

To: Boone, Whitney[whitney_boone@nps.gov]
Cc: Sheffer, Thomas[thomas_sheffer@nps.gov]; Patrick Gregerson[patrick_gregerson@nps.gov]
From: Shock, Nancy
Sent: 2017-11-16T16:45:46-05:00
Importance: Normal
Subject: Re: Request for new park foundation/APDN information
Received: 2017-11-16T16:46:13-05:00
[APDN 20171101.xlsx](#)
[PAGR F7 DRAFT_emailsize.pdf](#)
[VALL Foundation F1 to editing 10_23_17_MASTER DOCUMENT.docx](#)

Whitney,
 I'm not sure you had the latest version... Charles is updating the spreadsheet as he has time...

Here is a copy that was last updated on Nov 1st....

We have not been adding Draft Foundations to the database in the past year or so... because usually there are quite a few changes between draft and final reviews.

Region	Alpha Code	Park
SER	BICR	Birmingham Civil Rights National Monument no draft available
NER	BLRV	Blackstone River Valley National Historical Park no draft available
PWR	CAMO	Castle Mountains National Monument no draft available
SER	FRRI	Freedom Riders National Monument no draft available
NER	FRST	First State National Historical Park in 1st Region Review contact Allen Cooper for document
NER	HART	Harriet Tubman National Historical Park in 1st Region Review contact Allen Cooper for document
NER	HATU	Harriet Tubman Underground Railroad National Historical Park in 1st Region Review contact Allen Cooper for document
PWR	HONO	Honouliuli National Monument no draft available
NER	KAWW	Katahdin Woods and Waters National Monument no draft available
NER	PAGR	Paterson Great Falls National Historical Park in second review and attached below
SER	REER	Reconstruction Era National Monument no draft available
NER	STON	Stonewall National Monument no draft available
PWR	TUSK	Tule Springs Fossil Beds National Monument no draft available
IMR	VALL	Valles Caldera National Preserve in first review and attached below

Nancy

Nancy A. Shock

Acting DSC Planning Division Chief
 Foundation Coordinator
 Technical Branch Chief
 Denver Service Center Planning
 WASO Park Planning & Special Studies
<http://share.nps.gov/foundations>
 National Park Service
 12795 W. Alameda Parkway
 Lakewood, Colorado 80228
 303-987-6653 Office
 303-887-8980 Cell
Nancy_Shock@nps.gov

On Thu, Nov 16, 2017 at 12:51 PM, Boone, Whitney <whitney_boone@nps.gov> wrote:

Hi Nancy-

PPSS has been asked to pull together a list of the high priority planning needs identified for parks established since 2009. I've been able to pull some of this information from the "APDN current working copy" spreadsheet and from the foundations posted to the SharePoint site, but there are a handful of parks that don't have foundations posted yet.

Can you please let us know whether the following parks have draft foundation documents, and if so send them our way?

Region	Alpha Code	Park
SER	BICR	Birmingham Civil Rights National Monument
NER	BLRV	Blackstone River Valley National Historical Park
PWR	CAMO	Castle Mountains National Monument
SER	FRRI	Freedom Riders National Monument
NER	FRST	First State National Historical Park
NER	HART	Harriet Tubman National Historical Park
NER	HATU	Harriet Tubman Underground Railroad National Historical Park
PWR	HONO	Honouliuli National Monument
NER	KAWW	Katahdin Woods and Waters National Monument
NER	PAGR	Paterson Great Falls National Historical Park
SER	REER	Reconstruction Era National Monument
NER	STON	Stonewall National Monument
PWR	TUSK	Tule Springs Fossil Beds National Monument
IMR	VALL	Valles Caldera National Preserve

Many thanks in advance!
Whitney

--

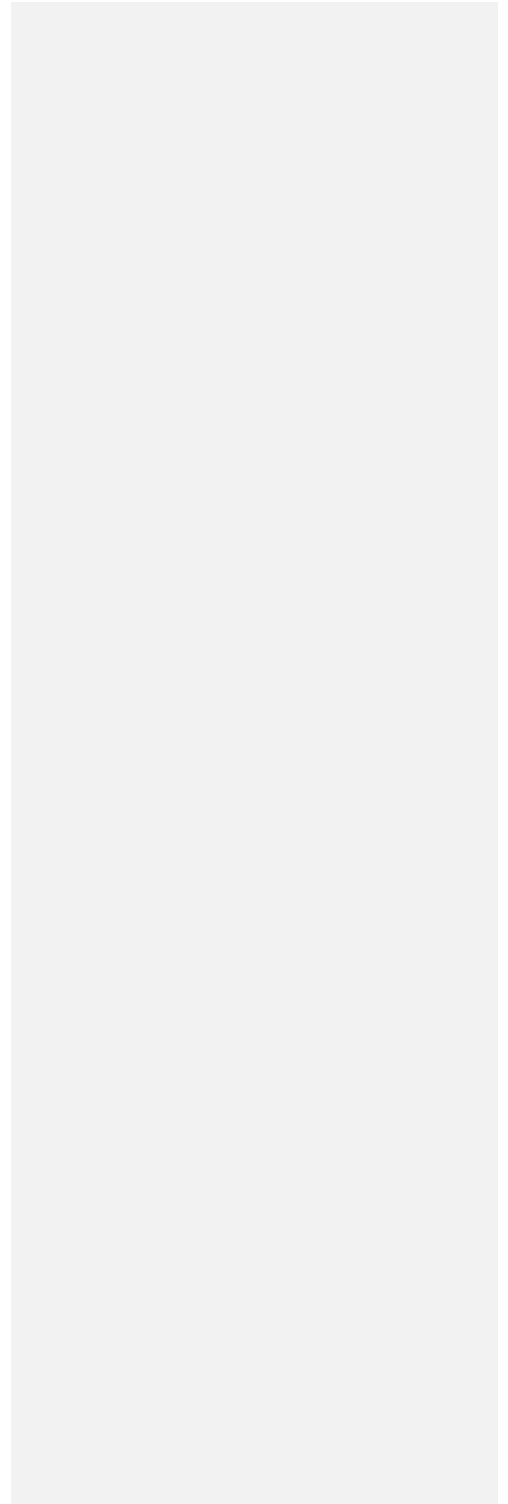
Whitney Boone
Park Planning and Special Studies
National Park Service
202 354 6970

National Park Service
U.S. Department of the Interior

Valles Caldera National Preserve
New Mexico

October 2017 MASTER DOCUMENT
Foundation Document

Commented [HPL1]: Skip: Please keep using this document as your MASTER document because I made additional formatting changes without using Track Changes. Thank you!



CONTENTS

Commented [HPL2]: Editor: Please update this page. Several headings have changed.

Mission of the National Park Service	1
Introduction.....	2
Part 1: Core Components.....	3
<i>Brief Description of the Park.....</i>	<i>Error! Bookmark not defined.</i>
<i>Park Purpose</i>	<i>5</i>
<i>Park Significance.....</i>	<i>5</i>
<i>Fundamental Resources and Values.....</i>	<i>6</i>
<i>Other Important Resources and Values</i>	<i>Error! Bookmark not defined.</i>
<i>Interpretive Themes.....</i>	<i>8</i>
Part 2: Dynamic Components.....	10
<i>Special Mandates and Administrative Commitments.....</i>	<i>10</i>
Special Mandates	10
Administrative Commitments.....	Error! Bookmark not defined.
<i>Assessment of Planning and Data Needs</i>	<i>11</i>
Analysis of Fundamental Resources and Values.....	11
Analysis of Other Important Resources and Values.....	31
Identification of Key Issues and Associated Planning and Data Needs.....	37
Planning and Data Needs.....	40
Part 3: Contributors.....	56
<i>Park.....</i>	<i>Error! Bookmark not defined.</i>
<i>Region.....</i>	<i>56</i>
<i>Other NPS Staff.....</i>	<i>56</i>
Appendixes.....	57
Appendix A: Enabling Legislation for Valles Caldera National Preserve	58
Appendix B: Summary of direction in the enabling legislation for VALL	61
Appendix C: Traditionally associated tribes (not booked marked)	

Appendix D: Administrative commitments (not booked marked)

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.

Deleted: preserves,

[The Arrowhead this will be a sidebar when formatted.]

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 fifteen 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 nearly all of the volcanic caldera within a single nearly 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 locations 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 1 2 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 over 14 million years, but the current 12 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 intrusions have created numerous volcanic domes within the caldera, including the major central resurgent dome, Redondo Peak, which reaches an elevation of 11,254 feet. The caldera is presently 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, 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.

American Indians have used the caldera for millennia including 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 dating back nearly 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 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, which are expressed today through on going ceremonial activities as well as 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. While early logging had begun in the 1930s, it was dramatically increased in the early 1960s by non land owners 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 over a thousand 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. While the natural beauty of the caldera has persisted, the land use practices of the 19th and 20th centuries, including over grazing, 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 contrasts of recently burned areas with old growth forests 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 park 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 park.

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 fifteen 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 km³) 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 nearly 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 who are often surprised by the unexpected lushness of this New Mexico high country. Pull outs off 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 with meandering streams and wetlands, and observe elk herds and other wildlife. While 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 mountain top views of northern New Mexico and southern Colorado.

- **Traditional Cultural Landscapes and Tribal Connections.** Valles Caldera, and the domes and peaks along the rim and within, are of spiritual and ceremonial importance to numerous Native American peoples in the greater Southwest region. Among these features, Redondo Peak (11,254') 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 past 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 sheep herding, and then cattle grazing, timber harvest, and other activities. 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 Río 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 create 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 back to a fully functioning ecosystem with enhanced landscape connectivity. While 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 park and warrant special consideration in park 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:
 - establish a science and education program that includes research and interpretation, supports ecological restoration and science based adaptive management, and promotes outdoor educational experiences; establishment of a science and education center in Jemez Springs, New Mexico;
 - continuation of livestock grazing to the extent the 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; may 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 highlighting 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 portions 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 D.

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	<ul style="list-style-type: none"> ▪ 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.

Fundamental Resource or Value	The Caldera
	<ul style="list-style-type: none"> 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	<p>Conditions</p> <ul style="list-style-type: none"> 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 some time in the future. The magma chamber associated with the caldera is located as shallow as 5 kilometers under 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 during the land's private ownership are found throughout the western side of the caldera. A seismograph network operated by Los Alamos National Laboratory continually monitors the magma chamber. LiDAR taken in 2010 produced 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 geologic thermal 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, volcanic peaks, and along the caldera rim. Traditionally associated tribes view these areas as 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 movements of the dome. Felsenmeer like rock fields, unusual geological features, are found on volcanic domes and rims throughout the preserve. <p>Trends</p> <ul style="list-style-type: none"> Severe 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.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> Geothermal wells that are not currently being used should be plugged and abandoned for hydrologic restoration and for public safety.

Fundamental Resource or Value	The Caldera
	<ul style="list-style-type: none"> ▪ Proposed geothermal development adjacent to the preserve on the Santa Fe National Forest may negatively affect the plume associated with the caldera system. ▪ Onset of seismic activity could severely 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 leaves the preserve vulnerable to unanticipated volcanic activity. <p>Opportunities</p> <ul style="list-style-type: none"> ▪ Seismic monitoring may offer real time data for research, educational, and interpretive purposes. ▪ Acquiring the Sulphur Springs inholding would allow for the comprehensive management of the caldera landscape along with 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. ▪ Strengthening ongoing partnerships with geology field schools strengthens the preserve's relationship with universities and research programs. It fosters scientific research, and allows for increased monitoring and data collection of the preserve's geologic resources. ▪ Repeat LiDAR can be used to monitor geomorphic changes. ▪ U.S. Geological Survey, U.S. Forest Service, and Bandelier National Monument can help the preserve cost share LiDAR efforts.
Data and/or GIS Needs	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ 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	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> ▪ National Environmental Policy Act of 1969 ▪ Paleontological Resources Preservation Act of 2009 <p>NPS Policy level Guidance (<i>NPS Management Policies 2006</i> and Director's Orders)</p> <ul style="list-style-type: none"> ▪ <i>NPS Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" ▪ <i>NPS Management Policies 2006</i> (§4.1) "General Management Concepts" ▪ <i>NPS Management Policies 2006</i> (§4.5) "Fire Management" ▪ <i>NPS Management Policies 2006</i> (§4.8) "Geologic Resource Management" ▪ Director's Order 18: <i>Wildland Fire Management</i>

Fundamental Resource or Value	The Caldera
	<ul style="list-style-type: none"> ▪ <i>NPS Natural Resource Management Reference Manual 77</i> ▪ <i>NPS Reference Manual 18: Wildland Fire Management</i>

Fundamental Resource or Value	Valle Grande and Volcanic Vistas
Related Significance Statements	<ul style="list-style-type: none"> ▪ 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	<p>Conditions</p> <ul style="list-style-type: none"> ▪ Valles (VAH yes) are 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, 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 have 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 the Valle Grande. ▪ Post fire hillslope erosion has created alluvial fans. ▪ Invasive cheat grass and thistles are found in road corridors, 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 pull outs. ▪ There is currently fair to poor trail access to prime viewing locations outside the Valle Grande. ▪ Visitors are able to experience the "archaic landscape" relatively easily from the existing roads and trails. ▪ Burned forests and post fire erosion created by the Las Conchas Fire in 2011 and Thompson Ridge Fire in 2013 are now a noticeable aspect of the landscape.

Fundamental Resource or Value	Valle Grande and Volcanic Vistas
	<ul style="list-style-type: none"> ▪ 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 serious 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. The visual range is reduced further on high pollution days, including during fires. <p>Trends</p> <ul style="list-style-type: none"> ▪ The condition of the valles is improving from 20th century grazing. ▪ 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. ▪ Increasing invasive species populations are occurring along road corridors, in previous burn 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	<p>Threats</p> <ul style="list-style-type: none"> ▪ Invasive plants and non native animals can alter the appearance and ecology of the valles. ▪ Existing old, non functional livestock fences pose a threat to 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 may lead to fuel build up 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, along with more noise. ▪ Increased numbers of cars and dust from vehicular traffic on the preserve's unimproved roads may impact the scenery. ▪ Sources of air pollution in 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 to the night sky. ▪ Projected effects of climate change may increase and exacerbate the impacts of extreme heat events, drought, and wildfire, as well as extreme storm events and flooding, increases in invasive species, and a northward shift in native species habitats. ▪ The burned forest landscape, such as dead or damaged trees and resulting stumps, can be hazardous to visitor safety.

Fundamental Resource or Value	Valle Grande and Volcanic Vistas
	<ul style="list-style-type: none"> ▪ Military overflights disrupt the natural soundscape and introduce a visual intrusion. <p>Opportunities</p> <ul style="list-style-type: none"> ▪ 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. ▪ Riparian restoration efforts would help reestablish native species and the historic appearance. ▪ Stakeholder groups, such as sportsmen and fishing organizations, can act as stewards of the preserve's resources. ▪ Prescribed fires can be opportunities to educate the public on the beneficial role of fire in ecosystems. ▪ Improvement of New Mexico State Route 4 pull out areas would serve a large number of visitors and allow for more scenic viewing points. ▪ Promoting the arts in the preserve can call attention to the preserve's scenic resources. ▪ A live "caldera cam" video feed connected to social media or the NPS website would allow virtual visitors to experience the preserve's views. ▪ Pajarito Mountain Ski Area is a potential partner for access and stewardship of the east rim. ▪ Removal of standing dead hazard trees killed in recent wildfires would open areas to increased views along road and trail corridors while improving visitor safety. ▪ Interpretive programs can incorporate aspects of climate change, fire management, fire ecology, and fire impacts to better educate visitors. ▪ The preserve can work with external partners to create a virtual 360 degree view from the caldera rim. ▪ A trail network would allow visitors to experience a wider variety of vistas and more of the valles.
Data and/or GIS Needs	<ul style="list-style-type: none"> ▪ Visitor use information. ▪ GIS data on <i>valle</i> 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	<ul style="list-style-type: none"> ▪ 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.

Fundamental Resource or Value	Valle Grande and Volcanic Vistas
	<ul style="list-style-type: none"> Resource stewardship strategy.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> 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" <p>NPS Policy level Guidance (NPS <i>Management Policies</i> 2006 and Director's Orders)</p> <ul style="list-style-type: none"> NPS <i>Management Policies</i> 2006 (§1.4.6) "What Constitutes Park Resources and Values" NPS <i>Management Policies</i> 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries" NPS <i>Management Policies</i> 2006 (§4.1) "General Management Concepts" NPS <i>Management Policies</i> 2006 (§4.4.1) "General Principles for Managing Biological Resources" NPS <i>Management Policies</i> 2006 (§4.5) "Fire Management" NPS <i>Management Policies</i> 2006 (§4.7.2) "Weather and Climate" NPS <i>Management Policies</i> 2006 (§4.9) "Soundscape Management" NPS <i>Management Policies</i> 2006 (§4.10) "Lightscape Management" Director's Order 18: <i>Wildland Fire Management</i> Director's Order 47: <i>Soundscape Preservation and Noise Management</i> NPS <i>Natural Resource Management Reference Manual</i> 77 NPS <i>Reference Manual</i> 18: <i>Wildland Fire Management</i>

Fundamental Resource or Value	Traditional Cultural Landscapes and Tribal Connections
Related Significance Statements	<ul style="list-style-type: none"> 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

Fundamental Resource or Value	Traditional Cultural Landscapes and Tribal Connections
	<p>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.</p>
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> Many surrounding tribes and tribal members continue to come to the preserve for traditional practices and to maintain connection to the place. Redondo Peak, along with other domes and peaks in the caldera, are considered sacred to many surrounding tribes. The preserve has existing, high quality data about many of its cultural resources and landscapes that was collected starting 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. There are historic buildings that were previously removed from the historic ranching district. Roads constructed during private ownership spiral up many of the caldera's domes and peaks, requiring significant restoration and re contouring. Natural free flowing springs and other water sources are in relatively good condition. <p>Trends</p> <ul style="list-style-type: none"> 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 of 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, researchers, and administrative uses. There is a continued deterioration of historic structures and archeological resources. Cultural resources inventory and documentation continues to be undertaken 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.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> Climate change may affect vegetation associated with traditional uses and practice. Historic building materials may be damaged by severe weather events, associated erosion, and rodents. Severe fire and post fire erosion may 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 may affect the "eagle" outline that some tribes reference as an important part of Redondo Peak's appearance and cultural significance.

Fundamental Resource or Value	Traditional Cultural Landscapes and Tribal Connections
	<ul style="list-style-type: none"> ▪ Climate change and insect outbreaks can impact native flowers and plants found in the preserve. ▪ Military overflights disrupt the natural soundscape and introduce a visual intrusion, particularly during traditional and ceremonial activities by tribes and pueblos. <p>Opportunities</p> <ul style="list-style-type: none"> ▪ The preserve can continue to work with local tribes and pueblos to develop a map with traditional place and feature names for interpretation and signage. ▪ The preserve can work more with traditionally associated tribes to plan and assist with special events, school groups, educational materials, and interpretive programming. ▪ Historic structures have the potential for adaptive reuse to serve contemporary management needs. ▪ The preserve can reach out to youth conservation corps and other partners for assistance on preservation projects, interpretive sign installation, and trail maintenance. The preserve can work with tribes to better understand and document knowledge of traditional uses of native plants found within the preserve. ▪ Create additional interpretation programs including air quality, night skies, and "living histories" that focus on human adaptation as well as the historic land use visible throughout the preserve. ▪ Continuing to pursue ecological restoration activities can enhance culturally relevant landscapes and resources. ▪ Continued tribal consultation, collaboration, and partnership will allow the preserve to better protect cultural resources along with how best to interpret their importance. ▪ Improved visitor infrastructure will minimize the area of human impacts on the landscape. ▪ Thoughtful trail design and construction would provide an ideal opportunity to create high quality visitor experiences while avoiding and minimizing impacts to sensitive natural and cultural areas. ▪ Improve park sustainability and environmental leadership through NPS "Climate Friendly Parks" certification and action plan.
Data and/or GIS Needs	<ul style="list-style-type: none"> ▪ 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.
Planning Needs	<ul style="list-style-type: none"> ▪ Cultural landscape report. ▪ Visitor use management plan. ▪ Comprehensive interpretive plan. ▪ Historic structure use/adaptive reuse plan.

Fundamental Resource or Value	Traditional Cultural Landscapes and Tribal Connections
	<ul style="list-style-type: none"> ▪ 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	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> ▪ 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" <p>NPS Policy level Guidance (NPS <i>Management Policies 2006</i> and Director's Orders)</p> <ul style="list-style-type: none"> ▪ NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" ▪ NPS <i>Management Policies 2006</i> (§1.10) "Partnerships" ▪ NPS <i>Management Policies 2006</i> (§4.1) "General Management Concepts" ▪ NPS <i>Management Policies 2006</i> (§4.4.1) "General Principles for Managing Biological Resources" ▪ NPS <i>Management Policies 2006</i> (§4.7.2) "Weather and Climate" ▪ NPS <i>Management Policies 2006</i> (§4.9) "Soundscape Management" ▪ NPS <i>Management Policies 2006</i> (§4.1) "Lightscape Management" ▪ NPS <i>Management Policies 2006</i> (chapter 5) "Cultural Resource Management" ▪ NPS <i>Management Policies 2006</i> (§8.10) "Natural and Cultural Studies, Research, and Collection Activities" ▪ Director's Order 28: <i>Cultural Resource Management</i> ▪ Director's Order 28A: <i>Archeology</i> ▪ Director's Order 47: <i>Soundscape Preservation and Noise Management</i> ▪ NPS 75 <i>Natural Resources Inventory and Monitoring Guideline</i> ▪ NPS <i>Natural Resource Management Reference Manual 77</i>

Fundamental Resource or Value	Prehistoric and Historic Legacy
Related Significance Statements	<ul style="list-style-type: none"> 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	<p>Conditions</p> <ul style="list-style-type: none"> 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 and this is 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 has severely impacted obsidian deposits in the preserve due to 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. <p>Trends</p> <ul style="list-style-type: none"> With the ubiquitous presence of obsidian fragments and artifacts in the preserve, the collection of surface deposits by visitors is an on going issue that has the potential to increase as visitation expands over time. Erosion throughout the preserve, especially as the result of forest fires, has resulted in increased exposure of in situ geologic obsidian, artifact damage and exposure, and loss of buried deposits at archeological sites.

Fundamental Resource or Value	Prehistoric and Historic Legacy
	<ul style="list-style-type: none"> Historic cabins continue to experience detrimental effects from harsh winter conditions and lack of adequate maintenance over the past decade or more. 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.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> With 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 following 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 may accelerate their continued deterioration. Removal of ranching infrastructure and the addition of new elements to historic settings may alter the historic character and interpretive potential on the preserve. <p>Opportunities</p> <ul style="list-style-type: none"> Historic cabins are suitable for historic interpretation and living history exhibits. Public visitation to historic cabins has increased their popularity and public interest in volunteer projects. Obsidian offers an excellent opportunity for integrated cultural and natural resource interpretation and management. Geological and archeological field schools allow the preserve to partner with academic programs, provide undergraduate training, and provide science programming for local schools. Additional interpretive signage, wayside exhibits, and other displays will serve to educate the public and promote the protection of preserve resources.
Data and/or GIS Needs	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> ▪ 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	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> ▪ 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" <p>NPS Policy level Guidance (NPS <i>Management Policies</i> 2006 and Director's Orders)</p> <ul style="list-style-type: none"> ▪ NPS <i>Management Policies</i> 2006 (§4.1) "General Management Concepts" ▪ NPS <i>Management Policies</i> 2006 (chapter 5) "Cultural Resource Management" ▪ NPS <i>Management Policies</i> 2006 (§8.10) "Natural and Cultural Studies, Research, and Collection Activities" ▪ Director's Order 28: <i>Cultural Resource Management</i> ▪ Director's Order 28A: <i>Archeology</i> ▪ <i>The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation</i> ▪ NPS <i>Natural Resource Management Reference Manual</i> 77

Fundamental Resource or Value	High Elevation Ecosystem
Related Significance Statements	<ul style="list-style-type: none"> ▪ 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

Fundamental Resource or Value	High Elevation Ecosystem
	backcountry solitude, the landscape provides extraordinary year round recreational opportunities and visitor experience.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> 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 are present on the preserve as well as multiple species found nowhere else in the state. 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. Three species of European earthworms have established on the preserve (New Mexico has no native earthworms); potential significant changes in grassland and forest ecosystem functioning (litter processing and soil nutrient cycling) may occur. Prairie dog colonies are found throughout the preserve. Brown and rainbow trout are non native species that have become popular among visitors for fishing opportunities. Crayfish are also non native. The current Rocky Mountain elk population of approximately 2,000 animals in the caldera (4000 6000 across the Jemez Mountains) is very high compared to historic levels; the current population descends from 20th century re introductions 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. Numerous riparian planting enclosures have been constructed that have the potential to create habitat for sensitive species.

Fundamental Resource or Value	High Elevation Ecosystem
	<ul style="list-style-type: none"> ▪ Preserve streams have been assessed beginning in 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 into the present. ▪ 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 fans 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. <p>Trends</p> <ul style="list-style-type: none"> ▪ 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, shifts from forest dwelling to meadow dwelling species, and 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.

Fundamental Resource or Value	High Elevation Ecosystem
	<ul style="list-style-type: none"> 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.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> 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. The Valle Toledo artesian well is draining deep groundwater resources; it should be shut off and sealed. An artesian well in the Valle Grande is also leaking groundwater around the casing and should be further investigated. Invasive plant species may 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. A large elk population impacts restoration efforts and aspen regeneration. Chitrid fungus and Rana virus have been detected in the preserve and the potential to harm amphibian populations. Non native earthworms are likely changing soil structure and functioning. The potential for human wildlife interactions may change with increased human activity on the preserve by visitors, researchers, and other administrative uses. 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 will negatively affect species such as pika; the potential effects for other species needs further study. White nose syndrome may be a threat to bat species on the preserve. Increased visitation, staff uses, and research activities may impact wildlife behavior, spread disease, and increase noxious weeds. <p>Opportunities</p> <ul style="list-style-type: none"> Partnering with tribes, adjacent landowners, and downstream water users can help the preserve monitor water quality and increase the protection and conservation of native species.

Fundamental Resource or Value	High Elevation Ecosystem
	<ul style="list-style-type: none"> ▪ Maintaining and establishing new partnerships with the preserve's friends group and other non profit groups on ecological restoration and inventory and monitoring efforts will continue to support the preserve's mission. ▪ Reintroducing native species, including species listed as endangered or threatened will promote the preserve's mandate to restore natural ecosystem processes. ▪ Continued watershed restoration projects are improving riparian vegetation which may provide future habitat for federally threatened and endangered species; as well as, several important state listed species. ▪ Continuing the all taxa biological surveys on the preserve have the potential to identify new and undescribed species. ▪ Reintroduction of the New Mexico meadow jumping mouse could be included as part of the preserve's restoration activities.
Data and/or GIS Needs	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ 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.

Fundamental Resource or Value	High Elevation Ecosystem
	<ul style="list-style-type: none"> Transportation plan. Hunt management plan. Wellhead protection area plan. Re introduction of Rio Grande cutthroat trout plan. New Mexico meadow jumping mouse recovery plan.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> 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" <p>NPS Policy level Guidance (<i>NPS Management Policies 2006</i> and Director's Orders)</p> <ul style="list-style-type: none"> <i>NPS Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" <i>NPS Management Policies 2006</i> (§4.6.1) "Protection of Surface Waters and Groundwaters" <i>NPS Management Policies 2006</i> (§4.6.2) "Water Rights" <i>NPS Management Policies 2006</i> (§4.6.4) "Floodplains" <i>NPS Management Policies 2006</i> (§4.7) "Air Resource Management" <i>NPS Management Policies 2006</i> (§4.9) "Soundscape Management" <i>NPS Management Policies 2006</i> (§4.10) "Lightscape Management" Director's Order 47: <i>Soundscape Preservation and Noise Management</i> Director's Order 77 2: <i>Floodplain Management</i>

Fundamental Resource or Value	A Landscape in Recovery
Related Significance Statements	<ul style="list-style-type: none"> 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 fifteen year experiment continues to contribute to the national dialogue on the role of protected areas for long term economic and

Fundamental Resource or Value	A Landscape in Recovery
	environmental sustainability, and innovative approaches to place based and science based adaptive management.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> 19th and 20th century overgrazing of livestock in the valleys 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 to vegetation from grazing, logging, and roadbuilding, including meadow encroachment and loss of riparian plants such as willows. Clear cut logging from 1963 1971 left more than a thousand 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 1970 80s, left numerous earthen modifications, sometimes massive in Redondo Canyon and Sulphur Canyon. Geothermal well pads were carved into the mountainsides and exploration activities damaged sites with unique geothermal resources. Wetlands and streams were heavily degraded due to the overgrazing of riparian grasslands and sedimentation run off 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 are present in the preserve, and are especially abundant in recent burn scars and along roadways. Vegetation in the valleys 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 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, to reduce uncharacteristic forest densities, enhance riparian function, and decrease impacts of noxious invasive species. <p>Trends</p> <ul style="list-style-type: none"> 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. Forest and watershed restoration projects that have been implemented over the past decade, and continue 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.

Fundamental Resource or Value	A Landscape in Recovery
	<ul style="list-style-type: none"> Inventory and monitoring efforts associated with restoration projects are confirming improvements to wildlife habitat, water quality and quantity, and improved biodiversity.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> Lack of proper fencing has occasionally led to livestock grazing in sensitive areas, including in riparian areas and on volcanic domes burned in recent fires. Continued grazing in sensitive areas may negatively affect post fire recovery and watershed restoration. Increased presence and distribution of noxious weed species is occurring in response to wildfire damage, and use and maintenance of roadways. Climate change can 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 may pose a threat to some species and habitats. Increased visitation, staff uses, and research activities may put pressure on recovering resources. <p>Opportunities</p> <ul style="list-style-type: none"> The preserve offers an ideal opportunity to educate the public about the long term effects from historic land management practices, and the benefits of ecological restoration to mitigate those impacts, including by bringing back wildfire into a fire adapted ecosystem. Reintroduction of the New Mexico meadow jumping mouse and other threatened and endangered species will promote overall ecosystem functioning and biodiversity. Increasing volunteer participation and partnerships in preserve restoration activities will promote public understanding and support for similar efforts elsewhere while further improving the health of the preserve's ecosystems. Developing curriculum based interpretation programs and activities to engage with school groups and other youth groups will further the preserve's congressional mandate to promote science and education. Universities and related academic organizations can continue to assist in data collection and cutting edge research in landscape restoration. Collaborate with neighboring Bandelier National Monument and Washington Office Air Resources Division towards recognizing high elevation air impacts and having complementary air quality programs.
Data and/or GIS Needs	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> 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" <p>NPS Policy level Guidance (NPS <i>Management Policies</i> 2006 and Director's Orders)</p> <ul style="list-style-type: none"> NPS <i>Management Policies</i> 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries" NPS <i>Management Policies</i> 2006 (§4.5) "Fire Management" NPS <i>Natural Resource Management Reference Manual</i> 77

Analysis of Other Important Resources and Values

Other Important Resource or Value	Scientific Knowledge and Education
Related Significance Statements	<ul style="list-style-type: none"> 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

Other Important Resource or Value	Scientific Knowledge and Education
	<ul style="list-style-type: none"> ▪ 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 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 in 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. ▪ There is extensive biological inventory and monitoring data collected by the Valles Caldera Trust; 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 being monitored in a rigorous fashion 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. ▪ While considerable data have been collected on natural and cultural resources, these data files need to be re formatted 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. ▪ The preserve has integrated curriculum based primary and secondary education programming into its collection of scientific data, and demand for this programming has already exceeded the preserve's existing capacity. ▪ The preserve holds an extensive collection of scientific photos, which needs improved organization, tagging, and digital storage space. <p>Trends</p> <ul style="list-style-type: none"> ▪ With the completion of many of the resource inventories completed by the Valles Caldera Trust, the preserve has been shifting scientific emphasis to monitoring programs associated with restoration activities, and in collaborating 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 science activities on the preserve.

Other Important Resource or Value	Scientific Knowledge and Education
	<ul style="list-style-type: none"> 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	<p>Threats</p> <ul style="list-style-type: none"> Lack of organization of data may lead to a loss of information or delayed synthesis and interpretation. Outside researchers sometimes do not share data sets or completed reports of research completed in the preserve. This leads to an institutional loss of information. The lack of standardized electronic metadata decreases the preserve's ability to interpret and curate scientific information and imagery. Monitoring data is 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. <p>Opportunities</p> <ul style="list-style-type: none"> Continued establishment and maintenance of long term study sites and instrument infrastructure will enhance participation by outside (non NPS) scientists and researchers. The enabling legislation specifies the importance of science and education research and interpretation, and their role in outdoor educational experiences. The preserve can become a model for citizen science and environmental education. Educational programs for local schools can teach students about science and train groups to help collect scientific data if a staff position is committed to education. Engage more diverse populations of New Mexico for active cultural and natural resources projects. The preserve can cooperate within the National Park Service and with outside partners for improved data sharing and management. The preserve friends group can help connect and partner with outside experts for research opportunities. Incorporating new and innovative management processes and research will allow the preserve to continue operating on the knowledge frontier.
Data and/or GIS Needs	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> ▪ 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	<p>Laws, Executive Orders, and Regulations That Apply to the OIRV</p> <ul style="list-style-type: none"> ▪ 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" <p>NPS Policy level Guidance (<i>NPS Management Policies 2006</i> and Director's Orders)</p> <ul style="list-style-type: none"> ▪ <i>NPS Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" ▪ <i>NPS Management Policies 2006</i> (§2.3.1.4) "Science and Scholarship" ▪ <i>NPS Management Policies 2006</i> (§4.1) "General Management Concepts" ▪ <i>NPS Management Policies 2006</i> (§4.1.4) "Partnerships" ▪ <i>NPS Management Policies 2006</i> (§4.2) "Studies and Collections" ▪ <i>NPS Management Policies 2006</i> (§4.4.1) "General Principles for Managing Biological Resources" ▪ <i>NPS Management Policies 2006</i> (§4.7.2) "Weather and Climate" ▪ <i>NPS Management Policies 2006</i> (§5.1) "Research" ▪ <i>NPS Management Policies 2006</i> (§8.10) "Natural and Cultural Studies, Research, and Collection Activities" ▪ Director's Order 24: <i>NPS Museum Collections Management</i> ▪ Director's Order 28: <i>Cultural Resource Management</i> ▪ <i>NPS Museum Handbook</i>, parts I, II, and III ▪ <i>NPS 75 Natural Resources Inventory and Monitoring Guideline</i> ▪ <i>NPS Natural Resource Management Reference Manual 77</i>

Other Important Resource or Value	History Grove
Related Significance Statements	<ul style="list-style-type: none"> ▪ 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.

Other Important Resource or Value	History Grove
	<ul style="list-style-type: none"> 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	<p>Conditions</p> <ul style="list-style-type: none"> Overall, the trees that make up History Grove have been in good condition. The Ponderosa pine and Douglas fir trees are fire adapted and have survived historic fire events. However, recent evidence 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 and 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 located near the main preserve entrance and is easily accessed by visitors. Culturally marked trees found 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 management's permission. A large percent of the grove's ground cover consists of non native 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. <p>Trends</p> <ul style="list-style-type: none"> 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. Falling trees have increased in the last few years. Public visitation to the grove is expected to continue to grow.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> 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 suffen 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 can disturb the natural soundscape associated with the site and increase dust and air pollution. Trash, trampled grasses, and vehicular damage along the road corridor can affect the old growth trees. Increased visitation contributes to compacted soil restricting natural hydration.

Other Important Resource or Value	History Grove
	<ul style="list-style-type: none"> Climate change has unknown effects on old growth trees. Trees reaching the end of their lifespan have the potential to become safety hazards which 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. <p>Opportunities</p> <ul style="list-style-type: none"> The History Grove is for many the first, and sometimes the only, place to experience an old growth forest. The preserve can promote the grove as a place for visitors to experience natural soundscapes and solitude. The grove is a uniquely suitable location to learn about forest health and long term trends in climate response. Prescribed burns could help restore the natural ecosystem associated with the grove. Local groups can help interpret the preserve's logging history. New interpretation programs can focus on forest ecosystems, old growth forests, grazing, and fire ecology. The preserve can work with other organizations and interested individuals to continue collecting data about the grove and its related ecosystem.
Data and/or GIS Needs	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Fire management plan. Visitor use management plan. Transportation plan. Trails management plan. Integrated pest management plan. Planning for adaptation to climate change.
Laws, Executive Orders, and Regulations That Apply to the OIRV, and NPS Policy level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the OIRV</p> <ul style="list-style-type: none"> 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" <p>NPS Policy level Guidance (NPS <i>Management Policies 2006</i> and Director's Orders)</p> <ul style="list-style-type: none"> NPS <i>Management Policies 2006</i> (§1.6) "Cooperative Conservation Beyond Park Boundaries" NPS <i>Management Policies 2006</i> (§4.1) "General Management Concepts" NPS <i>Management Policies 2006</i> (§4.4.1) "General Principles for Managing Biological Resources" NPS <i>Management Policies 2006</i> (§4.9) "Soundscape Management" NPS <i>Management Policies 2006</i> (§4.10) "Lightscape Management" NPS <i>Management Policies 2006</i> (§5.3) "Cultural Soundscape Management"

Other Important Resource or Value	History Grove
	<ul style="list-style-type: none"> ▪ Director's Order 47: <i>Soundscape Preservation and Noise Management</i> ▪ NPS <i>Natural Resource Management Reference Manual</i> 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 on the preserve, administrative and operational activities are managed out of a facility under short term lease in the Village of Jemez Springs, New Mexico approximately twenty 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 the headquarters. The existing facilities in the preserve's Cabin District (located on the west side of the Valle Grande) include historic structures dating back to the early 20th century in addition to more contemporary non historic facilities. Currently facilities within this maintained frontcountry landscape require significant maintenance, including necessary utility upgrades (water, power, sewer, telecommunications, heating, etc.).

Associated planning and data needs: development concept plan; historic structure use/adaptive reuse plan; sustainability plan; historic building assessments/historic structure report; assess 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 that brings visitors into the entrance 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 valleys

- **Visitor Use and Support Infrastructure.** Valles Caldera is poised to make a broad spectrum of decisions to address how to balance increasing visitor use with the desire to maintain 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 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 by 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), which reduces migration options for many sensitive plant and wildlife species. Climate change vulnerability at Valles Caldera has already been expressed through warmer temperatures and drought in recent decades, with 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 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 In-holding.** 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. Nearly 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 around the same time. The property was sold in 2016 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.** Valles Caldera was managed as a national preserve by the Valles Caldera Trust from 2002–2015 prior to being designated as unit of the national park system. 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.** While 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 to slope stability, soil health, and water quality have occurred through 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 due to past logging, over grazing, 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	Enabling legislation requires a general management plan be completed within 3 years from date of funding being made available.
Key Issue	Frontcountry management plan	H	This is an operational process that would help the preserve make decisions for safe visitor use and access to the preserve.
Key Issue	Development concept plan	H	The preserve is in need of a holistic approach to developing visitor infrastructure and support services for resource protection, visitor access, interpretation and safety. The preserve lacks adequate infrastructure (restrooms, parking, paved roads, signage, interpretive displays, etc.) to provide for increased visitation and quality visitor experience. Infrastructure development and adaptive reuse planning of existing facilities would allow the preserve to provide the visitor services in a sustainable manner.
FRV, OIRV, Key Issue	Visitor use management plan	H	Combined with improved visitor infrastructure this plan would assist the preserve to plan for increased visitation and appropriate measures to manage and mitigate 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. A trails management plan would provide for enhanced visitor experience while considering the long term maintenance costs. The Caldera rim trail feasibility study is required by the enabling legislation within 3 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. Comprehensive planning

PLANNING NEEDS WHERE A DECISION MAKING PROCESS IS NEEDED

Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
			is needed to determine best approaches to achieving circulation throughout the preserve to achieve access for staff and visitors while reducing impacts to resources and views.
FRV, Key Issue	Historic structure use/adaptive reuse plan	H	Evaluate historic preservation and maintenance needs; assess priority needs and costs; establish alternatives for use of historic structures in the Cabin District and elsewhere on the preserve.
FRV, Key Issue	Resource stewardship strategy	H	A resource stewardship strategy can serve as a significant element in park planning, and can serve 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 hunting of elk and turkey are permitted. As the first and only NPS unit in New Mexico where hunting is permitted, the preserve's approach to hunting management would set a precedent for future New Mexico NPS units that permit these activities.
NA (Operational)	Preserve operations plan	H	This plan is critical to efficient operations of a new unit to the National Park Service.
NA (Operational)	Facility use plan	H	The preserve has varying facilities spread over a large area in different stages of usefulness. This would help consolidate and organize efficient use of preserve resources.
NA (Operational)	Park asset management plan	H	Critical to long term funding and care of park assets.
NA (Operational)	Safety plan	H	Needed operational plan for both employee and visitor safety.
NA (Operational)	Records management plan	H	Efficient organization of critical records transitioning from the Valles Caldera Trust to the National Park Service is needed.
Key Issue	Structural fire plan for the Cabin District	H	A safety and response plan to protect 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

PLANNING NEEDS WHERE A DECISION MAKING PROCESS IS NEEDED

Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
			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 are in need of compilation and organization. Conversion to a NPS unit provides the 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 landscape level ecosystem context, is needed to inform and guide programmatic decisions concerning wildlife habitat conservation, landscape restoration, and programs for hunting, fishing, and grazing. In addition, the preserve needs to address specific questions regarding predator and ungulate management, re introduction 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.
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 re integrate 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 <i>Landscape Restoration Stewardship Plan</i> completed by the Valles Caldera Trust, would provide a roadmap to preserve managers to implement this strategy while engaging with the public and associated tribal governments.

PLANNING NEEDS WHERE A DECISION MAKING PROCESS IS NEEDED

Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
OIRV, Key Issue, (Operational)	Archives management plan	H	As a new NPS unit with 15 years of precedent agency management, VALL has a large quantity of paper and digital documents that need formal organization and storage to meet NPS standards and current staff needs fulfill obligations for on going litigation, and achieve disposition with the National Archives. Archives management can 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: <i>Special Park Uses</i> , 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. A comprehensive interpretive plan would provide a roadmap for NPS staff to follow in the process of planning, designing, and developing 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 on going preserve activities have the potential to serve as vectors for the introduction and spread of other non native, invasive species to the preserve in the future. The problem has been further exacerbated by the wildfires across >50% of the preserve since 2011. An integrated pest management plan would also

PLANNING NEEDS WHERE A DECISION MAKING PROCESS IS NEEDED

Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
			address rodent control in buildings and controlling plague in prairie dog towns.
Key Issue	Backcountry management plan	M	There are substantial and growing human activities in the backcountry, including recreation, research, and administrative uses. These activities 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 to access the current level of accessibility and identify opportunities to improve. The findings help guide the preserve in planning for future projects and assuring universal design is incorporated into all projects and programs.
Key Issue	Accessibility self evaluation and transition plan	M	This would help the preserve comply with Director's Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i> . It would help the preserve identify barriers that limit access to preserve programs, facilities, and services. Working in conjunction would be transition strategies until all barriers are removed.
FRV	Landscape restoration and stewardship plan	M	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 the preserve with valuable tools, techniques, and methods to reduce the risk and aid in the elimination or control of invasive species and their impact to native wildlife and vegetation.
FRV, OIRV, Key Issue	Planning for adaptation to climate change	M	Scientific data have shown 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 on going changes. However, much more information is needed to assess the impacts these changes are and will continue to have on the landscape. Planning for adaptation to climate change 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	Re introduction of Rio Grande cutthroat trout plan	M	There is keen interest in reintroduction of native fish species. A plan is needed to assess interaction with other species, evaluate differing approaches, and to provide an opportunity for tribal and public input.

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	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	To guide immediate and long term safety measures at several existing geothermal and groundwater wellhead sites.
Key Issue	Sustainability plan	M	This would assist the preserve in identifying and implementing actions for operational and visitor services environmentally sustainable processes.
NA (Operational)	Disaster response plan	M	Potential disasters include wildfire, flooding, earthquake, uncontrolled radionuclide release from a nearby national laboratory, and volcanic eruption. This plan would assist the preserve to provide 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, 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. While extensive research has been conducted for several decades on the volcanic context of the caldera, the paleontological resources within the preserve are understudied and have not been inventoried. 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 CLR will synthesize the results of the cultural landscape inventory to provide guidance on preservation planning and priorities, development

PLANNING NEEDS WHERE A DECISION MAKING PROCESS IS NEEDED

Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
			of historic districts and landscape treatments, and site planning, 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 data, either modify existing plans or incorporate information into new planning efforts.
FRV	New Mexico meadow jumping mouse recovery plan	L	This plan would help the preserve develop the necessary environmental compliance and alternatives for assisting in the recovery of this native species back into the ecosystem.
FRV	Wildfire recovery plan	L	This plan would help identify fire prone areas within the preserve and provide the environmental consequences and mitigations needed for quick response to recovery efforts following a significant fire event.
FRV	Wilderness character assessment	L	While legacy human impacts, such as logging roads and geothermal exploration well pads, can be found throughout the preserve, many areas still 1) provide the general appearance that the landscape has been affected primarily by the forces of nature, 2) has 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. An 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, Including Which Planning Need This Data Need Relates To
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 study would help ensure the preserve is consulting with the appropriate tribal governments and has a clear understanding of the relations between the landscape and indigenous peoples of the region. The study would also identify culturally significant plant and animal species. This would also include the historic ranching cultures and use of structures.
Key Issue	Administrative history	H	From 2000-2015, 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 can 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 also 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.

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, Including Which Planning Need This Data Need Relates To
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	Data would assist by providing critical information for a trails management plan. It will 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.
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	Evaluation of the potential for a historic district in the Baca Ranch Cabin District to determine with certainty whether this consideration is relevant for on going and future planning there.
FRV	Archeological overview and assessment	H	Currently much of the preserve has not been surveyed or full assessments made of known sites and areas. This data would assist in managing these sensitive resources.
Key Issue	GIS analysis for trails, roads, and parking needs	H	GIS analysis in support of planning for circulation and visitor use. Data and analysis would provide critical information for a trails management plan. This effort would 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, which is in the enabling legislation.
Key Issue	Assess 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 2015 and need to be cataloged for entry into NPS databases. This is needed 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 is needed in

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, Including Which Planning Need This Data Need Relates To
			order to plan for the proper curation of the collections.
OIRV	Data, GIS, and report standardization	H	Assess existing paper and digital materials to develop library and database management policy and protocols to standardize past management efforts and applied science.
FRV, Key Issue	Historic resource study	H	An inventory of historic resources across 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.
OIRV	Archives assessment	H	Obtain technical assistance to manage archival (non object) and photography collections that date from 2000-2015, as well as to inform protocols for future acquisition of archives, especially in association with the oral history program, and from scientifically significant geological work conducted at the caldera from 1945 to the present.
FRV, Key Issue	Historic building assessments/historic structure report	M	Update and review the 2007 "Historic Structures Documentation" to determine sufficiency; determine if a historic structure report is needed; address and resolve gaps found; 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. Include all areas above 9,600 feet. Cultural resources inventory and documentation are needed to support preserve wide and project specific planning efforts, and to contribute to preservation planning. Current cultural resource inventory for the preserve is less than 35%.
FRV, OIRV, Key Issue	Climate/weather monitoring	M	Temperature and precipitation monitoring has been on going 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 also contributes to forest, watershed, and animal habitat restoration efforts.
FRV	Soil survey	M	The soil survey for the preserve has not been completed. It needs to be finalized and made available in final data/GIS formats. Soil survey

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, Including Which Planning Need This Data Need Relates To
			conducted by Sandoval County and U.S. Forest Service is complete but the final work is not in a product format that can be readily used by NPS; develop final products including GIS data and documentary materials.
FRV	All taxa biological inventory	M	Continue All Taxa Biological Inventory (ATBI), primarily for soils biota and invertebrates.
FRV, OIRV	Invasive species inventory	M	Inventories are needed to provide data to 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 organisms invasive are nearly unstudied, and baseline data are needed to establish monitoring programs. These data would be used to establish priorities and inform the development of suitable prevention and control strategies.
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 adaptation planning. Of particular concern are risks for sudden aspen population decline death, insect aided damage to mid sized mortality of conifers, and impacts of stream warming impacts changing stream 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	A traditional ecological knowledge 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 provide the preserve with information to help manage access to and use of natural and/or cultural resources and places of cultural significance.
FRV, Key Issue	Cultural landscapes inventory	M	Cultural landscapes inventories would identify, delineate, document, and assess significance and integrity of cultural landscapes on the preserve.

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, Including Which Planning Need This Data Need Relates To
			Cultural landscapes inventoris would inform decision making for cultural landscapes designation(s) and is 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) has not been confirmed on the preserve despite the abundance of suitable habitat. Enhanced inventories are needed to better assess this endangered species.
OIRV	Complete tree survey	M	Ongoing data collection to aid in future fire planning and ecological restoration efforts.
FRV	GIS data on <i>valle</i> boundaries	M	GIS analysis is 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	GIS data that 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. This would include a full analysis of roads and their subsequent erosional risks.
FRV, Key Issue	Spatial fire risk assessment	M	A spatial fire risk assessment would inform fire management and help prioritize landscape and site treatments.
FRV	Natural resource inventory and assessment	M	Useful data in all planning efforts, including endangered or threatened species.
FRV	Visual resource inventory	M	The visual resource inventory would identify view quality and importance that would establish baseline conditions, and be used to develop views protection strategies.
FRV, Key Issue	Continued monitoring of streams and water quality	M	Stream and water quality monitoring is ongoing and should continue in order to document changes in relation to climate change, fire disturbances, restoration, and other drivers, and to inform adaptive management.
FRV	Elk research	M	Data would support possible ungulate management planning efforts. This would include pregnancy rates, calving populations, and related studies.
FRV	Rio Grande cutthroat trout monitoring and study	M	This monitoring and study are needed to support Rio Grande cutthroat trout introduction planning.
FRV	Updated vegetation mapping (post fires)	M	New vegetation inventory is needed to incorporate and monitor changes resulting from wildfires.

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, Including Which Planning Need This Data Need Relates To
FRV	Inventory and mapping of noxious weed species	M	
Key Issue	Quality control/assurance and analysis of GIS data	M	Compilation 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. In the process of 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 can enhance interpretation of the vital role Valles Caldera 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; baseline data and monitoring are needed to evaluate population health, habitat, and long term risks.
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	Including impacts from drought and pest insects.
OIRV, Key Issue	Inventory and protocols for monitoring geologic features	M	
FRV	Beaver monitoring and habitat study	L	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	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, Including Which Planning Need This Data Need Relates To
	and associated understory vegetation community.		
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 our understanding of this key topographic ecological feature and improve interpretation for visitors.
FRV	Prairie dog disease survey	L	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 transcription and synthesis 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 on forest and watershed restoration programs, and cultural landscape inventory.
OIRV	Dendrochronology study of culturally marked trees	L	Culturally marked trees are found 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 loss to wildfire.
FRV	Synthesis of Jemez Mountains obsidian sources and hydration analyses	L	Obsidian sources of Jemez Mountains, including within Valles Caldera, are of critical importance for understanding regional and national trade and transport in prehistory. While geochemical analyses exist for the array of Jemez obsidian sources, detailed analyses for the sources inside the caldera are as yet incomplete. Obsidian hydration dating, a significant chronometric technique for archaeology, can now only provide relative dates; analysis and calculation of source specific hydration rates would enable using this dating technique for determination of absolute dates for archeological assemblages in the caldera, in the Jemez Mountains, and across the Midwestern and Southwestern United States. Increased sampling and geochemical analyses of obsidian bearing geological areas are needed to determine intra source variation and allow these syntheses.

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, Including Which Planning Need This Data Need Relates To
FRV	Earthworm survey	L	Three species of European earthworms are known in the preserve, but comprehensive inventory is needed to determine all species present and to assess the role of these non natives for potential significant changes in grassland and forest ecosystem functioning, litter processing and soil nutrient cycling, and for transformations of buried archeological deposits.
FRV, OIRV, Key Issue	Update LiDAR coverage to measure current post fire erosion and monitor stream channel changes	L	Prior LiDAR surveys 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. 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	For establishing baseline data on volcanic hazards, and providing basis for monitoring potential effects of future geothermal development.
FRV	Complete paleontology survey	L	Critical for identifying sensitive resource areas 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 (currently less than 5% survey has been completed) to establish the nature and distribution of prehistoric quarry and non quarry sites. This is needed to understand their relationship to geology formations.
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	Geological areas to 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.

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, Including Which Planning Need This Data Need Relates To
FRV	Wildfire and restoration response	L	
OIRV	Documentation of obsidian quarries	L	To inform future research, management, and protection.
Key Issue	Wilderness inventory	L	Assess landscape history and features of the preserve to inform wilderness character assessment and eligibility inclusion in the national wilderness preservation system.
Key Issue	Assessment of geologic hazards and mitigation measures	L	Baseline analysis and evaluation are 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

Jorge Silva Bañuelos, Superintendent
Ana Steffen, Interdisciplinary Scientist / Communicator

Scott Compton, Natural Resources Program Manager, Hydrologist
Kimberly DeVall, Chief, Interpretation and Education
Marin Karraker, Administrative Officer
Bob Parmenter, Chief, Science and Resource Stewardship
Mark Peyton, Wildlife Biologist
Madeline Scheintaub, Cultural Resources Program Manager
Martina Suazo, Plant Ecologist
Brittney VanDerWerff, Park Ranger, Interpretation

Carmen Blumberg, Physical Science Specialist
Dave Davis, Chief, Operation / Facilities Management
Lilie (Richards) Dollins, Archeological Technician
Lenda Folks, Administrative Assistant
Nick Jarman, Archeologist
Jamie Mar, Chief Ranger
Joyce McHugh, Budget Technician
Brenda Montoya, Fee Collection Supervisor
Darren Toya, IT Specialist
Kika Trujillo, Maintenance Worker
Lance Weinbrenner, Maintenance Worker (Recreation Specialist under Valles Caldera Trust)
Johnny Yepa, Maintenance Worker

NPS INTERMOUNTAIN REGION

Skip Meehan, Project Manager, Outdoor Recreation Planner
Art Hutchinson, Chief of Planning
Darci Killpack, Chief Geographic Information System (former)
Melissa Trenchik, Environmental Quality Coordinator / Wilderness Coordinator
Todd Chaudhry, Colorado Plateau, Cooperative Ecosystem Studies Unit Coordinator
Jim Bradford, Archeologist (retired)
Ken Hornbeck, Facilities Program Manager
Richard Kohen, Interpretive Specialist
Brenda McLain, Curator, Western Archeological and Conservation Center
Kim Greenwood, Cultural Anthropologist
Michele D'Arcy, Landscape Architect (retired)

OTHER NPS STAFF

Hilary Retseck, Project Specialist, Denver Service Center, Planning Division
Pam Holtman, Quality Assurance Coordinator, WASO Park Planning and Special Studies
XXXX, Contract Editor, Denver Service Center, Planning Division
XXXX, Visual Information Specialist, Denver Service Center, Planning Division

APPENDIXES

APPENDIX A:
ENABLING LEGISLATION FOR VALLES CALDERA NATIONAL PRESERVE

(Place Valles Caldera Legislation here)

APPENDIX B:
SUMMARY OF DIRECTION IN THE ENABLING LEGISLATION FOR VALLES
CALDERA NATIONAL PRESERVE

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

MANAGEMENT PLAN. 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. The management plan shall be prepared in accordance with section 12(b) of Public Law 2 91 383 (commonly known as the 3 "National Park Service General Authorities Act") (16 U.S.C. 1a 7(b)); and any other applicable laws. The management plan shall be prepared in consultation with the Secretary of Agriculture; State and local governments; Indian tribes and pueblos, including the Pueblos of Jemez, Santa Clara, and San Ildefonso; and the public.

ACQUISITION OF LAND. The Secretary may acquire land and interests in land within the boundaries of the Preserve by purchase from a willing seller with donated or appropriated funds, or by donation.

SCIENCE AND EDUCATION PROGRAM. The Secretary shall establish a science and education program for the Preserve that allows for research and interpretation of the natural, historic, cultural, geologic and other scientific features of the Preserve; provides for improved methods of ecological restoration and science based adaptive management of the Preserve; and promotes outdoor educational experiences in the Preserve. As part of this program, the Secretary may establish a science and education center outside the boundaries of the Preserve in Jemez Springs, New Mexico.

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.

HUNTING, FISHING, AND TRAPPING. Except as it relates to coordination of management with Bandelier National Monument, the Secretary shall permit hunting, fishing, and trapping on land and water within the Preserve in accordance with applicable Federal and State law. The Secretary may designate areas in which, and establish limited periods during which, no hunting, fishing, or trapping shall be permitted for reasons of public safety, administration, or compliance with applicable law. 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. Nothing in this section affects any jurisdiction or responsibility of the State with respect to fish and wildlife in the Preserve.

ECOLOGICAL RESTORATION. 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.). The Secretary may enter into agreements with adjacent pueblos to coordinate certain restoration activities on the Preserve and adjacent pueblo land.

WITHDRAWAL. Subject to valid existing rights, all land and interests in land within the boundaries of the Preserve are withdrawn from entry, disposal, or appropriation under the public land laws;

location, entry, and patent under the mining laws; and operation of the mineral leasing laws, geothermal leasing laws, and mineral materials laws.

VOLCANIC DOMES AND OTHER PEAKS. For the purposes of preserving natural, cultural, religious, archaeological, and historic resources, there will be limitations on construction of roads and buildings, and motorized access on the volcanic domes and other peaks in the Preserve (as listed). Limitations on these domes and peaks apply above 9,600 feet in elevation or 250 feet below the top of the dome, whichever is lower. The volcanic domes and other peaks referred to here are Redondo Peak; Redondito; South Mountain; San Antonio Mountain; Cerro Seco; Cerro San Luis; Cerros Santa Rosa; Cerros del Abrigo; Cerro del Medio; Rabbit Mountain; Cerro Grande; Cerro Toledo; Indian Point; Sierra de los Valles; and Cerros de los Posos. Exceptions are allowed where 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).

TRADITIONAL CULTURAL AND RELIGIOUS SITES. The Secretary, in consultation with Indian tribes and pueblos, shall ensure the protection of traditional cultural and religious sites in the Preserve. The Secretary, in accordance with Public Law 95 341 (commonly known as the "American Indian Religious Freedom Act") (42 U.S.C. 1996), for the purposes of preserving the natural, cultural, religious, archaeological, and historic resources, shall provide access to traditional cultural and religious sites in the Preserve by members of Indian tribes or pueblos for traditional cultural and customary uses; and may, on request of an Indian tribe or pueblo, temporarily close to general public use one 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. 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 the Act.

CALDERA RIM TRAIL. Not later than 3 years after the date of enactment of the 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 Valles Caldera on land within the Preserve; and National Forest System land that is adjacent to the Preserve. 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 cultural and religious sites in the vicinity of the trail; and the privacy of adjacent pueblo land.

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

APPENDIX D:
INVENTORY OF ADMINISTRATIVE COMMITMENTS

Title / Agency / Organization	Purpose / Description	Expiration Date	Responsible Party
Memorandums of Understanding (MOU)			
Sandoval County Sheriff's Office	Law Enforcement Mutual Aid Agreement (in draft)	04/30/2019	Chief Ranger
Sandoval and Los Alamos Counties	Mutual Aid Agreement TBD	TBD	Chief Ranger
Sandoval and Los Alamos Counties	Mutual Aid Agreement TBD	TBD	Chief Ranger
Interagency Agreements (IA)			
U.S. Forest Service Rocky Mountain Research Station	ArcBurn	TBD	Interdisciplinary Science Communicator
U.S. Forest Service and U.S. Fish and Wildlife Service	Law Enforcement Cross Designations	On going	Chief Ranger
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
National Resources Conservation Service	Installation and operation of a SNOTEL site	12/2065	Chief, Science and Resources
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
New Mexico State University	CESU Large mammal monitoring	12/2019	Chief, Science and Resources
New Mexico State University	CESU Tree seedling monitoring	12/2017	Chief, Science and Resources
University of New Mexico, Office of Contract Archaeology	CESU Archaeological survey and modelling	12/2019	Chief, Science and Resources
University of New Mexico	CESU Post fire monitoring of terrestrial arthropods	9/2017	Chief, Science and Resources
University of New Mexico	CESU Arthropod long term monitoring	12/2017	Chief, Science and Resources
University of New Mexico	CESU Doppler Radar precipitation mapping	12/2017	Chief, Science and Resources
University of New Mexico	CESU Collaborative statistical analyses of Valles Caldera National Preserve project data	12/2017	Chief, Science and Resources
University of New Mexico	CESU Post fire monitoring of stream water quality and fens	12/2017	Chief, Science and Resources
University of Nevada, DRI	CESU RAWS weather stations climate/weather monitoring	12/2017	Chief, Science and Resources

Title / Agency / Organization	Purpose/ Description	Expiration Date	Responsible Party
Northern Arizona University	CESU Monitoring soils and soil biota effects of forest restoration	12/2018	Chief, Science and Resources
Texas Tech University	CESU Invasive plant species inventory and monitoring	12/2017	Chief, Science and Resources
University of Arizona	CESU Monitoring microhabitat climate conditions for Jemez Mountains salamanders (Endangered Species)	12/2017	Chief, Science and Resources
Los Amigos de Valles Caldera	Cooperative Agreement (CA) Restoration, interpretation, education, science, recreation	8/2021	Chief, Interpretation and Education
Hawks Aloft	CA Bird community monitoring for fires and forest restoration	12/2020	Chief, Science and Resources
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	Inter park fire management program	TBD	Superintendent
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, 1st Amendment activities, weddings, group gatherings, self guided group tours, etc.	Short term	Special Park Use Coordinator
Various individuals and entities	Grazing	Annually: 6/1 9/30	Special Park Use Coordinator
Various individuals and entities	Commercial Filming/Photography	Short term	Special Park Use Coordinator
Rights of Way			
Utility corridors telephone (2)	Windstream	On going	
Utility corridor telephone	CenturyLink	On going	
Utility corridor electric raised (2)	Jemez Mtns. Electric Cooperative	On going	
Utility corridor electric buried	Jemez Mtns. Electric Cooperative	On going	
Utility corridor natural gas	New Mexico Gas Co./TECO	On going	
New Mexico State Route 4	State of New Mexico	On going	
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 Use Coordinator

PPSS Foundation Program
Assessment of Planning and Data Needs Database

Current as of November 1, 2017

IMR and SER updated May-June 2017
NCR updated July 2017
MWR updated October 2017
NER and PWR in process as of November 2017

NOTE: Data needs are currently being refined and should NOT be considered official.

Transportation	Y
----------------	---

Sum of Number	Column Labels				
Row Labels	High	Medium	Low	N/A	Grand Total
Trail Management Plan	45	36	15	6	102
Transportation Plan	26	24	16	5	71
Sign Management Plan	19	30	11	3	63
Road/Corridor Management Plan	15	10	4	1	30
Development Concept/Site Plan	10	2	3	1	16
Visitor Use Management Plan	3		1	2	6
Maintenance Plan	2				2
Facility Use Plan	1	1			2
River Use Management Plan	1				1
Operations Plan		2			2
Landscape Maintenance Plan		1			1
Grand Total	122	106	50	18	296

State Labels	
AK	Admiral's Park
AL	Admiral's Park
AR	Admiral's Park
CA	Admiral's Park
CO	Admiral's Park
CT	Admiral's Park
DE	Admiral's Park
FL	Admiral's Park
GA	Admiral's Park
HI	Admiral's Park
IL	Admiral's Park
IN	Admiral's Park
IA	Admiral's Park
KS	Admiral's Park
KY	Admiral's Park
LA	Admiral's Park
MA	Admiral's Park
MD	Admiral's Park
ME	Admiral's Park
MI	Admiral's Park
MN	Admiral's Park
MO	Admiral's Park
MS	Admiral's Park
MT	Admiral's Park
NE	Admiral's Park
NH	Admiral's Park
NJ	Admiral's Park
NM	Admiral's Park
NY	Admiral's Park
NC	Admiral's Park
ND	Admiral's Park
OH	Admiral's Park
OK	Admiral's Park
OR	Admiral's Park
PA	Admiral's Park
RI	Admiral's Park
SC	Admiral's Park
SD	Admiral's Park
TN	Admiral's Park
TX	Admiral's Park
UT	Admiral's Park
VA	Admiral's Park
VT	Admiral's Park
WA	Admiral's Park
WI	Admiral's Park
WY	Admiral's Park
ZZ	Admiral's Park

[illegible]

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50
51	52
53	54
55	56
57	58
59	60
61	62
63	64
65	66
67	68
69	70
71	72
73	74
75	76
77	78
79	80
81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

GA-001-0001	Basic concepts and definitions	What is a set? What is a subset?	High	2017	1	1	10:00	GA-001-0001	GA-001-0001	
GA-001-0002	Set operations	Union, intersection, difference	High	2017	1	2	10:00	GA-001-0002	GA-001-0002	
GA-001-0003	Power set	What is the power set of a set?	High	2017	1	3	10:00	GA-001-0003	GA-001-0003	
GA-001-0004	Cardinality	How many elements does a set have?	High	2017	1	4	10:00	GA-001-0004	GA-001-0004	
GA-001-0005	Counting	How many ways can we choose a subset?	High	2017	1	5	10:00	GA-001-0005	GA-001-0005	
GA-001-0006	Combinatorics	Permutations and combinations	High	2017	1	6	10:00	GA-001-0006	GA-001-0006	
GA-001-0007	Probability	What is the probability of an event?	High	2017	1	7	10:00	GA-001-0007	GA-001-0007	
GA-001-0008	Statistics	Mean, median, mode	High	2017	1	8	10:00	GA-001-0008	GA-001-0008	
GA-001-0009	Calculus	Derivatives and integrals	High	2017	1	9	10:00	GA-001-0009	GA-001-0009	
GA-001-0010	Linear algebra	Matrices and vectors	High	2017	1	10	10:00	GA-001-0010	GA-001-0010	
GA-001-0011	Differential equations	Solving ordinary differential equations	High	2017	1	11	10:00	GA-001-0011	GA-001-0011	
GA-001-0012	Partial differential equations	Solving partial differential equations	High	2017	1	12	10:00	GA-001-0012	GA-001-0012	
GA-001-0013	Functional analysis	Normed spaces and Banach spaces	High	2017	1	13	10:00	GA-001-0013	GA-001-0013	
GA-001-0014	Harmonic analysis	Fourier series and transforms	High	2017	1	14	10:00	GA-001-0014	GA-001-0014	
GA-001-0015	Algebra	Groups and rings	High	2017	1	15	10:00	GA-001-0015	GA-001-0015	
GA-001-0016	Geometry	Euclidean geometry	High	2017	1	16	10:00	GA-001-0016	GA-001-0016	
GA-001-0017	Topology	Topological spaces	High	2017	1	17	10:00	GA-001-0017	GA-001-0017	
GA-001-0018	Number theory	Prime numbers and divisibility	High	2017	1	18	10:00	GA-001-0018	GA-001-0018	
GA-001-0019	Complex analysis	Complex functions	High	2017	1	19	10:00	GA-001-0019	GA-001-0019	
GA-001-0020	Real analysis	Real numbers and functions	High	2017	1	20	10:00	GA-001-0020	GA-001-0020	
GA-001-0021	Mathematical logic	Propositional logic	High	2017	1	21	10:00	GA-001-0021	GA-001-0021	
GA-001-0022	Mathematical logic	First-order logic	High	2017	1	22	10:00	GA-001-0022	GA-001-0022	
GA-001-0023	Mathematical logic	Model theory	High	2017	1	23	10:00	GA-001-0023	GA-001-0023	
GA-001-0024	Mathematical logic	Set theory	High	2017	1	24	10:00	GA-001-0024	GA-001-0024	
GA-001-0025	Mathematical logic	Cardinal numbers	High	2017	1	25	10:00	GA-001-0025	GA-001-0025	
GA-001-0026	Mathematical logic	Ordinal numbers	High	2017	1	26	10:00	GA-001-0026	GA-001-0026	
GA-001-0027	Mathematical logic	Forcing	High	2017	1	27	10:00	GA-001-0027	GA-001-0027	
GA-001-0028	Mathematical logic	Large cardinals	High	2017	1	28	10:00	GA-001-0028	GA-001-0028	
GA-001-0029	Mathematical logic	Inner model theory	High	2017	1	29	10:00	GA-001-0029	GA-001-0029	
GA-001-0030	Mathematical logic	Admissible sets	High	2017	1	30	10:00	GA-001-0030	GA-001-0030	
GA-001-0031	Mathematical logic	Recursion theory	High	2017	1	31	10:00	GA-001-0031	GA-001-0031	
GA-001-0032	Mathematical logic	Computational complexity	High	2017	1	32	10:00	GA-001-0032	GA-001-0032	
GA-001-0033	Mathematical logic	Descriptive set theory	High	2017	1	33	10:00	GA-001-0033	GA-001-0033	
GA-001-0034	Mathematical logic	Effective descriptive set theory	High	2017	1	34	10:00	GA-001-0034	GA-001-0034	
GA-001-0035	Mathematical logic	Reverse mathematics	High	2017	1	35	10:00	GA-001-0035	GA-001-0035	
GA-001-0036	Mathematical logic	Proof theory	High	2017	1	36	10:00	GA-001-0036	GA-001-0036	
GA-001-0037	Mathematical logic	Model theory	High	2017	1	37	10:00	GA-001-0037	GA-001-0037	
GA-001-0038	Mathematical logic	Set theory	High	2017	1	38	10:00	GA-001-0038	GA-001-0038	
GA-001-0039	Mathematical logic	Cardinal numbers	High	2017	1	39	10:00	GA-001-0039	GA-001-0039	
GA-001-0040	Mathematical logic	Ordinal numbers	High	2017	1	40	10:00	GA-001-0040	GA-001-0040	
GA-001-0041	Mathematical logic	Forcing	High	2017	1	41	10:00	GA-001-0041	GA-001-0041	
GA-001-0042	Mathematical logic	Large cardinals	High	2017	1	42	10:00	GA-001-0042	GA-001-0042	
GA-001-0043	Mathematical logic	Inner model theory	High	2017	1	43	10:00	GA-001-0043	GA-001-0043	
GA-001-0044	Mathematical logic	Admissible sets	High	2017	1	44	10:00	GA-001-0044	GA-001-0044	
GA-001-0045	Mathematical logic	Recursion theory	High	2017	1	45	10:00	GA-001-0045	GA-001-0045	
GA-001-0046	Mathematical logic	Computational complexity	High	2017	1	46	10:00	GA-001-0046	GA-001-0046	
GA-001-0047	Mathematical logic	Descriptive set theory	High	2017	1	47	10:00	GA-001-0047	GA-001-0047	
GA-001-0048	Mathematical logic	Effective descriptive set theory	High	2017	1	48	10:00	GA-001-0048	GA-001-0048	
GA-001-0049	Mathematical logic	Reverse mathematics	High	2017	1	49	10:00	GA-001-0049	GA-001-0049	
GA-001-0050	Mathematical logic	Proof theory	High	2017	1	50	10:00	GA-001-0050	GA-001-0050	
GA-001-0051	Mathematical logic	Model theory	High	2017	1	51	10:00	GA-001-0051	GA-001-0051	
GA-001-0052	Mathematical logic	Set theory	High	2017	1	52	10:00	GA-001-0052	GA-001-0052	
GA-001-0053	Mathematical logic	Cardinal numbers	High	2017	1	53	10:00	GA-001-0053	GA-001-0053	
GA-001-0054	Mathematical logic	Ordinal numbers	High	2017	1	54	10:00	GA-001-0054	GA-001-0054	
GA-001-0055	Mathematical logic	Forcing	High	2017	1	55	10:00	GA-001-0055	GA-001-0055	
GA-001-0056	Mathematical logic	Large cardinals	High	2017	1	56	10:00	GA-001-0056	GA-001-0056	
GA-001-0057	Mathematical logic	Inner model theory	High	2017	1	57	10:00	GA-001-0057	GA-001-0057	
GA-001-0058	Mathematical logic	Admissible sets	High	2017	1	58	10:00	GA-001-0058	GA-001-0058	
GA-001-0059	Mathematical logic	Recursion theory	High	2017	1	59	10:00	GA-001-0059	GA-001-0059	
GA-001-0060	Mathematical logic	Computational complexity	High	2017	1	60	10:00	GA-001-0060	GA-001-0060	
GA-001-0061	Mathematical logic	Descriptive set theory	High	2017	1	61	10:00	GA-001-0061	GA-001-0061	
GA-001-0062	Mathematical logic	Effective descriptive set theory	High	2017	1	62	10:00	GA-001-0062	GA-001-0062	
GA-001-0063	Mathematical logic	Reverse mathematics	High	2017	1	63	10:00	GA-001-0063	GA-001-0063	
GA-001-0064	Mathematical logic	Proof theory	High	2017	1	64	10:00	GA-001-0064	GA-001-0064	
GA-001-0065	Mathematical logic	Model theory	High	2017	1	65	10:00	GA-001-0065	GA-001-0065	
GA-001-0066	Mathematical logic	Set theory	High	2017	1	66	10:00	GA-001-0066	GA-001-0066	
GA-001-0067	Mathematical logic	Cardinal numbers	High	2017	1	67	10:00	GA-001-0067	GA-001-0067	
GA-001-0068	Mathematical logic	Ordinal numbers	High	2017	1	68	10:00	GA-001-0068	GA-001-0068	
GA-001-0069	Mathematical logic	Forcing	High	2017	1	69	10:00	GA-001-0069	GA-001-0069	
GA-001-0070	Mathematical logic	Large cardinals	High	2017	1	70	10:00	GA-001-0070	GA-001-0070	
GA-001-0071	Mathematical logic	Inner model theory	High	2017	1	71	10:00	GA-001-0071	GA-001-0071	
GA-001-0072	Mathematical logic	Admissible sets	High	2017	1	72	10:00	GA-001-0072	GA-001-0072	
GA-001-0073	Mathematical logic	Recursion theory	High	2017	1	73	10:00	GA-001-0073	GA-001-0073	
GA-001-0074	Mathematical logic	Computational complexity	High	2017	1	74	10:00	GA-001-0074	GA-001-0074	
GA-001-0075	Mathematical logic	Descriptive set theory	High	2017	1	75	10:00	GA-001-0075	GA-001-0075	
GA-001-0076	Mathematical logic	Effective descriptive set theory	High	2017	1	76	10:00	GA-001-0076	GA-001-0076	
GA-001-0077	Mathematical logic	Reverse mathematics	High	2017	1	77	10:00	GA-001-0077	GA-001-0077	
GA-001-0078	Mathematical logic	Proof theory	High	2017	1	78	10:00	GA-001-0078	GA-001-0078	
GA-001-0079	Mathematical logic	Model theory	High	2017	1	79	10:00	GA-001-0079	GA-001-0079	
GA-001-0080	Mathematical logic	Set theory	High	2017	1	80	10:00	GA-001-0080	GA-001-0080	
GA-001-0081	Mathematical logic	Cardinal numbers	High	2017	1	81	10:00	GA-001-0081	GA-001-0081	
GA-001-0082	Mathematical logic	Ordinal numbers	High	2017	1	82	10:00	GA-001-0082	GA-001-0082	
GA-001-0083	Mathematical logic	Forcing	High	2017	1	83	10:00	GA-001-0083	GA-001-0083	
GA-001-0084	Mathematical logic	Large cardinals	High	2017	1	84	10:00	GA-001-0084	GA-001-0084	
GA-001-0085	Mathematical logic	Inner model theory	High	2017	1	85	10:00	GA-001-0085	GA-001-0085	
GA-001-0086	Mathematical logic	Admissible sets	High	2017	1	86	10:00	GA-001-0086	GA-001-0086	
GA-001-0087	Mathematical logic	Recursion theory	High	2017	1	87	10:00	GA-001-0087	GA-001-0087	
GA-001-0088	Mathematical logic	Computational complexity	High	2017	1	88	10:00	GA-001-0088	GA-001-0088	
GA-001-0089	Mathematical logic	Descriptive set theory	High	2017	1	89	10:00	GA-001-0089	GA-001-0089	
GA-001-0090	Mathematical logic	Effective descriptive set theory	High	2017	1	90	10:00	GA-001-0090	GA-001-0090	
GA-001-0091	Mathematical logic	Reverse mathematics	High	2017	1	91	10:00	GA-001-0091	GA-001-0091	
GA-001-0092	Mathematical logic	Proof theory	High	2017	1	92	10:00	GA-001-0092	GA-001-0092	
GA-001-0093	Mathematical logic	Model theory	High	2017	1	93	10:00	GA-001-0093	GA-001-0093	
GA-001-0094	Mathematical logic	Set theory	High	2017	1	94	10:00	GA-001-0094	GA-001-0094	
GA-001-0095	Mathematical logic	Cardinal numbers	High	2017	1	95	10:00	GA-001-0095	GA-001-0095	
GA-001-0096	Mathematical logic	Ordinal numbers	High	2017	1	96	10:00	GA-001-0096	GA-001-0096	
GA-001-0097	Mathematical logic	Forcing	High	2017	1	97	10:00	GA-001-0097	GA-001-0097	
GA-001-0098	Mathematical logic	Large cardinals	High	2017	1	98	10:00	GA-001-0098	GA-001-0098	
GA-001-0099	Mathematical logic	Inner model theory	High	2017	1	99	10:00	GA-001-0099	GA-001-0099	
GA-001-0100	Mathematical logic	Admissible sets	High	2017	1	100	10:00	GA-001-0100	GA-001-0100	

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Cell: 00918
Comment: Charles C. No 201
This includes a check of all the ways a line might be used: from left to right, up to down, and across, etc.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Call C2027
Comment: Chair en C No zon
L'été twice en l'été

Call C2127
Comment: Chair en C No zon
CHR CONO FOGO

Call C2128
Comment: Chair en C No zon
CHR CONO FOGO

Call C2129
Comment: Chair en C No zon
CHR CONO FOGO

Call C2130
Comment: Chair en C No zon
CHR CONO FOGO

Call C2151
Comment: Chair en C No zon
CHR CONO FOGO

Call C2152
Comment: Chair en C No zon
CHR CONO FOGO

Call C2153
Comment: Chair en C No zon
CHR CONO FOGO

Call D2059
Comment: count on
for 1st

[illegible]

	Update Park visitation permit plan	
	Update Park A. wet Management Plan	
	Update Park A. wet Management Plan to reflect various new information	
	Update Park A. wet Management Plan to reflect new information	
	Update Park A. wet Management Plan to reflect new information	



[illegible]

	A	B	C	D	E	F	G	H	I	J	K	L	M
Link to Management Plan	1	1				2							
Link to Final EIS/FEIS/EA	1					2							
Link to Draft EIS/FEIS/EA	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004	2004

Sum of Number	Column Labels				
Row Labels	High	Medium	Low	N/A	Grand Total
AKR	33	7		5	45
IMR	485	496	408		1389
MWR	212	172	99	103	586
NCR	160	156	125		441
NER	277	220	147	26	670
PWR	296	447	139	80	962
SER	398	357	219	16	990
Grand Total	1861	1855	1137	230	5083

Region	NCR				
Sum of Number	Column Labels				
Row Labels	High	Medium	Low		Grand Total
Antietam Natio	13	12	4		29
ANTI	13	12	4		29
Catoctin Mount	9	2	1		12
CATO	9	2	1		12
Chesapeake anc	7	11	4		22
CHOH	7	11	4		22
Ford's Theatre ?	8	7	2		17
FOTH	8	7	2		17
George Washin	22	18	20		60
GWMP	22	18	20		60
Harpers Ferry N	5	11	7		23
HAFE	5	11	7		23
Manassas Natio	7	6	12		25
MANA	7	6	12		25
Monocacy Natic	10	6	7		23
MONO	10	6	7		23
National Capita	43	42	36		121
NACE	2	6	5		13
BAWA	2	1			3
CAWO	6	4	4		14
CWDW	3	3	2		8
FOWA	5	6	6		17
FRDO	1	4	1		6
GREE	2	5	1		8
HABA	3	1	4		8
MAMC	7	4	2		13
OXHI	7	2	6		15
PISC	5	6	5		16
National Mall ai	5	13	7		25
NAMA	5	13	7		25
Potomac Herita	2	1	2		5
POHE	2	1	2		5
Prince William f	10	10	8		28
PRWI	10	10	8		28
Rock Creek Park	11	6	9		26
ROCR	11	6	9		26
The White Hous	5	9	2		16
WHHO	5	9	2		16
Wolf Trap Natio	3	2	4		9
WOTR	3	2	4		9
Grand Total	160	156	125		441

Region	AKR
--------	-----

Sum of Number	Column Labels			
Row Labels	High	Medium	N/A	Grand Total
River Use Management Plan	6			6
Development Concept/Site Plan	3	2	2	7
Wilderness Stewardship Plan	3			3
Resource Stewardship Strategy	2	2		4
Backcountry Management Plan	2			2
Facility Use Plan	2			2
Integrated Pest Management Plan	1			1
Comprehensive Interpretive Plan	1			1
Cultural Landscape Report	1		1	2
Boundary Study	1			1
Hunting Management Plan	1			1
Commercial Services Plan	1		1	2
Preservation Maintenance Plan	1			1
Capital Improvement Plan	1			1
Trail Management Plan	1		1	2
Shoreline Management Plan	1			1
Vegetation Management Plan	1			1
Climate Change Scenario Plan	1			1
Frontcountry Management Plan	1			1
Fisheries Management Plan	1			1
Historic Structure Report	1			1
Transportation Plan		1		1
Land Protection Plan		1		1
Operations Plan		1		1
Grand Total	33	7	5	45

Region				
Sum of Number	Column Labels	High	Medium	Low
Row Labels				Grand Total
Development Concept/Site Plan	30	17	14	61
Resource Stewardship Strategy	25	23	12	60
Visitor Use Management Plan	25	12	7	44
Comprehensive Interpretive Plan	24	22	6	52
Cultural Landscape Report	17	25	19	61
Climate Change Scenario Plan	15	27	21	63
Historic Structure Report	15	16	13	44
Water Resource Management Plan	14	6	5	25
Natural Resources Management Plan	14	8	9	31
Accessibility Plan	13	17	8	38
Collection/Museum Management Plan	12	19	31	62
Tail Management Plan	12	7	10	29
Backcountry Management Plan	11	4	3	18
Invasive Species Management Plan	11	4	8	23
Vegetation Management Plan	10	8	7	25
Partnership Plan	10	9	12	31
Emergency Response Plan	10	7	5	22
Outreach Strategy	10	7	6	23
Cultural Resources Management Plan	10	7	7	24
Transportation Plan	9	1	4	14
Wilderness Stewardship Plan	9	5	2	16
Preservation Maintenance Plan	8	12	4	24
Operational Plan	8	2	2	12
Commercial Services Plan	7	3	4	14
Exhibit Plan	7	6	6	19
Land Protection Plan	6	6	7	19
River Use Management Plan	6	1	1	7
Archaeological Resources Protection Plan	6	8	3	17
Facility Use Plan	5	6	8	19
Visual Resource Management Plan	5	14	15	34
Wildlife Exhibit Plan	5	6	4	15
Business Management Plan	5	3	3	11
Strategic Plan	5	2	1	8
Intrag and Pest Management Plan	5	15	12	32
Staffing Management Plan	4	3	5	12
Southside Management Plan	4	3	3	10
Safety Plan	4	3	1	8
Landscape Maintenance Plan	4	1	1	6
Landmark Management Plan	4	1	2	7
Sustainability Plan	4	5	4	13
Dark Night Skies Management Plan	3	1	4	8
Telecommunications Plan	3	1	3	7
General Management Plan	3	2	1	6
Air Tour Management Plan	3	2	3	8
Capital Improvement Plan	3	3	1	7
Physical Security Plan	3	1	2	6
Comprehensive Management Plan	2	3	1	6
Environmental Management Plan	2	4	2	8
Other	2	3	4	9
General Management Plan Amendment	2			2
Climbing Management Plan	2			2
Rare/Sensitive Species Management Plan	2	1	4	7
State of the Park Report	2	2	1	5
Recreational Opportunities Plan	2			2
Commercial Services Strategy	2	5		7
Boundary Study	2	2	3	7
Erosion Control Plan	2	5	1	8
Scope of Collection Statement	2	8	6	16
Interpretation and Education Plan	2	5	8	15
Park Asset Management Plan	2	5	5	12
Exterior Lighting Plan	1	3	4	8
Adaptation Reuse Plan	1	2	3	6
Sign Management Plan	1	8	2	11
Paleontological Resource Management Plan	1	4	3	8
Tribal Consultations Plan	1			1
Cave Management Plan	1	3	2	6
Science Research Strategy	1	3	4	8
Communications Plan	1	1	3	5
Historic Resource Study	1			1
Historic Furnishings Plan	1	1	1	3
Geologic Resources Management Plan	1			1
Data Management Plan	1	10	3	14
Ungulate Management Plan	1		1	2
Cemetery Management Plan	1			1
Fisheries Management Plan	1	3	3	7
Law Enforcement Operations Plan	1	2		3
Maintenance Plan	1	1	3	5
Environmental Remediation Plan		2	1	3
Paleontological Resource Inventory		2		2
Abandoned Mine Land Reclamation Plan			1	1
National Register Nomination			1	1
Museum Housekeeping Plan		3	4	7
Library Management Plan			1	1
Hunting Management Plan		2		2
Energy Development Impacts Management Plan		1	1	2
Volunteer Management Plan		1	1	2
Housing Management Plan			2	2
Agricultural Lands Management Plan		1	1	2
Frontcountry Management Plan			1	1
Haradour Falls Management Plan		2		2
Habitat Management Plan			1	1
Grand Total	471	457	384	1312

Region	Adapt				
Sum of Number	Column Labels				
Row Labels	High	Medium	Low	N/A	Grand Total
Visitor Use Management Plan	11	3	3	2	19
Partnership Plan	11	5	4	3	23
Historic Structure Report	11	4	6	3	24
Comprehensive Interpretive Plan	11	10	1	3	25
Cultural Landscape Report	11	9	2	2	24
Development Concept/Feasibility Plan	10	2	1	6	19
Collect and Preserve Management Plan	8	11	5	4	28
Trip Management Plan	6	2	3	3	11
Preservation Maintenance Plan	5	2	2	2	11
Resource Stewardship Strategy	5	6	5	1	17
Fish Management Plan	5	3	2	4	14
Boundary Study	5	1	1	4	11
Access Easement Plan	5	2	4	1	12
Transportation Plan	4	2	1	1	8
Visual Resource Management Plan	4	4	3	1	12
Vegetation Management Plan	4	7	3	1	15
General Management Plan	4	2		1	7
Water Resource Management Plan	4	1		1	6
Invasive Species Management Plan	4	1	3		8
Natural Resource Management Plan	4	3	4	1	12
Integrated Pest Management Plan	3	8	1	1	13
River Use Management Plan	3	1		1	5
Cultural Resource Management Plan	3	1	1	1	6
General Management Plan Amendment	3	1		1	5
Site Risk Management Plan	3	1	2		6
Climate Change Scenario Plan	3	3	1	2	9
Anthropological Resource Protection Plan	3	2	1	1	7
Volunteer Management Plan	2	1	1	2	6
Emergency Response Plan	2	3	1	3	9
Land Protection Plan	2	1	3	3	9
Wilderness Stewardship Plan	2	1	1		4
Comprehensive Management Plan	2	1			3
Administrative History	2	1			3
Maintenance Plan	2		1		3
Paleontological Resource Inventory	2				2
Bedrock Geology Management Plan	2	1		1	4
Historic Resource Study	2	1	1		4
Energy Development Impacts Management Plan	2	1			3
Commercial Services Plan	2	3	1	3	9
Environmental Management Plan	2				2
Business Management Plan	2		1	2	5
Exhibit Plan	2	3	2		7
Scope of Collections Statement	2	6	1	2	11
Sign Management Plan	2	3	2	3	10
Operations Plan	2				2
Land Management Plan	1	1	1	3	6
Outreach Strategy	1	4	2	3	10
Fisheries Management Plan	1		2		3
Communications Plan	1	2			3
Paleontological Resource Management Plan	1	1			2
Cemetery Management Plan	1				1
Facility Use Plan	1	1	1	1	4
Museum Housekeeping Plan	1	3	1	1	6
Other	1	2	1	1	5
National Register Nomination	1		1	2	4
Zoning Plan	1	1	1	3	6
Scenic Management Plan	1	1		2	4
Park Asset Management Plan	1				1
Interpretation and Education Plan	1	5	3	2	11
Physical Security Plan	1				1
Stormwater Management Plan	1				1
Strategic Plan	1	2	1	1	5
Land Acquisition Plan	1				1
Uniqueness Management Plan		3			3
Rare/Sensitive Species Management Plan		1	1		2
Archaeological Management Plan		1	1	2	4
Landscape Maintenance Plan		1	2	4	7
Ethnographic Overview and Assessment		1			1
Library Management Plan		1			1
Exterior Lighting Plan		1	3		4
Safety Plan				1	1
Wayside Exhibit Plan		4		1	5
Scientific Research Strategy		1			1
Sustainability Plan		1	1		2
Environmental Remediation Plan		1			1
Housing Management Plan		1	1		2
Shoreline Management Plan		1			1
Data Management Plan		2	1	3	6
Historic Management Plan		3	1	4	8
Archaeological Resource Management Plan		3	1	1	5
Historic Furnishings Plan		3	2	1	6
Cave Management Plan		2			2
Erosion Control Plan		1		1	2
Dark Night Sky Management Plan				1	1
No Planning Needs Identified				1	1
Recreational Opportunity Use Plan		2		1	3
Historic Structure Record of Treatment			1		1
Grand Total	207	171	99	102	579

Region	NCR			
Sum of Number	Column Labels			
Row Labels	High	Medium	Low	Grand Total
Cultural Landscape Report	14	27	9	50
Development Concept/Site Plan	12	1	4	17
Historic Structure Report	11	14	4	29
Visitor Use Management Plan	8	6	5	19
Comprehensive Interpretive Plan	8	6	6	20
Collections/Museum Management Plan	7	4	2	13
Partnership Plan	7	8	2	17
Trail Management Plan	7	5		12
Resource Stewardship Strategy	5		6	11
State of the Park Report	4	1	1	6
Staffing Management Plan	4	1		5
Stormwater Management Plan	4	2	1	7
Facility Use Plan	4		3	7
Emergency Response Plan	4	1	2	7
Vegetation Management Plan	3	6	1	10
Exhibit Plan	3	4	2	9
Transportation Plan	3	2	3	8
Business Management Plan	3	2	2	7
Integrated Pest Management Plan	3	5	2	10
Visual Resource Management Plan	3		3	6
Ungulate Management Plan	2	2	1	5
Erosion Control Plan	2			2
Sign Management Plan	2	6	3	11
Historic Furnishings Plan	2	2	1	5
Scope of Collections Statement	2	7	2	11
Operations Plan	2	2		4
Shoreline Management Plan	2	1		3
Battlefield/Earthworks Management Plan	2	2		4
Strategic Plan	2			2
Museum Housekeeping Plan	2	1	3	6
Invasive Species Management Plan	2	2	5	9
Water Resource Management Plan	1	1	1	3
Cemetery Management Plan	1	1	2	4
Physical Security Plan	1		2	3
Accessibility Plan	1	3	4	8
Archaeological Resources Protection Plan	1	1	1	3
Landscape Maintenance Plan	1	4	3	8
Comprehensive Management Plan	1			1
Maintenance Plan	1		2	3
Preservation Maintenance Plan	1	2	4	7
Communications Plan	1	1	2	4
Fire Management Plan	1			1
Natural Resources Management Plan	1	2		3
Commercial Services Plan	1	2	1	4
Other	1			1
Wayside Exhibit Plan	1	1		2
Outreach Strategy	1	1	1	3
Data Management Plan	1			1
Boundary Study		2		2
Climbing Management Plan	1			1
Fisheries Management Plan			2	2
Capital Improvement Plan			1	1
Rare/Sensitive Species Management Plan		1		1
Soundscape Management Plan			3	3
Agricultural Lands Management Plan		1		1
Cave Management Plan			1	1
Flood Protection Plan		1		1
Adaptive Reuse Plan		2		2
Land Protection Plan		4	1	5
Exterior Lighting Plan			1	1
Volunteer Management Plan		1	1	2
Climate Change Scenario Plan		3	9	12
Interpretation and Education Plan		1		1
Sustainability Plan			2	2
Livestock Management Plan			1	1
Grand Total	156	154	120	430

NER						
Sum of Number Row Labels	Column Labels	High	Medium	Low	N/A	Grand Total
Comprehensive Interpret vs Plan		21	5	3		29
H story - Structure Report		16	19	9		43
Cultural Landscape Report		15	9	3	1	28
Access b Ey Plan		14	5	3	2	24
Patrol Ship Plan		11	4	4		19
Sign Management Plan		9	5	4		18
Resource Stewardship Strategy		9	2	4		15
Climate Change Scenario Plan		9	3	6	1	19
Traffic Management Plan		8	7	3		18
Outreach Strategy		8	12	5	1	26
Development Concept/Use Plan		8	7	5		20
V isitor Use Management Plan		8	13	4	1	26
Emergency Response Plan		7	2	3		12
Park Asset Management Plan		7	2	2		11
Facility Use Plan		7	5	1	1	14
Interpretation and Education Plan		7	4		1	12
Preservation Maintenance Plan		6	5	2	1	14
Strategic Plan		6				6
Collectors/Museum Management Plan		6	16	6		28
Landscape Maintenance Plan		6	5	4		15
Vegetation Management Plan		6	2	2		10
Business Management Plan		6	1	1	2	10
Land Protection Plan		5	5			10
Physical Security Plan		5	1	1		7
Transportation Plan		4	2	1	2	9
Cultural Resources Management Plan		4	2			6
Comprehensive Management Plan		3				3
Siteing Management Plan		3				3
Communications Plan		3	3	1		4
Boundary Study		3	3	2		8
Maintenance Plan		3	1		1	5
Data Management Plan		3	4	3		10
Climbing Management Plan		2				2
General Management Plan		2	2			4
Other		2	2			4
River Use Management Plan		2	1			3
Scope of Collections Statement		2		1		3
Wayside Exhibit Plan		2	2	3		7
Telecommunications Plan		1				1
Shoreline Management Plan		1				1
Natural Resources Management Plan		1	2	1	2	6
Ethnographic Overview and Assessment		1	2			3
Issues vs Species Management Plan		1	4	5	2	12
Archeological Management Plan		1				1
Farm Management Plan		1				1
Operational Plan		1				1
Fish Management Plan		1				1
Butterfly/Earthworks Management Plan		1		1		2
Capital Improvement Plan		1				1
Commercial Services Plan		1		1		2
Historic Furnishings Plan		1	2	3		6
Administrative History		1				1
Rare/Sensitive Species Management Plan		1	1	3		5
National Register Nomination		1				1
Archaeological Resources Protection Plan		1	2	1		4
Visual Resource Management Plan		1	6	3	1	11
Water Resource Management Plan		1	2	1		4
Backcountry Management Plan		1				1
Zoning Plan		1				1
H story - Structure Record of Treatment		1				1
Cemetery Management Plan		3				3
Palaeontological Resource Management Plan		3	1			4
Energy Development Impacts Management Plan			1			1
Sustainability Plan		2	1	1		4
Land Management Plan		1				1
Ungulate Management Plan			1			1
Recreational Opportunity Plan			1			1
Volunteer Management Plan		3	1	2		6
Fisheries Management Plan		2	1	1		4
Agricultural Lands Management Plan		2		1		3
Dark Night Skies Management Plan		1	1			2
H story - Resource Study		2	2	4		8
Scientific Research Strategy		1				1
Exhibit Plan		4	3			7
Library Management Plan				1		1
Houring Management Plan			1			1
List of Classified Structures		1				1
Exterior Lighting Plan		1	3			4
Habitat Management Plan			2			2
Adapt to Resilience Plan		1				1
Soundscape Management Plan		1	1			2
Museum Housekeeping Plan		3	1			4
Hunting Management Plan		1				1
Integrated Pest Management Plan		7	8			15
Grand Total		270	211	136	26	643

Region	PAIR					Grand Total
	Column Labels	High	Medium	Low	N/A	
Sum of Number Row Labels						
Development Concept/Site Plan	25	33	9	2	69	
Visitor Use Management Plan	20	8	2	5	35	
Comprehensive Interpretive Plan	19	13	1	3	36	
Resource Stewardship Strategy	18	8	6	1	33	
Strategic Plan	13	5	2	2	22	
Histo ic Structure Report	11	15	1		27	
Climate Change Scenario Plan	10	12	5	1	28	
Fac. lty Use Plan	10	8	1	1	20	
Partnership Plan	8	14	2		24	
Staffing Management Plan	8	6	1	2	18	
Invasive Species Management Plan	8	7	1	2	18	
Preservation Maintenance Plan	6	9	1		16	
Ope akens Plan	6	7	2	5	20	
Fire Management Plan	6	7	2	1	16	
Ci tural Landscape Report	6	14	4	1	25	
Co llections/Museum Management Plan	5	13	9	4	31	
Tot l Management Plan	5	9	1	1	16	
Comprehensive Management Plan	5	1			6	
Wilderness Stewardship Plan	5	5	2	1	13	
Park Asset Management Plan	4	2			6	
Business Management Plan	4	4	1	1	10	
Sign Management Plan	4	7	2	1	14	
Interp. and Post Management Plan	4	6	2		12	
Transportation Plan	4	8	4	2	18	
Outreach Strategy	4	6	4	2	16	
Oral History Program and Plan	4	2	1		7	
Safety Plan	3	2	1	1	7	
Visual Resource Management Plan	3	7	3	2	15	
Emergency Response Plan	3	8	2	4	17	
General Management Plan Amendment	3	1		1	5	
Boundary Study	3	1	1		5	
Ci tural Resources Management Plan	3	10	1		14	
Water Resource Management Plan	3	10		2	15	
Natural Resources Management Plan	3	11	3	1	18	
Land Protection Plan	2	5	3		10	
Zoning Plan	2	2			4	
Scienti fic Research Strategy	2	2		1	5	
Fishes Management Plan	2	3	2		7	
Rare/Decli ned Species Management Plan	2	7	3	1	13	
Accessibility Plan	2	13	2	2	19	
Commercial Services Plan	2	4		2	8	
Vegetati on Management Plan	2	13	4		19	
Shoreline Management Plan	2	2		1	5	
Interpretation and Education Plan	2	7	5	1	15	
Communications Plan	2	5	1		8	
Cave Management Plan	2	3	1	1	6	
Histo ic Furnishings Plan	1	3	1	1	6	
Sustainable Use Plan	1	1			2	
State of the Park Report	1				1	
Commercial Services Strategy	1	1	2		4	
Clothing Management Plan	1	3	1		5	
Histo ic Resource Study	1	1		1	3	
Environmental Remediation Plan	1		1	1	3	
River Use Management Plan	1	7	1		9	
Capital Improvement Plan	1	4		2	7	
Other	1	3			4	
Telecommunications Plan	1	2	1	1	4	
Housing Management Plan	1	1	1		3	
Ethnographic Overview and Assessment	1	1			2	
General Management Plan	1		1		2	
Backcountry Management Plan	1	2	1	2	6	
Data Management Plan	1	6	2	1	10	
Exh ib it Plan	1	8			9	
Design Guidelines and Principles	1	1			2	
Landscape Maintenance Plan	1	6			7	
Cometary Management Plan	1	1			2	
Exterior Light ing Plan				1	1	
Physical Security Plan		3	3		6	
Paleontological Resource Management Plan		1			1	
Recreational Opportunities Plan			2	1	3	
Submerged Resource Management Plan		2			2	
Flood Protection Plan		2			2	
Air Tour Management Plan		1	2	1	4	
Adopti ve Reuse Plan		3	1		4	
Environmental Management Plan		2			2	
Law Enforcement Operations Plan		1			1	
Abandoned Mine Land Reclamation Plan		1			1	
Climate Change Monitoring		1	2		3	
Administrative History					2	
Scope of Collections Statement		3	1		4	
Archaeological Resources Protection Plan		3			3	
Maintenance Plan		4			4	
Tribal Consultations Plan		1	1		2	
Museum Housekeeping Plan		1			1	
Dark Night Skies Management Plan			2	1	3	
Southside Management Plan		2	3	2	7	
Volunteer Management Plan		5	1	2	8	
National Register Nomination				1	1	
Wayside Exh ib it Plan		4			4	
Hazardous Waste Management Plan		1	2		3	
Land Accession Plan				3	3	
No Planning Needs Identified				1	1	
Landscape Management Plan		3			3	
Grand Total	292	432	139	77	940	

Region	SE					
Sum of Number	Column Labels					
Row Labels	High	Medium	Low	N/A	Grand Total	
Historic Structure Report	27	27	18	5	77	
Visitor Use Management Plan	22	8	4	1	35	
Comprehensive Interpretive Plan	22	8	8		38	
Resource Stewardship Strategy	20	11	6		37	
Development Concept/Use Plan	18	14	13	1	46	
Preservation Maintenance Plan	17	5	2		24	
Cultural Landscape Report	15	10	11	3	39	
Climate Change Scenario Plan	14	13	6	1	34	
Fish Management Plan	9	10	3		22	
Collection/Museum Management Plan	9	19	10		38	
Accessibility Plan	9	9	2		20	
Invasive Species Management Plan	9	6	4		19	
Water Resource Management Plan	8	1	1		10	
Vegetation Management Plan	8	1	6		15	
Natural Resources Management Plan	8	6	2		16	
Visual Resource Management Plan	7	5	8		20	
Partnership Plan	7	8	1		16	
Exhibit Plan	6	9	7		22	
Landscape Maintenance Plan	6	4	2		12	
Land Protection Plan	6	8	7		21	
Sign Management Plan	5	8	3		16	
Invasive Plant Management Plan	5	6	8		19	
Facility Use Plan	5	2	1		8	
Emergency Response Plan	5	2	3		10	
Wayside Exhibit Plan	5	7	1		13	
Battlefield/Earthwork's Management Plan	5	4	1	1	11	
Fishery Management Plan	4	3	2		9	
Wilderness Stewardship Plan	4	1	1		6	
Archaeological Resource Protection Plan	4	2			6	
Transportation Plan	4	9	5		18	
Cultural Resources Management Plan	4	1	2		7	
Business Management Plan	4	5			9	
Maintenance Plan	4	3			7	
Erosion Control Plan	3	2			5	
Cemetery Management Plan	3	3	2		8	
Shoreline Management Plan	3	2			5	
General Management Plan	3			1	4	
Commercial Services Plan	3	3	4		10	
Backcountry Management Plan	2	2	1		5	
River Use Management Plan	2	1	3		6	
Cave Management Plan	2		1		3	
Operations Plan	2	1	1		4	
Safety Plan	2				2	
Interpretation and Education Plan	2	2	1		5	
Strategic Plan	2	2	2		6	
Fire Management Plan	2	3			5	
Museum Housekeeping Plan	2	3	3		8	
Zoning Plan	2				2	
Park Asset Management Plan	2	2		1	5	
Boundary Study	2	5	1		8	
Capital Improvement Plan	1	1	1		3	
Stormwater Management Plan	1	1	1		3	
Land Acquisition Plan	1	1			2	
Habitat Management Plan	1		1		2	
Sustainability Plan	1	2			3	
Rare/Sensitive Species Management Plan	1	5	3		9	
Environmental Remediation Plan	1	1			2	
Rationalization Opportunities Plan	1	2	2		5	
Predator Management Plan	1				1	
Communications Plan	1	2			3	
Other	1		1		2	
Dark Night Skies Management Plan	1	1			2	
Telecommunications Plan	1				1	
Scientific Research Strategy	1		1		2	
Energy Development Impacts Management Plan	1				1	
General Management Plan Amendment	1	1			2	
Outreach Strategy	1	6	4		11	
Administrative History	1				1	
Adoptive Resource Plan	1	2	1		4	
Soundscapes Management Plan	1	1	2		4	
State of the Park Report	1	1			2	
Physical Security Plan	1		2		3	
Scope of Collections Statement			3		3	
Historic Resource Study	5	2	1		8	
Air Tour Management Plan			1		1	
Housing Management Plan		3			3	
Oral History Program and Plan		1			1	
Staffing Management Plan		1			1	
Commercial Services Strategy		1	2		3	
Data Management Plan		4	1		5	
Trials Consultations Plan		1			1	
Law Enforcement Operations Plan		1			1	
Comprehensive Management Plan		2			2	
Livestock Management Plan		2			2	
Volunteer Management Plan		1	2		3	
Hunting Management Plan		2	1		3	
Exterior Lighting Plan		2	2		4	
Air Resource Management Plan		1			1	
Historic Furnishings Plan		2	7		9	
National Register Nomination		1			1	
Climbing Management Plan		3	1		4	
Grand Total	366	339	209	15	929	

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



Foundation Document

Paterson Great Falls National Historical Park

New Jersey

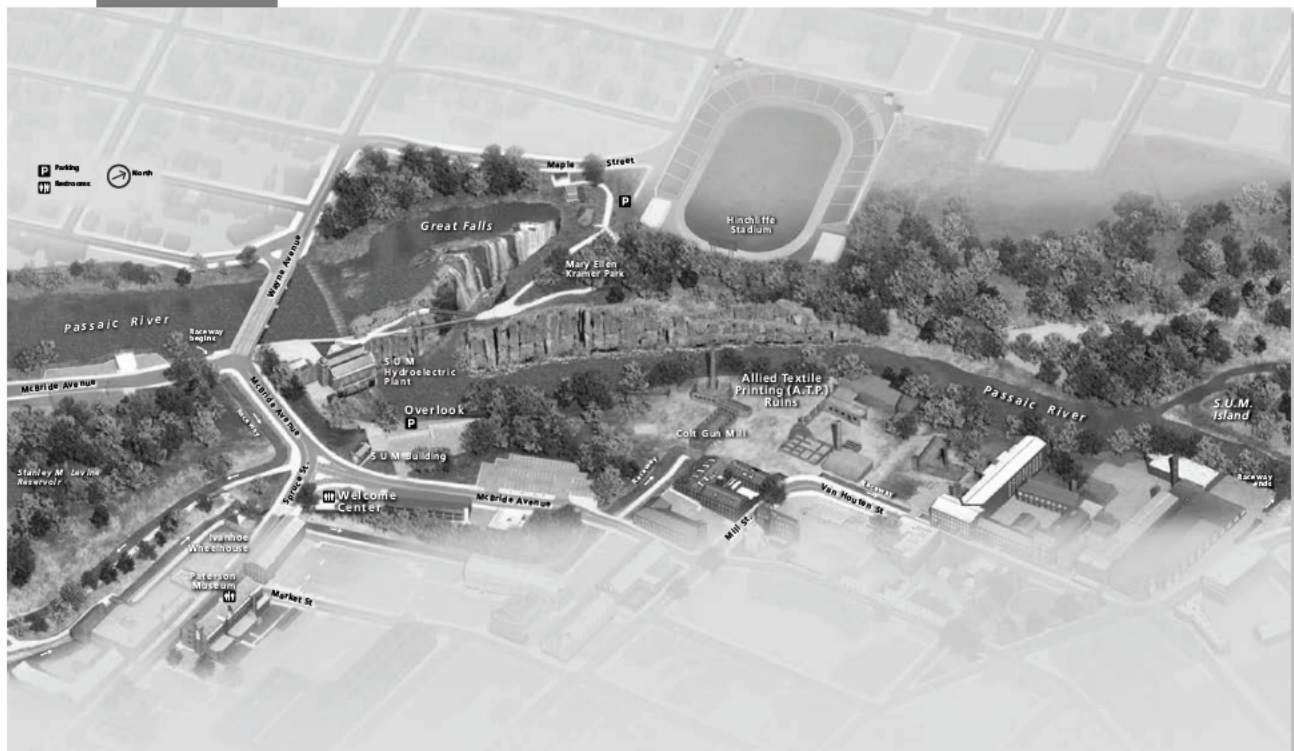
October 2017



F7 Draft
10-23-2017

DOI-2021-06 00256

Foundation Document



Contents

Mission of the National Park Service	1
Introduction.	2
Part 1: Core Components	3
Brief Description of the Park.	3
Park Purpose	4
Park Significance	5
Fundamental Resources and Values	6
Related Resources	7
Interpretive Themes	8
Part 2: Dynamic Components	9
Special Mandates and Administrative Commitments	9
Special Mandates.	9
Administrative Commitments.	10
Assessment of Planning and Data Needs	11
Analysis of Fundamental Resources and Values	11
Identification of Key Issues and Associated Planning and Data Needs	24
Planning and Data Needs.	25
Part 3: Contributors	28
Paterson Great Falls National Historical Park	28
NPS Northeast Region.	28
Other NPS Staff	28
Others	28
Appendixes	29
Appendix A: Enabling Legislation and Legislative Acts for Paterson Great Falls National Historical Park	29
Appendix B: Inventory of Administrative Commitments	30
Appendix C: Paterson Great Falls National Historical Park Interpretive Theme Matrix.	32

Foundation Document



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, 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 Paterson Great Falls National Historical Park 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, and interpretive themes. These components are core because they typically do not change over time. Core components are expected to be used in future planning and management efforts.

Brief Description of the Park

Opportunity, innovation, immigration, the American Dream—the ideas and principles that formed the cornerstone of the United States are represented today at Paterson Great Falls National Historical Park. The stories of our industrial heritage are the stories of America in the 21st century.

Paterson Great Falls National Historical Park encompasses approximately 52 acres adjacent to the Passaic River in the city of Paterson, west of the city's downtown center. Paterson, approximately 15 miles from Manhattan as well as downtown Newark, is within the greater New York Northern New Jersey Metropolitan Area and is the county seat for Passaic County. Portions of the park fall within the Great Falls of the Passaic River / Society for Establishing Useful Manufactures National Historic Landmark Historic District and Great Falls of Paterson Garret Mountain Natural National Landmark. It also includes Hinchliffe Stadium National Historic Landmark, significant for its role in the history of Negro professional baseball in 20th-century segregated America.

The park consists of the natural, cultural, and historic resources associated with the Great Falls of the Passaic River, the hydropower system it feeds, and a 220-year period of industrial history. The Great Falls is an outstanding example of the country's natural history, formed millions of years ago. The geologic formation created an extraordinary 77-foot fall into a naturally occurring 280-foot chasm that attracted American Indians and later Colonial-era tourists. By the late 18th century, entrepreneurs, investors, and government officials, led by Alexander Hamilton, sought to harness the power of the river through the Society for Establishing Useful Manufactures. The resulting concentration of 19th and 20th century industrial buildings and structures, connected to a water power system of raceways fed by the Passaic River just above the Great Falls, illustrates the growth and evolution in industrial planning, architecture, and engineering in the United States from 1792 to 1914.

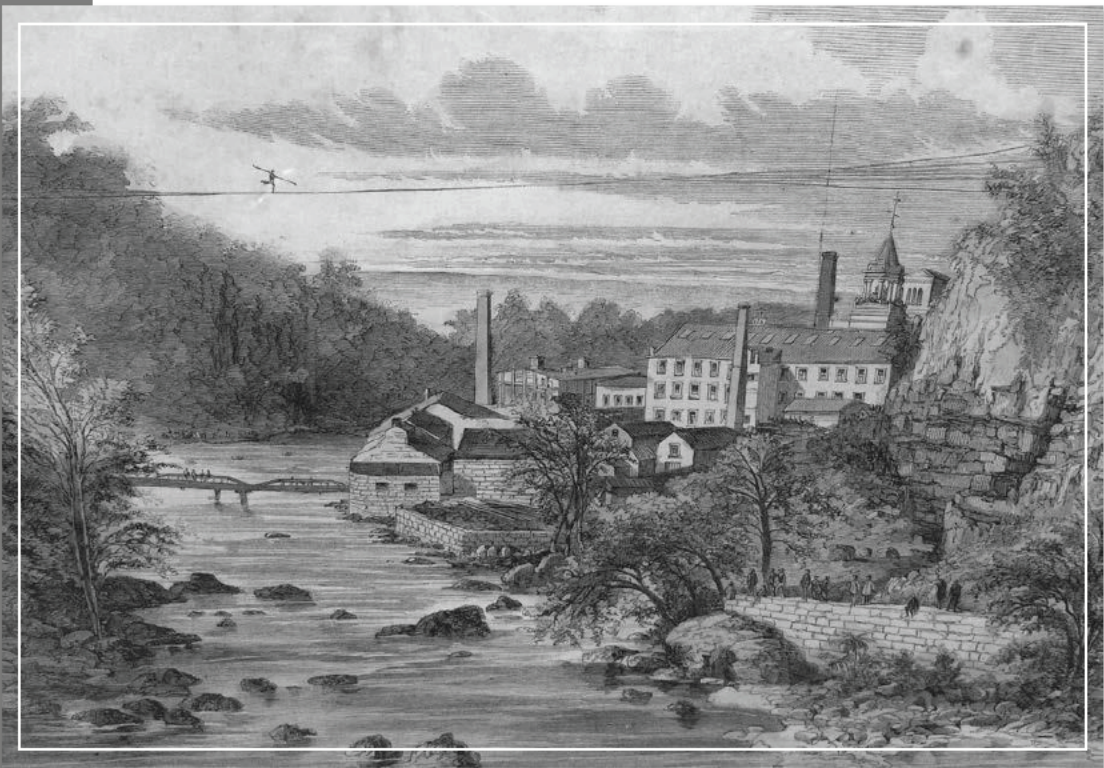
The park is situated in and serves one of the most ethnically and socioeconomically diverse communities in the country. There are more than 50 ethnic groups represented in a population of some 160,000. Many of the descendants of older waves of ethnic immigrant groups live in nearby suburban communities that surround Paterson. Today, there is a tremendous opportunity to introduce diverse communities to the National Park Service through outreach, on-site programs, youth work programs, and the enhancement of educational and recreational opportunities within the park's boundaries, and to do so in cooperation with both public and private partners.

Paterson Great Falls National Historical Park is one of many partnership parks in the national park system. In a partnership park, many parties cooperate to preserve the park's resources and provide experiences for visitors and to accomplish the vision for the park. Today the park has numerous partners who support a variety of park activities and operations. Several have formal agreements with the National Park Service, but many of the park's partnerships are collaborative with less formal arrangements. Paterson Great Falls National Historical Park represents an evolving idea of a park in an urban setting that brings a national park experience "close to home" and whose ownership and management are shared by a group of partners. This approach has many advantages and brings great flexibility in responding to opportunities and challenges as technology and innovation are quickly moving forward.

Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Paterson Great Falls National Historical Park was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The park was established when the enabling legislation adopted by Congress was signed into law on March 30, 2009 (see appendix A for enabling legislation and legislative acts). The purpose statement lays the foundation for understanding what is most important about the park.

The purpose of PATERSON GREAT FALLS NATIONAL HISTORICAL PARK is to preserve and interpret the natural beauty of the Great Falls of the Passaic River and the industrial, cultural, and recreational landscape that formed around its endless source of power. The park and surrounding national historic landmark district illustrate the successful evolution of a manufacturing society that drew from the diversity and innovations of the American people for more than two centuries.



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 Paterson Great Falls National Historical Park, 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 Paterson Great Falls National Historical Park. (Please note that the sequence of the statements does not reflect the level of significance.)

- The Great Falls of the Passaic River, with its natural chasm and 77-foot waterfall, provides an extraordinary scenic and geologic resource in the midst of an industrialized city and opportunities for relaxation, contemplation, and inspiration.
- Paterson Great Falls National Historical Park and the national historic landmark district provide one of the best opportunities to view a complete hydropower system from its source above the Great Falls of the Passaic River to its transformation into power for the mills and the surrounding community. Alexander Hamilton's vision of a model manufacturing city, a central part of his economic strategy for the nation, is embedded in this industrial, cultural, and natural landscape.
- Paterson's raceway system illustrates American ingenuity as the country grew to become a major industrial nation. The raceways offer an outstanding opportunity to interpret the city's industrial past and the Society for Establishing Useful Manufactures' role as a manufacturing incubator making it possible for immigrants to start businesses with limited resources and capital.
- The entrepreneurship and innovations of Paterson's industrialists and workers allowed the city to thrive and evolve over time in a long continuum of industrial use that continues today. Paterson's success can be attributed in large part to immigrants who brought their creativity and experience to the city seeking a better life; a trend that has continued throughout the city's history.
- Hinchliffe Stadium is one of the best examples of a professional Negro League baseball venue. The stadium was specifically sited above the Great Falls so patrons could have a commanding view of Paterson's ever-evolving industrial, social, and natural landscape.



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 Paterson Great Falls National Historical Park:

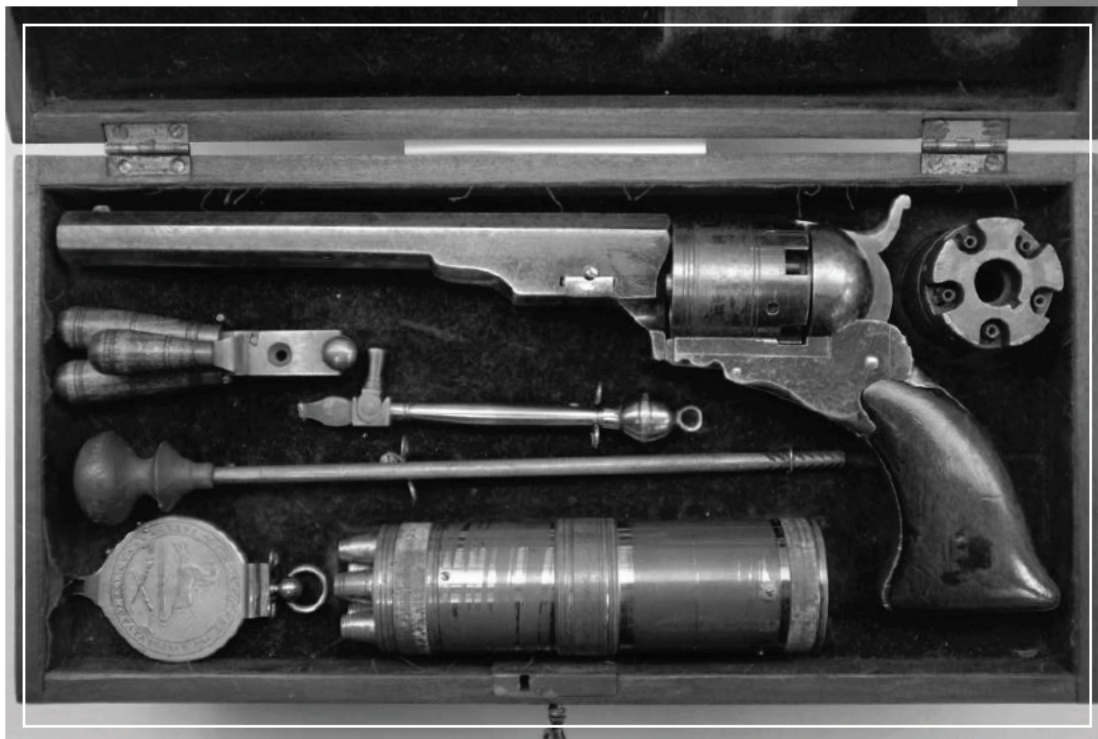
- **Geologic Formation and Features.** The Great Falls of the Passaic River were designated a national natural landmark in 1967, significant because of its creation by the Watchung basaltic lava flow. The geologic formation of the falls has created an extraordinary 77-foot fall into a naturally occurring chasm.
- **Hydrologic Systems.** The Passaic River is the principal drainage of the Great Swamp area that cuts its way through northern New Jersey and eventually cascades over the Great Falls in Paterson. The flowing water was the backbone of industrial development as the City of Paterson was planned and still provides power today. The river also provides an ecological and recreational value to an otherwise industrial city.
- **Historic Structures, Archeological Resources, and Ruins.** Paterson Great Falls National Historical Park's historic structures, structural ruins, and associated archeological resources, including the Society for Establishing Useful Manufactures' (S.U.M.) Administration Building, Allied Textile Printing site (including the Colt Gun Mill ruins), the S.U.M. Steam Plant ruins, and the Ivanhoe Wheelhouse, convey the history of the park's industrial past.
- **Raceway System.** Paterson's system of raceways (gatehouses; wheelhouses; upper, middle, and lower raceways; spillways; outfalls; and associated archeological resources) provides visitors with a complete vision and understanding of how the system functions as a whole and fits into the larger hydropower grid of the industrial landscape.
- **Hinchliffe Stadium.** The municipal stadium hosted Negro League baseball games and served as the home field for the New York Black Yankees and New York Cubans. When segregation of major league baseball ended, the stadium enjoyed new life as a center for sports and entertainment that continued to bring the people of Paterson together.
- **Natural Scenic and Industrial Landscape Views.** The breathtaking views of the Great Falls and surrounding natural landscape allow a glimpse into the inherent beauty of nature in contrast to the manipulated landscape of the industrial city. The topography within the park provides visitors with panoramic views of the national historic landmark historic district's industrial landscape, reflecting settlement and industrial development patterns.
- **Experiential Elements of the Falls.** The experience of hearing the water thunder over the falls, feeling the spray from the water crashing into the chasm, and watching the water churn down the river help the visitor understand the power of the flowing water.

Related Resources

Related resources are not owned by the National Park Service nor are they within the park boundary. They may be part of the broader context or setting in which park resources exist, represent a thematic connection that would enhance the experience of visitors, or have close association with park fundamental resources and the purpose of the park. The related resource represents a connection with the park that often reflects an area of mutual benefit or interest, and collaboration, between the park and owner/stakeholder.

The following related resources have been identified for Paterson Great Falls National Historical Park:

- **Historic Mill Buildings.** The numerous historic mill buildings within the national historic landmark historic district were an integral part of the industrial development of the city. The densely constructed mills along the raceways and river illustrate the success of a 19th century industrial city.
- **Milling Community.** Paterson's success was built largely on the innovative, entrepreneurial spirit of its citizens, most of whom were immigrants. The mill housing, community centers, recreational facilities, and local sites of labor protest, such as the Botto House, provide the visitor with an understanding of the typical lifestyle of 19th and 20th century mill workers.
- **Museum Collections.** The City of Paterson, one of the park's partners, maintains a collection of museum objects relating to the park's period of significance. These items and artifacts show the inner workings of manufacturing machinery used in Paterson, products produced in Paterson's mills, and personal artifacts of mill workers.
- **Passaic River National Natural Landmarks.** Three additional national natural landmarks outside the park boundary are connected to the broader story of the Great Falls of Paterson and the Passaic River. These include Troy Meadows, Great Swamp, and Riker Hill Fossil Site National Natural Landmarks.



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 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 Paterson Great Falls National Historical Park:

- The Natural Beauty that Inspired and Powered a Revolution. The Great Falls in the heart of Paterson has drawn people and inspired them—both for its natural beauty and for the power and the energy that it promises.
- The Economic Vision that Shaped America. Paterson was founded on Alexander Hamilton's vision that freedom and independence for the United States would be based in a manufacturing economy that required a diversity of talents with promises of a better life for its people.
- Innovation and Opportunity (the Power of American Manufacturing). Through diversification of industries, technological innovation, and successive waves of industry and immigration, Paterson continued to exemplify and reinvent Hamilton's vision of a planned manufacturing center for more than two centuries.
- Race, Recreation, and Respite. While the nation struggled with issues of race and civil rights, Paterson's Hinchliffe Stadium was home field for two Negro League baseball teams—the New York Black Yankees and New York Cubans—and a municipal sports and entertainment venue that offered respite from factory work and fostered civic pride.



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 resources and values change over time, the analysis of planning and data needs will need to be revisited and revised, along with key issues. Therefore, this part of the foundation document will be updated accordingly.

Special Mandates and Administrative Commitments

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

Special Mandates

- **General Agreement to Establish and Preserve Paterson Great Falls National Historical Park.** As mandated by section (b)(1)(B) of the park's enabling legislation, the U.S. Department of the Interior (National Park Service) entered into a written agreement (see appendix B) with the City of Paterson to establish and preserve the Paterson Great Falls National Historical Park, focusing on actions required prior to establishment of the park:
 - **Manageable Unit.** The agreement addresses the requirement to acquire sufficient land or an interest in land within the boundary to constitute a manageable unit. It defines the federal land acquisition process and acquisition phase that will allow for progressive resource protection of core properties and other interests in land, as funding is available, and as due diligence requirements are satisfied. It also addresses responsibilities for maintenance and operations for lands and improvements within the park boundary, interpretation and education responsibilities, and law enforcement within the park.
 - **Resource Protection.** The agreement addresses the requirement for non-NPS lands within the Great Falls National Historic Landmark District to be managed consistent with the enabling legislation and that future uses of lands within the district will be compatible with the park designation. It describes how the city will coordinate with the National Park Service on all major work on properties within the district. The city has further committed to several actions in support of the park, such as strengthening and enforcing its land use ordinances and design standards to protect the historic and natural resources of the district, and working with the National Park Service to foster appropriate and compatible uses and building treatments within the district.

- **Land Acquisition.** Congress established the park's boundary through the enabling legislation and provided direction for federal acquisition of property within the boundary. Section (b)(4) states that at Paterson Great Falls National Historical Park, the National Park Service is authorized to acquire additional land or interests in land within the boundary of the park by donation, purchase from a willing seller with donated or appropriated funds, or exchange. Lands or interest in land owned by the State of New Jersey or any political subdivision of the state may only be acquired by donation.
- **Paterson Great Falls National Historical Park Advisory Commission.** Section (e) of the park's enabling legislation requires that the National Park Service establish an advisory commission to advise on development and implementation of the park's general management plan. In accordance with this mandate, the Secretary of the Interior created the nine-member Paterson Great Falls National Historical Park Advisory Commission, to include representatives appointed by the Secretary after consideration of recommendations submitted by the governor of the state of New Jersey (4), the Board of Chosen Freeholders of Passaic County (1), and the City Council of Paterson (2), as well as individuals who are experienced with national parks and historic preservation (2). The work of the advisory commission is anticipated to be complete approximately 10 years from the date of its establishment (March 2019), at which time it will terminate.
- **Hinchliffe Stadium Study.** Section (f) of the park's enabling legislation requires that the National Park Service complete a study regarding Hinchliffe Stadium for purposes of assessing (1) its potential for listing as a national historic landmark, and (2) options for maintaining the stadium's historic integrity. In accordance with this mandate, the National Park Service completed the Hinchliffe Stadium National Historic Landmark Nomination and on February 25, 2013, the Secretary of the Interior designated the site as a national historic landmark.
- **Hinchliffe Stadium Heritage Act.** Public Law 113-291, Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, expanded the park's legislative boundary to include Hinchliffe Stadium. The law stated that the national historical park shall include the approximately 6 acres of land containing Hinchliffe Stadium and shall be administered as part of the park in accordance with subsection (c)(1) and section 3 of the Hinchliffe Stadium Heritage Act (appendix A). Restrictions were placed on acquisition so that the Secretary may not acquire fee title to Hinchliffe Stadium, but may acquire a preservation easement in Hinchliffe Stadium if the Secretary determines that doing so will facilitate resource protection of the stadium. The law stated that the fact that activities can be seen or heard from within the approximately 6 acres of land described in paragraph (1) shall not preclude such activities outside the boundary of the park. In administering the approximately 6 acres of land containing Hinchliffe Stadium...the Secretary of the Interior (A) may not include non-federal property within the approximately 6 acres of land as part of Paterson Great Falls National Historical Park without the written consent of the owner; (B) may not acquire by condemnation any land or interests in land within the approximately 6 acres of land; and (C) shall not construe the inclusion of Hinchliffe Stadium made by this section to create buffer zones outside the boundaries of Paterson Great Falls National Historical Park.

Administrative Commitments

For more information about the existing administrative commitments for Paterson Great Falls National Historical Park, 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 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 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 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.



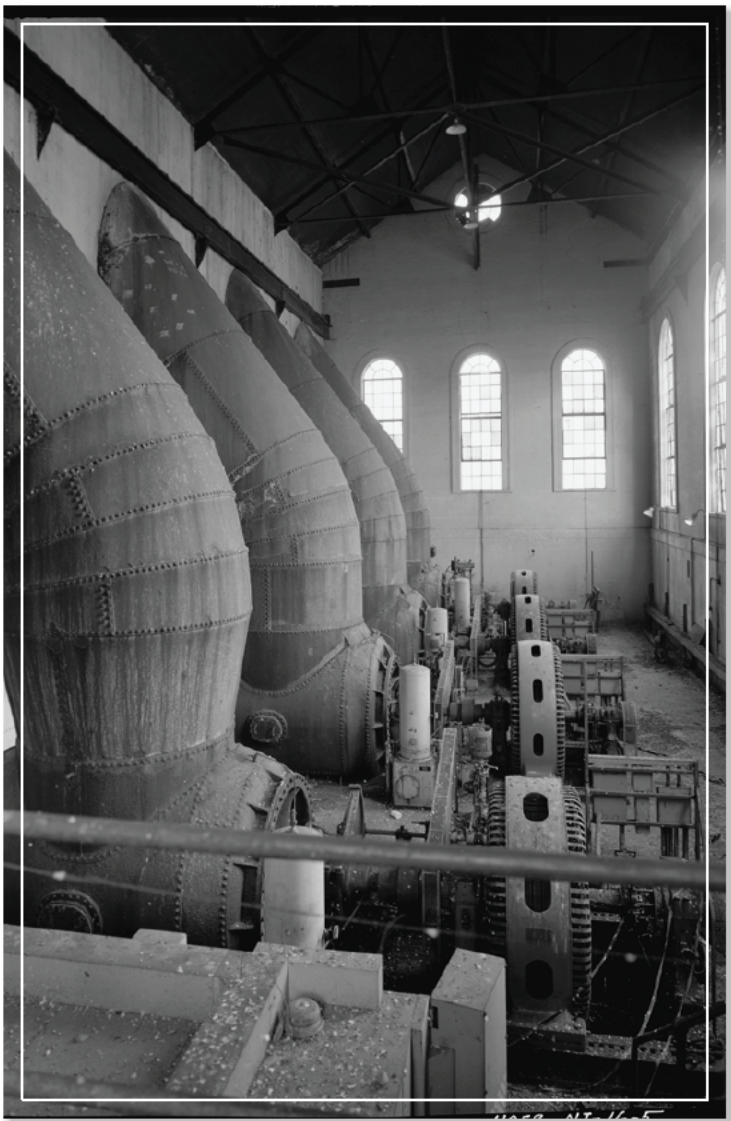
Foundation Document

Fundamental Resource or Value	Geologic Formation and Features
Related Significance Statements	<ul style="list-style-type: none"> The Great Falls of the Passaic River, with its natural chasm and 77-foot waterfall, provides an extraordinary scenic and geologic resource in the midst of an industrialized city and opportunities for relaxation, contemplation, and inspiration. Paterson Great Falls National Historical Park and the national historic landmark district provide one of the best opportunities to view a complete hydropower system from its source above the Great Falls of the Passaic River to its transformation into power for the mills and the surrounding community. Alexander Hamilton's vision of a model manufacturing city, a central part of his economic strategy for the nation, is embedded in this industrial, cultural, and natural landscape.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> The basalt is likely to lose small to large sections periodically due to expansion of water in the basalt rock joints and fractures caused by freezing and thawing, particularly during the early winter and spring. Soils in some areas of the park may contain contamination from the previous industrial uses that encompassed much of the park at various points throughout the site's history. Several contaminated sites within and adjacent to the park have been documented, including the former Allied Textile Printing site, which is classified as a brownfield. <p>Trends</p> <ul style="list-style-type: none"> None identified.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> Increased erosion and weathering due to extreme weather events attributable to climate change. <p>Opportunities</p> <ul style="list-style-type: none"> Interpretive opportunities to explain the creation of the falls and its use as a source of power. Establish monitoring programs with the U.S. Geological Survey to measure any change of movement in the chasm.
Data and/or GIS Needs	<ul style="list-style-type: none"> Cultural landscape inventory. Climate change vulnerability assessment. Natural resource inventory and condition assessment.
Planning Needs	<ul style="list-style-type: none"> Resource stewardship strategy.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> Paleontological Resources Preservation Act of 2009 Clean Water Act of 1972 Executive Order 11514, "Protection and Enhancement of Environmental Quality" Executive Order 11988, "Floodplain Management" Executive Order 12088, "Federal Compliance with Pollution Control Standards" National Flood Insurance Act of 1968 <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> NPS Management Policies 2006 (chapter 4) "Natural Resource Management" Director's Order 6: <i>Interpretation and Education</i> Director's Order 12: <i>Conservation Planning, Environmental Impact Analysis, and Decision-making</i> Director's Order 47: <i>Soundscape Preservation and Noise Management</i>

Fundamental Resource or Value	Hydrologic Systems and Features
Related Significance Statements	<ul style="list-style-type: none"> The Great Falls of the Passaic River, with its natural chasm and 77-foot waterfall, provides an extraordinary scenic and geologic resource in the midst of an industrialized city and opportunities for relaxation, contemplation, and inspiration. Paterson Great Falls National Historical Park and the national historic landmark district provide one of the best opportunities to view a complete hydropower system from its source above the Great Falls of the Passaic River to its transformation into power for the mills and the surrounding community. Alexander Hamilton's vision of a model manufacturing city, a central part of his economic strategy for the nation, is embedded in this industrial, cultural, and natural landscape.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> The Passaic River segment that flows through the park and the sub-watershed surrounding the park supports its designated uses for agricultural water supply and industrial water supply, but does not support its designated uses for aquatic life, fish consumption, primary contact recreation, or public water supply. It is on New Jersey's list of impaired waters. Debris and litter in the river contribute to the water pollution and frequently collect at the base of the falls, visible from the park's primary overlook. A Federal Energy Regulatory Commission agreement is in place to ensure water flow over the falls in the summer months, but this agreement does not address water flow during the remainder of the year or "winter drought" issues. Within the park, construction of river walls, raceway systems, and dams has altered the natural flow of the river, changing the location and size of the adjacent floodplain and creating floodplains along the upper, middle, and lower raceways. Today, the regulatory floodway along the river in the park varies from 200 to 500 feet in width. Adjoining the regulatory floodway is a narrow 500-year floodplain. Other areas of 100-year floodplains in the park include and adjoin the upper, middle, and lower raceways, where average flooding depths are between 1 and 3 feet. <p>Trends</p> <ul style="list-style-type: none"> Increased precipitation from climate change could create additional flooding within the park. Visitors are increasingly requesting more water-contact experiences in and around the falls.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> Recurring floods impact water quality by increasing sedimentation loads and other trash/debris. Sewer overflows have been known to contaminate the river and contribute to the river's listing as an impaired body of water. Safety of visitors who use the river for recreational purposes (fishing, swimming, etc.). <p>Opportunities</p> <ul style="list-style-type: none"> Continue to work with federal, state, and local agencies and friends group to mitigate flooding and stormwater impacts. Work in cooperation with upstream partners to maintain flow, water quality, and integrity of river waters.
Data and/or GIS Needs	<ul style="list-style-type: none"> Cultural landscape inventory. Climate change vulnerability assessment. Monitoring for water quality and quantity. Natural resource inventory and condition assessment.
Planning Needs	<ul style="list-style-type: none"> Invasive species plan / vegetation management plan. Resource stewardship strategy.

Foundation Document

Fundamental Resource or Value	Hydrologic Systems and Features
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Executive Order 11514, "Protection and Enhancement of Environmental Quality" • Executive Order 11988, "Floodplain Management" • Executive Order 12088, "Federal Compliance with Pollution Control Standards" • National Flood Insurance Program • 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" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (chapter 4) "Natural Resource Management" • Director's Order 77-2: Floodplain Management • Special Directive 93-4, "Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance"





Fundamental Resource or Value	Historic Structures, Archeological Resources, and Ruins
Related Significance Statements	<ul style="list-style-type: none"> • Paterson Great Falls National Historical Park and the national historic landmark district provide one of the best opportunities to view a complete hydropower system from its source above the Great Falls of the Passaic River to its transformation into power for the mills and the surrounding community. Alexander Hamilton's vision of a model manufacturing city, a central part of his economic strategy for the nation, is embedded in this industrial, cultural, and natural landscape. • Paterson's raceway system illustrates American ingenuity as the country grew to become a major industrial nation. The raceways offer an outstanding opportunity to interpret the city's industrial past and the Society for Establishing Useful Manufactures' role as a manufacturing incubator making it possible for immigrants to start businesses with limited resources and capital. • The entrepreneurship and innovations of Paterson's industrialists and workers allowed the city to thrive and evolve over time in a long continuum of industrial use that continues today. Paterson's success can be attributed in large part to immigrants who brought their creativity and experience to the city seeking a better life; a trend that has continued throughout the city's history.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • The S.U.M. Administration Building is in good overall condition and is structurally sound. It currently contains office and storage space and is closed to the public. • The Allied Textile Printing site ruins (composed of remnants of the former industrial mills housed on the site, its industrial landscape, and industrial artifacts) are currently gated off, closed to the public, and the site is classified as a brownfield. The site lacks direct utility supply, but city utilities run through the property. Invasive and volunteer vegetation has overwhelmed much of the site. A project is currently funded to stabilize the river wall running along the extent of the Allied Textile Printing site. • Preservation efforts have been undertaken at the Colt Gun Mill. Some sections of the former mill are in very poor condition, with some areas of the mill a total loss. The extant walls have been partially stabilized and preserved and remain reasonably intact. • The S.U.M. Steam Plant ruins include the concrete foundation, including the exterior terrace, the lower facade, and lower level foundation features. The remaining structure consists of concrete exterior walls that are below grade with the exception of the north facade. The foundation has been filled and capped with a series of flat roofs. The upper level is a small terrace where most visitors go to view the Great Falls. The terrace also includes the Alexander Hamilton statue and other smaller monuments. The lower level of the foundation is currently unused but at one time contained working public restrooms. • The Ivanhoe Wheelhouse was restored in 1981 (without the waterwheel and turbine). It now serves as a museum that exhibits work from regional artists. • Previous archeological studies have identified a number of archeological sites within the Allied Textile Printing site and around the park's other historic structures. These intact resources focus primarily on the industrial development and history of Paterson. <p>Trends</p> <ul style="list-style-type: none"> • Since its establishment, the park has seen an increased interest in public access to the Allied Textile Printing site.

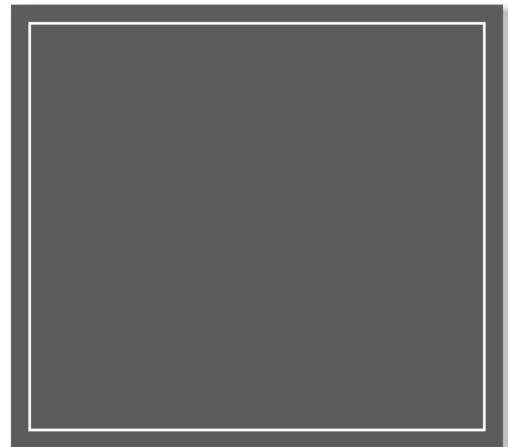
Foundation Document

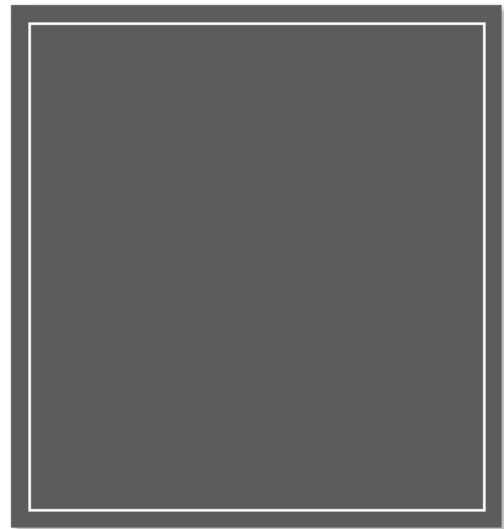
Fundamental Resource or Value	Historic Structures, Archeological Resources, and Ruins
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Vandalism and graffiti, especially in underused areas of the park (primarily the Allied Textile Printing site). • Vegetation growth in the Allied Textile Printing site could weaken the structural integrity of some of the ruins and archeological resources. • Climate change and air pollution threaten to accelerate weathering and deterioration of ruins as well as potentially uncover archeological resources. <p>Opportunities</p> <ul style="list-style-type: none"> • Collaborate with partners and property owners to implement the general management plan and clean up / open areas of the park that are isolated and closed. • Continue to provide preservation assistance for properties not owned by the National Park Service.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Cultural landscape inventory. • Cultural resource condition assessment. • Climate change vulnerability assessment. • Natural resource inventory and condition assessment.
Planning Needs	<ul style="list-style-type: none"> • Cultural landscape report. • Historic structures management plan. • Invasive species plan / vegetation management plan. • Resource stewardship strategy. • Climate change scenario planning. • Park sustainability plan.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Americans with Disabilities Act of 1990 • Architectural Barriers Act of 1968 • "Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines" (36 CFR 1191) • Archeological and Historic Preservation Act of 1974 • Archaeological Resources Protection Act of 1979 • Museum Properties Management Act of 1955, as amended • National Historic Preservation Act of 1966, as amended • "Protection of Historic Properties" (36 CFR 800) • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" • NPS Management Policies 2006 (chapter 7) "Interpretation and Education" • Director's Order 6: <i>Interpretation and Education</i> • Director's Order 24: <i>NPS Museum Collections Management</i> • Director's Order 28: <i>Cultural Resource Management</i> • Director's Order 28A: <i>Archeology</i> • Director's Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i> • <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties</i> • NPS Museum Handbook, parts I, II, and III

Fundamental Resource or Value	Raceway System
Related Significance Statements	<ul style="list-style-type: none"> Paterson Great Falls National Historical Park and the national historic landmark district provide one of the best opportunities to view a complete hydropower system from its source above the Great Falls of the Passaic River to its transformation into power for the mills and the surrounding community. Alexander Hamilton's vision of a model manufacturing city, a central part of his economic strategy for the nation, is embedded in this industrial, cultural, and natural landscape. Paterson's raceway system illustrates American ingenuity as the country grew to become a major industrial nation. The raceways offer an outstanding opportunity to interpret the city's industrial past and the Society for Establishing Useful Manufactures' role as a manufacturing incubator making it possible for immigrants to start businesses with limited resources and capital. The entrepreneurship and innovations of Paterson's industrialists and workers allowed the city to thrive and evolve over time in a long continuum of industrial use that continues today. Paterson's success can be attributed in large part to immigrants who brought their creativity and experience to the city seeking a better life; a trend that has continued throughout the city's history.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> The upper, middle, and lower raceways vary; most of the spillway and raceway features are in poor condition and are in danger of further deterioration. The upper raceway has been rehabilitated and the path along the raceway upgraded. The middle and lower raceways are generally dry and lack adjacent formalized pedestrian paths. When water enters the raceways, such as during flood events, leakage into adjacent buildings is a problem. The raceway within the park continues to suffer from debris collection, excessive volunteer/invasive vegetation, and a lack of water management system maintenance (last operated by the City of Paterson in 2009). Previous archeological studies have identified a number of archeological sites within and surrounding the raceway system. These intact resources focus primarily on the construction of the raceway system. <p>Trends</p> <ul style="list-style-type: none"> Increased flooding and intensity of storms related to climate change.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> Deterioration and damage from increased flooding and storm events. Could potentially become worse with climate change. Vandalism and graffiti along the raceway's trail system. <p>Opportunities</p> <ul style="list-style-type: none"> Work with partners to implement the general management plan and restore/re-water portions of the raceway.
Data and/or GIS Needs	<ul style="list-style-type: none"> Cultural landscape inventory. Climate change vulnerability assessment. Natural resource inventory and condition assessment.

Foundation Document

Fundamental Resource or Value	Raceway System
Planning Needs	<ul style="list-style-type: none"> • Raceway system preservation plan. • Cultural landscape report. • Historic structures management plan. • Invasive species plan / vegetation management plan. • Resource stewardship strategy. • Climate change scenario planning. • Park sustainability plan.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Americans with Disabilities Act of 1990 • Architectural Barriers Act of 1968 • "Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines" (36 CFR 1191) • Archeological and Historic Preservation Act of 1974 • Archaeological Resources Protection Act of 1979 • Museum Properties Management Act of 1955, as amended • National Historic Preservation Act of 1966, as amended • "Protection of Historic Properties" (36 CFR 800) • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" • NPS Management Policies 2006 (chapter 7) "Interpretation and Education" • Director's Order 6: <i>Interpretation and Education</i> • Director's Order 24: <i>NPS Museum Collections Management</i> • Director's Order 28: <i>Cultural Resource Management</i> • Director's Order 28A: <i>Archeology</i> • Director's Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i> • <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties</i> • NPS Museum Handbook, parts I, II, and III





Fundamental Resource or Value	Hinchliffe Stadium
Related Significance Statements	<ul style="list-style-type: none"> Hinchliffe Stadium is one of the best examples of a professional Negro League baseball venue. The stadium was specifically sited above the Great Falls so patrons could have a commanding view of Paterson's ever-evolving industrial, social, and natural landscape.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> The overall condition of the stadium is fair to poor. The stadium has a number of cracks that indicate soil settlement and/or a lack of appropriate footings for the structure. Some of the structure's support beams show visible corrosion from exposure to weather. Much of the stadium's concrete surface is showing signs of weather-related deterioration (cracking, spalling, loss of surface mortar, exposure of aggregate). The steep slopes upon which portions of the stadium are constructed are unstable and in need of support. Structural utility systems (plumbing; electrical; heating, ventilation, and air conditioning) are not functioning and in need of replacement. <p>Trends</p> <ul style="list-style-type: none"> There is an increased interest from visitors and partners to open the stadium for special uses and events.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> Continued weather-related deterioration potentially exacerbated by the impacts of climate change. Vandalism and graffiti are continuous threats to the structure. <p>Opportunities</p> <ul style="list-style-type: none"> Continue to work with property owners on preservation and restoration of the stadium.
Data and/or GIS Needs	<ul style="list-style-type: none"> Historic resource study. Cultural resource condition assessment.
Planning Needs	<ul style="list-style-type: none"> Historic structures management plan. Resource stewardship strategy. Climate change scenario planning. Long-range interpretive plan. Park sustainability plan.

Foundation Document

Fundamental Resource or Value	Hinchliffe Stadium
<p>Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance</p>	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Americans with Disabilities Act of 1990 • Architectural Barriers Act of 1968 • "Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines" (36 CFR 1191) • Archeological and Historic Preservation Act of 1974 • Archaeological Resources Protection Act of 1979 • Museum Properties Management Act of 1955, as amended • National Historic Preservation Act of 1966, as amended • "Protection of Historic Properties" (36 CFR 800) • Executive Order 11593, "Protection and Enhancement of the Cultural Environment" • "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) • Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" • NPS Management Policies 2006 (chapter 7) "Interpretation and Education" • Director's Order 6: <i>Interpretation and Education</i> • Director's Order 24: <i>NPS Museum Collections Management</i> • Director's Order 28: <i>Cultural Resource Management</i> • Director's Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i> • <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties</i> • NPS Museum Handbook, parts I, II, and III



Fundamental Resource or Value	Natural Scenic and Industrial Landscape Views
Related Significance Statements	<ul style="list-style-type: none"> The Great Falls of the Passaic River, with its natural chasm and 77-foot waterfall, provides an extraordinary scenic and geologic resource in the midst of an industrialized city and opportunities for relaxation, contemplation, and inspiration. Paterson Great Falls National Historical Park and the national historic landmark district provide one of the best opportunities to view a complete hydropower system from its source above the Great Falls of the Passaic River to its transformation into power for the mills and the surrounding community. Alexander Hamilton's vision of a model manufacturing city, a central part of his economic strategy for the nation, is embedded in this industrial, cultural, and natural landscape.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> Debris and litter in the river contribute to the water pollution and frequently collect at the base of the falls, visible from the park's primary overlook. An agreement is in place to ensure water flow over the falls in the summer months, but this agreement does not address water flow during the remainder of the year or "winter drought" issues. <p>Trends</p> <ul style="list-style-type: none"> Continuous development outside the park changes the composition of the historic views.
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> Vandalism and graffiti within the park and historic district. Increased pollution from nearby industries and car exhaust limits views. Debris collecting in the chasm, especially following severe storm events, degrades the scenic views of the falls. <p>Opportunities</p> <ul style="list-style-type: none"> Continue to identify new partners and work with existing partners on water quality and beautification efforts along the Passaic River. Continue to identify new partners and work with existing partners on historic preservation guidelines/requirements within the historic district.
Data and/or GIS Needs	<ul style="list-style-type: none"> Cultural landscape inventory. Natural resource inventory and condition assessment. Visual resource inventory.
Planning Needs	<ul style="list-style-type: none"> Cultural landscape report. Historic structures management plan. Invasive species plan / vegetation management plan. Resource stewardship strategy. Visual resource management plan. Climate change scenario planning.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> Clean Air Act of 1977 <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> NPS Management Policies 2006 (§1.4) "Park Management" NPS Management Policies 2006 (§1.6) "Cooperative Conservation Beyond Park Boundaries" NPS Management Policies 2006 (§3.1) "General" NPS Management Policies 2006 (§4.7) "Air Resource Management" NPS Management Policies 2006 (§4.10) "Lightscape Management" NPS Natural Resource Management Reference Manual 77

Foundation Document



Fundamental Resource or Value	Experiential Elements of the Falls
Related Significance Statements	<ul style="list-style-type: none"> • The Great Falls of the Passaic River, with its natural chasm and 77-foot waterfall, provides an extraordinary scenic and geologic resource in the midst of an industrialized city and opportunities for relaxation, contemplation, and inspiration. • Paterson Great Falls National Historical Park and the national historic landmark district provide one of the best opportunities to view a complete hydropower system from its source above the Great Falls of the Passaic River to its transformation into power for the mills and the surrounding community. Alexander Hamilton's vision of a model manufacturing city, a central part of his economic strategy for the nation, is embedded in this industrial, cultural, and natural landscape.
Current Conditions and Trends	<p>Conditions</p> <ul style="list-style-type: none"> • Within the park, the river does not meet primary recreational standards due to elevated levels of bacteria. • Debris and litter in the river contribute to the water pollution and frequently collect at the base of the falls, visible from the park's primary overlook. • An agreement is in place to ensure water flow over the falls in the summer months, but this agreement does not address water flow during the remainder of the year or "winter drought" issues. • Access to the bottom of the falls and lower river area of the park is limited. An informal social trail near Hinchliffe Stadium leads to a rocky "beach" area along the north side of the Passaic River. The trail is in need of maintenance. • An existing Federal Energy Regulatory Commission license for the S.U.M. hydropower plant has the ability to influence the rate of flow over the falls. <p>Trends</p> <ul style="list-style-type: none"> • Visitors are increasingly requesting more water-contact experiences in and around the falls.

Fundamental Resource or Value	Experiential Elements of the Falls
Threats and Opportunities	<p>Threats</p> <ul style="list-style-type: none"> • Low water levels flowing over the falls decreases visitors' ability to fully experience the power of the Great Falls. • Deteriorating condition of the trails down to the lower falls poses a safety hazard for visitors. • Safety of visitors who use the river for recreational purposes. <p>Opportunities</p> <ul style="list-style-type: none"> • Continue to identify new partners and work with existing partners to maintain adequate water flow rates over the falls. • Continue to identify new partners and work with existing partners to improve water quality. • Work with partners to maintain trails and overlooks for a safe visitor experience.
Data and/or GIS Needs	<ul style="list-style-type: none"> • Visitor use survey. • Visual resource inventory.
Planning Needs	<ul style="list-style-type: none"> • Visual resource management plan. • Long-range interpretive plan.
Laws, Executive Orders, and Regulations That Apply to the FRV, and NPS Policy-level Guidance	<p>Laws, Executive Orders, and Regulations That Apply to the FRV</p> <ul style="list-style-type: none"> • Americans with Disabilities Act of 1990 • Architectural Barriers Act of 1968 <p>NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders)</p> <ul style="list-style-type: none"> • NPS Management Policies 2006 (chapter 2) "Park System Planning" • Director's Order 6: <i>Interpretation and Education</i> • Director's Order 12: <i>Conservation Planning, Environmental Impact Analysis, and Decision-making</i> • Director's Order 17: <i>National Park Service Tourism</i> • Director's Order 42: <i>Accessibility for Visitors with Disabilities in National Park Service Programs and Services</i> • Director's Order 50C: <i>Public Risk Management Program</i> • Director's Order 78: <i>Social Science</i>



Identification of Key Issues and Associated Planning and Data Needs

This section considers key issues to be addressed in planning and management and therefore takes a broader view over the primary focus of part 1. A key issue focuses on a question that is important for a park. Key issues often raise questions regarding park purpose and significance and fundamental resources and values. For example, a key issue may pertain to the potential for a fundamental resource or value in a park to be detrimentally affected by discretionary management decisions. A key issue may also address crucial questions that are not directly related to purpose and significance, but that 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 Paterson Great Falls National Historical Park and the associated planning and data needs to address them:

- **Implementing the General Management Plan.** Implementation of the newly completed general management plan will require the completion of additional baseline documentation and plans to facilitate management decisions and strategically outline the implementation process. This baseline documentation would provide management with resource stewardship goals as the management plan actions are being implemented.
 - *Associated planning and data needs:* Resource stewardship strategy, visitor use survey, historic resource study, raceway system preservation plan, long-range interpretive plan, cultural resource condition assessment, natural resource inventory and condition assessment
- **Strengthening Community Engagement.** The park has an agreement with the City of Paterson to provide technical assistance to the Great Falls National Historic Landmark Historic District on preservation of their resources. In addition, the community sees the park as an economic development opportunity. Engaging adjacent private property owners, as well as business owners within the Great Falls National Historic Landmark Historic District, on issues of preservation and economic development is an important component of protecting the park's resources and providing a high quality visitor experience. Working with neighbors to improve gateway community visitor amenities could increase visitor satisfaction and awareness of the park as well as support the local economy.
 - *Associated planning and data needs:* Partnership strategy, visitor use survey





- **Access, Circulation, and Orientation to Park Resources.** Because the park has multiple entry points and sits within a large urban commercial, industrial, and residential area, getting from one place to another is often difficult for residents and visitors alike. Most visitors visit the Great Falls, but don't go to other areas of the park or the surrounding historic landmark district. Transportation to and from the park, as well as parking, can be challenging and wayfinding deficiencies add to the confusion. Opportunities for connections, partnerships, alternative transportation modes, and outreach exist, but would require coordination to holistically address the issues.
 - *Associated planning and data needs:* Partnership strategy, visitor use survey, multimodal transportation and access plan
- **Partnerships.** Due to the diversity of resources within and adjacent to its boundaries, most of which will continue to be owned by state and local governments, this partnership park works with a wide variety of groups and stakeholders ranging from nonprofit organizations to federal, state, and local agencies. Lacking clear coordination strategies, the park, the City of Paterson, and other partners find it difficult to nimbly address emerging issues and opportunities while efficiently leveraging the resources and strengths of partner organizations. As a true partnership park, Paterson Great Falls National Historical Park functions at its best when all partners are coordinated and oriented toward the core mission of the park, with minimal duplication of efforts or competition among organizations. Currently, the park is challenged to create a partnership environment where all partners know how they fit into the overall management picture, are secure and feel valued in their role, and benefit from the efforts of their fellow partner organizations in the realization of their own missions.
 - *Associated planning and data needs:* Partnership strategy

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.

Foundation Document

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
FRV	Historic structure reuse plan	H	Investigate and identify adaptive reuse alternatives for historic structures including an evaluation, cost analysis, and selection of effective strategies that protect resources and meet legal requirements.
FRV, Key Issue	Long-range interpretive plan	H	The park needs a long-range interpretive plan as a baseline document for guiding the development of an interpretive program.
Key Issue	Multimodal transportation and access plan	H	A multimodal transportation plan would assess opportunities and strategies for transportation systems including, but not limited to, personal vehicles, walking, bicycling, parking, and buses. The plan would emphasize pedestrian safety, multimodal equity, mobility, accessibility, quality of life, and reducing road and parking lot congestion. Appropriate and compatible multimodal access, parking, and use within the park would be defined. The plan would assess opportunities for seamless connections between adjacent communities and the park.
Key Issue	Partnership strategy	H	The plan would clearly identify existing and potential partners and establish roles and responsibilities for each party.
FRV, Key Issue	Resource stewardship strategy	H	Identify and track indicators of desired conditions, recommending comprehensive strategies to achieve and maintain desired conditions over time, and assess and update these strategies periodically based on new information and the results of completed activities. (Would require completion of natural and cultural condition assessments.)
FRV	Cultural landscape report	M	Document, analyze, and prepare detailed treatment recommendations for park cultural landscapes.
FRV	Historic structures management plan	M	Develop a management strategy for the rehabilitation of historic structures throughout the historic landmark historic district.
FRV	Park sustainability plan	M	Develop a park-specific sustainability plan that supports the park purpose, integrates with park strategic documents, ensures that appropriate documentation is completed, and contributes to the overall regional sustainable buildings target and objectives.
FRV, Key Issue	Raceway system preservation plan	M	The general management plan calls for re-watering of the raceway system. This plan is needed to guide the rehabilitation of the raceway system.
FRV	Climate change scenario planning	L	This would include a range of plausible impacts from modeled projections.
FRV	Invasive species plan / vegetation management plan	L	This would describe the current best practices for prevention, early detection, rapid response, control, and containment of one or more invasive species, and would identify activities and approaches to minimize the introduction and spread with optimal use of staff and funding.
FRV	Visual resource management plan	L	Use the inventory of scenic resources and key critical viewpoints to identify strategies and recommendations for preservation.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
FRV, Key Issue	Historic resource study	H	This study would encompass the entire park and include a timeline of human use, habitation, and development covering all periods and topics of significance at the park.
FRV	Monitoring for water quality and quantity	H	Long-term monitoring for water quality and quantity, including climate change effects and changes in winter discharge rates.
FRV, Key Issue	Visitor use survey	H	Conduct assessments of visitor characteristics, visitor preferences and motivations, and baseline conditions relating to use levels and patterns to determine the best path for addressing visitor use issues.
FRV, Key Issue	Cultural resource condition assessment	H	The cultural resource condition assessment would provide a comprehensive analysis of the current condition and inventory status of all park-managed cultural resources. This information is necessary for resource management and would aid the development of a resource stewardship strategy.
FRV, Key Issue	Natural resource inventory and condition assessment	H	The natural resource condition assessment would provide a comprehensive analysis of the current condition and inventory status of all park-managed natural resources. This information is necessary for resource management and would aid the development of a resource stewardship strategy.
FRV	Cultural landscape inventory	M	Inventory cultural landscapes and provide information on their location and also record information about the cultural landscape resources related to their identification, description, historical development, landscape characteristics and features, and management.
FRV	Climate change vulnerability assessment	L	Conduct climate change vulnerability assessments for select resources and infrastructure.
FRV	Visual resource inventory	L	Inventory scenic resources and key critical viewpoints to help inform the visual resource management plan.



Part 3: Contributors

Paterson Great Falls National Historical Park

Darren Boch, Superintendent

Ilyse Goldman, Supervisory Park Ranger

NPS Northeast Region

David Bitterman, Chief, Design and Preservation Planning

Joanne Blacoe, Interpretive Planner

James Harmon, Archeologist

Amanda Jones, Community Planner, Project Lead

Lance Kasparian, Historical Architect

Jeffrey Killion, Historical Landscape Architect

James Lee, Architectural Conservator

Helen Mahan, Community Planner

Cheryl Sams O'Neill, Historical Landscape Architect

Robert Page, Director, Olmsted Center for Landscape Preservation

Stephen Spaulding, Director, Historic Architecture, Conservation and Engineering Center

Brian Strack, Associate Regional Director, Planning, Facilities and Conservation Assistance

Sara Wolf, Director, Northeast Museum Services Center

Other NPS Staff

Ken Bingenheimer, Contract Editor (former), Denver Service Center, Planning Division

Pam Holtman, Quality Assurance Coordinator, WASO Park Planning and Special Studies

John Paul Jones, Visual Information Specialist, Denver Service Center, Planning Division

Nancy Shock, Foundation Coordinator, Denver Service Center, Planning Division

Philip Viray, Publications Chief, Denver Service Center, Planning Division

Laura Watt, Contract Editor, Denver Service Center, Planning Division

Others

Leslie Agard-Jones, former Dean of Education, William Paterson University

Theodore Best, Freeholder, Passaic County Board of Chosen Freeholders

Susan Cole, President, Montclair State University

Robert Guarasci, Executive Director, New Jersey Community Development Corporation

Jeffery Jones, former Mayor, City of Paterson

Lawrence F. Kramer, former Mayor, City of Paterson

James Pepper, former National Park Service official

Thomas Rooney, Councilman, City of Paterson

Leonard Zax, President, Hamilton Partnership for Paterson

Appendixes

Appendix A: Enabling Legislation and Legislative Acts for Paterson Great Falls National Historical Park

SEC. 3037. HINCHLIFFE STADIUM ADDITION TO PATERSON GREAT FALLS NATIONAL HISTORICAL PARK.

(a) PATERSON GREAT FALLS NATIONAL HISTORICAL PARK BOUNDARY ADJUSTMENT.—Section 7001 of the Omnibus Public Land Management Act of 2009 (16 U.S.C. 4101ll) is amended as follows:

(1) In subsection (b)(3)—

(A) by striking “The Park shall” and inserting “(A) The Park shall”;

(B) by redesignating subparagraphs (A) through (G) as clauses (i) through (vii), respectively; and

(C) by adding at the end the following:

“(B) In addition to the lands described in subparagraph (A), the Park shall include the approximately 6 acres of land containing Hinchliffe Stadium and generally depicted as the ‘Boundary Modification Area’ on the map entitled ‘Paterson Great Falls National Historical Park, Proposed Boundary Modification’, numbered T03/120,155, and dated April 2014, which shall be administered as part of the Park in accordance with subsection (c)(1) and section 3 of the Hinchliffe Stadium Heritage Act.”.

(2) In subsection (b)(4), by striking “The Map” and inserting “The Map and the map referred to in paragraph (3)(B)”.

(3) In subsection (c)(4)—

(A) in subparagraph (A), by striking “The Secretary” and inserting “Except as provided in subparagraphs (B) and (C), the Secretary”; and

(B) by inserting after subparagraph (B) the following:

“(C) HINCHLIFFE STADIUM.—The Secretary may not acquire fee title to Hinchliffe Stadium, but may acquire a preservation easement in Hinchliffe Stadium if the Secretary determines that doing so will facilitate resource protection of the stadium.”.

(b) ADDITIONAL CONSIDERATIONS FOR HINCHLIFFE STADIUM.—

(1) IN GENERAL.—In administering the approximately 6 acres of land containing Hinchliffe Stadium and generally depicted as the “Boundary Modification Area” on the map entitled “Paterson Great Falls National Historical Park, Proposed Boundary Modification”, numbered T03/120,155, and dated April 2014, the Secretary of the Interior—

(A) may not include non-Federal property within the approximately 6 acres of land as part of Paterson Great Falls National Historical Park without the written consent of the owner;

(B) may not acquire by condemnation any land or interests in land within the approximately 6 acres of land; and

(C) shall not construe the inclusion of Hinchliffe Stadium made by this section to create buffer zones outside the boundaries of the Paterson Great Falls National Historical Park.

(2) OUTSIDE ACTIVITIES.—The fact that activities can be seen or heard from within the approximately 6 acres of land described in paragraph (1) shall not preclude such activities outside the boundary of the Paterson Great Falls National Historical Park.

Foundation Document

Appendix B: Inventory of Administrative Commitments

Name	Agreement Type	Start Date – Expiration Date	Stakeholders	Purpose	Notes
Cooperative management agreement	Cooperative management agreement	As of August 2017, document in draft form –	City of Paterson	Establish joint management between the National Park Service and the City of Paterson, New Jersey, to plan and implement the rehabilitation of and improvements to a 2.25-acre former industrial site in the park owned by the city.	
Cooperative management agreement	Cooperative management agreement	August 31, 2015 – August 31, 2018	City of Paterson	Establish joint management between the National Park Service and the City of Paterson, New Jersey, in planning and implementing site improvements in Overlook Park.	Overlook Park landscape improvement and environmental remediation project starting September 2017.
Agreement between the National Park Service and the City of Paterson	General agreement	November 7, 2011 – For so long as the park is administered by the National Park Service as a unit of the national park system	City of Paterson	Formalizing the parties' intention to establish the park, and to preserve, by and to the extent permitted by applicable law, the surrounding Great Falls National Historic Landmark District.	The Paterson Municipal Utility Authority was a third party to the agreement but they were subsequently dissolved as a local government entity and all their assets transferred to the city.
Fee ownership of lands	Deed(s) subdivision plan	–	City of Paterson and Passaic Valley Water Commission	To transfer fee title ownership of specific properties within the park boundary, by donation, to the National Park Service.	As of August 2017, awaiting environmental remediation of Overlook Park and adoption of subdivision plan by Paterson Planning Board.
Preservation easement	Easement deed	–	City of Paterson and Passaic Valley Water Commission	To transfer easement interest in lands owned and managed by local government and utility.	As of August 2017, draft deeds under review.

Paterson Great Falls National Historical Park

Name	Agreement Type	Start Date – Expiration Date	Stakeholders	Purpose	Notes
Mutual aid agreement	Memorandum of understanding	–	City of Paterson	Emergency service response not associated with law enforcement activities (fire and emergency medical).	
Concurrent jurisdiction	General agreement / memorandum of understanding	–	City of Paterson	Agreement to allow nonfederal law enforcement to respond on federal fee simple lands within park boundary.	
Preservation and education	General agreement	–	Paterson Public Schools	An agreement formalizing the roles and responsibilities of the parties on the historic preservation and interpretation and education programming related to Hinchliffe Stadium.	



Appendix C: Paterson Great Falls National Historical Park Interpretive Theme Matrix

What are Interpretive Themes?

- Park interpretive themes are organization tools.
- Themes are a framework for interpretive decisions.
- Themes reveal meaning and help explore the question, “What do the events of the past have to do with me and my times?” Themes help explain why park stories are relevant to people unconnected to them.
- Themes aren’t intended for public consumption. What matters to the public is how themes are fulfilled through interpretation services.

About the Interpretive Theme Matrix:

An interpretive theme matrix is a chart that shows the scope of potential stories that can be told in a park within the framework of the park interpretive themes.

The chart format offers an easy way for people to see the concepts, ideas, and stories that are represented by the park interpretive themes. It is especially useful as a guide for park staff and others who develop interpretive programming and media. The matrix shows a theme title, the interpretive theme statement, and examples of concepts and stories that could be covered under that theme.

What to look for:

Themes are designed to accommodate a range of stories, perspectives, and ongoing scholarship. The “concepts” and “topics and stories” are examples of the types of stories that could illustrate the themes. This is not all-inclusive (in fact it could never be) nor do they exclude any topic. An interpretive theme is successful only if other concepts and stories could be included within it.

Note:

The concepts, ideas, and topics listed here are a representative, partial list. They represent some examples representing *types* of stories that *could* illustrate the concepts. They are not all-inclusive (in fact they could never be) nor are they intended to exclude any topic. A park interpretive theme is successful only if other topics and stories could be included within it.



Theme 1: The Natural Beauty that Inspired and Powered a Revolution

The Great Falls in the heart of Paterson have drawn people and inspired them— both for its natural beauty and for the power and the energy that it promises.

About this theme: This theme focuses on the falls, including natural history, their power, and potential to inspire.

Concepts	Topics and Stories
<p>Natural History</p> <ul style="list-style-type: none"> • Illustrate how Paterson's Great Falls has been recognized as a national treasure for its natural beauty as well as for its cultural and historic significance. Investigate how the natural environment and the built environment are inextricably intertwined. • Describe the size and scale of the falls and its situation along the Passaic River; "unusual" as waterfalls go, i.e., second-highest waterfall in the eastern United States. Describe the unique geology that created the falls. Show the exposed volcanic rock beneath the falls. Explain and illustrate the geology of the site and the larger watershed and river valley. Explain the natural history of the site. • Explore how the falls has long been both a source of manufacturing growth and intense industrial development as well as a refuge for city dwellers and workers seeking relief from the industrial city and continues to provide a refuge in the post-industrial city. <p>Energy</p> <ul style="list-style-type: none"> • Describe the many attempts to harness the natural power of the river and the falls— from L'Enfant's unrealized design through the S.U.M.'s successful alterations in the 19th and 20th centuries (raceways, sluice gates, etc.) Describe the (natural and kinetic) power of the river and how it and the raceways can be converted to energy for manufacturing and other uses. Describe how water is used as a resource and converted to energy. Explore the engineering and different ways people used the river and falls area for power over time. • Illustrate how the Passaic River and falls area have served as a center for energy production—water power, steam power, hydroelectric power—and provide a place to understand the role of energy production and consumption in American society: the limits of growth; the environmental consequences; the changing technologies; and the ongoing demand for energy in the modern global economy. • Compare and contrast how water power has been used "then and now." Describe the transition from mechanical water power to electrical generation. • Explain and debate conservation and energy issues. Challenge people about how the U.S. uses energy and resources. Explain water power as a "green" resource; as a renewable energy resource, and issues related to it. <p>Inspiration</p> <ul style="list-style-type: none"> • Describe the juxtaposition of the inspirational falls and natural landscape both in the heart and as the "heart" of a densely populated industrial city and illustrate how the falls could be an oasis, a place for respite and a place to contemplate "Magnificent Acts of Nature." Explore how the tangible and visible connections between the power of nature and the power of industry (all within a city center) make Paterson unique. • Explore the aesthetics of the falls and the people who used it for inspiration (individuals, people of the city, artists, etc.). • Connect artistic creations in literature and other arts to their authors' inspiration in Paterson. <p>Tourism and Gathering Place</p> <ul style="list-style-type: none"> • Describe the use of the falls over time as an attraction and for recreation and tourism—especially in the 19th century. • Explain American Indian Lenni Lenape views about the water as sacred. • Describe steps taken to "maintain" a "natural wonder" and keep it in balance over time. 	<ul style="list-style-type: none"> • National Natural Landmark (1966) • National Historic Landmark (1976) • Height and volume of water dropping at the falls • Geology • Hydrology • Columnar basalt; basaltic cliffs illustrate formation of region • Fragility of natural resources • History and use of water power (then and now) • Technology; changes in technology over time • The raceway system • Water power, then and now • Industrial use of water to dump and carry away effluents • Power plant • Global vs. local: water for power has to be local • Edison-designed (?) hydroelectric plant • Cycle from nature to industry to pollution to cleanup • Human attraction to falls— aesthetics; what draws people to the falls (and has for 10K+ years). • American Indian history and cultural significance of the falls and river • Man's interpretation and use of natural resources for the: <ul style="list-style-type: none"> • Sacred • Industrial • Political + social (the environmental movement) • Artistic/artists • Vacation memorabilia • Paterson in popular culture

Theme 2: The Economic Vision that Shaped America.

Paterson was founded on Alexander Hamilton's vision that freedom and independence for the United States would be based in a manufacturing economy that required a diversity of talents with promises of a better life for its people.

About this theme: This theme is about Alexander Hamilton's vision and how it shaped a U.S. manufacturing economy.

Concepts	Topics and Stories
<p>Hamilton's Vision and the S.U.M.</p> <ul style="list-style-type: none"> Describe Alexander Hamilton's vision for economic independence as the practical source of freedom and independence for the United States. Explain why this vision is complicated and contested by scholars. Describe the origins, history, and local, regional, and national impacts of the Society of Useful Manufactures (S.U.M.). Describe the infrastructure created by the S.U.M. as a utility, land developer, and power supplier. Debate how Hamilton's vision survived, but the S.U.M. offered "rocky" alternatives. Compare and contrast Hamilton's practical views of industry/manufacturing with Jefferson's philosophical ideal for an agrarian America. Evaluate if Jefferson's vision for democracy could have been fully realized without Hamilton's vision for industry as a base for economic independence. Evaluate the impact of Hamilton's industrial/manufacturing economy ideas in the context of 18th century agrarian economy. Explore Hamilton's ideas about how economic independence would make the U.S. independent of foreign supplies—especially for military purposes. Describe Paterson's landscape as a planned manufacturing city and a center for a major concentration of industry (scale and intent) and as the physical embodiment of Hamilton's vision. Provide historical and global context for Hamilton's vision and for the Paterson story. Describe the relationships between British mercantilism and democracy. (For example: French Revolution; fears of England's manufacturing power; U.S. situation at the end of the 18th century; skilled labor from Europe; international silk story; responses to global-local/global commerce.) Describe fears of large-scale ventures including dumping goods and capital capacity production. Describe the backlash from what was considered an elitist venture in Paterson. Describe that powering American manufacturing is not a triumphal vision; the evidence that it is a conflicted vision is that today it is in ruin, rather than driving the modern economy. <p>Innovation</p> <ul style="list-style-type: none"> Describe how opportunity, problem-solving, and innovation characterized a series of technology improvements and inventions associated with Paterson. Describe the pioneering role of individual industries and their effect on Paterson, the region, the nation, and the world. For example: silk, jacquard, locomotives, guns, sailcloth, paper, dyes, and others. Describe how industry, innovation, and manufacturing in Paterson affected the nation, corporations, workers, and ordinary Americans (in both positive and negative ways). Compare and contrast Paterson and its industries to other manufacturing centers such as Trenton, Philadelphia, and Lowell. 	<ul style="list-style-type: none"> Alexander Hamilton Hamilton's vision for industry and economic independence affected the country How economic independence is connected to military independence. Industrial revolution Hamilton and Paterson; Paterson as Hamilton's experiment and proving ground Society for Useful Manufacturers (S.U.M.) The effect of the longevity of S.U.M. (1791-1945) Emergence of "American Corporation" model vs. government model; albeit an organization with quasi-government powers; New Jersey's first corporation Manufacturing and importance of specific industries: locomotives, silk, jacquard, guns (1st Colt Revolver site), sailcloth (innovation and production), paper: continuous roll innovation and production; dyes, etc. Volatility of speculation First viable submarine test by Holland Inventors and innovations Engineering The U.S. national economy—growth and change over time Industry leaders, people such as: <ul style="list-style-type: none"> Samuel Colt John Ryle Pierre L'Enfant Thomas Rogers John Holland Raceway system as first attempt to harness power of a major river; engineering complexity Sluice gates (how things work) Describe how Paterson mirrored the American industrial / manufacturing age in its rise and fall Industrial and human stories of : <ul style="list-style-type: none"> Struggles and setbacks Successes Archeology Immigration

Theme 2: The Economic Vision that Shaped America.

Paterson was founded on Alexander Hamilton's vision that freedom and independence for the United States would be based in a manufacturing economy that required a diversity of talents with promises of a better life for its people.

About this theme: This theme is about Alexander Hamilton's vision and how it shaped a U.S. manufacturing economy.

Concepts	Topics and Stories
<p>The Economy and Trade</p> <ul style="list-style-type: none"> Explore the concept of the modern "silk road"—describe how international connections between people and cultures are forged based on trade. Describe how economies are based in terms of networks, "networks of enterprise;" not a single action (incubator). Describe how Paterson's proximity and connections to New York City are historically important and persist today (population, immigration, markets, transportation, etc.). Discuss markets; strike of 1913; supply chains, and intellectual connections between the cities. 	<ul style="list-style-type: none"> Tench Cox English towns that exported their labor [force] to Paterson Building trade workers "Who built America?" Skilled labor center Cotton era and workers (women, children) Skills to certain types of immigrants. 1890's: Northern Italians—experience in silk Anarchist traditions (trade union activists) Worker training as an expensive undertaking Anarchists (various) J.P. Machtane, Paterson Labor Standard; connect to Samuel Gompers Saul Stenton (1930s) Polish dye worker, worked in 1920s Socialist mayor Labor cycles Union and labor history and impacts Labor leaders Industry leaders Child labor Labor history, exploitation (of people, resources), reform Manufactured goods: the effect of luxury goods that were readily accessible to middle and lower classes. Abolition/industry/Hamilton and his views on slavery

Theme 3: Innovation and Opportunity—the Power of American Manufacturing

Through diversification of industries, technological innovation, and successive waves of industry and immigration, for more than two centuries Paterson continued to exemplify and reinvent Hamilton's vision of a planned manufacturing center.

About this theme: This theme is about deindustrialization and the opportunities that come with reinvention.

Concepts	Topics and Stories
<p>Cycles of Industry and Changing Economy</p> <ul style="list-style-type: none"> • Illustrate that while Paterson marks a beginning for U.S. industry, the landscape tells a story of an “unplanned end” to European immigration and manufacturing in the United States. It begs the question—what comes next? • Examine manufacturing as the model for the American economy (19th to 20th centuries) and how shifting or reimagining that model also means rethinking our nation's place in the world. Challenge people to consider where does the U.S. go next to base its economy? • Illustrate in the built environment the social and environmental legacy of the “unplanned end” of manufacturing in Paterson. • Show how the story of the ATP site, its history, demise, and contemporary choices and decisions about its restoration are illustrations of Paterson's cycle of reinventing its economic base. • Explore the issues, choices, and ramifications of the question, where does a society invent and invest itself—and how? • Contrast Paterson's cycles of industrial “boom and bust” with the more limited or single industry cycles that characterized most other American manufacturing cities. Explore what made Paterson different. How did/does Paterson show that resilience and strength? What has remained unchanged in the city? What has been reinvented? Compare and contrast changes in Paterson and the continuity in the community. [Scholars' discussion of “continuity and change.”] • Explore if it is prudent/how to extend the life of a dying industry. Discuss the cycles and compare and contrast what happens under different scenarios. Examples: uneven pace of development in different sectors and places. Illustrate what happens when industry resists changing processes or labor (Philadelphia example). What happens in forced liquidation from national companies (a form of corporate takeover; Trenton example). When finance capital buys and sell firms (1960s examples) and capital flight—when people just go elsewhere (1970s examples). • Discuss deindustrialization that was specific to Paterson. Finishing and dyeing needed water so skilled work stayed in Paterson; lower skills went to [where] Pennsylvania. Describe both the progress and successes brought by change and industry and the struggles and setbacks. • Debate what was/is the power of American manufacturing? • Describe the interrelationships between machine trade and textiles— how they were fully integrated—and how this paralleled other places (such as Lowell, Massachusetts, and Philadelphia, Pennsylvania). 	<ul style="list-style-type: none"> • U.S. manufacturing economy • Immigration stories • People of the city/diversity/changes in immigration and settlement over time • Labor milestones and their effect— such as the eight-hour work day (“eight hours for work, eight hours for rest, eight hours of what we will”); • Labor Day • Cultural significance of the site to the Dutch • Rags to riches stories • Diversity • Factory and other historic buildings • Explore how Paterson's industrialists exemplified Hamilton's vision for America— immigrants who can be mobile and rise to wealth and status. • Ethnic tensions/strife • What archeology reveals about manufacturing/life in Paterson • Inventions and Inventiveness • Inventors • Role of religion, school, community, food, culture • History of technology • Industrial espionage • Labor publications • Context of what was happening in the U.S. and how that was reflected in Paterson • What makes silk different from other textiles. (Constant attention and fixing; fragile textiles; dyeing; weaving went to Pennsylvania; finishing was done in Paterson) • Link Paterson labor movements to New York City, Greenwich Village; Madison Square Garden • John Reid • Dangerous work for big payoffs (Modern relevance of this) • Natural resources required for manufacturing • Textile info • Debate—is/should Paterson today be a place of hope or sorrow? • Painter Thomas Cole's “Course of Empire” five-painting series

Theme 3: Innovation and Opportunity—the Power of American Manufacturing

Through diversification of industries, technological innovation, and successive waves of industry and immigration, for more than two centuries Paterson continued to exemplify and reinvent Hamilton's vision of a planned manufacturing center.

About this theme: This theme is about deindustrialization and the opportunities that come with reinvention.

Concepts	Topics and Stories
<p>Human Impacts</p> <ul style="list-style-type: none"> • Explore how industry and manufacturing promised a better life for Americans and immigrants and drew people to Paterson. Evaluate if/ how that promise was kept and where (and for whom) it fell short. • Explore how successions of people looking for a better life for themselves and their families came to Paterson. Examine what shifts and transitions are happening now? How does that compare and contrast with previous transitions? • Describe the “factory experience” for workers and trace how it reflected its own times and how it changed over time. Compare and contrast the factory experience through stories of management and labor, the skilled and unskilled, managers and owners, etc. 	



Theme 4: Race, Recreation, and Respite

While the nation struggled with issues of race and civil rights, Paterson's Hinchliffe Stadium was home field for two Negro League baseball teams—the New York Black Yankees and New York Cubans—and a municipal sports and entertainment venue that offered respite from factory work and fostered civic pride.

About this theme: While the nation struggled with issues of race and civil rights, Paterson's Hinchliffe Stadium was home field for two Negro League baseball teams—the New York Black Yankees and New York Cubans—and a municipal sports and entertainment venue that offered respite from factory work and fostered civic pride.

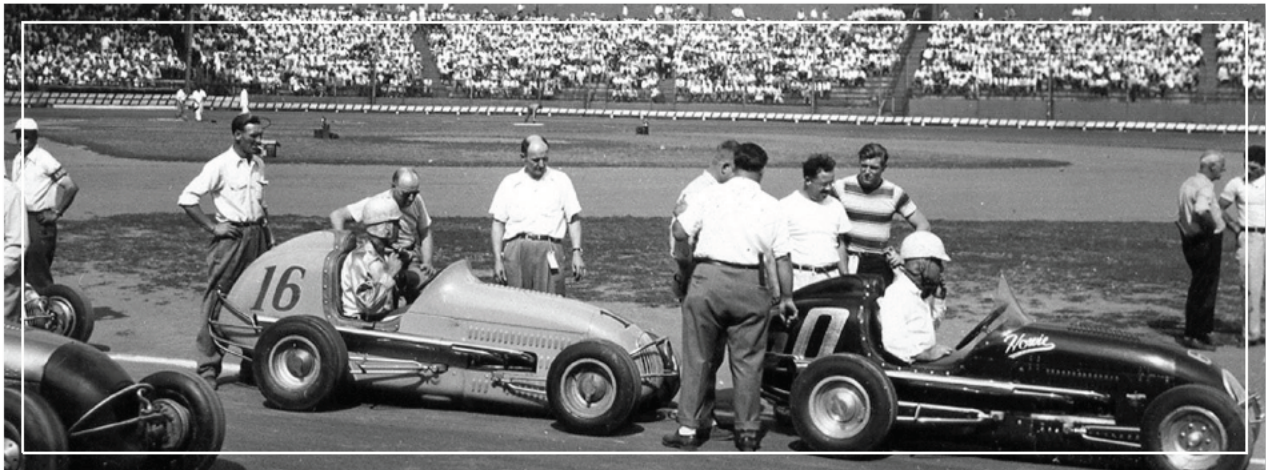
Concepts	Topics and Stories
<p>Recreation</p> <ul style="list-style-type: none"> Explore how activities at Hinchliffe Stadium gave working-class citizens of Paterson access to world-class spectator sports such as Negro League baseball, professional football, Diamond Gloves boxing matches, car and motorcycle races, and soccer matches. Describe how these recreational opportunities had an effect on quality of life and provided mill and factory workers with respite from work. Describe how Hinchliffe Stadium (a.k.a. "City Stadium") was both a municipal and an aspirational enterprise built by public funds at the start of the Great Depression and meant as a sports haven for a generation of working-class kids struggling through hard times in a city dependent on industry. Illustrate the ways in which the stadium helped to foster civic pride and hope among the working-class citizens of Paterson. Explain why the stadium was nicknamed "The House that Silk Built," as it was paid for by the donations and sacrifice of Paterson workers; constructed by and for the people of the industry. Describe how workers laid off from the mills found work under a New Deal-financed program to provide enhancements to the stadium (1932–34). Describe how dye workers held union meetings at the stadium during the Great Depression. Describe the location of the stadium—sited above the Great Falls by the Olmsted Brothers firm—so patrons would have a view of Paterson's industrial, social, and natural landscape. Describe the ways in which Hinchliffe Stadium served as a social outlet. For example, it provided balance for factory workers "eight hours for work, eight hours for rest and eight hours of what we will;" it provided a venue for professional level play for African and Latino Americans in a segregated society; and provided opportunities for Patersonians to enjoy sports and entertainment. Describe the economic and social impact of a professional sports venue in Paterson. Explore how high-profile events and athletes sparked regional and national interest in Paterson. <p>Negro League Baseball</p> <ul style="list-style-type: none"> Examine how Negro League baseball came to Paterson. Explain how Hinchliffe Stadium was home to professional black sports during the Jim Crow era and featured some of the greatest ballplayers in America who were denied access to the major leagues based on their race. Describe how Paterson's municipal stadium hosted Negro League baseball games and served as the home field for the New York Black Yankees and New York Cubans. Describe how play at the stadium impacted careers of Negro League baseball players and especially many future Hall-of-Fame players, such as Josh Gibson, Judy Johnson, Oscar Charleston, James "Cool Papa" Bell, Satchel Paige, and Paterson's Larry Doby. Explore the social impact on Paterson by having two Negro League teams use Hinchliffe Stadium as home field. Weigh and evaluate the effects of segregated baseball and of desegregating major league baseball. 	<ul style="list-style-type: none"> Leisure for the working class "Jim Crow" laws and their social impact Segregation of baseball Negro League Baseball <ul style="list-style-type: none"> Larry Doby Satchel Paige Josh Gibson Judy Johnson Oscar Charleston James "Cool Papa" Bell Teams: <ul style="list-style-type: none"> NY Black Yankees NY Cubans Other sports <ul style="list-style-type: none"> Eleanor Egg (runner) Albert Vande Weghe (swimmer- Olympic silver medalist). Sports in the 20th century Community spirit Race relations WPA and economic opportunities during the Great Depression Diversity Entertainment in Paterson High school sports—racial integration Local sports stars who became professionals Entertainment and sports as a "social safety valve" WPA Olmsted Brothers landscape architects Union meetings Duke Ellington Auto racing Boxing Soccer Abbott and Costello

Theme 4: Race, Recreation, and Respite

While the nation struggled with issues of race and civil rights, Paterson's Hinchliffe Stadium was home field for two Negro League baseball teams—the New York Black Yankees and New York Cubans—and a municipal sports and entertainment venue that offered respite from factory work and fostered civic pride.

About this theme: While the nation struggled with issues of race and civil rights, Paterson's Hinchliffe Stadium was home field for two Negro League baseball teams—the New York Black Yankees and New York Cubans—and a municipal sports and entertainment venue that offered respite from factory work and fostered civic pride.

Concepts	Topics and Stories
<p>Recreation and Entertainment as Economic Drivers</p> <ul style="list-style-type: none"> Describe how Hinchliffe Stadium was created to be a “paying investment” for Paterson. Evaluate effect of Hinchliffe Stadium over time as an economic driver for the city of Paterson (from its construction through its heyday until today). Describe the context and creation of Hinchliffe Stadium. Weigh historical and contemporary justifications for investing significant amounts of public funding for project with periodic, specialized use such as a stadium. Trace how tourist dollars help to support local economies. Describe the economic opportunities (jobs) created by construction of the stadium. Weigh and debate the relative costs and value of historic preservation as an economic driver for a city and region. Pose and explore questions such as: <i>Who decides what's saved? How are preservation priorities made?</i> Describe how, when major league baseball was desegregated, the stadium began a new role as a sports and entertainment center. Explain how, with a 10,000-seat capacity (more with temporary bleacher seating) the stadium was able to become a venue for a range of sports and entertainment events such as: <i>football, boxing, auto racing, and track and field as well as functioning as a stadium for Paterson schools. Describe how Paterson honored two of its most-celebrated athletes—runner Eleanor Egg and swimmer Albert Vande Weghe (Olympic silver medalist).</i> Trace the demise of Hinchliffe Stadium as an active venue. Discuss the fiscal choices made by the school district that diverted funding to maintain the stadium. Describe the challenges and current efforts to restore the stadium. <p>Entertainment</p> <ul style="list-style-type: none"> Discuss the use of Hinchliffe Stadium as an entertainment venue. Describe the performers, concerts, and shows that took place there. Identify the musicians, comedians, and other entertainers who came to Paterson to perform. Examine the non-sporting community events and activities (such as use by the Paterson School District) and how they fostered community spirit and pride. 	



Foundation Document



Northeast Region Foundation Document Recommendation Paterson Great Falls National Historical Park

October 2017

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

RECOMMENDED

Darren Boch, Superintendent, Paterson Great Falls National Historical Park

Date

APPROVED

Gay Vietzke, Regional Director, Northeast Region

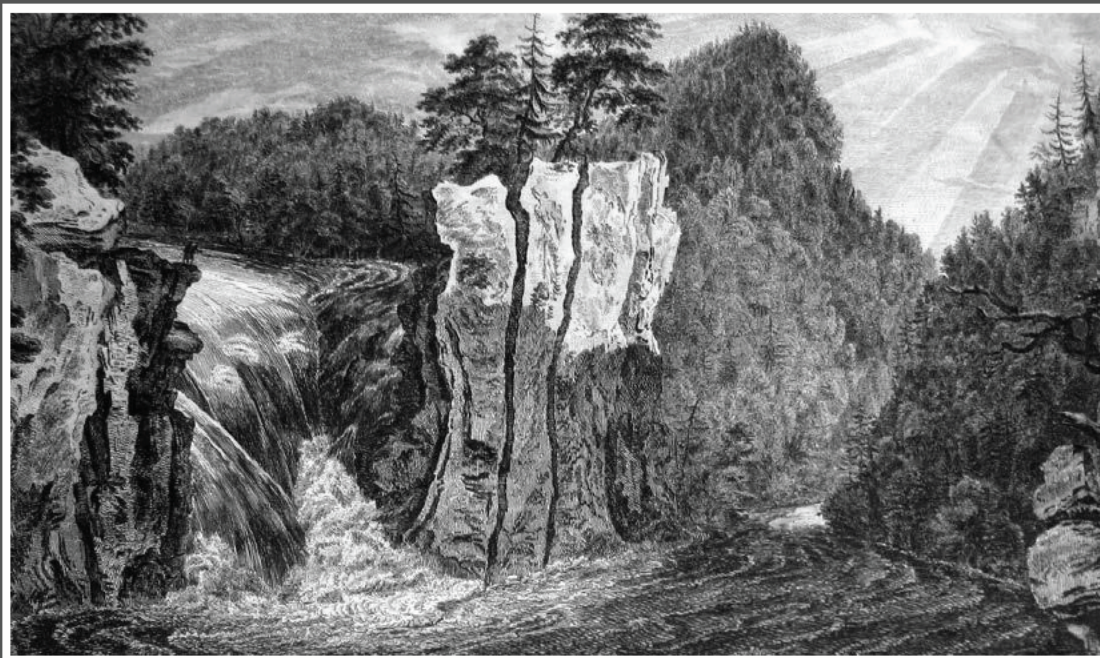
Date



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.

PAGR xxx/xxxxxx
October 2017

Foundation Document • Paterson Great Falls National Historical Park



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