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

Foundation Document

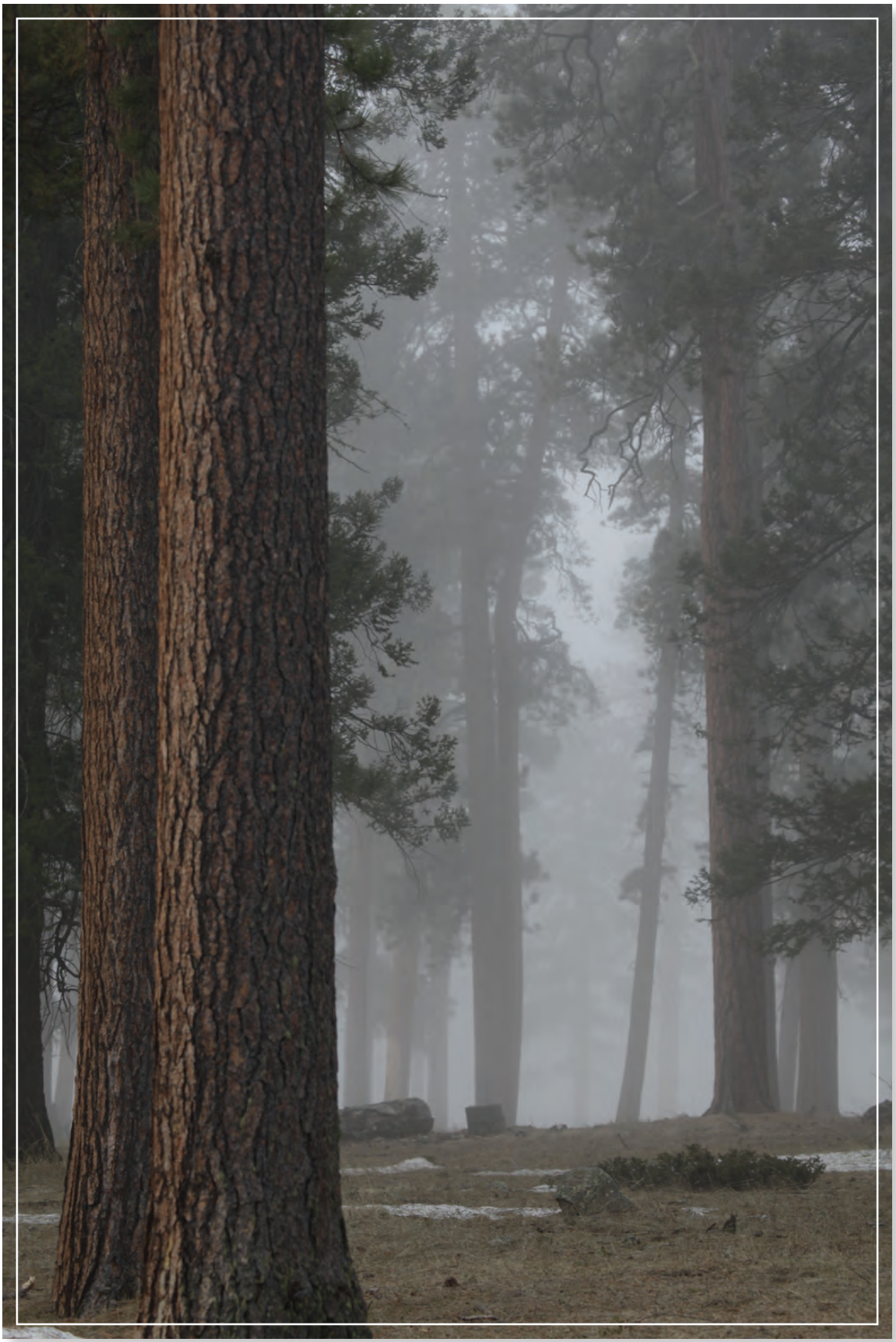
Valles Caldera National Preserve

New Mexico

March 2018


VALLES CALDERA
NATIONAL PRESERVE
VALLE GRANDE
VALLE SAN ANTONIO
VALLE TOLEDO
VALLE SECO
VALLE JARAMILLO
VALLE DE LOS POSOS
ALAMO CANYON
REDONDO BORDER
CERRO DE LA GARITA
CERRO SANTA ROSA
CERROS DE LA ABRIGO
CERROS DE LOS POSOS
CERRO DEL MEDIO
RINCON DE LOS SODOS
BANCO BONITO
EL CAJETE
CAÑON DE SAN DIEGO
SANTA CLARA INDIAN RESERVATION
SANTA FE NATIONAL FOREST
BANDELIER NATIONAL MONUMENT
Chicoma Mo 11561ft 3524m
Cerro Toledo 10930ft 3331m
10380ft 3164m
Cerro San Luis 9510ft 2899m
Cerro Seco 9931ft 3026m
San Antonio Mountain 9986ft 3044m
9701ft 2957m
10332ft 3149m
9848ft 3002m
Cerro Piñon 8745ft 2665m
Redondito 10898ft 3322m
Redondo Peak 11254ft 3430m
Pajarito Mountain 10441ft 3182m
Cerro Grande 10199ft 3109m
Cerro la Jara 8745ft 2665m
South Mountain 9795ft 2986m
Rabbit Mountain 9938ft 3029m
Los Griegos 10117ft 3084m
History Grove
Visitor Contact Station
Valle Grande Entrance Station
Preserve Entrance
Redondo
Jemez Falls
To 25 and Albuquerque
Rito de los Indios
Rito de los Frijoles
San Antonio Creek
Sulphur Creek
San Jaramillo Creek
Redondo Creek
La Jara Creek
Jaramillo Creek
Jemez River
East Fork Jemez River
105
126
4
North
0 1 2 Kilometers
0 1 2 Miles
Restrooms
Campground
Ranger station
Unpaved road
Trail

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.

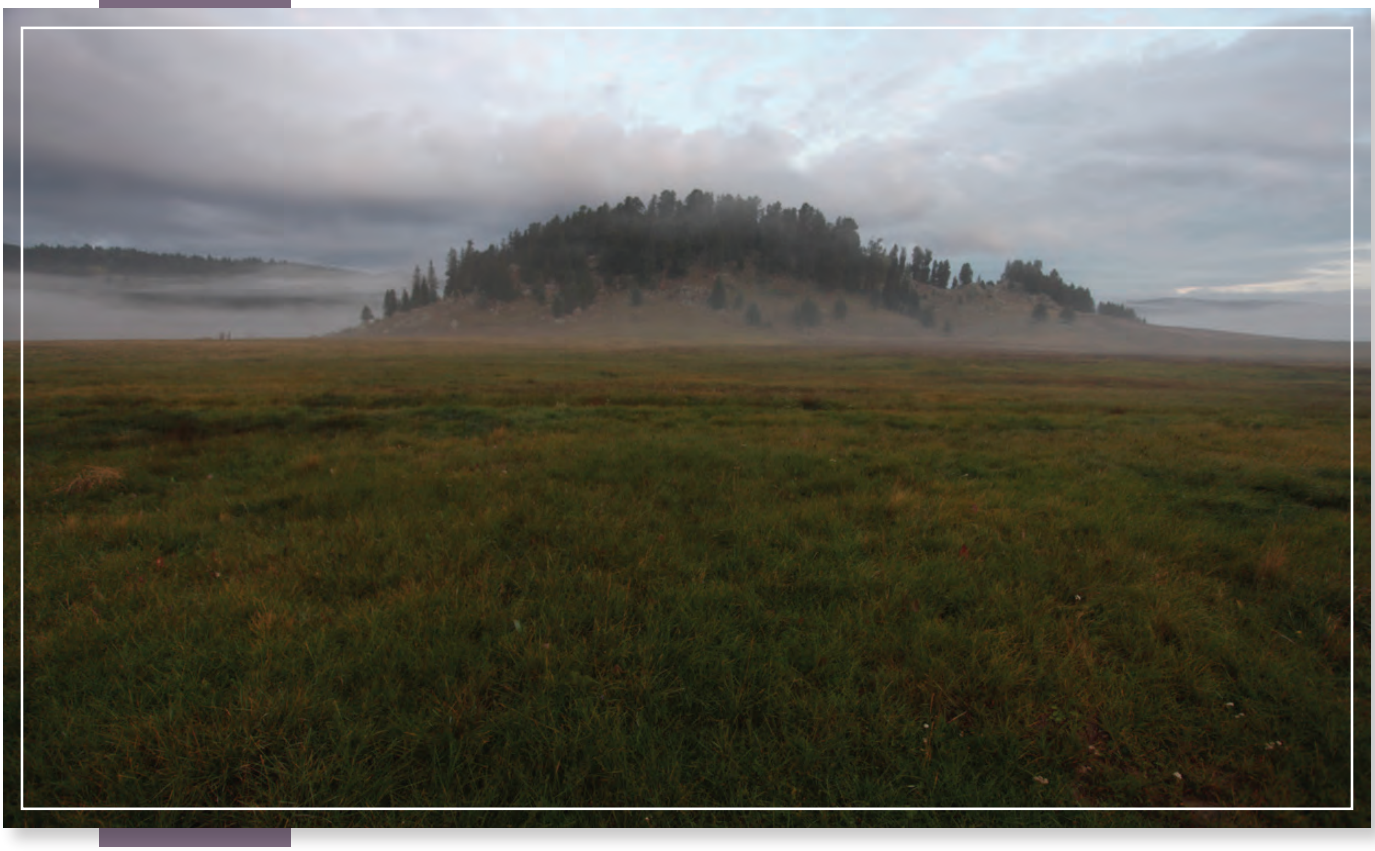
The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archeological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

Establishment of Valles Caldera National Preserve

Valles Caldera was first established in 2000 as an unprecedented national experiment in public land management through the creation of the Valles Caldera Trust. The Valles Caldera Trust was a wholly-owned government corporation overseen by a board of trustees appointed by the president of the United States. Through the Valles Caldera Trust, the U.S. Congress sought to evaluate the efficiency, economy, and effectiveness of decentralized public land management and ecosystem restoration. This 15-year experiment in public land management continues to contribute to the national dialogue on the role of protected areas for long-term economic and environmental sustainability along with innovative approaches to place-based and science-based adaptive management. On December 19, 2014, Valles Caldera National Preserve was designated as a unit of the national park system. After a brief transition period, the National Park Service assumed management of the preserve on October 1, 2015.

Brief Description of Valles Caldera National Preserve

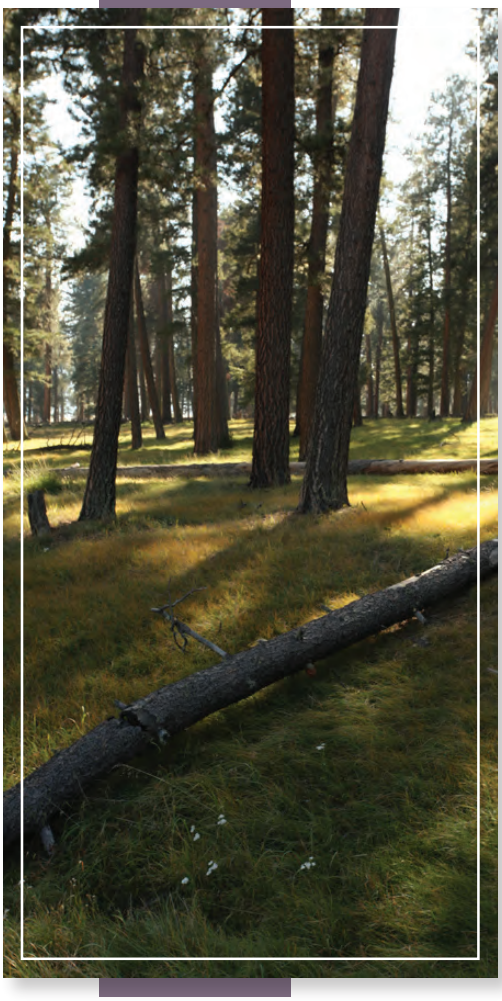
Valles Caldera is located in the center and at the top of the Jemez Mountains in north-central New Mexico. The 88,900-acre preserve encompasses almost all of the volcanic caldera within a single almost square area mostly surrounded by the Santa Fe National Forest. The Pueblo of Santa Clara shares a boundary with the preserve along the northeast rim of the caldera. Bandelier National Monument is an adjacent neighbor to the southeast, and one of the three Manhattan Project National Historical Park sites is nearby in Los Alamos.

Most visitors access the preserve through the Valle Grande via the main entrance from New Mexico State Route 4, which runs along the inside of the southern rim of the caldera. Santa Fe and Albuquerque are a one- to two-hour scenic drive from the main entrance, placing the preserve within a manageable driving distance for about half of New Mexico's population.

The preserve is located in the Jemez volcanic field at the intersection of two major fault systems, the Rio Grande Rift and the Jemez Lineament. This volcanic field has been active for more than 14 million years, but the current 12- to 15-mile-wide circular caldera depression was created by a spectacular volcanic eruption about 1.25 million years ago. Since that time, an additional 15 eruptions and magmatic intrusive events have created numerous volcanic domes within the caldera, including the major central resurgent dome, Redondo Peak, which is 11,254 feet high. The caldera is dormant, but not extinct, and still displays signs of volcanic life with hot springs and boiling sulphuric acid fumaroles.

The unusual geologic and landscape characteristics of Valles Caldera led to its designation as a Natural National Landmark in 1975.

The juxtaposition of large grassland meadows, or *valles* in Spanish, surrounded by rounded forest-covered volcanic domes provides the distinctive natural landscape that led to the name of Valles Caldera. The high-elevation ecosystems, ranging from 8,000 to 11,254 feet high, combine abundant rainfall, mixed-conifer forests, and deep rich soils to support a great diversity of animals, plants, fungi, and other organisms including herds of several thousand elk and healthy populations of mountain lions, bears, and coyotes.



For thousands of years American Indians have used the caldera for hunting all sizes of game, small mammals and waterfowl, fishing, collecting an abundance of seeds, nuts, and berries, and gathering various plants for medicine and ceremonies. The signature resource for these indigenous peoples was obsidian. This high-quality volcanic glass gathered at extensive quarries in and near the caldera yielded valuable materials for spear points, arrowheads, knives, and scrapers. Obsidian artifacts from the last 12,000 years are abundant throughout the preserve and are found in ancient quarries, campsites, and even seasonally occupied small villages. Through scientific analysis, it is known that obsidian tools found across the United States were made from obsidian gathered at Valles Caldera, demonstrating the significance of this source and illustrating the extensive geographic ranges used by past hunter-gatherers, and perhaps indicating extensive trade of this high-value toolstone. Throughout prehistory and continuing today, this landscape has supported hunting and gathering to supplement agricultural subsistence. Numerous American Indian tribes and pueblos in the region have deep historic and cultural connections to the caldera that are expressed today through ceremonial activities, rich oral histories, and sacred traditions.

Valles Caldera also chronicles the history of New Mexico's enchantment and exploitation—from 19th century land use after the Treaty of Guadalupe Hidalgo and sheep grazing under the *partido* system to subsequent cattle grazing, timber harvesting, and geothermal exploration. Beginning as a land grant in 1860, private ownership was held by a series of four families. The early name, Baca Location No. 1, was established at the beginning of the Cabeza de Baca era (1860–1899), and the lands were used for sheep grazing. During the Otero era (1899–1917) sheep grazing was increased, supplemented by ventures into sulphur mining and tourism at a location known as Sulphur Springs on the land grant's western boundary. Sheep grazing peaked and then was replaced by cattle ranching during the Bond era (1917–1962). The last private owners (1962–2000) were the Dunigan family, who continued cattle operations while pursuing diversified ventures such as exploration of geothermal potential, movie filming, raising thoroughbred horses, and recreational fishing and elk hunting. Although logging had begun in the 1930s, it was dramatically increased in the early 1960s by non-landowners who held rights to the timber. By the time the Dunigans were able to halt the clear-cut logging in the early 1970s, the overwhelming majority of old-growth forests had been cut and more than 1,000 miles of logging roads had been built through the forests.

The preserve offers a landscape in which to explore the dynamics of high-elevation ecosystem stability and resilience in the context of changing climate conditions. Although the natural beauty of the caldera has persisted, the land-use practices of the 19th and 20th centuries, including overgrazing, clear-cut logging, and road building, have left a legacy of unhealthy forests, riparian damage, degraded wetlands, and reduced stream function. Numerous wildlife species were extirpated from the area as well. Today's approach to ecological restoration builds on the lessons learned from this history and seeks to regain balance between human uses and natural processes. The preserve is an ecosystem in recovery. Major wildfires in 2011 and 2013 burned 60% of the preserve, and today the contrast in recently burned areas between old-growth forest and dense, second-growth forests provides a compelling demonstration of the value of landscape restoration to promote biotic integrity and biodiversity, while improving watershed function and reducing the potential for future catastrophic wildfires.

Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Valles Caldera National Preserve was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The preserve was established when the enabling legislation adopted by Congress was signed into law on December 19, 2014 (see appendix A for enabling legislation). The purpose statement lays the foundation for understanding what is most important about the preserve.

Located in the Jemez Mountains of north-central New Mexico, Valles Caldera National Preserve protects, preserves, and restores ecosystems and cultural landscapes within an outstanding example of a volcanic caldera for the purpose of education, scientific research, public enjoyment and use, and cultural continuity.

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 Valles Caldera National 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 Valles Caldera National Preserve. (Please note that the sequence of the statements does not reflect the level of significance.)

1. Valles Caldera possesses exceptional value in illustrating and interpreting massive explosive volcanic eruptions, caldera formation, and the functioning of active geothermal systems. Valles Caldera is one of the world's best examples of an intact volcanic caldera and is considered the worldwide "type locality" for caldera resurgence.

2. Valles Caldera is a place where one can directly experience pre-agricultural heritage and reflect on inconspicuous cultural landscapes where hunting and gathering were practiced successfully for more than 10,000 years. Past peoples across the continent were drawn to Valles Caldera to utilize its rich geologic deposits of high quality obsidian for tools and weapons, making this location one of the most significant cultural obsidian sources in North America. To this day, the caldera is used by local pueblo and tribal peoples and is cherished by more than two dozen American Indian groups.

3. The land use history of Valles Caldera encapsulates the story of early Spanish and Mexican settlement across the present-day American Southwest and the socio-political shifts that occurred when the territory was annexed by the United States at the end of the Mexican-American War in 1848. Previously known as Baca Location No. 1, Valles Caldera exemplifies the legacy of how the establishment, utilization, and changing ownership of Spanish and Mexican land grants transformed the Southwest.

4. Valles Caldera's unusual setting—high elevation, caldera topography, unfragmented habitats, and key hydrologic role at the top of the watershed—presents a dynamic learning landscape for the scientific study and restoration of ecosystem processes that are recovering from three centuries of human disturbances and challenged by contemporary and future climate change.

5. Valles Caldera's distinct topographic mosaic of expansive valley meadows, lush forested volcanic domes, meandering valley streams, and old growth Ponderosa pine groves are in striking contrast to the arid New Mexico landscapes at lower elevations. With caldera vistas from rim to rim, elk and other wildlife viewing, dark night skies, winter skiing, excellent hunting and fishing opportunities, and backcountry solitude, the landscape provides extraordinary year-round recreational opportunities and visitor experiences.

6. Valles Caldera National Preserve was first established in 2000 as an unprecedented national experiment in public land management through which the U.S. Congress sought to evaluate the efficiency, economy, and effectiveness of decentralized public land management. The 15-year experiment continues to contribute to the national dialogue on the role of protected areas for long-term economic and environmental sustainability and innovative approaches to place-based and science-based adaptive management.

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 Valles Caldera National Preserve:

- **The Caldera.** This volcanic system is one of the best-studied and scientifically renowned calderas in the world. Seminal work from the 1940s to the 1970s made Valles Caldera the first model of large caldera formation processes and now the global model of caldera resurgence. Valles Caldera was formed 1.25 million years ago by an eruption of approximately 75 cubic miles (300 km^3) of ash flows and high-viscosity molten rock. The ash-flow deposits from this and previous eruptions created the geologic layers used for prehistoric cliff dwellings in Bandelier National Monument and formed the hoodoos (tall skinny spires of rock) of Kasha-Katuwe Tent Rocks National Monument. The 12- to 15-mile-diameter caldera rim is almost intact, and the interior depression contains a circle of volcanic domes formed along a ring-fracture of the Earth's crust that surround the massive upwelling of Redondo, the resurgent mountain at the center. Valles Caldera is eligible for listing as a significant thermal feature in accordance with the Geothermal Steam Act of 1970.

- **Valle Grande and Volcanic Vistas.** The Valle Grande is the largest of several beautiful "valles" (VAH-yes) that are the namesake of the caldera. The stunning views of this broad grassland valley are the first experience for most visitors, many of whom are surprised by the unexpected lushness of this New Mexico high country. Pullouts along New Mexico State Route 4, which runs along the valley's southern edge, provide scenic vista points where visitors can gaze at the open grasslands, meandering streams and wetlands, and observe elk herds and other wildlife. Although many visitors assume that the Valle Grande is the caldera itself, it represents less than 20% of the actual caldera. From within each of the valles, a striking horizon is created where grassland meadows meet forested volcanic domes. This contrast serves as a visual reminder of the ancient lakes that once filled the basin and of the cold winter air that sinks into the valley bottoms, producing an inverted tree line that prevents new trees from growing. Along the north and south rims of the caldera, visitors can see rim to rim to grasp the magnitude of the caldera formation, as well as look outward across unobstructed mountaintop views of northern New Mexico and southern Colorado.

- **Traditional Cultural Landscapes and Tribal Connections.** Valles Caldera, and the domes and peaks along its rim and within it, is of spiritual and ceremonial importance to numerous American Indian peoples in the greater Southwest region. Among these features, Redondo Peak (11,254 feet) is the highest point within the caldera and has served as a regionally significant geographic and cultural focal point and a pivotal sacred place for numerous tribal groups. These cultural connections are both contemporary and of great antiquity, and Valles Caldera continues to be part of the practices, beliefs, identity, and history of tribes and pueblos. This landscape is cherished by other communities as well and holds a special place in the heritage of regional peoples.

- **Prehistoric and Historic Legacy.** The numerous archeological sites in the caldera provide evidence of thousands of years of human use of this landscape for hunting and gathering, seasonal habitation, and ceremonial pilgrimage. For millennia peoples were drawn to the caldera for its abundant high-quality volcanic glass called obsidian. It was used by prehistoric peoples as far away as eastern Nebraska, northern North Dakota, southern Texas, and western Mississippi. Historic structures and features on the landscape recall the caldera's use since before the 1800s for sheepherding and then cattle grazing, timber harvest, and other activities. In the early 1900s, development of the geothermal features at Sulphur Springs as a health resort demonstrates the past appreciation of the area as a destination for revitalization.

- **High Elevation Ecosystem.** At the top of the Jemez Mountains, Valles Caldera contains the headwaters for the Jemez River, a tributary of the Rio Grande. The winter mountain snowpack and heavy summer monsoons provide the life flow that sustains abundant wildlife, downstream agriculture activities, and the growing urban centers of Albuquerque and Rio Rancho. The entire caldera is a hydrologic basin that provides groundwater recharge for a deep geothermal system and the warm springs, hot springs, fumaroles, acidic springs, gas vents, and mud pots on the mountain slopes. Rich vegetation diversity including valley wetlands, expansive grasslands, and forested mountain slopes creates a mosaic of wildlife habitats that is unique in the southwestern United States. These communities combine high-desert and mountain-dwelling wildlife communities that include numerous sensitive species and abundant game.

- **A Landscape in Recovery.** Addressing the legacy of human impacts on Valles Caldera is an essential purpose for which the preserve was established. The preserve provides an extraordinary setting and set of circumstances to educate the public about the ecological consequences of human-caused disturbances and the opportunities for achieving exemplary restoration to return a disturbed but beautiful landscape to a fully functioning ecosystem with enhanced landscape connectivity. Although this landscape appears "pristine," intensive land uses while in private ownership throughout the mid-19th and 20th centuries, including livestock overgrazing, clear-cut logging, excessive roadbuilding, and geothermal exploration, have left a legacy of ecological alterations that persist today. In response, the National Park Service was charged by the U.S. Congress to continue innovative and effective landscape-scale ecological restoration efforts initiated by the Valles Caldera Trust to improve forest health, restore wetlands and riparian areas, and regain robust native fish and wildlife populations. The continuing success of these collaborative programs provides more than a management example; this dynamic recovery is an inherent value of this landscape and will place Valles Caldera at the forefront for studying responses to warming climates in changing ecosystems.

Other Important Resources and Values

Valles Caldera National 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 preserve and warrant special consideration in preserve planning.

The following other important resources and values have been identified for Valles Caldera National Preserve:

- **Scientific Knowledge and Education.** Valles Caldera serves as an important outdoor, landscape-scale laboratory and classroom for the study of natural processes and their intersection with prehistoric, historic, and contemporary human land use. The continuation of the preserve's robust science and education programs provides opportunities for direct experiential learning for visitors, citizen-science projects, enhanced science interpretation, and contributions to the state of human knowledge, understanding, and discovery.

- **History Grove.** This 125-acre old-growth forest of 250–400-year-old Ponderosa pine and Douglas fir trees is among the few locations that make up the remaining five percent of magnificent forests not lost to 20th century logging. It stands in testimony both to the intact ecosystems before historic land-use practices and to the long-term potential of sustained forest restoration underway at the preserve. Easily accessible on the northern edge of the Valle Grande, this destination allows visitors to step into the past natural heritage of the Jemez Mountains and to experience the profoundly quiet soundscape of the caldera.

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 Valles Caldera National Preserve:

- Valles Caldera's massive volcanic eruptions and caldera formation dramatically illustrate the awesome power of the Earth's explosive forces in reworking the globe's surface.
- Valles Caldera's unusual setting—high elevation, caldera topography, inverted tree line, and key hydrologic role at the top of the watershed—presents a dynamic living laboratory in which to explore the complex relationships between humans and nature and the respective consequences and opportunities of ecosystem degradation and recovery.
- The long and varied human history at Valles Caldera—including peoples who maintain contemporary connections and traditions to this place—inspires appreciation for the power of place-based cultural continuity and community.
- Valles Caldera offers unparalleled opportunities to experience a landscape that inspires continual attraction, connections, and use independent of culture, heritage, and time. We are inspired to interact with the caldera in ways similar to the successful Archaic hunter-gatherers and their sustainable lifeways.
- Valles Caldera's grassland valleys, lush forested volcanic domes, meandering streams, old growth Ponderosa pine groves, abundant wildlife, dark night skies, and backcountry solitude invite an innate, personal restoration and spiritual connection to the land.

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 response services, 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 Valles Caldera National Preserve.

Special Mandates

- The 2014 enabling legislation for Valles Caldera National Preserve provides direction concerning administration and general management, visitor access and other uses, ecological restoration, development of a science and education program, hunting and fishing opportunities, livestock grazing, tribal access to traditional cultural and religious sites, and protection of volcanic domes and other peaks in the preserve. These directives can be summarized as follows:
    - Establish a science and education program that includes research and interpretation, supports ecological restoration and science-based adaptive management, and promotes outdoor educational experiences; may establish a science and education center in Jemez Springs, New Mexico;
    - Continue livestock grazing to the extent that use furthers scientific research or interpretation of the ranching history of the preserve;
    - Permit hunting, fishing, and trapping in accordance with applicable federal and state laws;
    - Undertake restoration activities to improve the health of forest, grassland, and riparian areas;
    - Place certain limits on the construction of roads and buildings and motorized access on the tops of volcanic domes and other peaks;
    - Ensure the protection of traditional cultural and religious sites in the preserve and provide access to such sites by members of Indian tribes or pueblos for traditional cultural and customary uses; temporarily close to general public use specific areas of the preserve to protect traditional cultural and customary uses in the area by tribal members; maintain prohibitions on the use of motorized or mechanized travel on land located adjacent to the Santa Clara Indian Reservation; and
    - Study the feasibility of establishing a hiking trail along the rim of Valles Caldera on national park system and national forest system lands.

- The 1975 national natural landmark designation recognizes the Valles Caldera as one of the largest calderas in the world and highlights it as an excellent example of a caldera advanced in history but still retaining the essential structures. Encompassing 99,219 acres, the Valles Caldera national natural landmark designation extends outside the preserve boundary to also include parts of Bandelier National Monument and Pueblo of Santa Clara lands.

For more information about the existing administrative commitments for Valles Caldera National Preserve, please see appendix B.

Assessment of Planning and Data Needs

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

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

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

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

Analysis of Fundamental Resources and Values

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

Fundamental Resource or Value	The Caldera
Related Significance Statements	• Valles Caldera possesses exceptional value in illustrating and interpreting massive explosive volcanic eruptions, caldera formation, and the functioning of active geothermal systems. Valles Caldera is one of the world's best examples of an intact volcanic caldera and is considered the worldwide "type locality" for caldera resurgence. • Valles Caldera's unusual setting—high elevation, caldera topography, unfragmented habitats, and key hydrologic role at the top of the watershed—presents a dynamic learning landscape for the scientific study and restoration of ecosystem processes that are recovering from three centuries of human disturbances and challenged by contemporary and future climate change.
Current Conditions and Trends	**Conditions** • The Valles Caldera formation and the geology of the preserve have been well studied by scientists and geologists. • While the volcano is dormant, it is not extinct and will erupt again sometime in the future. The magma chamber associated with the caldera is located as shallow as 3.1 miles (5 kilometers) depth below the surface of the preserve and provides heat for hot springs and other geothermal features. • The geology of the caldera is in stable condition, but its geomorphology remains dynamic. • Beginning in 1935 and continuing throughout private ownership, logging drastically changed the vegetation and appearance of the caldera. More than 1,000 miles of logging roads were developed and abandoned during this time and continue to terrace the caldera and volcanic domes. • Except for the roads developed in connection to logging and ranching, there are no major roads or development in the caldera interior. This contributes to the integrity of the views but makes some portions of the preserve accessible only by non-motorized means. • Geothermal wells developed while the land was privately owned are found throughout the western side of the caldera. • A seismograph network operated by Los Alamos National Laboratory continuously monitors the magma chamber. • LiDAR collected in 2010 yielded detailed topographic information and provides a baseline for measuring change; additional limited LiDAR was taken following the 2011 Las Conchas Fire. • Sulphur Springs, one of most important geothermal features associated with the caldera, is a private inholding within the preserve; acquisition of these lands is being pursued. • Multiple sensitive cultural features are located on the preserve's resurgent dome and volcanic peaks and along the caldera rim. Traditionally associated tribes consider these areas part of their sacred landscape. • In 2003, a U.S. Geological Survey (USGS) team took high-resolution photos and GIS coordinates of the caldera's domes, and follow-up studies are planned to assess geomorphic deformation or movement of the dome. • Felsenmeer-like rock fields, unusual geological features, are visible on volcanic domes and rims throughout the preserve. **Trends** • Post-fire erosion continues to affect the preserve's geological and geomorphic features, as well as stream water quality, wildlife habitats, and vegetation within the caldera. • There are no obvious indicators such as rapid dome growth, seismic activity, or recorded gas releases that would signal impending volcanic activity.

Fundamental Resource or Value	The Caldera
Threats and Opportunities	**Threats** • Geothermal wells currently not in use should be plugged and abandoned for hydrologic restoration and for public safety. • Proposed geothermal development adjacent to the preserve in the Santa Fe National Forest could affect the plume associated with the caldera system. • Seismic activity could affect preserve resources and threaten the safety of visitors and staff. • Wildfires damage obsidian, contribute to soil loss and substantial post-fire erosion, and may result in long-term vegetation change. • An incomplete seismic monitoring network and no gas/temperature monitoring leave the preserve vulnerable to unanticipated volcanic activity. **Opportunities** • Conduct seismic monitoring to obtain real-time data for research, educational, and interpretive purposes. • Acquire the Sulphur Springs inholding to allow for the comprehensive management of the caldera landscape and enhanced interpretation of the preserve's geothermal resources. • Expand interpretation and educational programs to include information about current and ongoing scientific research and discoveries associated with the caldera's dynamic geology. • Strengthen ongoing partnerships with geology field schools, universities, and research programs to foster scientific research and allow for increased monitoring and data collection of the preserve's geologic resources. • Recollect LiDAR to monitor geomorphic changes. • Partner with the U.S. Geological Survey, U.S. Forest Service, and Bandelier National Monument to help fund LiDAR efforts.
Data and/or GIS Needs	• Gas release and temperature monitoring. • Inventory of non-biotic resources. • Complete paleontology survey. • Collect and curate historic USGS materials and data. • Mapping of post-fire erosion and modeling of erosion risks.
Planning Needs	• General management plan. • Trails management plan. • Transportation plan. • Fire management plan. • Wilderness character assessment. • Comprehensive interpretive 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** • National Environmental Policy Act of 1969 • Paleontological Resources Preservation Act of 2009 **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* (§4.5) "Fire Management" • NPS *Management Policies 2006* (§4.8) "Geologic Resource Management" • Director's Order 18: *Wildland Fire Management* • NPS *Natural Resource Management Reference Manual 77* • NPS *Reference Manual 18: Wildland Fire Management*

Fundamental Resource or Value	Valle Grande and Volcanic Vistas
Related Significance Statements	• Valles Caldera's distinct topographic mosaic of expansive valley meadows, lush forested volcanic domes, meandering valley streams, and old growth Ponderosa pine groves are in striking contrast to the arid New Mexico landscapes at lower elevations. With caldera vistas from rim to rim, elk and other wildlife viewing, dark night skies, winter skiing, excellent hunting and fishing opportunities, and backcountry solitude, the landscape provides extraordinary year-round recreational opportunities and visitor experience.
Current Conditions and Trends	**Conditions** • The term "valles" refers to the large grassland valleys created by the caldera's formation and subsequent lakes and inverted tree-line phenomenon. Valle Grande is the largest, best known, and most accessible of these valles. • Valle Grande is grassy and has stable soils, mostly native vegetation, and little bare ground. • Cattle grazing occurs on this landscape, and historic overgrazing of cattle and sheep has contributed to soil erosion, loss of riparian vegetation, and stream and wetland degradation. Current management including restoration and reduced stocking rates has reversed the degradation. • Due to restoration efforts and decreased livestock numbers, wetlands and marshes in the preserve are recovering from almost 200 years of livestock impacts. • Pre-settlement wetlands were probably fens, not the incised-channel streams seen today. Post-fire floods have started to reestablish fens in Valle Grande. • Post-fire hillslope erosion has created alluvial fans. • Invasive cheat grass and thistles are found in road corridors and burned areas and on alluvial fans. • Past management practices have prevented fire activity in the valles and on domes, creating a break in the natural fire cycle. • The preserve's expansive scenic views are mostly intact. • The Valle Grande is mostly free of visible infrastructure or other developments. • 20th century obstructions include maintained roads in the valles, logging roads on the domes, sheep and cattle ranching infrastructure (corrals, fences, stock tanks, earthen dams, large ground water well pumps, and movie sets). • Most visitors currently view the Valle Grande from New Mexico State Route 4 pullouts. • Trail access to prime viewing locations outside the Valle Grande is fair to poor. • Visitors are able to experience the "archaic landscape" relatively easily from existing roads and trails. • Burned forests and post-fire erosion created by the Las Conchas Fire in 2011 and the Thompson Ridge Fire in 2013 are a noticeable aspect of the landscape. • The Valle Grande entrance station constructed by the Valles Caldera Trust in 2009 and the corrals established by previous landowners are prominently located within the Valle Grande and are considered a visual obstruction. • Radio repeaters are found on some of the preserve's domes and the caldera rim, but these are not visible intrusions to the scenery. • Night skies are dark, with little light pollution from surrounding communities. • Distant views are sometimes obscured by pollution-caused haze, and the visual range is reduced further on high pollution days, including during fires.

Fundamental Resource or Value	Valle Grande and Volcanic Vistas
Current Conditions and Trends	**Trends** • The degraded condition of the valles due to 20th century grazing is improving. • Fence removal has improved wildlife movements, opened the space for recreation, and improved the natural quality of the scenery. • Wetlands connected to the valles are gradually recovering from heavy livestock use and post-fire floods. Decreased livestock numbers and active restoration projects are accelerating this trend. • Meadow encroachment by trees and other forest vegetation is increasing around the edges of the valles. • Visitation to the Valle Grande is increasing. • Invasive species populations are increasing along road corridors, in previously burned areas, and in some areas of past heavy grazing. • Post-fire erosion continues to change the landscape. • Aspen and understory species are recovering in burned areas. • Burned forests allow clearer views from the domes across the caldera.
Threats and Opportunities	**Threats** • Invasive plants and nonnative animals can alter the appearance and ecology of the valles. • Existing old, nonfunctional livestock fences threaten wildlife, interfere with recreational activities, and cause soil erosion along fence lines due to animal trampling. • The lack of a periodic fire regime and prescribed burn schedule could lead to fuel buildup and a large-scale, uncontrolled fire event, as well as tree encroachment into valle grasslands. • Tree encroachment can limit grassland species and impact the appearance of the valles. • Adjacent geothermal development has the potential to introduce additional light and air pollution and increase noise. • Increased numbers of cars and dust from vehicular traffic on the preserve's unimproved roads could impact the scenery. • Sources of air pollution in the general area surrounding the preserve include coal-fired power plants, vehicle exhaust, oil and gas production, road dust, fires, and agriculture. At night, air pollution scatters artificial lights, increasing the effect of light pollution on the night sky. • Projected effects of climate change could increase and exacerbate the impacts of extreme heat events, drought, wildfire, extreme storm events, and flooding, in the numbers of invasive species, and support a northward shift in native species habitats. • The burned forest landscape, including dead or damaged trees and the resulting stumps, can be hazardous to visitor safety. • Military overflights can disrupt the natural soundscape and introduce a visual intrusion.

Fundamental Resource or Value	Valle Grande and Volcanic Vistas
Threats and Opportunities	**Opportunities** • Continue to engage volunteers with invasive plant management and erosion control. • Partner with local schools to assist with native plant seed harvesting activities and revegetation. • Continue to engage volunteers or service groups in removing old livestock fences. • Conduct riparian restoration to help reestablish native species and the historic appearance. • Encourage stakeholder groups, such as sportsmen and fishing organizations, to act as stewards of the preserve's resources. • Use prescribed fires as opportunities to educate the public on the beneficial role of fire in ecosystems. • Promote improvement of New Mexico State Route 4 pullout areas to serve a larger number of visitors and allow for more scenic viewing points. • Promote the arts in the preserve to call attention to the preserve's scenic resources. • Connect a live "caldera cam" video feed with social media and/or the NPS website to allow virtual visitors to experience the preserve's views. • Partner with the Pajarito Mountain Ski Area for access and stewardship of the east rim. • Remove standing dead hazard trees killed in recent wildfires from open areas along road and trail corridors to improve views and visitor safety. • Incorporate aspects of climate change, fire management, fire ecology, and fire impacts in interpretive programming. • Work with external partners to create a virtual 360-degree view from the caldera rim. • Develop a trail network to allow visitors to experience a wider variety of vistas and more of the valles.
Data and/or GIS Needs	• Visitor use information. • GIS data on valle boundaries. • Mapping of debris flow and encroachment into valles. • Updated vegetation mapping (post-fires). • Study of temporal trends in forest/meadow ecosystems. • Soil survey. • Invasive species inventory. • Visual resource inventory. • Spatial fire risk assessment. • Baseline data and monitoring for soundscapes, dark night sky, and air quality. • Least cost path analysis (contributes to trails management plan). • Rim trail survey.
Planning Needs	• Integrated pest management plan. • Landscape restoration and stewardship plan. • Visitor use management plan. • Transportation plan. • Trails management plan. • Range/grazing management plan and market assessment. • Planning for adaptation to climate change. • Resource stewardship strategy.

Fundamental Resource or Value	Valle Grande and Volcanic Vistas
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 • National Environmental Policy Act of 1969 • Federal Noxious Weed Act of 1974, as amended • Clean Water Act • Clean Air Act (42 USC 7401 et seq.) • Executive Order 13751, "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* (§1.4.6) "What Constitutes Park Resources and Values" • 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* (§4.5) "Fire Management" • NPS *Management Policies 2006* (§4.7.2) "Weather and Climate" • NPS *Management Policies 2006* (§4.9) "Soundscape Management" • NPS *Management Policies 2006* (§4.10) "Lightscape Management" • Director's Order 18: *Wildland Fire Management* • Director's Order 47: *Soundscape Preservation and Noise Management* • NPS *Natural Resource Management Reference Manual 77* • NPS *Reference Manual 18: Wildland Fire Management*

Fundamental Resource or Value	Traditional Cultural Landscapes and Tribal Connections
Related Significance Statements	• Valles Caldera is a place where one can directly experience pre-agricultural heritage and reflect on inconspicuous cultural landscapes where hunting and gathering were practiced successfully for more than 10,000 years. Past peoples across the continent were drawn to Valles Caldera to utilize its rich geologic deposits of high quality obsidian for tools and weapons, making this location one of the most significant cultural obsidian sources in North America. To this day, the caldera is used by local pueblo and tribal peoples and is cherished by more than two dozen American Indian groups. • The land use history of Valles Caldera encapsulates the story of early Spanish and Mexican settlement across the present-day American Southwest and the socio-political shifts that occurred when the territory was annexed by the United States at the end of the Mexican-American War in 1848. Previously known as Baca Location No. 1, Valles Caldera exemplifies the legacy of how the establishment, utilization, and changing ownership of Spanish and Mexican land grants transformed the Southwest.
Current Conditions and Trends	**Conditions** • Many surrounding tribes and tribal members continue to come to the preserve for traditional practices and to maintain connection with the place. • Redondo Peak, along with other domes and peaks in the caldera, is considered sacred by many surrounding tribes. • High-quality data about many of the preserve's cultural resources and landscapes were collected during Valles Caldera Trust management. • Historic cabins in the preserve are generally well documented but need maintenance and restoration to ensure their long-term well-being. • Some historic buildings were previously removed from the historic ranching district. • Roads constructed during private ownership spiral up many of the caldera's domes and peaks and need significant restoration and re-contouring. • Natural free-flowing springs and other water sources are in relatively good condition. **Trends** • Cultural resources, both the built environment and larger landscapes, are degrading at a rapid rate due to recent fires, flooding, and extreme weather and seasonal temperature shifts. • The 2013 Thompson Ridge Fire burned in a mosaic pattern with varying levels of severity on Redondo Peak. • The increase in general visitation has also led to increased desire to know more about traditional cultural uses and historic sites. • Improved infrastructure (including roads, trails, and facilities) is needed to address increased visitation by the public and researchers and administrative uses. • Historic structures and archeological resources continue to deteriorate. • Cultural resources inventory and documentation continues throughout the preserve. • The 2013 Thompson Ridge Fire resulted in a loss of aspen carvings and other historic wood resources on Redondo Mountain; dead trees will continue to fall for several years, but aspen and understory vegetation are regenerating abundantly.

Fundamental Resource or Value	Traditional Cultural Landscapes and Tribal Connections
Threats and Opportunities	**Threats** • Climate change could affect vegetation associated with traditional uses and practice. • Historic building materials could be damaged by severe weather events, associated erosion, and rodents. • Severe fire and post-fire erosion could affect cultural landscapes through changes in character-defining features including biota, cultural features, geomorphology, and hydrology. • The 2013 Thompson Ridge Fire and overall forest health could alter the "eagle" outline that some tribes reference as an important part of Redondo Peak's appearance and cultural significance. • Climate change and insect outbreaks could impact native flowers and plants in the preserve. • Military overflights can disrupt the natural soundscape and introduce a visual intrusion, particularly during traditional and ceremonial activities by tribes and pueblos. **Opportunities** • Continue to work with local tribes and pueblos to develop a map with traditional place and feature names for interpretation and signage. • Increase partnership with traditionally associated tribes to plan and assist with special events, school groups, educational materials, and interpretive programing. • Look at opportunities for adaptive reuse of historic structures to meet contemporary management needs. • Reach out to youth conservation corps and other partners for assistance on preservation projects, interpretive sign installation, and trail maintenance. Work with tribes to better understand and document knowledge of traditional uses of native plants in the preserve. • Create additional interpretation programs including those on air quality, night skies, and "living histories" that focus on human adaptation as well as the historic land use visible throughout the preserve. • Continue to pursue ecological restoration activities to enhance culturally relevant landscapes and resources. • Continue tribal consultation, collaboration, and partnership to better protect cultural resources along with how best to interpret their importance. • Improve visitor infrastructure to minimize the area of human impacts on the landscape. • Use thoughtful trail design and construction to create high-quality visitor experiences while avoiding and minimizing impacts to sensitive natural and cultural areas. • Improve sustainability and environmental leadership of the preserve through NPS "Climate Friendly Parks" certification and action plan.
Data and/or GIS Needs	• Ethnographic overview and assessment. • Traditional cultural properties identification. • Catalog museum collections. • National Register of Historic Places determination of eligibility for Baca Ranch Cabin District. • Historic building assessments/historic structure report. • Scope of collections statement. • Cultural resources inventory and assessment. • Cultural landscapes inventory. • Oral history synthesis. • All-taxa biological inventory. • Traditional ecological knowledge study.

Fundamental Resource or Value	Traditional Cultural Landscapes and Tribal Connections
Planning Needs	• Cultural landscape report. • Visitor use management plan. • Comprehensive interpretive plan. • Historic structure use/adaptive reuse plan. • Transportation plan. • Trails management plan. • Cultural resources management plan. • Planning for adaptation to climate change.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • National Historic Preservation Act of 1966, as amended • Antiquities Act of 1906 • Archeological and Historic Preservation Act of 1974 • Archaeological Resources Protection Act of 1979 • American Indian Religious Freedom Act of 1978 • Historic Sites Act of 1935 • Museum Properties Management Act of 1955, as amended • Federal Cave Resources Protection Act of 1988 • Endangered Species Act of 1973, as amended • National Invasive Species Act • Federal Noxious Weed Act of 1974, as amended • Clean Water Act • Clean Air Act (42 USC 7401 et seq.) • Executive Order 13112, "Invasive Species" • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • Executive Order 13007, "American Indian Sacred Sites" • "Protection of Historic Properties"(36 CFR 800) • 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* (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS *Management Policies 2006* (§1.10) "Partnerships" • 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* (§4.9) "Soundscape Management" • NPS *Management Policies 2006* (§4.1) "Lightscape Management • NPS *Management Policies 2006* (chapter 5) "Cultural Resource Management" • NPS *Management Policies 2006* (§8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 28: *Cultural Resource Management* • Director's Order 28A: *Archeology* • Director's Order 47: *Soundscape Preservation and Noise Management* • *NPS-75 Natural Resources Inventory and Monitoring Guideline* • NPS *Natural Resource Management Reference Manual 77*

Fundamental Resource or Value	Prehistoric and Historic Legacy
Related Significance Statements	• Valles Caldera is a place where one can directly experience pre-agricultural heritage and reflect on inconspicuous cultural landscapes where hunting and gathering were practiced successfully for more than 10,000 years. Past peoples across the continent were drawn to Valles Caldera to utilize its rich geologic deposits of high quality obsidian for tools and weapons, making this location one of the most significant cultural obsidian sources in North America. To this day, the caldera is used by local pueblo and tribal peoples and is cherished by more than two dozen American Indian groups. • The land use history of Valles Caldera encapsulates the story of early Spanish and Mexican settlement across the present-day American Southwest and the socio-political shifts that occurred when the territory was annexed by the United States at the end of the Mexican-American War in 1848. Previously known as Baca Location No. 1, Valles Caldera exemplifies the legacy of how the establishment, utilization, and changing ownership of Spanish and Mexican land grants transformed the Southwest.
Current Conditions and Trends	**Conditions** • Archeological sites, historic resources, and other cultural resources from time periods from 10,000 years ago to the recent historic era are ubiquitous throughout the preserve. • Archeological surveys are underway but have covered less than 35% of the preserve. Just under 800 archeological sites have been documented, probably less than 50% of the total present. • Archeological sites from the pre-agricultural Archaic period are especially abundant and well represented in deep subsurface cultural deposits. • Obsidian is a geological resource connected to the formation of the volcanic caldera, as well as a cultural resource and the main raw material used to make the artifacts found at the abundant archeological sites throughout the caldera. • There is good baseline knowledge related to the geology of the preserve's obsidian. • Prehistoric obsidian quarries and other cultural resources located on the preserve are poorly documented. • Cultural landscapes lack adequate documentation. • The 2011 Las Conchas Fire severely impacted obsidian deposits in the preserve through both severe fire damage and post-fire erosion. • Historic buildings in the Cabin District provide an excellent opportunity to interpret the 19th and 20th century history of the American Southwest. Cabins dating from as early as 1915 need substantial preservation work to maintain their longevity in the harsh winter climate. • The lowest elevation landform in the preserve was the highest elevation extent of pueblo agriculture. **Trends** • Given the ubiquitous presence of obsidian fragments and artifacts in the preserve, the collection of surface deposits by visitors is an ongoing issue that could increase as visitation increases. • Erosion throughout the preserve, especially as the result of forest fires, has increased exposure of in situ geologic obsidian, artifact damage and exposure, and loss of buried deposits at archeological sites. • Historic cabins continue to experience detrimental effects from harsh winter conditions and lack of adequate maintenance. • Annual rates of archeological surveys are increasing in order to inventory areas in advance of large landscape restoration projects. • The 2013 Thompson Ridge Fire and the 2011 Las Conchas Fire resulted in a loss of aspen carvings and other historic wood resources.

Fundamental Resource or Value	Prehistoric and Historic Legacy
Threats and Opportunities	**Threats** • Given the presence of obsidian fragments and other cultural artifacts in the preserve, the collection of surface deposits is of concern. • Fire damages geologic obsidian as well as obsidian artifacts, and post-fire erosion causes substantial loss of cultural deposits. • Historic resources with wood, such as aspen carvings, corrals, cabins and ephemeral wood features (e.g., hunting blinds, expedient shelters, spring developments) are vulnerable to combustion in wildfires. • Wildfire and the subsequent erosion can uncover archeological sites and wash away obsidian and other cultural resources. • Erosion following the 2013 Thompson Ridge Fire has created risks for historic buildings in the Cabin District. • Lack of adequate maintenance, repair, rehabilitation, and preservation work on historic cabins and other structures could accelerate their continued deterioration. • Removal of ranching infrastructure and the addition of new elements to historic settings could alter the historic character and interpretive potential of the preserve. **Opportunities** • Evaluate historic cabins for interpretive use. • Take advantage of public interest in volunteer projects supporting historic cabins that has increased with increased visitation. • Obsidian offers an excellent opportunity for integrated cultural and natural resource interpretation and management. • Partner with geological and archeological field schools to provide undergraduate training and to provide science programming for local schools. • Increase interpretive signage, wayside exhibits, and other displays to educate the public and promote the protection of preserve resources.
Data and/or GIS Needs	• Natural and cultural resource inventory of volcanic domes and peaks. • Inventory and mapping of primary and secondary geological sources of obsidian within the preserve. • Synthesis of Jemez Mountains obsidian sources and hydration analyses. • Site significance standards for lithic scatters and obsidian quarries. • Scope of collections statement. • Cultural resources inventory and assessment. • Assessment of traditional cultural properties. • Traditional ecological knowledge study. • Archeological overview and assessment. • Cultural landscapes inventory. • Oral history synthesis. • Historic resource study. • Geochemical analyses at obsidian sites.

Fundamental Resource or Value	Prehistoric and Historic Legacy
Planning Needs	• Cultural resources management plan. • Transportation plan. • Trails management plan. • Comprehensive interpretive plan. • Visitor use management plan. • Collection management plan. • Resource stewardship strategy. • Cultural landscape report.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • National Historic Preservation Act of 1966, as amended • Antiquities Act of 1906 • Archeological and Historic Preservation Act of 1974 • Archaeological Resources Protection Act of 1979 • American Indian Religious Freedom Act of 1978 • Historic Sites Act of 1935 • Museum Properties Management Act of 1955, as amended • National Environmental Policy Act of 1969 • Clean Air Act (42 USC 7401 et seq.) • 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* (§4.1) "General Management Concepts" • NPS *Management Policies 2006* (chapter 5) "Cultural Resource Management" • NPS *Management Policies 2006* (§8.10) "Natural and Cultural Studies, Research, and Collection Activities" • Director's Order 28: *Cultural Resource Management* • Director's Order 28A: *Archeology* • *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* • NPS *Natural Resource Management Reference Manual 77*

arrowheads enlarged to show detail

Fundamental Resource or Value	High Elevation Ecosystem
Related Significance Statements	• Valles Caldera's unusual setting—high elevation, caldera topography, unfragmented habitats, and key hydrologic role at the top of the watershed—presents a dynamic learning landscape for the scientific study and restoration of ecosystem processes that are recovering from three centuries of human disturbances and challenged by contemporary and future climate change. • Valles Caldera's distinct topographic mosaic of expansive valley meadows, lush forested volcanic domes, meandering valley streams, and old growth Ponderosa pine groves are in striking contrast to the arid New Mexico landscapes at lower elevations. With caldera vistas from rim to rim, elk and other wildlife viewing, dark night skies, winter skiing, excellent hunting and fishing opportunities, and backcountry solitude, the landscape provides extraordinary year-round recreational opportunities and visitor experience.
Current Conditions and Trends	**Conditions** • High levels of plant and invertebrate biodiversity provide important habitat and food webs for a wide variety of wildlife species. • The preserve supports a diversity of vertebrate wildlife species: 59 mammals, 103 breeding birds, 6 reptiles, 3 amphibians, and 7 fish. • When combined with neighboring lands the preserve provides large areas of contiguous habitat allowing for elevational migration throughout the year. • The preserve is identified as part of the Jemez Mountains Conservation Opportunity Area by the State of New Mexico. • The preserve provides habitat for a variety of migratory birds of conservation concern by the U.S. Fish and Wildlife Service. • Federal and state listed threatened and endangered species, as well as multiple species found nowhere else in the state, are present in the preserve. • The preserve is included in the suitable habitat for the endangered New Mexico meadow jumping mouse and the threatened Mexican spotted owl, but there have been no reported sightings. • Hunting of elk and turkey occurs in the preserve. Hunting on the surrounding national forest influences populations of all game animals in the caldera. • Although New Mexico has no native earthworms, three species of European earthworms have established on the preserve. Significant changes in grassland and forest ecosystem functioning (litter processing and soil nutrient cycling) could occur. • Prairie dog colonies are present throughout the preserve. • Brown and rainbow trout are nonnative species that have become popular among visitors for fishing opportunities. Crayfish are also nonnative. • The current Rocky Mountain elk population of approximately 2,000 animals in the caldera (4,000–6,000 across the Jemez Mountains) is very high compared with historic levels and is the result of 20th century reintroductions from both Wyoming and Colorado. • Coyotes, bears, mountain lions, and bobcats are found throughout the preserve. Studies have been conducted to better understand their dietary habits and predation of elk. • The 2011 Las Conchas and 2013 Thompson Ridge fires severely altered most wildlife habitats including a majority of critical habitat for the endangered Jemez Mountains salamander. • There are ongoing studies using radio collars for elk, mule deer, black bear, and mountain lions. • Migratory birds, including bald eagles and golden eagles, use the preserve. • Chitrid fungus is present on amphibians found in the preserve. • The caldera is an important headwaters area at the top of the watershed hydrology system and is considered the "spring" of the Jemez Mountains. • The preserve includes springs, bogs, and streams, all of which are considered high-value natural and cultural resources. • Streams, wetlands, ephemeral pools and associated riparian vegetation provide important habitat for several "at risk" wildlife species.

Fundamental Resource or Value	High Elevation Ecosystem
Current Conditions and Trends	**Conditions (continued)** • Numerous riparian planting enclosures have been constructed that have the potential to create habitat for sensitive species. • Streams in the preserve have been assessed since 2001. The major streams are listed as having impaired water quality based on 303(d) Clean Water Act determination factors, namely temperature and turbidity. • All perennial streams throughout the preserve are monitored regularly for water quality and quantity. • The headwaters in the preserve contribute to downstream water users including tribes, agriculturalists, and municipal areas. • Past grazing and logging activity impacted preserve water quality and quantity, the effects of which continue. • Streams continue to suffer impacts from trespass cattle entering the preserve. • Numerous stock tanks and earthen dams constructed in the 1960s are in various states of repair. • Post-fire erosion has impacted water quality and quantity, and riparian, wetland and aquatic systems. • Poorly designed and maintained roads are contributing sediment to streams. • Many stream reaches are incised and no longer connected to their floodplains. Historically, these streams were probably broad fens rather than single incised channels. • The preserve's surface water system was destroyed by post fire runoff. An old well—constructed while under private ownership—has been pressed into service for domestic water supply in the Cabin District. **Trends** • Overall, streams show an improvement in most reaches of their proper functioning condition. Some preliminary analysis by the state environmental department indicates a possible trend of temperature decrease on a stretch of the Rio San Antonio. • Willow, cottonwood, and aspen plantings throughout the preserve are showing survival and growth in several areas. • Ongoing forest and wetland restoration projects (thinning, burning, wetland creation) continue to influence and change wildlife presence and habitats throughout the preserve and surrounding Santa Fe National Forest and contribute to increased water yields for downstream users. • Post-fire erosion, partially related to poorly engineered and maintained preserved roads, negatively impacts local water quality. • The elk population across the entire Jemez Mountains has grown from 100 in 1970 to as many as 6,000 today. This increase is linked to low predation with loss of key predators, and increased montane meadow habitat due to past logging activities and wildfires. • Elk calving dropped to ~15 calves per 100 cows in 2009 and has now grown to ~32 calves per 100 cows. • The preserve continues to discover species that were previously unknown to the area, such as the striped and hog-nosed skunks, and the yellow-bellied marmot. • Areas of high-severity burning during the 2011 Las Conchas and 2013 Thompson Ridge fires are becoming grasslands, affecting grazing and browsing acreage, causing shifts from forest-dwelling to meadow-dwelling species, and causing a reduction in species richness. • Migratory eagle numbers are down compared to estimates from the early 2000s. • The frequency of activity by young male mountain lions has increased while older male adults have decreased. • Hunting in the preserve will affect population numbers and age/sex demographics for hunted species. • Reintroduced native species of long-nosed dace, Rio Grande chub, Rio Grande sucker, and northern leopard frogs are all showing signs of long-term survival. • Climate change is stressing wildlife and vegetation species found at upper elevations including pika, spruce trees, and understory species.

Fundamental Resource or Value	High Elevation Ecosystem
Threats and Opportunities	**Threats** • Increased temperatures and changing precipitation regimes associated with climate change will impact hydrology and increase drought stress for trees throughout the preserve. • Fire and post-fire erosion can change the flow of streams within the watershed. • In-use preserve roads are impacted by erosion. Flooding events can cut off access to main roads, creating public safety concerns and significant maintenance needs. • Sedimentation from inadequate road drainage negatively affects water quality and can impact drainage paths. • Artesian wells in Valle Toledo and Valle Grande tap into deep groundwater resources. A significant leak exists in the Valle Toledo wellhead, which may adversely affect the underground aquifer. There also are visible leaks at the surface in the Valle Grande wellhead. • Invasive plant species can affect plant communities and wildlife food sources. • Wildfires have the potential to drastically change habitats and vegetation. • Post-fire and road-related erosion creates new drainage paths and can remove grassland vegetation and create opportunities for noxious weed invasion. • Trespass livestock grazing damages vegetation in riparian zones and contributes to soil and watershed impacts. • Prairie dogs are vulnerable to plague and have the potential to spread disease throughout colonies and to visitors and/or their pets. There have been confirmed cases in prairie dogs within preserve colonies in 2004 and 2016. • Poaching negatively affects species populations. • Old livestock fences can entangle and injure large mammal wildlife. • Climate change can alter species habitat and lead to species extinction. • The large elk population impacts restoration efforts and aspen regeneration. • Chitrid fungus and Rana virus have been detected in the preserve and have the potential to harm amphibian populations. • Nonnative earthworms are likely changing soil structure and functioning. • The potential for human-wildlife interactions could change as human activity in the preserve by visitors and researchers and from other administrative uses increases. • Natural communities are at risk from the potential effects of air pollution; for example, ozone-sensitive plants, mercury contamination in wildlife, and nutrient enrichment and acidification effects. • Climate change could negatively affect species such as pika, and the potential effects on other species need further study. • White-nose syndrome could be a threat to bat species on the preserve. • Increased visitation, staff uses, and research activities could impact wildlife behavior, spread disease, and increase noxious weeds. **Opportunities** • Partner with tribes, adjacent landowners, and downstream water users to monitor water quality and increase the protection and conservation of native species. • Maintain and establish new partnerships with the preserve's friends group and other nonprofit groups to support ecological restoration and inventory and monitoring efforts in support the preserve's mission. • Reintroduce native species, including species listed as endangered or threatened, to promote the preserve's mandate to restore natural ecosystem processes. • Continue watershed restoration projects to improve riparian vegetation, which could provide future habitat for federally threatened and endangered species as well as several important state listed species. • Continue the all-taxa biological surveys on the preserve to identify new and undescribed species. • Consider reintroduction of the New Mexico meadow jumping mouse as part of the preserve's restoration activities.

Fundamental Resource or Value	High Elevation Ecosystem
Threats and Opportunities	**Opportunities (continued)** • Plugging and abandoning the Valle Toledo artesian well will conserve groundwater resources and benefit deep hydrologic systems. The artesian well in the Valle Grande also should be evaluated for plugging and abandonment.
Data and/or GIS Needs	• Continued monitoring of streams and water quality. • Climate/weather monitoring. • Baseline data and monitoring for soundscapes, dark night sky, and air quality. • Rio Grande cutthroat trout monitoring and study. • Beaver monitoring and habitat study. • Update LiDAR coverage to measure current post-fire erosion and monitor stream channel changes. • Mapping of post-fire erosion and modeling of erosion risks. • Historic photo analysis. • Climate/ weather and monitoring. • Evaluation of existing earthen dams. • Pika population trends. • New Mexico meadow jumping mouse surveys. • Game animal population studies. • Analysis of culturally significant species. • Analysis of predator communities (large predators, mesocarnivore, small prey) and interactions. • Elk research. • Mule deer survival rates. • Bat roosting and habitat. • Wildfire and restoration response. • Prairie dog disease survey. • Mountain lion study. • Eagle survey. • Earthworm survey. • Jemez Mountains salamander inventory and monitoring. • Analysis of drought stress across diverse ecosystem components. • Natural resource inventory and assessment. • All-taxa biological inventory.
Planning Needs	• Resource stewardship strategy. • Range/grazing management plan and market assessment. • Planning for adaptation to climate change. • Floodplain management plan. • Wildlife management plan. • Invasive species management plan. • Landscape restoration and stewardship plan. • Wildfire recovery plan. • Visitor use management plan. • Trails management plan. • Transportation plan. • Hunt management plan. • Wellhead protection area plan. • Re-introduction of Rio Grande cutthroat trout plan. • New Mexico meadow jumping mouse recovery plan.

Fundamental Resource or Value	High Elevation Ecosystem
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** • Omnibus Public Land Management Act of 2009 (16 USC 7301 et seq.) • National Environmental Policy Act of 1969 • Clean Water Act • Clean Air Act (42 USC 7401 et seq.) • Endangered Species Act of 1973, as amended • Bald and Golden Eagle Protection Act • Migratory Bird Treaty Act • 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" **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* (§4.6.1) "Protection of Surface Waters and Groundwaters" • NPS *Management Policies 2006* (§4.6.2) "Water Rights" • NPS *Management Policies 2006* (§4.6.4) "Floodplains" • NPS *Management Policies 2006* (§4.7) "Air Resource Management" • NPS *Management Policies 2006* (§4.9) "Soundscape Management" • NPS *Management Policies 2006* (§4.10) "Lightscape Management" • Director's Order 47: *Soundscape Preservation and Noise Management* • Director's Order 77-2: *Floodplain Management*

Fundamental Resource or Value	A Landscape in Recovery
Related Significance Statements	• Valles Caldera's unusual setting—high elevation, caldera topography, unfragmented habitats, and key hydrologic role at the top of the watershed—presents a dynamic learning landscape for the scientific study and restoration of ecosystem processes that are recovering from three centuries of human disturbances and challenged by contemporary and future climate change. • Valles Caldera National Preserve was first established in 2000 as an unprecedented national experiment in public land management, through which the U.S. Congress sought to evaluate the efficiency, economy, and effectiveness of decentralized public land management. The 15-year experiment continues to contribute to the national dialogue on the role of protected areas for long-term economic and environmental sustainability, and innovative approaches to place-based and science-based adaptive management.
Current Conditions and Trends	**Conditions** • 19th and 20th century overgrazing of livestock in the valles is apparent in historic aerial photographs dating back to 1935. These aerial photographs document eroded hillslopes, sedimentation fans along the base of slopes, and extensive gullies. • Pairing of historic and contemporary photography has demonstrated historic impacts on vegetation from grazing, logging, and roadbuilding, including meadow encroachment and loss of riparian plants such as willows. • Clear-cut logging from 1963 to 1971 left more than 1,000 miles of logging roads, most of which were never reclaimed. The topographic scars of these roads are documented clearly in contemporary LiDAR mapping. Today, some vegetation has returned within road beds, but this recovery is limited. • Geothermal energy exploration, begun tentatively in the 1950s and pursued actively in the 1970s and 1980s, left numerous earthen modifications, some of which are massive in Redondo Canyon and Sulphur Canyon. Geothermal well pads were carved into the mountainsides, and exploration activities damaged sites that contain unique geothermal resources. • Wetlands and streams were heavily degraded by the overgrazing of riparian grasslands and sedimentation runoff from logging clear-cuts. • Suppression of fires throughout the 20th century has been documented through fire scar sampling and dendrochronology. Dense second growth forests that developed without natural fire-return intervals produced forests at increased risk for uncharacteristic wildfire and wildfires with high burn severity. • Invasive weed species in the preserve are especially abundant in recent burn scars and along roadways. • Vegetation in the valles and forested slopes has been burned during past wildfires. The most recent major fire activity includes the 2011 Las Conchas and the 2013 Thompson Ridge fires, which together burned 60% of the preserve. • Numerous diverse restoration projects to reduce uncharacteristic forest densities, enhance riparian function, and decrease impacts of noxious invasive species are underway as part of the Department of the Interior's Resilient Landscape Initiative and the Department of Agriculture's Collaborative Forest Landscape Restoration program. **Trends** • Road conditions continue to deteriorate with use, weather, and erosion. • Aerial photography from 1935 to present demonstrates consistent recovery from the impacts of pre-2000 livestock overgrazing, including decreased surface erosion, revegetation of slopes, healing gullies, and decreased sedimentation at bases of slopes. • The preserve has developed a diverse set of datasets, tools, and monitoring programs to assess existing conditions and to measure trends in ecosystem responses to restoration activities.

Fundamental Resource or Value	A Landscape in Recovery
Current Conditions and Trends	**Trends (continued)** • Forest and watershed restoration projects implemented during the past decade, and continuing into the present are improving the overall ecological health of the preserve and allowing for the safe and effective management of fire across the landscape. • Inventory and monitoring efforts associated with restoration projects are confirming improvements to wildlife habitat, water quality and quantity, and improved biodiversity.
Threats and Opportunities	**Threats** • Lack of proper fencing has resulted in livestock grazing in sensitive areas, including in riparian areas and on volcanic domes burned in recent fires. Continued grazing in sensitive areas could negatively affect post-fire recovery and watershed restoration. • The presence and distribution of noxious weed species is increasing in response to wildfire damage, and use and maintenance of roadways. • Climate change could result in changing ground water hydrology including water quality, temperature, and quantity. • Drought stress in trees resulting from climate warming has been well documented in the Jemez Mountains. Resulting risks include increased potential of uncharacteristic wildfire, tree mortality, and a proliferation of pests such as bark beetles. • Ongoing forest and wetland restoration will largely be beneficial but could pose a threat to some species and habitats. • Increased visitation, staff uses, and research activities may put pressure on recovering resources. **Opportunities** • Educate the public about the long-term effects of historic land management practices and the benefits of ecological restoration to mitigate those impacts, including returning wildfire into a fire-adapted ecosystem. • Consider reintroduction of the New Mexico meadow jumping mouse and other threatened and endangered species to promote overall ecosystem functioning and biodiversity. • Increase volunteer participation and partnerships in preserve restoration activities to promote public understanding and support for similar efforts elsewhere while further improving the health of the preserve's ecosystems. • Develop curriculum-based interpretation programs and activities to engage with school groups and other youth groups to further the preserve's congressional mandate to promote science and education. • Continue to partner with universities and related academic organizations to assist in data collection and cutting-edge research in landscape restoration. • Collaborate with neighboring Bandelier National Monument and Washington Office Air Resources Division to study high elevation air impacts and develop complementary air quality programs.
Data and/or GIS Needs	• Soil survey. • Mapping of post-fire erosion and modeling of erosion risks. • Updated vegetation mapping (post-fires). • Analysis of drought stress across diverse ecosystem components. • Inventory and mapping of noxious weed species. • Baseline data and monitoring for soundscapes, dark night sky, and air quality. • All-taxa biological inventory. • Data, GIS, and report standardization.

Fundamental Resource or Value	A Landscape in Recovery
Planning Needs	• Resource stewardship strategy. • Invasive species management plan. • Collection management plan. • Wildlife management plan. • Range/grazing management plan and market assessment. • Bison introduction assessment and feasibility plan. • Planning for adaptation to climate change. • Hunt management plan. • Fire management plan. • Transportation plan.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the FRV** • Omnibus Public Land Management Act of 2009 (16 USC 7301 et seq.) • Clean Water Act • Clean Air Act (42 USC 7401 et seq.) • Paleontological Resources Preservation Act of 2009 • National Invasive Species Act • Federal Noxious Weed Act of 1974, as amended • National Environmental Policy Act of 1969 • 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* (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS *Management Policies 2006* (§4.5) "Fire Management" • NPS *Natural Resource Management Reference Manual 77*

Analysis of Other Important Resources and Values

Other Important Resource or Value	Scientific Knowledge and Education
Related Significance Statements	• Valles Caldera's unusual setting—high elevation, caldera topography, unfragmented habitats, and key hydrologic role at the top of the watershed—presents a dynamic learning landscape for the scientific study and restoration of ecosystem processes that are recovering from three centuries of human disturbances and challenged by contemporary and future climate change. • Valles Caldera possesses exceptional value in illustrating and interpreting massive explosive volcanic eruptions, caldera formation, and the functioning of active geothermal systems. Valles Caldera is one of the world's best examples of an intact volcanic caldera and is considered the worldwide "type locality" for caldera resurgence.
Current Conditions and Trends	**Conditions** • There is considerable published academic information related to caldera geology. Recent syntheses include a new geology map and a geologic history book designed for the public. • Results and information obtained from research and monitoring at the preserve have contributed to natural and cultural resource management at the local, state, federal, and international levels. • Valles Caldera has played an internationally significant role in studies of volcanology, the theory of continental drift and plate tectonics, and the development of obsidian hydration dating. • The preserve is home to a unique record of the Holocene period, which is of great interest to archeologists, environmental scientists, and historical ecologists. • The Jemez Mountains is a key area for the development of place-based science research, especially historical ecology and fire studies. • Extensive collaboration with external scientists has resulted in a wide variety of research projects conducted in the preserve and many peer-reviewed publications. • Extensive biological inventory and monitoring data were collected by the Valles Caldera Trust, and these inventory and monitoring programs continue today. • Species inventories are virtually complete for plants, fungi, mammals, birds, reptiles, amphibians, fish, fungi, lichens, and a number of groups of insects, spiders and other invertebrates. Soil biota and many invertebrate groups still need to be inventoried. • Ecosystem restoration activities are rigorously monitored to ensure that science-based adaptive management is incorporated into planning and implementation decisions. • Archeological surveys are underway but have covered less than 35% of the preserve. • Although considerable data have been collected on natural and cultural resources, these data files need to be reformatted and integrated into the NPS data management system. • Data are being published in peer-reviewed scientific journals, but public interpretation of these results needs expansion and improvement. • External and internal data, reports, and articles have not been organized for reference. Synthesizing this information is necessary to improve its usefulness and availability to interested parties and outside researchers and to create meaningful interpretive products for the public. • Improved documentation and mapping of invasive species distribution and abundance within the preserve is needed. • Curriculum-based primary and secondary education programming is integrated into the preserve's collection of scientific data, and demand for this programming already exceeds the preserve's existing capacity. • The preserve holds an extensive collection of scientific photos, which needs improved organization, tagging, and digital storage space.

Other Important Resource or Value	Scientific Knowledge and Education
Current Conditions and Trends	**Trends** • With the completion of many of the resource inventories begun by the Valles Caldera Trust, scientific emphasis is shifting to monitoring programs associated with restoration activities and to collaboration with outside scientists who elect to use the preserve for their own funded grant projects. • The landscape restoration program has been the major source of support for scientific activities on the preserve. • There has been a loss of some stream water monitoring stations due to post-fire flash floods that will need replacement. • Recent fire activity has increased interest in fire regime studies.
Threats and Opportunities	**Threats** • Lack of organization of data could result in a loss of information or delayed synthesis and interpretation. • Information is lost when outside researchers sometimes do not share data sets or completed reports of research completed in the preserve. • The lack of standardized electronic metadata decreases the preserve's ability to interpret and curate scientific information and imagery. • Monitoring data are generally not in stable, long-term databases. • Absent thoughtful succession planning and data management there is potential for loss of institutional knowledge and sufficient transfer of information. • Lack of staff to share scientific research through education programs will decrease information reach. **Opportunities** • Continue establishment and maintenance of long-term study sites and instrument infrastructure to enhance participation by outside (non-NPS) scientists and researchers. • Meet requirements of the enabling legislation that specify the importance of science and education research and interpretation and their role in outdoor educational experiences. • Develop the preserve as a model for citizen-science and environmental education. • Create a staff position committed to education and to develop educational programs for local schools that teach students about science and train groups to help collect scientific data. • Engage more diverse populations of New Mexico in active cultural and natural resources projects. • Cooperate within the National Park Service and with outside partners to improve data sharing and management. • Work with the preserve's friends group to connect and partner with outside experts for research opportunities. • Incorporate new and innovative management processes and research that would allow the preserve to continue operating on the knowledge frontier.
Data and/or GIS Needs	• All-taxa biological inventory. • Documentation of obsidian quarries. • Mountain lion study. • Data, GIS, and report standardization. • Invasive species inventory. • Update LiDAR coverage to measure current post-fire erosion and monitor stream channel changes. • Inventory and protocols for monitoring geologic features. • Scope of collections statement. • Archives assessment.

Other Important Resource or Value	Scientific Knowledge and Education
Planning Needs	• Data management plan. • Integrated pest management plan. • Comprehensive interpretive plan. • Collection management plan. • Planning for adaptation to climate change. • Archives management plan.
Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the OIRV** • Paleontological Resources Preservation Act of 2009 • Endangered Species Act of 1973, as amended • National Invasive Species Act • Federal Noxious Weed Act of 1974, as amended • Clean Water Act • Clean Air Act (42 USC 7401 et seq.) • 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* (§1.6) "Cooperative Conservation Beyond Park Boundaries" • NPS *Management Policies 2006* (§2.3.1.4) "Science and Scholarship" • NPS *Management Policies 2006* (§4.1) "General Management Concepts" • NPS *Management Policies 2006* (§4.1.4) "Partnerships" • 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 28: *Cultural Resource Management* • NPS *Museum Handbook*, parts I, II, and III • *NPS-75 Natural Resources Inventory and Monitoring Guideline* • NPS *Natural Resource Management Reference Manual 77*

Other Important Resource or Value	History Grove
Related Significance Statements	• Valles Caldera's distinct topographic mosaic of expansive valley meadows, lush forested volcanic domes, meandering valley streams, and old growth Ponderosa pine groves are in striking contrast to the arid New Mexico landscapes at lower elevations. With caldera vistas from rim to rim, elk and other wildlife viewing, dark night skies, winter skiing, excellent hunting and fishing opportunities, and backcountry solitude, the landscape provides extraordinary year-round recreational opportunities and visitor experience. • Valles Caldera's unusual setting—high elevation, caldera topography, unfragmented habitats, and key hydrologic role at the top of the watershed—presents a dynamic learning landscape for the scientific study and restoration of ecosystem processes that are recovering from three centuries of human disturbances and challenged by contemporary and future climate change.
Current Conditions and Trends	**Conditions** • Overall, the trees that make up History Grove are in good condition. The Ponderosa pine and Douglas fir trees are fire adapted and have survived historic fire events. Recent evidence, however, indicates some deterioration in tree health. • There has been a recorded loss of upslope trees outside the grove following the 2013 Thompson Ridge Fire due to direct fire damage and subsequent beetle damage, erosion, and deposition. • Drought stress and increasing infestation of pest insects after the 2013 Thompson Ridge Fire are negatively impacting tree health. Beetles have caused rapid mortality to many old-growth Douglas fir trees in the grove. • Approximately 35% of the History Grove trees have been mapped. • The grove is near the main preserve entrance and easily accessed by visitors. • Culturally marked trees in the grove are in good condition. • There have been no controlled or managed burns in the History Grove since 2000. • Following the Thompson Ridge Fire, Jemez Mountains Electric Coop cut 38 old-growth trees from the preserve without the preserve's permission. • A large percentage of the grove's ground cover consists of nonnative or naturalized grasses, but the distribution of species has not been systematically mapped. These grasses could affect future managed burns. • The age of the trees (>300 years) provides an archive of past precipitation, drought, fire conditions, and climate. • There are limited designated parking areas for visitors; access for groups is especially difficult. **Trends** • Invasive plant species, including cheat grass and thistles, are present in the grove and are possibly increasing in frequency. • There is a significant decline in old-growth trees due to direct and indirect fire effects and beetles. • The number of falling trees has increased in the last few years. • Public visitation to the grove is expected to continue to grow.

Other Important Resource or Value	History Grove
Threats and Opportunities	**Threats** • Uncontrolled wildfires could kill old-growth trees throughout the preserve. • Invasive plants, insect pest species, and drought stress could compromise the grove's health. A sudden die-off of more than a dozen old-growth Douglas fir trees occurred in 2017 due to beetle infestation. • Encroachment of other plants could change the vegetation associated with the grove. • Increased vehicular traffic could disturb the natural soundscape associated with the site and increase dust and air pollution. • Trash, trampled grasses, and vehicular damage along the road corridor could affect the old-growth trees. • Increased visitation contributes to compacted soil restricting natural hydration. • The effects of climate change on old-growth trees are unknown. • Trees reaching the end of their lifespan have the potential to become safety hazards that could affect staff or visitor safety and also threaten the few structures in/near the grove. • Routing of vehicular traffic through the grove impacts air quality, soundscape, and solitude. **Opportunities** • The History Grove is for many the first, and sometimes the only, place to experience an old-growth forest. • Promote the grove as a place for visitors to experience natural soundscapes and solitude. • Use the grove as a uniquely suitable location to learn about forest health and long-term trends in climate response. • Use prescribed burns to help restore natural ecosystem associated with the grove. • Partner with local groups to interpret the preserve's logging history. • Develop new interpretation programs on forest ecosystems, old-growth forests, grazing, and fire ecology. • Partner with other organizations and interested individuals to continue collecting data about the grove and its related ecosystem.
Data and/or GIS Needs	• Complete tree survey. • Assessment of tree stressors (including pest insects). • Dendrochronology study of culturally marked trees. • Climate/weather monitoring. • Analysis of drought stress across diverse ecosystem components.
Planning Needs	• Fire management plan. • Visitor use management plan. • Transportation plan. • Trails management plan. • Integrated pest management plan. • Planning for adaptation to climate change.

Other Important Resource or Value	History Grove
Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy-level Guidance	**Laws, Executive Orders, and Regulations That Apply to the OIRV** • National Environmental Policy Act of 1969 • Clean Air Act (42 USC 7401 et seq.) • 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* (§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* (§4.9) "Soundscape Management" • NPS *Management Policies 2006* (§4.10) "Lightscape Management" • NPS *Management Policies 2006* (§5.3) "Cultural Soundscape Management" • Director's Order 47: *Soundscape Preservation and Noise Management* • NPS *Natural Resource Management Reference Manual 77*

Identification of Key Issues and Associated Planning and Data Needs

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

The following are key issues for Valles Caldera National Preserve and the associated planning and data needs to address them:

- **Operational Capacity and Infrastructure.** Due to the lack of suitable facilities in the preserve, administrative and operational activities are managed at a facility under short-term lease in the Village of Jemez Springs, New Mexico, approximately 20 miles from the preserve's main entrance. This creates financial and logistical issues for preserve managers and safety issues for preserve staff who must spend extensive travel time on New Mexico State Route 4 (a two-lane mountainous road) between the preserve and its headquarters. Existing facilities in the preserve include historic structures dating back to the early 20th century and more contemporary nonhistoric facilities. Currently, facilities within this maintained frontcountry landscape require significant maintenance, including necessary utility upgrades (water, power, sewer, telecommunications, heating, etc.). With the termination of the Jemez Springs headquarters lease in September 2019, existing facilities within the preserve should be evaluated for adaptive reuse as administrative headquarters.

  - *Associated planning and data needs:* Development concept plan; historic structure use/adaptive reuse plan; sustainability plan; historic building assessments/historic structure report; assessment of long-term needs of individual historic structures

- **Transportation and Preserve Infrastructure.** Valles Caldera National Preserve contains more than 1,000 miles of unimproved old ranch and logging roads, a limited number of which are authorized for public and/or administrative motorized vehicle use. Of immediate and pressing concern is rehabilitating the main entrance road and contact stations in the Valle Grande. All other public/administrative routes also require significant maintenance, especially those impacted by erosion damage following the 2011 Las Conchas and 2013 Thompson Ridge wildfires. Transportation and circulation planning are needed to identify suitable routes for use by the public, administration, and emergency response. Transportation planning would be undertaken in the context of broader preserve-wide planning, and needs to be integrated closely with 1) trail/trailhead development, 2) designated parking, 3) road decommissioning of unused logging roads, and 4) resource protection and wilderness inventory and management.

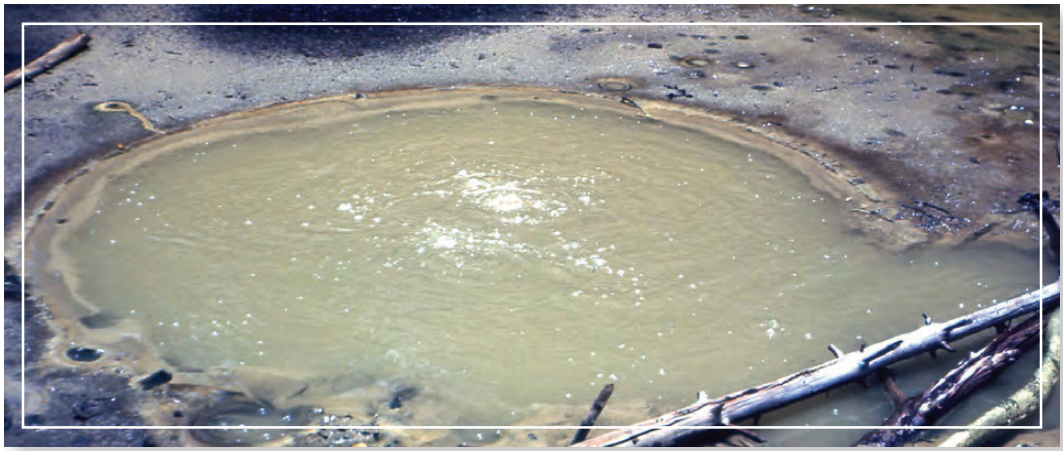
  - *Associated planning and data needs:* Transportation plan; resource stewardship strategy; frontcountry management plan; backcountry management plan; accessibility conceptual site plan; erosion control plan; general management plan; sign management plan; trails management plan; wilderness inventory; mapping of post-fire erosion and modeling of erosion risks; mapping of debris flow and encroachment into valles

- **Visitor Use and Support Infrastructure.** Valles Caldera National Preserve is poised to make a broad spectrum of decisions that address balancing increasing visitor use and maintaining the natural values of the preserve. Key strategic decisions are needed to establish the short- and long-term priorities for managing public visitation and enhancing visitor experience. Existing infrastructure to support and sustain visitation is extremely limited, lacking even basic components such as parking areas and comfort stations. Within the preserve's frontcountry, site-specific development concept plans are needed to establish focal points for visitor experience. Facilities are needed for education programming along with a diverse set of tangible products for the visitor interface, including signage and interpretive displays and waysides. In the preserve's frontcountry and backcountry, design and development of a comprehensive trail network is needed to achieve high-quality visitor experiences. This includes the establishment of a caldera rim trail, as called for in the preserve's enabling legislation.

    - *Associated planning and data needs:* Development concept plan; trails management plan; transportation plan; visitor use management plan; comprehensive interpretive plan; accessibility self-evaluation and transition plan; accessibility conceptual site plan; planning for adaptation to climate change; commercial services strategy; historic structure use/adaptive reuse plan; community and regional trails plan (in collaboration with the NPS Rivers, Trails, and Conservation Assistance Program); visitor use information; wilderness inventory; cultural landscapes inventory; GIS analysis for trails, roads, and parking needs

- **Climate Change.** Long-term climate data for the State of New Mexico suggest that the Jemez Mountains are warming at a faster rate than other regions of the state. Valles Caldera and the broader Jemez Mountains form an isolated sky island (rather than a mountain chain) that reduces migration options for many sensitive plant and wildlife species. Climate change vulnerability at Valles Caldera in recent decades has already been expressed through warmer temperatures and drought and an associated increase in risk for catastrophic wildfires such as the 2011 Las Conchas and 2013 Thompson Ridge wildfires, which combined burned approximately two-thirds of the preserve. The 2011 Las Conchas Fire was particularly damaging, with large areas of high burn severity, high tree mortality, and profound post-fire erosion. Assessment and adaptation planning is needed to understand the range of potential effects of climate change on uncharacteristic wildfire activity, ecosystem processes, hydrology, archeological resources, and biodiversity in this temperature-sensitive high-elevation environment.

    - *Associated planning and data needs:* Planning for adaptation to climate change; integrated pest management plan; resource stewardship strategy; climate/weather monitoring; analysis of drought stress across diverse ecosystem components; study of temporal trends in forest/meadow ecosystems



- **Sulphur Springs Inholding.** Situated within a 40-acre block near the western boundary, Sulphur Springs is the only privately owned inholding within the preserve. The area has significant natural and cultural resources that can contribute to the education and interpretation of the preserve's geologic, scientific, and historical values. The bubbling acid-sulfate springs, mud pots, and fumaroles at Sulphur Springs are very rare in the western United States and unique in New Mexico. In 1901 the Otero family developed the site as a health resort, with its own stagecoach line to bring tourists to the bathhouses and hotel. Almost all traces of this historic commercial development are now gone, but the landscape still shows the modifications of a brief Otero venture in surface mining at about the same time. In 2016 the property was sold to a private owner who is interested in selling the property to the National Park Service.

    - *Associated planning and data needs:* Land protection plan; geologic resources management plan; assessment of geologic hazards and mitigation measures; continued monitoring of streams and water quality; historic resource study; cultural landscapes inventory; inventory and protocols for monitoring geologic features; mapping of post-fire erosion and modeling of erosion risks

- **Management of Valles Caldera Trust Administrative, Data, and Collections Legacy.** From 2002 to 2015, prior to its designation as a unit of the national park system, Valles Caldera was managed as a national preserve by the Valles Caldera Trust. An administrative history is needed to document these years under the predecessor agency, to capture and communicate the significance of this experiment in federal land management, and to provide context for the lessons learned under Valles Caldera Trust management. Evaluation is needed of prior National Environmental Policy Act analyses, management plans, activities, and other products to determine the utility of all or parts of these efforts for current preserve needs. This effort is of timely importance to preempt the loss of institutional memory and to rapidly determine the disposition of Valles Caldera Trust administrative archives. Equally important is the need to assess the retention and organization of a large disparate body of natural and cultural resources data and to develop a plan for curation of physical collections including archeological and historic items, and natural history specimens.

    - *Associated planning and data needs:* Collection management plan; data management plan; scope of collections statement; administrative history

- **Fire Risk and Recovery.** Although significant investments have been made in fire planning, wildfire recovery, and proactive landscape scale restoration and risk reduction, further analysis and planning are needed to address this major threat. The preserve experienced two major wildfires. Together, the 2011 Las Conchas and 2013 Thompson Ridge fires burned two-thirds of the preserve, and landscape damage from these fires has been profound. Major impacts on slope stability, soil health, and water quality have resulted from post-fire erosion, which also continues to impact roads infrastructure and the water system in the preserve's Cabin District. Invasive plant and insect species have increased, and large areas of standing dead trees threaten visitor safety and interfere with administrative activities. Large uncharacteristic wildfire continues to be a significant risk in the Jemez Mountains, further elevated by extended drought and climate warming, unhealthy forest conditions resulting from past logging, overgrazing, and fire suppression practices and the wildland-urban interface surrounding the preserve.

    - *Associated planning and data needs:* Fire management plan; planning for adaptation to climate change; integrated pest management plan; structural fire plan for the Cabin District; spatial fire risk assessment; mapping of post-fire erosion and modeling of erosion risks; update LiDAR coverage to measure current post-fire erosion and monitor stream channel changes; historic photo analysis; quality control/assurance and analysis of GIS data

Planning and Data Needs

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

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

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	**Planning Needs**	**Priority (H, M, L)**	**Notes**
FRV, Key Issue	General management plan	H	The enabling legislation requires that a general management plan be completed within three years from date of funding being made available.
Key Issue	Frontcountry management plan	H	This operational plan would help the preserve make decisions for safe visitor use and access.
Key Issue	Development concept plan	H	The preserve needs a holistic approach to developing visitor infrastructure and support services for resource protection, visitor access, interpretation and safety. Infrastructure (restrooms, parking, paved roads, signage, interpretive displays, etc.) to provide for increased visitation and quality visitor experience is lacking. Infrastructure development and adaptive-reuse of existing facilities would allow the preserve to provide visitor services in a sustainable manner. Please refer to the draft 2016 Front Country Concept Alternatives and Charrette Report to inform this planning effort.
FRV, OIRV, Key Issue	Visitor use management plan	H	This plan would address increased visitation and appropriate measures to manage and mitigate its effects on the preserve's other values.
FRV, OIRV, Key Issue	Trails management plan	H	Preserve roads and trails rely predominantly on old ranch and logging roads that continue to be impacted by post-fire flooding and erosion. This plan would provide for enhanced visitor experience while considering long-term maintenance costs. The enabling legislation requires that the caldera rim trail feasibility study be completed within three years from date of enactment (12/19/2014).
FRV, OIRV, Key Issue	Transportation plan	H	Preserve roads and trails rely predominantly on old ranch and logging roads. This plan would address the best approaches to achieving circulation and access throughout the preserve for staff and visitors while reducing impacts on resources and views.
FRV, Key Issue	Historic structure use/ adaptive reuse plan	H	This plan would evaluate historic preservation and maintenance needs; assess priority needs and costs; and establish alternatives for use of historic structures in the Cabin District and elsewhere in the preserve.
FRV, Key Issue	Resource stewardship strategy	H	A resource stewardship strategy serves as a significant element in park planning and to coordinate the existing landscape restoration plan with other planning processes and integrate natural and cultural resource within the current resource stewardship and science program.
FRV	Hunt management plan	H	The preserve is authorized by Congress to allow for public hunting, fishing, and trapping consistent with other NPS laws, policies and regulations. Currently, only fishing and the hunting of elk and turkey are permitted.
NA (operational)	Preserve operations plan	H	This plan is critical to efficient operations of a new unit of the National Park Service.

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	**Planning Needs**	**Priority (H, M, L)**	**Notes**
NA (operational)	Facility use plan	H	The preserve has various facilities spread over a large area in different stages of usefulness. This plan would help consolidate and organize efficient use of preserve resources.
NA (operational)	Park asset management plan	H	This plan is critical to long-term funding and care of park assets.
NA (operational)	Safety plan	H	This plan would address both employee and visitor safety.
NA (operational)	Records management plan	H	This plan would address the efficient organization of critical records transitioning from the Valles Caldera Trust to the National Park Service.
Key Issue	Structural fire plan for Cabin District	H	This safety and response plan would address the protection of preserve assets.
FRV, OIRV, Key Issue	Collection management plan	H	The preserve assumed responsibility for natural and cultural resources collections accumulated by the predecessor agency, the Valles Caldera Trust. A museum collections assessment is needed to properly manage these existing collections and future collections pursuant to NPS standards. A scope of collections statement is needed to evaluate what should be part of the preserve's museum collections and to guide the acquisition of further collections. It is important to have a collection management plan in place before accessioning the museum objects that have been transferred to the National Park Service from the Valles Caldera Trust.
OIRV, Key Issue	Data management plan	H	The preserve has 15 years of natural history and cultural resources inventory and monitoring data, including photographs and GIS layers, which need to be compiled and organized. Conversion of the preserve to an NPS unit provides a much-needed opportunity to develop and implement a data management plan early on to promote best management practices for the collection, storage, and tracking of data and documents produced by preserve employees and provided to the preserve by non-NPS researchers.
FRV	Wildlife management plan	H	The preserve is authorized by Congress to allow for public hunting, fishing, and trapping consistent with other NPS laws, policies and regulations. A wildlife management plan, developed in a landscape-level ecosystem context, would inform and guide programmatic decisions concerning wildlife habitat conservation, landscape restoration, and programs for hunting, fishing, and grazing. In addition, it would address specific questions regarding predator and ungulate management, reintroduction of native species, and protection and recovery of endangered and threatened species and their habitats. A wildlife management plan would serve to engage the public and consult with associated Indian tribes and pueblos when considering how to manage wildlife species in the preserve.

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	**Planning Needs**	**Priority (H, M, L)**	**Notes**
FRV, OIRV, Key Issue	Fire management plan	H	The preserve contains fire-adapted ecosystems with extensive fire history. A component of the preserve's ecological restoration goals is to reintegrate wildland fire into the ecosystem in a manner that reduces the potential for uncharacteristically high severity wildfire while enhancing wildlife habitat and watershed function. A fire management plan, coupled with the *Landscape Restoration Stewardship Plan* completed by the Valles Caldera Trust, would provide a roadmap for preserve managers to implement this strategy while engaging with the public and associated tribal governments.
OIRV, Key Issue	Archives management plan	H	As a new NPS unit with 15 years of preceding agency management, the preserve has a large quantity of paper and digital documents that need to be organized and stored to meet NPS standards; to fulfill obligations for ongoing litigation; and to achieve disposition with the National Archives. Archives management should be designed to coordinate with file management planning for active in-use electronic files.
FRV	Cultural resources management plan	M	To facilitate planning, preservation, and interpretation goals, an overarching cultural resources management plan is needed that summarizes the cultural resources in the preserve, their condition and level of documentation, and the threats to the resources. The plan would guide research, planning, and stewardship of archeological sites, historic resources, and cultural landscapes; potential traditional cultural properties, sacred sites, and traditional resources. The plan would also include site significance standards. A systematic approach needs to be tailored to the diverse site types, with explicit consideration of the dominance of obsidian quarries and lithic scatters.
FRV	Range/grazing management plan and market assessment	M	The preserve's enabling legislation authorizes the grazing of livestock. Pursuant to Director's Order 53: *Special Park Uses*, a park unit that operates a grazing program must have a grazing management plan and conduct a market assessment to set grazing fees.
FRV, OIRV, Key Issue	Comprehensive interpretive plan	M	Currently, the preserve's interpretive materials, displays, and programming are limited. This plan would provide a roadmap for the planning, designing, and developing of these interpretive materials, displays, and other programming activities.
FRV, OIRV, Key Issue	Integrated pest management plan	M	NPS staff have identified invasive species in the preserve (e.g., cheat grass, thistles) that may cause further resource impacts if left unmitigated. Visitors, vehicles, grazing, and other ongoing preserve activities have the potential to serve as vectors for the introduction and spread of other nonnative invasive species in the future. The problem is further exacerbated by the wildfires that have occurred across more than 50% of the preserve since 2011. An integrated pest management plan would also address rodent control in buildings and controlling plague in prairie dog towns.

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	**Planning Needs**	**Priority (H, M, L)**	**Notes**
Key Issue	Backcountry management plan	M	The substantial and increasing human activities in the backcountry, including recreation, research, and administrative uses, must be evaluated and balanced with efforts to manage for other preserve values.
Key Issue	Accessibility conceptual site plan	M	This plan would help the preserve address the current level of accessibility and identify opportunities for improvement. It would guide the planning for future projects and assure that universal design is incorporated into all projects and programs.
Key Issue	Accessibility self-evaluation and transition plan	M	This plan would address compliance with Director's Order 42: *Accessibility for Visitors with Disabilities in National Park Service Programs and Services.* It would identify barriers that limit access to preserve programs, facilities, and services and transition strategies that could be employed until these barriers are removed.
FRV	Landscape restoration and stewardship plan	M	This plan would review Valles Caldera Trust's current plan and environmental impact statement to assure it meets NPS compliance standards.
FRV	Invasive species management plan	M	This plan would provide valuable tools, techniques, and methods to reduce the risk, and aid in the elimination or control, of invasive species and their impact on native wildlife and vegetation.
FRV, OIRV, Key Issue	Planning for adaptation to climate change	M	Scientific data show that Valles Caldera and the greater Jemez Mountains have increased in average temperature at a faster rate than surrounding areas of the state. Inventory and monitoring surveys and scientific equipment located on the preserve have been tracking these ongoing changes; however, more information is needed to assess the impacts these changes are having and will continue to have on the landscape. This plan is needed to inform land managers in their efforts to study and respond to the effects of rapidly changing climate at the high-elevation preserve.
FRV	Reintroduction of Rio Grande cutthroat trout plan	M	There is keen interest in the reintroduction of native fish species. This plan would assess the interaction of such fish with other species, evaluate differing approaches, and provide an opportunity for tribal and public input.
FRV	Bison introduction assessment and feasibility plan	M	The preserve is within the historic range of plains bison and has substantial acreage of suitable habitat for the species. In addition, American Indian tribes and pueblos have a cultural connection to bison that could be explored and promoted in novel ways on the preserve.
FRV	Wellhead protection area plan	M	This plan would guide immediate and long-term safety measures at several existing geothermal and groundwater wellhead sites.
Key Issue	Sustainability plan	M	This plan would assist the preserve in identifying and implementing actions for operational and visitor services environmentally sustainable processes.

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	**Planning Needs**	**Priority (H, M, L)**	**Notes**
NA (operational)	Disaster response plan	M	This plan would address potential disasters including wildfire, flooding, earthquake, uncontrolled radionuclide release from a nearby national laboratory, and volcanic eruption. It would assist the preserve in providing for the safety of preserve visitors and employees.
NA (operational)	Preservation maintenance plan	M	
NA (operational)	Budget and staffing plan	M	
NA (operational)	Library services plan	M	
NA (operational)	Housing management plan	M	
Key Issue	Commercial services strategy	M	This strategy would assist the preserve in identifying and establishing potential commercial operations within the preserve that are consistent with preservation, access, and visitor enjoyment.
Key Issue	Community and regional trails plan	M	This plan would be done in collaboration with the NPS Rivers, Trails, and Conservation Assistance Program.
Key Issue	Geologic resources management plan	M	Geologic resources are central to the preserve's purpose and interpretation. Although extensive research has been conducted for several decades on the volcanic context of the caldera, paleontological resources within the preserve are understudied and have not been inventoried. In address, geologic knowledge has not been used to address resources management.
Key Issue	Sign management plan	M	This plan would be for both wayfinding and interpretive use.
FRV	Cultural landscape report	M	The report would synthesize the results of the cultural landscape inventory and provide guidance on preservation planning and priorities, development of historic districts and landscape treatments, and site planning, both preserve-wide and within the Cabin District.
FRV	Floodplain management plan	L	This plan would help the preserve identify all of the floodplain information in relation to current infrastructure and potential new infrastructure and, based on that data, either modify existing plans or incorporate the information into new planning efforts.
FRV	New Mexico meadow jumping mouse recovery plan	L	This plan would address the necessary environmental compliance and alternatives for assisting in the recovery of this native species to the ecosystem.

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	**Planning Needs**	**Priority (H, M, L)**	**Notes**
FRV	Wildfire recovery plan	L	This plan would help identify fire-prone areas within the preserve and determine the environmental consequences and mitigations for quick response to recovery efforts following a significant fire event.
FRV	Wilderness character assessment	L	Although legacy human impacts, such as logging roads and geothermal exploration well pads, are present throughout the preserve, many areas still 1) appear as if the landscape has been affected primarily by the forces of nature, 2) have outstanding opportunities for solitude and a primitive/ unconfined type of recreation, and 3) are of sufficient size as to make practicable their preservation and use in an unimpaired condition. This assessment would allow the preserve to analyze areas of the preserve that contain these wilderness characteristics as well as areas that could reclaim this character through ecological restoration efforts.
NA (operational)	Design guidelines and principles	L	
Key Issue	Erosion control plan	L	Post-fire erosion is a significant problem in the preserve and poses several challenges for transportation and visitor access as well as resource impacts.
NA (operational)	Emergency management plan	L	
Key Issue	Land protection plan	L	
NA (operational)	File management protocol	L	

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes**
FRV, OIRV, Key Issue	Scope of collections statement	H	Valles Caldera National Preserve has more than 15 years of cultural resources and natural history collections that require adequate curation and planning regarding retention and acquisitions of materials. The scope of collections statement is a necessary first step toward critically needed curation planning.
FRV	Ethnographic overview and assessment	H	The preserve currently consults with more than two dozen American Indian tribes and pueblos; however, an ethnographic study has never been completed. This assessment would help ensure the preserve is consulting with the appropriate tribal governments and has a clear understanding of the relationships between the landscape and indigenous peoples of the region. It also would identify culturally significant plant and animal species and the historic ranching cultures and use of structures.
Key Issue	Administrative history	H	From 2000 to 2015, the preserve was managed by an experimental federal land management agency, the Valles Caldera Trust. Developing a comprehensive administrative history of the predecessor agency would assist in preserving this history and interpreting the lessons that can be learned for future management of the preserve and other public lands. This planning exercise would be facilitated if it could be completed while the preserve maintains significant institutional knowledge of the Valles Caldera Trust within its personnel ranks.
FRV	Traditional cultural properties identification	H	This study would facilitate tribal consultation and inform the preserve's tribal access practices. It is linked to the ethnographic overview and assessment and to understanding of traditional cultural places.
FRV	Site significance standards for lithic scatters and obsidian quarries	H	These archeological sites are extensive and ubiquitous throughout the preserve. Analysis and modelling of site characteristics and eligibility considerations are needed to develop significance standards applicable across the preserve. Use of this approach would facilitate cultural resources compliance and streamline planning.
FRV	Eagle survey	H	An inventory of eagle populations to establish the extent and health of migratory and roosting eagles (bald and golden eagles) is an important part of wildlife management and is needed to address expressed tribal concerns and requests.
FRV	Jemez Mountains salamander inventory and monitoring	H	The Jemez Mountains salamander is an endemic and endangered species. Inventory and assessment of habitat is critically needed for resource protection, preserve-wide planning, and climate change adaptation.
FRV	Least cost path analysis	H	These data would providing critical information for a trails management plan. The analysis would be substantively aided by a GIS analysis of potential routes across and within the preserve to achieve visitor access and recreation. Enabling legislation requires planning for a caldera rim trail.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes**
FRV, Key Issue	Visitor use information	H	Information such as surveys would be used to support and inform development of a visitor use management plan.
FRV	National Register of Historic Places determination of eligibility for Baca Ranch Cabin District	H	An evaluation of the potential for a historic district in the Baca Ranch Cabin District is needed to determine with certainty whether this consideration is relevant for ongoing and future planning in the area.
FRV	Archeological overview and assessment	H	Much of the preserve has not been surveyed or full assessments made of known sites and areas. These data would assist in managing these sensitive resources.
Key Issue	GIS analysis for trails, roads, and parking needs	H	GIS analysis is needed to support planning for circulation and visitor use. They would provide critical information for a trails management plan. This effort should include least cost path analysis, viewshed analysis, and assessments of potential routes across and within the preserve to achieve visitor access and recreation. Enabling legislation requires planning for a caldera rim trail.
FRV	Rim trail survey	H	The rim of the caldera needs to be surveyed for cultural and other resources in order to develop a rim trail, as required by the enabling legislation.
Key Issue	Assessment of long-term needs of individual historic structures	H	Preservation planning, prioritization, and cost assessments are needed for historic structures to support visitor access planning, facilities protection plans, ADA-compliance, and pest management.
FRV	Catalog museum collections	H	Natural history and cultural resources collections are extensive from 2000 to 2015 and need to be cataloged for entry into NPS databases and to inventory the collections and to plan for their long-term management. Archeological collections are mostly inventoried, but historic archives and natural history collections are not. Accessioning and cataloging items are needed to plan for the proper curation of the collections.
OIRV	Data, GIS, and report standardization	H	An assessment of existing paper and digital materials is needed to develop library and database management policy and protocols and standardize past management efforts and applied science.
FRV, Key Issue	Historic resource study	H	An inventory of historic resources of the preserve is needed to develop preservation plans and assess potential historic districts; to inform resources protection and interpretation; to establish the knowledge potential of historic phenomena; to support cultural landscapes inventory; and to develop historic context(s) for the preserve. This would be especially valuable for the Sulphur Springs area and the Cabin District.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes**
OIRV	Archives assessment	H	Technical assistance is needed to manage archival (non-object) and photography collections that date from 2000 to 2015 as well as to inform protocols for future acquisition of archives, especially in association with the oral history program and from scientifically significant geological studies conducted at the caldera from 1945 to the present.
FRV, Key Issue	Historic building assessments/historic structure report	M	The 2007 "Historic Structures Documentation" needs to be updated and reviewed to determine its sufficiency; determine if a historic structure report is needed; address and resolve gaps found; and complete entry into NPS databases to facilitate planning, use, and maintenance.
FRV	Cultural resources inventory and assessment	M	A cultural resources inventory and assessment is needed to document and assess preserve features to contribute to planning, tribal consultation, and evaluation of traditionally cultural places. All areas above 9,600 feet elevation should be included. Cultural resources inventory and documentation are needed to support preserve-wide and project-specific planning efforts and to contribute to preservation planning. Currently, the cultural resource inventory for the preserve is less than 35% complete.
FRV, OIRV, Key Issue	Climate/weather monitoring	M	Temperature and precipitation monitoring has been ongoing at the preserve for more than a decade. Continuing and expanding this effort is essential for climate change planning and adaption, post-fire planning, and in support of forest, watershed, and animal habitat restoration efforts.
FRV	Soil survey	M	The soil survey for the preserve should be finalized and made available in final data/GIS formats. The soil survey conducted by Sandoval County and U.S. Forest Service is complete but is not in a product format that can be readily used by the National Park Service. Final products including GIS data and documentary materials need to be developed.
FRV	All-taxa biological inventory	M	The all-taxa biological inventory (ATBI), primarily for soils biota and invertebrates, needs to be continued.
FRV, OIRV	Invasive species inventory	M	Inventories are needed assess the potential effects of livestock grazing, increased public visitation and vehicular circulation, and post-fire increases in invasive plant species. Non-plant invasive animals and other invasive organisms are almost unstudied, and baseline data are needed to establish monitoring programs. These data would be used to establish priorities and inform development of suitable prevention and control strategies.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes**
FRV, OIRV, Key Issue	Analysis of drought stress across diverse ecosystem components	M	Long-term regional drought has had disproportional effects on the high-elevation ecosystems of the caldera. Inter-multi-species evaluations are needed to understand and address complex ecosystem responses across the forest, meadows, and riparian areas of the preserve and to inform restoration efforts and climate change adaption planning. Of particular concern are risks for sudden aspen population decline death; insect-aided damage to mid-sized-mortality of conifers; and stream-warming impacts that alter conditions for fisheries and other aquatic and riparian species.
FRV	Assessment of traditional cultural properties	M	The Valles Caldera and certain volcanic domes and peaks are considered sacred by many surrounding American Indian tribes and pueblos. Some locations may be eligible for designation as a traditional cultural property, and regional pueblos have called for action on this effort.
FRV	Traditional ecological knowledge study	M	This study would identify and document the resources (natural and cultural) and places used by members of tribes and pueblos and the cultural basis for those uses. It would help the preserve manage access to and use of natural and/or cultural resources and places of cultural significance.
FRV, Key Issue	Cultural landscapes inventory	M	These inventories would identify, delineate, document, and assess the significance and integrity of cultural landscapes in the preserve. They would inform decision making for cultural landscapes designation(s) and are essential for several high-priority planning processes.
FRV	New Mexico meadow jumping mouse surveys	M	The presence of the New Mexico meadow jumping mouse (endangered species) in the preserve has not been confirmed despite the abundance of suitable habitat. Enhanced inventories are needed to better assess this endangered species.
OIRV	Complete tree survey	M	This ongoing data collection would aid in future fire planning and ecological restoration efforts.
FRV	GIS data on valle boundaries	M	GIS data and analysis are needed to establish baseline polygons of existing meadow outlines to facilitate analysis of historic meadow extents and to allow for future monitoring of any changes.
FRV, Key Issue	Mapping of debris flow and encroachment into valles	M	These GIS data would help in understanding the impacts and mitigation of fire events.
FRV, Key Issue	Mapping of post-fire erosion and modeling of erosion risks	M	GIS mapping and modeling of erosion risk would aid in adaptive management of the caldera landscape and impacts. It would include a full analysis of roads and their subsequent erosional risks.
FRV, Key Issue	Spatial fire risk assessment	M	This assessment would inform fire management and help prioritize landscape and site treatments.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes**
FRV	Natural resource inventory and assessment	M	The results of this assessment would be used in all planning efforts, including those regarding endangered or threatened species.
FRV	Visual resource inventory	M	The visual resource inventory would identify view quality and importance, establish baseline conditions, and be used to develop view protection strategies.
FRV, Key Issue	Continued monitoring of streams and water quality	M	Ongoing stream and water quality monitoring should continue to document changes relative to climate change, fire disturbances, restoration, and other drivers and to inform adaptive management.
FRV	Elk research	M	These data would support possible ungulate management planning efforts. Data would include pregnancy rates, calving populations, and related studies.
FRV	Rio Grande cutthroat trout monitoring and study	M	This study would support planning for introduction of the Rio Grande cutthroat trout.
FRV	Updated vegetation mapping (post-fires)	M	An updated vegetation inventory is needed to incorporate and monitor changes resulting from wildfires.
FRV	Inventory and mapping of noxious weed species	M	
Key Issue	Quality control / assurance and analysis of GIS data	M	A compilation is needed of GIS data for prior fire and restoration treatment areas and fires since 2000.
FRV	Baseline data and monitoring for soundscapes, dark night sky, and air quality	M	Critical baseline information for future planning efforts and visitor experience is needed. Collection of these data is underway. The preserve is developing a monitoring plan that would continue data collection into the future and establish a monitoring protocol.
FRV	Collect and curate historic USGS materials and data	M	Historic documents and materials would enhance interpretation of the vital role Valles Caldera National Preserve has played in the history of geological science. This should be collated into a scientific bibliography. Historic USGS photography can provide information on landscape transformations.
FRV	Evaluation of existing earthen dams	M	Stock tanks and other water impoundments throughout the preserve have not been adequately evaluated for safety, resources effects, or recreation potential.
FRV	Pika population trends	M	Pika are especially sensitive to climate warming, and baseline data and monitoring are needed to evaluate population health, habitat, and long-term risks.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes**
FRV	Analysis of culturally significant species	M	Numerous animals that use the preserve have value and meaning to diverse populations in surrounding communities, including tribal groups. A better understanding of these cultural values is needed to inform wildlife management.
FRV	Analysis of predator communities and interactions	M	The role of predators in wildlife ecosystem processes has not been fully studied at the preserve. Understanding how bears, lions, and coyotes fit into the larger Jemez Mountains ecosystem would inform on wildlife management planning, including hunting plans, for predators and prey species.
OIRV	Assessment of tree stressors	M	This assessment would include impacts from drought and pest insects.
OIRV, Key Issue	Inventory and protocols for monitoring geologic features	M	
FRV	Beaver monitoring and habitat study	L	This study would assess existing beaver populations in the preserve and design a plan for detection of new individuals.
FRV	Monitor riparian restoration, tree planting survival, and resulting effects for streams and associated understory vegetation community	L	
FRV, Key Issue	Study of temporal trends in forest/meadow ecosystems	L	The persistence of the grassland-forest ecotone is an iconic component of caldera viewsheds; further study of the conditions contributing to this inverted tree line would enhance the understanding of this key topographic-ecological feature and improve interpretation for visitors.
FRV	Prairie dog disease survey	L	This survey would help to identify numbers, densities, and the risk of disease with the potential to decimate populations within the preserve.
FRV, OIRV	Mountain lion study	L	Current studies should be expanded to include population and genetic research.
FRV	Oral history synthesis	L	Oral histories help tell the stories of the preserve and inform on landscape changes. Several oral histories have been collected but need to be transcribed and synthesized to be most useful for historic and socioeconomic interpretation and for landscape analyses.
FRV, Key Issue	Historic photo analysis	L	Analysis of aerial imagery from 1935 to 2014 would inform forest and watershed restoration programs and cultural landscape inventories.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes**
OIRV	Dendrochronology study of culturally marked trees	L	Culturally marked trees are present in great abundance throughout the preserve and are a key information source on historic land use. Carvings on the older aspen trees are at high and increasing risk of being lost due to senescence, elk damage, and wildfire.
FRV	Synthesis of Jemez Mountains obsidian sources and hydration analyses	L	Obsidian sources in the Jemez Mountains, including within Valles Caldera National Preserve, are of critical importance for understanding regional and national trade and transport in prehistory. Although geochemical analyses exist for the array of Jemez obsidian sources, detailed analyses for sources inside the caldera are incomplete. Obsidian hydration dating, a significant chronometric technique for archeology, can now only provide relative dates; analysis and calculation of source-specific hydration rates would enable using this dating technique to determine absolute dates for archeological assemblages in the caldera, in the Jemez Mountains, and across the Midwestern and Southwestern United States. Additional sampling and geochemical analysis of obsidian-bearing geological areas are needed to determine intra-source variation and allow these syntheses.
FRV	Earthworm survey	L	Three species of European earthworms are known to be present in the preserve, but a comprehensive inventory is needed to determine all species present and to assess the role of these nonnatives for potential significant changes in grassland and forest ecosystem functioning, litter processing and soil nutrient cycling, and transformations of buried archeological deposits.
FRV, OIRV, Key Issue	Update LiDAR coverage to measure current post-fire erosion and monitor stream channel changes	L	LiDAR surveys conducted in 2010 and 2012 need to be augmented with 2020 LiDAR to inform viewshed analysis, monitor stream channel alteration, and measure post-fire erosion and vegetation change.
FRV	Inventory of non-biotic resources	L	Inventory and analysis of minerals and paleontology has not been initiated, and paleontological resources have not been inventoried. This baseline information is needed for resource protection planning and for potential interpretation.
FRV	Gas release and temperature monitoring	L	This monitoring would provide baseline data on volcanic hazards and provide a basis for monitoring potential effects of future geothermal development.
FRV	Complete paleontology survey	L	Sensitive paleontological resource areas need to be identified for future development of general management planning.
FRV	Natural and cultural resource inventory of volcanic domes and peaks	L	Archeological surveys are needed across a greater sample of volcanic domes with obsidian quarries (less than 5% survey has been completed) to establish the nature and distribution of prehistoric quarry and non-quarry sites and their relationship to geologic formations.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	**Data and GIS Needs**	**Priority (H, M, L)**	**Notes**
FRV	Inventory and mapping of primary and secondary geological sources of obsidian within the preserve	L	GIS data are needed to define the spatial relationships between obsidian quarry sites and geological outcrops.
FRV	Geochemical analyses at obsidian sites	L	These analyses would help determine intra-source variation.
FRV	Mule deer survival rates	L	Data collection and analysis are needed to assess the current health and demography of this historically dominant species that has been affected by elk population growth since the mid-20th century.
FRV	Bat roosting and habitat	L	Inventories are needed to measure existing bat populations, identify and model roosting behavior and habitats, and assess the health and disease risks in the preserve and in surrounding lands.
FRV	Wildfire and restoration response	L	
OIRV	Documentation of obsidian quarries	L	This documentation would inform future research, management, and protection.
Key Issue	Wilderness inventory	L	This assessment of landscape history and features of the preserve would inform wilderness character assessment and eligibility inclusion in the national wilderness preservation system.
Key Issue	Assessment of geologic hazards and mitigation measures	L	A baseline analysis and evaluation is lacking to assess volcanic hazards and inform planning for responses.
FRV	Game animal population studies	L	Updated counts for game animals are needed to inform hunting management.

Part 3: Contributors

Valles Caldera National Preserve

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Appendixes

Appendix A: Enabling Legislation for Valles Caldera National Preserve

Public Law 113–291
113th Congress

An Act

Dec. 19, 2014
[H.R. 3979]

To authorize appropriations for fiscal year 2015 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

16 USC 698v–11.

SEC. 3043. VALLES CALDERA NATIONAL PRESERVE, NEW MEXICO.

(a) DEFINITIONS.—In this section:

(1) ELIGIBLE EMPLOYEE.—The term "eligible employee" means a person who was a full-time or part-time employee of the Trust during the 180-day period immediately preceding the date of enactment of this Act.

(2) FUND.—The term "Fund" means the Valles Caldera Fund established by section 106(h)(2) of the Valles Caldera Preservation Act (16 U.S.C. 698v–4(h)(2)).

(3) PRESERVE.—The term "Preserve" means the Valles Caldera National Preserve in the State.

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

(5) STATE.—The term "State" means the State of New Mexico.

(6) TRUST.—The term "Trust" means the Valles Caldera Trust established by section 106(a) of the Valles Caldera Preservation Act (16 U.S.C. 698v–4(a)).

(b) DESIGNATION OF VALLES CALDERA NATIONAL PRESERVE AS A UNIT OF THE NATIONAL PARK SYSTEM.—

(1) IN GENERAL.—To protect, preserve, and restore the fish, wildlife, watershed, natural, scientific, scenic, geologic, historic, cultural, archaeological, and recreational values of the area, the Valles Caldera National Preserve is designated as a unit of the National Park System.

(2) BOUNDARY.—

(A) IN GENERAL.—The boundary of the Preserve shall consist of approximately 89,900 acres of land as depicted on the map entitled "Valles Caldera National Preserve Proposed Boundary", numbered P80/102,036C, and dated November 4, 2014.

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

(3) MANAGEMENT.—

(A) APPLICABLE LAW.—The Secretary shall administer the Preserve in accordance with—

(i) this section; and

(ii) the laws generally applicable to units of the National Park System, including—

(I) the National Park Service Organic Act (16 U.S.C. 1 et seq.); and

(II) the Act of August 21, 1935 (16 U.S.C. 461 et seq.).

(B) MANAGEMENT COORDINATION.—The Secretary may coordinate the management and operations of the Preserve with the Bandelier National Monument.

(C) MANAGEMENT PLAN.—

(i) IN GENERAL.—Not later than 3 fiscal years after the date on which funds are made available to implement this subparagraph, the Secretary shall prepare a management plan for the Preserve.

(ii) APPLICABLE LAW.—The management plan shall be prepared in accordance with—

(I) section 12(b) of Public Law 91–383 (commonly known as the "National Park Service General Authorities Act") (16 U.S.C. 1a–7(b)); and

(II) any other applicable laws.

(iii) CONSULTATION.—The management plan shall be prepared in consultation with—

(I) the Secretary of Agriculture;

(II) State and local governments;

(III) Indian tribes and pueblos, including the Pueblos of Jemez, Santa Clara, and San Ildefonso; and

(IV) the public.

(4) ACQUISITION OF LAND.—

(A) IN GENERAL.—The Secretary may acquire land and interests in land within the boundaries of the Preserve by—

(i) purchase from a willing seller with donated or appropriated funds; or

(ii) donation.

(B) PROHIBITION OF CONDEMNATION.—No land or interest in land within the boundaries of the Preserve may be acquired by condemnation.

(C) ADMINISTRATION OF ACQUIRED LAND.—On acquisition of any land or interests in land under subparagraph (A), the acquired land or interests in land shall be administered as part of the Preserve.

(5) SCIENCE AND EDUCATION PROGRAM.—

(A) IN GENERAL.—The Secretary shall—

(i) until the date on which a management plan is completed in accordance with paragraph (3)(C), carry out the science and education program for the Preserve established by the Trust; and

(ii) beginning on the date on which a management plan is completed in accordance with paragraph (3)(C), establish a science and education program for the Preserve that—

(I) allows for research and interpretation of the natural, historic, cultural, geologic and other scientific features of the Preserve;

(II) provides for improved methods of ecological restoration and science-based adaptive management of the Preserve; and

(III) promotes outdoor educational experiences in the Preserve.

(B) SCIENCE AND EDUCATION CENTER.—As part of the program established under subparagraph (A)(ii), the Secretary may establish a science and education center outside the boundaries of the Preserve in Jemez Springs, New Mexico.

(6) GRAZING.—The Secretary shall allow the grazing of livestock within the Preserve to continue—

(A) at levels and locations determined by the Secretary to be appropriate, consistent with this section; and

(B) to the extent the use furthers scientific research or interpretation of the ranching history of the Preserve.

(7) HUNTING, FISHING, AND TRAPPING.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the Secretary shall permit hunting, fishing, and trapping on land and water within the Preserve in accordance with applicable Federal and State law.

(B) ADMINISTRATIVE EXCEPTIONS.—The Secretary may designate areas in which, and establish limited periods during which, no hunting, fishing, or trapping shall be permitted under subparagraph (A) for reasons of public safety, administration, or compliance with applicable law.

(C) AGENCY AGREEMENT.—Except in an emergency, regulations closing areas within the Preserve to hunting, fishing, or trapping under this paragraph shall be made in consultation with the appropriate agency of the State having responsibility for fish and wildlife administration.

(D) SAVINGS CLAUSE.—Nothing in this section affects any jurisdiction or responsibility of the State with respect to fish and wildlife in the Preserve.

(8) ECOLOGICAL RESTORATION.—

(A) IN GENERAL.—The Secretary shall undertake activities to improve the health of forest, grassland, and riparian areas within the Preserve, including any activities carried out in accordance with title IV of the Omnibus Public Land Management Act of 2009 (16 U.S.C. 7301 et seq.).

(B) AGREEMENTS.—The Secretary may enter into agreements with adjacent pueblos to coordinate activities carried out under subparagraph (A) on the Preserve and adjacent pueblo land.

(9) WITHDRAWAL.—Subject to valid existing rights, all land and interests in land within the boundaries of the Preserve are withdrawn from—

(A) entry, disposal, or appropriation under the public land laws;

(B) location, entry, and patent under the mining laws; and

(C) operation of the mineral leasing laws, geothermal leasing laws, and mineral materials laws.

(10) VOLCANIC DOMES AND OTHER PEAKS.—

(A) IN GENERAL.—Except as provided in subparagraph (C), for the purposes of preserving the natural, cultural, religious, archaeological, and historic resources of the volcanic domes and other peaks in the Preserve described in subparagraph (B) within the area of the domes and peaks above 9,600 feet in elevation or 250 feet below the top of the dome, whichever is lower—

(i) no roads or buildings shall be constructed; and

(ii) no motorized access shall be allowed.

(B) DESCRIPTION OF VOLCANIC DOMES.—The volcanic domes and other peaks referred to in subparagraph (A) are—

(i) Redondo Peak;
(ii) Redondito;
(iii) South Mountain;
(iv) San Antonio Mountain;
(v) Cerro Seco;
(vi) Cerro San Luis;
(vii) Cerros Santa Rosa;
(viii) Cerros del Abrigo;
(ix) Cerro del Medio;
(x) Rabbit Mountain;
(xi) Cerro Grande;
(xii) Cerro Toledo;
(xiii) Indian Point;
(xiv) Sierra de los Valles; and
(xv) Cerros de los Posos.

(C) EXCEPTION.—Subparagraph (A) shall not apply in cases in which construction or motorized access is necessary for administrative purposes (including ecological restoration activities or measures required in emergencies to protect the health and safety of persons in the area).

(11) TRADITIONAL CULTURAL AND RELIGIOUS SITES.—

(A) IN GENERAL.—The Secretary, in consultation with Indian tribes and pueblos, shall ensure the protection of traditional cultural and religious sites in the Preserve.

(B) ACCESS.—The Secretary, in accordance with Public Law 95–341 (commonly known as the "American Indian Religious Freedom Act") (42 U.S.C. 1996)—

(i) shall provide access to the sites described in subparagraph (A) by members of Indian tribes or pueblos for traditional cultural and customary uses; and

(ii) may, on request of an Indian tribe or pueblo, temporarily close to general public use 1 or more specific areas of the Preserve to protect traditional cultural and customary uses in the area by members of the Indian tribe or pueblo.

(C) PROHIBITION ON MOTORIZED ACCESS.—The Secretary shall maintain prohibitions on the use of motorized or mechanized travel on Preserve land located adjacent to the Santa Clara Indian Reservation, to the extent the prohibition was in effect on the date of enactment of this Act.

(12) CALDERA RIM TRAIL.—

(A) IN GENERAL.—Not later than 3 years after the date of enactment of this Act, the Secretary, in consultation with the Secretary of Agriculture, affected Indian tribes and pueblos, and the public, shall study the feasibility of establishing a hiking trail along the rim of the Valles Caldera on—

(i) land within the Preserve; and

(ii) National Forest System land that is adjacent to the Preserve.

(B) AGREEMENTS.—On the request of an affected Indian tribe or pueblo, the Secretary and the Secretary of Agriculture shall seek to enter into an agreement with the Indian tribe or pueblo with respect to the Caldera Rim Trail that provides for the protection of—

(i) cultural and religious sites in the vicinity of the trail; and

(ii) the privacy of adjacent pueblo land.

(13) VALID EXISTING RIGHTS.—Nothing in this section affects valid existing rights.

(c) TRANSFER OF ADMINISTRATIVE JURISDICTION.—

(1) IN GENERAL.—Administrative jurisdiction over the Preserve is transferred from the Secretary of Agriculture and the Trust to the Secretary, to be administered as a unit of the National Park System, in accordance with subsection (b).

(2) EXCLUSION FROM SANTA FE NATIONAL FOREST.—The boundaries of the Santa Fe National Forest are modified to exclude the Preserve.

(3) INTERIM MANAGEMENT.—

(A) MEMORANDUM OF AGREEMENT.—Not later than 90 days after the date of enactment of this Act, the Secretary and the Trust shall enter into a memorandum of agreement to facilitate the orderly transfer to the Secretary of the administration of the Preserve.

(B) EXISTING MANAGEMENT PLANS.—Notwithstanding the repeal made by subsection (d)(1), until the date on which the Secretary completes a management plan for the Preserve in accordance with subsection (b)(3)(C), the Secretary may administer the Preserve in accordance with any management activities or plans adopted by the Trust under the Valles Caldera Preservation Act (16 U.S.C. 698v et seq.), to the extent the activities or plans are consistent with subsection (b)(3)(A).

(C) PUBLIC USE.—The Preserve shall remain open to public use during the interim management period, subject

to such terms and conditions as the Secretary determines to be appropriate.

(4) VALLES CALDERA TRUST.—

(A) TERMINATION.—The Trust shall terminate 180 days after the date of enactment of this Act unless the Secretary determines that the termination date should be extended to facilitate the transitional management of the Preserve.

(B) ASSETS AND LIABILITIES.—

(i) ASSETS.—On termination of the Trust—

(I) all assets of the Trust shall be transferred to the Secretary; and

(II) any amounts appropriated for the Trust shall remain available to the Secretary for the administration of the Preserve.

(ii) ASSUMPTION OF OBLIGATIONS.—

(I) IN GENERAL.—On termination of the Trust, the Secretary shall assume all contracts, obligations, and other liabilities of the Trust.

(II) NEW LIABILITIES.—

(aa) BUDGET.—Not later than 90 days after the date of enactment of this Act, the Secretary and the Trust shall prepare a budget for the interim management of the Preserve.

(bb) WRITTEN CONCURRENCE REQUIRED.—The Trust shall not incur any new liabilities not authorized in the budget prepared under item (aa) without the written concurrence of the Secretary.

(C) PERSONNEL.—

(i) HIRING.—The Secretary and the Secretary of Agriculture may hire employees of the Trust on a noncompetitive basis for comparable positions at the Preserve or other areas or offices under the jurisdiction of the Secretary or the Secretary of Agriculture.

(ii) SALARY.—Any employees hired from the Trust under clause (i) shall be subject to the provisions of chapter 51, and subchapter III of chapter 53, title 5, United States Code, relating to classification and General Schedule pay rates.

(iii) INTERIM RETENTION OF ELIGIBLE EMPLOYEES.—For a period of not less than 180 days beginning on the date of enactment of this Act, all eligible employees of the Trust shall be—

(I) retained in the employment of the Trust;

(II) considered to be placed on detail to the Secretary; and

(III) subject to the direction of the Secretary.

(iv) TERMINATION FOR CAUSE.—Nothing in this subparagraph precludes the termination of employment of an eligible employee for cause during the period described in clause (iii).

(D) RECORDS.—The Secretary shall have access to all records of the Trust pertaining to the management of the Preserve.

(E) VALLES CALDERA FUND.—

(i) IN GENERAL.—Effective on the date of enactment of this Act, the Secretary shall assume the powers of the Trust over the Fund.

(ii) AVAILABILITY AND USE.—Any amounts in the Fund as of the date of enactment of this Act shall be available to the Secretary for use, without further appropriation, for the management of the Preserve.

(d) REPEAL OF VALLES CALDERA PRESERVATION ACT.—

(1) REPEAL.—On the termination of the Trust, the Valles Caldera Preservation Act (16 U.S.C. 698v et seq.) is repealed.

16 USC 698v and note, 698v–1—698v–10.

(2) EFFECT OF REPEAL.—Notwithstanding the repeal made by paragraph (1)—

(A) the authority of the Secretary of Agriculture to acquire mineral interests under section 104(e) of the Valles Caldera Preservation Act (16 U.S.C. 698v–2(e)) is transferred to the Secretary and any proceeding for the condemnation of, or payment of compensation for, an outstanding mineral interest pursuant to the transferred authority shall continue;

(B) the provisions in section 104(g) of the Valles Caldera Preservation Act (16 U.S.C. 698v–2(g)) relating to the Pueblo of Santa Clara shall remain in effect; and

(C) the Fund shall not be terminated until all amounts in the Fund have been expended by the Secretary.

(3) BOUNDARIES.—The repeal of the Valles Caldera Preservation Act (16 U.S.C. 698v et seq.) shall not affect the boundaries as of the date of enactment of this Act (including maps and legal descriptions) of—

(A) the Preserve;

(B) the Santa Fe National Forest (other than the modification made by subsection (c)(2));

(C) Bandelier National Monument; and

(D) any land conveyed to the Pueblo of Santa Clara.

Public Law 109–132
109th Congress

An Act

Dec. 20, 2005
[S. 212]

To amend the Valles Caldera Preservation Act to improve the preservation of the Valles Caldera, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Valles Caldera Preservation Act of 2005.
16 USC 698v note.

SECTION 1. SHORT TITLE.

This Act may be cited as the "Valles Caldera Preservation Act of 2005".

SEC. 2. AMENDMENTS TO THE VALLES CALDERA PRESERVATION ACT.

(a) ACQUISITION OF OUTSTANDING MINERAL INTERESTS.—Section 104(e) of the Valles Caldera Preservation Act (16 U.S.C. 698v–2(e)) is amended—

(1) by striking "The acquisition" and inserting the following:
"(1) IN GENERAL.—The acquisition";
(2) by striking "The Secretary" and inserting the following:
"(2) ACQUISITION.—The Secretary";
(3) by striking "on a willing seller basis";
(4) by striking "Any such" and inserting the following:
"(3) ADMINISTRATION.—Any such"; and
(5) by adding at the end the following:
"(4) AVAILABLE FUNDS.—Any such interests shall be acquired with available funds.
"(5) DECLARATION OF TAKING.—

Deadline.

"(A) IN GENERAL.—If negotiations to acquire the interests are unsuccessful by the date that is 60 days after the date of enactment of this paragraph, the Secretary shall acquire the interests pursuant to section 3114 of title 40, United States Code.
"(B) SOURCE OF FUNDS.—Any difference between the sum of money estimated to be just compensation by the Secretary and the amount awarded shall be paid from the permanent judgment appropriation under section 1304 of title 31, United States Code.".

(b) OBLIGATIONS AND EXPENDITURES.—Section 106(e) of the Valles Caldera Preservation Act (16 U.S.C. 698v–4(e)) is amended by adding at the end the following:
"(4) OBLIGATIONS AND EXPENDITURES.—Subject to the laws applicable to Government corporations, the Trust shall determine—
"(A) the character of, and the necessity for, any obligations and expenditures of the Trust; and
"(B) the manner in which obligations and expenditures shall be incurred, allowed, and paid.".

(c) SOLICITATION OF DONATIONS.—Section 106(g) of the Valles Caldera Preservation Act (16 U.S.C. 698v–4(g)) is amended by striking "The Trust may solicit" and inserting "The members of the Board of Trustees, the executive director, and one additional employee of the Trust in an executive position designated by the Board of Trustees or the executive director may solicit".

(d) USE OF PROCEEDS.—Section 106(h)(1) of the Valles Caldera Preservation Act (16 U.S.C. 698v–4(h)(1)) is amended by striking "subsection (g)" and inserting "subsection (g), from claims, judgments, or settlements arising from activities occurring on the Baca Ranch or the Preserve after October 27, 1999,".

SEC. 3. BOARD OF TRUSTEES. 16 USC 698v–5.

Section 107(e) of the Valles Caldera Preservation Act (U.S.C. 698v–5(e)) is amended—

(1) in paragraph (2), by striking "Trustees" and inserting "Except as provided in paragraph (3), trustees"; and

(2) in paragraph (3)—

(A) by striking "Trustees" and inserting the following: "(A) SELECTION.—Trustees"; and

(B) by adding at the end the following:

"(B) COMPENSATION.—On request of the chair, the chair may be compensated at a rate determined by the Board of Trustees, but not to exceed the daily equivalent of the annual rate of pay for level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day (including travel time) in which the chair is engaged in the performance of duties of the Board of Trustees.

"(C) MAXIMUM RATE OF PAY.—The total amount of compensation paid to the chair for a fiscal year under subparagraph (B) shall not exceed 25 percent of the annual rate of pay for level IV of the Executive Schedule under section 5315 of title 5, United States Code.".

SEC. 4. RESOURCE MANAGEMENT.

(a) PROPERTY DISPOSAL LIMITATIONS.—Section 108(c)(3) of the Valles Caldera Preservation Act (16 U.S.C. 698v–6(c)(3)) is amended—

(1) in the first sentence, by striking "The Trust may not dispose" and inserting the following:

"(A) IN GENERAL.—The Trust may not dispose";

(2) in the second sentence, by striking "The Trust" and inserting the following:

"(B) MAXIMUM DURATION.—The Trust";

(3) in the last sentence, by striking "Any such" and inserting the following:

"(C) TERMINATION.—The"; and

(4) by adding at the end the following:

"(D) EXCLUSIONS.—For the purposes of this paragraph, the disposal of real property does not include the sale or other disposal of forage, forest products, or marketable renewable resources.".

(b) LAW ENFORCEMENT AND FIRE MANAGEMENT.—Section 108(g) of the Valles Caldera Preservation Act (16 U.S.C. 698v–6(g)) is amended—

(1) in the first sentence, by striking "The Secretary" and inserting the following:

"(1) LAW ENFORCEMENT.—

"(A) IN GENERAL.—The Secretary";

(2) in the second sentence, by striking "The Trust" and inserting the following:

"(B) FEDERAL AGENCY.—The Trust"; and

(3) by striking "At the request of the Trust" and all that follows through the end of the paragraph and inserting the following:

"(2) FIRE MANAGEMENT.—

"(A) NON-REIMBURSABLE SERVICES.—

"(i) DEVELOPMENT OF PLAN.—The Secretary shall, in consultation with the Trust, develop a plan to carry out fire preparedness, suppression, and emergency rehabilitation services on the Preserve.

"(ii) CONSISTENCY WITH MANAGEMENT PROGRAM.—The plan shall be consistent with the management program developed pursuant to subsection (d).

"(iii) COOPERATIVE AGREEMENT.—To the extent generally authorized at other units of the National Forest System, the Secretary shall provide the services to be carried out pursuant to the plan under a cooperative agreement entered into between the Secretary and the Trust.

"(B) REIMBURSABLE SERVICES.—To the extent generally authorized at other units of the National Forest System, the Secretary may provide presuppression and non-emergency rehabilitation and restoration services for the Trust at any time on a reimbursable basis.".

Approved December 20, 2005.

Public Law 106–248
106th Congress

An Act

July 25, 2000
[S. 1892]

To authorize the acquisition of the Valles Caldera, to provide for an effective land and wildlife management program for this resource within the Department of Agriculture, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Valles Caldera Preservation Act. New Mexico

TITLE I—VALLES CALDERA NATIONAL PRESERVE AND TRUST

16 USC 698v note.

SEC. 101. SHORT TITLE.

This title may be cited as the "Valles Caldera Preservation Act".

16 USC 698v.

SEC. 102. FINDINGS AND PURPOSES.

(a) FINDINGS.—Congress finds that—

(1) the Baca ranch comprises most of the Valles Caldera in central New Mexico, and constitutes a unique land mass, with significant scientific, cultural, historic, recreational, ecological, wildlife, fisheries, and productive values;

(2) the Valles Caldera is a large resurgent lava dome with potential geothermal activity;

(3) the land comprising the Baca ranch was originally granted to the heirs of Don Luis Maria Cabeza de Vaca in 1860;

(4) historical evidence, in the form of old logging camps and other artifacts, and the history of territorial New Mexico indicate the importance of this land over many generations for domesticated livestock production and timber supply;

(5) the careful husbandry of the Baca ranch by the current owners, including selective timbering, limited grazing and hunting, and the use of prescribed fire, have preserved a mix of healthy range and timber land with significant species diversity, thereby serving as a model for sustainable land development and use;

(6) the Baca ranch's natural beauty and abundant resources, and its proximity to large municipal populations, could provide numerous recreational opportunities for hiking, fishing, camping, cross-country skiing, and hunting;

(7) the Forest Service documented the scenic and natural values of the Baca ranch in its 1993 study entitled "Report on the Study of the Baca Location No. 1, Santa Fe National Forest, New Mexico", as directed by Public Law 101–556;

(8) the Baca ranch can be protected for current and future generations by continued operation as a working ranch under a unique management regime which would protect the land and resource values of the property and surrounding ecosystem while allowing and providing for the ranch to eventually become financially self-sustaining;

(9) the current owners have indicated that they wish to sell the Baca ranch, creating an opportunity for Federal acquisition and public access and enjoyment of these lands;

(10) certain features on the Baca ranch have historical and religious significance to Native Americans which can be preserved and protected through Federal acquisition of the property;

(11) the unique nature of the Valles Caldera and the potential uses of its resources with different resulting impacts warrants a management regime uniquely capable of developing an operational program for appropriate preservation and development of the land and resources of the Baca ranch in the interest of the public;

(12) an experimental management regime should be provided by the establishment of a Trust capable of using new methods of public land management that may prove to be cost-effective and environmentally sensitive; and

(13) the Secretary may promote more efficient management of the Valles Caldera and the watershed of the Santa Clara Creek through the assignment of purchase rights of such watershed to the Pueblo of Santa Clara.

(b) PURPOSES.—The purposes of this title are—

(1) to authorize Federal acquisition of the Baca ranch;

(2) to protect and preserve for future generations the scientific, scenic, historic, and natural values of the Baca ranch, including rivers and ecosystems and archaeological, geological, and cultural resources;

(3) to provide opportunities for public recreation;

(4) to establish a demonstration area for an experimental management regime adapted to this unique property which incorporates elements of public and private administration in order to promote long term financial sustainability consistent with the other purposes enumerated in this subsection; and

(5) to provide for sustained yield management of Baca ranch for timber production and domesticated livestock grazing insofar as is consistent with the other purposes stated herein.

SEC. 103. DEFINITIONS. 16 USC 698v–1.

In this title:

(1) BACA RANCH.—The term "Baca ranch" means the lands and facilities described in section 104(a).

(2) BOARD OF TRUSTEES.—The terms "Board of Trustees" and "Board" mean the Board of Trustees as described in section 107.

(3) COMMITTEES OF CONGRESS.—The term "Committees of Congress" means the Committee on Energy and Natural Resources of the Senate and the Committee on Resources of the House of Representatives.

(4) FINANCIALLY SELF-SUSTAINING.—The term "financially self-sustaining" means management and operating expenditures equal to or less than proceeds derived from fees and

other receipts for resource use and development and interest on invested funds. Management and operating expenditures shall include Trustee expenses, salaries and benefits of staff, administrative and operating expenses, improvements to and maintenance of lands and facilities of the Preserve, and other similar expenses. Funds appropriated to the Trust by Congress, either directly or through the Secretary, for the purposes of this title shall not be considered.

(5) MULTIPLE USE AND SUSTAINED YIELD.—The term "multiple use and sustained yield" has the combined meaning of the terms "multiple use" and "sustained yield of the several products and services", as defined under the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 531).

(6) PRESERVE.—The term "Preserve" means the Valles Caldera National Preserve established under section 105.

(7) SECRETARY.—Except where otherwise provided, the term "Secretary" means the Secretary of Agriculture.

(8) TRUST.—The term "Trust" means the Valles Caldera Trust established under section 106.

16 USC 698v–2.

SEC. 104. ACQUISITION OF LANDS.

(a) ACQUISITION OF BACA RANCH.—

(1) IN GENERAL.—In compliance with the Act of June 15, 1926 (16 U.S.C. 471a), the Secretary is authorized to acquire all or part of the rights, title, and interests in and to approximately 94,761 acres of the Baca ranch, comprising the lands, facilities, and structures referred to as the Baca Location No. 1, and generally depicted on a plat entitled "Independent Resurvey of the Baca Location No. 1", made by L.A. Osterhoudt, W.V. Hall, and Charles W. Devendorf, U.S. Cadastral Engineers, June 30, 1920–August 24, 1921, under special instructions for Group No. 107 dated February 12, 1920, in New Mexico.

(2) SOURCE OF FUNDS.—The acquisition under paragraph (1) may be made by purchase through appropriated or donated funds, by exchange, by contribution, or by donation of land. Funds appropriated to the Secretary from the Land and Water Conservation Fund shall be available for this purpose.

(3) BASIS OF SALE.—The acquisition under paragraph (1) shall be based on an appraisal done in conformity with the Uniform Appraisal Standards for Federal Land Acquisitions and—

(A) in the case of purchase, such purchase shall be on a willing seller basis for no more than the fair market value of the land or interests therein acquired; and

(B) in the case of exchange, such exchange shall be for lands, or interests therein, of equal value, in conformity with the existing exchange authorities of the Secretary.

(4) DEED.—The conveyance of the offered lands to the United States under this subsection shall be by general warranty or other deed acceptable to the Secretary and in conformity with applicable title standards of the Attorney General.

Government organization.

(b) ADDITION OF LAND TO BANDELIER NATIONAL MONUMENT.—Upon acquisition of the Baca ranch under subsection (a), the Secretary of the Interior shall assume administrative jurisdiction over

those lands within the boundaries of the Bandelier National Monument as modified under section 3 of Public Law 105–376 (112 Stat. 3389).

(c) PLAT AND MAPS.—

(1) PLAT AND MAPS PREVAIL.—In case of any conflict between a plat or a map and acreages, the plat or map shall prevail.

(2) MINOR CORRECTIONS.—The Secretary and the Secretary of the Interior may make minor corrections in the boundaries of the Upper Alamo watershed as depicted on the map referred to in section 3 of Public Law 105–376 (112 Stat. 3389).

(3) BOUNDARY MODIFICATION.—Upon the conveyance of any lands to any entity other than the Secretary, the boundary of the Preserve shall be modified to exclude such lands.

(4) FINAL MAPS.—Within 180 days of the date of acquisition of the Baca ranch under subsection (a), the Secretary and the Secretary of the Interior shall submit to the Committees of Congress a final map of the Preserve and a final map of Bandelier National Monument, respectively. Deadline.

(5) PUBLIC AVAILABILITY.—The plat and maps referred to in the subsection shall be kept and made available for public inspection in the offices of the Chief, Forest Service, and Director, National Park Service, in Washington, D.C., and Supervisor, Santa Fe National Forest, and Superintendent, Bandelier National Monument, in the State of New Mexico.

(d) WATERSHED MANAGEMENT REPORT.—The Secretary, acting through the Forest Service, in cooperation with the Secretary of the Interior, acting through the National Park Service, shall—

(1) prepare a report of management alternatives which may—

(A) provide more coordinated land management within the area known as the upper watersheds of Alamo, Capulin, Medio, and Sanchez Canyons, including the areas known as the Dome Diversity Unit and the Dome Wilderness;

(B) allow for improved management of elk and other wildlife populations ranging between the Santa Fe National Forest and the Bandelier National Monument; and

(C) include proposed boundary adjustments between the Santa Fe National Forest and the Bandelier National Monument to facilitate the objectives under subparagraphs (A) and (B); and

(2) submit the report to the Committees of Congress within 120 days of the date of enactment of this title. Deadline.

(e) OUTSTANDING MINERAL INTERESTS.—The acquisition of the Baca ranch by the Secretary shall be subject to all outstanding valid existing mineral interests. The Secretary is authorized and directed to negotiate with the owners of any fractional interest in the subsurface estate for the acquisition of such fractional interest on a willing seller basis for not to exceed its fair market value, as determined by appraisal done in conformity with the Uniform Appraisal Standards for Federal Land Acquisitions. Any such interests acquired within the boundaries of the Upper Alamo watershed, as referred to in subsection (b), shall be administered by the Secretary of the Interior as part of Bandelier National Monument.

(f) BOUNDARIES OF THE BACA RANCH.—For purposes of section 7 of the Land and Water Conservation Fund Act of 1965 (16

U.S.C. 460l–9), the boundaries of the Baca ranch shall be treated as if they were National Forest boundaries existing as of January 1, 1965.

(g) PUEBLO OF SANTA CLARA.—

(1) IN GENERAL.—The Secretary may assign to the Pueblo of Santa Clara rights to acquire for fair market value portions of the Baca ranch. The portion that may be assigned shall be determined by mutual agreement between the Pueblo and the Secretary based on optimal management considerations for the Preserve including manageable land line locations, public access, and retention of scenic and natural values. All appraisals shall be done in conformity with the Uniform Appraisal Standards for Federal Land Acquisition.

(2) STATUS OF LAND ACQUIRED.—As of the date of acquisition, the fee title lands, and any mineral estate underlying such lands, acquired under this subsection by the Pueblo of Santa Clara are deemed transferred into trust in the name of the United States for the benefit of the Pueblo of Santa Clara and such lands and mineral estate are declared to be part of the existing Santa Clara Indian Reservation.

(3) MINERAL ESTATE.—Any mineral estate acquired by the United States pursuant to section 104(e) underlying fee title lands acquired by the Pueblo of Santa Clara shall not be developed without the consent of the Secretary of the Interior and the Pueblo of Santa Clara.

(4) SAVINGS.—Any reservations, easements, and covenants contained in an assignment agreement entered into under paragraph (1) shall not be affected by the acquisition of the Baca ranch by the United States, the assumption of management by the Valles Caldera Trust, or the lands acquired by the Pueblo being taken into trust.

16 USC 698v–3.

SEC. 105. THE VALLES CALDERA NATIONAL PRESERVE.

Effective date.

(a) ESTABLISHMENT.—Upon the date of acquisition of the Baca ranch under section 104(a), there is hereby established the Valles Caldera National Preserve as a unit of the National Forest System which shall include all Federal lands and interests in land acquired under sections 104(a) and 104(e), except those lands and interests in land administered or held in trust by the Secretary of the Interior under sections 104(b) and 104(g), and shall be managed in accordance with the purposes and requirements of this title.

(b) PURPOSES.—The purposes for which the Preserve is established are to protect and preserve the scientific, scenic, geologic, watershed, fish, wildlife, historic, cultural, and recreational values of the Preserve, and to provide for multiple use and sustained yield of renewable resources within the Preserve, consistent with this title.

(c) MANAGEMENT AUTHORITY.—Except for the powers of the Secretary enumerated in this title, the Preserve shall be managed by the Valles Caldera Trust established by section 106.

(d) ELIGIBILITY FOR PAYMENT IN LIEU OF TAXES.—Lands acquired by the United States under section 104(a) shall constitute entitlement lands for purposes of the Payment in Lieu of Taxes Act (31 U.S.C. 6901–6904).

(e) WITHDRAWALS.—

(1) IN GENERAL.—Upon acquisition of all interests in minerals within the boundaries of the Baca ranch under section

104(e), subject to valid existing rights, the lands comprising the Preserve are thereby withdrawn from disposition under all laws pertaining to mineral leasing, including geothermal leasing.

(2) MATERIALS FOR ROADS AND FACILITIES.—Nothing in this title shall preclude the Secretary, prior to assumption of management of the Preserve by the Trust, and the Trust thereafter, from allowing the utilization of common varieties of mineral materials such as sand, stone, and gravel as necessary for construction and maintenance of roads and facilities within the Preserve.

(f) FISH AND GAME.—Nothing in this title shall be construed as affecting the responsibilities of the State of New Mexico with respect to fish and wildlife, including the regulation of hunting, fishing, and trapping within the Preserve, except that the Trust may, in consultation with the Secretary and the State of New Mexico, designate zones where and establish periods when no hunting, fishing, or trapping shall be permitted for reasons of public safety, administration, the protection of nongame species and their habitats, or public use and enjoyment.

(g) REDONDO PEAK.—

(1) IN GENERAL.—For the purposes of preserving the natural, cultural, religious, and historic resources on Redondo Peak upon acquisition of the Baca ranch under section 104(a), except as provided in paragraph (2), within the area of Redondo Peak above 10,000 feet in elevation—

(A) no roads, structures, or facilities shall be constructed; and

(B) no motorized access shall be allowed.

(2) EXCEPTIONS.—Nothing in this subsection shall preclude—

(A) the use and maintenance of roads and trails existing as of the date of enactment of this Act;

(B) the construction, use and maintenance of new trails, and the relocation of existing roads, if located to avoid Native American religious and cultural sites; and

(C) motorized access necessary to administer the area by the Trust (including measures required in emergencies involving the health or safety of persons within the area).

SEC. 106. THE VALLES CALDERA TRUST. 16 USC 698v–4.

(a) ESTABLISHMENT.—There is hereby established a wholly owned government corporation known as the Valles Caldera Trust which is empowered to conduct business in the State of New Mexico and elsewhere in the United States in furtherance of its corporate purposes.

(b) CORPORATE PURPOSES.—The purposes of the Trust are—

(1) to provide management and administrative services for the Preserve;

(2) to establish and implement management policies which will best achieve the purposes and requirements of this title;

(3) to receive and collect funds from private and public sources and to make dispositions in support of the management and administration of the Preserve; and

(4) to cooperate with Federal, State, and local governmental units, and with Indian tribes and Pueblos, to further the purposes for which the Preserve was established.

(c) NECESSARY POWERS.—The Trust shall have all necessary and proper powers for the exercise of the authorities vested in it.

(d) STAFF.—

(1) IN GENERAL.—The Trust is authorized to appoint and fix the compensation and duties of an executive director and such other officers and employees as it deems necessary without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and may pay them without regard to the provisions of chapter 51, and subchapter III of chapter 53, title 5, United States Code, relating to classification and General Schedule pay rates. No employee of the Trust shall be paid at a rate in excess of that payable to the Supervisor of the Santa Fe National Forest or the Superintendent of the Bandelier National Monument, whichever is greater.

(2) FEDERAL EMPLOYEES.—

(A) IN GENERAL.—Except as provided in this title, employees of the Trust shall be Federal employees as defined by title 5, United States Code, and shall be subject to all rights and obligations applicable thereto.

(B) USE OF FEDERAL EMPLOYEES.—At the request of the Trust, the employees of any Federal agency may be provided for implementation of this title. Such employees detailed to the Trust for more than 30 days shall be provided on a reimbursable basis.

(e) GOVERNMENT CORPORATION.—

(1) IN GENERAL.—The Trust shall be a Government Corporation subject to chapter 91 of title 31, United States Code (commonly referred to as the Government Corporation Control Act). Financial statements of the Trust shall be audited annually in accordance with section 9105 of title 31 of the United States Code.

Deadline.

(2) REPORTS.—Not later than January 15 of each year, the Trust shall submit to the Secretary and the Committees of Congress a comprehensive and detailed report of its operations, activities, and accomplishments for the prior year including information on the status of ecological, cultural, and financial resources being managed by the Trust, and benefits provided by the Preserve to local communities. The report shall also include a section that describes the Trust's goals for the current year.

(3) ANNUAL BUDGET.—

(A) IN GENERAL.—The Trust shall prepare an annual budget with the goal of achieving a financially self-sustaining operation within 15 full fiscal years after the date of acquisition of the Baca ranch under section 104(a).

(B) BUDGET REQUEST.—The Secretary shall provide necessary assistance (including detailees as necessary) to the Trust for the timely formulation and submission of the annual budget request for appropriations, as authorized under section 111(a), to support the administration, operation, and maintenance of the Preserve.

(f) TAXES.—The Trust and all properties administered by the Trust shall be exempt from all taxes and special assessments of every kind by the State of New Mexico, and its political subdivisions including the counties of Sandoval and Rio Arriba.

(g) DONATIONS.—The Trust may solicit and accept donations of funds, property, supplies, or services from individuals, foundations, corporations, and other private or public entities for the purposes of carrying out its duties. The Secretary, prior to assumption of management of the Preserve by the Trust, and the Trust thereafter, may accept donations from such entities notwithstanding that such donors may conduct business with the Department of Agriculture or any other department or agency of the United States.

(h) PROCEEDS.—

(1) IN GENERAL.—Notwithstanding sections 1341 and 3302 of title 31 of the United States Code, all monies received from donations under subsection (g) or from the management of the Preserve shall be retained and shall be available, without further appropriation, for the administration, preservation, restoration, operation and maintenance, improvement, repair, and related expenses incurred with respect to properties under its management jurisdiction.

(2) FUND.—There is hereby established in the Treasury of the United States a special interest bearing fund entitled "Valles Caldera Fund" which shall be available, without further appropriation for any purpose consistent with the purposes of this title. At the option of the Trust, or the Secretary in accordance with section 110, the Secretary of the Treasury shall invest excess monies of the Trust in such account, which shall bear interest at rates determined by the Secretary of the Treasury taking into consideration the current average market yield on outstanding marketable obligations of the United States of comparable maturity.

(i) RESTRICTIONS ON DISPOSITION OF RECEIPTS.—Any funds received by the Trust, or the Secretary in accordance with section 109(b), from the management of the Preserve shall not be subject to partial distribution to the State under—

(1) the Act of May 23, 1908, entitled "an Act making appropriations for the Department of Agriculture for the fiscal year ending June thirtieth, nineteen hundred and nine" (35 Stat. 260, chapter 192; 16 U.S.C. 500);

(2) section 13 of the Act of March 1, 1911 (36 Stat. 963, chapter 186; 16 U.S.C. 500); or

(3) any other law.

(j) SUITS.—The Trust may sue and be sued in its own name to the same extent as the Federal Government. For purposes of such suits, the residence of the Trust shall be the State of New Mexico. The Trust shall be represented by the Attorney General in any litigation arising out of the activities of the Trust, except that the Trust may retain private attorneys to provide advice and counsel.

(k) BYLAWS.—The Trust shall adopt necessary bylaws to govern its activities.

(l) INSURANCE AND BOND.—The Trust shall require that all holders of leases from, or parties in contract with, the Trust that are authorized to occupy, use, or develop properties under the management jurisdiction of the Trust, procure proper insurance against any loss in connection with such properties, or activities authorized in such lease or contract, as is reasonable and customary.

(m) NAME AND INSIGNIA.—The Trust shall have the sole and exclusive right to use the words "Valles Caldera Trust", and any seal, emblem, or other insignia adopted by the Board of Trustees.

Without express written authority of the Trust, no person may use the words "Valles Caldera Trust" as the name under which that person shall do or purport to do business, for the purpose of trade, or by way of advertisement, or in any manner that may falsely suggest any connection with the Trust.

16 USC 698v–5.

SEC. 107. BOARD OF TRUSTEES.

(a) IN GENERAL.—The Trust shall be governed by a 9-member Board of Trustees consisting of the following:

(1) VOTING TRUSTEES.—The voting Trustees shall be—

(A) the Supervisor of the Santa Fe National Forest, United States Forest Service;

(B) the Superintendent of the Bandelier National Monument, National Park Service; and

President.

(C) seven individuals, appointed by the President, in consultation with the congressional delegation from the State of New Mexico. The seven individuals shall have specific expertise or represent an organization or government entity as follows—

(i) one trustee shall have expertise in aspects of domesticated livestock management, production, and marketing, including range management and livestock business management;

(ii) one trustee shall have expertise in the management of game and nongame wildlife and fish populations, including hunting, fishing, and other recreational activities;

(iii) one trustee shall have expertise in the sustainable management of forest lands for commodity and noncommodity purposes;

(iv) one trustee shall be active in a nonprofit conservation organization concerned with the activities of the Forest Service;

(v) one trustee shall have expertise in financial management, budget and program analysis, and small business operations;

(vi) one trustee shall have expertise in the cultural and natural history of the region; and

(vii) one trustee shall be active in State or local government in New Mexico, with expertise in the customs of the local area.

(2) QUALIFICATIONS.—Of the trustees appointed by the President—

(A) none shall be employees of the Federal Government; and

(B) at least five shall be residents of the State of New Mexico.

President.
Deadline.

(b) INITIAL APPOINTMENTS.—The President shall make the initial appointments to the Board of Trustees within 90 days after acquisition of the Baca ranch under section 104(a).

(c) TERMS.—

(1) IN GENERAL.—Appointed trustees shall each serve a term of 4 years, except that of the trustees first appointed, four shall serve for a term of 4 years, and three shall serve for a term of 2 years.

(2) VACANCIES.—Any vacancy among the appointed trustees shall be filled in the same manner in which the original appointment was made, and any trustee appointed to fill a vacancy shall serve for the remainder of that term for which his or her predecessor was appointed.

(3) LIMITATIONS.—No appointed trustee may serve more than 8 years in consecutive terms.

(d) QUORUM.—A majority of trustees shall constitute a quorum of the Board for the conduct of business.

(e) ORGANIZATION AND COMPENSATION.—

(1) IN GENERAL.—The Board shall organize itself in such a manner as it deems most appropriate to effectively carry out the activities of the Trust.

(2) COMPENSATION OF TRUSTEES.—Trustees shall serve without pay, but may be reimbursed from the funds of the Trust for the actual and necessary travel and subsistence expenses incurred by them in the performance of their duties.

(3) CHAIR.—Trustees shall select a chair from the membership of the Board.

(f) LIABILITY OF TRUSTEES.—Appointed trustees shall not be considered Federal employees by virtue of their membership on the Board, except for purposes of the Federal Tort Claims Act, the Ethics in Government Act, and the provisions of chapter 11 of title 18, United States Code.

(g) MEETINGS.—

(1) LOCATION AND TIMING OF MEETINGS.—The Board shall meet in sessions open to the public at least three times per year in New Mexico. Upon a majority vote made in open session, and a public statement of the reasons therefore, the Board may close any other meetings to the public: *Provided,* That any final decision of the Board to adopt or amend the comprehensive management program under section 108(d) or to approve any activity related to the management of the land or resources of the Preserve shall be made in open public session.

(2) PUBLIC INFORMATION.—In addition to other requirements of applicable law, the Board shall establish procedures for providing appropriate public information and periodic opportunities for public comment regarding the management of the Preserve. Procedures.

SEC. 108. RESOURCE MANAGEMENT. 16 USC 698v–6.

(a) ASSUMPTION OF MANAGEMENT.—The Trust shall assume all authority provided by this title to manage the Preserve upon a determination by the Secretary, which to the maximum extent practicable shall be made within 60 days after the appointment of the Board, that— Deadline.

(1) the Board is duly appointed, and able to conduct business; and

(2) provision has been made for essential management services.

(b) MANAGEMENT RESPONSIBILITIES.—Upon assumption of management of the Preserve under subsection (a), the Trust shall manage the land and resources of the Preserve and the use thereof including, but not limited to such activities as—

(1) administration of the operations of the Preserve;

(2) preservation and development of the land and resources of the Preserve;

(3) interpretation of the Preserve and its history for the public;

(4) management of public use and occupancy of the Preserve; and

(5) maintenance, rehabilitation, repair, and improvement of property within the Preserve.

(c) AUTHORITIES.—

(1) IN GENERAL.—The Trust shall develop programs and activities at the Preserve, and shall have the authority to negotiate directly and enter into such agreements, leases, contracts and other arrangements with any person, firm, association, organization, corporation or governmental entity, including without limitation, entities of Federal, State, and local governments, and consultation with Indian tribes and Pueblos, as are necessary and appropriate to carry out its authorized activities or fulfill the purposes of this title. Any such agreements may be entered into without regard to section 321 of the Act of June 30, 1932 (40 U.S.C. 303b).

(2) PROCEDURES.—The Trust shall establish procedures for entering into lease agreements and other agreements for the use and occupancy of facilities of the Preserve. The procedures shall ensure reasonable competition, and set guidelines for determining reasonable fees, terms, and conditions for such agreements.

(3) LIMITATIONS.—The Trust may not dispose of any real property in, or convey any water rights appurtenant to the Preserve. The Trust may not convey any easement, or enter into any contract, lease, or other agreement related to use and occupancy of property within the Preserve for a period greater than 10 years. Any such easement, contract, lease, or other agreement shall provide that, upon termination of the Trust, such easement, contract, lease or agreement is terminated.

(4) APPLICATION OF PROCUREMENT LAWS.—

(A) IN GENERAL.—Notwithstanding any other provision of law, Federal laws and regulations governing procurement by Federal agencies shall not apply to the Trust, with the exception of laws and regulations related to Federal Government contracts governing health and safety requirements, wage rates, and civil rights.

(B) PROCEDURES.—The Trust, in consultation with the Administrator of Federal Procurement Policy, Office of Management and Budget, shall establish and adopt procedures applicable to the Trust's procurement of goods and services, including the award of contracts on the basis of contractor qualifications, price, commercially reasonable buying practices, and reasonable competition.

Deadline.

(d) MANAGEMENT PROGRAM.—Within two years after assumption of management responsibilities for the Preserve, the Trust shall, in accordance with subsection (f), develop a comprehensive program for the management of lands, resources, and facilities within the Preserve to carry out the purposes under section 105(b). To the extent consistent with such purposes, such program shall provide for—

(1) operation of the Preserve as a working ranch, consistent with paragraphs (2) through (4);

(2) the protection and preservation of the scientific, scenic, geologic, watershed, fish, wildlife, historic, cultural and recreational values of the Preserve;

(3) multiple use and sustained yield of renewable resources within the Preserve;

(4) public use of and access to the Preserve for recreation;

(5) renewable resource utilization and management alternatives that, to the extent practicable—

(A) benefit local communities and small businesses;

(B) enhance coordination of management objectives with those on surrounding National Forest System land; and

(C) provide cost savings to the Trust through the exchange of services, including but not limited to labor and maintenance of facilities, for resources or services provided by the Trust; and

(6) optimizing the generation of income based on existing market conditions, to the extent that it does not unreasonably diminish the long-term scenic and natural values of the area, or the multiple use and sustained yield capability of the land.

(e) PUBLIC USE AND RECREATION.—

(1) IN GENERAL.—The Trust shall give thorough consideration to the provision of appropriate opportunities for public use and recreation that are consistent with the other purposes under section 105(b). The Trust is expressly authorized to construct and upgrade roads and bridges, and provide other facilities for activities including, but not limited to camping and picnicking, hiking, and cross country skiing. Roads, trails, bridges, and recreational facilities constructed within the Preserve shall meet public safety standards applicable to units of the National Forest System and the State of New Mexico. Public safety.

(2) FEES.—Notwithstanding any other provision of law, the Trust is authorized to assess reasonable fees for admission to, and the use and occupancy of, the Preserve: *Provided,* That admission fees and any fees assessed for recreational activities shall be implemented only after public notice and a period of not less than 60 days for public comment. Public notice.

(3) PUBLIC ACCESS.—Upon the acquisition of the Baca ranch under section 104(a), and after an interim planning period of no more than two years, the public shall have reasonable access to the Preserve for recreation purposes. The Secretary, prior to assumption of management of the Preserve by the Trust, and the Trust thereafter, may reasonably limit the number and types of recreational admissions to the Preserve, or any part thereof, based on the capability of the land, resources, and facilities. The use of reservation or lottery systems is expressly authorized to implement this paragraph.

(f) APPLICABLE LAWS.—

(1) IN GENERAL.—The Trust, and the Secretary in accordance with section 109(b), shall administer the Preserve in conformity with this title and all laws pertaining to the National Forest System, except the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended (16 U.S.C. 1600 et seq.).

(2) ENVIRONMENTAL LAWS.—The Trust shall be deemed a Federal agency for the purposes of compliance with Federal environmental laws.

(3) CRIMINAL LAWS.—All criminal laws relating to Federal property shall apply to the same extent as on adjacent units of the National Forest System.

(4) REPORTS ON APPLICABLE RULES AND REGULATIONS.—The Trust may submit to the Secretary and the Committees of Congress a compilation of applicable rules and regulations which in the view of the Trust are inappropriate, incompatible with this title, or unduly burdensome.

(5) CONSULTATION WITH TRIBES AND PUEBLOS.—The Trust is authorized and directed to cooperate and consult with Indian tribes and Pueblos on management policies and practices for the Preserve which may affect them. The Trust is authorized to allow the use of lands within the Preserve for religious and cultural uses by Native Americans and, in so doing, may set aside places and times of exclusive use consistent with the American Indian Religious Freedom Act (42 U.S.C. 1996 (note)) and other applicable statutes.

(6) NO ADMINISTRATIVE APPEAL.—The administrative appeals regulations of the Secretary shall not apply to activities of the Trust and decisions of the Board.

(g) LAW ENFORCEMENT AND FIRE MANAGEMENT.—The Secretary shall provide law enforcement services under a cooperative agreement with the Trust to the extent generally authorized in other units of the National Forest System. The Trust shall be deemed a Federal agency for purposes of the law enforcement authorities of the Secretary (within the meaning of section 15008 of the National Forest System Drug Control Act of 1986 (16 U.S.C. 559g)). At the request of the Trust, the Secretary may provide fire presuppression, fire suppression, and rehabilitation services: *Provided,* That the Trust shall reimburse the Secretary for salaries and expenses of fire management personnel, commensurate with services provided.

16 USC 698v–7.

SEC. 109. AUTHORITIES OF THE SECRETARY.

(a) IN GENERAL.—Notwithstanding the assumption of management of the Preserve by the Trust, the Secretary is authorized to—

(1) issue any rights-of-way, as defined in the Federal Land Policy and Management Act of 1976, of over 10 years duration, in cooperation with the Trust, including, but not limited to, road and utility rights-of-way, and communication sites;

(2) issue orders under and enforce prohibitions generally applicable on other units of the National Forest System, in cooperation with the Trust;

(3) exercise the authorities of the Secretary under the Wild and Scenic Rivers Act (16 U.S.C. 1278, et seq.) and the Federal Power Act (16 U.S.C. 797, et seq.), in cooperation with the Trust;

(4) acquire the mineral rights referred to in section 104(e);

(5) provide law enforcement and fire management services under section 108(g);

(6) at the request of the Trust, exchange land or interests in land within the Preserve under laws generally applicable to other units of the National Forest System, or otherwise

dispose of land or interests in land within the Preserve under Public Law 97–465 (16 U.S.C. 521c through 521i);

(7) in consultation with the Trust, refer civil and criminal cases pertaining to the Preserve to the Department of Justice for prosecution;

(8) retain title to and control over fossils and archaeological artifacts found within the Preserve;

(9) at the request of the Trust, construct and operate a visitors' center in or near the Preserve, subject to the availability of appropriated funds;

(10) conduct the assessment of the Trust's performance, and, if the Secretary determines it necessary, recommend to Congress the termination of the Trust, under section 110(b)(2); and

(11) conduct such other activities for which express authorization is provided to the Secretary by this title.

(b) INTERIM MANAGEMENT.—

(1) IN GENERAL.—The Secretary shall manage the Preserve in accordance with this title during the interim period from the date of acquisition of the Baca ranch under section 104(a) to the date of assumption of management of the Preserve by the Trust under section 108. The Secretary may enter into any agreement, lease, contract, or other arrangement on the same basis as the Trust under section 108(c)(1): *Provided,* That any agreement, lease, contract, or other arrangement entered into by the Secretary shall not exceed two years in duration unless expressly extended by the Trust upon its assumption of management of the Preserve.

(2) USE OF THE FUND.—All monies received by the Secretary from the management of the Preserve during the interim period under paragraph (1) shall be deposited into the "Valles Caldera Fund" established under section 106(h)(2), and such monies in the fund shall be available to the Secretary, without further appropriation, for the purpose of managing the Preserve in accordance with the responsibilities and authorities provided to the Trust under section 108.

(c) SECRETARIAL AUTHORITY.—The Secretary retains the authority to suspend any decision of the Board with respect to the management of the Preserve if he finds that the decision is clearly inconsistent with this title. Such authority shall only be exercised personally by the Secretary, and may not be delegated. Any exercise of this authority shall be in writing to the Board, and notification of the decision shall be given to the Committees of Congress. Any suspended decision shall be referred back to the Board for reconsideration.

(d) ACCESS.—The Secretary shall at all times have access to the Preserve for administrative purposes.

SEC. 110. TERMINATION OF THE TRUST. 16 USC 698v–8.

(a) IN GENERAL.—The Valles Caldera Trust shall terminate at the end of the twentieth full fiscal year following acquisition of the Baca ranch under section 104(a).

(b) RECOMMENDATIONS.—

(1) BOARD.—

(A) If after the fourteenth full fiscal years from the date of acquisition of the Baca ranch under section 104(a),

the Board believes the Trust has met the goals and objectives of the comprehensive management program under section 108(d), but has not become financially self-sustaining, the Board may submit to the Committees of Congress, a recommendation for authorization of appropriations beyond that provided under this title.

(B) During the eighteenth full fiscal year from the date of acquisition of the Baca ranch under section 104(a), the Board shall submit to the Secretary its recommendation that the Trust be either extended or terminated including the reasons for such recommendation.

Deadline.

(2) SECRETARY.—Within 120 days after receipt of the recommendation of the Board under paragraph (1)(B), the Secretary shall submit to the Committees of Congress the Board's recommendation on extension or termination along with the recommendation of the Secretary with respect to the same and stating the reasons for such recommendation.

(c) EFFECT OF TERMINATION.—In the event of termination of the Trust, the Secretary shall assume all management and administrative functions over the Preserve, and it shall thereafter be managed as a part of the Santa Fe National Forest, subject to all laws applicable to the National Forest System.

(d) ASSETS.—In the event of termination of the Trust, all assets of the Trust shall be used to satisfy any outstanding liabilities, and any funds remaining shall be transferred to the Secretary for use, without further appropriation, for the management of the Preserve.

(e) VALLES CALDERA FUND.—In the event of termination, the Secretary shall assume the powers of the Trust over funds under section 106(h), and the Valles Caldera Fund shall not terminate. Any balances remaining in the fund shall be available to the Secretary, without further appropriation, for any purpose consistent with the purposes of this title.

16 USC 698v–9.

SEC. 111. LIMITATIONS ON FUNDING.

(a) AUTHORIZATION OF APPROPRIATIONS.—There is hereby authorized to be appropriated to the Secretary and the Trust such funds as are necessary for them to carry out the purposes of this title for each of the 15 full fiscal years after the date of acquisition of the Baca ranch under section 104(a).

Deadline.

(b) SCHEDULE OF APPROPRIATIONS.—Within two years after the first meeting of the Board, the Trust shall submit to Congress a plan which includes a schedule of annual decreasing appropriated funds that will achieve, at a minimum, the financially self-sustained operation of the Trust within 15 full fiscal years after the date of acquisition of the Baca ranch under section 104(a).

Deadline.
Reports.
16 USC 698v–10.
Deadline.

SEC. 112. GENERAL ACCOUNTING OFFICE STUDY.

(a) INITIAL STUDY.—Three years after the assumption of management by the Trust, the General Accounting Office shall conduct an interim study of the activities of the Trust and shall report the results of the study to the Committees of Congress. The study shall include, but shall not be limited to, details of programs and activities operated by the Trust and whether it met its obligations under this title.

Reports.

(b) SECOND STUDY.—Seven years after the assumption of management by the Trust, the General Accounting Office shall conduct a study of the activities of the Trust and shall report the results of the study to the Committees of Congress. The study shall provide an assessment of any failure to meet obligations that may be identified under subsection (a), and further evaluation on the ability of the Trust to meet its obligations under this title.

Appendix B: Inventory of Administrative Commitments

Type	Title / Agency / Organization	Purpose / Description	Expiration Date	Responsible Party
Memorandums of Understanding	Sandoval County Sheriff's Office	Law Enforcement Mutual Aid Agreement (in draft)	04/30/2019	Chief Ranger
Memorandums of Understanding	Sandoval and Los Alamos Counties	Mutual Aid Agreement TBD	TBD	Chief Ranger
Interagency Agreements	U.S. Forest Service – Rocky Mountain Research Station	ArcBurn	TBD	Interdisciplinary Science Communicator
Interagency Agreements	U.S. Forest Service and U.S. Fish and Wildlife Service	Law Enforcement – Cross Designations	Ongoing	Chief Ranger
Interagency Agreements	U.S. Department of Agriculture Systematic Entomology Laboratory	Inventory and monitoring of pest and beneficial insects associated with fire and forest/grassland restoration projects	12/2020	Chief, Science and Resources
Interagency Agreements	National Resources Conservation Service	Installation and operation of a SNOTEL site	12/2065	Chief, Science and Resources
Interagency Agreements	National Oceanic and Atmospheric Administration	Continued operation of U.S. Climate Reference Network (USCRN) weather station	5/2036	Chief, Science and Resources
Cooperative Agreements	New Mexico State University	Cooperative Ecosystem Studies Unit (CESU) – Forest restoration	TBD	Chief, Science and Resources
Cooperative Agreements	New Mexico State University	CESU – Large mammal monitoring	12/2019	Chief, Science and Resources
Cooperative Agreements	New Mexico State University	CESU – Tree seedling monitoring	12/2017	Chief, Science and Resources
Cooperative Agreements	University of New Mexico, Office of Contract Archaeology	CESU – Archeological survey and modelling	12/2019	Chief, Science and Resources

Type	Title / Agency / Organization	Purpose / Description	Expiration Date	Responsible Party
Cooperative Agreements	University of New Mexico	CESU – Post-fire monitoring of terrestrial arthropods	9/2017	Chief, Science and Resources
Cooperative Agreements	University of New Mexico	CESU – Arthropod long-term monitoring	12/2017	Chief, Science and Resources
Cooperative Agreements	University of New Mexico	CESU – Doppler Radar precipitation mapping	12/2017	Chief, Science and Resources
Cooperative Agreements	University of New Mexico	CESU – Collaborative statistical analyses of Valles Caldera National Preserve project data	12/2017	Chief, Science and Resources
Cooperative Agreements	University of New Mexico	CESU – Post-fire monitoring of stream water quality and fens	12/2017	Chief, Science and Resources
Cooperative Agreements	University of Nevada, DRI	CESU – RAWS weather stations climate/weather monitoring	12/2017	Chief, Science and Resources
Cooperative Agreements	Northern Arizona University	CESU – Monitoring soils and soil biota effects of forest restoration	12/2018	Chief, Science and Resources
Cooperative Agreements	Texas Tech University	CESU – Invasive plant species inventory and monitoring	12/2017	Chief, Science and Resources
Cooperative Agreements	University of Arizona	CESU – Monitoring microhabitat climate conditions for Jemez Mountains salamanders (endangered species)	12/2017	Chief, Science and Resources
Cooperative Agreements	Los Amigos de Valles Caldera	Cooperative Agreement (CA) – Restoration, interpretation, education, science, recreation	8/2021	Chief, Interpretation and Education
Cooperative Agreements	Hawks Aloft	CA – Bird community monitoring for fires and forest restoration	12/2020	Chief, Science and Resources

Type	Title / Agency / Organization	Purpose / Description	Expiration Date	Responsible Party
Cooperative Agreements	WildEarth Guardians	CA – Watershed restoration	5/2021	Chief, Science and Resources
Cooperating Association Agreements	Los Amigos de Valles Caldera	To operate preserve bookstore, assist with and fund preserve projects/ events	9/2021	Superintendent / Regional Director
General Agreements	Pueblo Parks Fire Program	Interpark fire management program	TBD	Superintendent
General Agreements	Los Amigos de Valles Caldera	Friends group agreement	9/2021	Superintendent / Regional Director
Special Park Uses	Various individuals and entities	Various activities including special events, First Amendment activities, weddings, group gatherings, self-guided group tours, etc.	Short term	Special Park Uses Coordinator
Special Park Uses	Various individuals and entities	Grazing	Annually: 6/1 – 9/30	Special Park Uses Coordinator
Special Park Uses	Various individuals and entities	Commercial filming/ photography	Short term	Special Park Uses Coordinator
Rights-of-Way	Utility corridors – telephone (2)	Windstream	Ongoing	
Rights-of-Way	Utility corridor – telephone	CenturyLink	Ongoing	
Rights-of-Way	Utility corridor – electric raised (2)	Jemez Mtns. Electric Cooperative	Ongoing	
Rights-of-Way	Utility corridor – electric buried	Jemez Mtns. Electric Cooperative	Ongoing	
Rights-of-Way	Utility corridor – natural gas	New Mexico Gas Co./TECO	Ongoing	
Rights-of-Way	New Mexico State Route 4	State of New Mexico	Ongoing	
Commercial Services	Various individuals and entities	Guided hunting, fishing, van tours, hiking, biking, horse riding, snowshoeing/ skiing, sleigh rides, and food vendor	Annual	Special Park Uses Coordinator

Appendix C: List of Potential Traditionally Associated Tribes

Valles Caldera is significant in the sacred geography of numerous American Indian tribes and pueblos. The enabling legislation highlights access to traditional cultural and religious sites by members of American Indian tribes or pueblos for traditional cultural and customary uses, and explicitly provides for protection of traditional cultural and religious sites through limitations on the use of volcanic domes and peaks. The National Park Service seeks to proactively pursue these goals by strengthening its engagement with tribal communities, and increasing the active and collaborative involvement of tribes in management planning, stewardship, and tribal access and use of the preserve. The following list is inclusive of all tribes or pueblos the preserve has previously contacted for tribal consultation; appropriate studies and consultations are needed to establish traditionally associated people and cultural affiliations to park resources.

Apache Tribe of Oklahoma
Cheyenne and Arapaho Tribes, Oklahoma
Comanche Nation, Oklahoma
Fort Sill Apache Tribe of Oklahoma
Hopi Tribe of Arizona
Jicarilla Apache Nation, New Mexico
Kewa Pueblo, New Mexico
Kiowa Indian Tribe of Oklahoma
Mescalero Apache Tribe of the Mescalero Reservation, New Mexico
Navajo Nation, Arizona, New Mexico and Utah
Ohkay Owingeh, New Mexico
Pawnee Nation of Oklahoma
Pueblo of Acoma, New Mexico
Pueblo of Cochiti, New Mexico
Pueblo of Isleta, New Mexico
Pueblo of Jemez, New Mexico
Pueblo of Laguna, New Mexico
Pueblo of Nambe, New Mexico
Pueblo of Picuris, New Mexico
Pueblo of Pojoaque, New Mexico
Pueblo of San Felipe, New Mexico
Pueblo of San Ildefonso, New Mexico
Pueblo of Sandia, New Mexico
Pueblo of Santa Ana, New Mexico
Pueblo of Santa Clara, New Mexico
Pueblo of Taos, New Mexico
Pueblo of Tesuque, New Mexico
Pueblo of Zia, New Mexico
San Carlos Apache Tribe of the San Carlos Reservation, Arizona
Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado
Standing Rock Sioux Tribe of North and South Dakota
Tonto Apache Tribe of Arizona
Ute Indian Tribe of the Uintah and Ouray Reservation, Utah
Ute Mountain Tribe of the Ute Mountain Reservation, Colorado, New Mexico and Utah
White Mountain Apache Tribe of the Fort Apache Reservation, Arizona
Wichita and Affiliated Tribes
Ysleta Del Sur Pueblo of Texas
Zuni Tribe of the Zuni Reservation, New Mexico

Intermountain Region Foundation Document Recommendation
Valles Caldera National Preserve

January 2018

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

1/2/2018

RECOMMENDED
Jorge Silva-Bañuelos, Superintendent, Valles Caldera National Preserve **Date**

3/23/18

APPROVED
Sue E. Masica, Regional Director, Intermountain Region **Date**

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

VALL 216/144006
March 2018

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