit expansion	Medium

Planning Needs and Data Needs		
Planning or Data Needs	**Notes**	**Priority (H, M, L)**
Visitor Experience, Interpretation, and Education		
Data Needs and Studies		
Visitor use survey / study	Need to determine visitor demographics	Medium
Demographics study	Need to determine how the park unit is valued or perceived by visitors and nonvisitors alike	Medium
Trail signage study	Includes evaluation of location and compliance effectiveness	Medium
GIS/tape trail data	Better estimate of actual trail length versus map view and distance from archeological sites	Medium
Facilities		
Plans		
Park asset management plan	In progress, ongoing	High, in progress
Accessibility self-evaluation and transition plan		Medium
Cave lighting plan		Medium
Data Needs and Studies		
Slope failure study	Identification of past movement and monitoring of areas with known movement	High
Facility condition inventory		Medium
Strategy for keeping large parking lot sealed		Medium
Partnerships and Concessions		
Plans		
Commercial services plan (as part of the strategic plan)	To manage commercial use authorizations on preserve land and address other commercial use issues within the monument and preserve a commercial services plan would address issues related to the Chateau, the operation of the Cave Creek Campground, and the commercial activities that would be associated with guided recreational activities in the preserve	High
Park partner action strategy	Primarily to strengthen existing relationships	Medium
Data Needs and Studies		
Study of options to operate chateau without a concession contract		Medium
Explore whether park service can assume some of the liability of the insurance requirements		Medium
Community partner assessment		Medium

Planning Needs and Data Needs		
Planning or Data Needs	**Notes**	**Priority (H, M, L)**
Administration / Operations		
Plans		
Strategic plan		High
Boundary survey of preserve lands		Medium
Workforce management / staffing management plan	If deemed necessary by the strategic plan	Medium
Data Needs and Studies		
Socioeconomic study	Done locally, a thorough economic analysis of the park unit's positive impacts, including economic, school education, etc.	Medium
Information technology systems study	Includes communication of dispatch on the weekends, external support, radio over internet protocol	Medium

Part 3: Contributors

Oregon Caves National Monument and Preserve

Vicki Snitzler, Superintendent

Alicia Alvarado, Administrative Officer

George Herring, Chief of Interpretation

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NPS Pacific West Region

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Menno Kraai, Executive Director, Oregon Caves Outfitters

Vicki Grieve, Executive Director, Oregon Caves Natural History Association

Sierra Papas, Assistant Manager for the Natural History Association at Oregon Caves National Monument and Preserve

Appendixes

Appendix A: Presidential Proclamation and Other Legislative Acts for Oregon Caves National Monument and Preserve

By the President of the United States of America — July 12, 1909.

A PROCLAMATION

WHEREAS, certain natural caves, known as the OREGON CAVES, which are situated upon unsurveyed land within the Siskiyou National Forest in the State of Oregon, are of unusual scientific interest and importance, and it appears that the public interests will be promoted by reserving these caves with as much land as may be necessary for the proper protection thereof, as a National Monument; — Oregon Caves National Monument Oreg. Preamble.

Now, therefore, I, William Howard 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 eight, 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 Oregon shown as the OREGON CAVES NATIONAL MONUMENT on the diagram forming a part hereof. — National Monument, Oregon. — Vol. 34, p. 225.

The reservation made by this proclamation is not intended to prevent the use of the lands for National Forest purposes under the proclamations and Executive Order establishing the Siskiyou National Forest, but 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 affected.

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 on 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 12th day of July in the year of our Lord one thousand nine hundred and nine, and of the Independence of the United States the one hundred and thirty-fourth.

[SEAL.]

Wm H Taft

By the President:
P C Knox
Secretary of State.

On November 10, 1978, Public Law 95-625 was passed by Congress, authorizing appropriations for boundary revisions to Oregon Caves National Monument. The relevant text is below.

92 STAT. 3474 PUBLIC LAW 95–625—NOV. 10, 1978

County, Pennsylvania", numbered 446–40,001B, and dated April 1978: $166,000.

(6) Fort Caroline National Memorial, Florida: To add approximately ten acres as generally depicted on the map entitled "Boundary Map, Fort Caroline National Memorial, Florida", numbered 5310/80,000–A, and dated April 1978: $170,000.

(7) George Washington Birthplace National Monument, Virginia: To add approximately eighty-two and twenty-five one-hundredths acres as generally depicted on the map entitled "Boundary Map, George Washington Birthplace National Memorial, Virginia", numbered 332–30,000–B and dated September 1978: $450,000.

(8) Great Sand Dunes National Monument, Colorado: To add approximately one thousand one hundred and nine acres as generally depicted on the map entitled "Boundary Map, Great Sand Dunes National Monument, Colorado", numbered 140–80,001–A, and dated November 1974: $166,000.

(9) Gulf Islands National Seashore, Mississippi-Florida: To add approximately six hundred acres as generally depicted on the map entitled "Boundary Map, Gulf Islands National Seashore, Mississippi-Florida", numbered 20,006, and dated April 1978: $300,000.

(10) Hawaii Volcanoes National Park, Hawaii: To add approximately two hundred sixty-nine acres as generally depicted on the map entitled "Boundary Map, Hawaii Volcanoes National Park, Hawaii", numbered 80,000, and dated August 1975: $562,000.

(11) John Day Fossil Beds National Monument, Oregon: To add approximately one thousand four hundred and eleven acres, and to delete approximately one thousand six hundred and twenty acres as generally depicted on the map entitled "Boundary Map, John Day Fossil Beds National Monument, Oregon", numbered 177–30,000–B, and dated May 1978: $3,500,000. The Act of October 26, 1974 (88 Stat. 1461), which designates the John Day Fossil Beds National Monument is amended by deleting the second proviso of section 101(a)(2). Furthermore, not withstanding any other provision of law to the contrary, the Secretary may, if he determines that to do so will not have a substantial adverse effect on the preservation of the fossil and other resources within the remainder of the monument, convey approximately sixty acres acquired by the United States for purposes of the monument in exchange for non-Federal lands within the boundaries of the monument, and, effective upon such conveyance, the boundaries of the monument are hereby revised to exclude the lands conveyed.

Land conveyance.

(12) Monocacy National Battlefield, Maryland: To add approximately five hundred and eighty-seven acres as generally depicted on the map entitled, "Boundary Map, Monocacy National Battlefield", numbered 894–40,001, and dated May 1978: $3,500,000.

(13) Montezuma Castle National Monument, Arizona: To add approximately thirteen acres, and to delete approximately five acres as generally depicted on the map entitled "Montezuma Castle National Monument, Arizona", numbered 20,006, and dated April 1978.

(14) Oregon Caves National Monument, Oregon: To add approximately eight acres as generally depicted on the map entitled "Oregon Cave, Oregon", numbered 20,000, and dated April 1978: $107,000.

On December 19, 2014, Public Law 113-291 was passed by Congress, creating and expanding many national park units, which included an expansion for Oregon Caves National Monument. The relevant text is below.

H. R. 3979—498

SEC. 3041. OREGON CAVES NATIONAL MONUMENT AND PRESERVE.

(a) DEFINITIONS.—In this section:

(1) MAP.—The term "map" means the map entitled "Oregon Caves National Monument and Preserve", numbered 150/80,023, and dated May 2010.

(2) MONUMENT.—The term "Monument" means the Oregon Caves National Monument established by Presidential Proclamation Number 876 (36 Stat. 2497), dated July 12, 1909.

(3) NATIONAL MONUMENT AND PRESERVE.—The term "National Monument and Preserve" means the Oregon Caves National Monument and Preserve designated by subsection (b)(1)(A).

(4) NATIONAL PRESERVE.—The term "National Preserve" means the National Preserve designated by subsection (b)(1)(B).

(5) SECRETARY.—The term "Secretary" means the Secretary of the Interior.

(6) SECRETARY CONCERNED.—The term "Secretary concerned" means—

(A) the Secretary of Agriculture (acting through the Chief of the Forest Service), with respect to National Forest System land; and

(B) the Secretary of the Interior, with respect to land managed by the Bureau of Land Management.

(7) STATE.—The term "State" means the State of Oregon.

(b) DESIGNATIONS; LAND TRANSFER; BOUNDARY ADJUSTMENT.—

(1) DESIGNATIONS.—

(A) IN GENERAL.—The Monument and the National Preserve shall be administered as a single unit of the National Park System and collectively known and designated as the "Oregon Caves National Monument and Preserve".

(B) NATIONAL PRESERVE.—The approximately 4,070 acres of land identified on the map as "Proposed Addition Lands" shall be designated as a National Preserve.

(2) TRANSFER OF ADMINISTRATIVE JURISDICTION.—

(A) IN GENERAL.—Administrative jurisdiction over the land designated as a National Preserve under paragraph (1)(B) is transferred from the Secretary of Agriculture to the Secretary, to be administered as part of the National Monument and Preserve.

(B) EXCLUSION OF LAND.—The boundaries of the Rogue River-Siskiyou National Forest are adjusted to exclude the land transferred under subparagraph (A).

(3) BOUNDARY ADJUSTMENT.—The boundary of the National Monument and Preserve is modified to exclude approximately 4 acres of land—

(A) located in the City of Cave Junction; and

(B) identified on the map as the "Cave Junction Unit".

(4) AVAILABILITY OF MAP.—The map shall be on file and available for public inspection in the appropriate offices of the National Park Service.

(5) REFERENCES.—Any reference in a law, map, regulation, document, paper, or other record of the United States to the Monument shall be considered to be a reference to the "Oregon Caves National Monument and Preserve".

(c) ADMINISTRATION.—

H. R. 3979—499

(1) IN GENERAL.—The Secretary shall administer the National Monument and Preserve in accordance with—

(A) this section;

(B) Presidential Proclamation Number 876 (36 Stat. 2497), dated July 12, 1909; and

(C) any law (including regulations) generally applicable to units of the National Park System, including the National Park Service Organic Act (16 U.S.C. 1 et seq.).

(2) FIRE MANAGEMENT.—As soon as practicable after the date of enactment of this Act, in accordance with paragraph (1), the Secretary shall—

(A) revise the fire management plan for the Monument to include the land transferred under subsection (b)(2)(A); and

(B) in accordance with the revised plan, carry out hazardous fuel management activities within the boundaries of the National Monument and Preserve.

(3) EXISTING FOREST SERVICE CONTRACTS.—

(A) IN GENERAL.—The Secretary shall—

(i) allow for the completion of any Forest Service stewardship or service contract executed as of the date of enactment of this Act with respect to the National Preserve; and

(ii) recognize the authority of the Secretary of Agriculture for the purpose of administering a contract described in clause (i) through the completion of the contract.

(B) TERMS AND CONDITIONS.—All terms and conditions of a contract described in subparagraph (A)(i) shall remain in place for the duration of the contract.

(C) LIABILITY.—The Forest Service shall be responsible for any liabilities relating to a contract described in subparagraph (A)(i).

(4) GRAZING.—

(A) IN GENERAL.—Subject to subparagraph (B), the Secretary may allow the grazing of livestock within the National Preserve to continue as authorized under permits or leases in existence as of the date of enactment of this Act.

(B) APPLICABLE LAW.—Grazing under subparagraph (A) shall be—

(i) at a level not greater than the level at which the grazing exists as of the date of enactment of this Act, as measured in Animal Unit Months; and

(ii) in accordance with each applicable law (including National Park Service regulations).

(5) FISH AND WILDLIFE.—The Secretary shall permit hunting and fishing on land and waters within the National Preserve in accordance with applicable Federal and State laws, except that the Secretary may, in consultation with the Oregon Department of Fish and Wildlife, designate zones in which, and establish periods during which, no hunting or fishing shall be permitted for reasons of public safety, administration, or compliance by the Secretary with any applicable law (including regulations).

(d) VOLUNTARY GRAZING LEASE OR PERMIT DONATION PROGRAM.—

H. R. 3979—500

(1) DONATION OF LEASE OR PERMIT.—

(A) ACCEPTANCE BY SECRETARY CONCERNED.—The Secretary concerned shall accept a grazing lease or permit that is donated by a lessee or permittee for—

(i) the Big Grayback Grazing Allotment located in the Rogue River-Siskiyou National Forest; and

(ii) the Billy Mountain Grazing Allotment located on a parcel of land that is managed by the Secretary (acting through the Director of the Bureau of Land Management).

(B) TERMINATION.—With respect to each grazing permit or lease donated under subparagraph (A), the Secretary shall—

(i) terminate the grazing permit or lease; and

(ii) ensure a permanent end to grazing on the land covered by the grazing permit or lease.

(2) EFFECT OF DONATION.—A lessee or permittee that donates a grazing lease or grazing permit (or a portion of a grazing lease or grazing permit) under this section shall be considered to have waived any claim to any range improvement on the associated grazing allotment or portion of the associated grazing allotment, as applicable.

(e) WILD AND SCENIC RIVER DESIGNATIONS.—

(1) DESIGNATION.—Section 3(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)) is amended by adding at the end the following:

"(208) RIVER STYX, OREGON.—The subterranean segment of Cave Creek, known as the River Styx, to be administered by the Secretary of the Interior as a scenic river.".

(2) POTENTIAL ADDITIONS.—

(A) IN GENERAL.—Section 5(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1276(a)) is amended by adding at the end the following:

"(141) OREGON CAVES NATIONAL MONUMENT AND PRESERVE, OREGON.—

"(A) CAVE CREEK, OREGON.—The 2.6-mile segment of Cave Creek from the headwaters at the River Styx to the boundary of the Rogue River Siskiyou National Forest.

"(B) LAKE CREEK, OREGON.—The 3.6-mile segment of Lake Creek from the headwaters at Bigelow Lakes to the confluence with Cave Creek.

"(C) NO NAME CREEK, OREGON.—The 0.6-mile segment of No Name Creek from the headwaters to the confluence with Cave Creek.

"(D) PANTHER CREEK.—The 0.8-mile segment of Panther Creek from the headwaters to the confluence with Lake Creek.

"(E) UPPER CAVE CREEK.—The segment of Upper Cave Creek from the headwaters to the confluence with River Styx.".

(B) STUDY; REPORT.—Section 5(b) of the Wild and Scenic Rivers Act (16 U.S.C. 1276(b)) is amended by adding at the end the following:

"(20) OREGON CAVES NATIONAL MONUMENT AND PRESERVE, OREGON.—Not later than 3 years after the date on which funds are made available to carry out this paragraph, the Secretary shall—

"(A) complete the study of the Oregon Caves National Monument and Preserve segments described in subsection (a)(141); and

"(B) submit to Congress a report containing the results of the study.".

United States Department of the Interior

NATIONAL PARK SERVICE
1849 C Street, N.W.
Washington, DC 20240

APR 1 2015

Memorandum

To: Regional Director, Pacific West Region
Associate Director, Park Planning, Facilities and Lands
Associate Director, Visitor and Resource Protection
Assistant Director, Partnerships and Civic Engagement

From: for Director Lena McDowell

Subject: Activation: P.L. 113-291, National Defense Authorization Act for Fiscal Year 2015, Title XXX, Section 3041: Oregon Caves National Monument and Preserve.

On December 19, 2014, President Obama approved H.R. 3979, the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, as Public Law 113-291. Division B, Title XXX, Subtitle C, Section 3041 of the act expands the boundaries of Oregon Caves National Monument and redesignates the unit as Oregon Caves National Monument and Preserve. It also designates the subterranean river known as the River Styx as a wild and scenic river and authorizes the study of five other rivers for potential designation as wild and scenic rivers. A copy of the pertinent pages of the public law and documents providing the legislative history for this section are attached.

H.R. 3979, as introduced, concerned health care coverage applicability for volunteer firefighters and emergency responders. It became the legislative vehicle for a House-Senate agreement on the National Defense Authorization Act for Fiscal Year 2015 that was reached late in 2014. The agreement included a package of public lands measures negotiated by members of the House Natural Resources Committee, the Senate Energy and Natural Resources Committee, and others. Almost all of the provisions had been passed as individual bills by the House, reported by the Senate Energy and Natural Resources Committee, or both.

The House passed H.R. 3979 with the public lands package by a vote of 300-119 on December 4, 2014, and the Senate passed it by a vote of 89-11 on December 12, 2014.

Title XXX, Section 3041 contains the text of S. 354, legislation expanding Oregon Caves National Monument and redesignates the unit as Oregon Caves National Monument and Preserve. S. 354 was introduced by Senator Ron Wyden (D-OR) on February 14, 2013. The Senate Committee on Energy and Natural Resources ordered S. 354 reported favorably on March 14, 2013. On July 9, 2014, the Senate passed the measure by unanimous consent. The House Committee on Natural Resources ordered the bill to be reported by unanimous consent on July 30, 2014. No further action was taken on S. 354 until the text was included as Section 3041 of H.R. 3979.

and Environmental Regulation held a hearing on H.R. 2489 on May 20, 2014. H.R. 2489 received no further action.

Summary of Sec. 3041 of Public Law 113-291:

Subsection (a) defines key terms used in the bill.

Subsection (b)(1) designates 4,070 acres of land surrounding Oregon Caves National Monument as a national preserve. The national preserve and Oregon Caves National Monument are to be collectively known as the Oregon Caves National Monument and Preserve and administered as a single unit by the National Park Service.

Subsection (b)(2) transfers administrative jurisdiction over the land designated as a national preserve from the Secretary of Agriculture to the Secretary of the Interior (Secretary), and adjusts the boundaries of the Rogue River-Siskiyou National Forest to exclude the transferred land.

Subsection (b)(3) adjusts the boundary of the Oregon Caves National Monument and Preserve to exclude approximately four acres of land located in the City of Cave Junction.

Subsection (b)(4) requires that the map of the Oregon Caves National Monument and Preserve referred to in this section be kept on file and available to the public by the National Park Service.

Subsection (b)(5) clarifies that any reference made in Federal records to the Oregon Caves National Monument shall be considered a reference to the Oregon Caves National Monument and Preserve.

Subsection (c)(1) directs the Secretary to administer the Oregon Caves National Monument and Preserve in accordance with Section 3041, the presidential proclamation designating the monument in 1909, and laws generally applicable to units of the National Park System.

Subsection (c)(2) directs the Secretary to revise the fire management plan for the Oregon Cave National Monument to include the transferred land, and to carry out hazardous fuel management activities on the transferred land in accordance with the fire management plan.

Subsection (c)(3) directs the Secretary to allow Forest Service stewardship or service contracts related to the transferred land that are executed on or before the date of enactment to be completed, and to recognize the authority of the Secretary of Agriculture and the liability of the Forest Service in such contracts.

Subsection (c)(4) requires the Secretary to allow livestock grazing within the national preserve to continue under permits or leases in existence at the date of enactment at a level no higher than the level at the date of enactment of the bill.

Subsection (c)(5) directs the Secretary to permit hunting and fishing within the national preserve in accordance with Federal and State laws, but allows the Secretary, in consultation with the Oregon Department of Fish and Wildlife, to designate zones and periods in which hunting and fishing is not allowed due to public safety, administration, or compliance with applicable laws.

Department of Fish and Wildlife, to designate zones and periods in which hunting and fishing is not allowed due to public safety, administration, or compliance with applicable laws.

Subsection (d)(1) directs the Secretary or the Secretary of Agriculture to accept the donation of grazing leases or permits for the Big Grayback Grazing Allotment and the Billy Mountain Grazing Allotment. Upon donation of a lease or permit, the Secretary is required to terminate the lease or permit in order to ensure a permanent end to grazing on the donated land.

Subsection (d)(2) clarifies that those who donate grazing leases or permits waive any claims to range improvements on the associated grazing allotments.

Subsection (e)(1) amends section 3(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)) to designate the subterranean segment of Cave Creek, known as the River Styx, as a scenic river.

Subsection (e)(2) amends section 5(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1276(a)) to designate several segments of waterways within the Oregon Caves National Monument and Preserve, including a 2.6-mile segment of Cave Creek, a 3.6-mile segment of Lake Creek, a 0.6-mile segment of No Name Creek, a 0.8-mile segment of Panther Creek, and a segment of Upper Cave Creek, as potential additions to the National Wild and Scenic Rivers System. It directs the Secretary to complete a study of the potential additions and submit a report to Congress with the results no later than three years after the date on which funds are made available.

Responsibility: Regional Director, Pacific West Region
Associate Director, Park Planning, Facilities and Lands
Associate Director, Visitor and Resource Protection
Assistant Director, Partnerships and Civic Engagement

Appendix B: Analyis of Fundamental Resources and Values and Other Important Resources and Values

Fundamental Resource or Value	Fossils and Diversity of Features
Related Significance Statements	**Complex Geology.** Oregon Caves National Monument and Preserve is an outstanding place to easily view one of the world's most complete and complex arrays of geology and climate. Visitors can see beautiful glacial lakes and a marble cave with rocks once among the planet's deepest. **Fossils.** The cave possesses a significant collection of well-preserved fossils, including one of the oldest American grizzly bear bones, the remains of a jaguar, and a bone tentatively identified as from a short-faced bear. There also is a unique assemblage of trace fossils and subfossils that record much older and more recent habitat change. **Genetic Biodiversity.** Oregon Caves National Monument and Preserve contains a rich variety of habitat types that support unusually high genetic diversity, including one of the highest concentrations of endemics in North America and more single-cave endemics than any other cave in the western United States. **Climate History.** Oregon Caves National Monument and Preserve protects dripstone chemistry and fossil deposits that record a quarter of a billion years of detailed and accurate Climate History. These caves thus provide an opportunity for education, research, and scientific inquiry related to past climates and climate change.
Current Conditions and Trends	**Conditions** • There are currently about 50 known sites, or concentrations of visible bone materials. • The condition of the cave preserves the bones due to neutralization of acids, constant temperature, and humidity. • Oregon Caves has a significant set of fossils, fossil traces (claw marks, paw prints, carbon from microbes), and sub-fossils (less than 10,700 years old). • This is one of the largest collections of amphibian fossils or sub-fossils from a single site in North America. • Pleistocene aged fossils include one of the oldest known grizzly bones in the Americas and a bone tentatively identified as being from a short-faced bear. **Trends** • The trend is stable because bones are behind locked gates, and all current known bone sites appear to have been undisturbed except for a bear bone site disturbed during trail construction in the 1930s and bones removed and curated in park museum collections for further analysis and/or protection.
Threats and Opportunities	**Threats** • There are no obvious threats at this time. **Opportunities** • There is an opportunity for NPS staff to conduct photogrammetry of the significant fossils such as a jaguar, bear, and wolf fossils. • If authorized, excavations in soft sediments may provide the opportunity to reveal extinct species.
Related Resources and Values	• There are caves in the Siskiyou Mountains (on other public lands) with fossils that help tell the regional story of climate change and human impacts.

Fundamental Resource or Value	Fossils and Diversity of Features
Existing Data and Plans Related to the FRV	• Chalet Visitor Center exhibit plan. • Significant collection. • Unpublished reports on the general collection of bones, specifically amphibians. • Report on the jaguar. • Radiocarbon dates on the jaguar and American bear.
Data and/or GIS Needs	• Identification and documentation of a possible wolf or short-faced bear. • Radiocarbon date for wolf. • Radiocarbon dates for a variety of other significant fossils. • There is a need for more complete mapping of all fossil sites in the cave. • Survey of the paleontological resources in the cave.
Planning Needs	• Possible need for a fossil management plan (a paleontologist would be able to determine the need after more comprehensive surveys are made).
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • Historic Sites Act of 1935 • Paleontological Resources Protection Act (2009) • Clean Water Act of 1972 • Federal Cave Resources Protection Act (1988) • Clean Air Act (42 USC 7401 et seq.) • National Environmental Policy Act of 1969; 42 USC 4321 • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" **NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (4.6.1) "Protection of Surface Waters and Groundwaters" • NPS *Management Policies 2006* (4.6.2) "Water Rights" • NPS *Natural Resource Management Reference Manual 77* • NPS *Management Policies 2006* (4.1) "General Management Concepts" • NPS *Management Policies 2006* (4.4.1) "General Principles for Managing Biological Resources" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • NPS *Management Policies 2006* (chapter 8) "Use of the Parks" • NPS *Management Policies 2006* (chapter 9) "Park Facilities" • NPS *Management Policies 2006* (2.3.1.4) "Science and Scholarship" • NPS *Management Policies 2006* (4.2) "Studies and Collections" • NPS *Management Policies 2006* (4.4.1) "General Principles for Managing Biological Resources" • NPS *Management Policies 2006* (4.7.2) "Weather and Climate" • NPS *Management Policies 2006* (5.1) "Research" • NPS *Management Policies 2006* (8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 24: *NPS Museum Collections Management* • Director's Order 6: *Interpretation and Education*

Fundamental Resource or Value	Endemic Species
Related Significance Statements	**Genetic Biodiversity.** Oregon Caves National Monument and Preserve contains a rich variety of habitat types that support unusually high genetic diversity, including one of the highest concentrations of endemics in North America and more single-cave endemics than any other cave in the western United States. **Climate History.** Oregon Caves National Monument and Preserve protects dripstone chemistry and fossil deposits that record a quarter of a billion years of detailed and accurate Climate History. These caves thus provide an opportunity for education, research, and scientific inquiry related to past climates and climate change.
Current Conditions and Trends	**Conditions** • Populations of these arthropods appear to be stable over the last 25 years. However there are various challenges with producing accurate population counts because of the inability to identify these recaptured species. • The park's endemic millipede family was last located in 2008. • The cave probably shelters 5–10 endemics. • The cave reduces surface fluctuations that cause extinctions. • A high habitat diversity on the surface ensures the successful establishment of migrants (some of which become cave endemics), creates new species due to genetic isolation, and offers places to move to in order to survive climate change. **Trends** • Stable.
Threats and Opportunities	**Threats** • The main threat is climate change beyond the range of variation of the last two million years because it could cause extinctions due to the loss of organic material through higher oxidation rates and reduced input of water into the cave. **Opportunities** • The number of endemics confined to Oregon Caves is undetermined, and not all species have been scientifically described. There is an opportunity to learn more about suspected endemics in Oregon Caves. • There is an opportunity to locate the park's endemic millipede family.
Related Resources and Values	• Caves in the region act as laboratories to study evolution.
Existing Data and Plans Related to the FRV	• Subsurface management plan. • The Klamath Network Inventory and Monitoring cave protocols. • Taxonomic inventories of all known endemic cave species. • The first year of monitoring by Klamath Network Inventory and Monitoring Program began in August 2014.

Fundamental Resource or Value	Endemic Species
Data and/or GIS Needs	• The species needs to be scientifically described to determine whether they are truly endemic. • Additional mapping of endemic caves species will prove to be useful, and it will be conducted as part of the Klamath monitoring to begin in August 2014.
Planning Needs	• None identified.
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • Paleontological Resources Protection Act (2009) • Wild and Scenic Rivers Act of 1968 • Clean Water Act of 1972 • Federal Cave Resources Protection Act (1988) • Clean Air Act (42 USC 7401 et seq.) • National Environmental Policy Act of 1969; 42 USC 4321 • Endangered Species Act of 1973, as amended • National Invasive Species Act • Federal Noxious Weed Act of 1974, as amended • Executive Order 13112, "Invasive Species" • Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance" • Water rights adjudication and law • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Executive Order 13112, "Invasive Species" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" **NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (4.6.1) "Protection of Surface Waters and Groundwaters" • NPS *Management Policies 2006* (4.6.2) "Water Rights" • NPS *Natural Resource Management Reference Manual 77* • NPS *Management Policies 2006* (1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS *Management Policies 2006* (4.1) "General Management Concepts" • NPS *Management Policies 2006* (4.1.4) "Partnerships" • NPS *Management Policies 2006* (4.4.1) "General Principles for Managing Biological Resources" • NPS *Management Policies 2006* (4.7.2) "Weather and Climate" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • NPS *Management Policies 2006* (chapter 8) "Use of the Parks" • NPS *Management Policies 2006* (chapter 9) "Park Facilities" • NPS *Management Policies 2006* (2.3.1.4) "Science and Scholarship" • NPS *Management Policies 2006* (4.2) "Studies and Collections" • NPS *Management Policies 2006* (4.4.1) "General Principles for Managing Biological Resources" • NPS *Management Policies 2006* (4.7.2) "Weather and Climate" • NPS *Management Policies 2006* (5.1) "Research" • NPS *Management Policies 2006* (8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 24: *NPS Museum Collections Management* • Director's Order 6: *Interpretation and Education*

Fundamental Resource or Value	Geologic Features and Processes
Related Significance Statements	**Complex Geology.** Oregon Caves National Monument and Preserve is an outstanding place to easily view one of the world's most complete and complex arrays of geology and climate. Visitors can see beautiful glacial lakes and a marble cave with rocks once among the planet's deepest. **Solution Cave Access.** Oregon Caves is an excellent example of solution cave geology in the Pacific Northwest region, and is easily reachable by the public. **Climate History.** Oregon Caves National Monument and Preserve protects dripstone chemistry and fossil deposits that record a quarter of a billion years of detailed and accurate Climate History. These caves thus provide an opportunity for education, research, and scientific inquiry related to past climates and climate change.
Current Conditions and Trends	**Conditions** • The best available science indicates that cave features and geologic processes are in good condition. • There is some breakage of cave features that resulted from vandalism and exploration between the late 19th and 20th centuries. • Extra bacterial (once called blue-green algae) growth in the cave occurs due to lights. This growth is considered a contaminant and slows the growth or changes the development of cave formations. It is also considered an invasive set of species that feed other life that otherwise would not have a food source inside the cave. Bacterial growth away from bodies of cave waters is reduced once or twice a year by spraying with a dilute solution of bleach. • Rimstone restoration continues. This restoration effort is helping to restore sections of Rimstone features that were damaged along the old cave tour route. • Impacts on cave formations from contact with humans could occur due to the volume of visitors regularly in the cave. This potential risk is mitigated through ranger-led tours that enforce strict rules and regulations regarding touching or removing cave features. This visitation structure and associated regulations protect the integrity of cave formations. • The watershed above the cave filters through the ground and eventually into the cave and facilitates the development of cave features. The health of this watershed is critical to the health of the formations, thus maintaining a pristine watershed is critical to protecting the integrity of cave formations. **Trends** • Moonmilk, flowstone over signatures, solubilities, and re-solution surfaces indicate the caves have slowed in growth in the last two decades compared to older radiometric dates. • Larger climate change issues may be changing air and waterflow patterns that may be affecting the chemistry of the water that fuels the development of cave formations.
Threats and Opportunities	**Threats** • Changes in vegetation caused by anthropogenic changes in evapotranspiration, atmospheric CO2, or fire suppression may eventually cause changes in cave calcite deposition or solution rates beyond the natural range of variation during the cave's existence. • Visitors could be damaging the cave on visits; however, this threat is being mitigated by ranger supervision and regulations. **Opportunities** • Increasing the number of fuel-reduction fires may reduce the amount of carbon getting into the cave water and subsequently affecting cave formations.
Existing Data and Plans Related to the FRV	• The caves have a room-by-room inventory of geologic features. This inventory includes drip rates of all the features, feature densities, and other information about the features. • Study on solubility rates of features and the cave is ongoing; the study is looking to see if the cave is dissolving or growing.

Fundamental Resource or Value	Geologic Features and Processes
Existing Data and Plans Related to the FRV (continued)	• Ongoing monitoring of marble blocks and paleoclimate research indicates that the cave is not depositing calcite as much as it did in past interglacials, raising concerns that recent climate change is decreasing the growth of cave formations such as flowstone. • Water chemistry data. • Cave restoration plan (1990).
Data and/or GIS Needs	• A study still needs to be done to determine the isotopes of present day water. • Seismic study on spleothems on the fallen blocks in the cave—dating them to see if the fall was associated with a major seismic event.
Planning Needs	• Cave room monitoring plan – The cave room inventory does not have a monitoring program. The baseline data have been collected but monitoring has never been done to gather trend data. • Resource stewardship strategy.
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • Endangered Species Act of 1973, as amended • National Invasive Species Act • Archeological and Historic Preservation Act of 1974 • Archaeological Resources Protection Act of 1979 • Paleontological Resources Protection Act (2009) • Wild and Scenic Rivers Act of 1968 • Clean Water Act of 1972 • Federal Cave Resources Protection Act (1988) • Clean Air Act (42 USC 7401 et seq.) • Lacey Act, as amended • National Environmental Policy Act of 1969; 42 USC 4321 • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" **NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (4.6.1) "Protection of Surface Waters and Groundwaters" • NPS *Management Policies 2006* (4.6.2) "Water Rights" • NPS *Natural Resource Management Reference Manual 77* • NPS *Management Policies 2006* (1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS *Management Policies 2006* (4.1) "General Management Concepts" • NPS *Management Policies 2006* (4.4.1) "General Principles for Managing Biological Resources" • NPS *Management Policies 2006* (4.7.2) "Weather and Climate" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • NPS *Management Policies 2006* (chapter 8) "Use of the Parks" • NPS *Management Policies 2006* (2.3.1.4) "Science and Scholarship" • NPS *Management Policies 2006* (4.2) "Studies and Collections" • NPS *Management Policies 2006* (4.4.1) "General Principles for Managing Biological Resources" • NPS *Management Policies 2006* (§5.1) "Research" • NPS *Management Policies 2006* (§8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 24: *NPS Museum Collections Management* • Director's Order 6: *Interpretation and Education*

Fundamental Resource or Value	Biodiversity from Surface and Subterranean Interaction, Including Cave and Noncave Endemics
Related Significance Statements	**Genetic Biodiversity.** Oregon Caves National Monument and Preserve contains a rich variety of habitat types that support unusually high genetic diversity, including one of the highest concentrations of endemics in North America and more single-cave endemics than any other cave in the western United States. **Climate History.** Oregon Caves National Monument and Preserve protects dripstone chemistry and fossil deposits that record a quarter of a billion years of detailed and accurate Climate History. These caves thus provide an opportunity for education, research, and scientific inquiry related to past climates and climate change.
Current Conditions and Trends	**Conditions** • More than 90 groups took refuge in the park in the past 34 million years. More than 40 are thought to have started in the region. • Organic input into the cave does not appear to be adversely affected by increased drought due to climate change or fire suppression. • Water courses that make up the cave watershed are protected under the Wild and Scenic Rivers Act. • The biodiversity of the region is represented in the caves and in surface habitats that range from lake to alpine. • Ozone exposure to at least 8 ozone sensitive plants, including ponderosa pine and Scouler's willow, warrants moderate concern based on NPS Air Resources Division benchmarks (see Threats). • Wet nitrogen deposition is estimated at 2.1 kilograms per hectare per year and warrants moderate concern based on NPS Air Resources Division benchmarks (see Threats). • Wet sulfur deposition is estimated at 0.9 kilograms per hectare per year and is in good condition based on NPS Air Resources Division benchmarks (see Threats). • There is very little light pollution affecting the park. The modeled average ALR value is 0.20. At this level, the effect to dark adaptation of eye sight is negligible. **Trends** • Increased variability in precipitation and temperature. Mean annual temperature is increasing at a statistically significant rate of 3.2°F per century for the region. • No trends information is available for ozone, wet nitrogen and sulfur deposition.

Fundamental Resource or Value	Biodiversity from Surface and Subterranean Interaction, Including Cave and Noncave Endemics
Threats and Opportunities	**Threats** • Climate change may reduce cave habitat and cause extinction of species. Mean annual temperature is projected to increase 3.1°F to 4.0°F by 2050, with little to no change in mean annual precipitation (0 to +2%), impacting the surface and subsurface ecosystems. • Oregon Caves is an island of biodiversity within an increasingly manipulated and homogenous surrounding forest ecosystem. The active manipulation of these ecosystems could have negative impacts on the unit's ability to sustain the current level of biodiversity. • White-nose syndrome is a threat to bats. • The loss of old-growth forest is a threat to the bats because they roost under the attached bark of large snags of a certain age. There are fewer such trees due to more intense fires and growth stagnation in plantation forests due to lack of thinning. • The addition of the higher elevations of the preserve adds a new threat for many park plants in subalpine and alpine habitats. In the short run the decrease in snowpack duration will increase the growth season and seed set of most plants, but in the long run will crowd out species adapted in these habitats to low competition. Species will continue to move up in elevation until they run out of substrate and so may be extirpated locally due to the lack of higher elevations. • The spread of Port Orford cedar disease may impact Port Orford cedar, an umbrella species that may be used for making conservation related decisions in the monument and preserve. The water mold may spread via water and be carried between watersheds in mud on vehicles and equipment, as well as by animals and hikers. • Regional and local sources of air pollution can threaten biodiversity. Ozone exposure for ozone sensitive plants can cause foliar ozone injury. Nitrogen and sulfur compounds in air pollution can deposit into ecosystems and cause excess fertilization (eutrophication), acidification, and changes in soil and water chemistry that can affect community composition and alter biodiversity. Mercury can accumulate in the food chain and can affect both wildlife and human health. Risk assessments concluded that park plants were at moderate risk of foliar ozone damage, park ecosystems have low sensitivity to acidification and very low sensitivity to nutrient enrichment (although lichen community is as risk for harmful effects), and predicted concentrations of methylmercury in surface waters are high. **Opportunities** • Explore ways to better protect noncave endemic species, such as combining fuels reduction with restoration of historic vistas. • Reduce forest fuels to restore historic visits, reduce fire danger, and restore water flow into the caves. • Work with surrounding land management agencies to conduct biological inventories. • Expand interpretative and educational tools to communicate the connections between climate change, biodiversity, scenic views, night skies, air quality, and human health (and other associated resources). • Continue to improve and leverage park sustainability as a Climate Friendly Park for environmental leadership with the public and stakeholders. • Search for new and emerging methods for understanding cave, glacial, and mountain science related to the biodiversity of the caves and the surface habitats. • There are ongoing opportunities through federal air quality programs (e.g., regional haze program), for the National Park Service to work cooperatively with other federal and state air quality agencies and local stakeholders to potentially reduce air quality impacts in parks from sources of air pollution outside the park. • Parks with cave environments could consider the photic resources and lightscapes of the cave environment and entrance zone. Artificial light above and below ground may impact cave-specific flora and fauna adapted to living in very dark conditions. Artificial light may also influence the temperature and relative humidity of the cave environment. This consideration should be balanced with those related to visitor access and visitor safety.

Fundamental Resource or Value	Biodiversity from Surface and Subterranean Interaction, Including Cave and Noncave Endemics
Related Resources and Values	• Regional gene flow – allows park unit staff to understand speciation in Oregon Caves.
Existing Data and Plans Related to the FRV	• Klamath Network inventories have continued to reveal indicator species. • Climate action plan. • Air resource conditions and data can be found at: http://www.nature.nps.gov/air/data/products/parks/index.cfm.
Data and/or GIS Needs	• Bat population survey before white-nose syndrome arrives at the monument and preserve. • Continued inventory and monitoring of water flow and biotic input and effects of fuel reduction. • Climate change vulnerability assessment for select species. • Collection of continuous weather data to validate climate model projections for the region. • Data need is to determine if and how much fuel reduction, artificial introduction of organics, and/or reduction in drying airflow in the caves is needed to protect cave species from extinction should the combined effects of fire suppression and heightened droughts exceed the normal range of variation of organic availability to cave animals in the last few million years. This probably would involve differentiating the plant and microbial organic sources using protein chromatography, lipid analysis, or other tested methods in determining organic sources if and when they become available. Determining the representative extent and duration of microbial grazing on the majority of cave surfaces appears beyond present-day monitoring methods. Need to determine the effects on organic input into the cave. • Cave water isotopes study for comparison to paleoclimate record. • Wild and scenic rivers eligibility and suitability study.
Planning Needs	• Fire management plan revision. • Comprehensive river management plan.
Laws, Executive Orders, and Regulations That Apply to the FRV	**Laws, Executive Orders, and Regulations That Apply to the FRV** • Paleontological Resources Protection Act (2009) • Wild and Scenic Rivers Act of 1968 • Clean Water Act of 1972 • Federal Cave Resources Protection Act (1988) • Clean Air Act (42 USC 7401 et seq.) • National Environmental Policy Act of 1969; 42 USC 4321 • Endangered Species Act of 1973, as amended • National Invasive Species Act • Federal Noxious Weed Act of 1974, as amended • Executive Order 13112, "Invasive Species" • Water rights adjudication and law • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Executive Order 13112, "Invasive Species" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"

Fundamental Resource or Value	Biodiversity from Surface and Subterranean Interaction, Including Cave and Noncave Endemics
NPS Policy-level Guidance	**NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (4.6.1) "Protection of Surface Waters and Groundwaters" • NPS *Management Policies 2006* (4.6.2) "Water Rights" • NPS *Natural Resource Management Reference Manual 77* • NPS *Management Policies 2006* (1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS *Management Policies 2006* (4.1) "General Management Concepts" • NPS *Management Policies 2006* (4.1.4) "Partnerships" • NPS *Management Policies 2006* (4.4.1) "General Principles for Managing Biological Resources" • NPS *Management Policies 2006* (4.7.2) "Weather and Climate" • Director's Order 13A: *Environmental Management Systems* • Director's Order 47: *Soundscape Preservation and Noise Management* • NPS *Management Policies 2006* (4.9) "Soundscape Management" • NPS *Management Policies 2006* (5.3.1.7) "Cultural Soundscape Management" • NPS *Management Policies 2006* (8.2.3) "Use of Motorized Equipment" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • NPS *Management Policies 2006* (chapter 8) "Use of the Parks" • NPS *Management Policies 2006* (chapter 9) "Park Facilities" • NPS *Management Policies 2006* (2.3.1.4) "Science and Scholarship" • NPS *Management Policies 2006* (4.2) "Studies and Collections" • NPS *Management Policies 2006* (4.4.1) "General Principles for Managing Biological Resources" • NPS *Management Policies 2006* (5.1) "Research" • NPS *Management Policies 2006* (8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 24: *NPS Museum Collections Management* • Director's Order 6: *Interpretation and Education*

Fundamental Resource or Value	The Chateau and the Historic District
Related Significance Statements	**Historic Resources.** The Oregon Caves Chateau, a national historic landmark, and the Oregon Caves Historic District are outstanding examples of public and private efforts to develop, manage, and protect the monument's natural and recreational resources. The Chateau and designed landscape of the historic district exemplify the rustic–romantic architectural style of developed national park tourist facilities built in the early 20th century.
Current Conditions and Trends	**Conditions** • The majority of the buildings in the historic district are currently in fair to poor condition primarily due to an ongoing and growing deferred maintenance backlog. • All buildings in the historic district have little to no insulation, which causes heat loss. Lack of insulation also causes noise intrusions for visitors staying in lodging because they can easily hear sounds from adjacent rooms, halls, and other building noise. • The guide shack is uninhabitable because it is not structurally sound and it does not have a stable foundation. This building could be used for lodging or administrative space and thereby provide economic benefit to the park unit. However its current poor condition requires expensive upgrades and restoration. • Buildings in the historic district have 1950s electrical, fire, and alarm systems that need upgrading. • None of the buildings provide Architectural Barriers Act accessibility. • Most of the plumbing systems in the buildings have not been upgraded since the buildings were constructed in the 1920s to 1940s. • The landscape features (i.e., trails, waterfalls, rock walls, ponds, walkways, and benches) surrounding the buildings of the historic district are all in very good condition. • The Chateau provides an excellent visitor experience by affording visitors with a sense of going back in time, a chance to get away from it all, and opportunities for high-quality time with each other. Once tour operations stop each day, visitors who stay overnight at the Chateau are able to experience the monument in relative solitude. • The Chateau is operated by a concessioner, a local nonprofit that provides economic opportunities and benefit for the Illinois Valley area. The Chateau concessioner focuses on and highlights the sale of local arts and crafts and local foods and beverages in the restaurant. • A historic plaque is being developed about the relationship of the historic district to the creation of the View-Master stereoscopic viewer. **Trends** • Quality of maintenance of the buildings has improved since NPS ownership in 2000 (i.e., new roof for the Chateau). • Increased interpretation of the historic district since 2000. • Increased restorations of interior furniture and features. • Occupancy rates of the Chateau during high season have increased.

Fundamental Resource or Value	The Chateau and the Historic District
Threats and Opportunities	**Threats** • Wildfires – Under some of the climate modeled projections for the region, fire frequencies could increase by 25% by 2100. • Structure fires. • Small wildlife and pests, such as those that chew through wiring or wood, or mice. Projected increase in mean annual temperature could increase nonnative species and pests that impact historic structures. • Continued warming over time could impact water supplies for park operations. • Plumbing and electrical failures. • The Chateau was originally built with siding made from Port Orford cedar, which is an old growth cedar tree that has a very limited range where it can survive, and it is currently being impacted by a water mold (oomycete). Therefore, this type of wooden siding is hard to obtain today. • The north side of the Chateau is being slowly warped by pressure from the road embankment. Emergency stabilization is needed for the guide shack (for the foundation and roof, immediate need, within five years or may lose structure). **Opportunities** • Improve Architectural Barriers Act accessibility in many of the buildings. • Increase preparedness for wildland fire and educate the public on the importance of wildland fire protection strategies. • Continue development of a professional relationship with local fire department. • Continue development of a professional working relationship with local interagency fire crews. • Improve relationship between local and federal fire programs. • Investigate ways to increase rates of occupancy during shoulder seasons. • Investigate other ways to operate and/or fund the Chateau other than concession contract. • For the Chateau, implementation of line item construction project.
Data and/or GIS Needs	• Vulnerability assessment for cultural resources (inside and outside/structures and inside – furniture, etc.).
Planning Needs	• Historic furnishing plan for the Chateau. • For chalet – electrical system upgrade plan and plumbing/fire alarm system. • Accessibility self-evaluation and transition plan.
Laws, Executive Orders, and Regulations That Apply to the FRV	**Laws, Executive Orders, and Regulations That Apply to the FRV** • Antiquities Act of 1906 • Historic Sites Act of 1935 • National Historic Preservation Act of 1966, as amended (16 USC 470) • Archeological and Historic Preservation Act of 1974 • National Environmental Policy Act of 1969; 42 USC 4321 • Museum Act (16 USC 18f through 18f-3) • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • "Protection of Historic Properties" (36 CFR 800) • Architectural Barriers Act of 1968 • Architectural Barriers Act Accessibility Standards 2006 • Rehabilitation Act of 1973 • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land and Other Natural and Cultural Resources"

Fundamental Resource or Value	The Chateau and the Historic District
NPS Policy-level Guidance	**NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS *Management Policies 2006* (4.1) "General Management Concepts" • NPS *Management Policies 2006* (4.1.4) "Partnerships" • NPS *Management Policies 2006* (chapter 5) "Cultural Resource Management" • Director's Order 24: *NPS Museum Collections Management* • Director's Order 28: *Cultural Resource Management (1998)* • Director's Order 28A: *Archeology (2004)* • NPS *Museum Handbook*, parts I, II, and III • *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • NPS *Management Policies 2006* (chapter 8) "Use of the Parks" • NPS *Management Policies 2006* (chapter 9) "Park Facilities" • NPS *Management Policies 2006* (2.3.1.4) "Science and Scholarship" • NPS *Management Policies 2006* (4.2) "Studies and Collections" • NPS *Management Policies 2006* (8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 6: *Interpretation and Education* • Director's Order 42: *Accessibility for Visitors with Disabilities in National Park Service Programs and Services*

Fundamental Resource or Value	Opportunity to Explore and Access the Complex Geology of the Cave System and Its Relationship to the Mountain Watershed
Related Significance Statements	**Solution Cave Access.** Oregon Caves is an excellent example of solution cave geology in the Pacific Northwest region, and is easily reachable by the public.
Current Conditions and Trends	**Conditions** • Overall, access to the cave is in good condition. Cave tours continue to run on regular intervals along the main tour routes, and additional cave exploration tours are available in other areas of the cave where there is no infrastructure. • Cave tours provide strategic lighting so the exploration atmosphere is preserved. The design of the cave route intentionally harmonizes with the cave landscape. • The cave is challenging for visitors to get through, which allows visitors to experience a sense of adventure while exploring the cave. The cave route follows the flow of the cave. • Cave tours run at regular intervals (every 15 minutes) from 9 a.m. to 6 p.m. • At times, visitors may experience up to a 2-hour wait for a cave tour. A wait of this magnitude is not uncommon, and typically, the majority of visitors do not seem adversely affected by the wait times. • Persons with hearing impairments can be accommodated with two weeks' notice. Ten assisted listening devices are available for use by the hearing impaired while on a cave tour. • For persons using wheelchairs, there is only access to the first room of the cave. • The physical route of the cave tour is in good condition. Route maintenance is performed at regular intervals. • Visitation to the monument peaked in 1972 at just shy of 200,000 visitors. In the last 10 years, visitation to Oregon Caves has remained relatively stable at 81,000 visitors per year on average. • Visitors can choose between almost 19 miles of trails and nearly 30 miles of road to access the park. The roads range between paved, gravel, dirt, and impassible. • Overall, condition of the trails range from fair to good condition. • From trails visitors have the opportunity to see mountain vistas of hundreds of miles, including Mount Shasta, because views are largely free from development. • Rehabilitation is needed for the 18-site campground along Oregon Route 46 in the preserve. • Visibility and ozone condition for human health warrants moderate concern based on NPS Air Resources Division benchmarks. • Mountain vistas are sometimes obscured by pollution caused by haze. **Trends** • Staff regularly checks in with reviews on travel sites and have found that most visitors are extremely satisfied with the cave experience. Some visitors with mobility issues have mentioned that the level of access to meet their needs is not adequate. • Overall, the number of visitors taking cave tours has been stable over time. • No trend information is available for ozone and visibility.

Fundamental Resource or Value	Opportunity to Explore and Access the Complex Geology of the Cave System and Its Relationship to the Mountain Watershed
Threats and Opportunities	**Threats** • Accessibility for persons with mobility and sensory impairments is limited. For those using wheelchairs, there is only access to the first room of the cave. • Potential user conflicts between hikers and hunters on preserve roads and trails. • Ozone, a respiratory irritant, sometimes reaches levels that can make breathing difficult for sensitive groups, such as elderly, children, people with existing health problems, and active adults. **Opportunities** • Increase diversity of visitors to the cave. • Increased opportunities for youth "off trail" experiences: finding a route that is geared toward the under-15 age group. • Oregon Caves opened a month late in fiscal year 2014. It is difficult to run cave tours in the shoulder season when visitation is low. Management has been experimenting with reallocating staff time during shoulder seasons in order to be efficient with tighter budgets and 1039 (seasonal hiring) requirements. Putting more staff time into peak season allows the park unit the opportunity to serve more visitors by reducing wait times for tours below 2.5 hours. • Trails lead visitors to scenic mountain vistas, glacial cirques, tarns, hanging lakes, and waterfalls. • Increased opportunities for commercial use authorizations to offer guided experiences in the preserve. • Work cooperatively through federal air quality programs (e.g., regional haze program), with other federal and state air quality agencies and local stakeholders to potentially reduce air quality impacts in parks from sources of air pollution outside the park.
Existing Data and Plans Related to the FRV	• Long-range interpretive plan. • Visitor use study. • Concessioner satisfaction survey. • Annual visitor survey. • Air resource conditions and data can be found at: http://www.nature.nps.gov/air/data/products/parks/index.cfm.
Data and/or GIS Needs	• Visitor use survey – To be used in plan rationale: to ask about the experience, currently they only do the short survey and might need some richer information.
Planning Needs	• Cave lighting plan – To be used in plan rationale: something more intentional to deal with lighting issues, blackouts, etc. • Visitor use management plan – To be used in plan rationale: the first information station is 18 miles away and visitors stopping there are not always told when the parking at the caves is full or nearly full, and tour time waits may be more than 2.5 hours during daily peak use times, and visitors never really see a ranger. • Long-range interpretive plan for the preserve. • Operations plan for the interagency visitor center. • Preserve recreational and operations management plan.
Laws, Executive Orders, and Regulations That Apply to the FRV	**Laws, Executive Orders, and Regulations That Apply to the FRV** • Antiquities Act of 1906 • Wild and Scenic Rivers Act of 1968 • Architectural Barriers Act of 1968 • Architectural Barriers Act Accessibility Standards 2006 • Rehabilitation Act of 1973 • Clean Air Act of 1977

Fundamental Resource or Value	Opportunity to Explore and Access the Complex Geology of the Cave System and Its Relationship to the Mountain Watershed
NPS Policy-level Guidance	**NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (4.1) "General Management Concepts" • NPS *Management Policies 2006* (4.1.4) "Partnerships" • NPS *Management Policies 2006* (8.2.3) "Use of Motorized Equipment" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • NPS *Management Policies 2006* (chapter 8) "Use of the Parks" • NPS *Management Policies 2006* (chapter 9) "Park Facilities" • NPS *Management Policies 2006* (chapter 10) "Commercial Visitor Services" • NPS *Management Policies 2006* (2.3.1.4) "Science and Scholarship" • NPS *Management Policies 2006* (4.2) "Studies and Collections" • NPS *Management Policies 2006* (8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 6: *Interpretation and Education* • Director's Order 42: *Accessibility for Visitors with Disabilities in National Park Service Programs and Services*

Fundamental Resource or Value	Free-Flowing Water and Dependent Systems
Related Significance Statements	**Wild and Scenic Rivers.** Oregon Caves is home to the nation's first subterranean scenic river. The River Styx and the other rivers in this watershed are critical to the sustained health of the cave and karst features.
Current Conditions and Trends	**Conditions** • The watershed above the cave filters through the ground and eventually into the cave and facilitates the development of cave features. The health of this watershed is critical to the health of the formations, thus maintaining a pristine watershed is critical to protecting the integrity of cave formations. • Oregon Caves contains a complete stand of old-growth trees sheltering a pristine watershed in the headwater tributaries of the Illinois River, one of the last major undammed rivers in the Pacific Northwest whose entire watershed is open to spawning anadromous fish. • Oregon Caves offers a unique opportunity to follow a stream of this watershed into a mountain to view the nature of hydrologic systems whose persistence is recorded by ancient cave formations. • The cities in the Illinois Valley are dependent on Cave Creek (and its associated tributaries) for water. • Stream channels are predominately natural. • Water quality is largely natural and meets state standards. • Predicted concentrations of methylmercury in surface waters are high, according to US Geological Survey monitoring data (report last modified February 20, 2015). **Trends** • Flow regimes are within the natural range of variability.
Threats and Opportunities	**Threats** • Projected increase in mean annual temperature due to climate change will likely affect natural flow regimes by changing the seasonal flows (e.g., continued decrease in snowpack and spring runoff) and overall discharge. Projected increase in storm frequency/intensity could increase flood events. Fire frequencies could increase by 25% by 2100 due to climate change, increasing erosion and stream sedimentation during extreme runoff events. • Visitor use, fire suppression, and grazing may all have impacts on water quality and quantity within the cave system. • Mercury deposited from the atmosphere can accumulate in the food chain and can affect both wildlife and human health. **Opportunities** • The completion and implementation of wild and scenic rivers planning, including section 7 compliance with the Wild and Scenic Rivers Act, will allow for better understanding and management of the watershed.

Fundamental Resource or Value	Free-Flowing Water and Dependent Systems
Data and/or GIS Needs	• Wild and scenic river eligibility and suitability study.
Planning Needs	• Comprehensive river management plan. • Resource stewardship strategy.
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • Wild and Scenic Rivers Act of 1968 • Clean Water Act of 1972 • Water rights adjudication and law • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Executive Order 11988, "Floodplain Management" • Executive Order 12088, "Federal Compliance with Pollution Control Standards" • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" • "National Flood Insurance Program" (44 CFR 60) • Clean Air Act (1970) **NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (§4.6.1, 4.6.2, 4.6.4 and 4.8.1.1) • Director's Order 77-2: *Floodplain Management* • Special Directive 93-4, "Floodplain Management Guideline"

Analysis of Other Important Resources and Values

Other Important Resource or Value	Partnerships
Related Significance Statements	**Complex Geology.** Oregon Caves National Monument and Preserve is an outstanding place to easily view one of the world's most complete and complex arrays of geology and climate. Visitors can see beautiful glacial lakes and a marble cave with rocks once among the planet's deepest. **Solution Cave Access.** Oregon Caves is an excellent example of solution cave geology in the Pacific Northwest region and is easily reachable by the public. **Fossils.** The cave possesses a significant collection of well-preserved fossils, including one of the oldest American grizzly bear bones, the remains of a jaguar, and a bone tentatively identified as from a short-faced bear. There also is a unique assemblage of trace fossils and subfossils that record much older and more recent habitat change. **Historic Resources.** The Oregon Caves Chateau, a national historic landmark, and the Oregon Caves Historic District are outstanding examples of public and private efforts to develop, manage, and protect the monument's natural and recreational resources. The Chateau and designed landscape of the historic district exemplify the rustic–romantic architectural style of developed national park tourist facilities built in the early 20th century. **Genetic Biodiversity.** Oregon Caves National Monument and Preserve contains a rich variety of habitat types that support unusually high genetic diversity, including one of the highest concentrations of endemics in North America and more single-cave endemics than any other cave in the western United States.
Current Conditions and Trends	**Conditions** • Good to excellent relationships with current partners. • As of the writing of this document, the park unit has at least 12 active partnerships. • Oregon Caves staff works with a variety of partner types including agency and state partners, other Klamath network parks, nonprofits, local nongovernmental organizations, and educational organizations. • Through partnerships, Oregon Caves staff is active in the local community. **Trends** • Increasing number of partners. • Increasing project complexity; multiple partners working on a single project at one time.

Other Important Resource or Value	Partnerships
Threats and Opportunities	**Threats** • Challenge for partners working with bureaucracy. • NPS staff has limitations on how they can participate with partners. • Partners enter into relationship with the National Park Service expecting equality, but the unequal structure that federal-partner relationships create has the potential to create tension in the relationship. **Opportunities** • Educate partners on federal limitations and challenges when working in partnerships. • Identify more potential partners. • Partner with a community college to develop and implement a cave-guide certification program. • Investigate possible training opportunities for staff to learn about how nonprofits work and how to better collaborate with partners (e.g., collaboration clinics). • Partner with Southern Oregon School for the Deaf to develop American Sign Language interpretive video cave tours. • Create opportunities for youth and nontraditional visitors to participate in outdoor educational experiences at the monument and preserve. • Work with partners, such as Healthy You, to foster connections between parks and wellness. This might include an interpretive trails program. These programs would support the Healthy Parks Healthy People program. • Work with partners to reduce parking congestion and develop clean energy solutions for transportation to the park unit and for facilities. • There is an opportunity to secure a new concession contract for the Chateau, and therefore perpetuate the protection of this resource and continue to provide opportunities for visitors to experience the Chateau.
Existing Data and Plans Related to the OIRV	• See administrative commitments table in appendix C.
Data and/or GIS Needs	• Training needs – collaboration clinic. • Assessment of agreements needed (management action needed). • Timeline of how slow federal partner relationship goes. • Community partner assessment (if they feel they need new relationships).
Planning Needs	• Park partner action strategy (to work on existing relationships). • Commercial services plan.
Laws, Executive Orders, and Regulations That Apply to the OIRV	**Laws, Executive Orders, and Regulations That Apply to the OIRV** • National Historic Preservation Act of 1966, as amended (16 USC 470) • Archeological and Historic Preservation Act of 1974 • National Environmental Policy Act of 1969; 42 USC 4321 • Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance" • Museum Act (16 USC 18f through 18f-3) • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • Architectural Barriers Act of 1968 • Architectural Barriers Act Accessibility Standards 2006 • Rehabilitation Act of 1973

Other Important Resource or Value	Partnerships
NPS Policy-level Guidance	**NPS Policy-level Guidance (NPS *Management Policies 2006* and Director's Orders)** • NPS *Management Policies 2006* (1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS *Management Policies 2006* (4.1) "General Management Concepts" • NPS *Management Policies 2006* (4.1.4) "Partnerships" • Director's Order 24: *NPS Museum Collections Management* • Director's Order 28: *Cultural Resource Management (1998)* • Director's Order 28A: *Archeology (2004)* • NPS *Museum Handbook*, parts I, II, and III • NPS *Management Policies 2006* (8.2.3) "Use of Motorized Equipment" • NPS *Management Policies 2006* (chapter 7) "Interpretation and Education" • NPS *Management Policies 2006* (chapter 8) "Use of the Parks" • NPS *Management Policies 2006* (chapter 9) "Park Facilities" • NPS *Management Policies 2006* (chapter 10) "Commercial Visitor Services" • NPS *Management Policies 2006* (2.3.1.4) "Science and Scholarship" • NPS *Management Policies 2006* (4.2) "Studies and Collections" • NPS *Management Policies 2006* (8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 6: *Interpretation and Education* • Director's Order 42: *Accessibility for Visitors with Disabilities in National Park Service Programs and Services* • Director's Order 48A: *Concession Management* • Director's Order 48B: *Commercial Use Authorization*

Appendix C: Inventory of Administrative Commitments

Administrative Commitments

Agreement Name	Type of Agreement	Start Date / Expiration Date	Stakeholders	Purpose	Notes
Memorandum of Understanding for Illinois Valley Visitor Center	Memorandum of understanding	2012 / 2017	BLM, USFS, City of Cave Junction, Illinois Valley Development Organization, Illinois Valley Chamber of Commerce	Visitor center operations	
Friends of Oregon Caves and Chateau	General agreement	2013 / 2018	Friends of Oregon Caves and Chateau	Fundraising	
Illinois Valley Volunteer Fire Department	Cooperative agreement	annual	Illinois Valley Volunteer Fire Department	Structural fire	
USFS: Rogue River-Siskiyou National Forest	Interagency	annual	USFS, NPS	Wildland fire suppression	
USFS: Rogue River-Siskiyou National Forest	Interagency	2014 / 2015	USFS, NPS	Signage for Oregon Route 46	
Oregon Caves Natural History Association	Cooperative agreement	2014 / 2015	NHA, NPS	Fee collection, interpretive services	
Oregon Caves Outfitters	Concessions contract	2003 / 2016	OCO, NPS	Operation of the Chateau	Temporary contract planned through 2019

Pacific West Region Foundation Document Recommendation
Oregon Caves National Monument and Preserve

August 2015

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.

Vicki Snitzler — Aug 10, 2015

RECOMMENDED
Vicki Snitzler, Superintendent, Oregon Caves National Monument and Preserve — **Date**

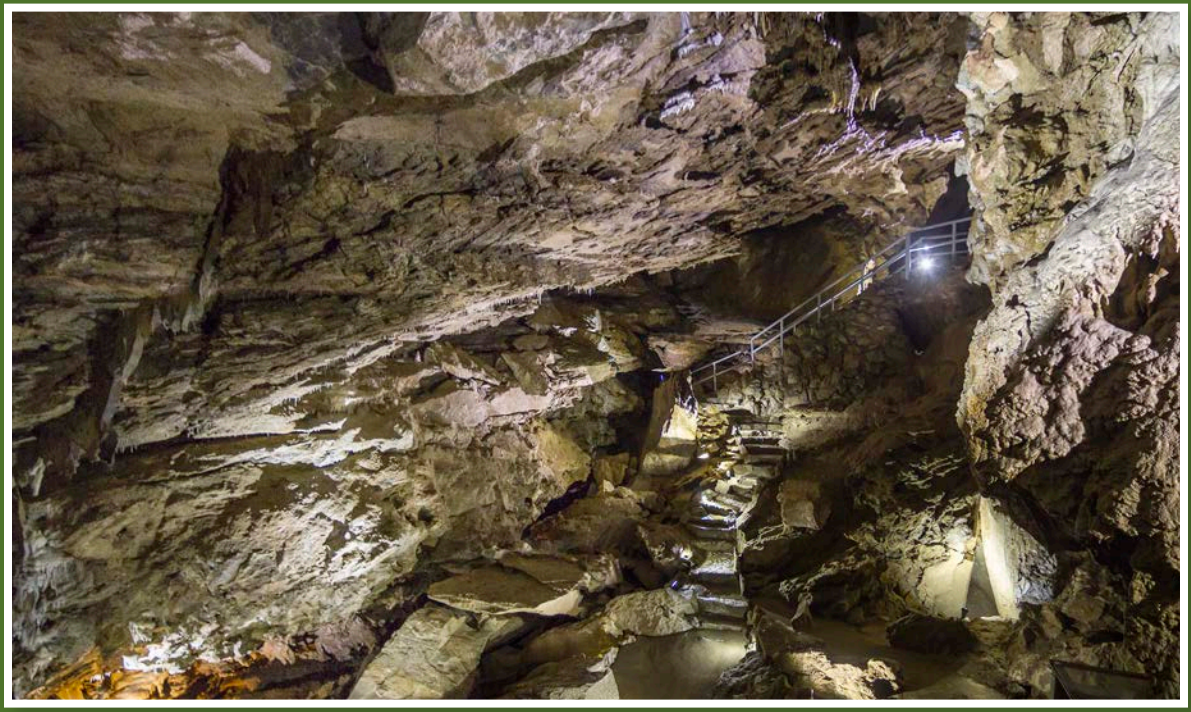
Patricia L. Neubacher — Aug. 23, 2015

APPROVED
Patricia L. Neubacher, Acting 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.

ORCA 150/128963
August 2015

Foundation Document • Oregon Caves National Monument and Preserve



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