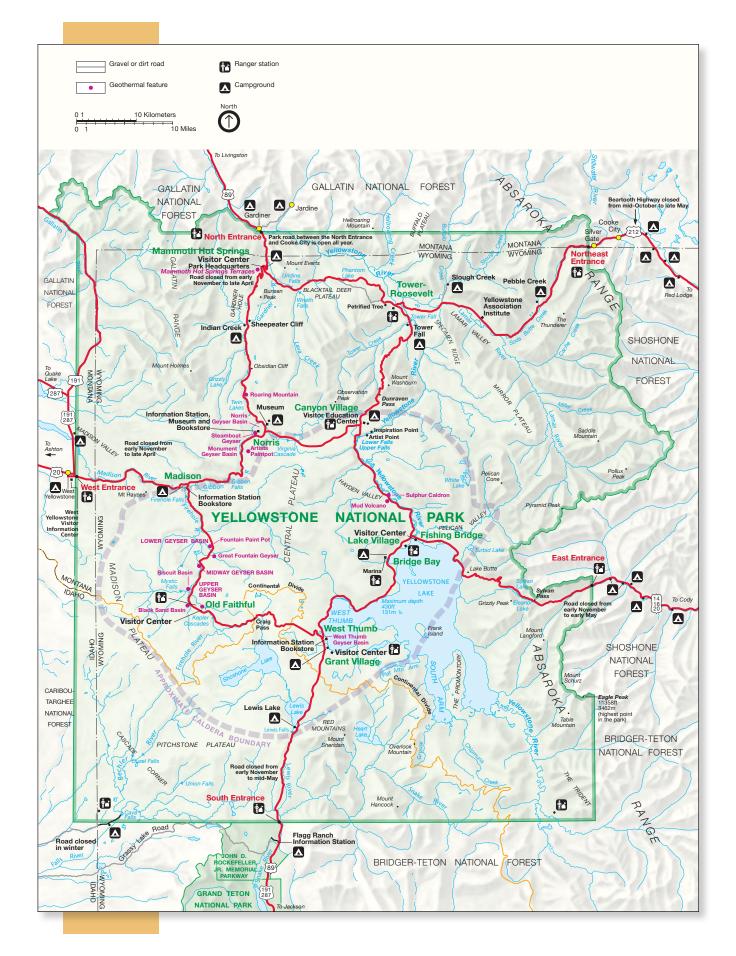
# Foundation Document Yellowstone National Park

Wyoming, Montana, Idaho

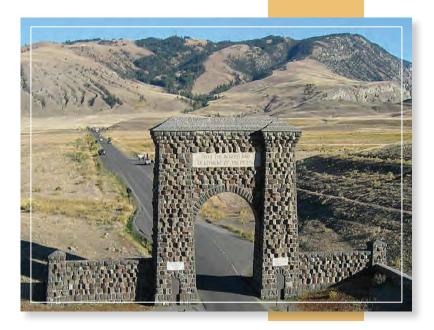
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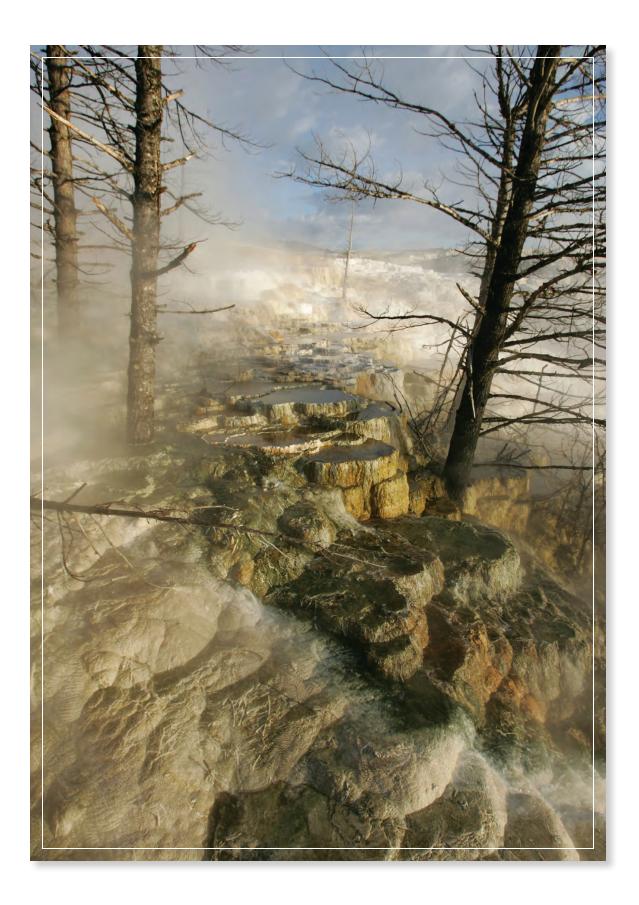




# Contents

Mission of the National Park Service
Introduction
Part 1: Core Components
Brief Description of Yellowstone National Park
Park Purpose.    .
The Visitor Experience
Fundamental Resources and Values
Part 2: Dynamic Components
Special Mandates and Administrative Commitments       13         Assessment of Planning and Data Needs       13
Analysis of Fundamental Resources and Values
Associated Planning and Data Needs.
Planning and Data Needs
Part 3: Foundation Document Contributors
Appendixes
Appendix A: Enabling Legislation and Legislative Acts for Yellowstone National Park
Appendix B: Laws and Policies, NPS Guidance, and Stakeholder Interest for Fundamental Resources and Values
Appendix C: Inventory of Park Planning Documents
Appendix D: Formal Agreements and Administrative Commitments
Appendix E: Wild and Scenic River Values.





## **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 401 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 is to have a foundational document that will provide basic guidance for planning and management decisions—a foundation for planning and management, or foundation document. The core components of a foundation document include the park's purpose, significance, fundamental resources and values, interpretive themes, and special mandates and administrative commitments. The foundation document also includes 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.

One of the primary benefits 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 the park's most important attributes. The process of preparing a foundation document aids park managers, staff, and the public in identifying and clearly stating in one document the important information 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.

This foundation document was developed as a collaborative effort among park staff, the Intermountain Region, the Denver Service Center, and the Washington Office of Park Planning and Special Studies. A workshop to facilitate this process was held in December 2012 at the park. A complete list of attendees and preparers is included in Part 3 of this document.

A park atlas is also developed as part of the foundation project to support park operations and facilitate planning decisions. The atlas for Yellowstone National Park includes a trial version of a web mapping site that is targeted toward specific internal planning and operations applications. The online Yellowstone atlas covers various geographic elements that are important for park management such as natural and cultural resources, planning zones, visitor services, and facilities. The atlas can be used by park staff in all divisions to visualize and discover more information about park resources, identify location coordinates, calculate distance and area, and quickly create their own maps. The park atlas is available at <a href="http://insideparkatlas.nps.gov/">http://insideparkatlas.nps.gov/</a>. A printed version of the atlas entitled "The Atlas of Yellowstone" was published by the University of Oregon in 2012 (ISBN 978-0-520-27155-5).



# Part 1: Core Components

The core components of a foundation document include a brief description of the park, park purpose, significance statements, interpretive themes, interpretive goals, and fundamental resources and values. 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 Yellowstone National Park**

... from the surface of a rocky plain or table, burst forth columns of water, of various dimensions, projected high in the air, accompanied by loud explosions, and sulphurous vapors...The largest of these wonderful fountains, projects a column of boiling water several feet in diameter, to the height of more than one hundred and fifty feet accompanied with a tremendous noise...

-Warren Ferris, May 1834

Yellowstone became the world's first national park on March 1, 1872, set aside in recognition of its unique hydrothermal features and for the benefit and enjoyment of the people. With this landmark decision, the United States Congress created a path for future parks within this country and around the world; Yellowstone still serves as a global resource conservation and tourism model for public land management. Yellowstone is perhaps most well-known for its hydrothermal features such as the iconic Old Faithful geyser. The park encompasses 2.25 million acres, or 3,472 square miles, of a landscape punctuated by steaming pools, bubbling mudpots, spewing geysers, and colorful volcanic soils. Filled with the smell of sulfur and described in 1856 by Jim Bridger as a "place where Hell bubbled up," Yellowstone is still recognized as a place of wonder. The park contains more than 10,000 thermal features, including the world's greatest concentration of geysers. A large underground volcanic system fuels these hydrothermal features, and has shaped the park's landscape over centuries.

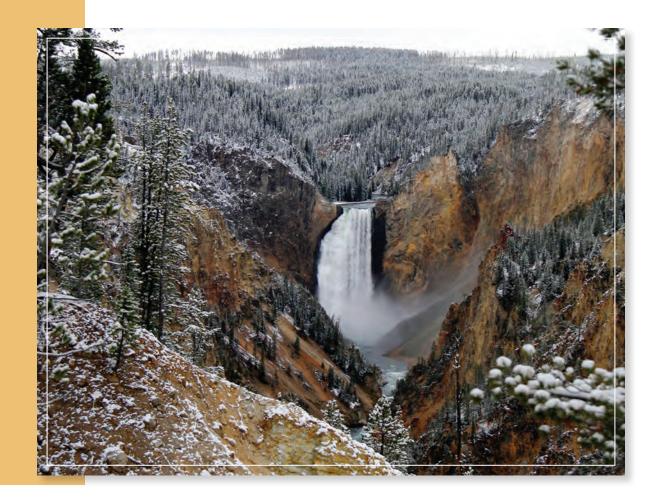
Yellowstone is the heart of the Greater Yellowstone Ecosystem (GYE), a vast landscape of 28,000 square miles populated by a wide variety of wildlife and geologic wonders. Surrounded by six national forests, private and reservation lands, and over 2 million designated wilderness acres, the Greater Yellowstone Ecosystem is one of the last, largest, mostly intact temperate-zone ecosystems on earth. Ninety percent of the acres within park borders are managed as wilderness where human intrusion and intervention into natural processes are minimized. These lands support a wide variety of wildlife, including bison, grizzly and black bears, gray wolves, elk, bighorn sheep, coyotes, otters, cutthroat trout, and other species. In 1972, the United Nations Educational, Social, and Cultural Organization (UNESCO) named Yellowstone the first area in the United States to be designated as a Biosphere Reserve, and in 1978 the park was declared a world heritage site.



This vast landscape contains the headwaters of several major rivers. The Firehole and Gibbon rivers unite to form the Madison, which, along with the Gallatin River, joins the Jefferson to create the Missouri River several miles north of the park. The Yellowstone River is a major tributary of the Missouri, which then flows via the Mississippi to the Gulf of Mexico. The Snake River arises near the park's south boundary and joins the Columbia to flow into the Pacific. Yellowstone Lake is the largest lake at high altitude in North America and the Lower Yellowstone Falls is the highest of more than 40 named waterfalls in the park.

Yellowstone has been important to people for thousands of years. The park preserves resources associated with over 11,000 years of human history, which provide insights into a variety of cultures and values, including those of American Indians, trappers, explorers, miners, U.S. Army personnel, National Park Service (NPS) and private sector concession staff, neighboring communities, and over 140 years of park visitors. Today, millions of people travel from around the globe to visit Yellowstone and take advantage of its rich recreational opportunities, including hiking, camping, fishing, and horseback riding. Many visitors come to see Old Faithful geyser or search for bears, wolves, and other wildlife, while others pass on family memories and traditions as they travel through remembered landscapes. The historic Old Faithful Inn and other lodging, museums, and visitor centers serve overnight and day use guests while representing Yellowstone's rich human history. The park is an economic force providing benefit to surrounding communities.

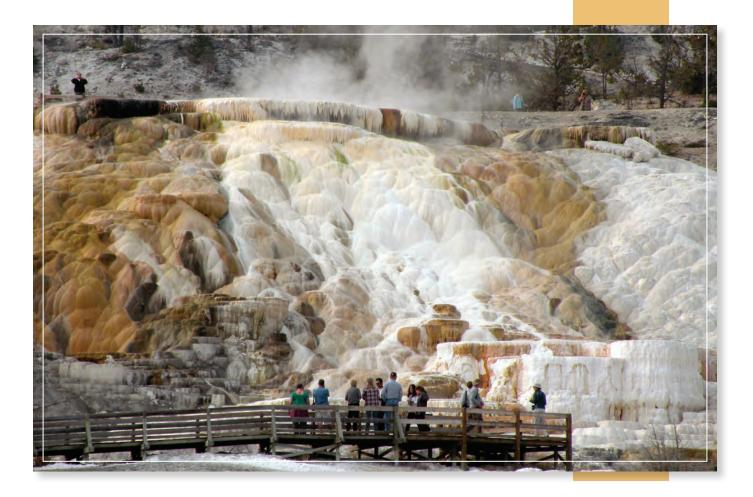
While most people visit Yellowstone during the summer, other times of the year also offer outstanding visitor opportunities, including the springtime display of newly born wildlife and the autumn combat between bull elk. Winter offers a unique opportunity to observe wildlife and recreate in Yellowstone's extreme cold and snow-covered landscape. The park is entirely different during this frigid time, when bison clear snow looking for dried grasses and geysers steam in the freezing air.



### **Park Purpose**

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Yellowstone National 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 1, 1872 (see appendix A for enabling legislation and subsequent amendments, if applicable). The purpose statement lays the foundation for understanding what is most important about the park. The purpose statement for Yellowstone National Park is as follows:

YELLOWSTONE NATIONAL PARK, the world's first national park, was set aside as a public pleasuring ground to share the geothermal wonders and preserve and protect the scenery, cultural heritage, wildlife, and geologic and ecological systems and processes in their natural condition, for the benefit and enjoyment of present and future generations.



### **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 Yellowstone National Park and are supported by data, research, and consensus. Statements of significance describe the distinctive nature of the park and why it 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 Yellowstone National Park. (Please note that the sequence of the statements does not reflect the level of significance.)

- 1. Yellowstone National Park is the world's first national park—an idea that has spread throughout the world.
- 2. Yellowstone National Park was set aside because of its geothermal wonders—the planet's most active, diverse, and intact collection of geothermal, geologic, and hydrologic features and systems and the underlying volcanic activity that sustains them.
- 3. The park is the core of the Greater Yellowstone Ecosystem, one of the last, largest, mostly intact, natural ecosystems in the temperate zone of Earth. It preserves an exceptional concentration and diversity of terrestrial, aquatic, and microbial life. Natural processes operate in an ecological context that has been less subject to human alteration than most others throughout the nation—and indeed throughout the world. This makes the park not only an invaluable natural reserve, but a reservoir of information valuable to humanity.
- 4. Yellowstone contains a unique and relatively pristine tapestry of cultural resources that span over 11,000 years. The archeological, architectural, historical, and material collections constitute one of the largest and most complete continua of human occupation in the western United States, including the association of 26 American Indian tribes with the landscape. More recent cultural resources represent the material embodiment of the birth of the national park system and the U.S. conservation movement.
- 5. Yellowstone visitors have unparalleled opportunities to experience unique geothermal wonders, free-roaming wildlife, inspiring scenic views, cultural heritage, and spectacular wilderness character.





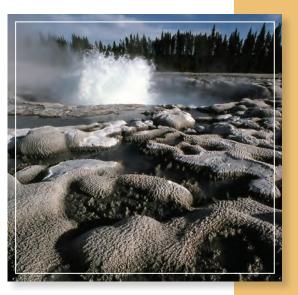
### **Interpretive Themes**

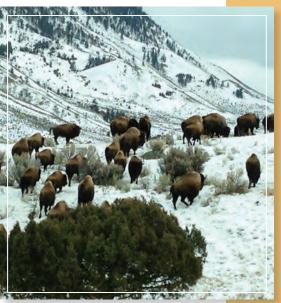
Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from, and should reflect, park purpose, significance, resources, 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 of the 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. They go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the park and its resources. Themes help to 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 Yellowstone National Park:

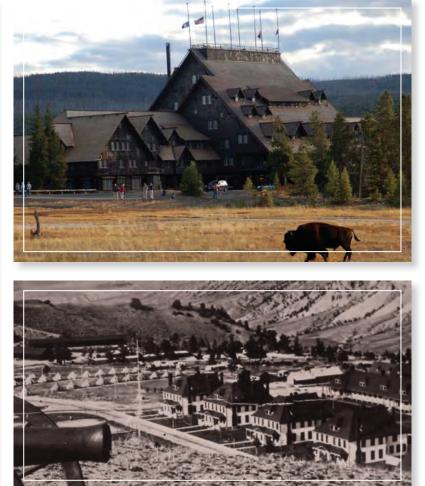
- Geology. Yellowstone lies on a restless part of the earth. Physical evidence of the park's geologic history spans at least 2.7 billion years, and geologic forces continue to shape the land and the patterns of life on the landscape today.
- Geothermal Features. Yellowstone has more active geothermal features (geysers, hot springs, mudpots, and fumaroles) than the rest of the world combined; they are a product of underlying geological activity, and their heated waters are habitat for diverse thermophilic life forms that we are only beginning to understand.
- Natural Resource Preservation. The Greater Yellowstone Ecosystem preserves a world-renowned biological reserve that includes mostly intact wildlife communities and rare and endangered species.
- Wildlife. Yellowstone is home to abundant, diverse, and free-ranging wildlife in a largely undisturbed setting. Their survival depends on sufficient and healthy habitats, the preservation of biological diversity, and minimal human interference and impact. Yellowstone's wildlife provides outstanding opportunities to experience and appreciate the diversity of life.
- **Ecosystem.** The greater Yellowstone area is one of the largest and most intact temperate ecosystems in North America. It supports an exceptional concentration and diversity of terrestrial and aquatic life.





- Human Culture and History. Yellowstone preserves resources associated with more than 11,000 years of human history, which provide insights into a variety of cultures, values, and perceptions, including those of American Indians, trappers, explorers, miners, U.S. Army personnel, National Park Service and private sector concession staffs, neighboring communities, and, for more than 140 years, park visitors.
- **First National Park.** Yellowstone is the world's first national park, and it continues to be a model for preservation and enjoyment of park resources.
- Wildness. Yellowstone is an extraordinary place in which to experience wildness.
- Laboratory. Yellowstone's diverse resources, ecological processes, and cultural history provide important opportunities for research and education.
- Climate Change and Sustainability. As Yellowstone's climate changes, habitats are also changing, affecting continued survival of native species. Engaging in sustainable practices decreases human contributions to climate change.
- Management. Effective park management requires the protection of resources, promotion of sustainable public use, involvement by and cooperation among interested individuals and groups, and the support of the American people for their national park system.





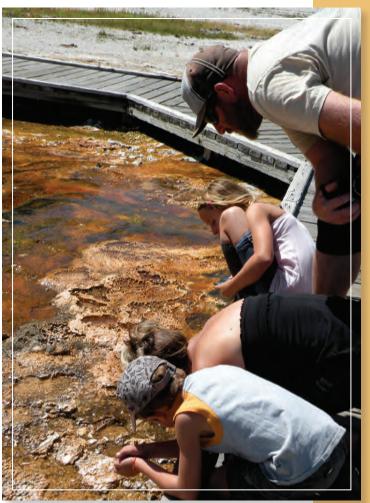
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### **The Visitor Experience**

Yellowstone National Park is a place like nowhere else on the planet, and the experience available to visitors should reflect that uniqueness while ensuring that visitor needs and expectations are appropriately accommodated. In addition, the visitor experience must also ensure that impacts on the park's natural and cultural resources are minimized or eliminated when possible.

In Yellowstone National Park, visitors will:

- Feel welcome in the park through encounters with staff members who are courteous, knowledgeable, and professional.
- Have safe visits and find a variety of ways to easily understand park regulations and rules designed to ensure their safety in a rugged wilderness setting with unique features and hazards.
- Use facilities that are inviting, safe, clean, helpful, and conveniently located.
- Find a variety of options to match their personal preferences for learning and activity with park services and products.
- Forge their own intellectual and emotional connections with Yellowstone, resulting in lifelong stewardship and engagement with the park.
- Off-site visitors will have opportunities to establish a relationship with the park by meeting rangers in person in their communities. Formal and informal programs will connect people with the park.
- Virtual visitors will find a wide variety of self-directed online options for engaging with the park and learning about its significance.



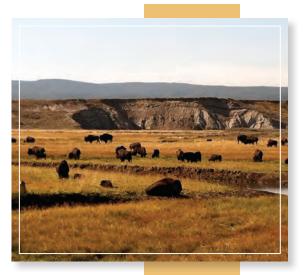




### **Fundamental Resources and Values**

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.

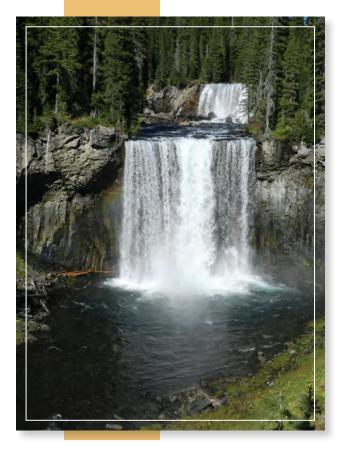


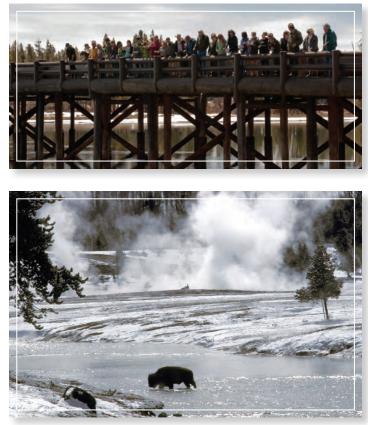
The following fundamental resources and values have been identified for Yellowstone National Park:

- **Geothermal wonders.** Yellowstone contains an unparalleled collection of over 10,000 thermal features, including geysers, hot springs, mud pots, and fumaroles, which are fed by underground geothermal and hydrothermal systems. They provide habitats for microorganisms and other wildlife, and unique opportunities for research.
- **Dynamic geologic processes and features.** Yellowstone's dramatic landscapes, including the Grand Canyon of the Yellowstone, Overhanging Cliff, and Obsidian Cliff, were shaped by volcanism, glaciations, erosion, and seismic activity. These processes have resulted in exposed and hidden geology and produce a varied landscape that provides unique habitat for many species.



- **Hydrologic systems.** Yellowstone's rivers, lakes, and underground waters are fundamental to the ecosystem and sustaining its wildlife, as well as the geothermal system. The park contains the headwaters of the Snake River and is home to one of the largest high elevation lakes in North America.
- One of the largest, mostly intact temperate ecosystems in the world. The park is the core of the Greater Yellowstone Ecosystem, which is one of the largest mostly intact temperate ecosystems in the world. The park preserves environmental integrity, which allows natural processes to shape ecosystem functions, resulting in outstanding wilderness character. Bears, wolves, bison, trumpeter swans, cutthroat trout, and elk are some of the many wildlife species that inhabit Yellowstone's vast landscape.
- **Enduring connection to Yellowstone.** Yellowstone's cultural resources, protected since 1872, represent one of the West's most pristine material records, spanning 11,000 years, including ongoing connections to the park's 26 traditionally associated tribes. The park's museum, library, and archive collections; archeological sites; and historic buildings, landscapes, and structures represent and convey Yellowstone's lasting cultural and natural history heritage.
- A park for the people. Park staff, artists, educational media, visitor centers, trails, boardwalks, and viewing areas provide park and virtual visitors with a wide variety of opportunities to enjoy the park, inspire people's quest for knowledge, build a deeper understanding of Yellowstone's global significance, and motivate preservation and stewardship of the park.
- A "wild" experience. Yellowstone's vast western landscape is unlike any other. Visitors have opportunities to experience natural wonders, unspoiled scenery, the smell of geothermal features, natural sounds such as the howling of wolves and the thundering of the Lower Falls, solitude, unpolluted air, dark night skies, and Yellowstone's wildness.





# 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 of the 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, concessioners, 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 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 memoranda of agreement. Examples include easements, rights-of-way, arrangements for emergency service responses, concession contracts, 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 Yellowstone National Park.

For more information about the special mandates, special designations, additional management considerations, special use permits and concession contracts, formal agreements, and administrative commitments for the park—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 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.

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.

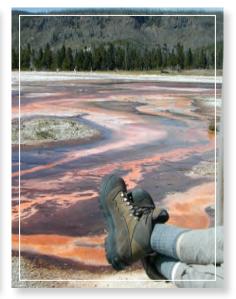
#### **Analysis of Fundamental Resources and Values**

The fundamental resources and values analysis table includes current condition, potential threats and opportunities, and planning and data needs. Stakeholders, selected laws, and NPS policies related to management of the identified resource or value are listed in appendix B.

Fundamental Resource or Value	Geothermal Wonders
Related Significance Statements	Related to geothermal wonders and visitor opportunities to experience these geothermal wonders.
Current Conditions	<ul> <li>Thermal resources, also known as geothermal or hydrothermal systems, comprise a subsurface heat source, heat conduit rock formations, and air and/or water that circulates through the formations and may discharge at the surface.</li> <li>Thermal systems remain largely intact, although development has had some impact on the systems.</li> <li>Scientists are unsure of the conditions of many of the geothermal resources.</li> <li>The extent of impacts from development, both inside and outside the park, is unknown and difficult to quantify.</li> </ul>
Trends	• The systems are dynamic—features and their locations change over time and with natural variations such as earthquakes.
Threats	<ul> <li>Development inside the park (roads, parking areas, employee facilities, developed visitor sites) may impact the above- and below-ground geothermal systems and features.</li> <li>Rising temperatures may influence groundwater recharge.</li> <li>Water use and changes in water use patterns may impact the recharge of these features and result in surface and subsurface impacts to thermal systems.</li> <li>Vandalism and disturbance of thermal features degrade the resource.</li> <li>Erosion of fragile areas due to social trails, trail placement, etc., degrades the resource.</li> <li>Geothermal, oil, gas, and water development outside the park may impact the underlying system.</li> </ul>
Opportunities	<ul> <li>Avoid and mitigate impacts of development to the extent possible.</li> <li>Analyze the existing geothermal monitoring data to determine if they can inform trends or provide guidance for future management.</li> <li>Consider removal of some infrastructure in thermal areas to reduce human-made impacts on geothermal systems and restore systems that have already been impacted.</li> <li>Continue to educate visitors about the dynamic nature of geothermal systems.</li> <li>Use trail reroutes and other actions to protect geothermal features and visitors.</li> <li>Explore opportunities for research and enhance knowledge of unique habitats in thermal areas.</li> </ul>







Fundamental Resource or Value	Geothermal Wonders
Existing plans and information that provide knowledge base and direction for managing the resource	<ul> <li>Geothermal monitoring plan</li> <li>Superintendent's Compendium specifies visitor restrictions in thermal areas</li> <li>Monitoring network with cooperators</li> <li>Montana Water Rights Compact (1993)</li> <li>Wyoming Statute 41-3-930, Water Rights</li> <li>Wilderness Recommendation (1972); Final Environmental Impact Statement (1973)</li> <li>Marmoth Development Concept Plan (1973)</li> <li>Master Plan (1974)</li> <li>Old Faithful Development Concept Plan / Environmental Assessment (EA) (1985)</li> <li>Biscuit Basin to West Thumb and Lake Bypass Road Construction EA (1987)</li> <li>Parkwide Road Improvement Plan / EA (1992)</li> <li>Madison Junction / Biscuit Basin Road Improvement EA (1994)</li> <li>Madison Junction / Norris Junction Road Improvement EA (1999)</li> <li>Old Faithful Water Treatment Plant Reconstruction EA (1999)</li> <li>Nold Faithful Visitor Education Center EA (2005)</li> <li>Norris to Golden Gate Road Reconstruction EA (2011)</li> <li>Old Faithful Cabin Repurposing and Dormitory Construction EA (2012)</li> <li>Yellowstone Geothermal Science Panel (2013)</li> <li>Yellowstone Resources and Issues Handbook (2014)</li> <li>Comprehensive Interpretive and Education Plan (2014)</li> <li>Old Faithful Area Comprehensive Plan (in progress)</li> <li>Old Faithful Comprehensive Plan / EA (in progress)</li> </ul>
Data Needs	<ul> <li>Determine baseline conditions for geothermal systems throughout park to assess impacts of visitor or management actions.</li> <li>Develop an understanding of how variability in seasonal precipitation affects thermal features.</li> <li>Provide modeling to promote understanding and as a tool to understand impacts.</li> <li>Determine feasible options to deal with abandoned or replacement of infrastructure in thermal areas to limit impacts to the system as a whole; this could take the form of an engineering study for innovative solutions of infrastructure in geothermal areas.</li> <li>Continue to map abandoned infrastructure in geothermal areas.</li> </ul>
Planning Needs	<ul> <li>Developed area plans to evaluate alternative geothermal protection strategies.</li> <li>Develop an emergency operations plan to prepare for large events; coordinate with Greater Yellowstone Planning and Response Group.</li> <li>Backcountry/wilderness management plan.</li> </ul>





Fundamental Resource or Value	Dynamic Geological Processes and Features
Related Significance Statements	Related to geothermal wonders (including geologic processes and features) and visitor opportunities to experience these geothermal wonders.
Current Conditions	• The features are dynamic on a geologic scale, but nearly constant in human time scale.
Trends	<ul> <li>Episodes of seismic activity (ground deformation, quakes) result in changes to surface and underground features.</li> <li>Human-caused erosion, resulting in habitat degradation, is growing more problematic in some areas.</li> </ul>
Threats	<ul> <li>Congestion at visitor viewing areas results in erosion and soil compaction (examples include Grizzly Overlook, Firehole swimming area).</li> <li>Social trails in fragile areas result in soil compaction and erosion.</li> <li>Illegal rock and fossil specimen collection degrades the resource.</li> <li>Informal vehicle turnoffs impact roadside geology and features.</li> <li>Park managers sometimes impact resources to enhance public safety (signs in developed areas, fences at exposures, guardrails, boardwalks, etc.).</li> </ul>
Opportunities	<ul> <li>Continue to educate visitors about the negative impact of social trails, informal parking, etc.</li> <li>Use sensitive design to increase accessibility to popular features and protect both the resource and the visitor.</li> </ul>
Existing plans and information that provide knowledge base and direction for managing the resource	<ul> <li>Superintendent's Compendium has closures for impacted areas</li> <li>Wilderness Recommendation (1972); Final Environmental Impact Statement (1973)</li> <li>Master Plan (1974)</li> <li>Canyon Rim Drives, Road Rehabilitation EA (2006)</li> <li>Yellowstone Resources and Issues Handbook (2014)</li> <li>Parkwide Commercial Stock Outfitter Concession Contracts Plan / EA (in progress)</li> </ul>
Data Needs	<ul> <li>Collect information on the intensity and impacts from visitors to inform resource protection issues.</li> <li>Provide paleontological condition assessments; for example, surveys of petrified trees inside the park, to inform management practices.</li> <li>Provide data on periglacial processes to better manage resources.</li> <li>Develop inventory of informal vehicle turnouts to determine impacts.</li> <li>Develop inventory of formal and informal trail impacts.</li> </ul>
Planning Needs	<ul> <li>Visitor use management plan that addresses impacts due to vehicles, foot traffic, use patterns, etc.</li> <li>Road improvement plan.</li> <li>Backcountry/wilderness management plan.</li> <li>Plan that includes adaptive strategies for erosion.</li> </ul>





Fundamental Resource or Value	Hydrologic Systems
Related Significance Statements	Related to geothermal wonders (including hydrologic processes and features), the Greater Yellowstone Ecosystem, and visitor opportunities.
Current Conditions	<ul> <li>The Montana Water Rights Compact (1993) among the State of Montana, the United States, and the National Park Service, provides a mechanism for protecting Yellowstone's federal reserved water rights and the hydrothermal system from water resourced development in Montana.</li> <li>A separate Water Rights Agreement with the State of Idaho and a court decree for the Middle Creek watershed in Wyoming defined federal reserved water rights for those portions of Yellowstone National Park.</li> <li>The Snake and Lewis rivers are designated Wild and Scenic Rivers, which protects free-flowing condition and outstandingly remarkable values.</li> <li>Soda Butte Creek, Reese Creek, and the Yellowstone River near Gardiner are listed as impaired under the Clean Water Act (303d list).</li> <li>Ongoing human-caused erosion into rivers, streams, and lakes degrades water purity in some areas.</li> <li>Water quality is generally good; more than 99% of surface waters have outstanding natural resource water designation.</li> <li>Water withdrawal and use in some developed areas does have an impact on the overall system.</li> </ul>
Trends	<ul> <li>Minimum and maximum temperatures have increased and will continue to increase, causing earlier snowpack melt.</li> <li>Since 1942, temperatures have risen and precipitation has decreased, which has produced a drier landscape and less recharge for hydrologic systems.</li> </ul>
Threats	<ul> <li>Development impacts inside the park, such as infrastructure, could result in a reduction in groundwater recharge and surface and subsurface impacts to water resources.</li> <li>Geothermal, oil, gas, and water development (wells) outside the park could disrupt the hydrologic system.</li> <li>Erosion of fragile areas is occurring due to social trails or trail placement.</li> <li>The natural movement of streams is impacted by structures (e.g., roads, bridges), causing impacts to natural hydrologic flows.</li> <li>Climate change may affect streamflow, natural recharge, and potable water availability, and could also result in increasing water temperatures. Temperatures are projected to increase and projections for precipitation are uncertain.</li> <li>Precipitation is generally predicted to increase in fall, winter, and spring, but to decrease in the summer.</li> <li>Failure of sewage treatment systems and fuel storage tanks could impact the system.</li> <li>Consumptive use of water throughout the ecosystem.</li> </ul>
Opportunities	<ul> <li>Restore streams on 303d list using total maximum daily loads process.</li> <li>Consider management activities to restore natural flow regimes on Reese Creek.</li> <li>Conserve water use in developed areas.</li> </ul>

Fundamental Resource or Value	Hydrologic Systems
Existing plans and information that provide knowledge base and direction for managing the resource	<ul> <li>Wilderness Recommendation (1972); Final Environmental Impact Statement (1973)</li> <li>Master Plan (1974)</li> <li>Rehabilitate Sewer Disposal and Water Treatment Facility at East Entrance EA (1983)</li> <li>Canyon Village, Rehabilitate Wastewater Treatment Facilities EA (1990)</li> <li>Old Faithful Wastewater Treatment Plant Reconstruction EA (1999)</li> <li>Norris Area Water and Wastewater Treatment Project EA (2002)</li> <li>Madison Area Wastewater Treatment Project EA (2006)</li> <li>Restoration of Westslope Cutthroat Trout in the East Fork Specimen Creek Watershed EA (2006)</li> <li>Native Fish Conservation Plan EA (2011)</li> <li>NPS Green Parks Plan (2012)</li> <li>Yellowstone Resources and Issues Handbook (2014)</li> <li>Wild and Scenic Rivers EA (2014)</li> <li>Nonnative Vegetation Management Plan (in progress)</li> <li>Old Faithful Area Comprehensive Plan / EA (in progress)</li> <li>Parkwide Commercial Stock Outfitter Concession Contracts Plan / EA (in progress)</li> </ul>
Data Needs	<ul> <li>Assess additional baseline conditions for water resources in the park (more detailed monitoring of chemical and physical factors).</li> <li>Establish baseline conditions for water consumption in the park (use levels).</li> <li>Collect stream and lake erosion geomorphology data.</li> <li>Identify alternatives for water withdrawal in developed areas.</li> <li>Continue to collect high priority weather and stream gauging data to understand historic trends and help validate modeled climate change projections.</li> </ul>
Planning Needs	<ul> <li>Resource stewardship strategy, including climate change scenario planning. A resource stewardship strategy identifies and tracks indicators of desired resource conditions; recommends comprehensive strategies to achieve and maintain desired conditions and to manage natural and cultural resources; and is based on science and scholarship.</li> <li>Resource stewardship strategy, including climate change scenario planning.</li> <li>Road improvement plan.</li> <li>Shoreline erosion plan.</li> <li>Developed area plans.</li> </ul>





Fundamental Resource or Value	One of the Largest Mostly Intact Temperate Ecosystems in the World
Related Significance Statements	Related to the Greater Yellowstone Ecosystem, geothermal and hydrologic wonders, spectacular wilderness character, and free-roaming wildlife.
Current Conditions	<ul> <li>Overall, the ecosystem is healthy and natural, mainly due to its diversity.</li> <li>The park contains 17 species of management concern (such as rare, declining, sensitive, or unique species), which were designated due to potential threats.</li> <li>The Natural Resource Vital Signs report provides recent information on the condition of resources in the park, ecosystem drivers, environmental quality, native and nonnative species, and stressors in the system.</li> </ul>
Trends	<ul> <li>The ecosystem has sustained damage in certain areas (e.g., Old Faithful, Mammoth Hot Springs, etc.) from human disturbance, specifically recreation and development.</li> <li>Temperatures will continue to rise throughout the northern Rockies with precipitation predicted to increase in fall, winter, and spring, but decrease in the summer.</li> <li>Measured climate-related trends include wildfire, insect outbreaks, and shifts in species ranges.</li> <li>Land use around the park continues to affect wildlife migration patterns.</li> <li>Habituation of wildlife and complex human-wildlife interactions are becoming more common with increasing visitation.</li> <li>Research on thermophiles is ongoing, including bio-prospecting and sharing agreements.</li> </ul>
Threats	<ul> <li>Warmer temperatures and changes in precipitation patterns will affect timing and frequency of wildfires, elevational shifts in vegetation, and a change in suitable habitat for climate-sensitive species.</li> <li>Invasive nonnative species that are introduced and proliferate could disrupt native species and intact communities and ecological functions, potentially leading to their local eradication. Invasive species include lake trout, mud-snails, and other aquatic invasive species and nonnative terrestrial vegetation (e.g., spotted knapweed, Canada thistle, etc.). Please note, some nonnative vegetation may contribute to the historic character of certain areas within the park such as the historic landscape in Fort Yellowstone National Historic Landmark. This nonnative vegetation may be managed differently than other nonnative species.</li> <li>Zoonotic diseases could be transmitted among domestic animals, humans, and wildlife.</li> <li>Habituation of wildlife and human-wildlife interactions that come with increasing visitation.</li> <li>Adjacent land development around the park may increase noise, light, water, and air pollution.</li> <li>Air quality is an integral factor on which other resources and values depend. Air quality and ecosystem monitoring and research indicate that nitrogen pollution from human-made sources is beginning to alter sensitive ecosystems in the Greater Yellowstone Ecosystem.</li> <li>Lack of coordinated, cross-jurisdictional planning efforts for natural resource management at an ecosystem-scale sometimes leads to conflicting public land use practices and mandates.</li> <li>Landscape fragmentation outside the park makes it difficult to maintain migration, dispersal, and genetic integrity; especially to seasonal ranges in adjacent states (cross-jurisdictional management issues).</li> <li>Increased mechanization, structures, and visitation may negatively affect wilderness character in the park's recommended wilderness.</li> </ul>

Fundamental Resource or Value	One of the Largest Mostly Intact Temperate Ecosystems in the World
Opportunities	<ul> <li>Utilize adaptive ecosystem management throughout the park, focusing on ecosystem resiliency and change.</li> <li>Preserve and restore ecosystem processes and rare and sensitive species.</li> <li>Prioritize conservation efforts and challenges.</li> <li>Increase collaboration and coordination of resource management and stewardship across the Greater Yellowstone Ecosystem.</li> <li>Increase messaging and education as a means of perpetuating and enhancing current and future stewardship across the Greater Yellowstone Ecosystem.</li> <li>Continue to incorporate new research in management decisions.</li> <li>Improve communication within the science communities.</li> <li>Develop innovative and collaborative approaches to migration corridor management.</li> <li>Develop management goals for pollution thresholds to inform regional energy and other development decisions.</li> <li>Visitor education on new and evolving conditions associated with a changing climate in the park.</li> </ul>
Existing plans and information that provide knowledge base and direction for managing the resource	<ul> <li>Five U.S. Department of Agriculture (USDA) Forest Service Plans</li> <li>Inventory and Monitoring (I&amp;M) Network</li> <li>Natural Resources Vital Signs Report</li> <li>Greater Yellowstone Coordinating Committee website</li> <li>Great Northern Landscape Conservation Cooperative staff and website</li> <li>Wilderness Recommendation (1972); Final Environmental Impact Statement (1973)</li> <li>Master Plan (1974)</li> <li>Grizzly Bear Management Plan (1994)</li> <li>Bison Management Plan / EIS (2000)</li> <li>Restoration of Westslope Cutthroat Trout in the East Fork Specimen Creek Watershed EA (2006)</li> <li>Grizzly Bear Conservation Strategy (2007)</li> <li>Native Fish Conservation Plan EA (2011)</li> <li>Lake Area Comprehensive Plan / EA (2012)</li> <li>NPS Green Parks Plan (2012)</li> <li>Fire Management Plan / EA (2013)</li> <li>Invasive Vegetation Management Plan / EA (2013)</li> <li>Yellowstone Resources and Issues Handbook (2014)</li> <li>Wild and Scenic Rivers EA (2014)</li> <li>Old Faithful Area Comprehensive Plan / EA (in progress)</li> <li>Parkwide Commercial Stock Outfitter Concession Contracts Plan / EA (in progress)</li> </ul>

Fundamental Resource or Value	One of the Largest Mostly Intact Temperate Ecosystems in the World
	<ul> <li>Monitor the status of vital signs for ecosystem drivers, environmental quality, native and nonnative species, and stressors to the system (see Natural Resource Vital Signs report for detailed data needs).</li> </ul>
	<ul> <li>Identify drivers and consequences of forest insect outbreaks, including how insects interact with other disturbances.</li> </ul>
	<ul> <li>Identify effects of best forest and fire management practices on native communities and wildlife habitat.</li> </ul>
Data Nacida	<ul> <li>Develop wilderness character metrics and make assessments.</li> </ul>
Data Needs	• Monitor mechanization, structures, and visitation that affect wilderness character in the park's recommended wilderness.
	<ul> <li>Identify source attribution and dose-response relationships of air pollution and deposition impacts.</li> </ul>
	<ul> <li>Continue to collect high priority weather and stream gauging data to understand historic trends help validate modeled climate change projections.</li> </ul>
	<ul> <li>Continue to complete natural resource condition assessments and climate change vulnerability assessment.</li> </ul>
	New management plans for some native species.
	Invasive management plan for aquatic species.
Planning Needs	<ul> <li>A science plan may be developed to describe key applied science needs that help park managers understand key ecosystem dynamics and the effects of resource management activities and projects. The plan would describe applied science topics and potential research studies and monitoring programs.</li> </ul>
	Backcountry/wilderness management plan.
	Visitor use management plan.



Fundamental Resource or Value	An Enduring Human Connection to Yellowstone
Related Significance Statements	Directly related to cultural resources of the park and indirectly to all others, including the elements of being the first national park, the natural history of the park, and the park for the education of this and future generations.
Current Conditions	<ul> <li>Archeological sites within the park boundaries range from poor to good condition.</li> <li>The condition of cultural landscapes varies throughout the park.</li> <li>Ethnographic resource condition varies.</li> <li>Oral history program records are in good condition.</li> <li>The historic collections themselves are in fair to excellent condition. Objects that are off-site on display and on loan may be in an undetermined condition. There is a backlog of museum and archive collections that are in an undetermined condition since they are accessioned but not yet cataloged.</li> <li>The condition of the collections storage facility is generally excellent since the park's large collection of historic documents and artifacts are housed in the state-of-the-art Heritage and Research Center. However, not all collections are stored in the facility.</li> <li>The park contains a particularly large inventory of historic properties including historic structures, buildings, and landscapes. Their condition varies.</li> <li>Some historic properties are not maintained and are in a state of disrepair.</li> <li>Many historic properties are maintained by concessioners as contractual obligation and are in good condition.</li> </ul>
Trends	<ul> <li>Research interest is rapidly increasing and more documents containing detailed information about a specific collection of papers or records are published online. This creates increasing interest and access, which the park is not always capable of supporting, especially since Yellowstone is the only park that stores its own National Archive Records Administration materials.</li> <li>The park is struggling to maintain and preserve historic assets due to increased use and costs and decreased budgets.</li> <li>As park visitation increases, there is increased visitation to certain historic properties such as the Albright Visitor Center in Mammoth, the Old Faithful Inn, and roads and overlooks.</li> <li>The cultural landscapes of the park are dynamic, especially with changing vegetation and facilities.</li> </ul>
Threats	<ul> <li>Some backlogged museum objects that are in undetermined condition may be deteriorating because they are accessioned but not yet cataloged.</li> <li>Some of the collection is not stored in an environmentally protected space and may be at risk, such as the transportation collection stored in Gardiner.</li> <li>Temperature and wildfires are projected to increase for the region impacting archeological, historic, and ethnographic resources including cultural landscapes. Some modeled projections indicate an increase in precipitation or rapid snow melt events that could lead to more flooding, also impacting cultural resources.</li> <li>Some iconic cultural resources, such as the Old Faithful Inn and the judge's house at Mammoth Hot Springs, are on geothermally active ground or adjacent to dynamic hydrothermal systems.</li> <li>As staff and the public age, there is a loss of institutional knowledge that is important to capture in oral histories.</li> <li>Unknown or unevaluated resources are at risk of losing integrity.</li> </ul>

Fundamental Resource or Value	An Enduring Human Connection to Yellowstone
Opportunities	<ul> <li>Increased use of technology such as the Internet and social media helps connect visitors to resources.</li> <li>Collections are used to help visitors connect with the history of the park.</li> <li>Sense of place is afforded to visitor services and facilities by housing them in historic buildings.</li> <li>Continue to improve and develop relationships and consensus with 26 traditionally associated tribes.</li> <li>Identify, evaluate, and document ethnographic resources.</li> <li>Continued road rehabilitation ensures the historic integrity of Grand Loop Road and other historic roads are maintained.</li> <li>Opportunities exist for preservation of more historic structures for modern use, thereby keeping them preserved and vital.</li> <li>Enhance understanding and preservation of cultural landscape resources.</li> </ul>
Existing plans and information that provide knowledge base and direction for managing the resource	<ul> <li>Scope of collections statement</li> <li>Inventories of collections</li> <li>Emergency Operations Plan for the Heritage and Research Center</li> <li>Park Asset Management Plan</li> <li>Road reconstruction plans</li> <li>Wilderness Recommendation (1972); Final Environmental Impact Statement (1973)</li> <li>Parkwide Community Housing Plan / EA (1992)</li> <li>Archeological Treatment Plan for Yellowstone NP Federal Highway Projects (1993)</li> <li>Yellowstone Heritage and Research Center EA (2001)</li> <li>Marmoth Housing Plan / EA (2003)</li> <li>Commercial Services Strategy (2009)</li> <li>Tower Roosevelt Comprehensive Plan / EA (2009)</li> <li>North Entrance and Park Street Improvement Plan / EA (2011)</li> <li>Lake Area Comprehensive Plan / EA (2012)</li> <li>Fire Management Plan / EA (2013)</li> <li>Yellowstone Resources and Issues Handbook (2014)</li> <li>Bechler Administrative Area Improvement Plan (in progress)</li> <li>Old Faithful Area Comprehensive Plan / EA (in progress)</li> <li>Old Faithful Area Comprehensive Plan / EA (in progress)</li> <li>Cultural resources baseline documents (Administrative History, Historic Resource Study, Cultural Landscape Reports, Historic Structures Reports, and inventories)</li> <li>The park contains six national historic landmarks, one national historic landmark district, five historic districts, four historic structures Reports are protected by the National Historic Preservation Act</li> </ul>



Fundamental Resource or Value	An Enduring Human Connection to Yellowstone
Data Needs	<ul> <li>Determine amount of historic vehicle storage needed.</li> <li>Determine condition of accessioned items not yet cataloged.</li> <li>Determine condition of collections on loan or on display.</li> <li>Determine potential impacts due to public access of collections.</li> <li>Conduct a vulnerability assessment for cultural resources for climate change.</li> <li>Evaluate recent or less understood periods of history (such as Mission 66 historic context and determinations of eligibility).</li> <li>Document to fulfill both sections 110 and 106 of the National Historic Preservation Act, especially where proposed undertakings may affect cultural resources. This includes archeological surveys, ethnographic studies, historic structures reports, cultural landscape inventories and reports, etc.</li> <li>Identify, evaluate, and document cultural landscapes.</li> <li>Complete remaining historic structure reports.</li> </ul>
Planning Needs	<ul> <li>Museum collections management plan.</li> <li>Structural fire plan.</li> <li>Developed area plans.</li> <li>Road improvement plan.</li> <li>Backcountry/wilderness management plan.</li> <li>Climate change scenario plan.</li> <li>Nominations for historic properties determined eligible but not yet listed in the National Register of Historic Places.</li> </ul>



Fundamental Resource or Value	A Park for the People; A "Wild" Experience
Related Significance Statements	Directly related to visitor opportunities and indirectly to all others.
Current Conditions	<ul> <li>Yellowstone has 9 visitor centers, 9 hotels/lodges, 12 campgrounds, over 460 miles of roads and approximately 1,000 miles of trails.</li> <li>Many of the facilities are aging, having considerable deferred maintenance.</li> <li>Roads, trails, and campsites are generally in good condition, but are in continual need of maintenance.</li> <li>There is limited parking in some developed areas (i.e., Roosevelt, Old Faithful, Mammoth, thermal areas, etc.), leading to off-road parking that damages resources and contributes to visitor frustration.</li> <li>Visitors often use turnouts to view wildlife. A lack of adequate, safe turnouts/ overlooks causes off-road parking and safety concerns.</li> <li>Confusing and/or insufficient signage exists in certain areas of the park (e.g., Old Faithful, Grant, etc.).</li> <li>Conflicts between pedestrians and vehicles in some developed areas create safety concerns such as at Mammoth and Old Faithful.</li> <li>Visitor satisfaction is generally high based on current surveys.</li> <li>Goals for visitor accessibility have not yet been fully met.</li> <li>There are safety concerns between visitors and resources, including wildlife and hydrothermal features.</li> <li>The park maintains high quality interpretive and educational opportunities (e.g., programs, exhibits, publications, videos/films, website, social media) to meet visitor needs.</li> </ul>
	<ul> <li>The park engages in outreach to distant audiences through the Internet as well as gateway and regional communities to increase people's connections to Yellowstone.</li> <li>The park strives to provide effective messaging and education services and products.</li> </ul>
Trends	<ul> <li>Visitation is generally increasing, resulting in additional pressures on facilities, roads, and resources.</li> <li>Patterns of visitation are changing; more people are visiting the park in the spring and fall than in the past.</li> <li>Within the last 20 years, fewer people are undertaking overnight/ multinight backcountry camping activities.</li> <li>The park continues to increase accessible opportunities for visitors at the park.</li> </ul>
Threats	<ul> <li>Congestion occurs throughout the park during the summer in relation to commercial services, campgrounds, parking areas, traffic, etc.</li> <li>Human-wildlife interactions result in traffic congestion and safety concerns, trail safety concerns, conflicts along roadsides, off-road parking due to wildlife watching, and safety concerns during the elk rut and calving in Mammoth.</li> <li>Encroachment and development outside the park impacts visitor experience (e.g., north, northeast, and west entrances).</li> <li>Park infrastructure is aging and may fail, including historic resources. This failure has the potential to impact natural and/or cultural resources.</li> <li>Air pollution can impact human health, limiting activities and jeopardizing the park experience when it reaches unhealthy levels.</li> <li>Climate change may influence park visitation patterns and activities, affecting park operations and budgets.</li> </ul>

Fundamental Resource or Value	A Park for the People; A "Wild" Experience
Opportunities	<ul> <li>Improve entry sequences into park features and enhance pedestrian and vehicular circulation.</li> <li>Provide for accessibility and universal design.</li> <li>Improve communication of research results to educate the public.</li> <li>Collect and use social science data to address key visitor experience concerns.</li> <li>Improve visitor safety and appropriate management, while providing a desired visitor experience and protecting resources.</li> <li>Reach and educate more audiences via ranger-led programs including residential and other youth programs, the park website, social media, and park publications.</li> <li>Visitor education on new and evolving conditions associated with a changing climate in the park.</li> </ul>
Existing plans and information that provide knowledge base and direction for managing the resource	<ul> <li>Annual Visitor Survey Card Report</li> <li>Survey data from Montana and Wyoming departments of tourism</li> <li>Wilderness Recommendation (1972); Final Environmental Impact Statement (1973)</li> <li>Master Plan (1974)</li> <li>Commercial Services Strategy (2009)</li> <li>Tower Roosevelt Comprehensive Plan / EA (2009)</li> <li>Wireless Communications Plan / EA (2009)</li> <li>North Entrance and Park Street Improvement / EA (2011)</li> <li>Visitor Use Study (2011)</li> <li>Lake Area Comprehensive Plan / EA (2012)</li> <li>Old Faithful Cabin Repurposing and Dormitory Construction EA (2012)</li> <li>Winter Use Supplemental Environmental Impact Statement (SEIS) (2013)</li> <li>Yellowstone Resources and Issues Handbook (2014)</li> <li>Wild and Scenic Rivers EA (2014)</li> <li>Comprehensive Interpretive and Education Plan / EA (in progress)</li> <li>Historic structure strategy (in progress)</li> <li>Old Faithful Area Comprehensive Plan / EA (in progress)</li> </ul>





Fundamental Resource or Value	A Park for the People; A "Wild" Experience
Data Needs	<ul> <li>Identify high accident areas and traffic near-misses.</li> <li>Conduct road turnout/resource impact surveys.</li> <li>Collect data, including surveys, to understand demographics, use patterns, virtual visitors, etc.</li> <li>Collect soundscape information, particularly for developed areas.</li> <li>Identify sufficiency of parking, food services, restrooms, etc., for each developed area, feature, and destination.</li> <li>Evaluate all types of messaging (i.e., Internet, print, etc.).</li> <li>Conduct visitor impact study to determine impacts of day use on park resources.</li> <li>Evaluate the efficacy of the educational program.</li> <li>Conduct a Gardner Canyon road study for visitor/wildlife improvements.</li> <li>Conduct a capability assessment of local, state, and federal agencies for emergency services.</li> <li>Inventory and monitor winter use impacts (i.e., visitor experience and satisfaction, air quality, soundscapes, wildlife, and oversnow tailpipe emissions).</li> <li>Analyze IT infrastructure and capacity.</li> <li>Gather parkwide data for night sky darkness assessment.</li> <li>Gather baseline soundscapes for areas within wilderness and monitor wilderness soundscape levels/values.</li> </ul>
Planning Needs	<ul> <li>Visitor use management plan that addresses patterns of use, congestion, and increased visitation throughout the park.</li> <li>Developed area plans.</li> <li>Road improvement plan.</li> <li>Emergency operations plan.</li> <li>Backcountry/wilderness management plan.</li> <li>Develop a wilderness character narrative.</li> <li>Climate change scenario plan.</li> </ul>



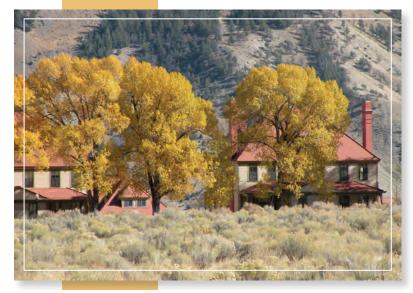


# Identification of Key Parkwide or Major Issues and Associated Planning and Data Needs

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, 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 not directly related to purpose and significance, but still indirectly affects them. 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 issues listed below are large, cross-cutting concerns that touch all of the FRVs. Although many are listed in the FRV analysis tables, they are listed here again due to their parkwide scope. These issues include:

- Protection of natural and cultural resources Managers must constantly determine how to provide access to desired locations, while minimizing impacts to those resources. This is a delicate balancing act that rarely has clear solutions applicable in all cases. Key issues include geothermal and hydrologic system impacts due to development both inside and outside the park, wildlife migration patterns within the Greater Yellowstone Ecosystem, and invasive nonnative species. As the park's climate changes over time, mobile resources may shift location, and there may be other impacts on immobile resources and underlying geology, hydrology, and other systems. Park staff can record these changes and interpret them for visitors and scientists. Yellowstone managers must also consider what actions may be taken to deal with the impacts that climate change brings to the park and what strategies for adaptation may be considered.
- Infrastructure and operational sustainability Yellowstone is a large western park with many different types of resources and hosts millions of visitors each year. The funding required to manage the park is considerable and must be obtained from multiple sources—visitor fees, base funding, program and project funding, and nonprofit donations. All future plans must consider the future financial impacts of their decisions to assure the park's operations remain sustainable. Key issues include understanding ways to minimize impacts of park operations and infrastructure on natural and cultural resources, aging and inadequate infrastructure, and environmentally sustainable systems.
- **Visitor experience** Part of Yellowstone's purpose is to preserve the park "for the benefit and enjoyment" of the people. Providing for visitor opportunities in a



landscape full of geothermal, hydrologic, and ecological systems can be complex. This is especially true because not all visitors have the same expectations about their experiences in the park. Park managers need to know who is using the park, where they are, what the impacts are, and if they're acceptable, and determine if a monitoring strategy is warranted. As park visitation changes, it is important for managers to anticipate visitor's expectations. Key issues surrounding visitor experience include understanding the effects of increased visitation and changing visitation patterns, human-wildlife interactions, and pedestrian/automobile safety concerns in developed areas.

#### **Planning and Data Needs**

To maintain connection to the core elements of the foundation, 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.

This section identifies the priority data needs and planning focus areas for the park. The focus areas are dynamic and will be updated as the park's needs change and funding becomes available. These priorities inform park management's efforts to secure funding and support for planning projects.

#### Natural and Cultural Resource Management Plans.

*Data needs*—Continue ongoing natural resource monitoring for important ecosystem indicators, continue resource condition assessments and climate change vulnerability assessments, conduct studies to better understand the dynamics of the park's biological and physical setting (e.g., weather data, stream gauging, snowpack measurements), inventory park cultural resources including archeology and cultural landscape inventories, develop cultural resource treatment guidance documents, identify geothermal and hydrologic system impacts due to development both inside and outside the park, and understand existing and projected impacts of air pollution and climate change.

*Planning focus areas*—Ungulate management plans (e.g., bison, pronghorn, etc.), archeology resource protection, long range natural resource strategy (science plan), invasive species, museum collections, and treatment plans for historic structures located in geothermal systems, and climate change scenario planning.

#### Park Infrastructure and Operations Plans.

*Data needs*—Identification of infrastructure needs and ways to minimize impacts of park operations and infrastructure on natural and cultural resources and to more efficiently and sustainably implement park operations.

*Planning focus areas*—Road reconstruction, emergency operations, geothermal protection (including strategies for dealing with abandoned or replacement infrastructure in thermal areas), comprehensive developed area plans, erosion control, and shoreline protection plans.

#### **Visitor Management Plans.**

Data needs—Information about visitor use of the park, visitor satisfaction, visitor safety, and visitor impacts in front- and backcountry areas and establishment of metrics and a monitoring program for wilderness character.

*Planning focus areas*—Wilderness stewardship, backcountry, visitor use, pedestrian/automobile safety conflicts, and visitor/wildlife safety conflicts.



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### Appendix A: Enabling Legislation and Legislative Acts for Yellowstone National Park

### Yellowstone National Park is established by Congressional Act of March 1, 1872

82

FOR'TY-SECOND CONGRESS. SESS. II. CH. 21-24. 1872.

Navy pensions, &c.

1800, ch. 88. 1847, ch. 18. 1848, ch. 155. 1862, ch. 166, 201. 1864, ch. 183. 1866, ch. 106, 235. 235. 1867, ch. 174. 1868, ch. 264. 1870 ch. 132, 235, 238.

To be paid from income of navy fund.

For navy pensions to invalids, widows, and dependent relatives, and pensions to sailors of the war of eighteen hundred and twelve, and for furnishing artificial limbs or apparatus for resection, with transportation or commutation therefor, compensation to pension agents, expenses of agencies, and fees for preparing vouchers and administering oaths, as provided by the acts of April twenty-third, eighteen hundred; February twentieth, eighteen hundred and forty-seven ; August eleventh, eighteen hundred and forty-eight; July fourteenth and seventeenth, eighteen hundred and sixty-two; June thirtieth, eighteen hundred and sixty-four ; June sixth and July twenty-fifth, eighteen hundred and sixty-six; March second, eighteen hundred and sixty-seven ; July twenty-seventh, eighteen hundred and sixty-eight; June seventeenth and July eighth and eleventh, eighteen hundred and seventy, and all other pensions provided by law, four hundred and eighty thousand dollars : Provided, That the appropriation aforesaid for navy pensions, and the other expenditures under that head, shall be paid from the income of the navy pension fund, so far as the same may be sufficient for that purpose.

APPROVED, February 20, 1872.

March 1, 1879. 1864, ch. 108, \$ 31. CHAP. XXII. — An Act to amend an Act entitled "An Act to provide a national Currency secured by Pledge of United States Bonds, and to provide for the Circulation and Redemp-tion thereof," approved June third, eighteen hundred and sizty-four.

\$ 31. Vol. xiii. p. 109.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section thirty-one of said Leavenworth stricken from the act be amended by striking out the word " Leavenworth " when it occurs list of certain in mid soutien in said section. cities.

APPROVED, March 1, 1872.

March 1, 1872. CHAP. XXIII. - An Act extending the Time for the Completion of the Green Bay and Stur-geon Bay and Lake Michigan Ship Canal, in the State of Wisconsin. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the time for the completion

Time for completing Green Bay, &c., ship canal, extended.

eighteen hundred and seventy-four. APPROVED, March 1, 1872.

March 1, 1872. CHAP. XXIV. - An Act to set apart a certain Tract of Land lying near the Head-waters of the Yellowstons River as a public Park.

of the Green Bay and Sturgeon Bay and Lake Michigan ship canal be,

and the same is hereby, extended to the tenth day of April, anno Domini

Public park established near the head-waters of the Yellowstone River. Boundaries

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the tract of land in the Territories of Montana and Wyoming, lying near the head-waters of the Yellowstone river, and described as follows, to wit, commencing at the junction of Gardiner's river with the Yellowstone river, and running east to the meridian passing ten miles to the eastward of the most eastern point of Yellowstone lake; thence south along said meridian to the parallel of latitude passing ten miles south of the most southern point of Yellowstone lake ; thence west along said parallel to the meridian passing fifteen miles west of the most western point of Madison lake ; thence north along said meridian to the latitude of the junction of the Yellowstone and Gardiner's rivers; thence east to the place of beginning, is hereby reserved and withdrawn from settlement, occupancy, or sale under the laws of the United States, and dedicated and set apart as a public park or pleasuring-ground for the benefit and enjoyment of the people; and all persons who shall locate or settle upon or occupy the same, or any part thereof, except as hereinafter provided, shall be considered trespassers and removed therefrom.

Certain persons locating, &cc., thereon, to be trespassers.

Secretary of the Interior to

SEC. 2. That said public park shall be under the exclusive control of the Secretary of the Interior, whose duty it shall be, as soon as practi- .

#### FORTY-SECOND CONGRESS. SESS. II. CH. 24, 25, 28. 1872.

cable, to make and publish such rules and regulations as he may deem have control of necessary or proper for the care and management of the same. Such the park; regulations shall provide for the preservation, from injury or spoliation, or its care; of all timber, mineral deposits, natural curicsities, or wonders within said park, and their retention in their natural condition. The secretary may in his discretion, grant leases for building purposes for terms not exceeding tain leases and ten years, of small parcels of ground, at such places in said park as shall thereof; require the erection of buildings for the accommodation of visitors; all of the proceeds of said leases, and all other revenues that may be derived from any source connected with said park, to be expended under his direction in the management of the same, and the construction of roads and bridle-paths therein. He shall provide against the wanton destruction of the fish and game found within said park, and against their capture or de-the wanton destruction for the purposes of merchandise or profit. He shall also cause all and game, and persons trespassing upon the same after the passage of this act to be re- remove tresmoved therefrom, and generally shall be authorized to take all such meas- passers. ures as shall be necessary or proper to fully carry out the objects and purposes of this act.

APPROVED, March 1, 1872.

#### CHAP. XXV. - An Act to constitute Shreveport, in the State of Louisiana, a Port of March 1, 1879. Delivery.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Shreveport, in the State of Shreveport Louisiana, shall be, and is hereby, constituted a port of delivery, within the made a port of delivery. collection district of New Orleans; and there shall be appointed a deputycollection district of New Orleans; and there shall be appointed a deputy- Deputy-col-collector of customs, to reside at said port, who shall receive a salary, to be lector, salary, &c. determined by the Secretary of the Treasury, not exceeding fifteen hundred dollars per annum.

APPROVED, March 1, 1872.

#### CHAP. XXVIII.— An Act to authorize the Construction of a Bridge across the Missouri River at or near St. Joseph, Missouri. [Amended] [Amended

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be lawful for "The St. Joseph Bridge Building Company," a corporation organized for that the Mis purpose under the general corporation laws of the State of Missouri, to con-Bive struct a bridge across the Missouri river at or near Saint Joseph, Missouri, and to lay on and over said bridge railway tracks for the more perfect connection of any and all railways that are now, or which may hereafter be, constructed to the Missouri river at or near Saint Joseph, or to the river on the opposite side of the same, near Saint Joseph; and build, erect, and lay on and over said bridge ways for wagons, vehicles of all kinds, and for the transit of animals, and to provide ways for foot-passengers, and to keep up, maintain, and operate said bridge for the purposes aforesaid; and that one, when said bridge is constructed, all trains of all railroads terminating at said river, and on the opposite side thereof, at or near Saint Joseph, Mis- railr ons, &c.; ds may use souri, shall be allowed to cross said bridge for reasonable compensation, to the bridge. be made to the owners of the same, under the limitations and conditions hereafter named. The owners of said bridge may also charge and receive Tolla. reasonable compensation or tolls, for the transit over the said bridge of all wagons, carriages, vehicles, animals, and foot-passengers.

SEC. 2. That any bridge built under the provisions of this act may, at Bridges may the option of the porson or persons, or corporation building the same, be be built as a drawbridge or the option of the porson or persons, or or persons, or or persons, or with unbroken with unbroken built as a drawbridge, with a pivot or other form of draw, or with unbroken with unbroken or continuous spans: *Provided*, That if the same shall be made of un-spans; height of bridge broken continuous spans, it shall not be of less elevation in any case than height of brind and length of fifty feet abeve extreme high-water mark, as understood at the point of spans.

VOL. XVIL PUB. - 8

to make rules

33

shall prevent

1872, ch. 180. Post, p. 58.] Bridge acros souri r at or ne St. Joseph:

railway tracks;

ways for footengers, wegall trains of all

### Yellowstone National Park was recommended for Wilderness Designation on January 12, 1976

### United States Department of the Interior

OFFICE OF THE SECRETARY WASHINGTON, D.C. 20240

#### SEP 1 4 1972

#### Dear Mr. President:

It is with pleasure that I recommend the establishment of areas totaling approximately 2,016,181 acres in Yellowstone National Park, Idaho, Montana, Wyoming, as part of the National Wilderness Preservation System. Additionally, I recommend that the Act designating wilderness provide authority for the Secretary of the Interior to designate as wilderness an area of about 6,040 acres, not presently qualified, at such time as he determines that it is qualified.

Section 3(c) of the Wilderness Act (approved September 3, 1964; 78 Stat. 890, 892; 16 U.S.C. 1132(c)), directs the Secretary of the Interior to review roadless areas of 5,000 acres or more in the national parks, monuments, and other units of the National Park System and report to the President his recommendation as to the suitability of each such area for preservation as wilderness. The Act further directs the President to advise the President of the Senate and the Speaker of the House of Representatives of his recommendation with respect to the designation of each such area as wilderness. A recommendation of the President for designation as wilderness shall become effective only if so provided by an Act of Congress.

This Department has recently completed its review of such roadless areas in Yellowstone National Park. Based on this review, wilderness designation of certain lands totaling approximately 2,016,181 acres in the national park is recommended. This acreage comprises about 91 percent of the total park area.

Yellowstone National Park is located in the northwest corner of Wyoming and includes adjacent areas of Idaho and Montana. It is known throughout the world as the first national park and as the world's greatest geyser area. The park covers about 3,400 square miles, and is characterized by several broad, forested, volcanic plateaus. Numerous ponds and lakes, including the 139 square mile Yellowstone Lake, lie in pockets of the mountain plateaus, and are drained by several rivers. Geysers, hot springs, and fumaroles, pots, terraces, and warm ground, all related to volcanic activity, are the natural wonders most frequently mentioned by early explorers and visitors. The park is notable as well for its spectacular falls, canyons, and teeming wildlife. The recommended wilderness includes all of the remote primitive lands in the park. Most of the lands are vast, rolling forested hills broken occasionally by peaks, meadows, and lakes. Designation as wilderness will assure that these outstanding natural resources are retained in their natural condition for the study and enjoyment of this and future generations.

In accordance with the requirements of the Wilderness Act, public hearings were held on the recommendations at Jackson, Wyoming, . Idaho Falls, Idaho, and Livingston, Montana, on March 11, 13, and 15, 1972, respectively. Analyses of the hearing records and written expressions received, together with the letters received from other Federal agencies, are contained in the enclosed report of the National Park Service. Complete records have been compiled and are available for inspection by the public.

On the basis of our review, I believe that these portions of the roadless areas identified in Yellowstone National Park are suitable for designation as wilderness. Enclosed is a draft bill which, if enacted, would incorporate the areas suitable for designation as wilderness into the National Wilderness Preservation System.

A draft environmental impact statement, as required by section 102(2)(C) of the National Environmental Policy Act of 1969, is enclosed.

Respectfully yours,

ecretary of the Interior

The President The White House Washington, D. C. 20500

Enclosures

#### Snake River added to the Wild and Scenic Rivers System by Congressional Act of March 30, 2009 (P.L. 111-11, 123 Stat. 1147) TITLE V-RIVERS AND TRAILS

#### Subtitle A-Additions to the National Wild and Scenic Rivers System

#### SEC. 5001. FOSSIL CREEK, ARIZONA.

Section 3(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)) (as amended by section 1852) is amended by adding at the end the following:

"(205) FOSSIL CREEK, ARIZONA.—Approximately 16.8 miles of Fossil Creek from the confluence of Sand Rock and Calf Pen Canyons to the confluence with the Verde River, to be administered by the Secretary of Agriculture in the following classes:

"(A) The approximately 2.7-mile segment from the con-fluence of Sand Rock and Calf Pen Canyons to the point where the segment exits the Fossil Spring Wilderness, as a wild river.

"(B) The approximately 7,5-mile segment from where the segment exits the Fossil Creek Wilderness to the boundary of the Mazatzal Wilderness, as a recreational

river. "(C) The 6.6-mile segment from the boundary of the Mazatzal Wilderness downstream to the confluence with the Verde River, as a wild river.".

#### SEC. 5002. SNAKE RIVER HEADWATERS, WYOMING.

(a) SHORT TITLE .- This section may be cited as the "Craig Thomas Snake Headwaters Legacy Act of 2008".

(b) FINDINGS; PURPOSES.-

(1) FINDINGS.—Congress finds that-

(A) the headwaters of the Snake River System in northwest Wyoming feature some of the cleanest sources of freshwater, healthiest native trout fisheries, and most intact rivers and streams in the lower 48 States;

(B) the rivers and streams of the headwaters of the Snake River System-

(i) provide unparalleled fishing, hunting, boating, and other recreational activities for-

(I) local residents; and

(II) millions of visitors from around the world; and

(ii) are national treasures;

(C) each year, recreational activities on the rivers and streams of the headwaters of the Snake River System generate millions of dollars for the economies of-

 (i) Teton County, Wyoming; and
 (ii) Lincoln County, Wyoming;
 (D) to ensure that future generations of citizens of the United States enjoy the benefits of the rivers and streams of the headwaters of the Snake River System, Congress should apply the protections provided by the Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.) to those rivers and streams; and

(E) the designation of the rivers and streams of the headwaters of the Snake River System under the Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.) will signify to the citizens of the United States the importance of maintaining the outstanding and remarkable qualities of the Snake River System while-

(i) preserving public access to those rivers and streams;

(ii) respecting private property rights (including existing water rights); and (iii) continuing to allow historic uses of the rivers

and streams

(2) PURPOSES .- The purposes of this section are-

(A) to protect for current and future generations of citizens of the United States the outstandingly remarkable scenic, natural, wildlife, fishery, recreational, scientific, his-toric, and ecological values of the rivers and streams of the headwaters of the Snake River System, while continuing to deliver water and operate and maintain valuable irrigation water infrastructure; and

(B) to designate approximately 387.7 miles of the rivers and streams of the headwaters of the Snake River System as additions to the National Wild and Scenic Rivers System.

Craig Thomas Snake Headwaters Legacy Act of 2008. 16 USC 1271 note.

## Appendix B: Laws and Policies, NPS Guidance, and Stakeholder Interest for Fundamental Resources and Values

### **Geothermal Wonders**

#### **Relevant laws and policies**

- Yellowstone National Park enabling legislation (1872)
- NPS *Management Policies 2006* (section 1.6, 4.1, 4.1.4, 4.4.1, 4.8.2.3) provides general direction for managing park units from an ecosystem perspective
- NPS 77, "Natural Resource Management Reference Manual #77"
- Clean Water Act of 1972
- National Environmental Policy Act of 1969
- Rivers and Harbors Act of 1945
- Wild and Scenic Rivers Act of 1968
- Executive Order 11514, "Protection and Enhancement of Environmental Quality"
- Executive Order 12088, "Federal Compliance with Pollution Control Standards"
- Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance"
- Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management"
- Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"
- Geothermal Steam Act (30 United States Code [USC] 1026)

#### NPS policy-level guidance of the resource or value

- The National Park Service actively seeks to conserve the stratigraphic and soil resources of Yellowstone National Park and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the park stratigraphy and soil, or the soil's contamination of other resources.
- Natural soil resources and processes function in as natural a condition as possible, except where special considerations are allowable under policy.
- Surficial geology is mapped to identify priority areas and critical habitats.

- Geyser Observation and Study Association of America
- scientific/academic communities
- Yellowstone Volcano Observatory
- bio-prospectors
- · twenty-six traditionally associated tribes
- federal, state, and local governments
- various nongovernmental organizations
- gateway communities and commercial entities
- visitors and concerned citizens
- Greater Yellowstone Planning and Response Group for emergency operations aspects



### **Dynamic Geologic Processes and Features**

#### **Relevant laws and policies**

- Yellowstone National Park enabling legislation (1872)
- NPS *Management Policies 2006* (section 1.6, 4.1, 4.1.4, 4.4.1) provides general direction for managing park units from an ecosystem perspective
- NPS 77, "Natural Resource Management Reference Manual #77"
- Clean Water Act of 1972
- National Environmental Policy Act of 1969
- Rivers and Harbors Act of 1945
- Wild and Scenic Rivers Act of 1968
- Executive Order 11514, "Protection and Enhancement of Environmental Quality"
- Executive Order 12088, "Federal Compliance with Pollution Control Standards"
- Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance"
- Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management"
- Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"

#### NPS policy-level guidance of the resource or value

- The National Park Service actively seeks to conserve the stratigraphic and soil resources of Yellowstone National Park and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the park stratigraphy and soil, or the soil's contamination of other resources.
- Natural soil resources and processes function in as natural a condition as possible, except where special considerations are allowable under policy.
- Surficial geology is mapped to identify priority areas and critical habitats.
- The National Park Service will maintain the capability to deliver visitor and interpretive services of the highest quality. Those services should provide understandable interpretation of the major features in the park. Through education, resources are protected and visitors have safe and enjoyable experiences.

- · photographers and artists
- scientific/academic communities
- Yellowstone Volcano Observatory
- twenty-six traditionally associated tribes
- visitors and concerned citizens
- Greater Yellowstone Planning and Response Group – for emergency operations aspects
- federal, state, and local governments
- various nongovernmental organizations
- gateway communities and commercial entities



## Hydrologic Systems

#### **Relevant laws and policies**

- Yellowstone National Park enabling legislation (1872)
- NPS *Management Policies 2006* (section 1.6, 4.1, 4.1.4, 4.4.1, 4.6, 4.8.2.3) provides general direction for managing park units from an ecosystem perspective
- NPS 77, "Natural Resource Management Reference Manual #77"
- Clean Water Act of 1972
- National Environmental Policy Act of 1969
- Rivers and Harbors Act of 1945
- Wild and Scenic Rivers Act of 1968
- Executive Order 11514, "Protection and Enhancement of Environmental Quality"
- Executive Order 11988, "Floodplain Management"
- Executive Order 12088, "Federal Compliance with Pollution Control Standards"
- Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance"
- Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management"
- Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"
- Director's Order 35B: Cost Recovery for National Park Service Provided Utilities
- Special Directive 93-4, "Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance" (1993)

#### NPS policy-level guidance of the resource or value

- Yellowstone National Park's water quality reflects natural conditions and supports native plant and animal communities and administrative and recreational uses. All water in the park meets applicable state standards. All human sources of water pollution, both within and outside the park, that are adversely affecting the park are eliminated, mitigated, or minimized.
- Streams will be managed to protect stream processes that create habitat features such as floodplains, riparian systems, woody debris accumulations, terraces, gravel bars, riffles, and pools.
- A water-quantity inventory where appropriate is an important component for aquatic resources management within a national park system unit.
- Natural floodplain conditions are preserved or restored.
- Long-term and short-term environmental effects associated with the occupancy and modification of floodplains is avoided when practicable.



- When it is not practicable to locate or relocate development or inappropriate human activities to a site outside the floodplain, the National Park Service
  - prepares and approves a statement of findings in accordance with Director's Order #77-2
  - uses nonstructural measures as much as practicable to reduce hazards to human life and property while minimizing impacts on the natural resources of floodplains
  - ensures that structures and facilities are designed to be consistent with the intent of the standards and criteria of the National Flood Insurance Program (44 *Code of Federal Regulations [CFR] 60*)
- The most current engineering methods and techniques that minimize adverse effects on natural river processes are used to protect roads and facilities in floodplains.
- Visitors understand the dynamic nature of Yellowstone National Park's river systems, and the variability and cycles of river flow, flooding, etc.
- Natural and beneficial values of wetlands are preserved and enhanced.
- The NPS implements a "no net loss of wetlands" policy and strives to achieve a longerterm goal of net gain of wetlands across the national park system through the restoration of previously degraded wetlands.
- Surface water and groundwater are protected, and water quality meets or exceeds all applicable water-quality standards.

- federal, state, and local governments
- twenty-six traditionally associated tribes
- various nongovernmental organizations
- sportsmen's groups
- scientific/academic communities



### One of the Largest Mostly Intact Temperate Ecosystems in the World

#### **Relevant laws and policies**

- Yellowstone National Park enabling legislation (1872)
- NPS *Management Policies 2006* (section 1.6, 4.1, 4.1.4, 4.4.1) provides general direction for managing park units from an ecosystem perspective.
- NPS 77, "Natural Resource Management Reference Manual #77"
- Clean Air Act of 1970, as amended
- Clean Water Act of 1972
- Endangered Species Act of 1973, as amended
- Federal Noxious Weed Act of 1974, as amended
- National Environmental Policy Act of 1969
- National Invasive Species Act of 1996
- Rivers and Harbors Act of 1945
- Wild and Scenic Rivers Act of 1968
- Wilderness Act of 1964
- Executive Order 11514, "Protection and Enhancement of Environmental Quality"
- Executive Order 11988, "Floodplain Management"
- Executive Order 12088, "Federal Compliance with Pollution Control Standards"
- Executive Order 13112, "Invasive Species"
- Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance"
- Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management"
- Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"
- Director's Order 41: Wilderness Stewardship
- Director's Order 77-2: Floodplain Management
- Special Directive 93-4: Floodplain Management, Revised Guidelines for National Park Service Floodplain Compliance (1993)

#### NPS policy-level guidance of the resource or value

- The National Park Service maintains all native plants and animals as parts of the park's natural ecosystems.
- Natural abundances, diversities, dynamics, distributions, habitats, and behaviors of native plant and animal populations are preserved and restored.
- Populations of native plant and animal species function in as natural condition as possible except where special considerations are warranted.
- Native species populations that have been severely reduced in or extirpated from the park are restored where feasible and sustainable.
- Potential threats to the park's native plants and wildlife are identified early and proactively addressed through inventory and monitoring.
- Sources of air, water, and noise pollution, as well as visitor uses adversely affecting plants and animals, are limited to the greatest degree possible.





- Visitors and staff recognize and understand the value of the park's native plants and wildlife.
- NPS staff uses the best available scientific information and technology to manage these resources.
- Federal- and state-listed threatened and endangered species and their habitats are protected and sustained. Park staff works to minimize the introduction of nonnative species and provides for their control and removal to minimize the economic, ecological, and human health impacts that these species cause.
- The National Park Service manages wilderness areas, including those proposed for wilderness designation, "for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness" (16 USC 1131 section 2[a]).
- The National Park Service ensures that the land's "primeval character and influence" is retained and protected, that visitors continue to find "outstanding opportunities for solitude or a primitive and unconfined type of recreation," and that the landscape "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable" (16 USC 1131 section 2[c]).
- The Wilderness Act of 1964 specifies that "each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character" (16 USC 1131 section 4[b]).
- The Wilderness Act of 1964 specifies that the designation of any area of the national park system as wilderness "shall in no manner lower the standards evolved for the use and preservation of such park, monument, or other unit of the national park system" under the various laws applicable to that unit (16 USC 1133 section 4[a][3]).
- The National Park Service will seek to perpetuate the best possible air quality in parks to preserve natural resources and systems. Please note, Yellowstone National Park contains natural thermal gases, which affect natural air quality.
- The National Park Service will seek to perpetuate the best possible air quality in parks to sustain visitor enjoyment, human health, and scenic vistas. Please note, Yellowstone National Park contains natural thermal gases, which affect natural air quality.

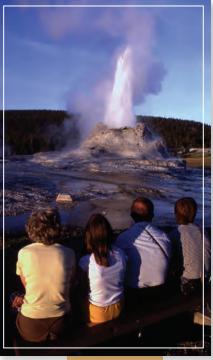
- federal, state and local governments
- various nongovernmental organizations
- twenty-six traditionally associated tribes
- concerned citizens
- sportsman groups
- · international protected area organizations
- · academia and science communities

## **Enduring Connection to Yellowstone**

#### **Relevant laws and policies**

- Yellowstone National Park enabling legislation (1872)
- NPS Management Policies 2006
- NPS Museum Handbook, parts I, II, and III
- 36 CFR 79 "Curation of Federally Owned and Administered Archeological Collection"
- 36 CFR 800 "Protection of Historic Properties"
- The Secretary of the Interior's Standards for Archeological Documentation
- The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation
- The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes
- The Secretary of the Interior's Standards for the Treatment of Historic Properties
- National Historic Preservation Act of 1966, as amended (16 USC 470)
- 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, Buildings, and Antiquities Act of 1935
- Museum Act of 1955, as amended
- National Environmental Policy Act of 1969
- Native American Graves Protection and Repatriation Act (NAGPRA) of 1990
- Director's Order 24: Museum Collections
- Director's Order 28: Cultural Resource Management
- Director's Order 28A: Archeology
- Director's Order 41: Wilderness Stewardship
- Executive Order 13007, "American Indian Sacred Sites"
- Executive Order 11593, "Protection and Enhancement of the Cultural Environment"
- Programmatic Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (2008)
- Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance"
- Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management"
- Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"







#### NPS policy-level guidance of the resource or value

- All museum collections (objects, specimens, and manuscript collections) are identified and inventoried, catalogued, documented, preserved, and protected.
- Provision is made for access to and use of Yellowstone National Park's museum collections for exhibits, research, and interpretation.
- The qualities that contribute to the significance of collections are protected in accordance with established standards.
- Research and development projects include plans for the curation of collected objects and specimens.
- Yellowstone National Park's museum collections are housed in appropriate facilities that provide protection for current collections and allow for future collection expansion.
- Museum collections provide documentation of Yellowstone National Park's natural and cultural resources.
- Archeological sites are identified and inventoried, and their significance is determined and documented. Archeological sites are protected in an undisturbed condition unless it is determined through formal processes that disturbance or natural deterioration is unavoidable.
- When disturbance or deterioration is unavoidable, the site is professionally documented and excavated, and the resulting artifacts, materials, and records are curated and conserved in consultation with the appropriate state historic preservation offices and traditionally associated American Indian tribes.
- Some archeological sites that can be adequately protected may be interpreted to the visitor.
- Appropriate cultural anthropological research is conducted in consultation with groups traditionally associated with Yellowstone National Park.
- To the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, the National Park Service accommodates access to and ceremonial use of American Indian sacred sites by American Indian religious practitioners and avoids adversely affecting the physical integrity of these sacred sites.
- All executive agencies are required to consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments before taking actions that potentially affect federally recognized tribal governments.
- American Indians and other individuals and groups linked by ties of kinship or culture to ethnically identifiable human remains, sacred objects, objects of cultural patrimony, and associated funerary objects are consulted when such items may be disturbed or are encountered on park lands.





- Potentially sensitive natural and cultural resources and ethnographic resources are protected. If disturbance of such resources is unavoidable, formal consultation with traditionally associated American Indian tribes or other traditionally associated peoples and groups, the applicable state historic preservation officer(s), and the Advisory Council on Historic Preservation, is conducted, as appropriate.
- The identities of community consultants and information about sacred and other culturally sensitive places and practices are kept confidential according to protocols established in consultation with the affected tribal governments.
- Government-to-government consultation is conducted and maintained with each of the tribes traditionally associated with the lands that now comprise Yellowstone National Park.
- Historic structures are inventoried and their significance and integrity are evaluated under National Register of Historic Places criteria.
- The qualities that contribute to the listing or eligibility for listing of historic structures in the national register are protected in accordance with *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*, unless it is determined through a formal process that disturbance or natural deterioration is unavoidable at which time the appropriate level of Section 106 compliance will be done.
- Cultural resource management activities within wilderness are the same as those elsewhere, but additionally cultural resources must be treated in a manner that preserves other wilderness resources and character. The historic character of historic structures is managed in accordance with direction given in chapter 5 of NPS *Management Policies 2006* and *The Secretary of the Interior's Standards for the Treatment of Historic Properties.*
- Historic structure inventories and reports are prepared and existing reports are amended as needed. Actions identified in historic structure reports are implemented and a record of treatment is added to the reports.
- Identified and evaluated historic structures are monitored, inspected, and managed to enable the long-term preservation of a resource's historic features, qualities, and materials.
- Cultural landscape inventories are conducted to identify landscapes potentially eligible for listing in the national register and to assist in future management decisions for landscapes and associated resources, both cultural and natural.
- The management of cultural landscapes focuses on preserving the landscape's physical attributes, biotic systems, viewshed, and use when that use contributes to its historical significance.
- The preservation, rehabilitation, restoration, or reconstruction of cultural landscapes is undertaken in accordance with *The Secretary* of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.





- The cultural landscapes of Yellowstone National Park retain a high degree of integrity.
- Identified and evaluated cultural landscapes are monitored, inspected, and managed to enable the long-term preservation of a resource's historic features, qualities, and materials.
- Actions identified in cultural landscape reports are implemented and a record of treatment is added to the reports.
- Potentially sensitive natural and cultural resources and ethnographic resources are protected. If disturbance of such resources is unavoidable, formal consultation with traditionally associated American Indian tribes or other traditionally associated peoples and groups, the appropriate state historic preservation office(r), and the Advisory Council on Historic Preservation, as appropriate, is conducted.

- twenty-six traditionally associated tribes
- Wyoming, Idaho, and Montana state historic preservation officers
- · Advisory Council on Historic Preservation
- National Archives and Records Administration
- worldwide research community
- associated museums (including regional museums and others)
- concerned citizens
- universities and educational institutions
- concessioners
- commercial operators

## A Park for the People, and A "Wild" Experience

#### **Relevant laws and policies**

- Commercial Services Strategy (2009)
- Yellowstone National Park enabling legislation (1872)
- NPS Management Policies 2006
- NPS Concessions Management Improvement Act of 1998
- NPS Transportation Planning Guidebook
- Resource Protection, Public Use and Recreation: Fishing (36 CFR 2.3)
- Americans with Disabilities Act of 1990 (28 CFR 36)
- Architectural Barriers Act of 1968
- Architectural Barriers Act Accessibility Standards 2006
- National Environmental Policy Act of 1969
- Rehabilitation Act of 1973
- Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance"
- Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management"
- Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources"
- Director's Order 42: Accessibility for Visitors with Disabilities in National Park Service Programs and Services.
- Director's Order 6: Interpretation and Education
- Secretary of the Interior's regulation 43 CFR 17, *Enforcement on the Basis of Disability in Interior Programs*
- 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design
- 2009 Draft Final Accessibility Guidelines for Outdoor Developed Areas





#### NPS policy-level guidance of the resource or value

- Visitors to the park enjoy the many high-quality experiences it has to offer—to explore, seek adventure, feel solitude, be challenged, and share life experiences with others.
- Interpretive and educational programs increase visitor understanding and appreciation of the park's resources.
- Visitors enjoy a safe and secure experience at the park.
- Conflicts among visitor-user groups are minimized.
- All commercial services must be authorized, must be necessary and/or appropriate, and must be economically feasible.
- Visitor services and facilities are appropriately scaled and located, the minimum necessary to serve visitor needs and protect resources and facilitate enjoyable and educational visits to the park.
- Accessible facilities enable visitors with disabilities to experience the park.
- Appropriate recreational use continues to be welcomed in places where it does not impact resources or interpretive activities; all public activities in the park are determined to be appropriate.
- Visitor facilities are designed and located with minimal impact on park resources and are aesthetically pleasing and functional.
- Commercial services in the park are limited to those that are necessary and compatible with the park purpose. If possible, commercial support services are based outside the park rather than inside.

- · federal, state, and local governments
- · twenty-six traditionally associated tribes
- various nongovernmental organizations
- concessioners
- commercial use authorizations
- gateway communities
- · school groups
- regional businesses
- visitors



# Appendix C: Inventory of Park Planning Documents

Document	Completion Date
Bison Management Plan / Environmental Impact Statement	
Yellowstone National Park, in conjunction with the State of Montana, will prepare an environmental impact statement to consider possible changes to the management of wild Yellowstone bison and the nonnative disease brucellosis given substantial new information, changed circumstances, and the passage of more than 12 years since implementation of the Interagency Bison Management Plan began in 2001.	In Progress
Lamar Buffalo Ranch Sustainability Environmental Assessment	
This environmental assessment will analyze the impacts associated with energy conservation and renewable energy production for this area.	In Progress
Historic Structure Strategy	
Identifies groups of buildings based on their significance, condition, and current use.	In Progress
National Ecological Observatory Network EA	
The National Science Foundation has initiated the National Ecological Observatory Network. The network's goal is to understand and forecast how the United States responds to natural and human-induced changes in climate, land-use, and invasive species at continental, regional, and local scales. The National Ecological Observatory Network is organized into 20 climate/ ecosystem "domains" throughout the country. Each "domain" will include one "core site" that will host permanent monitoring stations to collect, transmit, and store data that can be analyzed at a continental-scale. Yellowstone NP is the only national park identified as a core site. The park core site would be in use for a 30-year time period. The proposed location is approximately 900 feet south of Blacktail Plateau Road near the intersection with Grand Loop Road. The proposed aquatic site is adjacent to Blacktail Creek near the Upper Blacktail cabin. Approximately 40 to 60 sampling sites, both north and south of Grand Loop Road, would be visited two to three times per season.	In Progress
Old Faithful Area Comprehensive Plan / EA	
The park has begun the process of developing a long-range comprehensive plan for the Old Faithful developed area. The plan would address circulation including the overpass, internal roads, pedestrian access to new facilities and parking as well as upgrades to utilities, adaptive use of historic structures, and removal of facilities that potentially impact resources. The Old Faithful area receives approximately 90% of visitors traveling in the park; an area plan was last completed in 1985.	In Progress
Parkwide Commercial Stock Outfitter Concession Contracts Plan / EA	
This EA will analyze impacts associated with the issuance of new concessions contracts for saddle and pack stock operation in Yellowstone National Park. Currently, the park has 45 concession contracts for guided saddle and pack stock tours. Commercial stock nights have averaged around 5,500 over the past six years. The current contracts would have expired in December 2013, but have been extended for one year to December 2014. This project presents an opportunity to analyze the impacts of commercial outfitter stock use in Yellowstone NP and provide mechanisms to manage the amount of use if resource impacts warrant.	In Progress

Document	Completic Date
Electric Transmission / Distribution System Communication and Automation Plan / EA Yellowstone National Park in conjunction with Northwestern Energy (NWE), one of the electricity providers for the park, propose a number of upgrades to improve the reliability, safety, and overall service quality of electrical power distribution to the park, concessioners and visitors. Infrastructure upgrades would occur at seven existing substations located within the park, and one repeater outside of the park. The project proposal also includes a communication system for use by NWE.	2014
<b>Remote Delivery Bison Vaccination Program / Environmental Impact</b> <b>Statement</b> This environmental impact statement is considering the remote delivery of vaccine to free-ranging bison in Yellowstone National Park for the nonnative disease brucellosis. Remote delivery vaccination would not involve capture and handling of bison. Remote delivery vaccination is intended to increase tolerance for bison migrating to historic and essential winter ranges outside the park in Montana pursuant to the 2000 state and federal records of decision for the Interagency Bison Management Plan. Remote delivery vaccination would also reduce the brucellosis infection rate and fetal abortion events in bison, as well as the risk of brucellosis transmission to cattle outside the park.	2014
<b>Comprehensive Interpretive and Education Plan</b> The Comprehensive Interpretive and Education Plan provides visitor experience goals, primary interpretive themes, and program recommendations.	2014
<b>Bechler Administrative Area Improvement Plan / EA</b> Actions proposed in this environmental assessment would improve visitor experience and park operations by addressing day use and overnight parking, circulation, employee housing, utilities, and telecommunication functions. The EA evaluates three alternatives; alternative A – no action; alternative B – construction of single or multiple employee housing units to accommodate six park employees, and construction of a new visitor contact station; alternative C – construction of a single multiplex employee housing unit to accommodate six park employees and adaptive reuse of the existing visitor contact station.	2014
Wild and Scenic Rivers EA The National Park Service and U.S. Fish and Wildlife Service have developed a comprehensive river management plan for 99 miles of designated river segments within and along the boundary of Grand Teton and Yellowstone national parks, the John D. Rockefeller, Jr. Memorial Parkway, and the National Elk Refuge.	2014





Document	Completion Date
Isa Lake Bridge Reconstruction EA	
This EA proposed reconstruction of the Isa Lake Bridge in its existing location at Craig Pass on the Continental Divide, serving the road connecting West Thumb and Old Faithful. The bridge was built in 1942 and has several structural flaws that cause severe deflection when used by heavy loads. A 2010 bridge inspection report prepared by the Federal Highway Administration (FHWA) determined the existing bridge was in poor condition and recommended replacement.	2013
Winter Use Supplemental Environmental Impact Statement	
This SEIS manages future motorized oversnow vehicle access by focusing on impacts to park resources, visitors, and staff members rather than focusing on snowmobile and snowcoach numbers. The winter of 2013/2014, snowmobile access would be managed the same way as 2012/2013, with up to 318 commercially guided BAT snowmobiles and 78 snowcoaches. Starting with the winter of 2014/2015, the park would begin managing access by "transportation events." The park would allow up to 110 "transportation events" a day, initially defined as either one snowcoach or a group of up to 10 snowmobiles, averaging no more than 7 snowmobiles seasonally. No more than 50 transportation events a day would be allocated for groups of snowmobiles. Furthermore, over the next few seasons the park would require snowmobiles to meet new, improved best available technology standards and require snowcoaches to meet BAT standards for the first time. The preferred alternative would continue to allow motorized oversnow vehicle travel over Sylvan Pass.	2013
Invasive Vegetation Management Plan / EA	
This parkwide plan would restore the native landscape while managing invasive plants. The plan would present an opportunity to expand current nonnative vegetation management efforts and to adopt a more integrated approach. This type of integrated approach reviews a combination of actions to be implemented together, or in stages, to control the spread of nonnative plants. It would evaluate a comprehensive program that includes prevention of new introductions as well as restoration of treated areas or disturbed lands.	2013
Fire Management Plan / EA	
An EA was prepared to evaluate the impacts associated with an update of the fire management plan as recent fire program management guidance and policy has changed. The fire management plan EA described the alternatives and their consequences relative to implementation of a comprehensive fire program including wildland fire response, fire protection, and fuels management using prescribed fire and manual and mechanical treatments.	2013
Structural Fire Plan	
This plan provides analysis of the structures at risk and proposes management options to manage resources.	2013
Lake Area Comprehensive Plan / EA	
This plan proposed moderate development in the Lake Area (includes Lake, Fishing Bridge, and Bridge Bay) to protect resource and enhance visitor experience. The proposal included planning zones, prescriptions, design standards, and projects with a net gain of 120,600 square feet of building development and 277,600 square feet of pavement. The plan addressed existing planning, provided for changes in the lake administrative area, allowed infill of the existing footprint in the Fishing Bridge RV Park, consolidation of the Lake Lodge Cabins away from Lodge Creek, and adaptive use of historic structures. It also addressed circulation in front of the Lake Hotel. This plan replaced the 1988 Fishing Bridge Development Concept Plan / Environmental Impact Statement (DCP/EIS) and 1993 Lake DCP/EA.	2012

Document	Complet Date
Old Faithful Cabin Repurposing and Dormitory Construction EA	
This EA modified the 1985 DCP by proposing to retain 71 cabins and convert 28 of those to visitor use. The EA also proposed construction of an 80-room employee dormitory in the administrative area to accommodate rooms lost from the cabin re-purposing. The objectives of this proposal were to: (a) provide additional affordable lodging options, (b) separate employee housing from high visitor use areas to reduce potential conflicts that can arise from incompatible uses, (c) enhance safety of asphalt pathways that have deteriorated over time, and (d) improve accessibility for visitors using the cabin area.	2012
Native Fish Conservation Plan EA	
This plan provided for restoration of Yellowstone cutthroat trout in Yellowstone Lake, and addressed native fish management throughout the park. Various lake trout suppression efforts were to be adopted, including gillnetting, pesticide use, electroshock, and angling.	2011
Norris to Golden Gate Road Reconstruction EA	
This EA assessed reconstruction of a 15.9-mile (25.6 kilometer) segment of the Grand Loop Road between its intersection with the Norris campground road, and north to a point just north of Swan Lake Flats in an area known as Golden Gate. The project would reconstruct the road, associated parking areas, turnouts, and bridges. It addressed trailhead parking for stock use and hiking in the Swan Lake Flats area.	2011
North Entrance and Park Street Improvement Plan / EA	
This plan proposed modification to the north entrance station, circulation, and parking. It also proposed work near the Roosevelt Arch. The proposal included two phases, and work would be performed as funding, materials, and personnel availability allow. Phase I included a new entrance station kiosk and inbound/outbound traffic lane. This proposal would also include one to two new parking turnout areas for visitors and employees near the existing entrance station. Phase II included adding a queue lane to the main entrance road. The area around the Roosevelt Arch would be enhanced and an additional lane may be incorporated as needed.	2011
Commercial Services Strategy	
This strategy provides an assessment of commercial services planning for each developed area in the park. It identifies the need for further analysis, using area comprehensive plans for National Environmental Policy Act (NEPA) analysis. Old Faithful, Lake, Fishing Bridge, Bridge Bay, Grant Village, and Mammoth were identified as areas needing further analysis through the comprehensive planning process.	2009
Interim Winter Use Plan / EA	
This plan proposed to allow up to 318 snowmobiles and 78 snowcoaches per day into Yellowstone for the winters of 2010-11. All snowmobiles were to be commercially guided and conformed to best available technology emission and sound level requirements. Snowmobile and snowcoach travel would continue to be restricted to existing park roads groomed for their use.	2009
Lamar River Bridge EA	
This EA proposed to replace the existing Lamar River Bridge (built in 1939) east of tower on the northeast entrance road with a newer, wider bridge that meets park standards. The new bridge location is slightly upstream from the existing bridge.	2009

Document	Completion Date
<b>Tower Roosevelt Comprehensive Plan / EA</b> This plan proposed moderate development in the Tower-Roosevelt Area to protect resources and enhance visitor experience. The proposal included planning zones, prescriptions, design standards, and projects with a net gain of 11,025 square feet of building development and 33,000 square feet of pavement. Changes were proposed in the area adjacent to the existing gas station, the Tower administrative area, the Tower Fall General Store, and Yancy's Hole. A new barn would replace an existing barn in the corral area. The plan proposed changes to relocate the existing parking area in front of Roosevelt Lodge to enhance the historic views.	2009
Winter Use Plan / EIS This Final Environmental Impact Statement (FEIS) and Final Rule selected the "transition year" portion of the preferred alternative. Under the one- year rule, use levels and restrictions were to be the same as the interim rule that had governed use over the past two seasons. The rule allowed up to 318 commercially guided best available technology snowmobiles and up to 78 commercially guided snowcoaches per day into Yellowstone. The rule continued to provide for motorized oversnow vehicle travel on the park's east entrance road over Sylvan Pass.	2009
Wireless Communication Plan / EA Under the preferred alternative, cell towers would be excluded from recommended wilderness, from along park road corridors, and from minor developed areas such as Norris and Madison. The preferred alternative would also restrict towers, antennas, and wireless service to a few developed areas in order to protect park resources and limit the impact on park visitors. This would limit cell phone service to major park developments and would limit WiFi service to hotels and stores. Cell phone reception outside developed areas is not intended, and therefore would be variable. In addition, the preferred alternative addressed moving the current cell tower at Old Faithful to reduce its visibility from the historic district and geyser basin, improving and consolidating communications facilities on Mount Washburn and adding cellular service to the Lake and Fishing Bridge areas.	2009





Document	Completio Date
<b>Grizzly Bear Conservation Strategy (Interagency)</b> The purpose of the strategy was to "describe and summarize the coordinated efforts to manage the grizzly bear population and its habitat to ensure continued conservation in the Greater Yellowstone Area; specifically the population, habitat, and nuisance bear standards to maintain a recovered grizzly bear population for the foreseeable future; document the regulatory mechanisms and legal authorities, policies, management, and monitoring programs that exist to maintain the recovered grizzly bear population; and document the commitment of the participating agencies." The strategy mandated no net loss of grizzly bear habitat from the 1998 baseline and no change in developed areas within bear management units, with some exceptions for administrative and maintenance needs.	2007
Winter Use Plan / EIS	
This plan proposed a long-term framework for managing winter use in the park and provided the basis for the special regulations that are necessary to implement many key elements of the winter use plans. The regulations governing winter use in the parks that have been in effect since 2004 included specific provisions that provided the authority to allow the operation of both snowmobiles and snowcoaches in the parks. Since those regulations were intended to implement a temporary winter use plan, the specific provisions that actually authorize the recreational use of snowmobiles and snowcoaches provided that authority only through the winter of 2006–2007. This record of decision (ROD) provided the basis for the decisions reflected in the promulgation of new regulations for winter use management in the parks.	2007
Canyon Rim Drives, Road Rehabilitation EA	
This EA assessed the impacts for rehabilitation of the North Rim Drive (including the Inspiration Point spur), the Brink of the Upper Fall's access road, South Rim Drive, and Artist Point Overlook. All were in various states of deterioration due to age, poor drainage, and increased use by larger numbers and sized vehicles. The EA proposed rehabilitation of the road surface, drainage features, parking areas, and analyzed traffic flow direction changes.	2006
Madison Area Wastewater Treatment Project EA	
This EA proposed replacement of most of the wastewater treatment system that serves the Madison Junction area. The existing wastewater treatment system was aging and at risk of failure. A new wastewater treatment system would provide improved wastewater treatment (partial tertiary treatment) and also improve visitor services by providing more consistent water treatment.	2006





Document	Completion Date
Restoration of Westslope Cutthroat Trout in the East Fork Specimen Creek Watershed EA	
This EA proposed to begin restoration of westslope cutthroat trout in the East Fork Specimen Creek watershed in the park's extreme northwestern corner. Under the preferred alternative, the East Fork Specimen Creek and High Lake were to be chemically treated using piscicides (fish toxins) to remove nonnative and hybridized trout. A permanent instream fish barrier was to be constructed at the lower reach of the East Fork Specimen Creek, and genetically pure westslope cutthroat trout restored in the East Fork Specimen Creek, High Lake, and associated tributaries.	2006
Stephens Creek Administrative Area EA	
This EA proposed administrative use of this area capped at the present 43-acre footprint, active management of nonnative vegetation, minimization of visual impacts, and the construction of a barn within the current footprint for park stock operations.	2006
Construction of Yellowstone Justice Center EA	
This EA proposed that the National Park Service, in cooperation with the U.S. Courts and U.S. Marshals Service, build a justice center in the Mammoth Hot Springs area. The building was to be constructed at the northeastern corner of the Mammoth developed area across from Mammoth Clinic. The existing justice facility was inadequately sized and did not have adequate security measures.	2005
Old Faithful Visitor Education Center EA	
This EA proposed construction of a new Old Faithful Visitor Center on the site of the existing visitor center. A two-story building approximately 33,00 square feet in size was to be built providing adequate orientation and interpretive exhibit space, two theatres (one with 200 seats and the other with 100 seats), a classroom, reference library, cooperating association bookstore, backcountry permit office, public restrooms, and visitor center staff offices within the building. The Old Faithful Visitor Education Center would be fully accessible, energy efficient, sustainable in design, and built using "green" construction materials and techniques. The center was designed for year-round use, with portions of the building to be closed during winter for energy efficiency purposes.	2005
Wildland Fire Management Plan / EA	
This EA updated the existing plan and allowed fire to continue to play its ecological role in the park while protecting human life, developments, and sensitive cultural and natural resources. The decision-making process included specifically managing wildland fire using best available technology to maintain ecosystem processes and the use of resource information gained through inventory and monitoring to evaluate and improve the wildland fire management program.	2005
Canyon Ranger Station / Emergency Services Building EA	
This EA proposed construction of facilities including a ranger station and emergency services building to serve resource management and visitor protection functions in the Canyon Village area. The facility was sited on less than 1 acre of land and constructed in two separate phases. The site for this facility was located along an electrical line utility corridor east of the Yellowstone Park Service Station, Inc., location, west of Canyon Campground and north of North Rim Drive across from the Canyon Village Historic District.	2004
Madison Wastewater Treatment Plant EA	
This EA proposed replacing a majority of the existing wastewater treatment system at Madison to meet current standards for operation.	2004

Document	Compl Dat
Temporary Winter Use Plan / EA	
This plan provided management direction for winter visitation and recreational use in Yellowstone and Grand Teton national parks and the John D. Rockefeller, Ir. Memorial Parkway for three winter seasons (i.e., through the winter of 2006–2007). The purpose of the plan was to ensure that visitors to the parks have an appropriate range of winter recreational opportunities for the interim period. The EA was also necessary to allow time to collect additional monitoring data on the strictly limited snowmobile and snowcoach use. The EA provided a structure for winter use management in the parks for an interim period and was intended to reduce confusion and uncertainty among the public and local communities about winter use. These regulations required that recreational snowmobiles and snowcoaches operating in the parks meet certain air pollution and sound restrictions, that snowmobilers be accompanied by a commercial guide in Yellowstone, and instituted new daily entry limits on the numbers of snowmobiles that enter the parks. Traveling off designated oversnow routes would continue to be prohibited.	200
West Entrance Station Reconstruction EA	
This EA proposed reconstruction of the West Entrance station. The project included two aspects: (1) a new entrance station, with an associated administration building—both built farther into the park to provide longer traffic queuing distance; and (2) an expansion to the West Yellowstone, Montana, Chamber of Commerce contact station. Portions of the historic roof on the existing entrance station were to be retained.	2004
Mammoth Housing Plan / EA	
This EA proposed construction or adaptive use of 75 housing units on NPS-, concessioner-, or cooperator-owned land in Gardiner, Lower Mammoth, and the Young Adult Conservation Camp. The number of housing units for each location was kept at a conceptual level. Twenty-five of the 75 units included adaptive use of historic buildings in Mammoth.	200
Yellowstone National Park / Grand Teton National Park Winter Use Plan / Supplementary Environmental Impact Statement	
This plan addressed the full range of issues identified in the SEIS regarding safety, natural resource impacts, and visitor experience and access. It addressed the issues in a manner that allowed snowmobile users to access the parks under strict limitations including, but not limited to, daily snowmobile entry imits, requirements for the use of best technology commercially available, and requirements that snowmobiles utilize trained guides.	200
Canyon Junction to Fishing Bridge-Hayden Valley Road EA	
This EA proposed to resurface, restore, and rehabilitate 15.7 miles (25.3 kilometers) of the Grand Loop Road between Canyon Junction and Fishing Bridge Junction to its existing 24-foot (7.4 meters) paved top width. The existing alignment was to be followed.	2002
Canyon Junction to Tower Junction Road Improvement EA	
This EA proposed improvement of the entire Canyon Junction to Tower Junction road segment, 18.4 miles (29.3 kilometers). This improvement would take place in two construction phases over a period of four to six years. Resurfacing, restoration, rehabilitation, and reconstruction of the road are necessary to correct road deterioration and numerous safety hazards.	200
Norris Area Water and Wastewater Treatment Project EA	
This EA assessed an improvement of the quality of the drinking water for the Norris area by changing the drinking water source from ground wells to surface water. The new water intake structure was to be constructed under the Gibbon River. A new wastewater treatment plant was to be constructed in the Norris area to replace a failed septic system at the Norris Geyser Basin and a failing septic system in the Norris government area.	2002



Document	Completion Date
<b>Osprey Beach Archeology Data Recovery EA</b> This EA was a response to shore erosion and the potential loss of archeological resources. Excavation and collection was to occur at various sites along the shoreline of Yellowstone Lake.	2002
<b>Canyon Contractor Camp EA</b> This EA addressed the construction of 50 additional campsites adjacent to an existing campsite loop containing 14 sites. The existing road made a loop that would allow infill of about 10 additional campsites. Additionally, 11 sites were to be constructed east of the area and 29 more sites west of the existing loop. The project would improve safety to the traveling public and contractor personnel, help attract quality contractors and contract employees, and reduce construction contract costs.	2001
<b>Canyon Visitor Center Rehabilitation EA</b> This EA proposed to rehabilitate and upgrade the Canyon Visitor Center in Yellowstone NP. The existing visitor center was constructed in 1958 and had a number of structural and design defects that needed to be corrected. Additionally, the current visitor center was too small to adequately serve the number of visitors. In order to provide adequate space and services to the public, the size of the rehabilitated building was to be doubled (approximately) to 22,820 square feet. This was to be done by adding a second story and using the space at the south end of the building occupied by the U.S. Post Office, which would be relocated.	2001
Slough Creek Campground Rehabilitation EA This EA proposed to relocate some campsites within the 29-site Slough Creek Campground. Major flooding in the spring of 1996 and 1997 inundated several streamside campsites and resulted in erosion at the sites. These events prompted the National Park Service to evaluate the placement of some existing campsites and proposed their relocation to prevent further degradation due to water erosion and to alleviate safety and sanitation concerns. Additionally, a 30-foot combined vehicle length limit was proposed for Slough Creek Campground.	2001
Yellowstone Heritage and Research Center EA This EA proposed to construct a state-of-the-art management facility for the park's herbarium, archives, library, and museum collections. The facility was adjacent to the town of Gardiner, Montana, on park land. Rehabilitation of the grounds and parking for the facility were included.	2001

Document	Completi Date
Bison Management Plan / EIS (Interagency)	
In this plan the modified preferred alternative of the FEIS proposed to reduce the risk of transmission of brucellosis from bison to cattle and to conserve free-ranging bison. The management direction consisted of an adaptive management program that included intensive monitoring and coordination, as well as research projects with specified resultant management actions responding to the research results.	2000
Long Range Interpretive Plan	
The Long Range Interpretive Plan provided visitor experience goals, primary interpretive themes, and program recommendations.	2000
Mammoth Public Restroom EA	
This EA proposed construction of a public restroom in the Mammoth Hot Springs developed area. Existing restroom facilities in Mammoth were not adequate for the number of visitors to the area. In addition, restrooms in the Albright Visitor Center did not meet federal accessibility standards. The proposed restroom was to be southwest of the Yellowstone Park Service Station and accommodated pedestrian traffic between the visitor center and Mammoth Hot Springs terraces. The restroom would be in proximity to the to bus parking area.	2000 Dur
Strategic Plan Fiscal Year (FY) 2001–2005	
This five-year plan covered fiscal years 2001 through 2005. It consisted of a mission statement derived from the NPS Organic Act as well as specific legislation establishing this park. It contained mission goals closely paralleling the "servicewide" mission goals to accomplish the NPS mission. There were several changes in the long-term goals from the 1997 Strategic Plan. Goals o vital signs, geological resources, native species of special concern, education programs, historic research, and park partnerships were added to better cove the range of Yellowstone National Park resources and responsibilities.	2000 n
Yellowstone NP / Grand Teton NP Winter Use Plan / EIS	
This plan emphasized cleaner, quieter access to the parks using available technologies. Effective the winter of 2003–2004, it allowed oversnow motorized recreation access via NPS-managed snowcoach only, with limited exceptions for continued snowmobile access to other public and private land adjacent to or within Grand Teton National Park.	2000 s
Madison Junction / Norris Junction Road Improvement EA	
This EA addressed reconstruction of a 10-mile (16.3-kilometers) segment of the Grand Loop Road between Madison Junction and Norris Junction. Improvements were needed to establish a road that meets acceptable engineering safety standards, to provide safe and pleasant driving experience to facilitate park operations and emergency services, to improve resource protection, and to enable more efficient use of park maintenance funds.	1999 s,
Old Faithful Wastewater Treatment Plant Reconstruction EA	
This EA proposed to reconstruct/rehabilitate the wastewater treatment facility at the Old Faithful developed area in Yellowstone National Park. This action was needed because the existing treatment process did not meet the present water quality standards for Wyoming groundwater. The proposed action alternative included construction of new facilities, removal of existing facilities, and upgrading the Old Faithful wastewater treatment process.	

Document	Completion Date
<b>Old Faithful / Grant Cellular Site EA</b> This EA proposed construction of two cellular towers, one in the Old Faithful area and the other in the Grant Village area. The Grant site was within the existing footprint of an already disturbed area used for communications purposes. The Old Faithful site was adjacent to an already disturbed site near an underground water storage tank.	1999
<b>Fishing Bridge Service Station Finding of No Significant Impact (FONSI)</b> This FONSI retained the Fishing Bridge Service Station and underground tanks in their existing location because relocating them was infeasible due to unforeseen circumstances. After additional investigation, the previously proposed location was found to be in an area with a high water table that would increase congestion in the Lake area and potentially impact grizzly bear habitat. The impacts were greater in the proposed location compared to retaining the facility at its existing site.	1998
Mammoth Cellular Sites EA This EA proposed two sites for construction of a cellular tower to serve the Mammoth area. The preferred site was the Elk Plaza site.	1998
<b>Northeast Entrance Road: Resurfacing, Restoration, and Rehabilitation EA</b> This EA provided upgrades to historic walls, existing turnouts, and the existing roadway, stabilizing the corridor until major reconstruction occurs.	1998
West Thumb to Lake Junction Road Improvement EA This EA assessed major reconstruction of 3.2 miles (5.2 kilometers) of the Grand Loop Road between West Thumb to Lake Junction to meet park road standards for this corridor. An additional 3.3 miles (5.3 kilometers) of Grand Loop Road were to be resurfaced.	1998
<b>Strategic Plan FY 1998–2002</b> This five-year plan covered fiscal years 1998 through 2002. It consisted of a mission statement derived from the NPS Organic Act, as well as specific legislation establishing this park. It contained mission goals closely paralleling the "servicewide" mission goals needed to accomplish the park mission.	1997
<b>Resource Management Plan</b> This plan reviewed and prioritized resource and development planning projects, with an emphasis on cultural and natural resource management planning. The plan also detailed projected costs of the proposed projects.	1995





Document	Completi Date
Backcountry Management Plan / EA Draft This plan presented a comprehensive program outlining goals, objectives, and	1004
techniques for balancing backcountry use with other objectives such as human safety and resource protection. The plan proposed the use of zones for the backcountry with levels of use and management.	1994
Grizzly Bear Management Plan	
This plan preserved and maintained the processes affecting the genetic integrity, distribution, abundance, and behavior of the black and grizzly bear populations within the park. The plan emphasized preventive management as the first step toward solving bear management problems and provided guidance and direction to park employees responding to bear management situations. Guidance in the plan stated that direct manipulation of bears or their habitat will be kept to a minimum.	1994
Madison Junction / Biscuit Basin Road Improvement EA	
This EA planned improvement of a 13.8-mile segment of Grand Loop Road between Madison Junction and Biscuit Basin. Improvement of the road was needed to meet acceptable engineering safety standards, to provide safe and pleasant driving experiences, to facilitate park operations and emergency services, to improve resource protection, and to enable more efficient use of park maintenance funds.	1994
Cabin Replacement at Lamar Buffalo Ranch EA	
This EA proposed to replace the existing cabins with 16 insulated cabins and a community bathhouse for students and staff. Relocation of a generator building, vault toilets, and internal access roads away from Rose Creek were also proposed. The new cabins would be organized to better facilitate the educational opportunities and natural resources in the area.	1993
Lake-Bridge Bay DCP / EA	
In accordance with the 1988 Final EIS/DCP for Fishing Bridge, this EA proposed relocation of the service station / auto repair facility housing from Fishing Bridge to Lake in order to protect critical habitat for the threatened grizzly bear. In addition, vehicle circulation routes were redesigned to alleviate visitor confusion, interpretive opportunities were provided, and visitor use areas were clearly defined and separated from administrative, maintenance, and staff residential areas. At Bridge Bay, the campground was to be rehabilitated, circulation routes improved, and marina facilities upgraded. No new visitor use developments were proposed, except the potential fish hatchery museum (which would be in an existing building). All other visitor facilities proposed in the plan replaced existing structures that are no longer serviceable. Administrative support facilities and employee housing proposed in the plan, for the most part, replaced existing substandard facilities.	1993
Reconstruction of East Entrance Road EA	
This EA proposed reconstruction of the east entrance road between the Fishing Bridge Junction and the east entrance. Construction would occur in numerous construction phases over a five- to eight-year period. The existing road alignment would be followed, but some intersections, turnouts, and curves would be reconfigured to improve safety as part of the preferred alternative. Several bridges would be replaced. Other problems such as rockfall, poor drainage, and lack of guardrails would be corrected.	1993





Document	Completion Date
<b>Parkwide Road Improvement Plan / EA</b> The parkwide road improvement plan would preserve and extend the service	
life of principal park roads and enhance their safety. The proposed plan called for a long-term program of road improvement consisting of a combination of major reconstruction projects and resurfacing, restoration, and rehabilitation (3R) projects, which would provide a temporary solution for roads that may ultimately be reconstructed. It also addressed bridges and material sources for the construction.	1992
Parkwide Telephone Modernization EA	
This EA proposed modernization of the park's substandard, inefficient telephone system that is difficult and expensive to maintain and does not provide an adequate level of service. The purpose of this EA was to describe the effects of a parkwide telephone modernization program. The vast majority of new cables would follow existing routes or be installed in previously disturbed terrain, thus, under NPS policies, these cable routes would be categorically excluded from further environmental compliance.	1992
Parkwide Community Housing Plan / EA	
Under the proposal, unsatisfactory employee residences would be upgraded or replaced at Canyon Village, East Entrance, Grant Village, Madison Junction, Norris Junction, Northeast Entrance, South Entrance, Tower Junction, and West Entrance. Substandard support facilities such as maintenance facilities, utilities, and offices would also be upgraded.	1992
Wildland Fire Management Plan / EA	
This plan detailed a program of action that provided specific procedures for accomplishing park management objectives. The plan allowed fire to play its ecological role in the park while protecting human life, developments, and cultural resources. The plan included specific fire prescriptions, incorporated the use of management-ignited prescribed fire in predetermined areas, and suppression of all fires declared wildfires.	1992
Lake Village, Construct Residences for Federal Highway Administration EA	
This EA proposed cost-effective housing for long-term partners in the 30- year park road program. These housing units in the Lake administrative area would be occupied by Federal Highway Administration officials who administer contracts for the park's road construction projects.	1991
Statement for Management	
This document provided an inventory of the park's condition and an analysis of its problems. It also provided a format for evaluating conditions and identifying major issues and information voids.	1991

	Document	Complet Date
Canyon Villa	age, Rehabilitate Wastewater Treatment Facilities EA	
This EA propo Canyon area Following cor approximately revegetated. designed, site	osed to resolve the wastewater treatment concerns in the and protect resources from inadvertent wastewater spills. Instruction, the new wastewater treatment facility would occupy y 7 acres and the remaining 13 acres would be restored/ The proposed wastewater treatment facilities would be carefully ed, and screened to minimize natural resource impacts and ential cultural resource impacts and visual intrusiveness.	1990
West Yellow	stone, Construction of Three Vehicle Garages EA	
vehicles durin of the park, a winter oversn employees a in the interior	osed the construction of three garages to house employee ng the winter when employees were stationed in the interior accessible only by oversnow vehicles. The facilities would store now vehicles during the summer months, providing required staging facility for operational changes necessary to their work r of the park. West Yellowstone is the nearest access for many ions during the winter.	1989
Canyon Villa	age-Lodging Redevelopment EA	
with an equa check-in build improved. Mo C area, and L	zed a proposal to replace 488 lodging units at Canyon Village I number of units consolidated into larger buildings. A new ding would also be constructed and circulation/parking would be ost of the development would be consolidated in the existing Loop .oop A would be removed and rehabilitated. The area covered by s would decrease from 30 to 20 acres.	1988
Fishing Brid	ge Development Concept Plan / EIS	
resources in t proposed acti Fishing Bridge in the Greate visitor service Fishing Bridge	Iressed the Fishing Bridge development and its effect on important the area, especially grizzly bears. The primary purpose of the ion was to reduce grizzly bear deaths and human injuries in the e area and to contribute to the overall grizzly bear recovery effort r Yellowstone Ecosystem while continuing to provide appropriate s and facilities in the park. The plan called for removing the e Campground and Cabins, while allowing the Fishing Bridge RV nue with hard-sided units only.	1988
Biscuit Basin	n to West Thumb and Lake Bypass Road Construction EA	
Thumb (Craig	ated bypass road segments connecting the Biscuit Basin to West g Pass) and Lake area road corridors. Abandoned road segments abilitated, including the Little Thumb quarry and access road.	1987





Document	Completion Date
Lake Hotel Access and Circulation Improvements EA	
This EA described development proposals to improve the external visitor circulation and access to the Lake Hotel. The proposal brought arriving visitors to the front of the historic Lake Hotel and returned primary guest orientation/ registration to this area. The rear of the hotel would be used for secondary visitor drop off and hotel access from an improved parking area. The service entry at the back of the hotel would be separated from the guest entry. Architectural modifications and landscaping improved the appearance of the hotel and grounds as viewed from the west side and the rear.	1987
West Entrance Maintenance Building Construction EA	
This EA provided for a newly constructed maintenance building in the West Entrance administrative area to house vehicles such as ambulances during the winter. It also provided offices for staff in the area.	1987
Lake Dormitory Construction EA	
This EA proposed to construct an additional dormitory in the area of the Pelican dormitory to house the concessioner employees who occupied the Fishing Bridge Cabins. Once constructed, the remaining 44 cabins would be removed and the area restored.	1986
Land Protection Plan	
The land protection plan discussed the current ownership at Yellowstone National Park (Wyoming, Montana, and Idaho) and made recommendations for protection of lands that are within park boundaries, but not in federal ownership.	1986
Old Faithful DCP / EA	
The purpose of this DCP was to implement the park's 1974 Master Plan for the Old Faithful Area. The DCP addressed the following planning needs and problems: (1) it decreased encroachment on prime resources, (2) provided for anticipated increased visitation, (3) improved vehicular circulation and parking, (4) improved pedestrian safety, circulation, and visitor information, (5) determined appropriate visitor services and support facilities, and (6) consolidated winter use facilities.	1985
Dormitory Construction at Lake and Old Faithful EA	
The preferred alternative for this EA proposed construction of a 50- room dormitory to replace dilapidated cabins. The proposal also included construction of associated parking, access, and utilities.	1983
Grizzly Bear Management Program / EIS	
This EIS proposed implementation of a modified grizzly bear management program in the park. The program emphasized perpetuation of a wild, free- ranging grizzly bear population and provided for the safety of park visitors. The plan consisted of elements of education and enforcement; reduction of unnatural visitor-bear contacts, including closing some areas to visitor use; control of problem bears; collection of statistics and monitoring bears; and continued bear research.	1983
Rehabilitate Sewage Disposal and Water Treatment Facility at East	
<b>Entrance EA</b> This EA proposed to update the sewage disposal and water treatment facilities at the East Entrance. The employee housing area adjacent to the entrance station serves employees working at the entrance and within the East Entrance area.	1983

Document	Completion Date
<b>Grant Village DCP / EA</b> The 1974 master plan set forth the development of Grant Village as a primary goal. The master plan called for removing existing facilities (where feasible) from critical resource areas; including fragile thermal areas at Old Faithful and West Thumb, and those in prime wildlife habitat in the Pelican Valley / Fishing Bridge area. This plan proposed replacement of these developments with new overnight facilities at Grant Village. Fifty-four cabins (216 pillows) were to be removed from the West Thumb thermal area and use of 285 cabins (1,074 pillows) at Fishing Bridge discontinued. A second reason for developing Grant Village was to mitigate congestion on Grand Loop Road at Old Faithful.	1982
Grant Village Overnight Accommodations EA This EA proposed utility improvements, paving roads and parking areas, and construction of 150 to 210 lodging units.	1979
Yellowstone Master Plan The master plan is the conceptual planning document that established guidelines for the overall use, preservation, management, and development in the park. The plan identified the purposes of the area, its resource values, its relationship to regional environments, levels of visitor use and necessary visitor facilities, the objectives for its management, management category, a land classification plan, and the general development plan for management and interpretation.	1974
Mammoth Development Concept Plan The DCP proposed redevelopment of Mammoth, focusing on circulation, interpretation, visitor services, and removal of facilities affecting the environment. Four alternatives were presented for a bypass around Mammoth, two of which used the Old Gardiner road as the primary ingress/egress route. Once the bypass was constructed, some roads would be closed and reused for pedestrians. The plan also called for removal of facilities encroaching on hydrothermal resources.	1973
<b>Proposed Wilderness Classification / EIS</b> This proposal identified 2,016,181 acres within Yellowstone National Park as eligible for wilderness designation and analyzed the effects of designation.	1973
Wilderness Recommendation This report recommended that 2,016,181 acres of land within Yellowstone National Park be designated by Congress as wilderness.	1972





# Appendix D: Formal Agreements and Administrative Commitments

### **Special Mandates**

Special mandates are legal requirements that affect management of the park. They are mandated and cannot be changed by the park.

#### Designation of Yellowstone National Park as a Class I Airshed

A major purpose of the Clean Air Act is "[T]o preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value" (Public Law 88-206; 42 USC 7470[2]). Accordingly, the 1977 amendments designated certain public lands as "class I" areas, which included national parks over 6,000 acres and national wilderness areas over 5,000 acres that were in existence when the amendments were enacted. Class I status is the highest level of air quality protection under the Clean Air Act and bestows an "affirmative responsibility" on the federal land managers to protect these areas form the adverse effects of air pollution. The goals of the act aim to protect visibility (i.e., scenery) and other resources sensitive to air pollution, including vegetation, animals, soils, and water in these special areas. In section 169A, Congress declared as a national goal the prevention of any future, and the remedy of any existing, visibility impairment in mandatory class I federal areas where impairment results from human-made air pollution.

#### Designation of Yellowstone National Park's Waters as Class I, Outstanding Waters

Streams and lakes within the park are designated as "Class I, Outstanding Waters," by the State of Wyoming as delegated by the U.S. Environmental Protection Agency (EPA) under the Clean Water Act. This means that long-term degradation of surface waters is prohibited and existing water quality must be maintained. Class I waters are those surface waters in which no further water quality degradation by point source discharges, other than from dams, will be allowed. Nonpoint sources of pollution shall be controlled through implementation of best management practices. The water quality and physical and biological integrity which existed on the water at the time of designation will be maintained and protected.

# Designation of the Snake River as a Unit of the National Wild and Scenic Rivers System (Public Law 111-11, March 30, 2009)

Seventeen miles of the river within the park are designated as a wild river. The Wild and Scenic Rivers Act (Public Law 90-542) requires the National Park Service to protect and enhance the Snake River's water quality, free-flowing condition, and outstandingly remarkable values. The river is to be managed with the goal of nondegradation and the enhancement of the values for which it was established. Section 4.3.4 of NPS *Management Policies 2006* states that no management actions may be taken that could adversely affect the values that qualify a river for inclusion in the national wild and scenic rivers system.

# Designation of the Nez Perce National Historic Trail, including sections within Yellowstone National Park (Public Law 99-445)

Congress passed the National Trails System Act in 1968, establishing a framework for a nationwide system of scenic, recreational, and historic trails. The Nez Perce (Nimíipuu or Nee-Me-Poo) National Historic Trail stretches from Wallowa Lake, Oregon, to Bear Paw Battlefield near Chinook, Montana. It was added to this system by Congress as a national historic trail in 1986.

The National Trails System Act provides the following text to describe how historic trails like the Nez Perce National Historic Trail are to be managed:

National Trails System Sec. 3. (16 USC 1242)

(a)The national system of trails shall be composed of the following:

(3) National historic trails, established as provided in section 5 of this act, which will be extended trails which follow as closely as possible and practicable the original trails or routes of travel of national historic significance. Designation of such trails or routes shall be continuous, but the established or developed trail, and the acquisition thereof, need not be continuous onsite. National historic trails shall have as their purpose the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment. Only those selected land and water based components of a historic trail which are on federally owned lands and which meet the national historic trail criteria established in this Act are included as Federal protection components of a national historic trail upon application from State or local governmental agencies or private interests involved if such segments meet the national historic trail criteria established in this Act and such criteria supplementary thereto as the appropriate secretary may prescribe, and are administered by such agencies or interests without expense to the United States.

#### Designation of the Continental Divide National Scenic Trail, including sections within Yellowstone National Park (Public Law 95-625)

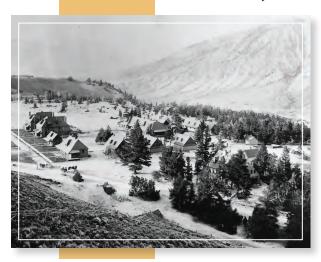
National scenic trails are subject to all the requirements specified in the National Trails System Act of 2009 (Public Law 90-543). The act provides direction on facilities and uses of the trail and trail markers (section 7c). The National Park Service is directed to cooperate with other land managers, nonprofit organizations, and user groups to facilitate appropriate trail use, to the extent that trail management and use would not cause unacceptable impacts (NPS *Management Policies 2006*, 9.2.2.7).

### **Special Designations**

Special designations are placed on the park by outside organizations and do not necessarily have management implications for the park. They may need to be consulted for certain actions at the park.

# Designation of Yellowstone National Park as a UNESCO Biosphere Reserve (October 26, 1978)

Biosphere reserves are sites that are recognized for their roles in conserving genetic resources; facilitating long-term research and monitoring; and encouraging education, training, and the demonstration of sustainable resource. The World Network of Biosphere Reserves is administered by the United Nations Education, Scientific and Cultural Organization



(UNESCO). Although the biosphere reserve designation does not alter the purpose for which Yellowstone National Park was established or change management requirements, to the extent practicable, superintendents will incorporate biosphere reserve objectives into their plans and interpretive programs. Opportunities will be pursued to use the designation as a framework for local, regional, and international cooperation (NPS *Management Policies 2006*, 4.3.6).

#### Designation of Yellowstone National Park as a World Heritage Site by the United Nations (September 8, 1978)

The natural features of Yellowstone and their universal value to humanity led to the designation of the park as a world heritage site. This status is used to promote sustainable tourism and the preservation of the world's natural and cultural heritage.

### **Additional Management Considerations**

The items listed here do not necessarily fit into the other categories in this section, but have important considerations for many aspects of park management.

#### Wilderness Recommendation for Yellowstone National Park (1978)

In 1978, 2,032,721 acres of Yellowstone National Park was recommended for wilderness designation. The recommended area is managed to protect wilderness character and values.

#### Montana Reserved Water Rights Compact (May 12, 1993)

This compact recognizes reserved water rights of the United States at Little Bighorn Battlefield National Monument, Bighorn Canyon National Recreation Area, Glacier National Park, and Yellowstone National Park. It establishes a permit process that will be used by state and federal water administrators to protect water resources at the parks, including hydrothermal resources at Yellowstone.

# Water Rights Agreement between the State of Idaho and the United States for Yellowstone National Park

This agreement describes the federal reserved water rights for the Idaho portion of Yellowstone National Park including water for administrative uses, instream flow, lakes, groundwater, and water to maintain the natural thermal features of the park.

# Big Horn Adjudication, Partial Interlocutory Decree covering the United States' Non-Indian Claims, Civil No. 4993, 1983

This decree described the federal reserved water rights for the Middle Creek watershed within Yellowstone National Park, including water for administrative uses, instream flow, lakes, springs and seeps, and groundwater.

#### The Reese Creek Stipulated Water Rights Agreement

This agreement outlines the rights of several non-NPS entities to divert surface water from Reese Creek for use on private lands north of the park.

#### Superintendent's Compendium (2012)

The purpose of the compendium is to provide the public and park employees with a document that lists the special designations, closures, public use limits, permit requirements, and other restrictions imposed under the discretionary authority of the superintendent. The superintendent's authority to implement these provisions is found in 36 CFR 1.5(a). The compendium is reviewed and updated annually or as needed to ensure adequate protection of the park's resources, provide for public safety and enjoyment, and to address changes in public use patterns.

The provisions found in this compendium constitute only one of many tools designed to manage and protect Yellowstone National Park. It is important to utilize this document in conjunction with 36 CFR, which includes the full text of NPS regulations, including those authorizing the provisions outlined in this compendium. Chapter I, parts 1–7, of title 36, include sections addressing resource protection, public use, recreation, boating, vehicles and traffic safety, commercial operations, and special regulations. These regulations are applicable on all federally owned lands and waters within the boundaries of Yellowstone National Park and on lands and waters under the administrative control of the National Park Service. In addition, certain regulations found within title 36 are applicable on nonfederally owned lands under the legislative jurisdiction of the United States.

#### Legal inholdings

The Gardiner Cemetery lies within the boundary of the national park, but is owned by the American Legion.

# **Special Use Permits, Concession Contracts, and Commercial Use Authorizations**

The following table lists permits and contracts that the park has issued. They may be revised over time to meet park needs.

Name	Start Date	Expiration Date	Description
Xanterra Parks and Resorts Concession Contract YELL077-13	12/01/13	11/30/2033	Lodging, food and beverage, retail, camping, marina, transportation, livery, and other services throughout the park.
DNC Parks and Resorts at Yellowstone Concession Contract YELL002-03	01/01/03	12/31/2018	Groceries, snacks, sundries, supplies, and limited food service throughout the park.
Yellowstone Park Service Stations, Inc., Concession Contract YELL004-08	11/01/08	10/31/2018	Fuel, propane, and towing and repair services throughout the park. Some convenience items.
Medcor, Inc., Concession Contract YELL001-10	01/01/10	12/31/2019	Year-round medical clinic at Mammoth. Seasonal medical clinics at Old Faithful and Lake.
Guided Saddle and Pack Tours, 44 Contracts YELL1XX -04	01/01/04	12/31/2013, Extended until 12/31/2014. May be extended until 12/31/2015.	Day and overnight trips by horse and llama throughout the park.





Name	Start Date	Expiration Date	Description
Guided Interpretive Oversnow Vehicle Tours 24 Contracts YELLCC- YELL5XX14	On or about 04/01/2014	On or about 03/31/2024	Day and multiday trips by oversnow vehicles on groomed roads throughout the park. Take the place of the expiring concession contracts for guided interpretive snowcoach tours and the commercial use authorization for guided interpretive snowmobile tours. One contract includes a skiers' camp in the Canyon area.
Commercial Use Authorizations			Approximately 175 commercial use authorizations for suitable services to park visitors in limited circumstances. Issued for a term of up to two years. Service categories include biking, day hiking, motorized boating, nonmotorized boating, overnight backcountry trips, road-based transportation, skiing/snowshoeing, stream and shoreline fishing, rowing, water access, and other miscellaneous suitable visitor services.
Black Butte Ranch Special Use Permit	01/01/06	12/31/2015	Access across park land to private property, renewed every five years.
Silvertip Ranch Special Use Permit	01/01/11	12/31/2015	Access across park land to private property, renewed every five years.
U.S. Postal Service Special Use Permit	Currently in draft 01/01/14	12/31/2023	Assigns land and describes maintenance and other responsibilities for post offices at Canyon, Lake, Grant, and Old Faithful. Describes maintenance and other responsibilities for the post office at Mammoth.





The following table lists telecommunication right-of-way permits that the park has issued. They may be revised over time to meet park needs.

Name	Agreement Type	Start Date / Expiration Date	Stakeholders	Purpose
Mount Washburn Verizon Cell Site Co- location	Special park uses right-of- way permit	10/28/2013 / 10/28/2023	Wyoming 1-Park Limited Partnership (d/b/a Verizon Wireless)	Telecommunication facility co-located on NPS communications site
Mount Washburn AT&T Cell Site Co- Location	Special park uses right-of- way permit	5/20/2011 / 10/19/2020	Peach Acquisitions LLC (d/b/a AT&T Mobility)	Telecommunication facility co-located on NPS communications site
Elk Plaza Verizon Cell Site	Special park uses right-of- way permit	10/22/2010 / 10/19/2020	Wyoming 1-Park Limited Partnership (d/b/a Verizon Wireless)	Cellular telecommunications facility
Old Faithful Verizon Cell Site	Special park uses right-of- way permit	10/22/2010 / 10/19/2020	WWC Holding Co., Inc. (d/b/a Verizon Wireless)	Cellular telecommunications facility
Grant Village Verizon Cell Site	Special park uses right-of- way permit	10/22/2010 / 10/19/2020	WWC Holding Co., Inc. (d/b/a Verizon Wireless)	Cellular telecommunications facility
Old Faithful Union Telephone Company Cell Site Co-location	Special park uses right-of- way permit	12/13/2010 / 10/19/2020	Union Telephone Company (d/b/a Union Wireless)	Cellular telephone site co- located on Verizon tower
Grant Village Union Telephone Company Cell Site Co-location	Special park uses right-of- way permit	12/13/2010 / 10/19/2020	Union Telephone Company (d/b/a Union Wireless)	Cellular telephone site co- located on Verizon tower
Elk Plaza Union Telephone Company Cell Site Co-location	Special park uses right-of- way permit	6/15/2012 / 10/19/2022	Union Telephone Company (d/b/a Union Wireless)	Cellular telephone site co- located on Verizon tower
Lake Verizon Cell Site	Special park uses right-of- way permit	7/1/2013 / 10/19/2023	Cellular Inc. Network Corporation (d/b/a Verizon Wireless)	Cellular telecommunications facility
NorthWestern Energy linear transmission lines	Special park uses right-of- way permit	1/29/2007 / 1/29/2017	Northwestern Corporation (d/b/a Northwestern Energy)	Parkwide electric power distribution line
Mount Washburn NorthWestern Energy Land Mobile Radio	Special park uses right-of- way permit	11/5/2013 / 10/19/2023	Northwestern Corporation (d/b/a Northwestern Energy)	Privately licensed radio communications
Mount Washburn HK Contractors Land Mobile Radio	Special park uses right-of- way permit	1/2/2014 / 10/19/2023	HK Contractors	Privately licensed radio communications
Mount Washburn Teton Communications Land Mobile Radio	Special park uses right-of- way permit	1/29/2014 / 10/19/2023	Teton Communications, Inc.	Privately licensed radio communications

# **Additional Formal Agreements and Administrative Commitments**

The following table lists the general agreements, memorandums, and cooperative agreements that the park has entered into. They may be revised over time to meet park needs. This section outlines items that are specific to the park and not an inventory of all the laws applicable to the national park system.

Name	Agreement Type	Start Date / Expiration	Stakeholders	Purpose
Bison Conservation Plan / EIS for Yellowstone National Park	Memorandum of Understanding (MOU)	Date 2014	State of Montana, NPS	Joint agreement with the State of Montana to prepare an EIS to consider possible changes to the management of wild Yellowstone bison and the nonnative disease brucellosis given substantial new information, changed circumstances, and the passage of more than 12 years since implementation of the Interagency Bison Management Plan (IBMP) began in 2001.
Canyon Cabins	Memorandum of Agreement (MOA)	05/03/2013	Wyoming SHPO; Yellowstone NP	To mitigate the adverse effect of removing 54 Mission 66 cabins. Includes documentation (Historic American Building Survey and Historic Structure Reports), interpretive panels, web-based information, and rehabilitation of interior elements that illustrate the Mission 66 era.
Old Faithful Pub	MOA	05/03/2013	Wyoming SHPO; Yellowstone NP	To mitigate the adverse effect of removing the Old Faithful Pub. Includes documentation, rehabilitation, and replacement of fabric of the Lake Pub, a structure of the same era. Preservation training and a video will be produced of the work in progress.
U.S. 191 General Agreement	General Agreement	01/30/2013 / 01/30/2018	State of Montana, NPS	Cooperative agreement with the State of Montana that establishes maintenance guidelines of that portion of U.S. Highway 191 in Yellowstone National Park. The purpose of this agreement is to identify protocol and establish a proactive working relationship between the two agencies.
Greater Yellowstone Area	MOU	1964	NPS Intermountain Region and U.S. Forest Service (USFS) Northern, Rocky Mountain, and Intermountain regions	Assure perpetuation and enhancement of integrated resource management and affirm the intent to continue to serve the public interest.
Greater Yellowstone Coordinating Committee (GYCC)	MOU	1986, 2008	National Forests: Beaverhead, Bridger-Teton, Custer, Gallatin, Shoshone, Targhee <u>National Parks:</u> Grand Teton, Yellowstone <u>Regional Participants:</u> NPS/ IMRO, USFS Northern Region	Enhance integrated resources management, continue to serve public interest.
Fish and Wildlife Projects	MOU	1995	USDI/NPS and National Fish and Wildlife Foundation (NFWF)	To enhance the natural resources of the U.S. and promote wise stewardship of these resources. NPS Organic Act, 16 USC 1-4, and NFWF establishment act, 16 USC 3703(c)(6), as amended.
National Water-Quality Assessment Program	MOU	1995	USGS, NPS (nationwide)	NPS will cooperate with U.S. Geological Society (USGS) in water quality assessments. Public Law 99-591 and NPS Organic Act.

Name	Agreement Type	Start Date / Expiration Date	Stakeholders	Purpose
Continued Deposit of Records in Yellowstone NP Archives	ΜΟΑ	1978	NPS, USDI, National Archives and Records Service	Records conditions, standards, safeguarding, etc.
Emergency Services	MOU		Yellowstone NP, Town of West Yellowstone	Pooling resources of the NPS and town for better emergency service. 42 USC 1856 and 16 USC 1b(1).
Cross- designation of law enforcement authority	MOA	1992 / Indefinite	USDI: NPS, Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), IA, Bureau of Reclamation (BOR), TIA	
Yellowstone Association Public Interpretive and Educational Services	MOA	1994	Yellowstone Association and NPS	
Yellowstone Foundation	MOA	1995, 2006	Yellowstone Foundation and USDI, NPS, Yellowstone NP	Describes relationship of NPS and the Foundation in fundraising and philanthropic activities.
West Yellowstone School District	Cooperative Agreement	1996 / Renewed annually	Yellowstone NP and West Yellowstone School District	Provide educational facilities to dependent children of persons engaged in the administration, operation, and maintenance of Yellowstone NP.
Gallatin Country Sheriff's Office	MOU / General Agreement		NPS, Gallatin County	Provide mutual law enforcement and emergency services in and near Yellowstone NP.
Gardiner School District	Cooperative Agreement	Updated annually		Provide educational facilities to dependent children of persons engaged in administration, operation, and maintenance of Yellowstone NP.
Yellowstone Volcano Observatory	MOU	2008	Yellowstone NP, USGS, University of Utah	Long-term monitoring for purposes of seismic and volcanism warnings, improved understanding, and coordination.
Wyoming Recreation Action Team (REACT)	MOU	No dates	State of Wyoming: Governor's Planning Office; Game and Fish Commission; State Lands and Investments; State Parks, Historic Sites and Cultural Resources; Travel and Tourism; Governor's Council on Physical Fitness and Sports Federal Agencies: BLM; BOR; NPS; USFWS; USFS; FHWA Tribal Governments: Eastern Shoshone, Northern Arapaho Local Governments: Wyoming Recreational & Parks Association	Partnership: identifies opportunities and resolve issues affecting recreation and tourism in Wyoming. Committee participates with federal agencies regarding recreation fees in a consulting and advising capacity.

Name	Agreement Type	Start Date / Expiration Date	Stakeholders	Purpose
Coordinated Ecosystem Approach to Planning in Gallatin County	MOU	2002	USDI: BLM Butte Field Office; NPSYNP; USDA: Gallatin NF; Montana: Gallatin Conservation District; DNRC; FWP; Gallatin County, MT.	Federal agencies are directed by law to develop land use and resource management plans. Their responsibility and obligation under these laws is to coordinate the preparation of these plans with local governments and agencies. Conversely, state and local government agencies have an obligation to join with the federal agencies to ensure that the needs of the citizens of Gallatin County and the effects on state and federal lands are recognized and addressed in land and resource plans.
GYCC Interagency Fire Management Planning and Coordination Guide.		2010	National Forests, National Refuges, and National Parks of the Greater Yellowstone Area (GYA).	Provide coordinated direction for fire management issues and operational procedures that must be addressed and implemented throughout the GYA.
Henry's Fork Cooperative Weed Management Area	MOU	2011 / 2015	Yellowstone NP, Fremont County, Idaho Department of Lands, Idaho Department of Parks and Recreation, Idaho Department of Fish and Game, BLM-Idaho Falls District, Teton County Wyoming Weed & Pest District, Idaho Department of Transportation Region IV, BOR Snake River Area, Henry's Fork Cooperative Weed Management Area (CWIMA), Madison County Weed, Teton Regional Land Trust, Henry's Fork Foundation, High Country RC&D, USFS-Caribou- Targhee NF, USFS.	Document the cooperation between the parties to prevent, contain, and control nonnative invasive plants and noxious weeds on public and private lands within the area of the Henry's Fork CWMA. Forest Service Agreement 11-MU- 11041552-012.
Northern Yellowstone Cooperative Wildlife Working Group	MOU	1974, 1994, 2004	Yellowstone NP; Montana Fish, Wildlife and Parks; USGS; USFS.	Cooperatively preserving and protecting long-term integrity of Northern Yellowstone winter range by increasing scientific knowledge of species and habitats, promoting prudent resource management activities and encouraging an interagency approach to data collection, answering questions, solving problems.

# **Appendix E: Wild and Scenic River Values**

# Wild and Scenic Rivers Act

In 1968, Congress passed the Wild and Scenic Rivers Act. The act "declared to be the policy of the United States that certain selected rivers of the Nation, which with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations."

Under the Wild and Scenic Rivers Act, designated rivers are classified as wild, scenic, or recreational. The classifications primarily relate to the degree of development along the river. Regardless of the classification, each designated river in the national system is to be managed in a way that protects and enhances the values that prompted its designation. According to the act, the three classifications are defined as follows:

**"Wild" River Areas.** Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

**"Scenic" River Areas.** Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

**"Recreational" River Areas.** Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some shoreline development, and that may have undergone some impoundment or diversion in the past.

## **Snake River Headwaters Wild and Scenic River Designation**

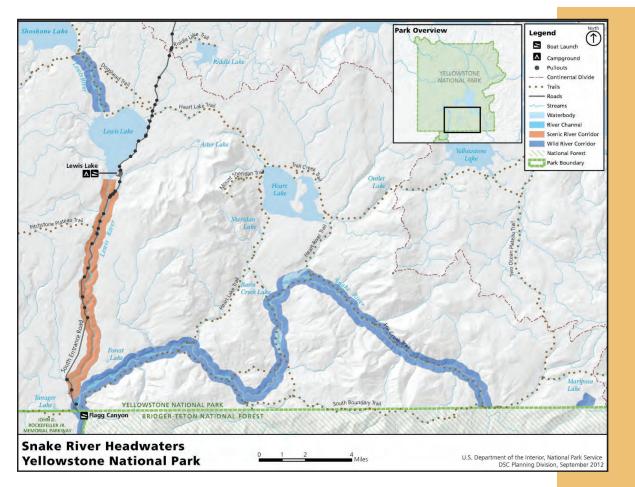
On March 30, 2009, passage of the Craig Thomas Snake Headwaters Legacy Act of 2008 (Public Law 111-11) added 414 miles of rivers and streams of the Snake River Headwaters to the national wild and scenic rivers system. The purpose of this designation is to protect the free-flowing character, water quality, and outstandingly remarkable values for the benefit and enjoyment of present and future generations.

The Snake River Headwaters is unique in that it encompasses an entire watershed rather than just one river. It includes 13 rivers and 25 separate river segments. These rivers flow through an iconic landscape of stunning canyons, open meadows, broad vistas, striking mountains,



glacial lakes, and sage flats. These landscapes provide spectacular undeveloped settings that create a distinctive sense of place and offer world-class recreational opportunities within the largest intact ecosystem in the contiguous United States.

These wild and scenic rivers flow across National Park Service, U.S. Forest Service, and U.S. Fish and Wildlife Service lands, as well as a small portion of state and private lands. Three designated river segments are located within Yellowstone National Park. They include two segments of the Lewis River and one segment of the Snake River. The following map illustrates these wild and scenic river corridors within Yellowstone National Park.



## Wild and Scenic River Values

Outstandingly remarkable values (ORVs) are defined by the Wild and Scenic Rivers Act as the characteristics that make a river worthy of special protection. In addition, free-flowing condition and water quality are also integral to the protection of wild and scenic rivers. Because free-flowing condition and water quality support the integrity of the ORVs and are key components for future management, they are included as part of this statement. Thus, the foundation for wild and scenic river management is a clearly defined set of ORVs, free-flowing condition, and water quality.

The Interagency Wild and Scenic Rivers Coordinating Council issued criteria for identifying and defining outstandingly remarkable values. The criteria guidance states that:

An ORV must be river related or dependent. This means that a value must be in the river or on its immediate shorelands (generally within 0.25 mile on either side of the river), contribute substantially to the functioning of the river ecosystem, and owe its location or existence to the presence of the river.

An ORV must be rare, unique, or exemplary at a comparative regional or national scale. Such a value would be one that is a conspicuous example from among a number of similar values that are themselves uncommon or extraordinary. The Snake River headwaters was compared to similar high-elevation rivers in the northern Rocky Mountains.

Based on these criteria, the National Park Service has determined the wild and scenic segments of the Lewis and Snake rivers in Yellowstone National Park contain the following set of ORVs: scenic, recreational, cultural, ecological/wildlife, fish, and geologic. A description for each of these values is provided below, followed by a description of the river's free-flowing condition and water quality.

#### Scenic

**Lewis River (scenic segment).** The dramatic Lewis Canyon is the result of two different lava flows converging near the edge of the Yellowstone Caldera to create a unique sweeping view of the edge of the plateau. A thousand feet of relief draws the eye to a continuous cascade in a narrow gorge that empties into the braided channel at the bottom. Aspens, willows, and lodgepole pines create a kaleidoscope that changes with the seasons. Lewis River Falls is an easily accessible example of the waterfalls found in the region.

**Snake River (wild segment).** The natural condition and wild character of the area is a vestige of primitive North America. It includes hot springs along the banks that create unique vistas. The river travels through sheer canyon walls carved by cataclysmic volcanic flows to the protected inlet of Jackson Lake, which harbors abundant wildlife and waterfowl.

#### Recreational

Lewis River (wild segment). The Lewis River provides unique access to Shoshone Lake, the largest natural lake in the contiguous United States without road access. Hikers and horseback riders enjoy traveling the backcountry route along the river. The fishing in the channel can be exemplary, particularly during the fall run of brown trout, which attracts anglers from the region and beyond. This segment is unique in that it is the only river within Yellowstone National Park where boats are allowed. This activity has occurred historically without interruption to allow visitors to transport their boats to Shoshone Lake.

**Lewis River (scenic segment).** Lewis River Falls is a prominent feature along this segment, easily accessed by the main park road. It is popular for sightseeing and photography, while the river below is enjoyed by anglers. The Lewis River Canyon provides an awe-inspiring experience for thousands of road-bound visitors. The opportunity to view a truly wild river that is substantially free from the effects of modern human activities is a quality integral to visitor enjoyment of the river. The canyon also presents a dramatic view of erosion of the volcanic Yellowstone Plateau by the Lewis River.

**Snake River (wild segment).** From the headwaters of the Snake River northeast of Fox Park in Yellowstone National Park to the South Entrance of Yellowstone, this river corridor offers exemplary opportunities for extended backcountry hiking, horse pack trips, and trout fishing. The Snake River Hot Springs is along the river and provides an opportunity to soak in waters warmed by these natural hot springs. As one of the most remote areas in the contiguous United States, wilderness character is one of the most notable characteristics of the upper Snake River. Below the South Entrance, the Snake River enters a narrow canyon that offers, for a short season, some of the only whitewater boating available in John D. Rockefeller, Jr. Memorial Parkway and Grand Teton National Park. The segment of the river between the bridge at Flagg Ranch and Jackson Lake offers a unique opportunity to camp and boat in a wilderness setting.



### Cultural

**Lewis River (wild segment).** The Lewis River may have served as a major transportation corridor for the many nomadic native peoples who traveled the corridor for more than 12,000 years. Archeological sites along Lewis River and other tributaries of the Snake River are known to represent the Birch Creek culture, identified along the Salmon River in Idaho. These sites indicate considerable human use from 10,000–7,000 years ago. Obsidian from Yellowstone was identified in sites outside the park, indicating these people traveled to the region using the Lewis River and its resources. Archeological evidence on this portion of the Lewis River is regionally significant and possibly nationally significant.

**Lewis River (scenic segment).** Regionally significant and possibly nationally significant archeological sites along this segment of the Lewis River represent 12,000 years of use as a travel route. Early trails are associated with trappers (e.g., Osborne Russell and Jim Bridger), U.S. cavalry who first administered the park, and tourists from late 19th century through today.

**Snake River (wild segment).** Archeological sites that may be found along this segment would likely indicate that seasonal hunting, fishing, and camping by native peoples occurred for the past 12,000 years. Captain Barlow, exploring after the 1871 Hayden Survey, traced the river to its source and left behind several place names, including Mount Hancock and Barlow Peak—features visible from various spots along the river corridor. The Fox Creek cabin, a national register-eligible backcountry patrol cabin in Yellowstone National Park, is within the river corridor and is associated with early historic (as well as current) park administration. Patrol cabins were constructed along early trails and in proximity to rivers to facilitate U.S. Army or ranger forays into the park wilderness to conduct various resource surveys and protection patrols. Near the Snake River / Lewis River confluence is the regionally significant South Entrance Historic District, which contains several national register-listed buildings associated with early and present park administration. These facilities were positioned approximately 0.25 mile west of the Snake River to assure its protection and provide easy access to water.



#### **Ecological/Wildlife**

Lewis River (scenic segment). This segment flows through the Lewis River Canyon—a remote, rugged, and undeveloped stretch of river that is rarely used by visitors. River characteristics and processes are unaltered and support healthy wildlife and fish populations. As a result of long-standing limitations and visitor use management, the canyon acts as a refugia for a diverse assemblage of species as well as important habitat connectivity with the Snake River downstream.

**Snake River (wild segment).** The upper Snake River is one of the most remote areas in the contiguous United States and the most pristine of the Snake River Headwaters because of limited human use. With elevations ranging between 6,000 and 10,000 feet, the diversity of plant communities and wildlife within this river corridor is high. This remote river segment provides a migration pathway key to ecosystem connectivity and wildlife refugia. Megafauna, such as bears and wolves seeking habitat security, are abundant in this segment, enhancing an already world-class assemblage of wildlife. A number of thermal features are also present, which influence the assemblage of plants and invertebrates in the immediate area. This remote, pristine environment offers exceptional opportunities for scientific research.

#### Fish

**Lewis River (scenic segment).** The lower reach of the Lewis River below the waterfalls contains the nationally significant Yellowstone and Snake River fine-spotted cutthroat trout.

**Snake River (wild segment).** This segment contains the Yellowstone and Snake River finespotted cutthroat trout and western pearlshell mussel—all nationally significant species of concern. It contains nine native species of the Snake River Headwaters and nine historically present species of the Greater Yellowstone Ecosystem. There is a variety of high quality habitat types typical of the ecosystem. Fish constitute an outstandingly remarkable value due to the presence of cutthroat trout and other native species, high species diversity, and natural reproduction of native species.

#### Geologic

**Lewis River (wild segment).** This segment contains a regionally unique, low-gradient reach between Shoshone and Lewis lakes. Shoshone Lake reduces the intensity of peak flows, resulting in the transport of smaller-sized gravels. Most of the pools on the channel are formed by woody debris. Geology is considered an outstandingly remarkable value due to the unique geomorphology between Shoshone and Lewis lakes that includes lava flows and volcanic tuff.

**Lewis River (scenic segment).** This segment contains a regionally significant example of the convergence of two different volcanic tuff and lava flows, which form Lewis Canyon. Geology is considered an outstandingly remarkable value due to the presence of exemplary lava flows, volcanic tuff, and the dramatic canyon.

**Snake River (wild segment).** This segment contains a diversity of channel types that transport substantial amounts of sediment, which is considered to be regionally significant. The segment contains four hydrothermal systems (Huckleberry, Snake River, Heart River, and one unnamed hot spring) that are considered nationally significant. This segment contains a number of debris flows that are regionally significant. Geology is considered an outstandingly remarkable value due to the diversity of channel types, sediment transport, the number of hydrothermal systems, and debris flows resulting from an active fault system.

### **Free-flowing Condition**

According to the Wild and Scenic Rivers Act, free flowing is defined as "flowing in a natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway." However, the act states that "the existence of low dams, diversion works, and other minor structures at the time any river is proposed for inclusion in the national wild and scenic rivers system shall not automatically bar its consideration for such inclusion provided that this shall not be construed to authorize, intend, or encourage future construction of such structures within components of the National Wild and Scenic Rivers System."

Snake River headwaters is a high-quality snowmelt-dominated watershed. The headwaters contain diverse, abundant native species and natural communities; extensive, intact, and interconnected habitats; high water quality; and natural unconfined channel morphology. The headwaters contain numerous USGS stream gauges that provide flow data for monitoring its free-flowing condition. Peak flows generally occur in late May and early June. Low flows generally begin in October below Jackson Lake and in September above the dam and on tributary streams.

Snake River below Jackson Lake is influenced by Jackson Lake Dam, originally constructed in 1907 and raised in 1917. The dam is operated by the Bureau of Reclamation and provides water to Idaho in order to meet obligations for the Snake River Compact between Idaho and Wyoming. The Bureau of Reclamation cooperatively works with the National Park Service to provide spring-release flushing flows in May/June. Constant flows between 1,500–2,100 cubic feet per second are released from July to September. Recent studies show that tributaries below the dam mitigate the dam's effects related to hydrology and geomorphology on Snake River.

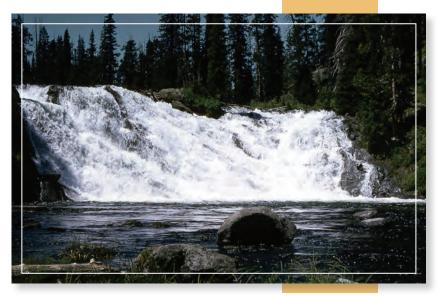
Snake River and its tributaries contain a number of minor channel modifications such as boat ramps, streambank stabilizations, bridges, and culverts. These human-made features generally do not impede the free-flowing character of the river system. Any new modifications can only be approved if they would not adversely affect the river system's free-flowing condition, water quality, or outstandingly remarkable values.

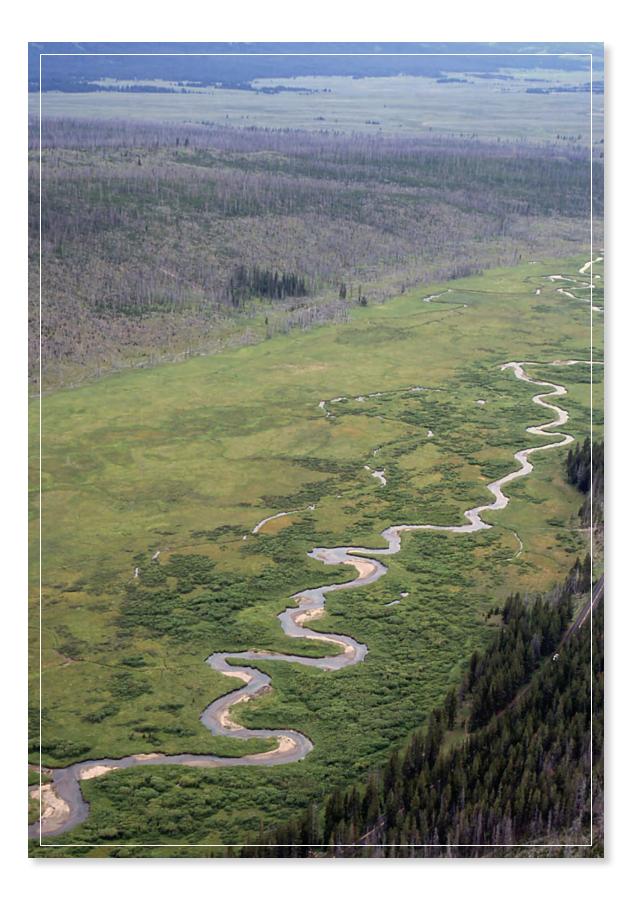
### Water Quality

All of the rivers and streams within Snake River headwaters have been designated by the U.S. Environmental Protection Agency and the State of Wyoming as outstanding natural resource waters, where no water quality degradation is allowed. A review of available chemical and biotic data and additional USGS studies confirmed that water quality is excellent. Yellowstone National Park began geothermal monitoring in the mid-1980s and this program yielded longterm baseline water quality data. The NPS Inventory and Monitoring Network established

several additional long-term water quality monitoring stations in Snake River headwaters in 2006, which indicate that water quality remains excellent and continues to meet or exceed EPA and state standards.

Natural geologic and geothermal forces, as well as artificial changes in stream flow due to Jackson Lake Dam, can affect the water quality of Snake River headwaters. These and other natural and human influences can cause changes in temperature, dissolved oxygen, and other water quality characteristics. Ongoing monitoring provides opportunities to study these influences on the natural features, systems, and processes of Snake River headwaters.





## Intermountain Region Foundation Document Recommendation Yellowstone National Park

May 2014

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

RECOMMENDED Dan Wenk, Superintendent, Yellowstone National Park

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APPROVED Sue E. Masica, Regional Director, Intermountain Region

Date

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.

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