

City of Rocks National Reserve

National Park Service
U.S. Department of the Interior



GENERAL MANAGEMENT PLAN and ENVIRONMENTAL ASSESSMENT

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Front cover, back cover and divider page photos by Wallace Keck

LETTER FROM THE SUPERINTENDENT

Dear Citizen,

Together we have come to the end of a very important journey. For the past several years, the National Park Service, the employees at City of Rocks National Reserve, and you have been asking important questions, not the least of which was, “How shall we manage the Reserve for the next few decades?” This general management plan/environmental assessment is that answer.

City of Rocks will be managed with a backcountry-type visitor experience that allows for self-discovery, self-reliance, self-determination, and the freedom to take risks. While some facilities will be improved, development will not be greatly expanded. The Research Natural Area will be enlarged to better manage the state’s largest pinyon pine woodlands and to provide a sufficient baseline for comparing future impacts with high-use and more developed areas.

We look forward to facilitating individual discovery of the western experience inspired by open landscapes, scenic grandeur, and wildness. We will leverage the new technologies that help visitors pre-plan their trip, and which also enhance learning opportunities while in the Reserve.

The unique partnership with the Idaho Department of Parks and Recreation will continue, as well as our coordination with private landowners, Cassia County Commissioners, adjacent land managing agencies and affiliated American Indian Tribes. Many organizations and educational institutions have vested interests in the Reserve, as do the gateway communities and the many visitors who arrive at the Reserve and adjacent Castle Rocks State Park each year. Many ideas have been shared during this planning process from diverse interests and varied points of view. This plan takes the best of them and now serves us as a guidebook to the future.

The year 2016 marked the centennial of the National Park Service. It was a fitting time to remember why the citizens of the United States created national parks and a professional organization to protect and manage them. National parks are one of America’s best ideas, and so is City of Rocks National Reserve.

Come help us implement those ideas as we begin our second century of stewardship together. *#FindYourPark* at City of Rocks National Reserve!



Wallace F. Keck
Superintendent

ABSTRACT

City of Rocks National Reserve was established on November 18, 1988 (P.L. 100-696). The 1996 *City of Rocks National Reserve Comprehensive Management Plan* no longer provides adequate guidance to address the management and operational issues now facing the Reserve.

This general management plan and environmental assessment (GMP/EA) examines four possible management strategies or “alternatives,” including the impacts of implementing these alternatives in the Reserve. These alternatives address visitor use and the preservation of natural and cultural resources to protect and interpret the significance of the Reserve. They comply with National Park Service (NPS) planning requirements and respond to issues identified during the public scoping process. Alternative B is the preferred alternative of the National Park Service and the Idaho Department of Parks and Recreation (IDPR). If approved in a Finding of No Significant Impact (FONSI), the preferred alternative will become the general management plan for the Reserve.

Alternative A: No Action (Continuation of Current Management) would assume that current management, programming, facilities, staffing, and funding would generally continue at their current levels and that existing plans would be implemented.

Alternative B (NPS Preferred Alternative) would highlight the spectacular scenic quality, geology, biological diversity, and cultural landscape experienced by pioneers, early settlers, and contemporary visitors. A backcountry-type visitor experience that allows for self-discovery, self-reliance, self-determination, and the freedom to take risks would be emphasized. This alternative would encourage self-directed exploration of the Reserve’s western landscape and facilitate individual discovery to evoke a powerful connection to the Reserve and its history. Visitors would be immersed in the western experience and inspired by the open landscapes and wildness of the outdoors.

This document includes a detailed description of the alternatives followed by a description of park resources affected by the alternatives and the projected environmental consequences of the alternatives. Also included in this document are the results of public involvement and consultation with other agencies, organizations, and individuals associated with planning for the Reserve’s future.

Please refer to “How to Use This Document” on the following page to navigate through the chapters.

HOW TO USE THIS DOCUMENT

This General Management Plan and Environmental Assessment for City of Rocks National Reserve (GMP/EA) is presented in five chapters and appendixes.

Chapter 1: **Introduction and Background** sets the stage for the GMP/EA by describing the Reserve, the planning process, the purpose and need for the plan, and implementation of the plan. It also describes the issues that are addressed in the GMP/EA, resources and values at stake in the planning process, and the relationship of this GMP/EA to other plans in the Reserve and region.

Chapter 2: **Alternatives** describes two management alternatives, including the NPS preferred alternative. The alternatives represent reasonable management directions consistent with NPS policy and applicable laws and planning requirements.

Chapter 3: **Affected Environment** provides detailed information on the Reserve, focusing on those resources that could be affected by the decisions contained in the management alternatives.

Chapter 4: **Environmental Consequences** describes the impacts of each alternative on affected resources within the Reserve.

Chapter 5: **Public Involvement** summarizes public involvement and the consultation process that was an integral part of the creation of this GMP/EA. This chapter also summarizes public comments received by the National Park Service during scoping and public review of the draft general management plan and draft environmental impact statement (DDGMP/DEIS). It includes the comments on, changes to, and responses to comments on the DDGMP/DEIS.

Appendixes provide more detailed information related to the plan, including the full text of the Rim Development Concept Plan for City of Rocks National Reserve and the City of Rocks National Reserve Wilderness Eligibility Assessment.

Maps and figures are referenced within the text of the applicable chapters. In many cases, actions or other discussions contained in this GMP/EA refer directly to maps and figures from the 2015 DDGMP/DEIS. In fact, many actions themselves are map-based. The reader must rely on the text, maps, and figures taken together to fully understand the actions described in this GMP/EA. For this reason, selected figures from the DDGMP/DEIS have been placed in “Appendix A: Maps and Figures.”

SELECTED LIST OF ABBREVIATIONS

• ASMIS	Archeological Sites Management Information System
• AUM	Animal Unit Month
• BLM	Bureau of Land Management, U.S. Department of the Interior
• Cassia	Cassia County, Idaho
• CLI	Cultural Landscape Inventory
• CMP	Comprehensive Management Plan
• CRSP	Castle Rocks State Park
• DCP	Development Concept Plan
• DEIS	Draft Environmental Impact Statement
• DGMP	Draft General Management Plan
• EA	Environmental Assessment
• EIS	Environmental Impact Statement
• GMP	General Management Plan
• IDFG	Idaho Department of Fish and Game
• IDPR	Idaho Department of Parks and Recreation
• IPMP	Invasive Plant Management Plan
• NNL	National Natural Landmark
• NPS	National Park Service, U.S. Department of the Interior
• Reserve	City of Rocks National Reserve
• RNA	Research Natural Area
• SHPO	State Historic Preservation Office
• UCBN	Upper Columbia Basin Network
• USDA	U.S. Department of Agriculture
• USFS	U.S. Forest Service
• USFWS	U.S. Fish and Wildlife Service, U.S. Department of the Interior

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CHAPTER ONE

PURPOSE AND NEED FOR THE PLAN

CHAPTER 1: PURPOSE AND NEED FOR THE PLAN

City of Rocks National Reserve (Reserve) is a unit of the national park system and is managed by the Idaho Department of Parks and Recreation (IDPR). The National Park Service (NPS) and IDPR operate the Reserve under a long-term cooperative agreement that outlines their roles and responsibilities with regard to planning and management. Therefore, a cooperating agency agreement was not entered into between the two agencies for the purpose of developing this general management plan (GMP). A cooperating agency agreement for the previous draft general management plan and draft environmental impact statement (DGMP/DEIS) was entered into with the Bureau of Land Management (BLM) because of their interest in sustaining grazing within the Reserve and because that version of the plan had proposed a boundary adjustment.

City of Rocks National Reserve released a DGMP/DEIS for public comment in 2015. That DGMP/DEIS described four alternatives for the management of the Reserve. Because there were no significant impacts identified in the DEIS, the analysis was modified to become an environmental assessment (EA) per current Department of the Interior policy and NPS guidelines. Actions in the EA's preferred alternative are largely the same as described in the DGMP/DEIS, except that actions outside of the Reserve boundary, such as proposed changes to Smoky Mountain Campground, were removed. The revised GMP/EA is a streamlined version of the DGMP/DEIS. Despite the change from an environmental impact statement (EIS) to an EA process, responses to public comments received on the 2015 DGMP/DEIS are included in "Appendix J: DGMP/DEIS Public Review Summary, Public Concerns, and NPS Responses."

DESCRIPTION OF THE RESERVE

City of Rocks National Reserve is located in south central Idaho approximately two miles north of the Utah border. The Reserve is surrounded by the gateway communities of Almo, Elba, and Oakley. The nearest air service is located at Twin Falls or Pocatello (approximately 80 to 100 miles), followed by Salt Lake City or Boise (approximately 200 miles). There is no public transportation to or within the Reserve (see Figure 1. Regional Context on page 2 of the 2015 DGMP/DEIS).

Sawtooth National Forest lands are adjacent to the northern portion of the Reserve at Graham Peak and to the west and south of the Reserve. BLM lands abut the Reserve's east, south, and west boundaries. In addition to federally-owned lands, the state of Idaho owns lands within and surrounding the Reserve. These include the nearly adjacent Castle Rocks State Park and several endowment parcels located to the south and southeast of the Reserve boundary (see "Appendix A: Maps and Figures," Figure 2). Privately-owned land is found both within and surrounding the Reserve.

The Reserve comprises an area of 14,407 acres. Approximately 10,000 acres are in federal ownership, 3,767 acres are in private ownership, and 640 acres are owned by the State of Idaho. Private land within the Reserve is regulated by Cassia County. Cassia County manages the area under a Historic Preservation Zone. This zone limits existing landowners to one residence per ownership of record at the time the Reserve was established, and it requires land uses consistent with those of 1988 or earlier. Currently, this zone covers most, but not all, of the Reserve (see "Appendix A: Maps and Figures," Figure 4).

Visitors come to the Reserve to walk parts of the California National Historic Trail (California Trail) (6.9 miles) and the Salt Lake Alternate (1.8 miles) and to immerse themselves in the surrounding cultural landscape that is strikingly similar to how it was in the mid-1880s. That landscape includes remnant historic trail ruts, more than 350 emigrant signatures on 22 rocks, a portion of the Mormon Battalion Trail, and the Kelton-Boise Stage Route. Other cultural resources include prehistoric artifacts, homesteads, irrigation and ranching improvements, and mica mines. Approximately 110,000 visitors pass through the Reserve annually, primarily between April 1 and October 30. Many come from the metropolitan areas of Utah's Wasatch Front, from the populated areas of southern Idaho (Boise, Twin Falls, Pocatello, and Idaho Falls), and from nearby western states, including Utah, Wyoming, California, Colorado, and Oregon, although visitors also come from every state and about a dozen foreign countries. Today the park offers camping, climbing, hiking, backpacking, equestrian riding, mountain biking, sight-seeing, hunting, and much more.

PURPOSE OF THE GENERAL MANAGEMENT PLAN

Upon approval, the GMP will set the management philosophy for City of Rocks National Reserve for the next 15 to 20 years. It provides an updated framework for continued management of the Reserve by the NPS and IDPR. The GMP

- Updates the 1996 City of Rocks National Reserve Comprehensive Management Plan (CMP),
- Fulfills the requirements of the National Parks and Recreation Act (Public Law 95-625 1978), the General Authorities Act (Redwood Act Amendment 1978), and NPS *Management Policies 2006* (NPS 2006a), which require all national park units to have general management plans and to regularly update these plans,
- Clearly defines resource conditions, visitor uses, and experiences to be achieved within the Reserve,
- Provides a framework for Reserve managers to guide decisions about protecting Reserve resources and providing high-quality visitor experiences through management of visitor activities and facilities, and
- Develops a foundation for decision-making in consultation with interested stakeholders and NPS and IDPR leadership, based on analysis of the benefits, impacts, and costs of the alternatives.

Legislation establishing the NPS as an agency (Organic Act of 1916) and the range of laws governing NPS management provide the fundamental direction for administration of the Reserve and other units and programs of the national park system. This GMP is intended to build on these laws and the legislation that established and governs the Reserve to provide a vision for the future.

The GMP analyzes alternatives for addressing desired future conditions that are not already mandated by law and policy and that must be determined through a planning process. Where law, policy, and regulations do not provide clear guidance, management decisions will be based on the GMP, public concerns, and on analyzing the impacts of alternative courses of action, including long-term operational costs. Successful implementation of the GMP will result in the long-term preservation of natural and cultural resources and an enhanced visitor experience.

Actions directed by general management plans or in subsequent implementation plans are accomplished over time. Budget restrictions, requirements for additional data or regulatory compliance, and competing priorities may delay or modify implementation of actions. Major or especially costly actions could be implemented 10 years or more into the future.

The GMP does not describe how particular programs or projects will be implemented. Those decisions are deferred to more detailed implementation planning, which will follow the broad, comprehensive planning presented in this GMP/EA. Future plans would be consistent with the approved GMP.

NEED FOR THE GENERAL MANAGEMENT PLAN

The 1996 CMP no longer provides adequate guidance to address the policy and operational issues currently facing the Reserve. Many of the actions in the CMP have been implemented, but other actions are outdated, cost-prohibitive, or cannot be executed for other reasons, including current property ownership.

The National Parks and Recreation Act of 1978 and the Redwood Amendment of 1978 require the preparation and timely revision of GMPs for each unit of the national park system. The Reserve's operation plan and guidelines for management states that the GMP/EA will be kept current and revised or amended as necessary.

When the CMP was produced in 1996, approximately 50% of the land within the Reserve was in public ownership. Today, that percentage is approximately 70%, resulting in additional planning opportunities for newly acquired parcels. The land protection plan would specify that any lands proposed for acquisition would be by willing seller only and in full accord with Reserve legislation and NPS policies.

Visitation within the Reserve has risen from 84,164 visitors in 1993 to 142,250 in 2018 (NPS 2019a). Population growth in the nearby metropolitan areas of Salt Lake City and the Pocatello/Idaho Falls area is expected to increase in the next 20 years, potentially creating more visitation and use within the Reserve. Because of increased visitation, there is a need to evaluate existing facilities.

Camping within the Reserve existed when the Reserve was established, and although many campsites at that time were closed or rehabilitated, there are lingering issues that need to be addressed, such as campsites that conflict with day use activities, safety and visual issues along the road where some campsites are located, and the need for additional toilets. Most campsites in the Reserve are located along the southern and western rim of Circle Creek Basin (known as "the Rim"). These sites offer prime views of the pinnacles comprising the "Inner City" as well as more expansive views of Granite Ridge that completes the northern encirclement of the basin. As part of this GMP, a development concept plan (DCP) has been prepared to help address these specific issues, including comprehensive assessment of the trail system with associated parking, picnicking, and trailheads ("Appendix C: Rim Development Concept Plan for City of Rocks National Reserve").

Determining how to continue to accommodate these user groups is important. Several plans completed since the CMP are now due for revision, and additional plans are needed to better inform Reserve management. Among these plans are the grazing management plan, fire management plan, and vegetation management plan.

Determining wilderness eligibility is also an issue that is addressed in this GMP because of the requirement in NPS management policies (“Appendix K: City of Rocks National Reserve Wilderness Eligibility Study”).

At present, management zoning for the Reserve uses both zones and subzones and covers both private and public land. Many of the prescriptions for these are overlapping or contradictory and at times confusing for Reserve managers. A section of the Reserve at the eastern boundary was not zoned on the 1996 management zoning map and needs to be corrected.

PLANNING ISSUES AND CONCERNS FROM PUBLIC PARTICIPATION

The planning team, along with representatives from other agencies, organizations, and interested members of the public, identified various issues and concerns about City of Rocks National Reserve. This information assisted in determining the range of issues addressed by this GMP/EA.

The result of the GMP will provide long-term guidance for issues related to management of resources, visitor use (including recreation, interpretation, and education), transportation (including access and circulation), Reserve facilities and operations, interagency coordination, partnerships, and the boundary.

Cultural Resource Protection and Preservation

The Reserve was established “to preserve and protect the significant historical and cultural resources,” related to the California Trail, including the emigrant inscriptions, trail ruts, and landscape characteristics.

The GMP will explore various preservation treatment options, management strategies, and design guidelines for the protection of a wide variety of cultural resources. Some of the cultural sites, such as the Kelton-Boise stage station, are located on private land within the Reserve and contain important historic remnants of the California Trail or homesteading period. Managing cultural resources on both private and public land presents challenges, such as protection from vandalism, deterioration from weathering, and impacts from visitor use and livestock grazing.

Natural Resource Protection

The Reserve is part of a larger biogeographic crossroads—an area where many different habitat types and plant and wildlife ranges meet. As a result, plant and animal life is diverse and includes several species at the edge of their range. Invasive species, visitor activities, and grazing can impact these resources. The GMP will explore management actions for natural resource protection.

In addition, the GMP will reevaluate management of the City of Rocks Research Natural Area (RNA). This 312-acre area within the Reserve was designated for its outstanding natural features, natural processes, natural diversity, and ecological values. It contains unique geologic formations and the northern limit of the pinyon-juniper forest in North America. In addition, the City of Rocks RNA has the opportunity to provide student and professional education, to serve as a baseline for measuring long-term ecological changes and as a control area for comparing results from manipulative research conducted elsewhere. A determination will be made about which recreational uses, if any, might be appropriate within the RNA, whether the

RNA designation should remain, and whether other areas of the Reserve with biological diversity could also be considered for designation as research natural areas or inclusion in the current RNA.

Livestock Grazing

The Reserve differs from most traditional national park system units because it allows certain traditional ranching uses to continue, provided they are consistent with the obligation to protect natural and cultural resources. NPS management policies allow grazing where it is specifically authorized by federal law or is required to maintain a historic scene and where it does not cause unacceptable impacts on park resources or values. Although grazing was not specifically identified in the Reserve's enabling legislation and is prohibited in most national park units, section 202(a) of the enabling legislation indicated that the plan for City of Rocks should identify which zones could most appropriately be devoted to "private use subject to appropriate local ordinances designed to protect the historic rural setting" existing at the time the Reserve was established. In addition, cosponsors of the legislation indicated that grazing "in areas that are not in high public use" would be one of the continuing private uses of land within the Reserve (Back 1991).

Private grazing permits for seven allotments on public lands are currently in effect on a large proportion of public lands in the Reserve. Permits for these allotments are currently reviewed annually. The 1996 grazing management plan established the 1991 animal unit month (AUM) total for the Reserve as the maximum level of range use. An animal unit month is grazing by one cow/calf pair for a month. Grazing is not permitted in the Research Natural Area and continues to be removed from wetlands and riparian areas. In 1988, the year the 14,407-acre Reserve was established, approximately 6,400 acres inside the boundary designated by Congress were in private ownership and used primarily for cattle grazing. Today the total acreage of private lands has been reduced to 3,767 acres with approximately 10,000 acres in public ownership. The GMP action alternative includes some modifications to grazing management in the Reserve. An updated grazing management plan will be tiered from the GMP and will provide more detailed guidance on grazing management, including AUM levels.

Soundscape and Natural Quiet

Natural sounds are a fundamental resource in the Reserve, sometimes referred to as the "Silent City of Rocks." Military and commercial overflights, especially at night, have an impact on both visitor experience and wildlife. Reserve operations and visitor activities can also contribute to the deterioration of the natural soundscape. Baseline acoustical monitoring has recently been conducted to measure and record the sounds of the Reserve. The GMP presents recommendations to maintain natural sounds and natural quiet in the Reserve.

Climate and Air Quality

Air quality in and around southern Idaho is some of the best in the continental United States. Pristine airsheds are a fundamental resource in the Reserve and visitor surveys indicate that air quality and scenic vistas are among the most highly valued characteristics of the Reserve. The GMP identifies opportunities to protect the airshed and associated views, particularly those associated with the California National Historic Trail that bisects the Reserve.

Lightscape

Southern Idaho is also one of the best places in the United States for viewing night skies. The GMP recommends ways to protect and restore the scenic and ecological qualities of the Reserve's naturally dark environment.

Visitor Experience

Visitors come to the Reserve to enjoy the scenery and to climb, hike, and recreate in other ways, including equestrian use. Visitation to the Reserve is increasing, and the demographics of visitors are trending toward younger adult visitors (25–35 years old) and smaller group sizes. As the visiting population shifts, their interests and preferred activities may also change. The GMP uses current visitor survey data to address some visitor facilities, activities, and programs. A comprehensive look at the trail system with associated parking, picnicking, and trailheads is part of the GMP. The GMP also provides guidance on other recreational uses, such as climbing, hunting, and equestrian use, including locating equestrian staging areas and any related facilities in response to current access and safety concerns.

Evaluation of Boundaries

The National Parks and Recreation Act of 1978, as amended, requires that general management plans consider the adequacy of existing boundaries. When the Reserve was established, it was assumed that the private lands and associated ranching within the boundary would remain part of the Reserve. Since then, many of the landowners have opted to sell their land to the NPS. Planning for these acquired lands is addressed in the GMP. The GMP analyzes the need for changes to the boundary based on resource protection, visitor use, and land management needs.

Transportation and Circulation

Access and transportation within and through the Reserve includes use by motorized vehicles, horses, bicycles, and people on foot. Parking is available in both day use and overnight camping areas, but overflow parking and equestrian parking often takes place along the side of roads, creating safety concerns, vegetation impacts, and erosion issues. The GMP considers all forms of motorized and non-motorized transportation and evaluates circulation patterns, parking, and other transportation options.

City of Rocks Back Country Byway follows the City of Rocks Road and Twin Sisters Road (a byway spur). The byway is experiencing erosion because of climatic conditions and its alignment on disintegrating granite soils. Most roads are managed by Cassia County, which poses some challenges for Reserve staff when maintenance is needed. The GMP also examines and makes recommendations for an array of potential management options for the City of Rocks Back Country Byway.

ISSUES AND CONCERNS NOT ADDRESSED

Not all of the issues or concerns raised by the public are included in this GMP. Issues that were raised by the public were not addressed if they are already prescribed by law, regulation, or policy; if they would be in violation of law, regulation, or policy; or if they were at a level that was too detailed for a general management plan and are more appropriately addressed in subsequent planning documents.

IMPACT TOPICS: RESOURCES AND VALUES AT STAKE IN THE PLANNING PROCESS

Impact topics allow comparison of the environmental consequences of implementing each alternative. Impact topics were identified based on federal laws and other legal requirements, the Council on Environmental Quality's guidelines for implementing the National Environmental Policy Act, NPS management policies, subject-matter expertise and knowledge of limited or easily impacted resources, and issues and concerns expressed by other agencies or members of the public during scoping. Impact topics were developed to focus the environmental analysis and to ensure that alternatives were evaluated against relevant topics.

IMPACT TOPICS CONSIDERED AND ANALYZED

The following impact topics are included in the impact analysis for this environmental assessment: geology and soils, water resources (hydrology and water quantity, water quality, and wetlands), biological resources (vegetation and wildlife), cultural resources (archeology and the National Historic Landmark district) recreational and social resources (visitor experience, interpretation and education, and scenic resources), special uses and designations (grazing and livestock trailing).

IMPACT TOPICS DISMISSED FROM FURTHER CONSIDERATION

The following impact topics are among those that were dismissed because they are not present, would not be affected by, or would be affected negligibly by the alternatives evaluated in this document: air quality, lightscapes, soundscapes, geologic hazards, floodplains, water rights, traditional cultural (ethnographic) resources, historic structures, museum collections, wilderness, prime and unique farmlands, environmental justice, wild and scenic rivers, and hazardous materials.

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CHAPTER TWO

ALTERNATIVES

CHAPTER 2: ALTERNATIVES

This chapter describes the alternatives and lists other actions considered but dismissed. Two alternatives, Alternative A: No Action (Continue Current Management) and Alternative B: Preferred Alternative are being considered. Both alternatives describe future desired conditions for resources and visitor use as a whole and for specific areas within the park. For each alternative, near- and long-term guidance is identified where necessary.

Implementation of the approved plan would depend on future funding. Approval of this plan does not guarantee that the funding and staffing needed to implement the plan would be forthcoming. Full implementation of the actions in the approved GMP would likely take many years. Part of the future long-term funding needed to implement some actions called for in the plan is anticipated to come from nonfederal partners.

ALTERNATIVE A: NO ACTION (CONTINUE CURRENT MANAGEMENT)

General Description

Under alternative A, existing programming, facilities, staffing, and funding would generally continue at current levels. There would be no major changes in current management or visitor use. Implementation of currently approved plans would continue as funding allows.

Management Zones

Because alternative A is a continuation of current management, this alternative would continue to rely on the management zoning established in the Reserve's 1996 comprehensive management plan, as described in "Appendix F: Management Zones."

Reserve Management and Operations

City of Rocks National Reserve would continue to be a unit of the national park system managed by the Idaho Department of Parks and Recreation under a cooperative agreement. Reserve operations (administration and maintenance) would continue to be located at the Castle Rocks State Park Administrative Unit in Almo. Cassia County would continue to oversee private uses on private lands. The Reserve would continue to work with adjacent landowners and citizens on issues of mutual concern and seek partnership opportunities with surrounding land management agencies.

Natural Resources

Natural resources preservation and protection would continue to be a high priority for Reserve management. The focus of the natural resources program would continue to be on inventory and monitoring, working with the NPS Inventory and Monitoring program. As opportunities arise, Reserve staff would continue to conduct other research and resource management projects, as well as additional inventories and monitoring. Reserve staff would continue to proactively preserve features associated with the Cassia Silent City of Rocks National Natural Landmark (NNL).

Through active management, the Reserve would continue to promote and ensure long-term stewardship and preservation of natural resources. Management would be based on the significance of protecting biological diversity within the Reserve and its role in regional ecological health. Reserve staff would continue to prioritize actions that allow or restore natural processes within an ecosystem context.

Climate and Air Quality. Because southern Idaho has some of the best air quality in the continental United States, the Reserve would encourage the State of Idaho to change the designation of the Reserve from class II to class I to better protect air quality from major new sources of air pollution.

Staff would continue to minimize air pollution from Reserve operations. Current meteorological monitoring activities, such as collection of weather and climate data through the automated weather station, would be maintained. The staff would continue to reduce greenhouse gas emissions, support climate change research, and interpret the effects of climate change.

Water Quality. The Reserve would continue to work with the Idaho Department of Environmental Quality, Idaho Department of Fish and Game, the NPS Upper Columbia Basin Network Inventory and Monitoring Program (UCBN I&M), and the U.S. Fish and Wildlife Service (USFWS) to monitor water quality.

Geology and Soils. The Reserve would conduct an inventory of nationally significant geologic and scenic values, pinnacles, and sensitive rock features to update the Silent City of Rocks NNL findings and develop an inventory and monitoring program. The inventory would concentrate on fragile rock formations and impacts to rock surfaces from visitor activities, particularly from the use of climbing equipment and scrambling activities.

The Reserve would continue to use best management practices to mitigate soil erosion, including reducing concentrated water flow in the loose granite soils that are widespread within and beyond Reserve road corridors.

Vegetation and Fire. Native plant communities would continue to be preserved. The Reserve would maintain current levels of vegetation inventory and would conduct limited monitoring as needed or as indicated by the UCBN I&M program. The invasive plant management plan would continue to be used to refine park priority areas for control of nonnative invasive plants (NPS 2011). Staff would continue to follow the current fire management strategy of suppressing wildfires entering or originating in the Reserve with an aggressive initial response but would update the fire management plan in the future to consider a full range of fire management strategies. Fire management planning would include coordinated planning for vegetation management, identification of where and how fuels should be treated to reduce the damaging impacts of wildfire on the Reserve's natural and cultural resources, protection of visitors and infrastructure, and the reduction of wildfire impacts on adjacent communities and private land. Planning would also address mitigation of post-fire impacts to Reserve resources and infrastructure.

Wildlife. The Reserve would expand wildlife inventory and monitoring activities, including developing a wildlife monitoring plan to track long-term population change and to guide wildlife management. Working with the Idaho Department of Fish and Game, the Reserve would keep hunting and trapping at sustainable levels. In collaboration with federal, state, county, and private entities, the feasibility of reintroducing extirpated wildlife, such as pygmy rabbit, pronghorn, and peregrine falcon, could be studied.

Soundscapes and Lightscapes. The Reserve would continue to preserve its natural lightscape (the natural resources and values that exist in the absence of human-caused light). Currently, there are no permanent artificial lights within the Reserve boundary. The Reserve would work cooperatively to reduce reflective light using best management practices on adjacent state-owned lands. The Reserve would conduct an inventory of night sky quality and characteristics to develop a plan for maintaining and interpreting its night sky.

The Reserve would also prepare a soundscapes management plan to protect the natural sounds of the Reserve and reduce noise-generating activities, such as from maintenance equipment.

Cultural Resources

The Reserve would continue to place a high priority on promoting and ensuring long-term stewardship and preservation of cultural resources through active management, particularly those resources associated with the California Trail, homesteading, ranching, and American Indians, as well as museum collections stored at Hagerman Fossil Beds National Monument. Reserve staff would continue to conduct research and resource management projects, inventories, and monitoring, as opportunities arise, and would also work with private landowners within the Reserve. The existing historic water impoundment #1 at Circle Creek would be removed to restore the riparian area to natural conditions as seen by California Trail emigrants. Staff would continue to work closely with the Shoshone-Bannock Tribes to continue their traditional activities within the Reserve, including gathering pinyon nuts.

Archeology. Reserve staff would continue to conduct archeological projects to research, assess, identify, and document resources. Surveys and testing would continue at both prehistoric and historic sites to provide information on early occupation of City of Rocks. Additional waysides and self-guided materials would be developed to promote visitor understanding of archeological resources. Future planning would include developing an archeological management plan to determine the best way to preserve and manage extant wagon traces from the California Trail era.

Cultural Landscapes. Reserve staff would continue to document, assess, and monitor features, such as emigrant inscriptions, trail ruts, and landscape characteristics associated with the California National Historic Trail corridor within the Reserve boundary to ensure they would remain in good condition. Appropriate preservation treatments would be selected and implemented in accordance with The Secretary of the Interior's Standards for the Treatment of Historic Properties (Secretary's Standards), with stabilization and preservation as the baseline treatment until specific treatment plans are developed. In addition, Reserve staff would work in partnership with stakeholders to clarify the route of the California Trail corridor using remote sensing technology.

Features such as remnants of homesteads, as well as archival and museum objects associated with mining, homesteading, and ranching, would continue to be maintained in good condition, and appropriate preservation treatments would be carried out in accordance with the Secretary's Standards. For those features located on private land, such as the Nicholson Ranch and the Moon Homestead, the Reserve would work with existing landowners for preservation treatments, as interest and opportunities arise.

Special Uses and Designations

The Reserve would recommend that Cassia County extend its Historical Preservation Zone to encompass the entire Reserve, limiting existing landowners to one residence and land use

consistent with that of 1988 and earlier. Section 36 would continue to be a state-owned parcel within the Reserve (see “Appendix A: Maps and Figures,” Figure 4: Designations). The Reserve would update the NNL and NHL designations to encompass other significant features in the Reserve and encourage Cassia County to support national scenic byway designation for the existing City of Rocks Back Country Byway.

Grazing. Grazing would continue to be allowed in those management zones identified as appropriate for grazing in the Reserve’s 1996 comprehensive management plan and maintained at current levels. Total animal unit months would not exceed the 1991 level of use and could be reduced or modified, if necessary, for the protection of natural and cultural resources. Land acquired by the NPS where grazing is vacated by the landowner would not be made available to new grazing permittees. Instead, based on the grazing management plan and at the discretion of the superintendent, these lands may be used for authorized grazing of livestock by the remaining grazing permittees.

Grazing in wetland and riparian areas would continue to be systematically eliminated. Cattle would be excluded from wetland and riparian areas through a variety of means, such as by providing alternate water sources or adding fencing, as appropriate.

The Reserve would update its grazing management plan to address lands acquired since 1997 and to reflect the Reserve’s long-range goals. The updated plan would enable livestock grazing to continue in the Reserve at an economically viable level for the permittees, while meeting long-range goals to preserve and protect the significant natural and cultural resources and the scenic quality of the Reserve. Because implementation of the grazing management plan recommendations may affect wetlands within the Reserve, these actions would be addressed in a wetlands statement of findings, in compliance with Executive Order 11990, “Protection of Wetlands.”

Research Natural Area. The Research Natural Area would continue to be managed to protect unique geologic formations, high-quality native pinyon-juniper forest, old-growth tree stands, a cougar migration corridor, and important bat habitat. The existing grazing allotment along the western boundary of the RNA would be modified by working with the current permittee to remove the unintentional overlapping grazing allotment from the boundary. Hunting and trapping would also continue to be excluded from the RNA, consistent with NPS Natural Resource Management Reference Manual 77 (NPS 2004a).

Gathering. The Reserve would continue to allow gathering of pinyon nuts, elderberries, and chokecherries for personal use only, as outlined in the Superintendent’s Compendium and 36 CFR Section 2.1.

Hunting and Trapping. Hunting and trapping are allowed by legislation, under the jurisdiction of the Idaho Department of Fish and Game (IDFG), within certain public areas of the Reserve and within private lands in the Reserve with prior permission of the landowner. The Reserve would work with IDFG to better educate hunters and trappers about areas available within the Reserve and to establish sustainable levels of hunting.

Interpretation and Education

The Reserve would continue to provide interpretive and educational opportunities using Reserve interpretive themes at the current visitor center as well as through existing waysides, kiosks, brochures, special events, and the internet. Wayside exhibits would be maintained to

NPS standards. The visitor center would continue to provide brochures, maps, educational gifts, and souvenirs related to City of Rocks' resources.

Reserve staff would continue to work with other organizations that use the Reserve as a place to teach, including colleges and universities (such as geology and recreational programs), nonprofit organizations (such as the National Outdoor Leadership School, Boy Scouts of America and Girl Scouts USA, the Access Fund, and the Oregon- California Trail Association), environmental organizations, and educational institutions.

Interpretive Programs. Reserve staff would continue to conduct a variety of interpretive programs and special events and provide educational materials and activities for visitors, including arranging for guest speakers. Land use activities and features associated with mining, homesteading, and ranching, such as the privately-owned Nicholson Ranch and the Moon Homestead sites, would continue to be interpreted to the public on a limited basis as opportunities arise. The Reserve would also develop a long-range interpretive plan based on the interpretive themes in the City of Rocks National Reserve Foundation Document.

Youth. Activities for youth would continue to be available. Reserve staff would continue to sponsor student internships, Junior Ranger programs, first-time experience programs and the Youth Conservation Corps program, in addition to holding other special events and programs. Winter and summer youth day camps would also continue to be provided, pending available staffing and funding.

Visitor Experience / Visitor Use

Recreational Opportunities. Traditional recreational activities such as hiking, biking, horseback riding, birding, and climbing would continue to be accommodated at the Reserve. Activities with the potential to disturb nesting wildlife, such as climbing, would continue to be occasionally limited through seasonal closures.

Trails. The current trail system would be maintained.

Climbing. Climbing in the Reserve would continue to be managed under the 1998 climbing management plan until an updated plan is developed.

Equestrian Staging. Within the Reserve, equestrian camping and staging would continue to be provided at the Juniper group campsite.

Commercial Visitor Services. Commercial guides and outfitters would continue to provide rock climbing and horseback riding services to visitors. The overall type and level of permitted guides and outfitters currently operating within the Reserve would be maintained, with consideration of new uses on a case-by-case basis.

Visitor and Administrative Facilities

Reserve staff would maintain the existing array of waysides, kiosks, exhibits, and vault toilets within the Reserve and would replace or add to these as needed to support existing or planned operations.

Campsites. The Reserve would continue to offer camping opportunities through a reservation system and would generally retain the same number of sites and camping areas.

Visitor Services. The IDPR would continue to provide administrative and visitor contact services on state land outside of the Reserve.

Roads. Access for motorized and non-motorized transportation would continue to be provided on existing Reserve-managed roads, such as Circle Creek Overlook Road and Logger Springs Road.

Cassia County owns and maintains the two unpaved county roads—City of Rocks Road and Twin Sisters Road—through the Reserve that are part of the designated City of Rocks Back Country Byway. The Reserve would encourage Cassia County to maintain these roads to ensure a park-like feel and a safe, scenic driving experience using the historic road alignment to the extent possible. This would include keeping the roads through the Reserve unpaved. The NPS and the IDPR would continue to work cooperatively with the county on visitor safety, signage, and information.

All-terrain vehicles (ATVs) and dirt bikes are allowed on county roads and Reserve roads, including Logger Springs Road (owned by the NPS), which accesses U.S. Forest Service (USFS) land north of the Reserve. The NPS and the IDPR would also continue to work with the Cassia County to maintain jurisdictional county roads within the Reserve, as needed.

Partnerships

Reserve staff would continue to work with adjacent landowners and landowners within the Reserve on resource protection and visitor use issues of mutual concern.

Environmental Sustainability

The NPS and the IDPR would continue to partner to reduce energy use and to undertake other practices that would contribute to making the Reserve more environmentally sustainable. The Reserve would pursue implementation of energy efficiency actions outlined in its climate action plan (Reserve 2010b) and would follow sustainability guidelines set forth in the NPS Green Parks Plan (NPS 2012a)

Reserve Boundary

The existing Reserve boundary would be maintained. No boundary modification is proposed at this time.

Action Plans and Studies

Several specific action plans, studies, and agreements are needed to support ongoing management. These items have been previously identified as needs, but some would require additional special project funding or increases to the operating base funding. Plans for actions with potential to affect the environment would require formal analysis of alternatives in compliance with the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), and related laws, separate from this document.

The following plans and studies are among the identified planning and data needs: resource stewardship strategy; vegetation management plan; updated fire management plan; geologic inventory; expanded wildlife monitoring; acoustical monitoring; soundscapes management plan; night sky inventory and planning; archeological management plan; condition assessment and treatment plan for features associated with the California Trail corridor within the Reserve boundary; grazing plan update; climbing management plan update; condition assessment for pictographic and petroglyphic features; ethnographic study in partnership with local tribes; and long-range interpretive plan.

One-Time Costs Associated with Levels of Development

One-time facility costs include costs for the design, construction, rehabilitation, and restoration of facilities including visitor facilities, roads, and parking. Other one-time costs include the anticipated costs of new programs, studies, and plans. The anticipated one-time costs for alternative A are approximately \$389,763. They include costs resulting from updating the fire management plan, developing a resource stewardship strategy, trail rehabilitation, and establishing a long-range interpretive plan. No new facilities are proposed under alternative A.

ALTERNATIVE B: NPS PREFERRED ALTERNATIVE

General Description

Alternative B incorporates and continues the actions described in alternative A. It also adds new actions and further refines the focus or priorities of Reserve management.

Under alternative B, the spectacular scenic quality, geology, biological diversity, and cultural landscape experienced by pioneers, early settlers, and contemporary visitors would be highlighted. A backcountry-type visitor experience that allows for self-discovery, self-reliance, self-determination, and the freedom to take risks would be emphasized. This alternative would encourage self-directed exploration of the Reserve's western landscape and facilitate individual discovery to evoke a powerful connection to the Reserve and its history. Visitors would be immersed in the western experience and inspired by the open landscapes and wildness of the outdoors.

Management Zones

Management zones for alternative B are described in "Appendix F: Management Zones."

Natural Resources

Geology and Soils. The Reserve would develop road standards for Reserve roads located on loose granite soils and work with the county to improve road maintenance standards on county-maintained roads to better protect soils from erosion.

Cultural Resources

Archeology. The Reserve would work with partners to explore establishing an archeological district to improve stewardship of prehistoric sites and isolated artifacts. The district could outline management zones for known archeological resources to ensure appropriate stewardship of such resources.

Special Uses and Designations

Grazing. Grazing would continue within the Reserve but would be reduced over time as permittees discontinue requests for permits because of changing business models or abandonment.

Although the preferred alternative does not specifically include grazing buy-outs, there is nothing to preclude buy-outs originated between a private landowner and a third party, such as a conservation organization. Buy-outs are defined as compensation given to a permittee by a third party to permanently cease grazing in an allotment.

The presence of cattle on the landscape would continue, but total head and AUM would be expected to decrease over time through attrition, voluntarily initiated by permittees, not Reserve management. Grazing privileges and associated AUM that are lost, relinquished, canceled, or “bought-out” by third parties would be withdrawn from grazing allotments and reallocated for watershed protection and wildlife habitat.

As opportunities arise, grazing allotments could be reorganized to achieve maximum benefits for both natural and cultural resources. As allotments are discontinued, increased protection of the California Trail Zone would be emphasized, and cattle grazing would be reduced or eliminated in the Visitor Facilities and Access Zone.

The grazing management plan would be updated to reflect these changes.

Research Natural Area. The boundary of the RNA would be refined to conform to landscape features, increasing management efficiency and encompassing a greater variety of high-quality terrain features. This expansion would add three small areas to the south and a high elevation valley to the northwest, for a total of 485 acres. Expansion of the RNA would occur in areas of steep terrain that cattle cannot easily access and would maintain grazing where grazing is currently occurring.

Interpretation and Education

Under the preferred alternative, the Reserve would provide more self-guided booklets and brochures, as well as additional self-directed interpretive and educational opportunities at the existing visitor center, more waysides and kiosks, and more online information and social media presence.

Nonpersonal interpretive media would be expanded, and there would be less emphasis on staff presence, guided programs, and tours.

An unstaffed kiosk would be constructed at Bath Rock to improve orientation for visitors and to provide self-guided materials about the Reserve. Emphasis would be on visitor preplanning through the internet, electronic media, and community outreach, as well as by using self-guided exhibits and interpretive materials within the Reserve.

Interpretive Programs. The Reserve would incorporate more diverse voices and stories in its interpretive programming, including tribal perspectives and involvement. Reserve neighbors would be encouraged to participate in interpretation and would be given opportunities to tell their stories about the Reserve. Interpretation would also incorporate information provided by researchers studying the Reserve’s resources and stories.

This alternative would support an extended outreach program to schools and other educational organizations that would inspire more students to visit, experience, and learn about the Reserve’s spectacular scenic quality, geology, biological richness, and cultural landscape.

New programs would be pursued to bring additional educational opportunities to the Reserve and local community. These programs would link with partners to encourage self-expression and connection to the Reserve’s resources through art, photography, and writing. This alternative would also emphasize off-site interpretation such as the Parks as Classroom program, where park rangers visit area schools and lead programs on Reserve and regional cultural and natural resource topics.

Visitor Experience / Visitor Use

Visitors would predominantly experience the Reserve on their own, using self-guided waysides and interpretive materials.

Trails. There would be new trail connections, including a new trail for hiking, bicycling, and equestrian users between the California Trail hiking trail, near Nicholson Ranch, and the Tea Kettle Trail (see “Appendix A: Maps and Figures,” Figure 7: Trail Addition for Alternative B). This new trail would allow visitors to explore signature rocks and the California Trail corridor without having to drive, walk, or bike along the road.

Equestrian Staging. An equestrian staging area would be developed on the west side of the Reserve to give riders easier access to west side trails, improve safety, and reduce resource degradation from trailer parking along the county road. Day-use parking would be provided near the Bread Loaves intersection. This development would be located out of the California Trail viewshed in a concealed, flat area and would connect to the North Fork Trail for equestrian users. Planned development could include a loop road spur off City of Rocks Road with parking for three to five horse trailers. This location would be close to existing water and restrooms. Signage would be minimal, and no additional facilities would be provided.

If additional studies show the Bread Loaves area is not suitable for this use, Elephant Rock is another potential site for an equestrian staging area. A staging area could be sited behind Elephant Rock off the unpaved road spur. This area provides good drainage and concealment of vehicles from the California Trail viewshed.

The above sites were identified in a preliminary site suitability analysis in 2005. Specific locations would be further explored and analyzed in an implementation plan following this GMP and in close consultation with the State Historic Preservation Office and Advisory Council on Historic Preservation.

Visitor and Administrative Facilities

Campsites. In alternative B, camping in the Reserve would be reconfigured to address resource impacts, and visual and safety issues. Most campsites in the Reserve are located along the southern and western rim of Circle Creek Basin (known as “the Rim”). These sites offer prime views of the pinnacles as well as more expansive views of Granite Ridge, which completes the northern encirclement of the basin.

The Rim Development Concept Plan for City of Rocks National Reserve (“Appendix C: Rim Development Concept Plan for City of Rocks National Reserve”) makes recommendations to convert some campsites to picnicking or day use parking, some for closure and rehabilitation, with some added. Implementing the DCP would improve resource protection, enhance camping facilities, reduce user conflicts, and increase visitor safety with no net loss of campsites currently within the Reserve. Some specific changes described in the DCP include accessible trails, better delineation of parking and traffic flow, closure and restoration of poorly-sited campsites, installation of new campsites and a vault toilet, and new wayside exhibits.

Reserve Roads. The Reserve would develop a turnaround area adjacent to USFS-managed land at the north end of the one-lane, unpaved Logger Springs Road that connects to the Sawtooth National Forest from City of Rocks Road. A designated turnaround would allow visitors to access expansive views and to safely reverse direction without having to back down the road or continue into the national forest to turn around.

Cassia County Road Network. The NPS would consider opportunities for ownership or management of the county roads through the Reserve to provide maintenance assistance to Cassia County and to ensure county road maintenance practices contribute to NPS road standards and character. The standards would include maintaining these roads to ensure a park-like feel; a safe, scenic driving experience; and maintaining the character of the cultural landscape using the historic road alignment to the extent possible. In addition, the NPS and the IDPR would promote opportunities to improve engineering, erosion control, and dust abatement.

The NPS and the IDPR would work with Cassia County to lower speed limits along county roads within the Reserve to improve visitor experience and safety.

The Reserve would also increase efforts to partner with the county to better control water flow off county roads, specifically to encourage water to disperse rather than concentrate, thereby reducing the potential for gullying and erosion.

Partnerships

The Reserve would develop partnerships with adjacent land managers and private landowners to extend trail connections and provide a continuum of recreational experiences. These could include trails that connect to the USFS- and BLM-managed lands and Castle Rocks State Park.

Environmental Sustainability

The NPS and IDPR would prioritize energy efficiency, conservation, and sustainability associated with any new development.

One-Time Costs Associated with Levels of Development

One-time facility costs include costs for the design, construction, rehabilitation, and restoration of facilities including visitor facilities, roads, and parking. Other one-time costs include the anticipated costs of new programs, studies, and plans. The anticipated one-time costs for alternative B are approximately \$2,311,000. They include such costs as development of an equestrian staging area, reconfiguration of the Reserve's campsites, additional kiosks, a turn-around on Logger Springs Road, and additional waysides and kiosks.

These costs are based on general "Class C" estimates for site development and construction. These estimates are generally prepared without a fully defined scope of work. They are general in nature and representative of a broad-based vision rather than focused on specific details. Additional comparative detail can be found in the 2015 DGMP/DEIS, which described the relative costs of four alternatives, including the no-action alternative and the preferred alternative described here (with the addition of actions outside of the Reserve boundary that are no longer considered in this GMP/EA).

No matter which alternative is selected, the implementation of the approved plan would depend on future NPS funding levels and servicewide priorities, as well as partnership funds and efforts. The approval of a general management plan does not guarantee that funding and staffing needed to implement the plan would be forthcoming. Full implementation of the plan could take many years.

Action Plans, Studies, and Agreements

A number of specific action plans, studies, and agreements would be developed to implement the preferred alternative. Some of these items would require additional special project funding or increases to the operating base funding. Plans for actions with potential to affect the environment would require formal analysis of alternatives in compliance with NEPA, NHPA, and related laws. Such documents would reference and be tiered to this plan.

In addition to the plans and studies described under alternative A, a trails management plan and an implementation plan for new equestrian camping would be developed.

OTHER ALTERNATIVES CONSIDERED IN THE DRAFT GMP/EIS

The Draft GMP/EIS presented two additional alternatives containing some of the options considered but dismissed, as listed above. “Alternative C: A Stage for Stewardship” focused on encouraging research and promoting knowledge of the Reserve’s resources and its broader ecological context. Grazing would have been eliminated and a boundary expansion was proposed. In most other respects, the alternative was similar to the selected alternative. “Alternative D: Treasured Landscapes Inspiring Stories” focused on telling the stories of the Reserve through more formal and structured recreational opportunities and programs. The alternative also considered a boundary expansion.

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CHAPTER THREE

THE AFFECTED ENVIRONMENT

CHAPTER 3: THE AFFECTED ENVIRONMENT

The purpose of this chapter is to describe the physical, biological, cultural, and social environments of City of Rocks National Reserve, including human uses that could be affected from implementing any of the alternatives described in the preceding chapter.

PHYSICAL RESOURCES

Geology

The terrain at City of Rocks and nearby Castle Rocks showcases exemplary and picturesque landforms of granitic spires and domes protruding from the slopes of four enclosed upland mountain basins, or coves, in the Albion Range of southern Idaho (see Figure 14. Geology on page 211 of the DGMP/DEIS). Unearthed by weathering and erosion of the Almo Pluton, these granite towers vary in size and shape and rise upwards of 600 feet above the basin floors. The upland topographic basins in the Reserve drain through narrow canyons cut into resistant hogback ridges around the perimeter of the mountain range.

Soils

Twenty-three different soil taxa have been identified within the Reserve, with 25 detailed soil map units on the Reserve's soil survey legend. These soils have been grouped into three broad general soil map unit types and are represented by six general soil map units in the general soils map (see Figure 15. Soils on page 218 of the DGMP/DEIS). Most of the soils in the Reserve are highly erodible by water and wind, especially on steep slopes, near roads, around intermittent stream channels, and on heavily grazed areas where protective vegetation ground cover is lacking.

WATER RESOURCES

Hydrology and Water Quantity

Much of the Reserve is drained by easterly flowing intermittent streams in the headwaters of the Raft River. Four tributary watersheds, covering most of the Reserve, coincide with the four enclosed upland mountain basins of the Reserve's geologic setting (see Figure 16. Hydrology on page 223 of the DGMP/DEIS). Graham Creek, flowing down the south slope of Graham Peak, passes through Indian Grove before dropping steeply into the south part of Big Cove, where it converges with Almo Creek. Circle Creek has three prominent forks (North, Center, and South) that flow out of the Inner City of Rocks before converging on the floor of Circle Creek Basin. A fourth unnamed intermittent stream concentrically drains the south rim overlooking the Inner City and converges with Circle Creek above the Nicholson's ranch house. Circle Creek then flows through a water gap in the hogback ridge on the north end of Smoky Mountain. A fifth unnamed intermittent stream drains Steinfeld's Basin near the east entrance to the Reserve and dissipates into the alluvial fan east of Smoky Mountain before merging with Circle Creek. Several unnamed intermittent streams draining Twin Sisters Basin converge before passing through Heath Canyon on the south end of Smoky Mountain. Two prominent unnamed intermittent streams in Emigrant Basin, south of Twin Sisters and Pinnacle Pass, converge at the Kelton-Boise stage station and exit the Reserve through Emigrant Canyon. Stream gradients in the southern Albion Range are steep.

Other surface water is limited in the Reserve and is present in only a few locations: small headwater streams, springs, stock ponds, natural depressions in bedrock such as panholes, and rocky barriers on slopes that catch rainfall and runoff. Several springs are found in the Reserve, mostly used for grazing. Circle Creek has seven earthen dams and one alluvial earthen dam. There are two abandoned stream-flow diversions associated with impoundments on Circle Creek. All but two contain water in impoundments that are about one-half acre and are used for watering stock. Surface water in the Reserve is used primarily for livestock. Some stream flow is reduced during the summer when water is diverted for livestock.

Little is known about the occurrence and availability of groundwater in the Reserve. A 70-foot hand-pump well was drilled at the north end of Bread Loaves in 1989. Two additional wells were drilled in the Reserve in 2000: one near Bath Rock, which currently provides the primary public source of potable water, and the other near the Juniper group campsite, which is also the only campsite to accommodate horses. In 1997 a 320-foot well was drilled outside the Reserve near Circle Creek to provide water for the Smoky Mountain Campground, which was developed in 2008. Two other deep wells were drilled near the Reserve housing area and headquarters in 1995 and 2003.

Water Quality

Water quality of the Reserve streams and springs has not been extensively studied, but in 2009 the UCBN I&M group began monitoring (on a three-year cycle) five core water chemistry parameters (dissolved oxygen, pH, specific conductance, temperature, and turbidity) in the North Fork, South Fork, and Main Stem of Circle Creek.

Results indicated that all core parameters were within the general state regulatory thresholds, except for turbidity and dissolved oxygen in the North Fork and main stem of Circle Creek (NPSUCBN 2009). Elevated stream turbidity typically occurs after rain storms and is primarily because of bank erosion, the predominant cause of which is the extensive use of the riparian area and stream channel by livestock, which has removed vegetation needed for soil stability. Dissolved oxygen was also below the regulatory threshold for one hour but is not considered a threat to water quality at this time.

Wetlands

Many small wetlands exist in the Reserve, typically in riparian areas next to streams and springs. Because of the aridity of the region, these wetlands, although quite small, are important resources for many forms of life. Wetlands in the Reserve have been mapped from aerial photos by the U.S. Fish and Wildlife Service (see Figure 17. Wetlands on page 227 of the DGMP/DEIS). Other seasonally wet areas occur in subtle topographic catchments that retain soil moisture after snowmelt and summer storms or from recharge by soil water percolating down slopes. These areas, found on broad upland plains and sheltered areas around pinnacles, do not qualify as jurisdictional wetlands, but function as small oases that support wildlife, insects, and plants that might not thrive elsewhere in the Reserve.

BIOLOGICAL RESOURCES

Vegetation

Extensive plant surveys have been conducted within the Reserve, documenting about 532 vascular plant species. While the Reserve is a mosaic of many habitats (see Figure 18. Vegetation

on page 228 of the DGMP/DEIS), the 1996 comprehensive management plan identified seven overarching plant communities, including big sagebrush/ grasslands, pinyon-juniper woodlands and forests, mixed scrub, conifer/aspen woodland forest, riparian scrub and herbaceous wetlands, mountain mahogany scrub, and high-elevation meadows and ridges. Unvegetated areas (bare ground and rock) account for 3.8% of the Reserve.

Big Sagebrush/Grasslands. Big sagebrush/grasslands cover the open basin floors that represent approximately 37% of the Reserve. This community was originally a mosaic of open stands of big sagebrush (*Artemisia tridentata*), with an understory of native perennial grasses such as Idaho fescue (*Festuca idahoensis*). Continued human and livestock use have modified the community into now-monotypic stands of big sagebrush interspersed with plants of little or no forage value, such as tansy mustard (*Descurainia pinnata*), Russian thistle (*Salsola kali*), cheatgrass (*Bromus tectorum*), and halogeton (*Halogeton glomeratus*), which is toxic to livestock. Crested wheatgrass (*Agropyron cristatum*), introduced in the early 1950s range improvement programs, dominates the understory where the range has been improved for livestock. Some areas, particularly those that have burned in recent years (such as the southwestern portion of the Reserve) are degraded and heavily infested by nonnative species (Stucki and Rodhouse 2012).

Pinyon-Juniper Woodlands and Forests. Pinyon-juniper woodlands, comprised of single leaf pinyon (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*), are located in rocky and rugged terrain, covering approximately 37% of the Reserve. Comparison of present-day views to a historic photograph, circa 1871–72 (National Archives #77 KS-44-105), indicates that the pinyon-juniper woodland range has expanded, encroaching into previously open spaces. The Reserve has one of the few old-growth pinyon forests remaining in Idaho and contains the largest pinyon pine in the state. Pinyon forests are also home to several Idaho's species of conservation concern, including cliff chipmunk, goshawk, pinyon jay, juniper titmouse, and Virginia's warbler.

Mixed Scrub. Confined to the higher slopes and representing approximately 9% of the Reserve is the vegetation community called mixed scrub. This visually open community includes such plant species as big sagebrush, snowberry (*Symphoricarpos oreophilus*), Utah serviceberry (*Amelanchier utahensis*), and antelope bitterbrush (*Purshia tridentata*), along with other shrubs, grasses, and herbs growing in openings between the shrubs. Mule deer, sage grouse, green-tailed towhee, and broad-tailed hummingbird favor these areas.

Mountain Woodlands. Mountain woodlands are found in approximately 7% of the Reserve and include groves of quaking aspen (*Populus tremuloides*), stands of subalpine fir (*Abies lasiocarpa*) at Indian Grove, Douglas fir (*Pseudotsuga menziesii*) on the north slope of Granite Mountain, and lodgepole pine (*Pinus contorta*). Narrowleaf cottonwood (*Populus angustifolia*), mountain alder (*Alnus incana*), and serviceberry (*Amelanchier alnifolia*), with chokecherry (*Prunus virginiana*) and snowberry are present. Mountain woodlands are an important vegetation community for many species, such as the northern goshawk, Clark's nutcracker, red-naped sapsucker, Lewis' woodpecker, calliope hummingbird, olive-sided flycatcher, ruby-crowned kinglet, elk, and moose. Many herbaceous plants are also confined to these mountain woodlands, such as Jacob's ladder (*Polemonium pulcherrimum*), Colorado columbine (*Aquilegia coerlea*), and heartleaf arnica (*Arnica cordifolia*).

Riparian Vegetation. Riparian vegetation is limited to a small portion (2.6%) of the Reserve adjacent to stream courses and springs. The most outstanding of these are the North Fork of Circle Creek and Graham Creek. Riparian zones are associated with water and occur as

important transitions between aquatic and terrestrial communities, with a greater quantity and diversity of plant species than adjoining land. Overgrazing has altered many of the riparian areas in the Reserve, causing accelerated soil erosion and elimination of typical riparian plant species.

Mountain Mahogany Scrub. On some higher mountain slopes of the Reserve—including Mahogany Mountain, the north slope of Granite Mountain, and the south slope of Graham Peak—nearly pure stands of curl leaf mountain mahogany (*Cercocarpus ledifolius*) are present. They cover only 2.4% of the Reserve and most often occur in less rocky areas, next to or surrounded by pinyon juniper woodland.

High-Elevation Meadows and Ridges. Mountain meadows near upper ridges in the Reserve contain a combination of grasses, herbs, sedges, and wildflowers. Easily mistaken as an alpine community, these meadows result from exposed and windswept ridges, where conditions are unprotected and harsh in winter. Locations of this type within the Reserve include the ridges from Finger Rock to Graham Peak and Smoky Mountain peak.

Nonnative Plants, Invasive, and Noxious Weeds. There is no geographic area free from nonnative, invasive, or noxious weeds, but much of the Reserve remains dominated by native and intact ecosystems. Species such as common dandelion (*Taraxicum officinale*), desert alyssum (*Alyssum desertorum*), and bur buttercup (*Ceratocephalus testicularis*) often occur where cattle congregate or where human activity results in ground disturbance. Tumble mustard (*Sisymbrium altissimum*), flixweed (*Descuriana sophia*), crested wheatgrass, and cheatgrass (*Bromus tectorum*) are also easily found across the spectrum of habitats. Species most aggressively treated include Canada thistle (*Cirsium arvense*), spotted knapweed (*Centaurea maculosa*), Scotch thistle (*Onopordium acanthium*), and field bindweed (*Convolvulus arvensis*). Though nearly eradicated, resource teams are quick to treat any presence of houndstongue (*Cynoglossum officinale*) and whitetop (*Cardaria draba*).

Nonnative invasive plants that have been introduced to or have invaded the Reserve include cheatgrass, common burdock, Russian olive, kochia, common mullein, and crested wheatgrass. Instead of the native perennial grass understory, these species and others now comprise the understory in the big sagebrush community.

Wildlife

Mammals. Primarily based on a 2003 inventory report, the Reserve's mammal checklist includes 52 species, although not all have been verified in the field (Rodhouse et al. 2009). Most common are mule deer, coyote, bobcat, black-tail jackrabbit, mountain cottontail, desert woodrat, long-tailed weasel, deer mouse, and Great Basin pocket mouse. Larger mammals of interest include occasional elk, moose, mountain lion, and bighorn sheep.

In the summer, least chipmunks and golden-mantled ground squirrels are frequent guests to campsites. Pronghorn antelope and bison were probably common more than a century ago. Now, only the rare sighting of a pronghorn in the upper Raft River Valley is recorded.

Birds. The Reserve and Castle Rocks State Park are popular destinations for birders in search of Idaho rarities such as pinyon jay, juniper titmouse, Virginia warbler, and greater sage-grouse. The park's official 2019 checklist contains 177 species and is based on more than 20 years of observation data (Keck 2019). The Reserve's high cliffs and pinnacles are perfect places for nesting raptors. Park staff conduct annual spring surveys to determine if active nesting is taking place, and if so, nearby climbing routes are temporarily closed. Nesting raptor species include red-tailed hawk, Swainson's hawk, sharp-shinned hawk, Cooper's hawk, northern goshawk,

golden eagle, American kestrel, and prairie falcon. Other bird species dependent on the geological features for nesting include violet-green swallow, cliff swallow, rock wren, and canyon wren. Nonnative species in the Reserve and Almo Valley include the European starling, house sparrow, rock pigeon, and Eurasian collared dove.

Reptiles and Amphibians. Fourteen species of reptiles and amphibians are potentially present within the Reserve, based on current range maps and historical observations (Shave and Peterson 2009), none of which is considered a sensitive species or a species of special concern. Only one amphibian, the boreal chorus frog, was detected. Reptiles most likely to be encountered by visitors are the sagebrush lizard, terrestrial garter snake, and Great Basin gopher snake. On rare occasions, park staff respond to visitor encounters with a Great Basin rattlesnake.

Fish. No fish species have been documented within the Reserve. Circle Creek and Graham Creek are the largest streams within the Reserve but remain disconnected most of the year from Almo Creek and Raft River, where species have been confirmed.

Invertebrates. A 2007 inventory of butterfly species at the Reserve and Castle Rocks State Park identified nearly 360 individuals, representing 28 species (North American Butterfly Association 2007). A 2009 survey in Circle Creek yielded 46 different species of aquatic invertebrates, with most identified to the genus level (Starkey 2010). In 2008, a healthy reproducing population of fairy shrimp (*Branchinecta constricta*) was discovered, well outside of its previously known range. Another invertebrate of note is the pinyon pine bark beetle (*Ips confusus*). Pinyon beetle damage is present in many areas of the Reserve but particularly on Smoky Mountain and the surrounding small hills. It is hoped that the colder temperatures and greater moisture of southern Idaho may prevent the beetle from gaining a foothold and devastating the Reserve's pine woodlands.

Special Status Wildlife Species. "Appendix G: Special Status Wildlife Species" lists wildlife species that are considered special status species by state or federal agencies and provides their designated status and their habitat occurrence (USFWS 2012a).

CULTURAL RESOURCES

Cultural resources documented in the Reserve include American Indian associations and uses, particularly those associated with the Shoshone people, archeological resources, and cultural landscape resources, including structures; historic overland trail corridors; transportation features; and remnants of settlement, ranching, and agricultural operations.

Situated in the northern reaches of the Great Basin physiographic region, the area comprising City of Rocks has a long history of use and occupation by the Shoshone and Bannock peoples. The Shoshone and Bannock people who occupied the upper Snake River Valley at the time of European-American contact displayed a blend of cultural traits typically associated with Plains, Great Basin, and Plateau cultures (Murphy and Murphy 1986). Because of excellent grazing resources, pinyon pine nuts, rock chucks (yellow-bellied marmot), game animals, and vegetable roots, the upper Raft River and the City of Rocks area served as a "Shoshoni seasonal village center" and summer range for the Shoshone's extensive horse herds (Wells 1990). Following the establishment of the Fort Hall Reservation and under the terms of the 1868 Treaty of Fort Bridger, Shoshone and Bannock peoples continued to live in the region. The Fort Bridger Treaty not only established a geographic area to be set aside for tribal use and provided for specific facilities and services to support the tribal community, it also afforded the tribes with the right to

hunt on unoccupied land of the United States where game can be found. For a more detailed description of tribal history and contemporary interests, see pages 255-263 of the DGMP/DEIS.

Overland trails, originally established by native people, were traveled by early explorers, emigrant pioneers, Forty-niners, freighters, military expeditions, and stagecoach companies from 1829 through the early 20th century. Situated along the eastern approach to the Humboldt River, City of Rocks was one of the great scenic and historic landmarks along the California Trail. Thousands of travelers passed through the area on their way to or from California and western Nevada, and some traveled this way on the southern route of the Oregon Trail, known as the Applegate Trail. Many emigrants wrote about the area in their journals and described the “strange and romantic” granite formations they saw here. In 1964, City of Rocks was designated a National Historic Landmark (NHL), deemed significant for its association with the largest overland emigrant migration in American history (“Appendix A: Selected Maps and Figures,” Figure 4: Designations).

The following is a brief summary. For a more detailed description of cultural resources see the DGMP/DEIS; “Chapter 4: Affected Environment.”

Prehistoric and Historic Archeology

Eighty-one archeological sites are documented in the Reserve. Of the 81 archeological sites in the Reserve, 59 have a prehistoric component, and of these, 26 sites have been determined potentially eligible for listing in the National Register of Historic Places (Chance and Chance 1990). American Indian sites recorded in the Reserve include rock shelters, hunting sites, bedrock trays, lithic scatters, metates (milling stone), hopper mortar bases, and other artifacts. There has been minimal archeological testing and excavation focused on prehistoric sites within the Reserve.

Thirty-six historic archeological sites are also documented. These include features associated with the California Trail, such as wagon ruts and emigrant writing on rock formations in Circle Creek Basin, the Kelton-Boise stage station site, remnant homestead sites, mining claims, as well as ranching and agricultural features (see the “Cultural Landscapes” section for more information).

Although very little of the Reserve has been surveyed for cultural resources, the sites that have been documented reveal a rich history of occupation within and in the vicinity of the Reserve. Given this information, there is a high probability that undiscovered prehistoric and historic archeological sites exist within the Reserve boundary.

Cultural Landscapes

The cultural landscape of the Reserve and National Historic Landmark is structured by the natural landforms and systems that provided a framework for its historical use and development. The Reserve contains three prominent gently sloping basins, each drained by a tributary of the Raft River. Beginning at the north end of the Reserve, the Circle Creek Basin contains a large concentration of granitic outcrops and monoliths that inspired the name City of Rocks. Circle Creek Basin also includes a reliable water source, which during the periods of historic use possessed ample vegetation and open space for grazing livestock. As a result, it was a favored campsite location for emigrants on the California Trail and was the location of the earliest homestead claims in the area.

The second basin, Twin Sisters Basin, is located slightly southwest of Circle Creek and incorporates approximately 600 acres of gently sloping land. The moderate slope of the land, coupled with comparatively deep loamy soil, proved attractive to dryland farmers after 1909. At one time, this basin contained four homesites and various irrigation improvements.

The third basin, Emigrant Basin, is a forked basin located south of the Twin Sisters ridge which contains a portion of the California Trail and the Kelton-Boise stage station. There are three smaller basins on the west side of the Reserve that drain to the west that have long been used for summer range.

The City of Rocks National Historic Landmark retains integrity to the period of significance, as documented in the Cultural Landscape Inventory (CLI), reflected primarily in the aspects of location, setting, feeling, and association. The site's location as defined by its dramatic, natural scenery of granite monoliths, expansive basins, and vegetative composition helps convey the landscape's location and setting. Feeling and association is also conveyed through the significant views and vistas of Circle Creek Basin, Twin Sisters, and Granite Pass that are still as vivid and impressive as for the overland emigrants. Secondary aspects of integrity, which include design, workmanship, and materials, are evident by the trail's composition, wagon ruts, and emigrant inscriptions (NPS 2008a).

Today the landscape of the Reserve retains nationally significant cultural resources related to overland emigrant migrations between 1843 and 1882 and displays various features associated with later periods of activity that characterize the current rural setting of the Reserve, including homesteading, dryland farming, mining, and ranching. The following provides a summary of cultural landscape resources associated with these historic events.

Landscape Setting and Viewsheds. The 19th-century overland trail is part of a larger cultural landscape that largely reflects the qualities that awed and inspired emigrants making their way westward. Significant components of the California Trail corridor include not only the trail remnants, encampment sites, register rocks, and geological landmarks, but also the landscape itself. In this regard, the viewshed, or the extent of the views seen from the emigrant trails, is a significant cultural resource of the Reserve and the National Historic Landmark (see Figure 20. Cultural Resources on page 250 of the DGMP/DEIS).

California National Historic Trail. The wagon trails through City of Rocks are part of the larger California National Historic Trail, which Congress authorized in 1992 (Public Law 102-328) (see the California National Historic Trail legislation at <https://www.nps.gov/ciro/learn/management/lawsandpolicies.htm>). The trail begins along the Missouri River and ends at numerous destinations in northern California and Oregon. In the Reserve, nearly nine miles of California Trail remain ("Appendix A: Maps and Figures," Figure 3: Existing Conditions). Extant traces of the California Trail within City of Rocks National Reserve are clearly visible both on the ground and in aerial photography.

Cultural resources associated with the California Trail include the route and alignment; wagon wheel traces (ruts) and other topographical remnants of trail routes; features associated with the trail corridor such as encampment sites and inscription rocks; geological formations and unique topographic landmarks documented and described in emigrant journals; and the landscape setting for the trail corridor, including historically important viewsheds from the trail corridor.

A total of 11 monolithic granitic outcroppings with emigrant inscriptions and axle grease-daubed signatures have been identified within the Reserve; most are in the vicinity of Circle Creek Basin (which the emigrants called Pyramid Circle).

The narrow passage through Pinnacle Pass also contains physical evidence reflecting heavy use of the pass by emigrants traveling the overland trail. Among these features are wagon-wheel ruts found in the rocks near the approaches to the Pinnacle Pass and the top of the pass before the incline descends to Emigrant Canyon.

Near the junction of the Salt Lake Alternate and the main branch of the California Trail is the site of the City of Rocks “Home Station,” part of the Kelton-Boise Stage Route between 1869 and 1883. The station building no longer exists, but some features remain, and the property is considered an archeological site.

Settlement-Era Features. Cultural landscape resources related to the settlement era include circulation, irrigation works, building and structural ruins, homestead sites, mining features, corrals, fences, and gates. Between 1910 and 1919, the landscape within the Reserve provided the setting for farming, grazing cattle, and mining exploration. Today, many fences with Juniper posts and barbed wire mark the boundaries of homestead withdrawals and continue to follow section lines, private landholdings, and grazing allotments. Perhaps the most direct evidence of historic homesteads and agricultural use of the land in the 20th century is reflected in the changes to vegetation throughout the lower elevations and basins of the Reserve. Over time, grazing livestock, along with agricultural operations such as grubbing, plowing, and crop production, have left only fragments of the original mosaic of native grasses and sagebrush.

Some of the original homestead sites, such as the Mikesell, Charles Fairchild, and Thomas Fairchild homesites, have been reduced to artifact scatters and depressions. Others, such as the Moon homesite and the John Hanson homesite, contain artifact scatters, above-ground ruins of buildings or structures, and foundation remains. Only one historical homestead property, the Circle Creek Ranch, retains the residential cluster, irrigation improvements, and hay meadow historically associated with the ranch.

VISITOR EXPERIENCE

Access and Transportation

The Reserve is open year-round, 24 hours per day. Approximately 35,000 vehicles enter and exit the Reserve annually, accessing 17.98 miles of named gravel and natural-surface roads. Of these, 9.9 miles are under the jurisdiction of Cassia County, and 8.08 miles are under the jurisdiction of the Reserve. There is no public transportation to the Reserve. In the winter, some roads may be closed or restricted because of heavy snow.

More than 25 miles of trails, including approximately 18 miles of primary designated trails, provide access for hikers, climbers, bicycles (10.4 miles), and pack animals (13.7 miles) (see Figure 22. Trails on page 266 of the DGMP/DEIS). Many more miles of user-created social trails also exist. Rock climbing is permitted throughout the Reserve except in the Research Natural Area, Twin Sisters, and certain designated historic sites. During Raptor nesting periods, rocks where nests are located are closed to climbing if climbing would cause the birds to abandon their nests. Bicycles are permitted on roads and a limited number of designated trails. Trailing of livestock is permitted along county roads within the Reserve, as well as incidental trailing along the California Trail in route to other permitted public or private lands. There are no designated off-road vehicle trails in the Reserve. Properly licensed, however, these types of vehicles are permitted on the county-owned roads and park roads open to motor vehicles.

Visitor Use Opportunities

Approximately 120,000 visitors pass through the Reserve annually. Many come from the metropolitan areas of the Wasatch Front in Utah (34%), or from the populated areas of southern Idaho (38%). Rock climbing, hiking, and camping are popular recreational activities within the Reserve. Other forms of recreation include picnicking, horseback riding, mountain bicycling, hunting, cross-country skiing, snowshoeing, snowmobiling, pine nut gathering, sightseeing, bird watching, and photography.

Climbing

The Reserve is world-renowned for rock climbing, which remains the primary recreational activity within the Reserve. Today more than 600 established technical routes exist in the Reserve, and at least four climbing guidebooks are available. Most climbing is concentrated on popular crags near roads, and most technical climbing routes are moderate in difficulty.

Camping

The Reserve has 64 standard, reservable campsites. During summer weekends and the major holidays, all of these sites are typically occupied. In addition, three small group campsites, including an equestrian camp, are provided. Backcountry camping is also permitted in the Indian Grove area. Campers can obtain permission from landowners to camp on private property as well. (see “Appendix C: Rim Development Concept Plan for City of Rocks National Reserve” for an in-depth discussion on camping).

Equestrian Use

Equestrian camping and staging can be found at Smoky Mountain Campground (to the east and outside the Reserve) and at the Juniper group campsite in the Reserve (to the south). Pack animals are permitted on the North Fork Circle Creek, California, Tea Kettle, and Boxtop trails.

Interpretation and Education

Visitors learn about the Reserve’s history and resources through bulletin boards, wayside exhibits, publications, and websites. Volunteers provide integral support to these interpretive efforts. In addition, there are a limited number of NPS staff assigned to interact with visitors and conduct outreach, presentations, and educational programming for schools. Visitor center exhibits are limited to a 196-square-foot space below the Reserve administrative offices on the first floor of a circa 1912 brick house.

Park employees have partnered with organizations such as the Sawtooth Science Institute, Montana Conservation Corps, the Access Fund, and the Oregon-California Trail Association to provide joint education and interpretive opportunities and publications. Commercial guides and outfitters also tell the story of the Reserve as they provide guidance in rock climbing or horseback riding.

Visitor and Employee Safety

The primary sources of risk to Reserve visitors include roads, climbing and other recreational activities, and fire. The Reserve staff mitigate these risks by replacing dangerous fixed climbing anchors, providing climbing safety education on kiosks, promptly reporting road hazards, and assisting with temporary road closures. Most reported incidents involve climbing or motor

vehicle accidents, although the Reserve generally experiences low overall incident rates. Visitor protection rangers, with Reserve-specific technical rock rescue training, are the first-line responders, but cooperate with multiple local and regional entities.

Scenic Resources

Naturally existing views and vistas of the City of Rocks were a hallmark of the California Trail experience through southern Idaho (Reserve 2008b). The enabling legislation for the Reserve calls for the protection of scenic quality. As a result, three inventories of scenic viewsheds have been completed. One, a visual resource analysis, was completed for the CMP in 1990. The second inventory was part of the National Register of Historic Places nomination for the California Trail (NPS 1966), which described scenic resources as a contributing characteristic (NPS 2008a). The last occurred as part of the development of this general management plan. (See Figure 23. Scenic Viewpoints on page 278 of the DGMP/DEIS for a description of these).

The CMP identified eight views of a possible 24 as superior (1: Indian Grove, 2: Taylor's Pasture Overlook, 3: Bath Rock/Turtle Rock/Parking Lot Rocks view to City, 4: from Emery Pass, and 5: to Emery Pass) or excellent quality (6: Circle Creek Basin, 7: Pinnacle Pass North, and 8: Circle Creek Overlook). As noted in the CMP, the first five demonstrate the vivid alpine character of the Great Basin geomorphic region of the Reserve, while the remaining two are distinctly different and embody the best of the Snake River Plain geomorphic region (Reserve 1996a: p. 117).

The national register nomination text identified the area within the foreground of the California Trail and up to 0.25 miles on either side as important, along with the middle ground (0.25 to 3.0 miles). Although the area beyond this is also important, specific components within it are generally not discernible from the trail. Three other views and viewsheds were important to the emigrants:

- The view south toward Twin Sisters from the California Trail corridor as the ground rises into the basin in front of the two spires
- The view northwest toward Twin Sisters along the Salt Lake Alternate Trail at the stage stop
- The expansive, open view southwest to Granite Pass, which is located one-quarter mile outside the southwest boundary of the Reserve (See Figure 23. Scenic Viewpoints on page 278 of the DGMP/DEIS).

SPECIAL USES AND DESIGNATIONS

Grazing

Most of the private land within and surrounding the Reserve is used for domestic livestock grazing. Most of the public lands are divided into grazing allotments, which are relied upon heavily by local ranchers (See "Appendix A: Maps and Figures," Figure 12: Grazing Allotments). Currently there are seven permittees grazing cattle on 6,981 acres of public land in the Reserve, with an estimated 504 AUMs in eight allotments. Livestock are grazed on another 4,000 acres of privately-owned land. Grazing is excluded from the remaining 2,331 acres of public land, including the Research Natural Area. Area ranchers frequently trail cattle across the Reserve from one allotment to another. Cattle operations in the Reserve contribute to a western rural setting that imparts an increasingly rare ambience and scenic quality reminiscent of the landscape from 1878-1988.

No increases in animal unit months have been added to the grazing program. Fences have been realigned, removed, and maintained to facilitate better management of the livestock grazing program. Fences no longer in use are removed. Research continues to determine vegetative health and viability of plant communities as it relates to the livestock presence in the Reserve. There are still occasional cattle drives through the Reserve during the spring and fall migration of the livestock.

Because grazing within City of Rocks originated with management by the USFS and the BLM, there were no fences that separated the public lands in City of Rocks from the public lands outside of it. There can be private, City of Rocks, and BLM lands fenced within one pasture and/or allotment. When unfenced, management coordination with an adjacent landowner is required. Where the BLM co-manages allotments, land management would continue to be guided by the Cassia Resource Management Plan and USFS management guided by the Sawtooth National Forest Plan (Reserve 2008a: p. 4).

City of Rocks National Natural Landmark

In 1974, Cassia Silent City of Rocks was designated a national natural landmark in recognition of the nationally significant geological and scenic values of its rock formations. Although most of the pinnacles appear to be composed of competent granite, geological research for the area suggests that some rock formations in the Reserve are in a fragile condition because of natural geological and weathering processes (Cunningham 1971; Miller et al. 2008; and Pogue 2008). A climbing impacts study of the Twin Sisters in 1993 concluded that rock climbing activities, including use of climbing equipment, had little direct impact on the geologic integrity of the two pinnacles (Reserve 1993). This is in part because of the siting of climbing routes based on rock competency, which precludes incompetent or fragile surfaces. Contrarily, rock scrambling by those with less experience in climbing, or with less knowledge of different rock types and their weathering, poses a greater risk for unwitting damage to fragile pinnacles and their delicate weathering features.

City of Rocks National Historic Landmark

See the “Cultural Landscapes” section of this chapter.

Research Natural Area

The City of Rocks Research Natural Area consists of 312 acres in the northern portion of the Circle Creek Basin (See “Appendix A: Maps and Figures,” Figure 19: Research Natural Area). It contains unique geologic formations and the northern limit of the pinyon-juniper forest type in North America. The RNA is an outstanding area for research on geological features, native vegetation, and animal life. Few human impacts are evident, and no roads exist within the area. The RNA is closed to sport climbing and grazing.

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CHAPTER FOUR

ENVIRONMENTAL CONSEQUENCES

CHAPTER 4: ENVIRONMENTAL CONSEQUENCES

This chapter describes the impacts of each alternative on City of Rocks National Reserve resources, including cumulative impacts.

INTRODUCTION

The National Environmental Policy Act requires that government agencies disclose the environmental impacts of the proposed federal action, reasonable alternatives to that action, and any adverse environmental effects that cannot be avoided should the proposed action be implemented. (In this document, “effects” and “impacts” are used interchangeably.) This section analyzes the environmental impacts of GMP alternatives on affected resources. These analyses provide the basis for comparing the effects of the alternatives.

Cumulative Impacts

The Council on Environmental Quality describes a cumulative impact as follows (40CFR 1508.7): A “cumulative impact” is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Therefore, cumulative impacts can result from individually insignificant but collectively significant actions taking place over a period of time. A list of the plans and projects considered in the cumulative effects analysis is in “Appendix H: Plans and Projects Considered in the Cumulative Effects Analysis.”

PHYSICAL RESOURCES: SOILS AND GEOLOGY

Alternative A Impacts

Recreational Use. A range of localized adverse impacts on soils from recreational activities, including picnicking, camping, and hiking, would continue. Bicycling and horseback riding would cause more erosion, depending on weather conditions and trail surfaces.

Sport climbing staging areas result in large bare areas below popular routes. Other rock climbing and scrambling impacts include dog depressions, damage to rocks by permanently drilling or inserting hardware (such as for bolts and rappelling anchors) on rock faces; creation of new routes by modifying rocks and vegetation, such as shrubs, mosses, and lichens. Climbers may also inadvertently or unlawfully affect rock surfaces by clearing vegetation and breaking, chipping, or chiseling off loose material or flakes using brushes or other devices, or inadvertently from slings dislodging rocks. Short-term effects include use of chalk, which may affect rock pH or weathering. The small number of annual permits for new bolted routes would have few effects. Rehabilitating staging areas and confining impacts—by installing fences or filling erosion—would continue to cause short-term adverse and long-term beneficial effects. Similarly, continued closure of inscription rocks to scrambling and climbing would improve their protection. The continued ban on climbing Twin Sisters also avoids impacts associated with technical climbing in that area, thereby protecting this rock formation.

Trailside impacts often expand into adjacent areas in damp or wet conditions. Some trails constructed on steep slopes with poor drainage and erodible granitic soils prior to Reserve establishment are naturally prone to more erosion, and this would continue (Reserve 2010a; p. 27).

Camping impacts may be reduced from existing tent pads, depending on whether the pad adequately accommodates user equipment. Impacts from equestrian use compacts soils and erosion could cause runoff, especially where animals are contained.

Natural and Cultural Resources Management. Updating the inventory of pinnacles and sensitive rock features would protect geological resources. Removal of the Circle Creek impoundment would initially have adverse effects; however, beneficial effects would result from restoring natural conditions, including native plants and soil moisture levels.

Programs to control nonnative invasive plants using manual/mechanical control, herbicides, and other methods would have short-term adverse and long-term beneficial impacts on soil properties. Using the invasive plant management plan (IPMP) to refine priority areas for nonnative invasive plant treatment would have localized beneficial and adverse effects. Beneficial impacts could preclude the reestablishment of nonnative species or improve conditions for mycorrhizae or other soil microorganisms. Soils would be disturbed by manual/mechanical and/or herbicide treatments. Improved management of soils could result indirectly from increased knowledge and understanding of plant communities through the vegetation management plan.

Indirect long-term beneficial effects could occur from improving resource knowledge and sharing it, as well as from continuing to document, monitor, and develop treatments to protect California Trail ruts.

Fire Suppression. Long-term adverse and beneficial effects from wildfire suppression would continue. Adverse effects from full suppression include not restoring the natural occurrence of fire and its role in maintaining ecological communities, while beneficial effects include minimizing fire frequency, indirectly reducing cheatgrass.

Grazing and Livestock Trailing. Livestock grazing and trailing within existing allotments causes soil compaction from trampling during wet periods; soil loss from faster runoff in compacted areas; soil erosion, where vegetation has been removed or trampled; changes in fertility related to deposition of waste; and other localized adverse impacts, depending on the location, soil type and geology. Wetland or riparian soils typically recover more slowly from compaction compared to alluvial or loose soils. Continued systematic elimination of grazing from wetland and riparian areas benefits soils, while installing fences causes short-term adverse effects. Soils in areas where livestock congregate, such as along fence lines and gates, and at existing and new trough sites in allotments, would continue to be affected more by compaction and erosion. Soils are also adversely affected by constructing new watering troughs and pipelines, including from displacement and loss of natural moisture conditions.

Construction. Localized short-and long-term adverse impacts would occur from construction of new facilities, such as waysides and vault toilets. Impacts include vegetation clearing, grading, excavation for foundations, replacement of native materials with fill, and covering soils with impermeable surfaces. Beneficial effects could be contributed by native plant landscaping, including planting salvaged and/or container-grown native plants and seeds.

Alternative B Impacts

Impacts associated with alternative B would be the same as alternative A for most activities, except there would be new impacts associated with the Rim DCP, trails management plan, construction and RNA boundary changes.

Reconfiguring day and overnight use via the Rim DCP would have localized adverse impacts on soils and geologic resources from vegetation removal to construct about 22 new campsites; eliminate erosion problems in existing campsites; restore excess bare areas and social trails; restore 13 campsites recommended for closure, and convert nine others to picnicking sites; and to install new infrastructure, such as signs. Some short- and long-term localized beneficial effects would also occur as well as slightly more adverse impacts from vegetation removal and excavation to construct a new multiuse trail.

Implementation of a trails management plan could indirectly affect soils from new trail linkages within and extending out of the Reserve. Localized adverse impacts would depend on where the trails were routed (such as through seasonally wet areas) with beneficial impacts from reducing erosion on existing trails. To the extent possible, trail design and construction would avoid adverse impacts on key resources such as wetlands and historic properties and additional environmental impact analysis would occur. The equestrian staging area near Bread Loaves or elsewhere would have some adverse effects on geology and soils and long-term beneficial effects from providing for this activity in a designated location with durable surfacing, rather than along roadsides where vehicles and horses affect adjacent undisturbed areas.

Reserve management or assistance with management of county roads could have long-term beneficial effects by conforming road maintenance to NPS standards and desired character. Improved engineering, erosion control, and dust abatement could also occur. For example, directing water in sheet flow off roads or trails could reduce soil erosion by dispersing rather than concentrating water.

Grazing Management. Reduced grazing pressure could decrease soil compaction and change plant communities. Grazing pressure may decline if permittees discontinue requests for permits, reducing the number of AUMs over time. Potentially discontinuing or consolidating some allotments, if initiated by the permittees, could benefit soils. Reduced or eliminated grazing in two zones could be moved to other Reserve allotments.

Boundary Modifications. An expanded RNA, including Mahogany Mountain, Emery Canyon, and other geologic pinnacles, would benefit soils and geological resources through protection of these additional areas from environmental disturbance because of sport climbing, motor vehicle use, or grazing.

Construction. Localized adverse impacts would occur from constructing new facilities, including new trails; implementing the Rim DCP; and the Logger Springs Road turnaround.

Cumulative Impacts

Over time, development and use of lands within the Reserve for administration, recreation, grazing, and other uses have changed soils and geology, contributing cumulative adverse effects. Compared to the total acreage of the Reserve, only a small percentage has been developed. There are approximately 17.98 miles of roads, more than 23 miles of designated trails and an unknown number of social trails, 38 recreational vehicle / equestrian-developed campsites, and 51 primitive campsites. There are more than 600 climbing routes, with most having multiple bolts and anchors. County ordinances, together with the Reserve permit requirement for new

bolted routes, have been very effective at reducing the proliferation of bolted routes (Reserve 1998a: p. 31). Of the 13 register rocks bearing emigrant inscriptions, 10 had climbing routes, some of which had damaged inscriptions due to bolts or other climbing hardware (Reserve 1998a: p. 32). (Later, climbing was eliminated from and is no longer allowed on inscription rocks, and the bolts have been removed from those on public land in the California Trail Zone.) Most existing buildings and structures are small buildings, such as vault toilets and information kiosks, with few effects. Widespread impacts include conversion of native vegetation to a mix of native and nonnative vegetation because of grazing and/or past disturbance and the introduction and spread of invasive species. Grazing has affected springs and riparian areas because of water diversion for livestock, resulting in increased erosion and loss of natural soil moisture.

Past actions include removing grazing from wetland and riparian areas, an effort that has continued and resulted in cumulative beneficial effects following original impacts on these areas. Improvements would continue as more of these areas are fenced out and grazing is confined to more durable areas, where soils are not as susceptible to compaction and erosion. In addition, construction of roads, trails, and climbing routes has had localized to widespread adverse effects, primarily from erosion and roadways. Indirect beneficial effects have contributed to the development of interpretive information, including the self-guided geologic trail near the Circle Creek Overlook, which engenders support for and knowledge of geologic resources and the need to protect them.

Soils are vulnerable during drought and post fire conditions from loss of protective vegetation, such as biotic crusts. Threatened during patterns of heavy rainfall or local cloudbursts, thin soil slope deposits may be redistributed to drainage banks or depressions. Wind-eroded fine organic and mineral materials may expose coarser fragments. Mountain and foothill slope soils may be eroded by wind and water and small landslides. Air pollutants, including chemicals, particulates, and others, can affect soil development, soil microorganisms, the development of vegetation, lichens and moss on rock surfaces, and other plants.

Present actions, including management of visitors have localized adverse and beneficial effects. Some of these, such as new bolted climbing routes, have permanent effects on rock formations (geology).

Hiking, horseback riding, and camping have small impacts if existing impacted areas are used. Increases in these uses, wet or off-trail use may increase soil erosion. Climbing areas and trails degrade soils and vegetation cover in staging areas (Erixson and Corrao 2011) from a combination of foot traffic, equipment placement, and domestic dog shade-bed digging. Although areas near some popular climbing routes are fenced or signed to curtail degradation; pet dogs are commonly tied to the fencing, intensifying the adverse impacts of dog shade-beds both inside and outside the fences. The Reserve has also increased patrols to limit these effects.

Future actions could result in additional use/displacement, compaction, surfacing, and loss of vegetative cover.

When actions in alternatives A and B are added to the effects of other past, present, and future actions, there would continue to be localized cumulative adverse and beneficial impacts on soils and geology.

Conclusion

Alternatives A and B would have localized adverse and long-term beneficial effects. Adverse effects would be greater in alternative A, while most beneficial impacts in alternative B could

come from future reduction in the number of livestock or AUMs and consolidation of allotments if voluntary cessation of grazing or voluntary acceptance of buyouts are initiated by grazing permittees.

PHYSICAL RESOURCES: WATER RESOURCES: HYDROLOGY AND WATER QUANTITY

Alternative A Impacts

Potable water is available from May through October. Continued use of the Bath Rock well (on IDPR-owned land within the Reserve) and the Emery Pass well (on NPS land) would have small long-term adverse effects on water quantity.

Restoring flow from the former Circle Creek impoundment would improve ecological and hydrological functions. Depressions atop Bath Rock and Shangri La consistently or intermittently retain water after snowmelt, rainfall, and runoff, benefitting wildlife.

Grazing adversely affects hydrology and water quantity, including from changing runoff patterns through diversion and water use and from trampling riparian areas or wetlands that have not yet been fenced out of pastures. Four of seven allotments, including Graham Creek, Kempton, Emery Canyon, and Trail Canyon, still contain wetlands or other areas needing fencing to prevent livestock encroachment.

Almo and Circle Creek watersheds often have spikes in turbidity from disturbed banks observed in conjunction with increased stream flow caused by precipitation (Erixson and Corrao 2011). Almo Creek watershed has fewer exposed banks and livestock than Circle Creek; however, erosion and stream bank instability caused by frequent changes in water levels from irrigation diversions would continue (Erixson and Corrao 2011). A vegetation management plan could benefit water resources indirectly by identifying priorities for wetland and riparian restoration and from restoring vegetation elsewhere.

Alternative B Impacts

Direct and indirect impacts would be the same as in alternative A for operations, Circle Creek impoundment restoration, and the vegetation management plan. There would also continue to be beneficial effects on hydrology and water quantity from removing grazing from within wetlands and riparian areas. With a potential decrease in livestock and AUMs through attrition, there could be fewer impacts associated with grazing allotments, although existing water diversions and use would initially continue.

Cumulative Impacts

Because most springs found within the Reserve are used for grazing, cumulative adverse effects would continue. Use of water for Reserve operations and livestock grazing would be combined with past development of water on current and former private lands. Impoundments on privately owned lands would continue to adversely affect hydrology. Only one of Circle Creek's seven earthen or alluvial dams for watering stock would be removed and restored, resulting in continued adverse effects from the other six and from former impoundments on upper Emigrant Creek. Three stock ponds (Taylor Creek north of Bread Loaves and two near the Kelton-Boise stage station along Emigrant Creek) would contribute continued cumulative adverse impacts on water quantity.

Present seasonal and permanent use of water for livestock grazing; maintenance of existing impoundments on private lands; fencing out riparian and wetland areas from grazing allotments; and water use for administrative and visitor facility management, would be combined with future grazing on BLM and USFS allotments with effects on hydrology and water quantity similar to those previously described. Nonetheless, recent assessment of eight drainages found all but Lower North Circle Creek to be in proper functioning condition. Lower North Circle Creek, on a private ranch, was functional but at risk of degradation, with a downward trend in measured attributes. The assessment also identified unstable banks with little to no vegetation, pronounced cut banks, and evidence of livestock use (Erixson and Corrao 2011). Park actions would be combined with water use on private lands within the Reserve and in surrounding small towns as populations increase. If grazing was reduced, there could be cumulative beneficial effects on hydrology and water quantity.

When the impacts of the alternatives are added to other past, present, and future actions, there would continue to be cumulative adverse impacts on hydrology and water quantity, especially associated with water impoundment and use by humans and livestock. Eventually, these effects may be reduced if there is some voluntary reduction or elimination of grazing.

Conclusion

The alternatives would have localized adverse impacts on hydrology and water quantity. The contribution of management alternatives to cumulative effects would be small and localized and could include some beneficial effects, such as reductions in water use for grazing.

PHYSICAL RESOURCES: WATER RESOURCES: WATER QUALITY

Alternative A Impacts

Existing conditions, including from visitor use and park operations may adversely affect water quality, while protecting watershed headwaters from additional development would continue to benefit water quality. Because there would be no major changes and because they have not been assigned, there would be no effect on state-designated beneficial uses for North, South, or Circle creeks (ID DEQ 2011, 2012). The two existing wells used for administrative and public use meet Safe Drinking Water Act standards for potability and are routinely monitored and minimally treated to provide potable water.

Recreational Activities: Some long-term adverse effects on water quality would continue from visitor use activities. Erosion caused by bicycling, climbing, and horseback riding typically has more impacts than hiking; however, there are few surface water resources and sedimentation or other adverse impacts is unlikely. Horse, dog, and human waste left on trails or climbing areas could adversely affect surface water resources and would be most likely and of greater intensity with the first flush after rain.

A new trails management plan would indirectly benefit water quality by improving trail siting near wetlands and riparian areas and by treating erosion problems. Best management practices would include careful crafting of the trail alignment and proper trail construction techniques. Where new trail construction occurred for long distances or near wetlands or riparian areas, there could be localized adverse effects, depending how water resources were crossed (e.g., via a bridge, turnpike, or boardwalk).

Water Quality Monitoring. Continued partnerships for water quality monitoring would improve understanding of threats to water quality, indirectly benefiting effects from mitigation actions. Three of five water chemistry parameters (pH, specific conductance, and temperature) in the North Fork, South Fork, and Main Stem of Circle Creek were previously found to be within state regulatory thresholds. Turbidity and dissolved oxygen in the North Fork and mainstem were then outside of thresholds (Starkey 2010: p. 13). Elevated turbidity occurs after rainstorms and is primarily caused by bank erosion, from livestock use of riparian areas and stream channels, and/or the Reserve's highly erodible soils. Similarly, the slightly elevated one-hour dissolved oxygen levels may have been related to grazing or another cause. Neither small exceedance was considered a threat to water quality. Because the Reserve is in the process of fencing off wetland and riparian areas from grazing allotments, this impact may have already decreased. Ongoing monitoring may also catch other small exceedances before long-term effects on water quality occur. Nonnative plant treatment could affect water quality from use of a variety of methods (such as hand-pulling or chemical treatments) to reduce invasive plants.

Grazing. Direct water pollution by livestock grazing under commercial grazing permits would continue to be prevented by eliminating existing corrals and watering sites near streams and springs that originate in the Reserve. Cattle concentrated in riparian zones accelerate soil erosion and contribute fecal coliform to streams and springs during stormwater runoff, potentially affecting water resources downstream. Trampling in wet areas may lead to bank erosion and could affect attainment of Idaho water quality standards. As a result, a variety of strategies would continue to develop alternate water sources and to move stock water tanks and livestock away from wet areas on public lands. Working cooperatively, the Reserve could assist private landowners in relocating water sources or mitigating damage to wetlands caused by grazing. Small improvements have been made since the CMP, resulting in localized long-term beneficial effects.

Alternative B Impacts

Most adverse impacts associated with recreational use, resource management activities, grazing management, and construction would be similar to alternative A. Reducing grazing and protecting watersheds from additional development could also have beneficial effects as would reducing sedimentation from highly erodible granitic soils following fires. Working with the county to disperse rather than concentrate water flow off the road would benefit water quality by reducing gullying. Reducing exposed soils during construction and use of the equestrian staging area and a Logger Springs turnaround could result in beneficial effects, depending on the surfacing material used and stabilization measures.

Small adverse effects could also occur from construction of a new multiuse trail (approximately 2.5 miles long) that connects to Tea Kettle Trail. Promoting the reestablishment of native vegetation through seeding or planting and increasing plant cover would reduce existing erosion and sedimentation of surface waters by retaining water for plant uptake, thereby interrupting soil loss. Though unsuccessful restoration could temporarily leave areas of bare ground, most changes in water quality would be localized and beneficial, unless loss of plant cover occurred over a wide area or for a long period.

Cumulative Impacts

When actions in alternatives A and B are added to the effects of other past, present, and future actions affecting water quality, there would be cumulative adverse and beneficial impacts.

Conclusion

Alternatives A and B could have short-and long-term adverse impacts on water quality because of ongoing administration and management, existing visitor use activities, and proposed new development, including trails, visitor use facilities, and other improvements. Conducting these activities near surface water resources, could cause more impacts but would also be minimized by best management practices.

PHYSICAL RESOURCES: WATER RESOURCES: WETLANDS

Alternative A Impacts

Development and use of water from springs and attendant wetlands to support livestock would continue to have adverse impacts on wetlands from water consumption, depletion, and trampling of sensitive areas, leading to increased compaction, changes to vegetation and/or streambank channels, and other effects.

There are no immediate actions associated with the alternatives that would affect wetlands; however, it is likely a wetlands statement of findings would be required for the revised grazing management plan. Future improvement of livestock water sources based on the plan could reduce long-term impacts on riparian areas and wetlands.

The Circle Creek impoundment (#1) (several hundred yards upstream of where Circle Creek exits the Reserve eastern boundary) would be restored. Recontouring the former riparian wetland to improve natural hydrological functions would restore approximately five acres and would be subject to future site-specific environmental impact analysis.

Livestock entering pastures before scheduled dates or entering while a pasture is scheduled for rest could impact areas that are still too wet to handle grazing causing vegetation loss, particularly in sensitive areas. To the extent that the Reserve permittees adhere to conditions identified in their permits, these effects would not occur or would be reduced.

Approximately 2.6%, or 375 acres, of the Reserve contains riparian areas or wetlands (Reserve 1996a: p. 112). However, the CMP evaluated impacts from grazing on wetland buffer zones (nearly twice this area). This resulted in the identification of 458 acres on private land and 266 acres on public land (Reserve 1996a: p. 147, 374–75). Wetlands are widely distributed throughout the Reserve in suitable areas based on the presence of water, soils, and vegetation. According to the CMP, livestock grazing has resulted in a range of adverse impacts on wetlands. Impacts include diversion of water for livestock use, trampling of springs and riparian areas, loss of native wetland vegetation, changes in stream channel shape, erosion, and invasion by nonnative plants. Techniques to limit impacts as described in the CMP varied depending on the sensitivity of wetlands in a particular area and the type of water resource (spring or creek or seasonal depression). Where fences/exclosures are not used and where water is not piped away from springs, livestock may alter the pattern of overland water flow affecting vegetative cover and soils, leading to adverse impacts on wetlands from waste and sedimentation. Where fences or other restrictive barriers are built to keep livestock temporarily or permanently out of wetlands, soils stabilize and allow wetland vegetation recovery; however, water is often still piped away from the wetland for livestock (and then returned via an overflow pipe). In other areas, grazing rotation and deferred seasons (postponing grazing following wet periods) are used to protect wetlands and riparian areas when they are most vulnerable to damage. On public lands, stock water tanks fed by springs and streams have been systematically moved away from wetland and riparian areas.

Alternative B Impacts

There would be little change in impacts on wetlands under alternative B from those described under alternative A, although changes in livestock numbers or season of use could occur if attrition, or voluntary participation in a buyout program, results in a reduced number of grazing permittees. Such changes would reduce impacts in the areas affected. Adverse effects on wetlands include additional development of springs to provide new water sources for grazing allotments. Beneficial effects could occur from relocating livestock grazing and water use out of wetland and riparian areas. These and other specific actions could be implemented following approval of a revised grazing management plan. Expansion of the RNA could improve wetlands because the no-grazing exclusion would extend to additional lands. New and ongoing mitigation measures to avoid or change the timing of use of land near springs and riparian areas, would also result in long-term beneficial impacts. Beneficial effects would also occur from restoration of the Circle Creek impoundment (#1). Although continuing to exclude wetlands from livestock use would be beneficial, there would continue to be localized adverse impacts from the continued withdrawal of water from its natural source to support livestock. Where grazing was reduced or eliminated, this impact could also diminish. For example, more actions to protect wetlands are still needed in Graham Creek, Kempton, Emery Canyon, Trail Canyon, Tracy Lane, and Heath Canyon.

Most allotment recommendations note that “a special effort will be made by the permittee to lessen impacts on riparian zones and areas of concentrated recreational use” (Reserve 2008a). Some also include recommendations for spring development and piping water away from springs, as well as for development of new water sources. While spring development and piping water away from springs would have adverse effects, the development of new water sources could have long-term localized beneficial effects if these were outside the Reserve or from importation or rainwater collection.

Cumulative Impacts

Over time, wetlands have been lost throughout the West, including from the Reserve. These areas have been adversely affected by harvesting water sources for irrigation, livestock and human use, and development. Irrigated and dryland farming in and outside the Reserve have resulted in vegetation type conversion from historic vegetation patterns to nonnative and invasive nonnative vegetation. Groundwater use outside the Reserve, combined with drought, may have decreased water flow to springs in the region, further contributing to this conversion (Reserve 1996a: p. 111). Human activities have caused widespread distribution of nonnative species that continue to impact these areas, even without additional disturbance. Human activities have also affected the biologically rich wetlands, including plants and mammals, insects, amphibians, and fish; however, the extent of overall effects is unknown.

Past actions have had serious adverse impacts on wetlands (Reserve 1996a: p. 148). Past actions and external threats include light grazing to severe soil erosion, dewatering (removal or redirecting of a water source), loss of wetland vegetation, and filling of wetland depressions and stream channels. Past actions have also included excavating or constructing dams and stock ponds. Actions that have affected wetlands and riparian areas include the diversion of surface water resources to stock ponds (at least three within the Reserve) and the creation of dams (including the seven Circle Creek impoundments) and spring boxes to irrigate fields and water livestock. Widespread grazing has resulted in loss or damage to wetland vegetation as cattle seek water sources. The several deep, water wells have likely contributed to reduced surface water resources and flow. Natural fluctuations in rainfall and climate have also affected water

resources. For instance, the West was in a wet period during the early homesteading era, and this allowed the development of homesteads and farmland in areas that could not support these activities during the more common dry periods.

Since the CMP was completed, the Register Rock property was purchased (2006), and grazing was discontinued to protect springs and an intermittent stream along the California National Historic Trail. To protect California Trail resources, grazing was also relocated from the Circle Creek allotment (including the lower Circle Creek riparian area) to the Kempton and Graham Creek allotments (2008). That same year, a public-private partnership allowed the placement of a trough and associated water piping system at the boundary of the Emery Canyon allotment and adjacent private property to reduce cattle use of the riparian area within the allotment. In 2009, Nematode Spring was fenced off from cattle, and in 2012, the Indian Grove wetland was fenced to exclude cattle from the Graham Creek allotment in this area.

Reconstruction/replacement of the Indian Grove water trough in 2010 also reduced unnatural saturation of the riparian area. In addition, the Reserve has continued to treat nonnative invasive plants in riparian areas. Combined, these actions have resulted in localized beneficial impacts on wetlands.

Modifications to private grazing areas would continue to depend on the desire of private landowners to use wetland protection methods based on the advice of the Reserve, the Natural Resource Conservation Service, or others. Privately owned wetlands would probably continue to correspond to those identified in the CMP, or more than 400 acres (2%) of the Reserve. Where changes were made to avoid or decrease impacts, there would be additional beneficial effects.

Present actions, such as livestock grazing, would continue to have localized adverse effects on wetlands. Until fenced out of wetlands, cattle would be attracted by forage and water availability and would concentrate in them, introducing or affecting the spread of nonnative invasive plants, grazing protective vegetation, and trampling wet and dry soils. Loss of vegetation and soils can accelerate erosion, elevate stream sediment loads, and change stream flows and channel morphology. Diverting water from streams or springs for irrigation and stock watering during seasonal or extended drought could reduce stream flows below the minimum needed for other wetland-dependent wildlife. The effects of the destruction or loss of natural riparian vegetation, erosion, and water diversion could result in reduced abundance, biomass, species diversity, reproductive success, and survival of wetland-dependent and other wildlife (Reserve 1996a: p. 147). Ongoing efforts to fence out livestock and to relocate stock watering areas away from riparian areas on public lands would continue to reduce these impacts.

Diverting water from wells for recreational use, would continue unknown effects on surface water resources. Moreover, the persistence of stock ponds and other water diversions on private lands would continue to have localized and widespread adverse effects. Former impoundments that fell into disuse or were restored as acquired or abandoned would have localized beneficial effects. Improving opportunities for wetland and riparian areas to recover could reestablish historic functions for native wildlife and plant communities. Wetlands mitigation projects implemented to compensate for nearby impacts would have localized beneficial effects.

When actions in alternatives A and B are added to the effects of other past, present, and future actions, there would continue to be localized cumulative adverse and beneficial effects. Because of changes in management zoning, these could be more beneficial in alternative B.

Conclusion

Alternative A would continue to have short-term localized adverse effects as well as long-term beneficial effects. Alternative B would have short-and long-term localized adverse effects and long-term beneficial effects.

BIOLOGICAL RESOURCES: VEGETATION

Alternative A Impacts

Visitor Use Activities. There would continue to be direct and indirect impacts on vegetation from hiking, horseback riding, mountain biking, climbing and camping. Impacts include vegetation trampling, cutting, or deliberate removal, such as from “cleaning” of rock surfaces during climbing; placement of equipment and gear associated with rock climbing on the ground while climbing, potentially impacting vegetation; as well as from compaction and accelerated soil erosion. Creation of social trails, including trails between campsites; paths around obstacles, such as wet depressions in trails; trails to scenic overlooks; and trails between climbing rocks, would also adversely affect vegetation. Dogs are tied to a post in the staging area while their owners are climbing, resulting in unattended dogs or dogs left for long periods. This causes the dogs to dig depressions to cool off that impact vegetation and soils. A workshop held at the Reserve identified an estimated 2 to 15 depressions at most climber staging areas (see “User Capacity”). Because dogs are allowed, these impacts would continue and could increase. Management actions resulting from a proposed inventory and monitoring program could reduce these impacts.

County Road Management. Management of the county road would continue to have adverse effects on vegetation from trimming of roadside vegetation, erosion, and use of magnesium chloride to reduce dust. Studies have found variable results from the application of this road salt, including the potential for it to dissipate rapidly (Best 2004) or to cause dieback of vegetation as concentrations increase (Goodrich, Jacobi, and Koski 2009). Therefore, adverse effects on vegetation and soils adjacent to the roadway could continue. Because the road is only plowed from the east entrance to Bath Rock, driving during wet conditions in the early and late season can cause washboarding or gullying and the need for regrading, affecting roadside vegetation.

Nonnative Invasive Plants. Although there would continue to be adverse impacts from the presence of nonnative invasive plants, in some areas these impacts would diminish over time, a localized beneficial effect.

Historic Vegetation. Managing California Trail historic vegetation to identify and maintain native plants important to the emigrant experience would benefit diversity. Retaining the characteristic emigrant vegetation would also reduce opportunities for natural succession. Therefore, a vegetation management plan that defines historic plant community characteristics and prioritizes areas for restoration would have long-term adverse and beneficial effects. Developing a vegetation management plan to define plant community characteristics and to identify and prioritize areas for restoration based on these characteristics would have a beneficial effect. Management strategies in the invasive plant management plan (NPS 2011) would continue to be used to refine priority areas for the treatment of nonnative invasive plants and to evaluate the success of the treatments.

Grazing. Because there would be no change in livestock numbers or seasons of use, livestock grazing and trailing would continue on 11,000 acres (approximately 76%) of the Reserve, affecting the most palatable grasses and forbs for forage, including both native and nonnative species. Because most trailing occurs on roads and lasts a few days, the effect of cattle on vegetation is typically less than in pastures. If grazing allotments were vacated voluntarily and reallocated to remaining or adjoining permittees, with no increase in AUMs (Reserve 1996a: p. 44), the same number of AUMs would be located on a larger allotment, with cattle spread out and fewer concentrated impacts on vegetation, depending on where the most palatable forage occurs.

Grazing has increased the density of woody plants, especially sagebrush, and its expansion has resulted in the loss of native perennial herbaceous species and increases in nonnative species resistant to livestock grazing (Reserve 1996a: p. 44). Grazing also causes consumption and trampling of native and nonnative plants. Overgrazing causes impacts on less palatable grasses and forbs and more disturbance-associated nonnative invasive species. Through repeated use (consumption), grazing encourages nonnative species adapted to disturbance. Eliminating grazing near springs and in riparian areas would improve long-term beneficial effects on riparian and wetland vegetation.

Where cattle occur in aspen groves, trampling and grazing would adversely affect aspen regeneration. Allowing livestock to graze the same plants continuously throughout the grazing season may result in decreased plant vigor and recruitment. Livestock grazing decreases the incidence of intolerant grazing species while increasing grazing tolerant species. Livestock lingering in pastures after scheduled departure dates, entering pastures before or after scheduled dates, and/or entering when a pasture is scheduled for rest may contribute to less-than-desirable conditions. Impacts may include inadequate remaining vegetative cover, regeneration of woody species, and an increase in nonnative vegetation and bare ground. Overall, grazing would have widespread adverse effects on vegetation. Depending on the location of water, salt sources, and gates, impacts could be dispersed and/or localized. The extent of grazing in Reserve allotments—or in portions of other allotments that fall within the Reserve—is difficult to assess because of the lack of monitoring data and information about the timing and level of forage utilization within allotments or portions of allotments (Erixson and Corrao 2011).

Research Natural Area. Long-term beneficial effects would continue as a result of ongoing management of the 312-acre RNA. Modifying the existing grazing allotment on the western boundary of the RNA so that the allotment no longer overlaps with the RNA would result in long-term beneficial effects on vegetation. Similar effects would continue from grazing exclusion and the encouragement of non-manipulative research, education, and other activities.

Alternative B Impacts

Visitor Use and New Facilities.

Visitor Use — Localized adverse impacts on vegetation from visitor use activities would continue as described in alternative A.

Trails Management Plan/New Trails — Developing and implementing a trails plan would have a range of impacts from the loss of vegetation associated with trail development and construction. Reduced resource impacts could arise from closure and rehabilitation of trails and from improving trail routes.

Equestrian Staging Area— Short-term adverse and long-term beneficial and adverse effects on vegetation would result from constructing and maintaining an equestrian staging area possibly near the Bread Loaves intersection or in another area. Approximately 1 to 2 acres of vegetation could be affected by the construction of a short loop road and a small parking area for horse trailers. Beneficial effects would occur from minimizing vegetation impacts on and/or encouraging natural revegetation of currently impacted areas along county and Reserve road shoulders.

Rim DCP Implementation — A variety of beneficial and localized adverse effects would occur from implementation of the Rim DCP. These would include ongoing vegetation impacts from conversion of approximately nine campsites to day use; beneficial impacts on approximately 13 campsites that would be closed and rehabilitated; and construction impacts, including vegetation loss, from approximately 22 replacement campsites.

Logger Springs Road Turnaround — Development of a turnaround at the north end of Logger Springs Road near the USFS boundary would result in long-term localized adverse effects in an area with previous vegetation disturbance.

Permitted Uses.

Grazing — There would be no immediate changes in livestock numbers or season of use. Adverse and beneficial impacts would continue. Eliminating grazing near springs and in riparian areas would continue to have long-term beneficial effects on riparian and wetland vegetation. In addition, vegetation restoration efforts in the California Trail Zone would have long-term beneficial effects. The potential for eliminating grazing over time in the California Trail Zone and the Visitor Facilities and Access Zone would have long-term beneficial effects on natural vegetation composition.

County Road Maintenance — Unlike alternative A, the NPS would consider opportunities for ownership or management of the county road through the Reserve. This could improve adherence to NPS road standards and character in maintenance practices, a beneficial effect.

Visitor Center/Information — Small adverse effects from constructing information kiosks and signs to provide for additional self-guided visitor orientation and interpretation would occur.

Cumulative Impacts

Although the Reserve landscape appears to be somewhat natural, decades of use has left impacts such as trails, homesteads, farm fields, agricultural uses, and other development. The natural biological diversity and riparian and wetland habitats have been substantially altered by road and facility development, domestic livestock grazing, fire suppression, dryland farming, seeding, and brush control, resulting in widespread invasion by nonnative species, soil erosion, and altered plant and wildlife communities (Reserve 1996b: p. 131).

Historically, the landscape included a mosaic of native grasses and scattered sagebrush. Fragments of this native vegetation mosaic have survived decades of grazing livestock and agricultural operations. Deliberate seeding of crested wheatgrass (several species) by the BLM, USFS, and private landowners has also altered areas on public lands and private lands that later became part of the Reserve (Reserve 2008a: p. 49).

Aerial photos from the mid-1950s show tilling and farming in the Twin Sisters Basin. Past actions have also included uncontrolled livestock use that continued to occur on lands formerly administered by the BLM until passage of the Taylor Grazing Act in 1934. “This uncontrolled use resulted in a substantial alteration of the native vegetation. The native perennial grasses

decreased in abundance and productivity, allowing sagebrush and juniper to increase. While overgrazing by livestock in the late 1800s to early 1900s contributed to the increase in brush, other factors such as control of fires, greater seed dispersal, and an overall climatic shift also contributed to the change” (Reserve 1996b: 3). Historical land management activities, livestock grazing, and fire suppression have probably reduced the natural fire frequency over the past 150 years, resulting in the dominance of woody species (Reserve 2008a: p. 5). Without some type of brush and tree control, future uncontrollable wildfires pose a threat. An accumulation of fine fuel (grasses) increases the chance of wildfire ignition (Reserve 2008a: p. 5). In these areas, livestock grazing can be a useful tool in reducing fine fuel and thus wildfire ignition and rate of spread (Reserve 2008a: p. 5). (However, fine fuels, which may be a consequence of grazing, also increase fire frequency.)

Native vegetation has largely been converted to a dominant cover of sagebrush mixed with nonnative weedy grasses, thistles, and forbs. Among the species of nonnative grasses are crested wheatgrass (several species), cheatgrass, bulbous bluegrass, and Kentucky bluegrass. The loss of native perennial herbaceous species and this conversion has resulted in widespread cumulative adverse effects by replacing native herbaceous species with woody species and nonnative species. On a smaller scale, recreational activities such as climbing have also contributed to a loss of vegetation. The Natural Resource Condition Assessment identified numerous shade-holes dug by dogs and areas where heavy foot traffic had trampled much of the vegetation between big sagebrush shrubs, leading to sagebrush mortality and loss of biotic crust in some locations.

Present actions include adverse effects on vegetation from domestic livestock grazing, development and human use, wildfire suppression, and climate change. Dispersed camping outside the Reserve boundary would continue to result in direct and indirect impacts, including nutrient deposition from human waste and poorly located fire rings. Impacts include invasion by nonnative plants, competing with native species; trampling and vegetation loss from livestock grazing and visitor use; and alteration of natural fire regimes.

Future impacts include cumulative adverse effects outside the Reserve from additional livestock grazing, agricultural land expansion, energy development, and expansion of human impacts in nearby towns and cities. A variety of upland vegetation types would be affected through vegetation damage, loss, and invasion by nonnative species. When actions in alternatives A and B are added to the effects of other past, present, and future actions, overall there would continue to be a range of cumulative adverse impacts on vegetation.

Conclusion

There would continue to be a range of localized adverse effects in both alternatives from visitor use, construction of new facilities and trails, grazing (that could eventually be reduced in alternative B) and beneficial and adverse effects from wildfire suppression, including from reduced spread of cheatgrass and from alteration of the fire regime, management of the RNA, and ongoing management of grazing allotments.

BIOLOGICAL RESOURCES: WILDLIFE

Alternative A Impacts

Visitor and Administrative Use. Localized adverse effects on wildlife from recreational use and administrative activities from noise and disturbance as well as from habitat modification for visitor uses such as hiking, climbing, and camping would continue. Most mammals would tend

to avoid habitually noisy areas, such as roadways, campgrounds, trails, and construction areas during the day. Because noise and disturbance would occur primarily at predictable times (during the day and into the early night hours in campgrounds, during the day on roadways, and for a few days to a few months in construction sites), there would be other times when wildlife could return to or pass through these areas without disturbance (such as late at night and during periods of low use when noise and activity would be reduced or absent). The intensity of visitor use activities, such as the speed of mountain bikes and the presence of horses and riders on trails, would also affect wildlife.

Climbing may affect cliff-dwelling or nesting swallows, raptors, and other similar birds, as well as mammals such as bats. Cliff-nesting bird behavior is affected by human presence when climbing occurs in proximity to nest sites or when it is of long duration. Temporary displacement from nest sites and territorial displays have been observed in response to human presence (Reserve 1998a). Measures, such as delayed opening or seasonal closures, would continue to protect nesting birds from disturbance. Although mammals such as bobcats, ring-tailed cats, bats, and kit foxes can also be disturbed by climbing, most of their activity in rocky habitats occurs at night when these areas are often free of human disturbance.

Habitat modifications, such as from mowing, trimming vegetation along trails, fixing fences, and other activities, would continue to occur as recreational facilities were maintained to accommodate use. When these activities occur during spring and/or in early morning or evening hours they would be more likely to disrupt wildlife. Administrative operations such as maintenance, visitor center operations, and employee housing would also continue to cause noise and disturbance of wildlife, causing some non-habituated wildlife to avoid areas during the day. Ongoing impacts from use of roads would continue to cause occasional (in the case of birds and mammals) to routine (in the case of insects) wildlife mortality.

Trails. Short-and long-term adverse impacts on wildlife would occur from use, maintenance, and construction of trails.

Permitted Uses.

Hunting and Trapping — Localized direct and indirect impacts on wildlife (deer, elk, moose, bobcat, mountain lion, coyote, rabbit, grouse, and quail) from state-permitted hunting and trapping within the Reserve boundary would continue, involving individual animals but extending to populations if more permits than could be supported were issued or if more animals than anticipated were taken.

Grazing — Adverse impacts would continue due to disruption of wildlife movement and behavior from livestock grazing and habitat modification. Cattle would continue to graze on forage that would otherwise have been available to some wildlife, such as voles and mule deer, which would be able to access the remainder. Vegetation pressure from trampling and foraging would continue to cause repeated disturbance, potentially changing the vegetation community (such from grassland to shrubland). Some wildlife would be attracted to livestock, others could feel threatened, while still others would not be bothered by cattle but could be threatened by herding dogs or riders on horseback, such as during trailing operations. Infrequently, livestock may also directly affect ground-nesting birds such as northern harriers and killdeer, as well as marmots and badgers, by disturbing or trampling habitats such as nests and burrows.

Continuing to fence out wetlands and riparian areas and/or modifying grazing usage in allotments with these features could increase natural wetland functions and move these communities toward healthy conditions by reducing cattle numbers in these areas, eliminating

impacts on soils and vegetation, and minimizing impacts on water and other aquatic organisms. Cattle may also contaminate streams and springs with fecal coliform and contribute to soil erosion, resulting in contamination or sedimentation of downstream water resources during stormwater runoff (see water resources).

Natural and Cultural Resources Management.

Night sky — There would be long-term beneficial effects from reducing reflective light and from undertaking an inventory of night sky quality and characteristics, which could help to maintain or improve nighttime wildlife habitat within the Reserve.

Fire Management — Continuing the Reserve's current practice of full wildfire suppression could result in long-term changes in wildlife habitat as shrubs and trees encroach into grasslands and other habitats. Where grazing occurred, suppressing woody plant establishment, this impact may be less, potentially benefitting some wildlife by maintaining open areas.

Invasive Species — Long-term beneficial effects on wildlife habitat could occur from reducing the incidence of nonnative invasive species through treatment of priority and indirectly from development of plan to identify restoration areas and other vegetation management.

Management of Natural Areas — Management of natural areas would continue to benefit wildlife and wildlife habitat. There would also be beneficial effects from eliminating the overlapping portion of grazing allotment from the RNA.

Removal of Circle Creek Impoundment (#1) — While removal of the Circle Creek impoundment would restore natural conditions, there could be short-term adverse effects on wildlife that have become dependent on this area. These would be coupled with long-term beneficial impacts from restoration of riparian habitat in the same area.

Reintroduction of Species — Reintroducing extirpated species in cooperation with other agencies could enhance the Reserve's role as an important refuge for wildlife and result in both long-term beneficial impacts from adding lost species and potential adverse effects from other wildlife interactions with formerly missing species.

Construction — The construction of new permanent facilities such as vault toilets, would result in long-term localized adverse impacts on wildlife. Construction of these facilities would adversely affect wildlife from noise and habitat loss. If actions affected denning, roosting, or nesting areas, there could be localized adverse effects; however, these areas would be avoided.

Alternative B Impacts

Impacts would be the same as in alternative A, except the following additional adverse and beneficial impacts are identified.

Construction. Construction of new facilities and trails would result in variable degrees of long-term wildlife habitat loss and variable degrees of noise and disturbance from use. Some would be day-use facilities, and some would also include nighttime use. Construction of associated roadways and buildings or parking areas would remove large areas of vegetation. Because some of these facilities would be constructed in previously disturbed areas that have not yet recovered and because they would also be constructed in common habitat types (previously disturbed grassland and sagebrush communities), there would be a range of localized adverse and beneficial effects on wildlife.

Grazing. Initially, actions and impacts would be the same as alternative A. With no proposed changes in livestock numbers or season of use, adverse impacts from wildlife interactions and loss of forage as a result of livestock as well as beneficial impacts such as livestock-related food sources would continue. As implementation proceeded, modifying or eliminating grazing where appropriate to improve the California Trail cultural landscape and to improve visitor access would have long-term beneficial impacts on wildlife habitat. There could be fewer disturbance-adapted species and small beneficial effects on wildlife if livestock were removed and visitor use was low. Reduced grazing over time could have long-term beneficial effects by reducing the number of livestock and animal unit months through attrition. Where grazing allotments were reconfigured to benefit vegetation and other resources, wildlife could also benefit.

Research Natural Area and Research. Expanding the RNA would increase available wildlife habitat for several Idaho Sensitive Species and expand general wildlife habitat protection in this area.

Cumulative Impacts

Similar to other protected areas, the combined effects of development in the Reserve and in the surrounding area over time, coupled with the purposeful eradication of predators through the mid-1900s, have contributed to low-level or extirpated populations of some key species. The region as a whole, however, contains most of its historic species although in diminished numbers. Wolves, black bear, pygmy rabbits, pika, and peregrine falcons are among the species extirpated from the Reserve. Pronghorn, once considered extirpated, are occasionally seen within the Reserve and are frequently seen in the Raft River Valley. Pygmy rabbits have also been observed approximately 10 miles from the Reserve. Other species that have become very rare include moose, elk, and bighorn sheep.

Since their reintroduction on BLM land near the Reserve, bighorn sheep occasionally pass through the Reserve. The BLM also notes that moose, elk, and bighorn sheep are increasing outside the Reserve. Moose are also often observed at Castle Rocks, and elk are frequently seen at Chicken Springs and in the Cedar Hills south of the Reserve.

Past actions include development of roads and administrative and recreational facilities in the Reserve and surrounding area, combined with physical development of area towns and ranches and agricultural and ranching activities, contributing a range of adverse cumulative effects. The presence of roads also routinely affects wildlife through collisions with vehicles.

Present actions include ongoing administration of recreational and visitor use facilities in the Reserve and surrounding areas, combined with use of these areas, which would continue to cause cumulative adverse effects from noise, activity, and wildlife habitat loss. Current and future grazing on BLM and USFS allotments affects wildlife, as described previously. Effects on springs and wetlands would also continue, including unknown effects on some species. For example, during a 2008 survey, several fairy shrimp were submitted for identification and were determined to be *Branchinecta constricta*, representing a significant range extension west of the Continental Divide from known populations in southern Wyoming (Erixson and Corrao 2011). Current livestock use and grazing impacts are important because cattle typically congregate in dense vegetation, shade, and watering sites available along stream banks and in wetlands (Erixson and Corrao 2011). Reduced livestock access to riparian areas would substantially reduce erosion, stream turbidity, and undesirable shifting of plant species composition and habitat structure. If current grazing trends continue, they could result in diminished representation of wetland species and riparian zones in this semiarid climate (Starkey 2010).

There would also continue to be adverse effects on wildlife from visitation of an estimated 120,000 visitors per year trending upward. Impacts would primarily be disturbance from human activity. Visitor use diminishes dramatically in winter and rises in spring, tapering off in late summer and early or late fall, depending on snowfall. Comparatively, physical disturbance would remain low, with additional development concentrated outside the Reserve. Reasonably foreseeable development projects would result in additional cumulative adverse effects. If surrounding proposed development projects such as energy development, additional confined animal feeding operations, or other semi-industrial operations occurred, there could be localized to widespread adverse cumulative impacts. Wind energy development or electric transmission line development would also increase collision risk to birds and would probably result in mortality. Actual impacts are uncertain because these projects are not yet scheduled. Ongoing impacts from existing development and hunting/trapping would continue. Because extensive public lands lie adjacent to the Reserve, the Reserve would also continue to contribute to a larger protected area of mostly intact habitat, allowing for some wide-ranging species, such as mountain lions, elk, moose, bighorn sheep, and others to be occasionally seen.

When actions in alternatives A and B are added to the effects of other past, present, and future actions, there would continue to be cumulative adverse effects on wildlife. Alternative B would also contribute cumulative beneficial impacts. Localized impacts in these alternatives would not add appreciably to cumulative adverse effects.

Conclusion

Alternatives A and B would have a range of localized adverse impacts on wildlife. Alternative B would also have a range of localized beneficial impacts on wildlife.

CUTURAL RESOURCES: PREHISTORIC AND HISTORIC ARCHEOLOGY

Alternative A Impacts

Adverse effects could continue to occur from visitor use, including continued mountain biking, hiking, equestrian use, and climbing, when these activities occur in or near unknown archeological sites. Unintentional disturbance and/or vandalism to archeological resources, as well as use of sites (causing wear and tear) also causes impacts. Although some of the more than 73 documented archeological sites in the Reserve have been previously damaged by vandalism, grazing, and development (generally prior to protection within the Reserve), ongoing management actions would avoid continued effects of Reserve use, including recreational and management activities, on archeological resources. Because cultural resources are nonrenewable, when impacts are detected, actions would be taken to avoid further disturbance through improving knowledge and understanding of the resources using interpretation and education.

Ongoing adverse impacts could also continue from permitted uses, such as livestock grazing. Past grazing has affected previously unknown sites, and continued trampling could result in additional discovery of isolated artifacts or sites.

Impacts associated with the use and establishment of sport climbing routes would continue to be avoided when new routes are proposed and through surveys of previously established routes. When new sport climbing routes or rehabilitation actions are proposed, they undergo archeological investigations before approval of use.

IPMP implementation would continue to have adverse impacts (under section 106, no adverse effect) on archeological resources. Ground disturbance would continue to be required for several types of invasive plant management treatments and avoidance of known archeological sites would continue, as would mitigation measures prior to ground disturbance that would help to avoid impacts. The opportunity to continue to select from a variety of treatment methods that would have the least possible effect would allow for fewer impacts on resources. The potential for catastrophic fires would continue because unplanned fires would typically burn hotter because of the Reserve's full suppression policy. Fires could also increase the potential for finding surficial archeological resources now covered by vegetation, a potential long-term beneficial effect.

Management efforts would continue to be focused on maintaining the integrity and condition of all archeological sites to at least a standard of "good" condition on the Archeological Sites Management Information System (ASMIS) scale. A condition assessment of known sites would be undertaken to further monitor these sites.

Because no parkwide systematic archeological survey has been conducted, additional surveys would continue to be necessary as projects are proposed, which would likely increase the number of known sites. Proposed projects in alternative A would result in survey for and avoidance of impacts on known archeological sites to the extent possible. Because there is potential to affect unknown subsurface sites, additional mitigation measures would be used to relocate proposed work to avoid impacts (if possible) and/or to find out as much information as possible from the site (if avoiding impacts is not possible). These actions would be undertaken in consultation with the Idaho State Historic Preservation Office (SHPO) and other experts as needed. Where sites are known, Reserve staff would continue to follow protocols in condition assessments to monitor sites to avoid further impacts.

There would continue to be long-term beneficial impacts on archeology from preserving the California Trail and associated resources. Additional beneficial effects could occur if the NHL designation is updated to include other sections of the California Trail that are currently outside the NHL boundary.

Alternative B Impacts

Impacts would be similar to alternative A. However, if the total number of grazing areas and cattle decreased through attrition, there could be short-term adverse and long-term beneficial impacts associated with additional removal of non-historic fences from grazing allotments and reduced trampling.

The potential for additional short-and long-term adverse impacts could occur from a variety of construction projects with a potential for ground disturbance, such as the new equestrian staging area near the Bread Loaves intersection and construction of new trails or improving connections within or outside the Reserve.

There would be long-term beneficial effects from developing an archeological management plan to manage California Trail resources, including ruts and inscriptions. Recommendations or implementation associated with the various plans could affect archeological resources if mitigation measures are not adhered to.

There would be additional long-term beneficial impacts if, working with partners, the Reserve establishes an archeological district to delineate areas that require a higher degree of management oversight. Beneficial effects would also occur from increasing interpretation associated with archeological resources through waysides and other media and from improving protection of the RNA.

Cumulative Impacts

Archeological resources in the Reserve and surrounding areas have probably been adversely impacted to varying degrees from past construction-related disturbance (prior to the advent of archeological resources protection laws), from visitor use, vandalism, erosion, and from other natural processes. It is likely that other Reserve management actions—including the development of some facilities and use of the Reserve before IDPR/NPS management—resulted in disturbance to or inadvertent damage of archeological resources. Because most climbing routes within the Reserve were established prior to the Reserve, it is possible that archeological sites are present near these; however, archeological surveys of the Inner City area, as well as those conducted for proposed development since Reserve establishment, have only identified a few sites near, but not used for climbing routes. Because mitigation measures would continue to be employed to minimize impacts on potentially unidentified cultural resources in proposed and future projects in the Reserve, there would be increased protection for archeological resources from potential future adverse impacts.

There probably have been and would continue to be adverse impacts on archeological resources from actions on private lands within and surrounding the Reserve, including on lands associated with the California Trail. Most of these actions would probably continue to be unintentional; however, intentional vandalism, such as looting, could also occur and has been documented within the Reserve and surrounding area.

Past and present actions that could affect archeological resources in the Reserve include farming, grazing, ranching, livestock trailing, and development of Reserve visitor use facilities, including trails, signs, and vault toilets, as well as ongoing and potentially increasing visitor use that could include localized adverse effects from illegal collection of artifacts and possible unintentional disturbance of sites.

Proposed future actions include continuation of many activities and ongoing maintenance and rehabilitation of Reserve facilities. These activities would continue to result in localized adverse impacts on archeological resources.

When the impacts of alternatives A and B are added to impacts from past, present, or future actions, including from proposed ground disturbance associated with planned rehabilitation or construction projects, a small range of cumulative impacts on archeological resources would continue.

Conclusion

Because mitigation measures would be employed to avoid impacts on known sites and to minimize disturbance of unknown sites, there would be no adverse effect on archeological resources as a result of the implementation of the alternatives under the proposals in the GMP. If a potential for adverse effects were to occur, the action would be relocated or otherwise modified to avoid these.

CULTURAL RESOURCES: CITY OF ROCKS NATIONAL HISTORIC LANDMARK DISTRICT

Alternative A Impacts

Although the City of Rocks National Historic Landmark cultural landscape comprises a major portion of the Reserve, most of the characteristics would not be affected by its ongoing management. Some features, however, have been obscured or modified over time, as human activities continued to occur on the landscape following emigrant trail use. Although the open landscape remains, specific land uses changed with the advent of homesteading, farming, ranching, and grazing. Similarly, spatial organization has also changed over time as the route of the California Trail corridor and its relationship to landscape features has become less evident to the casual observer.

The following cultural landscape characteristics would not be affected: natural systems and features, circulation, views and vistas, and archeological sites. Others, including land use, spatial organization, and natural systems and features would be affected to some degree.

Land Use: Land use within the City of Rocks has changed because it has not served as a destination or route for emigrant travel for more than a century. The wagon ruts and emigrant inscriptions serve as tangible evidence of this use. Because most interim development is no longer visible, the landscape is reverting to the historic scene experienced by emigrants. Cattle grazing is reminiscent of the California Trail period, when emigrants allowed their livestock to replenish before strenuous travel over Pinnacle and Granite passes (NPS 2008a). Livestock grazing is one of the few remaining land uses from the homesteading era. With the onset of public use in the area, visitor use development has generally been constructed in discreet locations where visitors can see and understand the California Trail scene without intruding on its character.

Spatial Organization: California Trail spatial organization is directly related to natural systems and features, topography, access to water, and views and vistas within the landscape. Key features of spatial organization include the routes of the California Trail and Salt Lake Alternate, which remain visible, in close-up views, as ruts and alterations of the landscape, and as routes through aerial photos and satellite imagery.

Circulation: California Trail alignment generally follows the path of least resistance through the narrow mountain passes and expands outward in locations where there was room for camping, vegetation for grazing livestock, and available water. The trail corridor is marked by natural rock formations that became important wayfinding markers for the emigrants. As a result, the trail was not a single set of wagon ruts through the landscape; rather it was an alternating narrow and expansive corridor that suited the needs and preferences of the emigrants, wagons, and livestock that travelled along it (NPS 2008a). Although circulation is evident from a distance and the path through the rocks is clear based on topography and emigrant diaries, today visitors can discern only traces of the California Trail and Salt Lake Alternate. The features that once made the trail evident are fading because of weathering and erosion, along with changing land uses—historically homesteading, farming, and mining—and grazing, which persists. Though historic landscape features are less evident than they once were, they would continue to be protected to the extent possible, a long-term beneficial effect.

Views and Vistas: Naturally existing views and vistas of the City of Rocks were long-awaited attractions and important wayfinding landmarks (NPS 2008a). Views and viewsheds are generally the same as they were in the time of the emigrants; however, modern homes and evidence of homesteading, farming, and ranching have altered historic views to include fences

along property and section lines and irrigation development. With the exception of several relatively small-scale features such as corrals and fences, the cultural landscape of the Reserve is remarkably free of major structural components. The views experienced within and from City of Rocks are integral components of the cultural landscape and have changed very little since the California Trail era (NPS 2008a).

Natural Systems and Features: Natural systems and features experienced by the emigrants would continue to be evident, including the granite monoliths, wide expansive basins, natural hydrologic processes, and open vegetative character. Although vegetation has changed over time as woody plants have begun to encroach on once-native grasslands, some areas such as the Circle Creek Basin remain verdant, while other areas that once provided the emigrants with water have been diverted or have dried out. Native grasslands dominated by perennial grasses and native forbs are now dominated by nonnative grasses and forbs as well as native shrubs, such as sagebrush and juniper. Nonetheless, the remaining open character of vegetation in the basins, and dark scrub and woody vegetation in the uplands contribute to the integrity of the historic setting (NPS 2008a).

Archeological Sites: Archeological features from the period of significance include more than 1,650 feet of trail ruts on public land and the emigrants' inscriptions on the registry rocks in Circle Creek Basin (NPS 2008a). These features are protected, and many of them are interpreted for visitors. Post-emigration graffiti would be reduced by continuing to prohibit climbing on inscription-bearing rocks, minimizing camping near the rocks, and installing fences to preclude livestock from grazing directly adjacent to the rocks. Improving interpretive and educational programs would indirectly benefit archeological resource protection.

Existing Conditions: The boundary of the NHL and the Reserve protect areas consistent with NPS, IDPR, and private landowner management. Changes to the historic scene include the homestead ruins in Circle Creek Basin, dirt roads, juniper pole fences and modestly located basic recreational facilities. These newer additions to the landscape are small intrusions within the context of the massive rock features and broad, open basins that define the character of the landscape (NPS 2008a).

Management of the cultural landscape would continue to have long-term beneficial effects. Nearly 9 miles of the California Trail are managed for NHL characteristics. Although only about 3.5 miles of the trail are on public land, contemporary visitors would continue to have the opportunity to experience the landscape the emigrants experienced more than 150 years ago.

Some resources related to the California Trail are outside the boundary, resulting in uncertain effects (unless protected under a willing seller/willing buyer opportunity). Although some aspects have changed, the open character of the cultural landscape is very similar to that experienced during 19th century emigration. Historic viewsheds of an open landscape surrounded by large rock formations would continue to be preserved.

Long-term adverse impacts would occur from development within the Cassia County Historic Preservation Zone and from continuing private uses on private lands. Ongoing use and maintenance of the roads (near the California Trail) would continue to have adverse effects, particularly where these roads cross the California Trail. Roads would also provide an opportunity to experience California Trail resources without intruding on their character, a long-term beneficial effect. Livestock grazing within the California Trail subzone would continue to be reminiscent of historic uses, a present-day action that is similar to the use the trail received during its period of significance.

Retaining the focus of operations outside the Reserve and/or the viewshed of the California Trail would continue to have direct and indirect long-term beneficial effects on the cultural landscape. Activities, buildings, and other structures outside the viewshed of the California Trail include administrative and maintenance operations, some recreational activities, and facilities proposed by others. Updating the National Historic Landmark to include additional eligible resources outside the NHL boundary but within the Reserve would have long-term beneficial effects on preserving the California Trail landscape and facilitating research.

Recreational activities near the California Trail would have long-term adverse effects from use and indirect beneficial effects from support for preservation. Continuing the Twin Sisters climbing ban is a long-term beneficial effect on the National Historic Landmark. Based on the “Twin Sisters Resource Study” (Reserve 1993), while mitigation measures could be considered to reduce the impacts of recreational climbing on the scenic, natural, and auditory environment on and around the Twin Sisters, public use, including recreational climbing use of the pinnacles, is an inappropriate activity because it does not protect this cultural resource.

Alternative B Impacts

Many impacts from alternative A would continue. Potential adverse effects associated with new development in the National Historic Landmark would be minimized by their location away from the California Trail and its viewsheds.

Beneficial effects regarding the potential formation of an archeological district and vegetation management plan would be similar to those described under archeological resources.

The new equestrian staging area would be visually concealed from the California Trail. It would also be designed to have few or no adverse impacts by using minimal signage and by not incorporating structures or features other than those related to parking. Current parking along the roadway in the California Trail viewshed adversely affects it.

Modifying or eliminating grazing allotments in the California Trail Zone and Visitor Facilities and Access Zone would have beneficial effects on preservation of California Trail features. Over time, reducing or eliminating grazing allotments through attrition or private buyouts would benefit the National Historic Landmark if fences were removed, grassland vegetation was restored, and/or public access for interpretation was enhanced.

The multiuse trail to link California Trail resources for pedestrian and other non-motorized use would have impacts near but not on California Trail remnants, inscription rocks, or other trail resources. It would be designed and routed to have minimal adverse effects on viewsheds and other character-defining features.

Cumulative Impacts

The NHL boundary was originally drawn to include only significant resources but was expanded in 1987 to include those lands that are NPS-owned or cooperatively managed (NPS 2008a). Other areas that contain segments of the California Trail or provide views and vistas integral to the emigrant experience are also likely to be eligible; however, most of these areas would remain outside the boundary, a cumulative adverse effect (unless purchased under a willing seller/willing buyer opportunity). Remnants of the California Trail and Salt Lake Alternate on private property are more numerous and some are more intact than those within the Reserve. Trail ruts are found on the incline and decline from Pinnacle Pass on the H. Olen Ward property, on the northern portion of the Simplot property near Pinnacle Pass, and on the

Brent Jones and J. E. Tracy properties parallel with the road through Junction Valley. Trail ruts along the Salt Lake Alternate, later used as the Kelton-Boise Road, are also located on the Simplot property (NPS 2008a).

Past actions were described in the cumulative impacts cultural landscape inventory for the NHL landscape and include erosion, vegetation/invasive (nonnative) plants, visitation, exposure to the elements, and livestock grazing (NPS 2008a).

Recent (2008) closure of the Circle Creek allotment to grazing has resulted in cumulative beneficial impacts. Current projects include Reserve placement of 6,400 feet of power lines underground (2007) and purchase of the J. E. Tracy property on the California Trail (2010).

Of the 13 register rocks bearing emigrant inscriptions that were identified in the climbing management plan, 10 also possessed climbing routes, with some showing evidence of bolts or damage to inscriptions from other climbing hardware (Reserve 1998a). Because these and other emigrant inscription rocks identified more recently have since been closed to climbing based on approval of the Reserve's CMP, there would continue to be cumulative beneficial effects. Former cumulative effects were reduced through systematic removal of climbing hardware.

Similarly, continued closure of the Twin Sisters formation to climbing would have cumulative beneficial effects from retaining a setting that preserves the historic feeling and association with the California Trail era. These qualities were important attributes in the City of Rocks' designation as a National Historic Landmark. Preserving these intangible qualities is as critical to protecting the integrity of the landmark as the preservation of its actual physical features (Reserve 1998a).

Future actions contributing to cumulative impacts include the potential for new development on private lands and within the Cassia County Historic Preservation Zone. Depending on the extent to which new development occurs within or near the California Trail corridor, adverse effects could occur.

When actions in alternative A are added to the effects of other past, present, and future actions, there would continue to be cumulative adverse and beneficial impacts on the National Historic Landmark. When actions in alternative B are added to the effects of other past, present, and future actions, cumulative adverse effects would also continue. Beneficial effects would be greater than in alternative A from enlargement of California Trail zoning, additional cultural resources interpretation and from specific actions to preserve California Trail ruts.

Conclusion

There would be no adverse effect on cultural landscapes or the National Historic Landmark as a result of the implementation of the alternatives under the GMP. If a potential for adverse effects were to occur, the action would be relocated or otherwise modified to avoid adverse effects.

VISITOR EXPERIENCE: VISITOR ACCESS, TRANSPORTATION, AND VISITOR USE OPPORTUNITIES

Alternative A Impacts

Facilities: The primary road is owned and maintained by Cassia County and used by Reserve visitors to experience the area. It also provides access to other Reserve and USFS roads. Managing undesignated parking along Cassia County roads would continue to require collaboration with and support from Cassia County. During the peak season, because visitors

park along narrow-shouldered roadways, access may be intermittently difficult for others. In winter, vehicle access may continue to be intermittent or unavailable because the road is not plowed above Bath Rock.

Visitor Information and Access: Access to information at the existing visitor center would occasionally be difficult because it is too small to adequately accommodate current visitation. Waysides, kiosks, and printed media would continue to provide self-guided information. Similarly, the variety of youth programs offered at the Reserve could indirectly benefit visitor access if youth returned with their families.

Visitor Use Activities: Ongoing visitor use opportunities would include: hiking; camping within and outside the Reserve; horseback riding; mountain biking; sport (technical) and traditional climbing; hunting; trapping; and learning about the Reserve through various activities, such as wildlife or wildflower viewing, drive-through touring, viewing wayside exhibits, and/or taking part in ranger programs, including day, evening, and youth programs (both on-and off-site). In addition, there would continue to be permitted activities such as grazing and commercial uses (such as commercial guides and outfitters). Visitor access to these activities would likely continue to engender support for the Reserve and its resources, a beneficial impact.

Some visitors would continue to experience delays in accessing climbing opportunities on popular routes, and some would find it difficult to park near popular day-use trailheads during the peak season. Visitors who experience delays or missed opportunities would be affected. Because permits would continue to be required for new bolted routes, some would be approved and some denied. Successful route proposals are often those that do not require new trail construction, that stage on rock, and that do not affect or have few impacts on other visitors.

Visitor access to camping during the peak season (mid-May through mid-October), would probably continue to require advance reservations on weekends and during the week in June. Although Reserve campsites can be reserved up to nine months in advance, some visitors are unaware of the need to reserve sites and could be disproportionately affected by use during the peak season.

Visitor use conflicts would continue because many day-use areas and trailheads are adjacent to campsites and parking areas. These occasional conflicts between day and overnight visitors would continue to include competition for parking during peak periods, day-use visitors walking through campsites to access trails, and day-use visitors picnicking in campsites.

Diverse climbing opportunities, including sport and traditional climbing and single- and multi-pitch climbs ranging in difficulty from 5.6 to 5.13 would continue to be available. During the peak season, some climbers would continue to experience long delays for the most popular routes because most climbing routes are located less than one-half mile from trailheads (Reserve 1998a). Queuing at staging areas has become frequent in several key locations, such as at Bath and Elephant rocks.

The climbing management plan update would have a range of beneficial and adverse effects on climbing access from potential changes in how visitors reach climbing areas if needed to protect resources. Existing areas open to climbing, including technical climbing and scrambling, would probably continue to be available. However, restoration of duplicate access paths or large staging areas may be proposed. Similarly, areas proposed for restoration under a vegetation management plan could be temporarily closed to visitor access.

The IDFG would continue to manage hunting and trapping within the Reserve. During hunting season, some visitors may be deterred from visiting, a seasonal adverse effect. Compared to the number of hunters, the number deterred is likely small.

National scenic byway designation, though similar to the existing City of Rocks Idaho Scenic Byway, could increase visitation from placement of highway signs and travel marketing. Depending on visitation to the Reserve, effects could be beneficial or adverse, with potential for increasing competition for parking and camping during the peak or shoulder seasons.

Grazing and Private Lands: Because some Reserve lands would remain private and existing uses on these private lands would continue, there would continue to be some places that visitors could not access or could not access without permission of the private landowner (such as for hunting). Because these areas include large portions of the California Trail, there would continue to be long-term adverse effects, depending on visitor desire to access these areas.

Grazing within existing allotments on Reserve lands and periodic livestock trailing through Reserve lands to get to grazing allotments could both deter some visitors from accessing some areas and result in delays for some visitors. Access to some areas could also be affected by the presence of livestock fences and gates.

Alternative B Impacts

Impacts would be similar to alternative A. More focus on online or self-guided interpretation and resources could benefit some visitors and make access more difficult for others.

New visitor use opportunities would include a trail linking California Trail resources and linking the Reserve to outside areas using trails developed in partnership with adjoining public land managers. The new equestrian staging facility near the Bread Loaves intersection would improve opportunities for trail riding on the west side of the Reserve. Outreach programs and the incorporation of neighboring community and tribal perspectives in learning opportunities would increase engagement with the Reserve. Youth activities would include wilderness and self-empowering experiences and establish connections to the arts and local communities.

Reconfiguration of campsites and parking areas along the Rim, according to Rim DCP recommendations, would better delineate visitor use opportunities, improving separation of day and overnight use, minimizing conflicts between day and overnight visitors. Although the number of sites would remain the same, some sites would be eliminated and some added. Because there is limited access and parking located at certain trailheads, the DCP would include redesign of parking areas or development of small new parking areas.

As in alternative A, the availability of camping within and outside the Reserve would provide long-term beneficial impacts on overnight visitor access. Some restrictions on access would continue, including the need for permits for new climbing routes and the ban on climbing Twin Sisters.

Perceptions about restrictions during hunting/trapping seasons may continue to affect some visitors who may voluntarily avoid the affected areas or use seasons. Similarly, visitors who may not feel comfortable traversing areas where livestock are present may be adversely affected. Over time, modifying some grazing allotments could improve visitor access, especially where non-historic fences were removed.

No additional bolted routes would be established in either the RNA or the California Trail zones; however, the preliminary boundary for the California Trail Zone was modified to allow

access to climbing routes, where it inadvertently excluded key climbing areas because of the scale of the map used to draw the boundaries.

The equestrian staging area would expand access to the west side of the Reserve for trail riding. Constructing a turnaround at the north end of Logger Springs Road at Indian Grove Overlook would also improve visitor access and safety in this area.

RNA expansion would improve opportunities for visitors to explore an area of southern Idaho in its natural condition with few human impacts. Expansion of youth and public programming outside the Reserve would increase access to the Reserve for non-visitors.

Cumulative Impacts

Over time, visitors and residents have experienced cumulative beneficial effects from access to the Reserve from roads and from development of visitor facilities. Compared to 1988 when the Reserve was established, information, services, and a variety of visitor use areas and opportunities are more accessible. Compared to 1996 when the CMP was approved, there is better access to camping. Access expansion has included some cumulative adverse effects because of peak season lines for popular climbs. There is also first-come, first served peak season competition for campsites because of reservations. Parking may also be difficult during the peak season.

Past actions include construction of Reserve roads, fences, gates, and visitor facilities, (including remodeling a 19th-century house in Almo to function as a visitor center); installation of kiosks, waysides, and other informational and directional signs to and within the Reserve; creation of campsites within and outside the Reserve; and a variety of other actions that have improved access and transportation, such as construction and maintenance of hiker, equestrian, and bicycle trails. Past actions also include loss of climbing opportunities in Castle Rocks Interagency Recreation Area when the BLM closed this area (June 2005) because of potential adverse effects on archeological resources. Past actions include closure of the Twin Sisters to climbing, a long-term adverse effect. Based on resource management plans for adjacent IDPR-, BLM-, and USFS-managed lands, however, past planning has also expanded access to recreational opportunities, including climbing in the areas surrounding the Reserve, such as in Castle Rocks State Park (CRSP).

New route development has decreased from approximately 300 new climbs in the late 1980s, to fewer than 10 per year between 1990 and 1998, to approximately five or fewer in recent years (Reserve 1998a: p. 29; Bastis pers. comm. 2012). Although epoxy-modified holds are prohibited, the Reserve estimated in 1991 that approximately 2% of climbing routes were reported to contain deliberately modified holds (Reserve 1998a: p. 29). Present actions include ongoing management of visitor facilities combined with maintenance of roads, trails, and exhibits, as well as actions by the BLM and USFS to manage primitive and dispersed camping outside the Reserve.

When actions in alternative A are added to the effects of other past, present, and future actions, there would continue to be a range of cumulative adverse effects on visitor access and transportation, coupled with a range of cumulative beneficial effects. When actions in alternative B are added to the effects of other past, present, and future actions, there would be fewer cumulative adverse effects than alternative A.

Conclusion

All alternatives would continue to provide access to the Reserve and to a variety of services and opportunities within it. Permitted activities such as hunting/trapping and grazing would continue to have adverse and beneficial effects on access. Individualized adverse effects from visitors unable to access day-use parking or trailheads would continue to occur in alternative A. Alternative A would also continue to provide a full range of visitor use opportunities, including expansion of some activities (such as camping, hiking, and visitor interpretive and educational experiences if a new visitor center was constructed). Similarly, there would continue to be both beneficial and adverse impacts associated with access to climbing opportunities. Alternative B would expand access and provide more visitor use opportunities than alternative A. It would also have new equestrian facilities and more integration between Reserve research and interpretation.

VISITOR EXPERIENCE: INTERPRETATION AND EDUCATION

Alternative A Impacts

Providing interpretive and educational opportunities at the visitor center and through existing programs, waysides, kiosks, brochures, special events, and the internet would continue to have long-term beneficial effects by inspiring and educating visitors to learn about and protect Reserve resources.

Programs would continue to foster enjoyment and appreciation of natural, cultural, and recreational resources for a range of different user groups, ages, and abilities. A long-term beneficial effect would continue to result from the Reserve's unique effort to integrate climbing management and interpretive responsibilities, including coordination of permits to bolt new climbing routes, maintenance of bolts, and presentation of climbing-related talks and demonstrations.

Visitors would generally continue to be on their own to discover and learn about Reserve resources, except for information provided at the small administrative headquarters / visitor center outside the Reserve through existing interpretive programming and at a variety of other information sources such as wayside exhibits and kiosks within the Reserve. Outside the Reserve, the existing visitor center would continue to provide brochures, maps, educational gifts, and other items related to the resources within City of Rocks.

Partnerships with nonprofit, environmental, and educational organizations, including the concurrent responsibilities of Reserve staff for interpretive programming at Castle Rocks State Park, would continue to have long-term beneficial effects on interpretation and education, inspiring visitors to protect Reserve resources.

Long-term beneficial effects on visitor interpretation and education would also result from interpretive programs and special events facilitated or conducted by Reserve staff. To the extent that interpretive opportunities are presented, there could be long-term beneficial effects from interpreting some of the lesser-known aspects of the Reserve, such as mining, homesteading, ranching, or American Indian use. Similarly, educational opportunities for youth (such as Junior Ranger programs and the Youth Conservation Corps) would continue to contribute long-term beneficial effects by inspiring the next generation of Reserve visitors to protect not only Reserve resources but in the National Park Service and other parks across the country.

Alternative B Impacts

In addition to ongoing benefits from alternative A, there would be additional long-term beneficial effects from increasing self-directed programs and opportunities. These would include expansion of written and electronic guides and other materials available to visitors. Because this alternative also calls for a more individualized, self-reliant Reserve experience, less emphasis would be placed on staff-guided interpretive programs and talks. Depending on the type of visitor and their expectations, this could result in long-term beneficial or adverse effects. Although some visitors would seek out these new self-guided opportunities, other visitors could experience a decrease in interpretive and learning opportunities at the Reserve because they would not take advantage of self-guided experiences.

Visitor use opportunities to learn about soundscapes, night skies, and air quality would increase, because there would be greater focus on these resources through increased monitoring and development of night sky and soundscape management plans. A variety of educational and arts opportunities would also expand visitor use options at the Reserve, a long-term beneficial effect. With the slight expansion of the Research Natural Area, there would be improved opportunities for visitors to explore an area of southern Idaho in its natural condition with few human impacts.

Because some visitors do not stop at the visitor center, additional kiosks within the Reserve could improve visitor understanding of Reserve resources. Because there would be a greater emphasis on visitors obtaining information prior to arrival through electronic or other means, less interpretive programming in the Reserve could result in some very informed visitors (who have educated themselves prior to visiting the Reserve) as well as some visitors who could not or would not take advantage of these pre-visit opportunities and would arrive at the Reserve without this knowledge. In either case, additional information at the existing visitor center could facilitate visitor interpretation and education.

Continuing to provide some interpretive programming within the Reserve would, as in alternative A, have a long-term beneficial effect by improving visitor understanding, use, and protection of resources. Interpretive programming could incorporate tribal perspectives and opportunities for Reserve neighbors to tell their own stories, offering a broader understanding of the influence and importance of City of Rocks.

Although fewer programs and interpretive opportunities may be available within the Reserve, an extended outreach program for schools and educational organizations could inspire participants and their families to visit. Combining this with development of a new long-range interpretive plan could result in new opportunities for visitors to learn about Reserve resources, an indirect long-term beneficial effect on visitor experience associated with education and interpretation.

New programs would bring educational opportunities to the Reserve and local community through partnerships with outside entities to encourage self-expression and connection to City of Rocks using art, photography, and writing. Long-term beneficial effects would arise from encouraging development of new interpretive and educational programming to improve visitor experiences. The current emphasis on youth opportunities would continue but could be expanded to include new opportunities to learn about Reserve resources through combined educational and wilderness or climbing experiences.

Cumulative Impacts

Currently, interpretive programs serve nearly 120,000 annual visitors. There are opportunities for schoolchildren through partnerships with local schools, including programs at schools and in the Reserve, as well as Junior Ranger programs. City of Rocks also currently offers a variety of special activities, from interpretive horseback rides to snowshoe bird walks, as well as a wide range of regular interpretive programs (such as walks and talks) for day and overnight visitors. Present interpretive programs include winter and summer day camps for kids, wildflower and birding weekends, summer and fall trail rides, climbing workshops, stargazing parties, snowshoe hikes, and more. There are also two websites, several bulletin boards, numerous signs, and a wide range of interpretive publications, including a Reserve newspaper, bird checklist, self-guided trail brochures, and others. Over time there have been changes in both the number of programs and the diversity of interpretive and educational programming, and specific programs targeted to new audiences have also been implemented. Programs are based on interpretive themes developed for the Reserve and are related to the significance of the Reserve's natural and cultural resources and recreational activities.

Past actions include establishment of a cooperating association, an orientation film, and design and installation of wayside exhibits.

Future actions would include additional programs on night sky and soundscapes based on Reserve research. The Reserve's unique biological composition as a biogeographic crossroads provides opportunities for new programming regarding plant and wildlife migrations, invasive species trends, visitor use trends, and changes in hydrologic patterns in streams, springs and wetlands.

When the actions in alternative A are added to past, present, and future actions, cumulative beneficial impacts would continue. Similarly, alternative B would continue to have cumulative beneficial impacts.

Conclusion

Alternatives A and B would continue to have long-term beneficial impacts on interpretation and education. Compared to alternative A, alternative B would probably offer fewer interpretive and educational programs.

VISITOR EXPERIENCE: SCENIC RESOURCES

Alternative A and B Impacts

As noted in the CMP, impacts on scenic quality can occur from poor air quality, loss of solitude in the viewing experience, and loss of naturalness associated with the view (Reserve 1996a: p. 150).

Overall, the effects of zoning would enhance views associated with the California Trail by protecting, at a minimum, the foreground views of the California Trail by expanding protection to include a wider area through the adjacent Natural or Historic Preservation Zones. Under alternative B, all of the viewsheds identified in the NHL nomination would be protected. Alternative A would also confer protection on the 0.25-mile foreground view; however, based on continued research, current management has also protected additional areas identified as significant.

Impacts on the eight “superior” views identified in the CMP (see Reserve 1996a: p. 117) are described in the following sections.

Indian Grove (View 1): There would be no effect on this viewpoint under alternative A. Under alternative B, the Logger Spring Road turn-around improvements would be designed to avoid impacts on the viewpoint, and because the turn-around would be located behind the viewpoint and down a small rise, there would be no adverse effects on this view in alternative B. Instead, there would be long-term beneficial effects from improving safety and access associated with it.

Views 2–8: There would be no effect on these views from actions proposed in alternatives A and B.

Impacts on the 17 views identified for the DGMP/DEIS (see Figure 23. Scenic Viewpoint on page 278 of the DGMP/DEIS) are described below.

View 1) Smoky Mountain Drive: There would continue to be signs of human activity, including the abandoned house and barn and modern house and barn. Although this view is partially protected by the Cassia County Historical Preservation Ordinance, additional construction could occur in areas that are not protected.

View 2) East Entrance Reserve Sign: The reclamation of a former borrow pit in the foreground of this view would continue to have ongoing adverse impacts, caused by sparse plants and a sense of disturbance associated with the recovery. Over time, these impacts would diminish, and long-term beneficial effects would ensue.

View 3) Circle Creek Overlook and View 4) Almo Valley: Access to this area has recently been improved with the construction of two small connected parking areas, instead of the haphazard parking arrangement that previously existed. Although the approach is disturbed, the view of the basin is unaffected and there is easier access.

View 5) Camp Rock and View 6) Treasure Rock: These viewpoints, which contain waysides interpreting the California emigrant experience, would not be affected.

View 7) Cave Rock/Campsite 15: This viewpoint into the Inner City would not be affected by the proposed plan. Because this viewpoint is generally only accessible to those on Practice Rock or those camped at one of the adjacent campsites, it is unlikely to be observed by most visitors.

View 8) Look-out Rock/Campsite 22: Although an interpretive sign identifies this viewpoint, opportunities to experience this view would continue to be difficult: the campsite would remain under alternative A, and the confined area and nearby campsite parking would restrict ease of access. Under alternative B, the campsite would be removed in favor of accommodating existing day use and the parking area would be reconfigured to allow better access to the overlook. The Reserve would also consider adding a vault toilet for day and overnight visitors.

View 9) Bath Rock/Campsites 42–43: Under alternative A, there is no interpretive sign to identify this viewpoint enjoyed by the few campers using sites 40–44 as well as by hikers who venture toward the rocks beyond the parking area. Under alternative B, this area (including campsites 40–44) would be converted to a day-use picnic area. An accessible trail could potentially be signed and/or improved to allow more visitors to take advantage of this viewpoint in the heart of the Reserve.

View 10) Morning Glory Spire/Campsites 51– 52: This popular pullout with a wayside exhibit encourages visitors to stop to look at the view, which includes climbers attempting a variety of nearby routes. This view would continue to be available under all alternatives. Under alternative B, campsites 51 and 52 would close and the campsite pullout would be enhanced.

Because of the distance to a vault toilet, the campsites often contain human waste impacts. They are also currently impacting an aspen grove and are adjacent to a solar array/well and an historic corral that could be interpreted.

View 11) Emery Pass Picnic Area: This viewpoint would not be affected by the proposed plan.

View 12) Finger Rock/Campsite 63: This viewpoint would not be affected under alternative A. Under alternative B, the Rim DCP would add several campsites to this area and develop the overlook, providing for more visitor access.

View 13) Campsite 64 Bend: This viewpoint would not be affected under alternative A. Under alternative B, this campsite would be converted to a small group site. More use would be concentrated at the end of the site's access road.

View 14) Indian Grove: Impacts would be the same as for Indian Grove (CMP view 1).

View 15) Hansen Hill (also Pinnacle Pass North CMP View 7): The CMP-identified viewpoint (Pinnacle Pass North) and the Hansen Hill viewpoint, which provides access to the Pinnacle Pass view from the Reserve would not be affected by GMP actions. The Pinnacle Pass North view could be affected by actions on private land.

View 16) Emigrant Canyon: This viewpoint, developed to highlight Emigrant Canyon, contains two waysides and would continue to have beneficial effects from long-term visitor access.

View 17) Granite Pass: This very important view was associated with the national register nomination for the California Trail. A wayside depicts how it would have appeared then. Long-term beneficial effects from facilitating visitor access to this viewpoint and long-term adverse effects would continue from the visibility of a quarry yard with modern housing, including some 19th-century log structures visible outside of the Reserve boundary. From the wayside exhibit at the viewpoint, these nonconforming elements are screened by the low, unnamed hill to the left (south).

Cumulative Impacts

Although homesteading, farming, ranching, and other uses occurred after the emigrants passed through, the views the emigrants recorded in their journals can still be experienced. In addition, other scenic views have emerged with the construction of additional roads through the Reserve. With few exceptions, these views do not contain intrusions associated with later development; however, some have also changed with time and the continuing presence of people on the land. Most changes are subtle and associated with altered vegetation patterns wrought by farming and ranching and are not evident to most visitors. Past actions have highlighted the significance of the Reserve's scenic qualities for future generations. Present actions include continuing to manage these areas in accordance with their established significance and enhancing opportunities for preservation of the area's natural and cultural resources. The ongoing focus on establishing most visitor facilities outside the Reserve, combined with establishing appropriate visitor facilities within it, has also had a long-term beneficial effect on preserving these scenic views.

Future actions would also contribute long-term beneficial effects on the preservation of scenic resources, where jurisdiction and/or authority exist. If nearby development proposals associated with the Granite Pass viewshed occurred (for example, installation of transmission lines or wind turbines), there would be localized cumulative adverse impacts.

When actions in alternative A are added to the localized adverse effects of past actions, the mostly beneficial effects associated with present actions and the beneficial effects of future actions, there would be cumulative beneficial effects on scenic resources. If future development proposals were implemented within viewsheds, such as the one toward Granite Pass, there would be localized cumulative adverse effects. Similarly, impacts associated with alternative B would also have cumulative beneficial effects when combined with the localized effects of past actions. Cumulative beneficial effects would be enhanced in alternative B primarily because of the proposed implementation of the Rim DCP recommendations and GMP zoning, which in several cases would highlight scenic views for visitors and expand protection by establishing a California Trail Zone.

Conclusion

Alternatives A and B would have long-term beneficial effects on scenic viewsheds.

SPECIAL USES AND DESIGNATIONS: GRAZING AND LIVESTOCK TRAILING

Alternative A Impacts

Livestock use (grazing and trailing) would continue to occur within City of Rocks as it has since about 1843, beginning with the first emigrant wagon trains on the California Trail (Reserve 2008a: p. 3). As homesteads were established, grazing continued and crop cultivation began. Crop cultivation ended in 1952, but grazing continues on public and private lands. “The interrelationship of private and public lands is such that if any part of this cyclic grazing pattern is removed, it would be difficult for a ranch to continue to operate” (Sharp and Sanders in Reserve 1996b: p. 3). “The economic livelihood of the permittees using the allotments addressed in this plan is largely dependent on their being able to continue to graze their current numbers of livestock” (Reserve 2008a: p. 3). Long-term adverse and beneficial effects would persist from continuing grazing and livestock trailing (see Reserve 1996b: p. 1–2).

Under alternative A, most of the grazing allotments would continue to be used. This includes more than 11,000 acres (approximately 76%) of land within the Reserve boundary. Recommendations for improving range condition and monitoring allotments would also continue. Although the Circle Creek allotment was closed to increase protection for and public access to the California Trail, this has had a small adverse effect on grazing opportunities because the same number of livestock are permitted to graze elsewhere.

Long-term beneficial effects would continue from the superintendent’s authority to transfer livestock grazing permits to immediate family members/heirs. Adverse effects could continue when the Reserve and the Bureau of Land Management differ as to the acceptance of a transfer of grazing rights, as occurred in Trail Canyon (BLM Preliminary DEIS comments, Chapter 5, p. 166).

Grazing has caused an increase in native woody plants (especially sagebrush and rabbitbrush), an increase in nonnative plants resistant to grazing, and a decrease in native perennial grasses and forbs in the Reserve, resulting in reduced range conditions (Reserve 1996a: p. 44). Prescribed fire would continue to be used in adjacent BLM and USFS grazing allotments. Despite prescribed fire being recommended as a tool in the draft grazing plan, no prescribed fire would be used to manage Reserve grazing allotments. This would have continuing long-term localized adverse effects on grazing if range conditions continued to deteriorate.

Alternative A actions could have a range of beneficial and localized adverse effects on livestock grazing, depending on specific measures, but would be unlikely to adversely affect the ability of permittees to graze or trail livestock in the Reserve.

Alternative B Impacts

Impacts would be similar to alternative A. The Reserve would continue to manage grazing to meet long-range objectives to preserve and protect the significant natural and cultural resources within it and to maintain grazing at an economically viable level for the permittees, benefitting grazing and livestock trailing. As in alternative A, grazing in riparian areas and wetlands would be systematically reduced through fencing and/or other modifications, such as timing, and grazing (but not trailing) would continue to be prohibited in the Research Natural Area. Although the Research Natural Area would be expanded, areas proposed for expansion are not currently used for grazing and would not affect it. The loss of grazing area attributed to fencing out wetlands and riparian areas would continue to have long-term adverse effects on allotments.

Allotment reductions could occur if permittees discontinue requests for permits based on changing business models or abandonments, if independent buyouts occurred, or for noncompliance with the conditions of their permits. If the total number of livestock and animal unit months decreased through attrition, grazing would continue at a reduced level. Because reductions would be focused on the California Trail Zone or the Visitor Facilities and Access Zone, attrition and redistribution could reduce grazing to an unknown degree in these areas.

Cumulative Impacts

Past actions that have affected grazing and livestock trailing include dryland farming in some areas. These lands were slow to revert back to their natural vegetation, and forage production was limited (Reserve 2008a). With the availability of crested wheatgrass in the late 1940s and 1950s, much of the farmed area was cleared and seeded with crested wheatgrass. Prior to seeding, the availability of spring and fall forage generally determined how many cattle a ranch could run. The crested wheatgrass seeding, however, increased the amount of forage and also gave the associated depleted native ranges an opportunity for recovery and improvement in ecological condition, albeit to a nonnative assemblage of species (Reserve 2008a: p. 3). The species composition of most of the lower elevation basins has been altered by past uses.

Historical land management activities, livestock grazing, and fire suppression likely reduced the natural fire frequency, resulting in the dominance of woody species and Morris 2006 in Erixson and Corrao 2011). This has resulted in invasion of some areas by woody species, including sagebrush and juniper. Other allotments are dominated by curl-leaf mountain mahogany and juniper. The heavy fuel load provided by woody species probably contributed to the intensity and spread of wildfires in 1999 and 2000. Without brush and tree control, range conditions for grazing would deteriorate, while future fires of higher intensity would threaten the Reserve. Fine fuels accumulation also increased wildfire ignition (Reserve 2008a: p. 5).

Since Reserve establishment, available grazing area has been reduced by approximately 1,115 acres from eliminating the former Circle Creek allotment and redistributing it. Animal unit months have been reduced by approximately 18 (see Table 45 on page 452 of the DGMP/DEIS. Comparison of Grazing Allotments 1989 and 2013). Outside the Reserve, grazing areas have remained fairly stable. Currently, six permittees graze cattle on approximately 7,000 acres of

public land in the Reserve and 4,000 acres of private land for a total of approximately 11,000 acres or 76% of the 14,407 acres of land within the boundary (Reserve 2010). Reserve lands are grazed by an estimated 472 AUMs in six allotments.

Present actions include an enclosure around a spring and riparian area at Indian Grove (Graham Creek allotment). When actions in alternative A are added to the effects of other past, present, and future actions, there would continue to be cumulative adverse effects on grazing and livestock trailing. Alternative B would have cumulative adverse effects on grazing and beneficial effects on livestock trailing.

Conclusion

Existing impacts on grazing and livestock trailing would continue in alternative A, and animal unit months would not change. Grazing and livestock trailing would continue to be permitted in all zones except for the RNA Zone under alternatives A and B. Future opportunities to reduce grazing in the California Trail and Visitor Facilities and Access zones in alternative B could result in grazing limits; however, livestock trailing would continue.

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CHAPTER FIVE

CONSULTATION AND COORDINATION

CHAPTER 5: CONSULTATION AND COORDINATION

Public involvement and consultation efforts were ongoing throughout the process of preparing this GMP/EA. Public involvement methods included Federal Register notices, news releases, public meetings and workshops, newsletter mailings, and website postings. This chapter provides information about each public involvement period and summarizes public comments received by the National Park Service and Idaho Department of Parks and Recreation during each phase.

LIST OF ENTITIES CONSULTED

The National Park Service actively consulted agencies, organizations, and individuals throughout the planning process to discuss the planning issues, preliminary alternatives, preferred alternative, DGMP/DEIS, and proposed changes that are included in this GMP/EA. Entities that were frequently consulted included Cassia County, Idaho Department of Parks and Recreation, Bureau of Land Management, US Forest Service, the NPS Upper Columbia Basin Network Inventory and Monitoring team, the University of Idaho, the Idaho State Historic Preservation Office, the Advisory Council on Historic Preservation, and the Shoshone-Bannock Tribes.

PUBLIC SCOPING AND REVIEW OF THE PRELIMINARY ALTERNATIVES

Public scoping was held between September and October 2009 and included five workshops in five Idaho locations. Additional stakeholder meetings were held on September 23, 2009, in Burley, Idaho, and on October 22 in Ketchum, Idaho. Twenty-seven comments were received from individuals or organizations and were used to identify a range of issues informing the development of alternatives. Public review of the preliminary alternatives was conducted on April 26, 2011, in Almo, Idaho. More than 150 individuals or organizations provided comments regarding concerns and preferences that helped shape the preferred alternative. More detailed summaries of public scoping and alternatives review are in the 2015 DGMP/DEIS (“Chapter 6: Public Involvement”).

PUBLIC REVIEW OF THE DGMP/DEIS

Public review of the DGMP/DEIS occurred between April and May 2015 with a comment period and through two public meetings held in two locations, with 25 people participating and approximately 13 written comments received. A summary of the public review of the DGMP/DEIS and NPS responses to public comments on the DGMP/DEIS is included in “Appendix J: DGMP/DEIS Public Review Summary, Public Concerns and NPS Responses.”

A list of the DGMP/DEIS recipients are in that document’s “Chapter 6: Public Involvement.”

CONSULTATION

Consultation with the Idaho State Historic Preservation Office and the Advisory Council for Section 106

Formal consultation for Section 106 was initiated in September 2009 during the initial scoping period for the GMP. Through 2010 and 2012, the planning team communicated and met with

the state historic preservation office several times during development of preliminary alternatives. After the release of the DGMP/DEIS in April 2015, the National Park Service submitted a copy of the document to the state historic preservation office with a cover letter dated April 23, 2015, requesting review and comment. The state historic preservation office responded with a comment letter dated June 22, 2015, concurring with the Draft GMP's Preferred Alternative (Alternative B).

On December 22, 2016, the National Park Service submitted a letter to the Idaho SHPO requesting review of the Area of Potential Effect and concurrence on the DGMP/DEIS "no adverse effect" determination. In a January 17, 2017, letter, the Idaho SHPO expressed full support for the preferred alternative. Stating that they don't "typically provide a Section 106 recommendation regarding project effect for GMPs," the state historic preservation office nevertheless expressed full support for the preferred alternative and the planning team's proposed language to describe Section 106 compliance in the decision document. Subsequently, the DGMP/DEIS was modified to become an environmental assessment. No new proposals were added, and the document retains the "broad guidance" perspective relied on by the state historic preservation office to support the preferred alternative.

The GMP/EA provides broad guidance for prospective undertakings; in other words, specific undertakings have not been fully developed. Because of the programmatic nature of the GMP and the progression of federal undertakings that may stem from the plan, the National Park Service cannot yet assess specific effects of future undertakings on historic properties. As implementation of the GMP selected alternative is carried out, the National Park Service will conduct Section 106 compliance for undertakings and continue to consult with the Idaho SHPO, Advisory Council on Historic Preservation, American Indian tribes, and other consulting parties as necessary on the effects of each undertaking on historic properties. Therefore, the National Park Service has determined that historic properties will not be adversely affected by the development or planning process of the preferred alternative in the GMP/EA. See "Appendix M: Section 106 Consultation" for the full Section 106 summary including consultation and public engagement.

GOVERNMENT TO GOVERNMENT CONSULTATION

Consultation with American Indian tribes is the responsibility of the National Park Service.

Shoshone-Bannock Tribes

Background. Beginning with NPS consultation and research in the mid-1990s, the Shoshone-Bannock Tribes have expressed an interest in the Reserve. Although their reservation is distant from the Reserve, knowledgeable tribal members have indicated that they or others have visited the Reserve periodically to gather pinyon nuts. The historical record places the Reserve within the territory of at least one band of Shoshone as noted in Article 4 of the Treaty of Box Elder: "The country claimed by Pocatello, for himself and his people, is bounded on the west by Raft River and on the east by the Porteneuf Mountains."

The association of Pocatello with City of Rocks was also documented in the period prior to 1863 and subsequently. Following the establishment of the Fort Hall Reservation, under the terms of the 1868 Treaty of Fort Bridger, Pocatello and others continued to live in northwestern Utah and could have visited City of Rocks. The Fort Bridger Treaty not only established a geographic area to be set aside for tribal use and to provide for specific facilities and services to support the tribal community, it also afforded the tribes the right to hunt on unoccupied land of the United States

where game can be found. Later, Pocatello resided in the Bannock Creek portion of the reservation, but visits to locations with pinyon trees and other resources in their old homeland may well have continued. All indications are that members of the contemporary Fort Hall Reservation consider themselves or their tribe to be traditionally associated with the Reserve.

Consultation. In September 2009 during the initial scoping period for the GMP, formal consultation was initiated with the Shoshone-Bannock Tribes associated with City of Rocks. The National Park Service has regularly consulted with the Shoshone-Bannock Tribes of the Fort Hall Reservation since the early 1990s when they were initially contacted about the City of Rocks National Reserve and the Bear River Massacre Site near Preston, Idaho.

In September 2009, the planning team sent information about the GMP to the Chairman of the Shoshone-Bannock Tribes and the Cultural Resources Coordinator in Fort Hall, Idaho. On October 5, 2009, the Reserve staff followed up with a phone call to the Tribe's Cultural Resources Coordinator to be sure that the packet was received and to answer any potential questions. No comments were received by the planning team.

In winter 2010, a second GMP newsletter was mailed to the Shoshone-Bannock Tribes providing a summary of public comments during the public scoping period.

On January 10, 2011, the NPS Pacific West Regional Anthropologist contacted the Shoshone-Bannock Tribes to inform them about the development of preliminary alternatives. The National Park Service then sent the tribes a briefing packet on the preliminary alternatives before general public review. Reserve staff followed up in March by telephone to determine if there were any comments, questions, or concerns on the preliminary alternatives. No comments were received.

In April 2011, during public review, the Shoshone-Bannock Tribes received printed copies of the third newsletter (preliminary alternatives). No comments were received by the National Park Service from the Shoshone-Bannock Tribes.

In April 2015, the planning team sent the DGMP/DEIS for review and comment, and in April 2016, meetings between the National Park Service and the Shoshone-Bannock staff and Tribal Council were held.

The National Park Service has provided responses to the concerns raised during the public comment period and at tribal consultation meetings in "Appendix J: DGMP/DEIS Public Review Summary, Public Concerns and NPS Responses." In some cases, changes were made to the GMP text as part of the response to comments.

In December 2016, a request for review on the NPS finding of no adverse effect from the preferred alternative was sent. No further comments were received.

Shoshone-Paiute Tribes

Background. The National Park Service first consulted with the Shoshone-Paiute Tribes and included them in a research project in the mid-1990s (Myers 1998). At the time, tribal officials did not indicate an interest in or association with the Reserve. The research did not find any evidence for historic or ongoing associations between members of the tribe and the Reserve. In the course of preparing this plan, extensive research on the history of the Shoshone-Paiute Tribes sought to find evidence of associations with the Reserve. Little was found, but the Duck Valley Shoshone-Paiute Tribes have recently shown interest in preservation and protection of archeological materials, natural resources, and landscape features important to Shoshone people. It is possible that associations with the Reserve were developed by members of the tribe

after establishment the first Western Shoshone reservation at Duck Valley in 1877 under the terms of the 1863 Treaty of Ruby Valley. Information in support of such associations continues to be welcomed by the Reserve.

Consultation. The Shoshone-Paiute Tribes of the Duck Valley have expressed an interest in consultation about the Reserve as part of the GMP process. The National Park Service offered to meet with the tribes in an October 2011 letter responding to the Shoshone-Paiute Tribes.

In October 2013, Reserve and NPS staff met with the Shoshone-Bannock Tribes, the Shoshone-Paiute Tribes, Idaho SHPO, Bureau of Land Management, and the Deputy Keeper of the National Register at the Reserve. This meeting focused on the proposed traditional cultural property nomination that the Bureau of Land Management and the tribes have been developing. During this meeting, the Reserve superintendent updated the tribes about the status of the draft GMP. Both the Shoshone-Bannock and the Shoshone-Paiute Tribes received advance copies of the draft GMP for comment in November; however, no specific comments were received.

In April 2015, the planning team sent the DGMP/DEIS for review and comment and in September 2016, a meeting between the National Park Service and the Shoshone-Paiute Tribes was held.

The National Park Service has provided responses to the concerns raised during the public comment period and at tribal consultation meetings in “Appendix J: DGMP/DEIS Public Review Summary, Public Concerns and NPS Responses.” In some cases, changes were made to the GMP text as part of the response to comments.

In December 2016, a request for review on the NPS finding of no adverse effect from the preferred alternative was sent. No further comments were received.

Section 7

Formal consultation for Section 7 was initiated by the planning team in June 2009 with the U.S. Fish and Wildlife Service.

The US Fish and Wildlife Service responded to the GMP newsletter and request for a Section 7 species list on June 30, 2009, with a list of endangered, threatened, proposed, and/or candidate species and designated critical habitat in the area of the Reserve. There were no listed or proposed species and no proposed or designated critical habitat. One candidate species, Christ’s Indian paintbrush (*Castilleja christii*), was noted as being found near the Reserve.

Another review of the USFWS species and critical habitat listing information occurred before publication of the GMP/EA. No additional listed species occur in or near the Reserve. In 2015, the US Fish and Wildlife Service determined that greater sage-grouse, candidate species at the time of the publication of the DGMP/DEIS, was not warranted for listing.



APPENDIXES

APPENDIXES

Background

Appendix A: Selected Maps and Figures

Appendix B: Reserve Legislation

Alternatives

Appendix C: Rim Development Concept Plan

Appendix D: Actions Considered But Dismissed

Appendix E: User Capacity, Indicators, Standards, Mgmt Strategies, and Monitoring Strategies

Appendix F: Management Zones

Impact Analysis

Appendix G: Special Status Wildlife Species

Appendix H: Plans and Projects Considered in the Cumulative Effects Analysis

Appendix I: Mitigation Measures

Public Review

Appendix J: DGMP/DEIS Public Review Summary, Public Concerns, and NPS Responses

Other Compliance

Appendix K: City of Rocks National Reserve Wilderness Eligibility Study

Appendix L: Analysis of Boundary Adjustment and Land Protection

Appendix M: Section 106 Consultation

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APPENDIX A: SELECTED MAPS AND FIGURES

These maps and figures are reprinted from the DGMP/DEIS (2015) and retain their original numbering. Additional maps and figures can be found in the DGMP/DEIS.

Figure 2: Land Ownership and Management

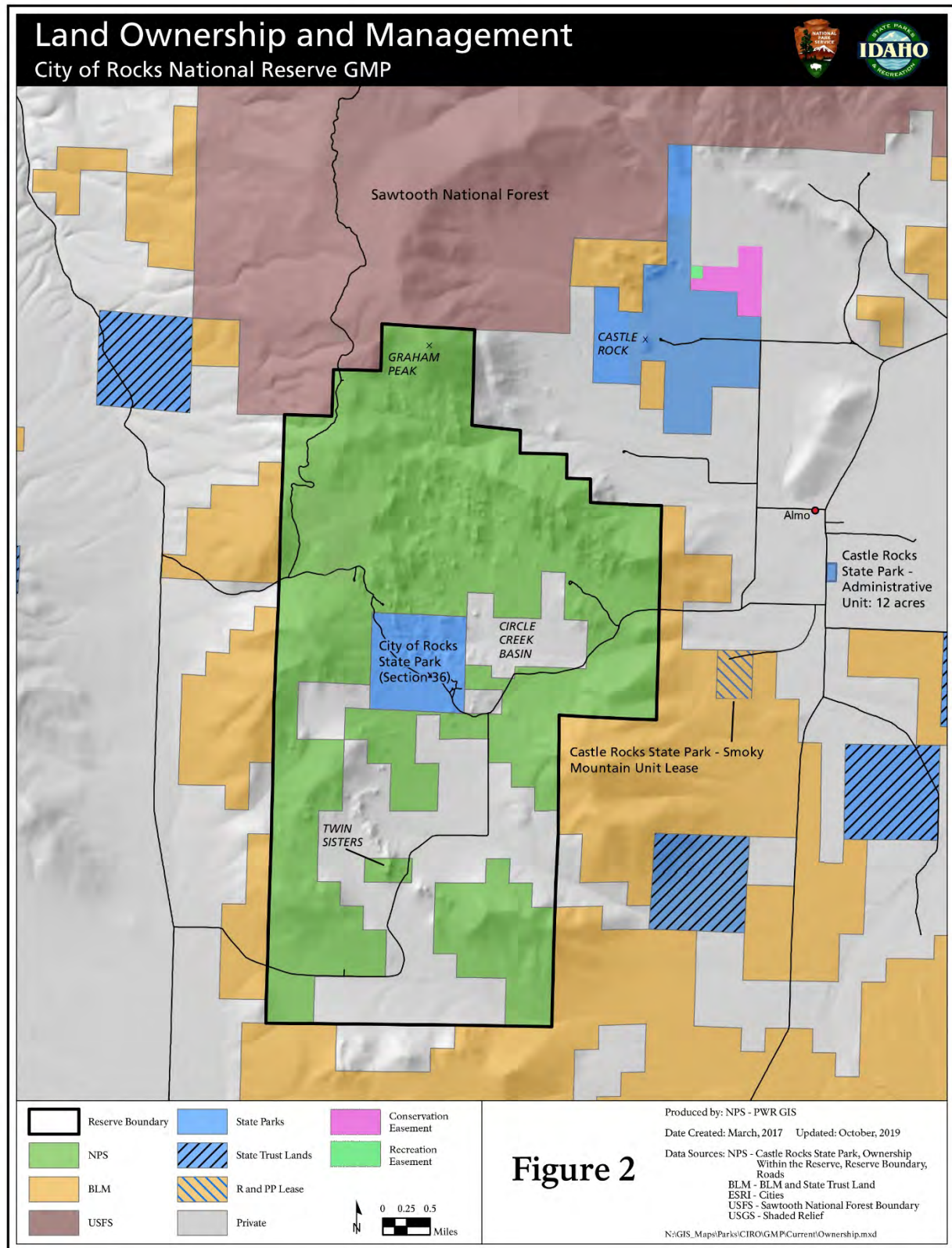


Figure 3: Existing Conditions

Existing Conditions

City of Rocks National Reserve Draft GMP/EIS

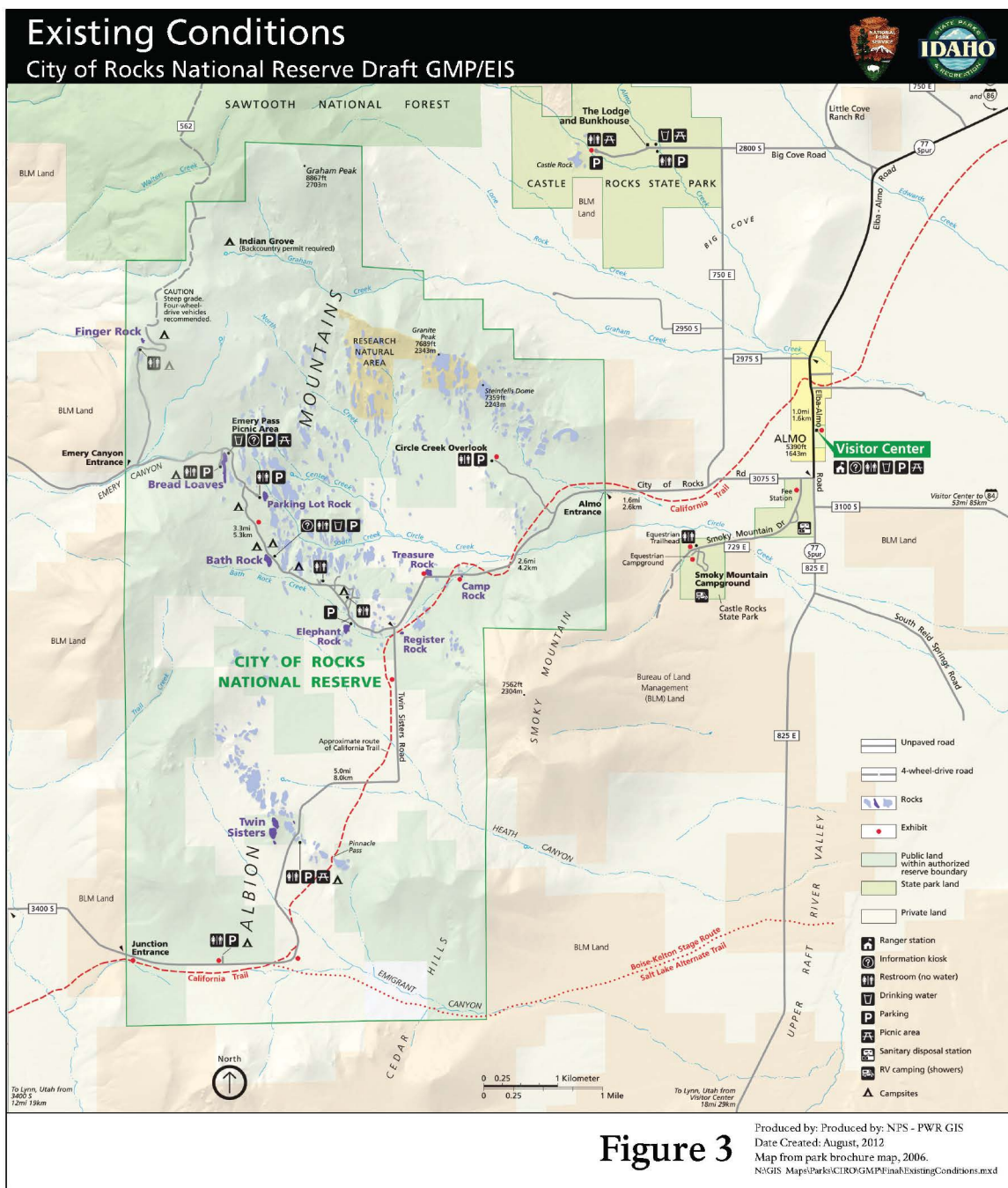


Figure 4: Designations

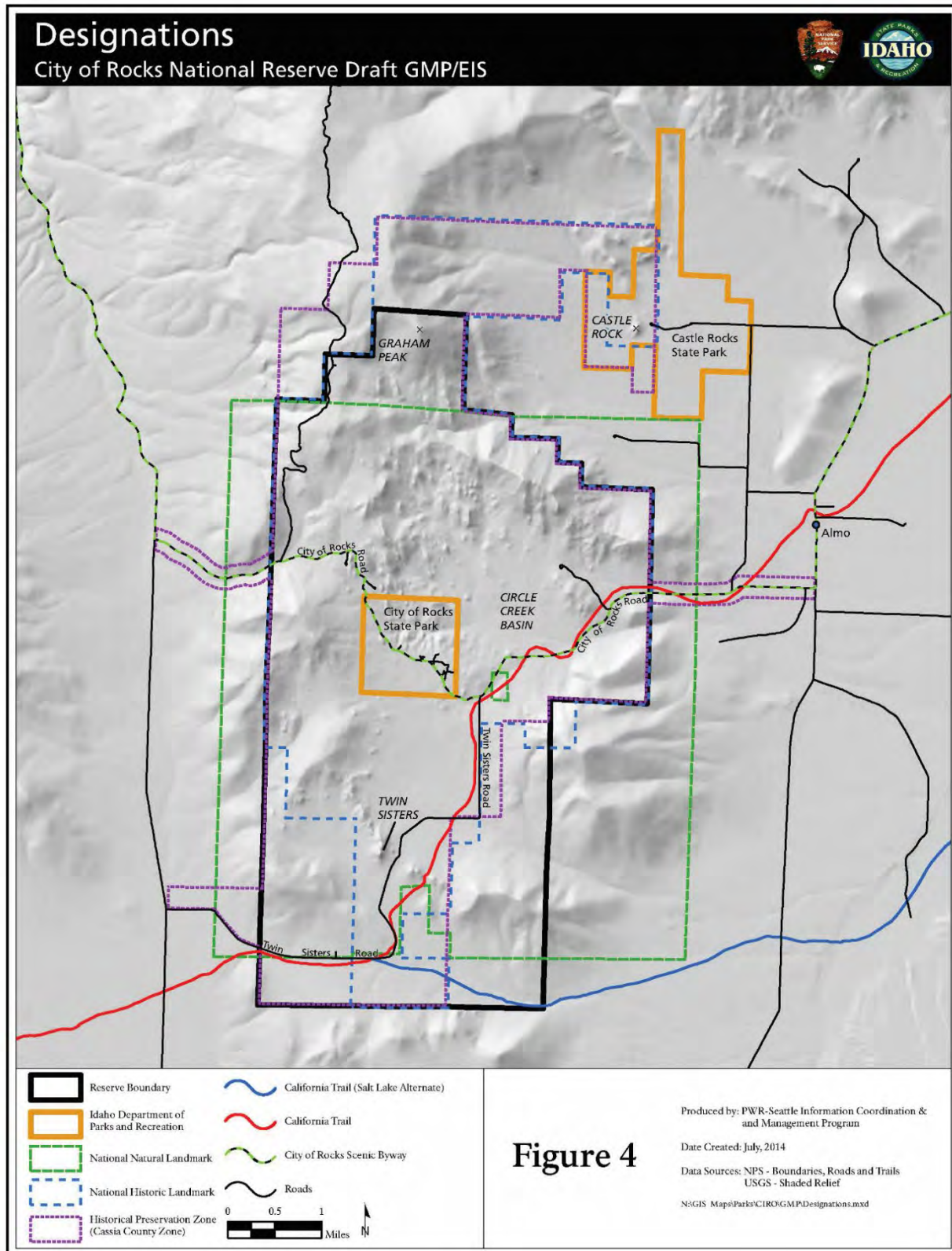


Figure 7: Trail Addition for Alternative B

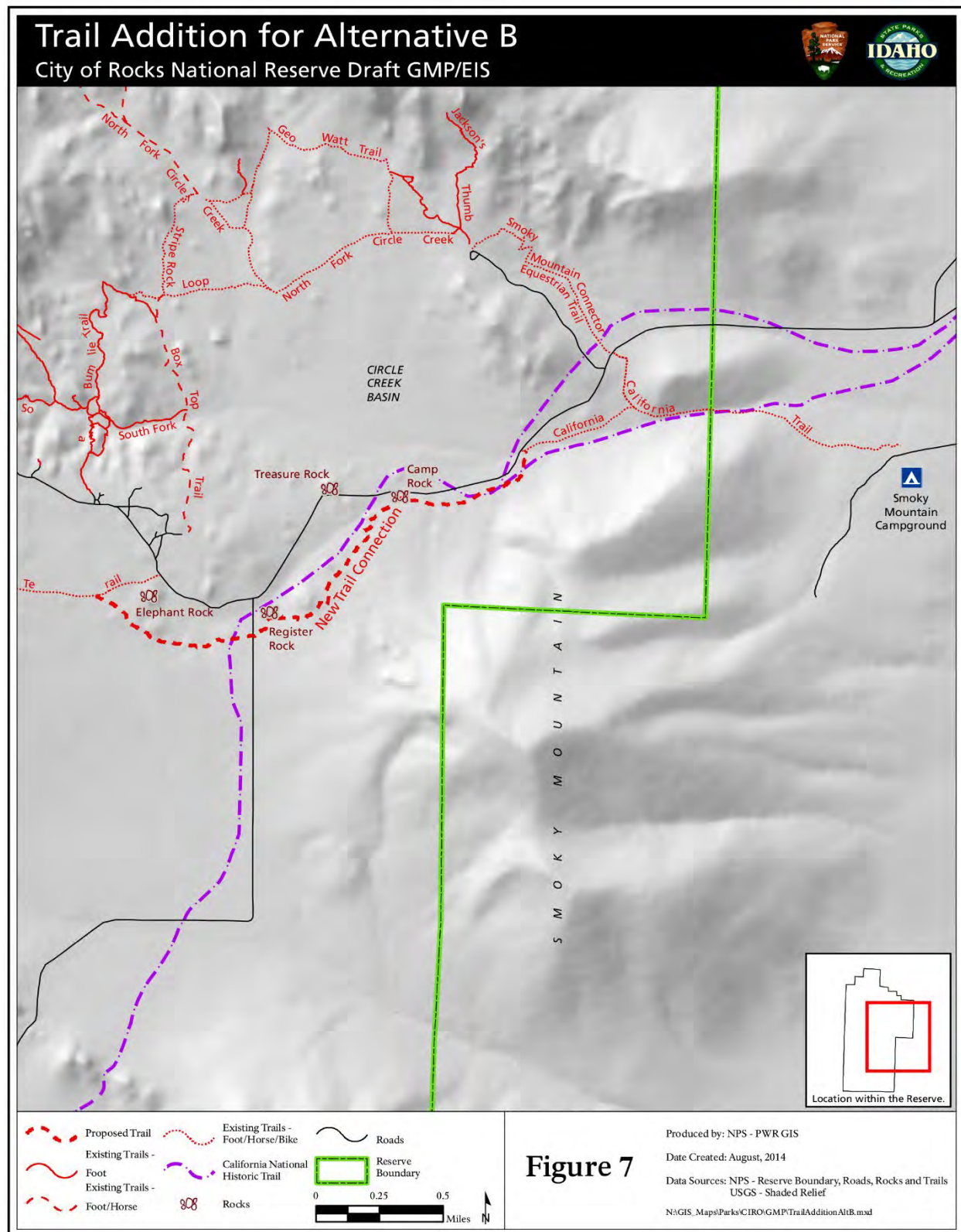


Figure 12: Grazing Allotments

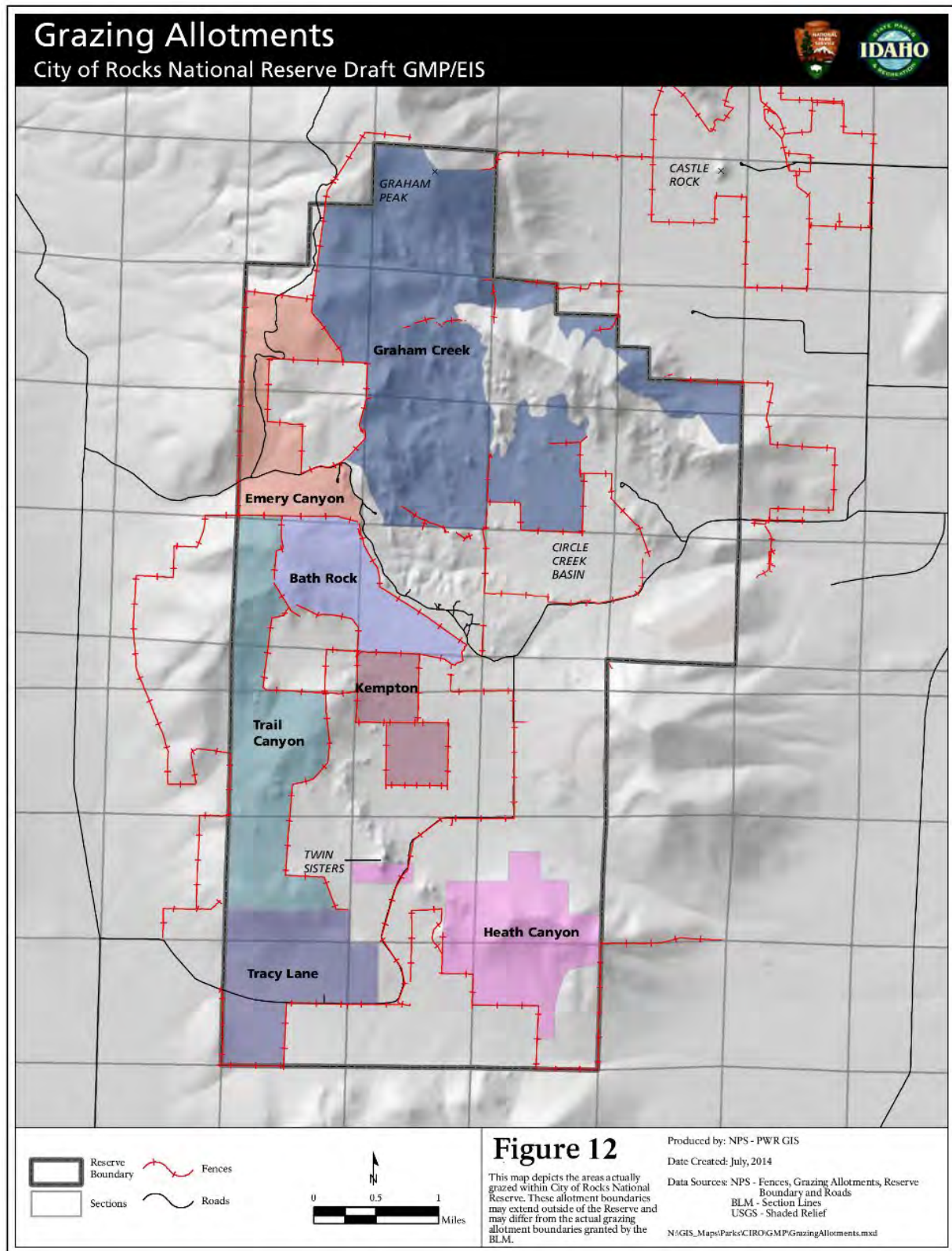
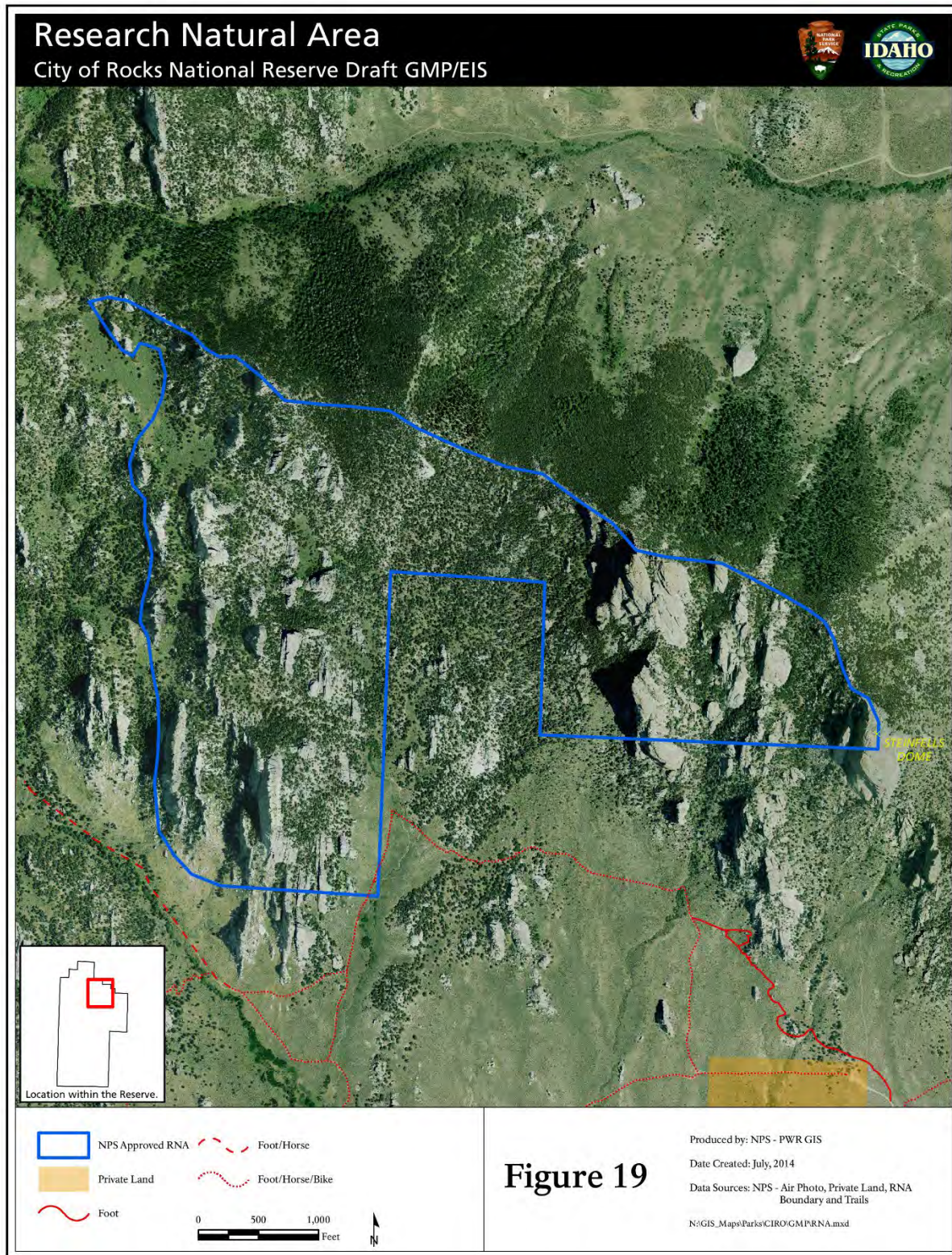


Figure 19: Research Natural Area



APPENDIX B: RESERVE LEGISLATION

CITY OF ROCKS NATIONAL RESERVE (16 U.S.C. §460YY)

Text contains those laws in effect on October 21, 2019

§460yy. Establishment

(a) In general

There is hereby established the City of Rocks National Reserve (hereinafter referred to as the "reserve"), in order to preserve and protect the significant historical and cultural resources; to manage recreational use; to protect and maintain scenic quality; and to interpret the nationally significant values of the reserve.

(b) Area included

The reserve shall include approximately fourteen thousand three hundred and twenty acres as depicted on the map entitled "Boundary Map, City of Rocks National Reserve, Idaho" numbered P30–80,005 and dated October 1987. The map shall be on file in the offices of the National Park Service, Department of the Interior and the Offices of the Governor, State of Idaho.

(c) Legal description

Within six months after November 18, 1988, the Secretary of the Interior (hereinafter in this subchapter referred to as the "Secretary") shall file a legal description of the reserve designated under this section with the Committee on Interior and Insular Affairs of the United States House of Representatives and with the Committee on Energy and Natural Resources of the United States Senate. Such legal description shall have the same force and effect as if included in this subchapter, except that the Secretary may correct clerical and typographical errors in such legal description and in the map referred to in subsection (b). The legal description shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior and the offices of the Governor of the State of Idaho.

(Pub. L. 100–696, title II, §201, Nov. 18, 1988, 102 Stat. 4573.)

Change of Name

Committee on Interior and Insular Affairs of the House of Representatives changed to Committee on Natural Resources of the House of Representatives on Jan. 5, 1993, by House Resolution No. 5, One Hundred Third Congress.

§460yy–1. Plan and management

(a) Development of plan

To achieve the purpose of this subchapter, the Secretary, acting through the National Park Service, in cooperation with appropriate State and Federal agencies, local units of government and local residents shall formulate a comprehensive plan for the protection, preservation, and interpretation of the reserve. The plan shall identify those areas or zones within the reserve which would most appropriately be devoted to-

- (1) public use and development;
- (2) historic and natural preservation; and
- (3) private use subject to appropriate local ordinances designed to protect the historic rural setting.

(b) Transmittal of plan to Congress and State

Within eighteen months following November 18, 1988, the Secretary shall transmit the plan to the President of the Senate and the Speaker of the House of Representatives and to the Governor of the State of Idaho.

(c) Transfer of management and administration to State or local units of government

At such time as the State or appropriate units of local government having jurisdiction over land use within the reserve have enacted ordinances or established regulations which in the judgment of the Secretary will protect and preserve the historic and natural features of the area in accordance with the comprehensive plan, the Secretary shall, pursuant to cooperative agreement-

- (1) transfer management and administration over all or any part of the property acquired under subsection (d) of this section to the State or appropriate units of local government;
- (2) provide technical assistance to such State or units of local government in the management, protection, and interpretation of the reserve; and
- (3) make periodic grants, which shall be supplemental to any other funds to which the grantee may be entitled under any other provision of law, to such State or local unit of government to carry out the purposes of this subchapter.

(d) Acquisition of land

(1) The Secretary is authorized to acquire such lands and interests as he determines are necessary to accomplish the purposes of this subchapter by donation, purchase with donated funds, or appropriated funds, or exchange, except that the Secretary may not acquire the fee simple title to any land without the consent of the owner. The Secretary shall, in addition, give prompt and careful consideration to any offer made by an individual owning property within the reserve to sell such property, if such individual notifies the Secretary that the continued ownership of such property is causing, or would result in, undue hardship.

(2) Lands and waters, and interests therein, within the boundaries of the reserve which were administered by the Forest Service, United States Department of Agriculture or the Bureau of Land Management, Department of the Interior prior to November 18, 1988, are hereby transferred to the administrative jurisdiction of the Secretary to be administered by the National Park Service in accordance with this subchapter.

(3) Lands and interest therein so acquired shall, so long as responsibility for management and administration remains with the United States, be administered by the Secretary subject to the provisions of the Act of August 25, 1916 (39 Stat. 535),¹ as amended and supplemented, and in a manner consistent with the purpose of this subchapter.

(e) Withdrawal of management and administration from State or local units of government

If, after the transfer of management and administration of any lands pursuant to subsection (c) of this section, the Secretary determines that the reserve is not being managed in a manner consistent with the purposes of this subchapter, he shall so notify the appropriate officers of the State or local unit of government to which such transfer was made and provide for a one hundred and eighty-day period in which the transferee may make such modifications in applicable laws, ordinances, rules, and procedures as will be consistent with such purposes. If, upon the expiration of such one hundred and eighty-day period, the Secretary determines that such modifications have not been made or are inadequate, he shall withdraw the management and administration from the transferee, and he shall manage such lands in accordance with the provisions of this subchapter.

(f) Water rights

Congress finds that there are unique circumstances with respect to the water and water related resources within the Reserve 1 designated by this subchapter. The Congress recognizes that the management of this area may be transferred to the State of Idaho, that the State has committed to providing the water necessary to fulfill the purposes of this subchapter, and that there is little or no water or water-related resources that require the protection of a Federal reserved water right. Nothing in this subchapter, nor any action taken pursuant thereto, shall constitute either an express or implied reservation of water or water right for any purpose: Provided, That the United States shall retain that reserved water right which is associated with the initial establishment and withdrawal of the national forest lands which will be transferred to the Reserve 1 under this subchapter.

(g) Withdrawal of lands from disposition under other laws

Subject to valid existing rights, Federal lands and interests therein, within the reserve, are hereby withdrawn from disposition under the public land laws and from entry or appropriation under the mining laws of the United States, from the operation of the mineral leasing laws of the United States, and from operation of the Geothermal Steam Act of 1970, as amended [30 U.S.C. 1001 et seq.].

(h) Authorization of appropriations

There is hereby authorized to be appropriated not to exceed \$2,000,000 to carry out the provisions of this subchapter.

(Pub. L. 100-696, title II, §202, Nov. 18, 1988, 102 Stat. 4574.)

Permission To Hunt on Reserve; Restrictions

Pub. L. 101-512, title I, Nov. 5, 1990, 104 Stat. 1923 , provided that: "with respect to lands and waters under the jurisdiction of the Secretary of the Interior within the City of Rocks National Reserve established by title II of Public Law 100-696 [enacting sections 460yy and 460yy-1 of this title], the Secretary shall hereafter permit hunting in accordance with the otherwise applicable laws of the United States and the State of Idaho, except that he may designate zones where and periods when no hunting may be permitted for reasons of public safety, administration, floral and faunal protection and management, or public use and enjoyment: Provided further, That except in

emergencies, any regulation prescribing such restrictions shall be put into effect only after consultation with the appropriate State agency having jurisdiction over hunting activities".

Castle Rock Ranch Acquisition Act of 2000

An Act to direct the Secretary of the Interior to enter into land exchanges to acquire from the private owner and to convey to the State of Idaho approximately 1,240 acres of land near the City of Rocks National Reserve, Idaho, and for other purposes.

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

SECTION 1. SHORT TITLE.

This Act may be cited as the ``Castle Rock Ranch Acquisition Act of 2000''.

SEC. 2. DEFINITIONS.

In this Act:

(1) Monument.--The term ``Monument'' means the Hagerman Fossil Beds National Monument, Idaho, depicted on the National Park Service map numbered 300/80,000, C.O. No. 161, and dated January 7, 1998.

(2) Ranch.--The term ``Ranch'' means the land comprising approximately 1,240 acres situated outside the boundary of the Reserve, known as the ``Castle Rock Ranch''.

(3) Reserve.--The term ``Reserve'' means the City of Rocks National Reserve, located near Almo, Idaho, depicted on the National Park Service map numbered 003/80,018, C.O. No. 169, and dated March 25, 1999.

(4) Secretary.--The term ``Secretary'' means the Secretary of the Interior.

SEC. 3. ACQUISITION OF CASTLE ROCK RANCH.

(a) In General.--Subject to subsection (b), the Secretary shall acquire, by donation or by purchase with donated or appropriated funds, the Ranch.

(b) Consent of Landowner.--The Secretary shall acquire land under subsection (a) only with the consent of the owner of the land.

SEC. 4. LAND EXCHANGE.

(a) In General.--

(1) Federal and state exchange.--Subject to subsection (b), on completion of the acquisition under section 3(a), the Secretary shall convey the Ranch to the State of Idaho in exchange for approximately 492.87 acres of land near Hagerman, Idaho, located within the boundary of the Monument.

(2) State and private landowner exchange.--On completion of the exchange under paragraph (1), the State of Idaho may exchange portions of the Ranch for private land within the boundaries of the Reserve, with the consent of the owners of the private land.

(b) Condition of Exchange.--As a condition of the land exchange under subsection (a)(1), the State of Idaho shall administer all private land acquired within the Reserve through an exchange under this Act in accordance with title II of the Arizona-Idaho Conservation Act of 1988 (16 U.S.C. 460yy et seq.).

(c) Administration.--State land acquired by the United States in the land exchange under subsection (a)(1) shall be administered by the Secretary as part of the Monument.

(d) No Expansion of Reserve.--Acquisition of the Ranch by a Federal or State agency shall not constitute any expansion of the Reserve.

(e) No Effect on Easements.--Nothing in this Act affects any easement in existence on the date of enactment of this Act.

Approved November 1, 2000.

Public Law 106-421, 106th Congress

National Trails System (16 U.S.C. §1242)

Text contains those laws in effect on October 21, 2019

§1242. National Trails System.

(A) Composition: Recreation Trails; Scenic Trails; Historic Trails; Connecting or Side Trails; Uniform Markers

The national system of trails shall be composed of the following:

(1) National recreation trails, established as provided in section 1243 of this title, which will provide a variety of outdoor recreation uses in or reasonably accessible to urban areas.

(2) National scenic trails, established as provided in section 1244 of this title, which will be extended trails so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass. National scenic trails may be located so as to represent desert, marsh, grassland, mountain, canyon, river, forest, and other areas, as well as landforms which exhibit significant characteristics of the physiographic regions of the Nation.

(3) National historic trails, established as provided in section 1244 of this title, which will be extended trails which follow as closely as possible and practicable the original trails or routes of travel of national historical 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 an historic trail which are on federally owned lands and which meet the national historic trail criteria established in this chapter are included as Federal protection components of a national historic trail. The appropriate Secretary may certify other lands as protected segments of an

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 chapter 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.

(4) Connecting or side trails, established as provided in section 1245 of this title, which will provide additional points of public access to national recreation, national scenic or national historic trails or which will provide connections between such trails.

The Secretary of the Interior and the Secretary of Agriculture, in consultation with appropriate governmental agencies and public and private organizations, shall establish a uniform marker for the national trails system.

(B) Extended Trails

For purposes of this section, the term "extended trails" means trails or trail segments which total at least one hundred miles in length, except that historic trails of less than one hundred miles may be designated as extended trails. While it is desirable that extended trails be continuous, studies of such trails may conclude that it is feasible to propose one or more trail segments which, in the aggregate, constitute at least one hundred miles in length.

(Pub. L. 90-543, §3, Oct. 2, 1968, 82 Stat. 919; Pub. L. 95-625, title V, §551(4), (5), Nov. 10, 1978, 92 Stat. 3511, 3512; Pub. L. 98-11, title II, §203, Mar. 28, 1983, 97 Stat. 42; Pub. L. 104-333, div. I, title VIII, §814(d)(1)(E), Nov. 12, 1996, 110 Stat. 4196.)

National scenic and national historic trails (16 USC §1244)

Text contains those laws in effect on October 21, 2019.

§1244. National Scenic and National Historic Trails

(A) Establishment and Designation; Administration

National scenic and national historic trails shall be authorized and designated only by Act of Congress. There are hereby established the following National Scenic and National Historic Trails:

...

(18) The California National Historic Trail, a route of approximately five thousand seven hundred miles, including all routes and cutoffs, extending from Independence and Saint Joseph, Missouri, and Council Bluffs, Iowa, to various points in California and Oregon, as generally described in the report of the Department of the Interior prepared pursuant to subsection (b) of this section entitled "California and Pony Express Trails, Eligibility/Feasibility Study/Environmental Assessment" and dated September 1987. A map generally depicting the route shall be on file and available for public inspection in the Office of the National Park Service, Department of the Interior. The trail shall be administered by the Secretary of the Interior. No lands or interests therein outside the exterior boundaries of any federally administered area may be acquired by the United States for the California National Historic Trail except with the consent of the owner thereof.

APPENDIX C: RIM DEVELOPMENT CONCEPT PLAN

BACKGROUND AND DESCRIPTION OF CURRENT CAMPING CONDITIONS

Camping at “City of Rocks” began with pre-historic people, and continued into recorded history with the Shoshone and Bannock Tribes, emigrants traveling the California Trail, local settlers, and early 20th Century tourists. Many of the modern-era campsites became established by climbers and campers during the late 1960’s to the mid 1980’s, before City of Rocks National Reserve (Reserve) was established. Generally, visitors would pitch tents and park vehicles wherever they could find shelter from the spring and fall winds or summer heat, yet close to climbing sites. Consequently, most campsites in the Reserve are located along the southern and western rim of Circle Creek Basin (known as “the Rim”). These sites offer prime views of the pinnacles comprising the “Inner City” as well as more expansive views of Granite Ridge that completes the northern encirclement of the basin.

In addition to the sites along the Rim, a small number of campsites are clustered near the southwest entrance (Juniper Group Camp), at Twin Sisters, and at Finger Rock in the northern part of the Reserve.

Campsites inherited by the Reserve have been progressively modified. A few new campsites have been established and some have been closed and the landscape restored. Most others have undergone site improvements, such as parking delineation, and the installation of a tent pad, picnic table, and fire ring. Over time vault toilets have been placed near most campsite areas, and drinking water supplies have been improved. Extraneous road segments have been closed and restored to better manage traffic flow and reduce conflicts between overnight and day-use activities.

As of 2012, there are 64 standard campsites with parking. A standard campsite is a delineated campsite with a tent pad or recreational vehicle (RV) pad/area and a table and/or fire ring. Of these, 21 are considered walk-in campsites, meaning that the designated campsite is not adjacent to the parking space, and a walk of 100-665 feet between the site and parking space is required. Six campsites can accommodate small RV’s. There can be a maximum of eight people, two vehicles, and two tents at each individual campsite.

Three camping areas are designated as a group site which permits a minimum of 12 and a maximum of 35 persons. These are Juniper (which can accommodate horses), Twin Sisters, and Bread Loaves. In addition, there are currently five lettered campsites that are not in the reservation system. These are used by visitors on a “first-come first-serve” basis.

The Reserve includes a total of 72 campsites: 64 standard and numbered sites, three group camps, and five standard sites denoted by letters (C, D, E, F, and G). The goal of the Reserve is to provide traditional amenities at all campsites. This would include a picnic table, ground fire ring, designated parking pad, numbered campsite post, a tent pad with a minimum size of 10x12 feet and reasonable access to a vault toilet. Each site is unique and often located where there are interesting terrain features and views.

PURPOSE OF THE RIM DEVELOPMENT CONCEPT PLAN

In conjunction with the Reserve’s General Management Plan (GMP), the planning team determined that a Development Concept Plan (DCP) should be developed for “the Rim” that includes an assessment of day-use and campsite areas. The highest concentration of vehicular and recreational use in the Reserve is along the Rim. The DCP will help provide a framework to enhance and improve visitor facilities.

A review of the 2009 GMP public scoping comments provided a broad spectrum of issues and use conflicts between recreational activities. Specific comments related to day-use activities and camping included: improving trailheads, providing adequate parking; correcting camping congestion; providing

additional campsites; resolving day-use and camping conflicts; providing more areas dedicated for day-use, providing more vault toilets; and defining parking.

The purpose of this Rim DCP is to:

- Identify opportunities for new day-use areas along the Rim. Currently, there are only a few small dedicated day-use areas.
- Separate overnight use from day-use to avoid user conflicts, such as hikers walking through campsites to reach trailheads, hikers parking at campsites, or campers parking at trailheads.
- Improve visitor safety and experience along the main road through the Reserve by removing campsites and parking pull-outs immediately adjacent to the City of Rocks Rd.
- Identify poorly-sited campsites for closure and new areas suitable for campsite development, resulting in a no net loss, or if possible, an increase of campsites throughout the Reserve.
- Identify strategic actions that would enhance the camping experience, such as adding vault toilets and defined parking at campsites and trailheads.



Congestion at Parking Lot Rock

This Rim DCP is not a detailed evaluation of individual campsite features and characteristics; that will follow later. Rather, it is an overview of the spatial pattern and grouping of campsites throughout the Reserve, not just along the Rim. This document communicates actions that are planned, subject to the outcome of detailed environmental assessments.



View from Bath Rock Area

OTHER CAMPING OPPORTUNITIES

To more clearly understand the need for camping in the Reserve, an overview of other camping opportunities nearby is discussed below.

Smoky Mountain Campground is located approximately two miles southwest of Almo near the east entrance of the Reserve and provides developed camping opportunities for Reserve visitors. Established in 2007, the campground is a unit of Castle Rocks State Park and offers 38 RV campsites and two yurts accessed via a paved two-lane road. Each campsite is equipped with paved parking, water and electricity, and a defined living area that includes a tent pad, picnic table and fire ring. Accessible restrooms provide hot and cold running water, flush toilets, and showers. Six of the 38 campsites are within an equestrian loop, and each site has a corral. Water service for the horses, a community corral, and manure dumpsters are also included in the equestrian loop. Smoky Mountain Campground provides a popular and more sophisticated camping experience. These sites better accommodate RVs and large camp trailers than do Reserve campsites, which offer a more primitive camping experience.



Smoky Mountain Campground

City of Rocks Backcountry Camping Area is located in Indian Grove, a remotely-accessed and forested area in the Reserve's north end. The designated camping area is defined by a lodge-pole and post fence that surrounds approximately one acre of aspen, fir, and riparian vegetation. The fence excludes cattle that graze the area July through September. A spring nearby provides non-potable water, and one designated fire ring is provided. There is no fee to camp in this area, but a permit is required from the visitor center in advance. Parking for the backcountry is at Emery Pass Picnic Area, and the camping area is reached after hiking two miles via the North Fork Circle Creek and Indian Grove Trails.

Sawtooth National Forest offers undesignated free camping north of the Reserve along the Logger Springs Road. When the Reserve and Smoky Mountain Campground are full, some visitors choose this location above 8,000 feet. In some years, forest roads are blocked by snow drifts as late as July 1, but in other years access is open as early as Memorial Day Weekend. No permits are required for this area, and no facilities are provided.

Bureau of Land Management (BLM) allows free and dispersed camping. The BLM lands adjacent to the Reserve and Smoky Mountain Campground are heavily used from late May through September.



Dispersed camping in the Sawtooth NF is permitted

Some areas are so frequently used that the sites are unofficially developed by visitors – a scene reminiscent of City of Rocks prior to 1988. Campfire rings, parking areas and even make-shift benches clearly define the more popular sites. These sites are reached via the Smoky Mountain Road. BLM campers enter and exit Castle Rocks State Park at no charge, and often are observed using the restrooms and showers provided to paying guests. On the busiest of weekends, this BLM dispersed camping area is full, requiring that late comers push further out from the Reserve to find free camping. The next most popular area is located south of Almo on the Lynn Road, past the second cattle guard in Sections 3 and 10, T16S R24E (Almo Quadrangle).



BLM Dispersed Camping on Smoky Mountain

Castle View RV Park is privately owned and located south of the City of Rocks Road three-quarters of a mile. The primitive campground offers less than two-dozen defined sites (though many more have used the facility during events) and no utilities, picnic tables, tent pads or grills. Guests pay camping fees on the honor system. The campground has no shade, restrooms, or RV dump station. The facility is popular with large groups holding events, and occasionally with late arriving campers on prime summer weekends.



Castle View RV Park (Private)

City of Rocks National Reserve Roads

The two main roads through the Reserve are the 9.2-mile City of Rocks Road, accessing sites along the Rim and the 6.2-mile Twin Sisters Road, beginning from the main T-intersection out to the southwest Entrance. Both of these roads are maintained by Cassia County and are not paved. In late May or early June, Cassia County Road and Bridge Department grades and treats their jurisdictional roads with magnesium-chloride. This treatment usually prevents airborne particulates (dust) from occurring off roads all season. Reserve staff assists the county in grading or plowing snow throughout the year as needed. Approximately 9.5 miles of gravel roads are under the jurisdiction and maintenance of the NPS-IDPR partnership. These roads are not treated with magnesium-chloride due to low speeds and reduced traffic.



City of Rocks Road treated with magnesium-chloride

ORGANIZATION OF THE RIM DEVELOPMENT CONCEPT PLAN

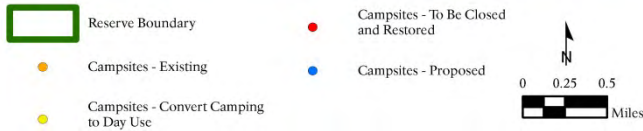
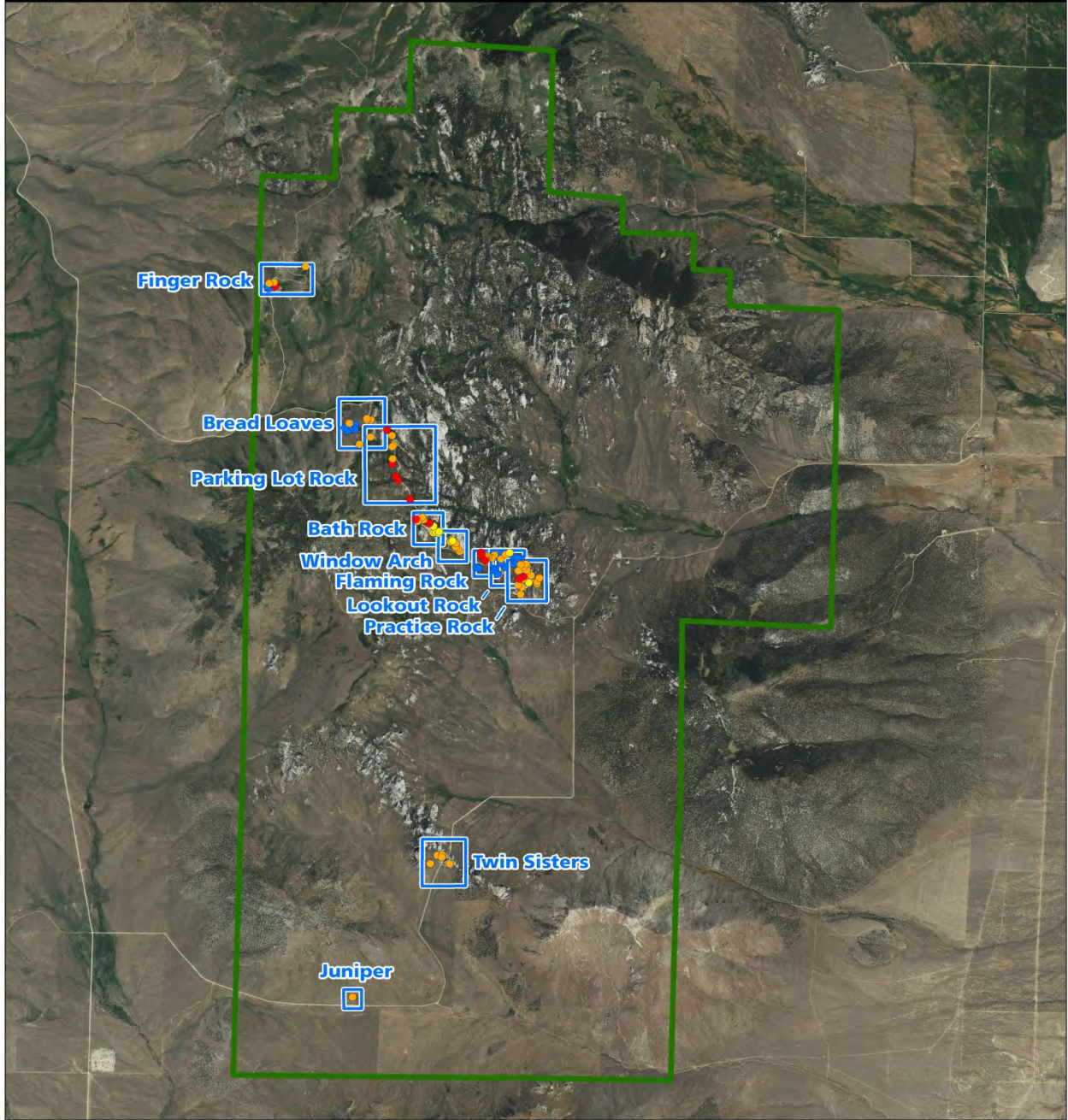
Ten campsite areas are demarcated on the following maps, each within a geographic area, typically named after the closest major rock (refer to DCP Index Map on the following page). A general description of each campsite area is provided along with a summary of overall issues and strategies for improvement that involve: (1) relocating, closing or adding individual campsites, (2) converting campsites to day-use activities, such as picnicking, (3) adding restrooms, and (4) adding, closing or modifying segments of access roads and parking areas to better manage traffic flow.



The appeal of camping at City of Rocks has always been the pinnacles and scenic views above 6,000 feet.

Campsite Area Locations

City of Rocks National Reserve Rim Development Concept Plan



DCP Index Map

Produced by: PWR-Seattle Information Coordination and Management Program

Date Created: November, 2012

Data Sources: Farm Service Agency - Air Photo (2011)
NPS - Campsites and Reserve Boundary

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Index Map. AERIAL Image Showing the Location of Campsite Areas in the Reserve.

1. Juniper Area

General Description

The Juniper Area is located near the southwest entrance to the Reserve, also known as the “Junction Entrance.” “Juniper” is a group campsite and the only site inside the Reserve that accommodates horses. Nestled within a grove of Utah juniper, its isolated setting offers unusual privacy, seclusion and natural quiet. This site near the California National Historic Trail offers a sense of what emigrant campers experienced from 1843-1882.

Juniper group site can accommodate 12 to 35 people per night. The area features a corral and standard campsite amenities. Water is not available. A vault toilet is located adjacent to the entry lane near its terminus at the parking area. The terrain is fairly level, with minimal development and no conflicting day-use activities.

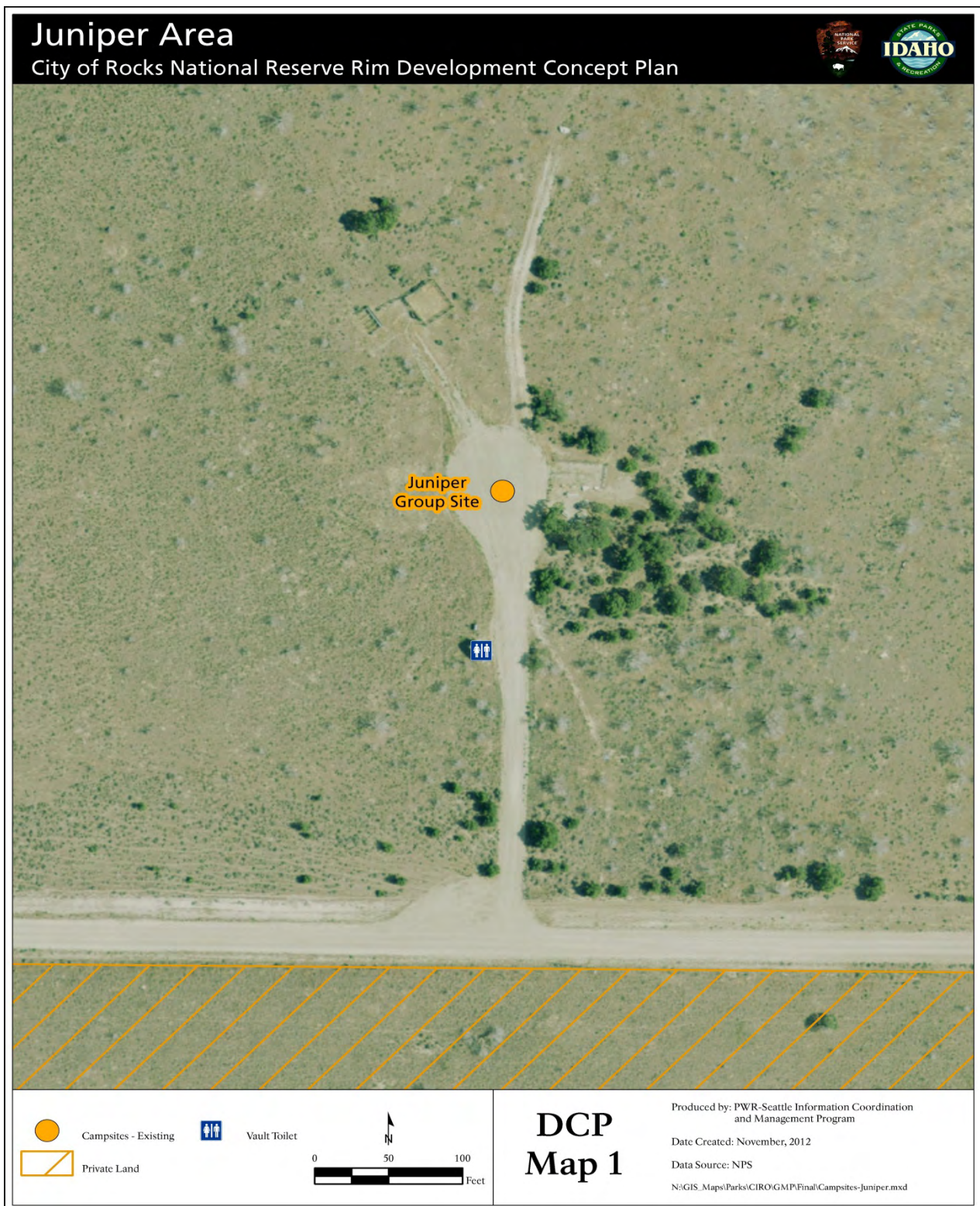
Strategy and Justification

Although this is a group campsite, there is only one tent pad. Additional tent pad options are not delineated but sufficient bare ground supports about four tents. Parking spaces and a turn-around area for long tow vehicles are inadequate and therefore may pose safety issues when the site is in use. A site development plan would address these concerns. Discreet use of large rocks, fencing or other natural materials to delineating vehicular boundaries and segregate driving/parking from tent camping areas would improve safety and reduce encroachment onto adjacent vegetation.



Juniper Group Camp (above); Equestrian Corral (right)





MAP 1. AERIAL IMAGE SHOWING THE JUNIPER AREA CAMPSITE.

2. Twin Sisters Area (Campsites 1 – 4 and Twin Sisters Group Site)

General Description

Near the Twin Sisters Road where it crosses the ridge of granite pinnacles, four individual campsites and one group campsite are provided. The individual sites are located on the west side of the road and

are all accessed from a secondary, single-lane, gravel road. Access to sites 1 and 2 require a short walk from their designated parking areas. Sites 3 and 4 have designated parking spaces adjacent to their sites. The group site and vault toilet are located on the east side of Twin Sisters Road and are accessed on a single-lane, gravel road. Campers at sites 1-4 currently must cross the road to access the vault toilet. Aside from occasional vehicle traffic, these sites offer privacy and a sense of seclusion, with views of the Cedar Hills and Twin Sisters.

The group site accommodates 12 to 35 people per night. Ranger-led tours to Pinnacles Pass, climbing, and picnicking at unoccupied campsites occur here. Traffic flow and parking spaces are not defined at the group site. This lack of design contributes to random driving and parking behavior and pedestrian/driver confusion. Vehicular encroachment upon vegetation along the gravel perimeter has gradually increased the size of the impacted area. Tent sites and picnic tables are located within drainage flows, resulting in soil compaction and accelerated erosion.

Strategy and Justification

Although the vault toilet meets ADA standards, the accessible route to it does not; therefore, this route would be rebuilt and delineated using rock or other natural materials. To improve safety and resolve vehicular/pedestrian confusion, directional traffic flow and parking spaces would be delineated and signed. This would also curtail vehicular encroachment on vegetation and erosion. Picnic tables and tent pads would be improved. Further evaluation of the surrounding terrain may identify suitable sites for additional campsites, if needed.



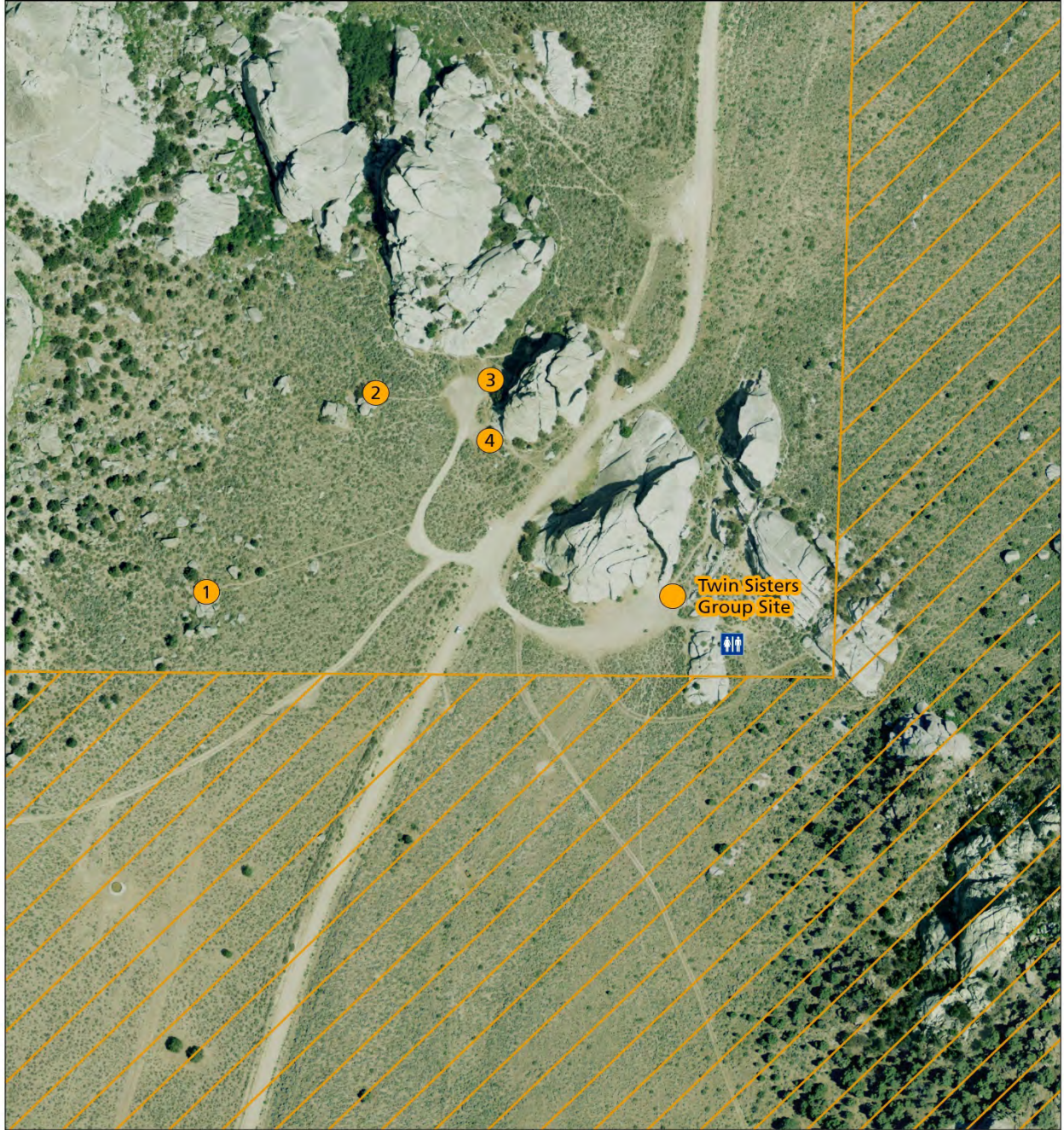
Twin Sisters Camping Area (view SE to Pinnacle Pass)



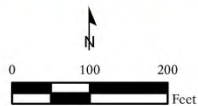
Twin Sisters Group Site (view NW to Twin Sisters)

Twin Sisters Area

City of Rocks National Reserve Rim Development Concept Plan



- Campsites - Existing
- Private Land
- Vault Toilet



**DCP
Map 2**

Produced by: PWR-Seattle Information Coordination and Management Program
 Date Created: November, 2012
 Data Source: NPS
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MAP 2. AERIAL IMAGE SHOWING THE TWIN SISTERS AREA CAMPSITES.

3. Practice Rock Area (Campsites 5 – 19, C, D)

General Description

The Practice Rock Area is situated within a fairly level basin between Lookout Rock to the north and Elephant Rock to the southwest. Seventeen campsites are located among the granite formations with lowland views of various rock formations. Most sites are exposed to wind with very little shade. A vault toilet is located near the central west side. Three sites on the east side (8-10) and three sites on the north end (16-18) require walking in from their designated parking areas. Small RVs can occupy three sites (5, 7, and 12). Two sites (C and D) are not in the reservation system, but rather have been planned for closure since 2007. Until closure is official, the sites are being used on a “first-come first-serve” basis. This area is accessed from the City of Rocks Road just north of the Elephant Rock day-use area. The main campsite road accessing the Practice Rock Area terminates at the Box Top Trailhead on the east side near Practice Rock (see DCP Map 4). Overnight camping and day-use activities conflict in this area due to proximity to Practice Rock where there is insufficient parking to accommodate both day-use (climbing and hiking access) and overnight camping.

Strategy and Justification

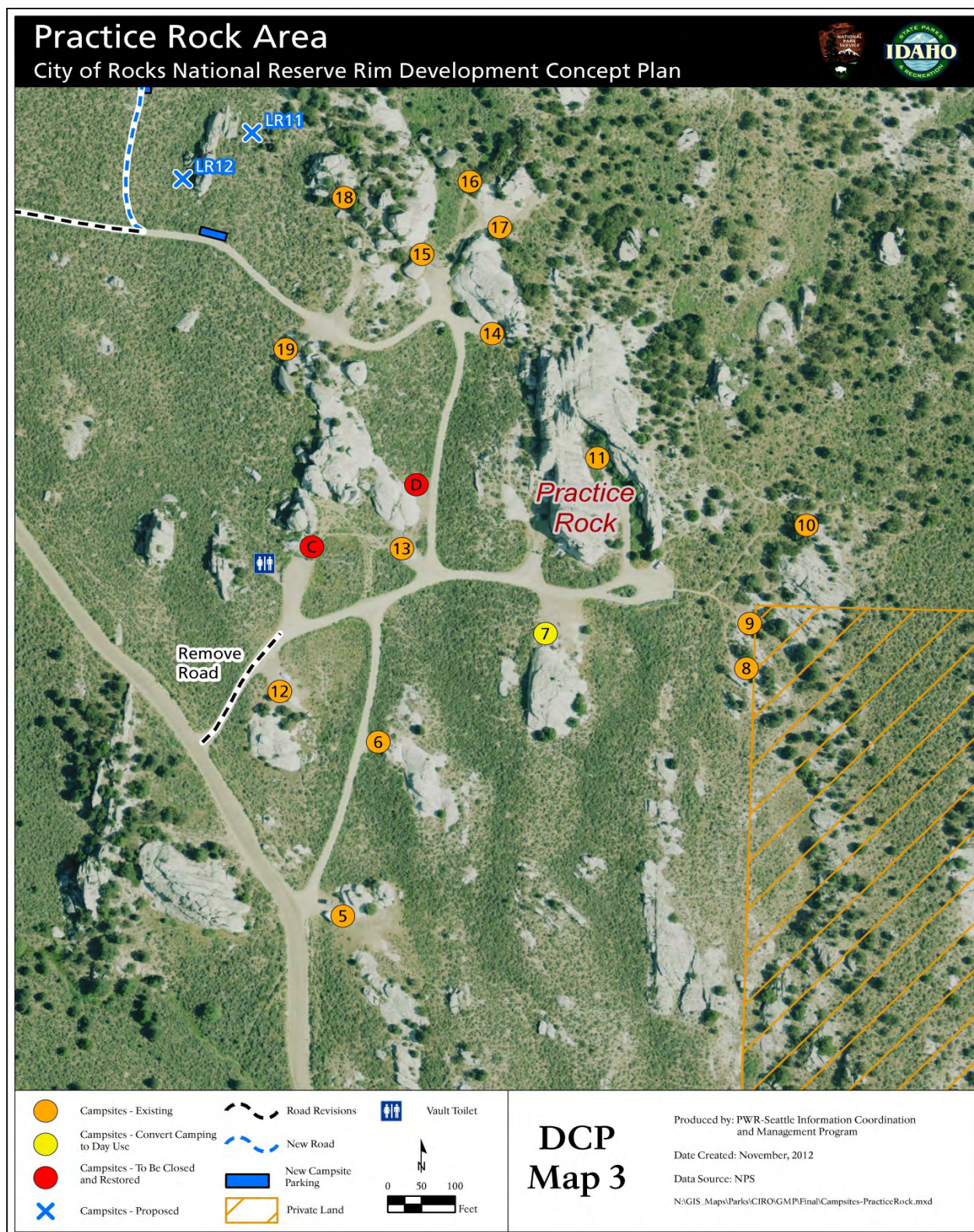
Two campsites, C and D, would be closed and restored. Campsite C is on a slope and too close to the vault toilet. The parking area would be reduced in size, and an accessible route to the vault toilet would be constructed. Campsite D is too close to the road and is subject to safety and erosion issues. Campsite 7 has limited privacy because day-users park at or near the site to access Practice Rock and the Box Top trailhead. Campsite 7 would be converted from overnight camping to day-use to provide needed parking and protect resources. The road just to the west of campsite 12 would be closed and restored to natural conditions. This would reduce unnecessary road segments, avoid traffic circulation confusion, and improve safety.



**Southwest View of site 13 (foreground)
and 12 (distant)**



**Site 7 South of Practice Rock
(convert to day-use parking)**



MAP 3. AERIAL IMAGE SHOWING THE PRACTICE ROCK AREA CAMPSITES.

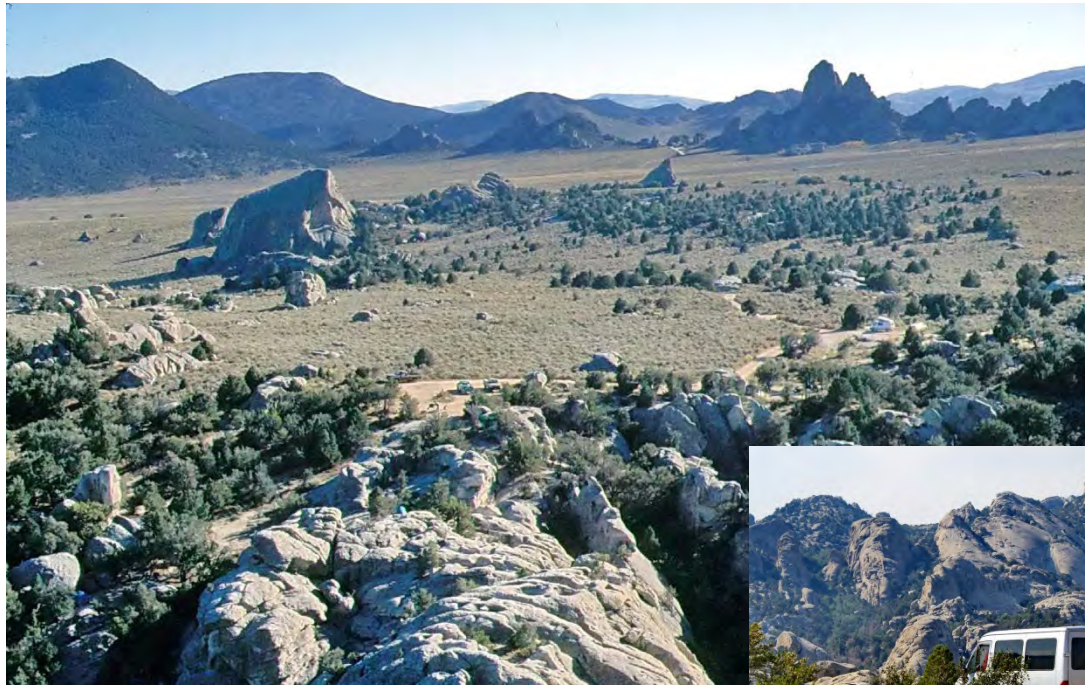
4. Lookout Rock Area (Campsites 20 – 22)

General Description

The Lookout Rock Area, nestled between the Practice Rock and Flaming Rock Areas, has exceptional southwest views of the open landscape and Elephant Rock to the south. This group consists of three individual campsites, and one of these (site 20) can accommodate a small RV. The campsites are exposed to the wind with little or no shade. There is no vault toilet for this area, and the nearest is located to the west at Flaming Rock. The terrain and developed campsites are relatively level.

Strategy and Justification

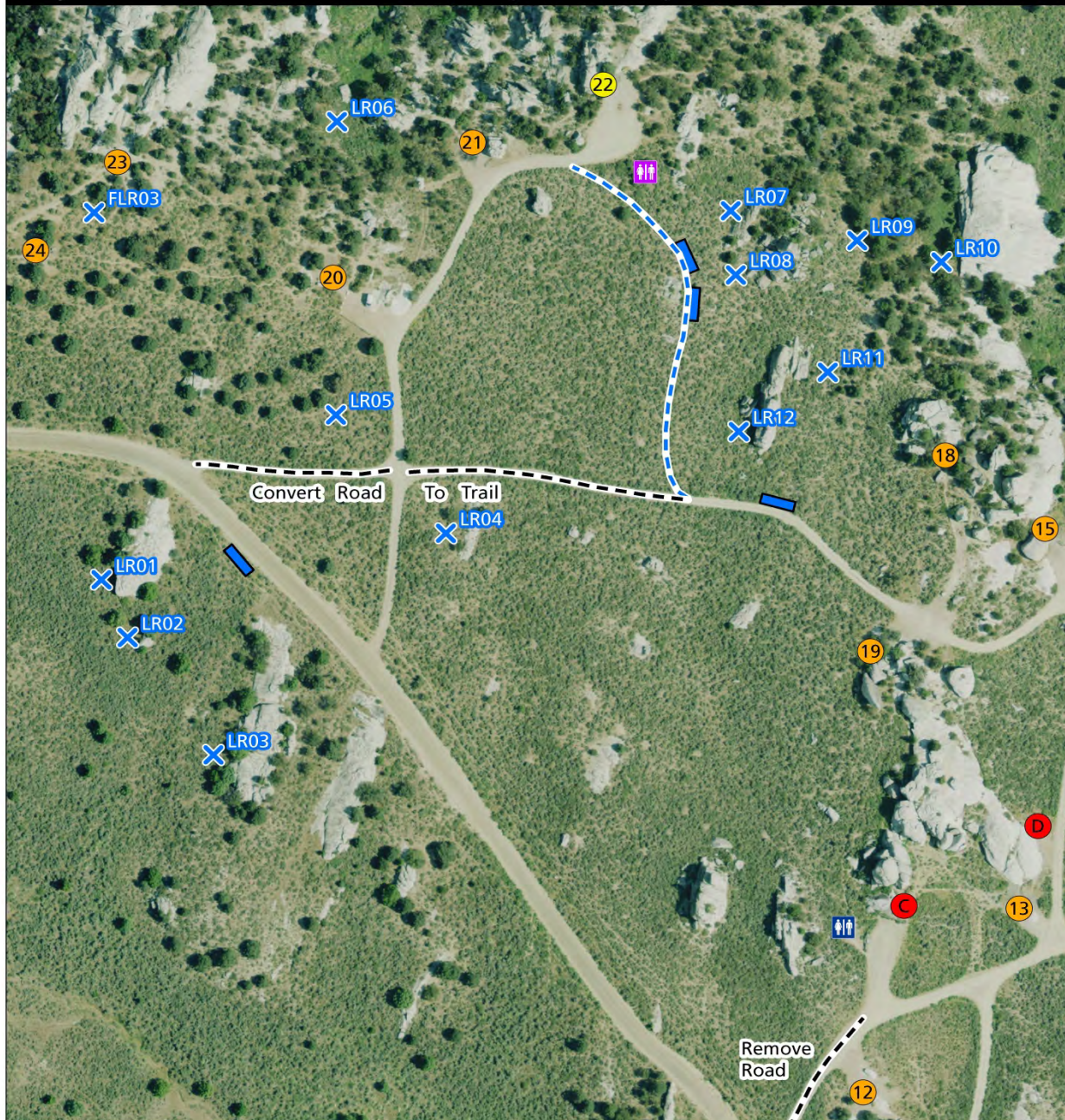
The Lookout Rock area appears to be the most promising for adding individual campsites and associated amenities along the Rim (see DCP Map 4). The west access road would be converted to a trail and a new road segment would be constructed to create a simple loop configuration. The new road segment would provide access and parking for approximately a half dozen new campsites, a walk-in campsite between campsites 20 and 21, and two new campsites near the entrance. Site 22 would be converted to a day-use overlook because it is one of the most scenic viewpoints in the Reserve. Near rock outcrops west and across the City of Rocks Road may provide landscaping for the location of three additional walk-in campsites. A centralized parking area and vault toilet would need to be added to this area, most suitably located near the current terminus of the access road (see DCP Map 4). Parking at the existing campsites would be delineated with rock, fencing or other natural materials to reduce vehicle encroachment onto adjacent vegetation.



Above: Lookout Rock Area (view S-SW);
Right: Site 22 at overlook

Lookout Rock Area

City of Rocks National Reserve Rim Development Concept Plan



DCP Map 4

Produced by: PWR-Seattle Information Coordination and Management Program

Date Created: November, 2012

Data Source: NPS

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MAP 4. AERIAL IMAGE SHOWING THE LOOKOUT ROCK AREA CAMPSITES.

5. Flaming Rock Area (Campsites 23 – 32)

General Description

The Flaming Rock Area is situated between Lookout Rock and Bath Rock. Because of rugged terrain, this developed area is fairly compact and congested. Ten campsites are densely sited, yet fairly level. Four sites (23, 24, 31, and 32) require walking from their respective parking areas. A vault toilet is located on the east side of the road network and is easily reached from all campsites. This area is accessed from the City of Rocks Road by two separate gravel lanes. The west lane accesses the popular Flaming Rock Trailhead, but parking is limited. Overflow parking plugs the access lane, entry lanes, and parking spaces next to the vault toilet. Day-use parking surrounds campsite 27 on three sides. The biggest issue at Flaming Rock is inadequate trailhead parking that creates conflicts between day-use and overnight camping.

Strategy and Justification

A separated entry and access to the Flaming Rock Trailhead with parking for at least 10 vehicles would help to mitigate conflicts. The travel lane to the trailhead would be closed and restored to a trail. The highest and best use for that location is for entry into the “Inner City” for recreational activity. The eastern access lane would be designated for campsites 23 through 30, with additional parking at the vault toilet.

Three campsites (27, 31, and 32) would be closed because of day-use activities. Campsite 27 would be converted to dedicated vehicle access to campsites 28, 29 and 30. Three new campsites could be added to the Flaming Rock Area. One walk-in site would be added on the south side of the trail between campsites 23 and 24. This would require adding two more parking spaces north of the vault toilet. Two new walk-in campsites and associated parking could be located near the rock outcrops on the south side of the City of Rocks Road across from the entrance.



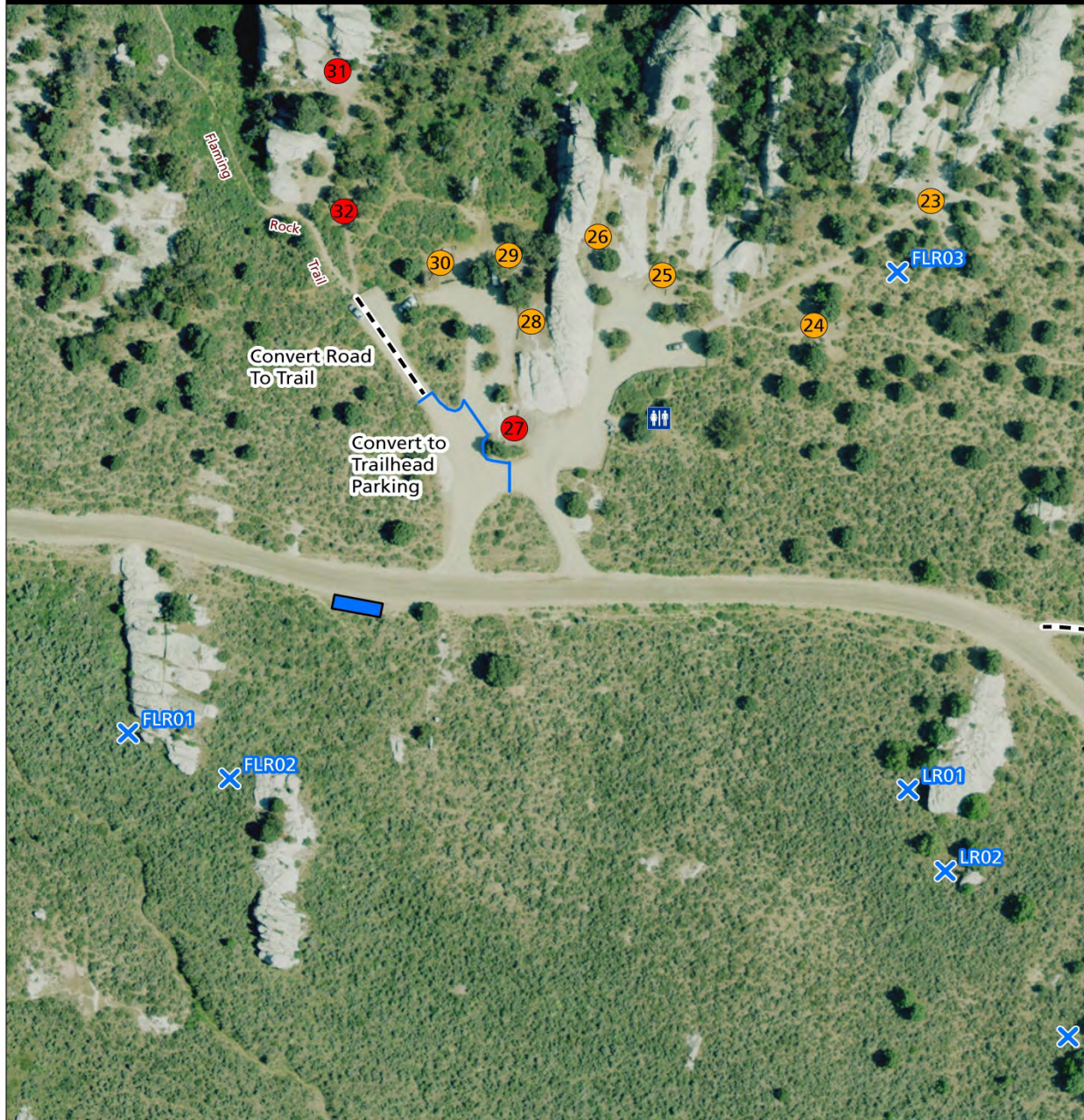
Congested parking at Flaming Rock Trailhead



Campsites 27-28, South View

Flaming Rock Area

City of Rocks National Reserve Rim Development Concept Plan



DCP Map 5

Produced by: PWR-Seattle Information Coordination and Management Program

Date Created: November, 2012

Data Source: NPS

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MAP 5. AERIAL IMAGE SHOWING THE FLAMING ROCK AREA CAMPSITES.

6. Window Arch Area (Campsites 33 – 38)

General Description

The Window Arch Area is located between Flaming Rock and Bath Rock. Two clusters consisting of three campsites each are interspersed among granite knobs. One site (36) requires walking in from the parking area. Several sites have exceptional views of Bath Rock and open landscape to the southwest. Window Arch Trailhead is situated at the north end of the parking area and is accessed through site 37. This area has no vault toilet and is situated about half way between the vault toilets at Flaming Rock and Bath Rock. Development is minimal. These two clusters are accessed from the City of Rocks Road by separate gravel lanes. Terrain conditions preclude making a loop from these lanes.

Strategy and Justification

The primary issue regarding this area is that there is no day-use parking for visitors hiking to Window Arch, a popular point of interest. Window Arch is just north of campsite 37. Day-use visitors park around the perimeter of the lane or in vacant campsite parking spaces. Campsite 37 would be closed to make its parking spaces available for day-use visitation to Window Arch and the Five Cracks Climbing Site. Parking would be delineated with large rocks, fencing, or other natural material to eliminate encroachment into adjacent undisturbed areas. A vault toilet should be provided for this area.



Conflict: Site 37 and Window Arch Trail



Window Arch is a popular destination



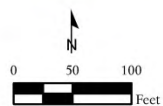
Site 36 (Left) Site 38 (Right)

Window Arch Area

City of Rocks National Reserve Rim Development Concept Plan



- Campsites - Existing
- Campsites - Convert Camping to Day Use



DCP Map 6

Produced by: PWR-Seattle Information Coordination and Management Program

Date Created: November, 2012

Data Source: NPS

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MAP 6. AERIAL IMAGE SHOWING THE WINDOW ARCH AREA CAMPSITES.

7. Bath Rock Area (Campsites 39 – 49)

General Description

The Bath Rock area consists of 11 individual campsites. Access to seven sites (39, 40, 41, 42, 43, 44, and 45) requires walking from the parking lot at Bath Rock. Two other sites (48 and 49) also require walking from their designated parking areas. Site 39 is often used by a camp host from Memorial Day through mid-summer, but if the site is vacant, it may be used by other campers. Two vault toilets and potable water are centrally located in this cluster next to the Bath Rock parking area that is adjacent to the City of Rocks Road. This area is popular for both camping and day-use and is a centralized hub in the Reserve due to availability of potable water, vault toilets, information, scenic overlooks, picnicking, climbing, school bus parking, and trailhead for the popular Creekside Towers Trail. The multitude of activities often results in congestion and conflicts during times of high visitation. Notable conflicts include the encroachment of hikers through campsites to reach overlooks, and day-use parking occupying sites needed for overnight guests.

Strategy and Justification

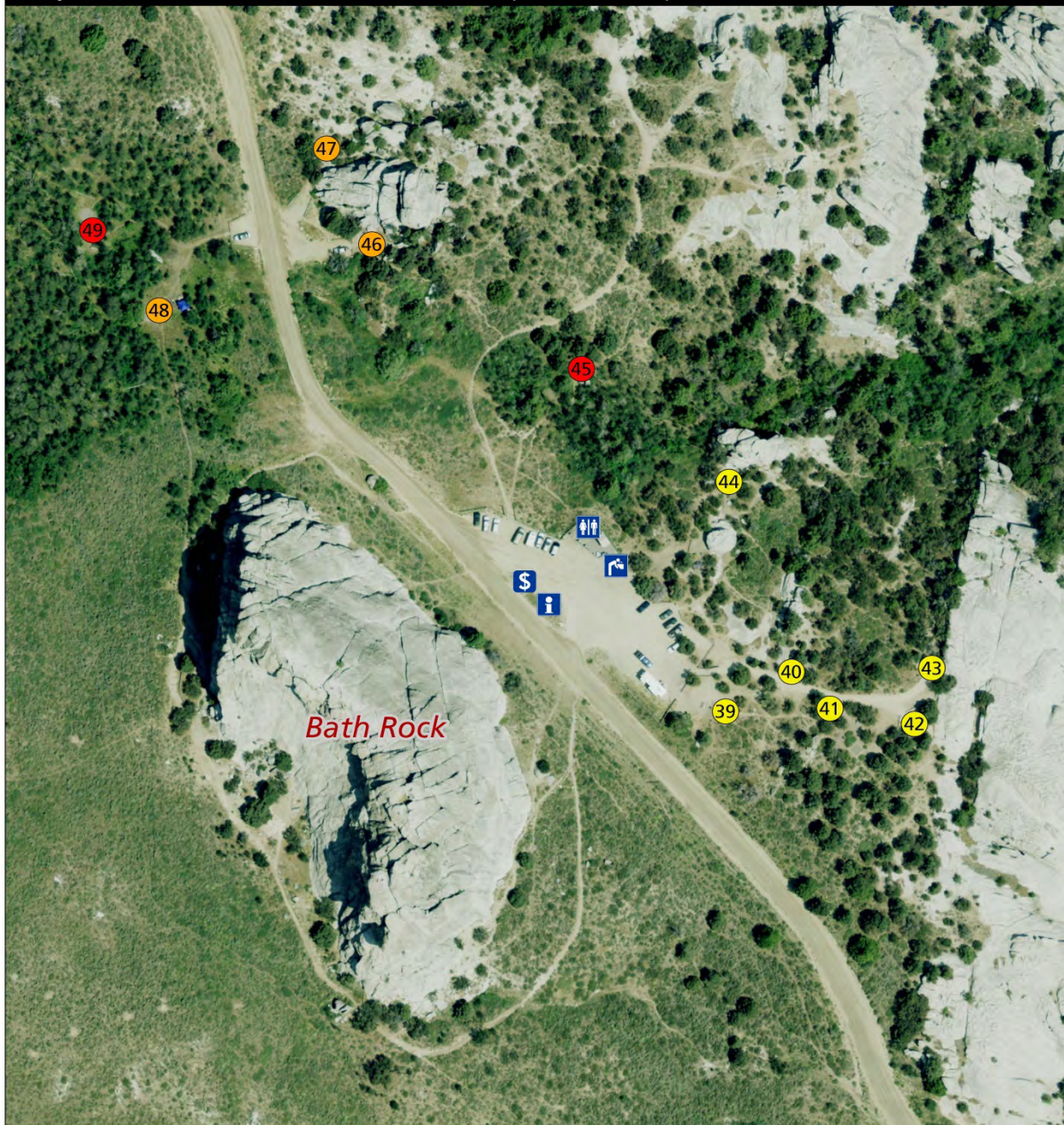
Because of the hub of activity and services at Bath Rock this area would be converted to day-use. Six campsites (39-44) are recommended for closure to provide space for day-use activities such as picnicking, scenic viewing and photography. This is especially important for providing scenic viewing opportunities for those people with mobility challenges and easy access needs who would not otherwise be able to hike into the Inner City.

Two campsites (45 and 49) would be closed and rehabilitated due to encroachment into aspen groves and conflicts with day-use. The parking area would be defined and reconfigured, and short trails leading to a northeast overlook (on Creekside Towers Trail) and another leading to the picnic area and overlook to the southeast would be hardened and made accessible. Additional interpretive exhibits and monuments for the National Historic Landmark (NHL) and National Natural Landmark (NNL) designations would also be featured here.



Bath Rock Area

City of Rocks National Reserve Rim Development Concept Plan



- | | | | |
|--|--|--|------------------------------|
| | Campsites - Existing | | Camping Fee Station |
| | Campsites - Convert Camping to Day Use | | Vault Toilets |
| | Campsites - To Be Closed and Restored | | Information/ Wayside Exhibit |
| | | | Drinking Water |
-

DCP Map 7

Produced by: PWR-Seattle Information Coordination and Management Program

Date Created: November, 2012

Data Source: NPS

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MAP 7. AERIAL IMAGE SHOWING THE BATH ROCK AREA CAMPSITES.

8. Parking Lot Rock Area (Campsites 50 – 57, E)

General Description

The Parking Lot Rock Area encompasses the oldest and most popular campsites in the Reserve. All nine sites are situated along City of Rocks Road. Several sites have views of Owl Rock to the north. Access to four sites (52, 53, 54 and 55) requires walking from their designated parking areas. One site (E) is not in the reservation system, but is used on a first-come first-serve basis. A vault toilet is located alongside the access road to Parking Lot Rock; however, since these campsites are strewn alongside the City of Rocks Road, the vault toilet is not conveniently located for campers.

This dispersed cluster of campsites and associated parking adjacent to the road contributes negatively to the impression that the Reserve is a long, continuous campground. Through this camping area, the City of Rocks Road is steep and winding, and at times perched on the Rim. Many scenic views are offered, including Morning Glory Viewpoint, which provide a popular interpretive exhibit on climbing.

Strategy and Justification

Five campsites along the City of Rocks Road would be closed to protect visitor safety, alleviate natural resource impacts, and to enhance visitor enjoyment of touring the most scenic portion of the City of Rocks Road. Large rocks, fencing, or other natural material would be used to eliminate encroachment into adjacent undisturbed areas.



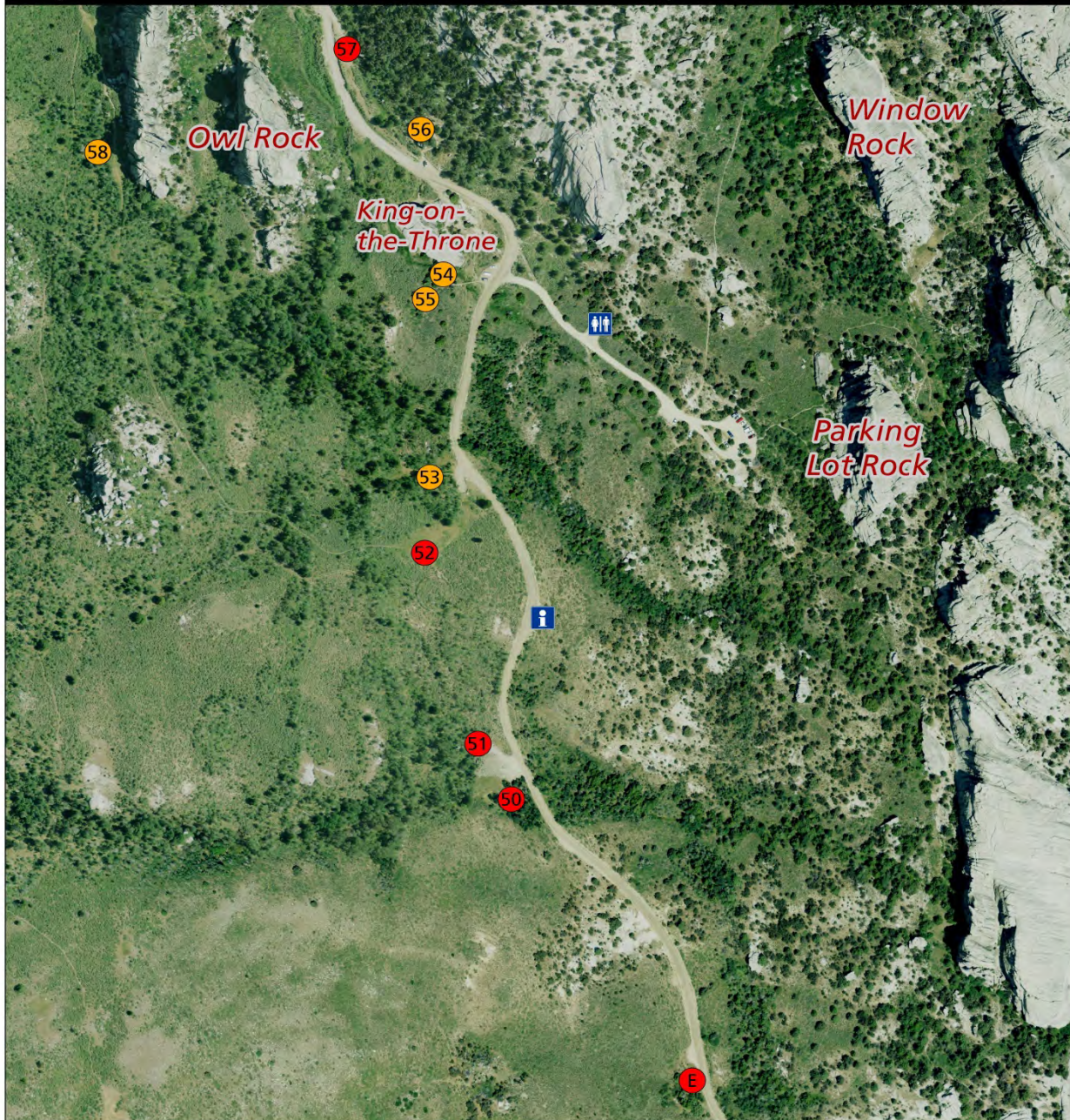
Campsite 52-53 adjacent to City of Rocks Road



Campsite 57 adjacent to City of Rocks Road

Parking Lot Rock Area

City of Rocks National Reserve Rim Development Concept Plan



Campsites - Existing



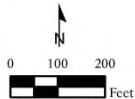
Campsites - To Be Closed and Restored



Vault Toilet



Wayside Exhibit



DCP Map 8

Produced by: PWR-Seattle Information Coordination and Management Program

Date Created: November, 2012

Data Source: NPS

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MAP 8. AERIAL IMAGE SHOWING THE PARKING LOT ROCK AREA CAMPSITES.

9. Bread Loaves Area (Campsites 58 – 60; F, G; Bread Loaves Group Site)

General Description

The Bread Loaves Area consists of five individual campsites, one group campsite, and one vault toilet. Drinking water is available at the Emery Pass Picnic Area at the north end of Upper Bread Loaves. The group site is located on the west side of Lower Bread Loaves and can accommodate 12-25 people. Three individual campsites, one of which is on private property, require a long-distance walk from the parking area; two sites (F and G) are adjacent to the parking area. A gravel lane off the City of Rocks Road provides access to this area.

Strategy and Justification

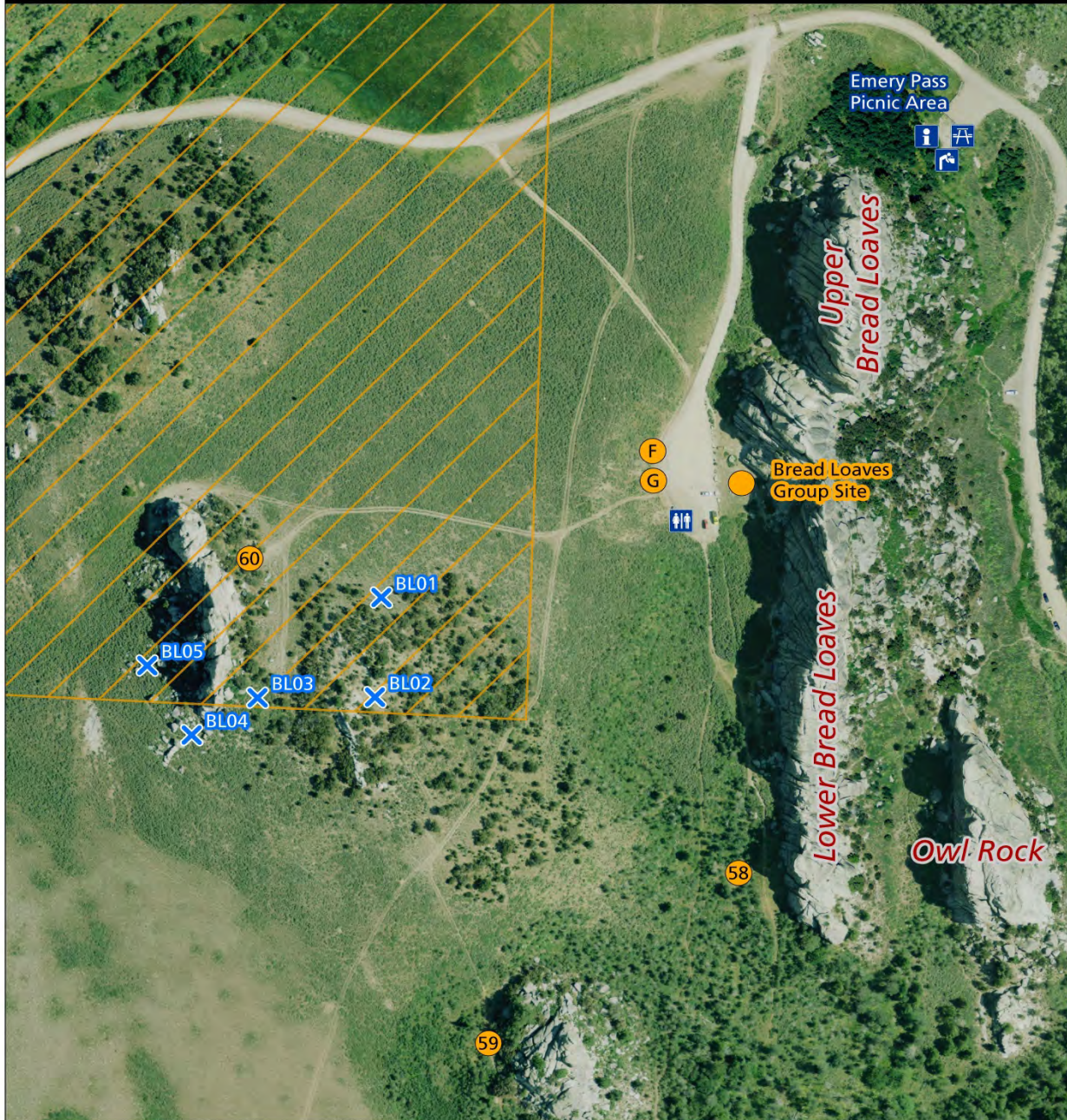
The parking area would be delineated with large rocks, fencing, or other natural material for better site organization and traffic flow. Erosion and impacts on trails to walk-in campsites would be mitigated. If private property is acquired, up to four new campsites could be established along the existing loop trail adjacent to site 60. One new site would be added south of the private property. Sites F and G would be brought back into the numbered reservation system, and camping areas would be improved.



Bread Loaves Group Camp Area

Bread Loaves Area

City of Rocks National Reserve Rim Development Concept Plan



DCP Map 9

Produced by: PWR-Seattle Information Coordination and Management Program

Date Created: November, 2012

Data Source: NPS

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MAP 9. AERIAL IMAGE SHOWING THE BREAD LOAVES AREA CAMPSITES.

10. Finger Rock Area (Campsites 61 – 64)

General Description

North of the City of Rocks Road and along Logger Springs Road, the Finger Rock area is located in a saddle along the crest of the Albion Range. The area is exposed to high wind and inclement weather, but offers exceptional vistas of Birch Creek Canyon and Middle Mountain to the west and a distant view of the town of Oakley to the northwest. To the southeast one can see Emery Canyon and Bread Loaves. At over 7,120 feet in elevation, these sites are the highest developed sites in the Reserve; only the Indian Grove Backcountry site is higher. There are four individual campsites. Three sites (61, 62, and 63) are interspersed among granite knobs within the saddle. Site 64 is located in an aspen grove about a quarter-mile up Logger Springs Road, 110 feet higher on the ridge, and at the end of a 340-foot gravel lane. These four sites are typically closed by snow until Memorial Day or later. Aside from occasional vehicle traffic, these sites offer solitude and natural quiet. Campsites are fairly level. A vault toilet is close to three of the campsites, but the elevation difference to the fourth campsite discourages its use.

Strategy and Justification

The three campsites in the saddle are in an exposed location. Site 61 is located along a blind curve in the road and can only accommodate parking for one small vehicle. This site would be closed for visitor safety and resource protection. Parking spaces for sites 62-63 would be delineated with large rocks, fencing, or other natural material to eliminate encroachment into adjacent undisturbed areas. Two new walk-in sites would be developed around the rocky promontory south of site 63. A parking area would be developed for these two new sites and the existing site 63.

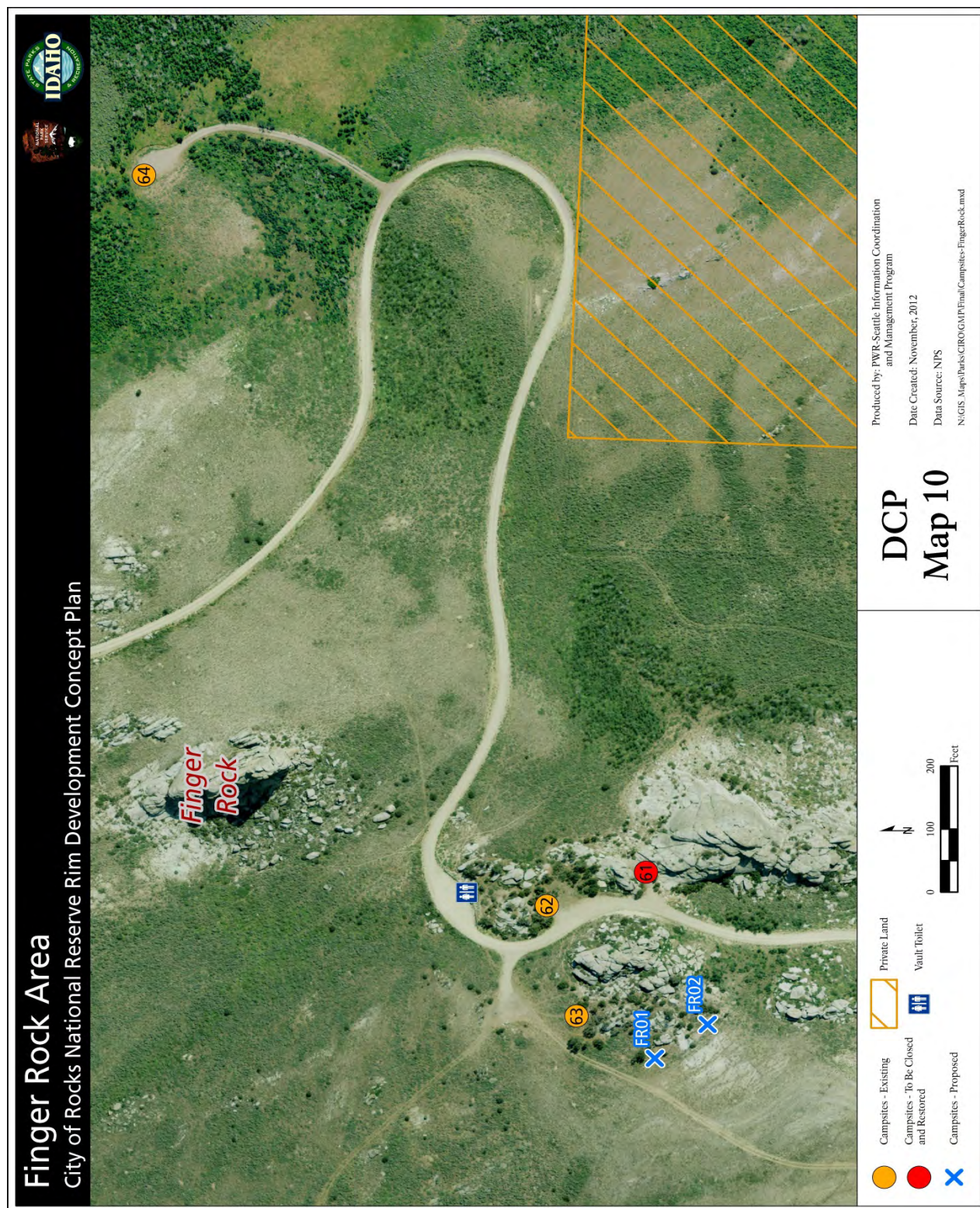


**(Left) Site 63
and vault
toilet;**

(Top) Site 64;

**(Bottom)
Site 61**





MAP 10. AERIAL IMAGE SHOWING THE FINGER ROCK AREA CAMPSITES.

SUMMARY OF STRATEGIES AND JUSTIFICATIONS

In summary, nine campsites are planned for conversion to picnicking or day-use parking, 13 campsites are planned for closure and rehabilitation, and 22 new campsites are planned to be added, for a no net loss of 64 campsites within the Reserve. Strategies for campsite closure, conversion to picnicking, or new development are based on existing user conflicts, visitor safety, maintenance issues, resource impacts, parking needs, location and ability to access vault toilets, interpretive trails, site circulation conflicts, undesirable site locations, and picnicking opportunities.

The following strategies are planned:

CAMPING AREA	SITE # OR FACILITY	STRATEGY
Juniper	Designated site	Develop a specific site development plan, define and delineate
Twin Sisters	Vault toilet	Make accessible route that meets ADA/ABAAS standards
Twin Sisters	Parking area	Delineate traffic flow and parking, protect vegetation
Twin Sisters	Tables/tent pads	Improve tent pads and campsites to be level and attractive
Practice Rock	Sites C, D, 7	Close sites C and D, convert site 7 to day-use parking
Practice Rock	Road	Close road and restore landscape west of site 12
Lookout Rock	Road	Close East-West road and restore landscape
Lookout Rock	Road	Construct road segment to make loop south of Lookout Rock
Lookout Rock	Campsites	Construct up to 11 new campsites
Lookout Rock	Site 22	Close and convert to day-use overlook
Flaming Rock	Roads	Close connector between west and east entry roads
Flaming Rock	Trail access road	Convert to trail, delineate trailhead day-use parking area
Flaming Rock	Sites 27, 31, 32	Close sites to eliminate day-use conflicts
Flaming Rock	Campsites	Construct up to four new campsites
Flaming Rock	Campsites Parking	Increase size of parking area north of vault toilet
Window Arch	Site 37	Close and convert to trail parking and access to Window Arch
Window Arch	Vault toilet	Install a vault toilet for this area
Window Arch	Parking	Delineate parking and traffic flow to eliminate congestion
Bath Rock	Sites 39-44	Close sites and convert to day-use picnicking
Bath Rock	Sites 45, 49	Close sites to protect aspen/wetlands
Bath Rock	Parking area	Develop a specific site development plan, define and delineate
Bath Rock	Trails	Develop two short accessible and hardened trails to overlooks
Bath Rock	Exhibits	Add new wayside exhibits and NHL/NNL Monument plaques
Parking Lot Rock	Sites E, 50-52, 57	Close sites for visitor safety, experience, resource impacts
Bread Loaves	Parking area	Delineate parking and traffic flow to eliminate congestion
Bread Loaves	Campsites	If property is acquired, add four campsites, build new one on NPS
Bread Loaves	F, G	Formalize back into the reservation system with numbers
Bread Loaves	Trails	Mitigate impacts on trails to walk-in sites
Finger Rock	Site 61	Close site for visitor safety, resource impacts
Finger Rock	Campsites	Add up to two new campsites south of Site 63, improve parking

**City of Rocks National Reserve
Rim Development Concept Plan**

Prepared by:
National Park Service
Pacific West Region – Seattle Office
November 2012

APPENDIX D: ACTIONS CONSIDERED BUT DISMISSED

The following actions were considered during the planning process but were rejected as allowed by National Environmental Policy Act regulations at 40 CFR 1502.14 (a).

TECHNICAL ROCK CLIMBING ON THE TWIN SISTERS ROCK FORMATION

The 1998 City of Rocks National Reserve Climbing Management Plan and Environmental Assessment prohibits climbing on the Twin Sisters rock formation because of cultural resource concerns. The closure was upheld in a court decision in 2000.

As part of this general management plan process, the NPS has determined that there is no new information or overriding reason to reopen Twin Sisters to climbing. Multi-pitch climbs are now available at nearby Castle Rocks State Park, and the cultural resource concerns identified in the original ban are still present. Therefore, no alternatives include technical rock climbing on the Twin Sisters formation (Reserve 2006b).

BOUNDARY EXPANSION

The National Parks and Recreation Act of 1978 requires GMPs to address whether boundary modifications should be made to park units. Different options for expanding the Reserve boundary for resource preservation and visitor use were evaluated in the DGMP/DEIS. The DGMP/DEIS considered boundary modifications in two alternatives (alternatives C and D), which have since been dismissed from further analysis. The preferred alternative in this GMP continues the recommendation of the preferred alternative in the draft GMP and does not propose any boundary adjustments. Instead, the Reserve would continue to focus on collaborating with partners and landowners in the management of significant resources that are associated with but not within the Reserve.

ACTIONS OUTSIDE THE RESERVE BOUNDARY

Actions outside of the Reserve boundary that were previously considered as part of this GMP planning process are no longer included here. The focus of this GMP has been narrowed to address areas and resources within the Reserve. Nothing in this GMP limits management opportunities outside of the Reserve. For example, the IDPR may continue to pursue funding for a new visitor center outside of the Reserve as envisioned in the 1996 CMP.

ELIMINATING THE RESEARCH NATURAL AREA

Preliminary comments on the alternatives included a desire by some members of the public to eliminate the Research Natural Area (RNA) from the Reserve based on their belief that the RNA did not serve a purpose and impacted landowners' ability to graze livestock there.

A field survey and report conducted in 2010 by Northwest Management, Inc., for the National Park Service concluded that the RNA continues to meet the purpose for which it was originally established and recommended RNA expansion. There is a slight overlap on the west side of the RNA between one grazing allotment and the RNA boundary. This GMP recommends correcting the overlap by working with the permittee and retains the RNA under both alternatives.

IMMEDIATELY ELIMINATING GRAZING

Although the legislation establishing the Reserve is silent as to grazing, there was considerable discussion about its importance to the area in the hearings that occurred preceding the Reserve's establishment and, as a result, it was presumed compatible with the intent of the Reserve, especially associated with maintaining the "historic rural setting" that does appear in the legislation.

Grazing on public lands in the Reserve has occurred since its establishment. Grazing also occurs on private lands within the Reserve, effectively maintaining the historic rural setting. Because the Reserve is unlikely to acquire all the private lands where grazing currently occurs, this use is expected to continue. Concurrently, grazing on public lands has continued to have adverse effects on vegetation, water quantity, wildlife and wetlands and to some extent on cultural resources. Therefore, to improve natural and cultural resources stewardship and to reduce overall impacts on resources, this plan includes an alternative to reduce grazing over time through attrition. Immediately phasing out grazing, however, would have greater adverse socioeconomic and other impacts on current permittees and park operations and has thus been dismissed from additional consideration.

RELOCATING CAMPING ALONG THE RIM

Preliminary comments on the alternatives suggested relocating camping along the rim to the south side of the road. This action was considered but rejected because there is inadequate space to relocate the current number of campsites to the south of the road and because relocating this number of campsites would adversely affect views from the California Trail. Unlike other camping located within the viewshed, this would be noticeable and would contain a variety of impacts that could not be screened. Relocating the campsites along the rim would have greater impacts than other alternatives that would offer similar benefits.

PROVIDING BACKCOUNTRY STANDARDS

The planning team considered crafting backcountry user capacity standards in the Indian Grove area, which is a permitted backcountry camping area. Analysis of areas within the Indian Grove area located more than one mile from a trailhead was performed, but because there is little area within the Reserve that is located more than one mile from a trailhead, development of backcountry standards was considered but dismissed.

REMOVING EXISTING CAMPING FROM CERTAIN AREAS

Some concern has been raised about allowing camping in the California Trail Zone or in certain areas, like Twin Sisters. Camping is considered a traditional use and is compatible with the National Historic Landmark because it occurred during the historic period (1833–42). In addition, the location of the group camp and other campsites within the California Trail Zone would be out of the road corridor viewshed. If impacts from use of the campsites by large vehicles continue to occur near historic features like Twin Sisters, the Reserve could choose to restrict the length of vehicles for these campsites (see "Technical Rock Climbing on the Twin Sisters Rock Formation" in this section). Because this issue can be managed operationally, this action was dismissed.

REMOVING FIXED CLIMBING ROUTES IN THE RESEARCH NATURAL AREA ZONE

Although the Research Natural Area is meant to be a natural area, some fixed climbing routes were established along its periphery over time. Fixed routes would be allowed to remain because bolting

improved safety in some areas. Fixed routes also direct climbs so that attendant impacts are confined. Because the Research Natural Area is meant to be a study area, however, no new fixed anchor proposals will be accepted. Traditional climbing and sport climbing of existing bolted routes would continue to be allowed as long as it does not interfere with ongoing research activity.

ELIMINATING EMPLOYEE HOUSING

Initially, employee housing at the Castle Rocks State Park Administrative Unit was provided because there were few available inexpensive rentals and homes for purchase in surrounding local communities. Existing and planned employee housing would continue to be provided because there is still too little affordable housing available in the surrounding communities.

DEVELOPING A REPLACEMENT VISITOR CENTER WITHIN THE EXISTING RESERVE BOUNDARY

The Idaho State Historic Preservation Office has concerns about locating any development in the Reserve within the National Historic Landmark and especially within view from the California National Historic Trail. In addition, the remaining areas of the Reserve not in the National Historic Landmark are small and would not be suitable to place the necessary infrastructure that a visitor center would require. Therefore, new visitor center construction within the existing Reserve boundary was dismissed from further consideration.

RETAINING THE CIRCLE CREEK IMPOUNDMENT

Retaining the Circle Creek impoundment #1 was considered and dismissed because analysis of the Circle Creek impoundment and irrigation network has indicated that although it may have functioned in the past, it has not been in use for a long time and does not possess local or regional integrity associated with its former use. Furthermore, it no longer functions as it was initially conceived and built. The ditch—now deeply incised with unstable side walls and ingrown with vegetation—presents a fall hazard to hikers and equestrian riders who may step away from the California Trail hiking trail.

Ecological restoration of the impoundment site would have long-term beneficial impacts on both natural and cultural resources and no effect on historic resources, and restoration of the irrigation network to natural slopes would mitigate a public safety issue.

APPENDIX E: USER CAPACITY, INDICATORS, STANDARDS, MANAGEMENT STRATEGIES, AND MONITORING STRATEGIES

USER CAPACITY

Overview

In managing for user capacity, the City of Rocks National Reserve staff and partners rely on a variety of management tools and strategies rather than relying solely on regulating the number of people in the Reserve. In addition, the ever-changing nature of visitor use requires a deliberate and adaptive approach to user capacity management.

The foundations for making user capacity decisions in this GMP are the purpose, significance, special mandates, and management zones associated with the park. The purpose, significance, and special mandates define why the park was established and identify the most important resources, values, and visitor opportunities that would be protected and provided. The management zones in each action alternative describe the desired resource conditions and visitor experiences, including appropriate types of activities and general use levels, for different locations throughout the Reserve. The zones, as applied in the alternatives, are consistent with, and would help the National Park Service achieve, its specific purpose, significance, and special mandates. As part of the NPS commitment to implementing user capacity, the Reserve staff would abide by these directives for guiding the types and levels of visitor use that would be accommodated in order to sustain the quality of Reserve resources and visitor experiences consistent with the purposes of the Reserve.

In addition to these important directives, this GMP includes indicators and standards for City of Rocks National Reserve. Indicators and standards are measurable variables that would be monitored to track changes in resource conditions and visitor experiences. The indicators and standards help the National Park Service ensure that desired conditions are being attained, supporting the fulfillment of the Reserve's legislative and policy mandates. The GMP also identifies the types of management actions that would be taken to achieve desired conditions and related legislative and policy mandates.

The following section includes the indicators, standards, and potential future management and monitoring strategies, allocated by management zones that would be implemented as a result of this planning effort. The planning team considered many potential issues and related indicators that would identify impacts of concern, but those described below were considered the most important, given the significance and vulnerability of the resource or visitor experience affected by visitor use. The planning team also reviewed the experiences of other parks with similar issues to help identify meaningful indicators. Standards that represent the minimum acceptable condition for each indicator were then assigned, taking into consideration the qualitative descriptions of the desired conditions, data on existing conditions relevant research studies, staff management experience, and scoping on public preferences.

User capacity decision-making is a form of adaptive management in that it is an iterative process in which management decisions are continuously informed and improved. Indicators are monitored, and adjustments are made as appropriate. As monitoring of conditions continues, managers may decide to modify or add indicators if better ways are found to measure important changes in resource and social conditions. Information on the NPS monitoring efforts, related visitor use management actions, and any changes to the indicators and standards would be available to the public through the most appropriate and effective outreach method chosen by the Reserve. It should be noted that revisions to indicators and standards would potentially be subject to analysis

under the National Environmental Policy Act, the National Historic Preservation Act, and conformance to other laws, regulations, and policies.

INDICATORS, STANDARDS, AND POTENTIAL FUTURE MANAGEMENT AND MONITORING STRATEGIES

Visitor-created Trails (vegetation and soil impacts because of foot traffic)

Indicator

Possible linear feet, width, depth, and grade of disturbed vegetation (unwanted visitor-created trails) because of foot traffic.

What the Indicator Measures

Vegetation and soil impacts because of foot traffic (i.e., unwanted visitor-created trails).

Table E-1: Visitor-Created Trails: Visitor Facilities and Access Zone

Standard	Management Strategies	Related Monitoring Strategies
Visitor-created trails would constitute no more than 20% of the linear feet of the total trails in the park. (This may need to be adapted after baseline assessment.)	Education (language about the importance of staying on trails). Signage. Natural barriers. Erosion control measures. Brush out areas. Close off areas. Formalize trails that could be deemed appropriate.	Do a baseline validation every three years.

Table E-2: Visitor-created Trails: Transition Zone

Standard	Management Strategies	Related Monitoring Strategies
Visitor-created trails would constitute no more than 10% of the linear feet of the total trails in the park. (This may need to be adapted after baseline assessment.)	Education (language about the importance of staying on trails). Signage. Natural barriers. Erosion control measures. Brush out areas. Close off areas. Formalize trails that could be deemed appropriate.	Do a baseline validation every five years.

Full Campsites

Indicator

Number of total days that campsites are 95% –100% full during peak season (mid-May to mid-October).

What the Indicator Measures

How often campsites are at full capacity and may affect visitor experience.

Table E-3: Full Campsites: Visitor Facilities and Access Zone

Standard	Management Strategies	Related Monitoring Strategies
No more than nine days total that campsites are at 95%– 100% full during peak season (mid-May to mid-October).	<p>Increase education for visitors preplanning their camping visits.</p> <p>Encourage people to use other camping opportunities or facilities (private or public), including in other zones within the Reserve or areas outside the Reserve.</p> <p>Market strategies to promote midweek (Tuesday–Thursday) camping (e.g., discounts).</p> <p>Improve the ReserveAmerica website, so that it tells people when the campsite is full.</p> <p>Reserve posts signs when campsites are full (signs at the entrance to loop or at the entrance to the Reserve).</p>	Daily arrival list tells if campground is full.

Day and Overnight Use Conflicts

Indicator

Number of visitor complaints via comment cards or reports to camp host or rangers about not finding place to picnic or finding someone parking in their campsite.

What the Indicator Measures

Day and overnight visitor conflicts (i.e., day users are walking through campsites and parking in overnight camping parking areas).

Table E-4: Day and Overnight Use Conflicts: Visitor Facilities and Access Zone

Standard	Management Strategies	Related Monitoring Strategies
No more than three complaints per day.	Reserve staff would help direct traffic. Education: encourage people to use other picnic areas that are not typically full.	Monitor number of complaints.

Vegetation and Soil Impacts Because of Dogs

Indicator

Number of dog depressions dug at climbing staging areas.

What the Indicator Measures

Vegetation and soil impacts because of dog traffic (especially at climbing staging areas).

Table E-5: Vegetation and Soil Impacts Because of Dogs: All Zones

Standard	Management Strategies	Related Monitoring Strategies
All zones except RNA: No more than 50% of climbing staging areas have more than two dog depressions. RNA Zone: No more than 25% of climbing staging areas have more than two dog depressions.	Educate dog owners. Provide a kiosk with information about responsible dog use. Signs remind that unattended dogs are not allowed. Redesign fences to reduce or eliminate problem. Require a permit to allow dogs in the Reserve. Do not allow dogs.	Need baseline number of dog depressions at each climbing staging area. Annual monitoring would occur.

Nuisance Dogs

Indicator

Number of incident reports, written warnings, comment cards, and verbal complaints relating to dog incidents (e.g., dogs off leash, dog fights, dog bites, barking).

What the Indicator Measures

Nuisance dogs (e.g., digging, off-leash, fights, waste, etc.).

Table E-6: Nuisance Dogs: All Zones

Standard	Management Strategies	Related Monitoring Strategies
Visitor Facilities and Access Zone: During peak season there would be	Continuing education. Improved or increased signage.	Ranger/employee patrols. Accounts of warnings and citations.

no more than two citations, written warnings, or complaints per week. All other zones: During peak season there would be no more than one citation, written warning, or complaint per week.	Ranger patrols. Enforcement.	
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Undesignated Parking on County Roads

Indicator

Number of vehicles parked in undesignated areas per day during peak periods on the county road.

What the Indicator Measures

Social and natural resource impacts: measuring the number of vehicles in undesignated areas prevents damage to vegetation and soils, minimizes safety hazards, and ensures compliance with parking regulations.

Table E-7: Undesignated Parking on County Roads: All Zones except RNA

Standard	Management Strategies	Related Monitoring Strategies
No more than five vehicles are allowed to overflow into the county road from designated parking areas.	<p>Educate the public.</p> <p>Collaborate with the county.</p> <p>Educate the Roads Foreman, the County Deputy, and Cache Peak Civic Association (in this order).</p> <p>Involve the Quick Response Unit.</p> <p>Partner and identify new parking areas along the county road.</p> <p>When three or more vehicles overflow onto the county road from designated parking areas, the Reserve would call the county.</p>	<p>Monitor during peak- use days (weekends/ holidays).</p> <p>Monitor mid-May to mid-October.</p> <p>Ensure regular ranger patrol (two patrols per day).</p> <p>Restroom staff could also monitor parking when they are working.</p> <p>Monitor number of incidents of parking on vegetation.</p>

Undesignated Parking on Reserve Roads

Indicator

Number of vehicles parked in undesignated areas per day during peak periods on Reserve roads.

What the Indicator Measures

Social and natural resource impacts: measuring the number of vehicles in undesignated areas prevents damage to vegetation and soils, minimizes safety hazards, and ensures compliance with parking regulations.

Table E-8: Undesignated Parking on Reserve Roads: All Zones except RNA

Standard	Management Strategies	Related Monitoring Strategies
No vehicles are allowed to overflow from designated parking areas into undesignated areas.	Education of partners. Temporary signs. Add car bumpers to designate parking spaces in parking lots/ campsites. Improvement of parking. Provide more parking in some places. Assisted parking by staff in problem areas. The first incident of parking on vegetation would trigger a written warning or citation. When five vehicle written warnings or citations are given at the same location in the same year, the Reserve would consider parking lot redesign.	Monitor during peak use days (weekends/ holidays). Mid-May to mid- October. Ensure regular ranger patrol (two patrols per day). Restroom staff could also monitor parking when they are working. Monitor number of incidents of parking on vegetation.

Unsafe Driving Conditions on County and Reserve Roads

Indicator

Number of occurrences of unsafe driving, as logged by visitor complaints, complaints to ranger, and comment cards.

What the Indicator Measures

How often unsafe driving might occur, considering road and weather conditions.

Table E-9: Unsafe Driving on County Roads: All Zones except RNA

Standard	Management Strategies	Related Monitoring Strategies
No more than three visitor complaints per day.	Call county to dispatch county sheriff.	Tally the complaints.

Table E-10: Unsafe Driving on Reserve Roads: All Zones except RNA

Standard	Management Strategies	Related Monitoring Strategies
No more than two visitor complaints per day.	Educate visitors about regulations. Dispatch a Reserve staff member to minimize the problem and/or be visible to visitors. Post speed limits. Issue citations.	Tally the complaints.

Incidents of Damage to Cultural Resources

Indicator

Number of incidents of graffiti, ground disturbance, damage to structures, or loss of historic fabric, as logged by complaints, reports to ranger, and ranger observation.

What the Indicator Measures

Incidents of damage to cultural resources.

Table E-11: Incidents of Damage to Cultural Resources: All Zones

Standard	Management Strategies	Related Monitoring Strategies
All sites maintained to at least "good" condition under annual assessment guidelines. No more than an average of three incidences over five years.	Educate the public. Signage. Patrol and presence. Increase ranger patrols in specific high-use areas. Fencing where appropriate.	Annual condition assessments. Patrols.

Noise Around Campsites

Indicator

Number of complaints relating to noise intrusions as logged by incident reports, complaints, and comment cards (particularly in campsites).

What the Indicator Measures

Measures noise around campsites.

Table E-12: Noise Around Campsites: Visitor Facilities and Access Zone

Standard	Management Strategies	Related Monitoring Strategies
No more than one report, citation, complaint, or warning per season (April–October).	<p>Education.</p> <p>Signs on kiosks, information on pamphlets, information on ReserveAmerica.</p> <p>Patrols by rangers/employees.</p> <p>Contacting visitors.</p>	<p>Documentation of noise to observe whether it changes over time.</p> <p>Patrols by rangers/ employees.</p> <p>May need to conduct patrols during the quiet hours.</p>

Wait Time for Climbing Routes

Indicator

Number of groups/people waiting to climb a route outside of the staging area per day.

What the Indicator Measures

Measure how many people have to wait to climb.

Table E-13: Wait Times for Climbing Routes: All Zones except Historic Rural Setting

Standard	Management Strategies	Related Monitoring Strategies
No more than two groups waiting to climb a route outside of a staging area at a time.	<p>Education to encourage people to wait in already disturbed areas.</p> <p>Education that would identify other available routes in the same climbing class.</p> <p>Education to disperse use to more durable areas or to unused areas.</p> <p>Ranger would encourage visitors to move to other areas.</p>	<p>Ranger observations when patrolling (two patrols per day).</p> <p>Restroom staff could also monitor climbing wait periods when they are working.</p>

Human Waste

Indicator

Number of human waste/ toilet paper sightings by ranger during patrol in problem areas (counted twice per season).

What the Indicator Measures

Measuring how often people might encounter human waste.

Table E-14: Human Waste: Transition and Visitor Facilities and Access Zones

Standard	Management Strategies	Related Monitoring Strategies
No more than one sighting of human waste in a known problem area.	Education about restroom locations. Education on Leave No Trace strategies. Possibly add new concrete vault toilets. Management strategies would depend on severity of problem.	Ranger patrols in problem areas (two patrols per day). Restroom staff could also monitor for human waste when they are working.

Campsite Condition

Indicator

Campsite condition class assessment as assessed annually in FMSS.

What the Indicator Measures

See protocols in FMSS.

Table E-15: Campsite Condition: See locations in FMSS

Standard	Management Strategies	Related Monitoring Strategies
See protocols in FMSS.	See protocols in FMSS.	See protocols in FMSS.

Indicators and Standards

The priority indicators for City of Rocks National Reserve are associated with the following issues:

- Visitor-created trails (vegetation and soil impacts because of foot traffic)
- Full campsites
- Day and overnight use conflicts
- Vegetation and soil impacts (caused by dogs at climbing staging areas)
- Nuisance dogs (digging, off leash, fights, waste)
- Vehicles parked in undesignated areas on county and Reserve roads
- Unsafe driving conditions
- Incidents of damage to cultural resources
- Noise around campsites
- Wait time for climbing routes
- Waste

Visitor-Created Trails

The proliferation of visitor-created trails at the Reserve has become an issue of concern, especially pertaining to trails leaving campsites and going into the surrounding areas. Addressing the expansion of visitor-created trails is considered a high priority due to associated impacts such as vegetation loss and soil impacts. The indicator for visitor-created trails is based on a modified

version of a trail condition class system developed by Jeff Marion of the U.S. Geological Survey (Marion and Hockett 2008). Depending on the level of impact for each trail of concern, measurements for this indicator may include linear feet, width, depth, and grade of disturbed vegetation. The standard for this indicator specifies that visitor created trails would constitute no more than 20% of the total linear feet of trails in the park. The Reserve staff has not conducted an initial baseline assessment for visitor-created trails and would plan to do a baseline validation of visitor created trails every three years once monitoring begins. The standard may need to be adapted after the baseline assessment to ensure that trail condition is being adequately protected with this monitoring framework. Monitoring efforts would overlap with campsite assessments where applicable.

As part of the *Rim Development Concept Plan for City of Rocks National Reserve* (appendix C), the National Park Service would place barriers in front of visitor-created trails at certain campsites to minimize their continued use and would restore the area's natural resources. If standards are exceeded for visitor-created trails, the Reserve staff would increase education about the need to follow existing paths to campsites and staying on the trail. Appropriate preventative measures would be taken, such as increasing signage about trails, creating natural barriers and erosion control measures, brushing out areas, closing off areas if needed, and formalizing trails that are considered appropriate.

Campsites Full

The Reserve maintains 64 standard campsites, which are located in and among the granite formations, with easy access to trails and vistas. Most sites include a tent pad, picnic table, and fire ring. Campsites may be reserved online nine months in advance for May 1 through September 30 use, or they can be obtained on a first-come, first-served basis year-round. Because of the easy access to trails and climbing routes, most of the campsites are full on weekends during the peak season (mid-May through mid-October) and are often full during the week in June. Because campsites are in high demand during peak season, Reserve staff would like to ensure that campers have every opportunity to plan ahead to obtain campsites, or to gain access and information about nearby camping opportunities outside of the Reserve. The indicator variable that would be monitored is the number of days that campsites are 95%–100% full, and the associated standard specifies that there would be no more than nine days when campsites are 95%–100% full during the peak season (mid-May through mid-October). Management strategies include improved information for pre-trip planning, providing information about Reserve and nearby camping facilities, encouraging camping during nonpeak times such as mid-week, placing informative signs at the entrance, fee stations, or at the visitor center when the campsites are full, and possibly providing incentives such as discounts at campsites for those who pre-plan or travel during nonpeak times.

Day and Overnight Visitor Conflicts

In addition to campsites filling up during peak season, conflicts between day and overnight visitors have become an issue in areas where there is minimal parking for both user groups. For example, because some of the current trailheads are located near campsites, day users will park at campsites and walk through the campsites to gain access to the trail. Some of these issues are addressed in the Rim development concept plan. Changes would include providing additional parking and access to trailheads so visitors would not need to walk through campsites to gain access.

Another day- and overnight-use conflict occurs when day visitors picnic in campsites and use overnight spots for day-use parking. The indicator variable that would be monitored is the number of visitor complaints via comment cards and reports to camp hosts or rangers (about not being able to find a place to picnic or having someone park in their campsite spot). The standard has been set to no more than three complaints per day. Reserve staff would monitor the number of complaints

related to day- and overnight-visitor conflicts. Management strategies include increased staff presence to guide visitors to appropriate locations, updated maps, and increased education about day- and overnight-use designations.

Vegetation and Soil Impacts Caused by Dogs at Climbing Staging Areas

The number of depressions caused by dogs digging at climbing staging areas has become an increasing concern. Some visitors bring dogs with them to climbing staging areas and then tie them to a post in the staging area while climbing. As a result, unattended dogs have impacted the vegetation and soils in and around the staging areas. Additionally, some territorial dogs have intimidated other visitors, preventing them from approaching these areas. Although there are no baseline data for the number of dog depressions dug, Reserve staff has estimated that there are currently about 2 to 15 depressions at most of the climbing staging areas. This level of impact has been deemed unacceptable, and Reserve staff would like to greatly reduce these impacts. Initial baseline condition assessment and monitoring is needed to establish a more thorough understanding of impacts, and annual monitoring would occur thereafter until conditions reach an acceptable level. The standard developed for all zones except for the Research Natural Area is that no more than 50% of climbing staging areas would have more than two dog depressions. For the Research Natural Area Zone, no more than 25% of climbing staging areas would have more than two dog depressions. To correct this problem, Reserve staff would like to increase education for dog owners. A new kiosk would be developed to inform owners about responsible recreational practices with dogs and remind visitors that leaving dogs unattended while climbing is unacceptable. More stringent strategies to address these impacts could eventually include redesigning fences at staging areas, requiring a permit to bring dogs to the Reserve, and not allowing dogs, all of which would initiate restoration at impacted sites.

Nuisance Dogs

Dogs at the Reserve may be perceived as causing a nuisance when pet owners do not follow posted rules about appropriate recreational use with pets. Examples of nuisance include dogs off leash, fighting and biting dogs, dogs digging depressions, barking dogs, dog waste left on the ground, and dogs chasing cattle in public grazing allotments and on adjacent private lands. The Reserve staff would like to track these issues by documenting the number of received incident reports, written warnings, comment cards, and verbal complaints relating to dog incidents. In the Visitor Facilities and Access Zone, the standard specifies that no more than two citations (written warnings or complaints) should be issued per week during the peak season. In all other zones, no more than one citation should occur per week. Management strategies to help improve dog etiquette include continuing and improving education about dog rules and regulations, ranger patrols, and enforcement.

Vehicles Parked in Undesignated Areas on County and Reserve Roads

Vehicles parked outside of designated areas have become a problem on Reserve roads and on Cassia County roads that pass through the Reserve, especially during peak season. By monitoring and managing the number of vehicles parked in undesignated areas, the Reserve staff would gain a better understanding of damage to vegetation and soils, minimize safety hazards, reduce crowding and visual impacts on the City of Rocks Back Country Byway, and ensure compliance with parking regulations.

Managing undesignated parking along Cassia County roads would also require collaboration with and support from the Cassia County Commissioners. The board has acknowledged that parking and pedestrians along the road is an issue of concern and has requested that the National Park Service create more adequate parking outside of the county right-of-way. Cassia County Road and Bridge Department is also working on a transportation study that will examine traffic counts and

speeds in the area and could coordinate with the National Park Service on these efforts (Cassia County, McMurray email 2011).

Parking issues are addressed, in part, in the Rim development concept plan. Because there is limited access and parking at certain trailheads, the development concept plan would initiate parking lot redesign recommendations that would eventually lead to development of new parking spaces where appropriate. After the transportation study and parking lot redesign have occurred, the Reserve staff would initiate a program of monitoring the number of vehicles in undesignated areas during peak-use days (on weekends and holidays). For the county roads, the standard specifies that no more than five vehicles should be allowed to overflow onto the county road from designated parking areas. On the Reserve roads, no vehicles would be allowed to overflow from the designated parking areas. Additional management strategies for county roads include collaborating with and gaining consensus and support from county officials to manage parking, and educating the public about appropriate designated parking. Additional management strategies for Reserve roads include educating partners, installing temporary signs, adding parking bumpers to clearly designate parking spaces, increasing available parking where appropriate, and issuing parking citations if necessary.

Unsafe Driving Conditions

In addition to problems posed by vehicles parked along roads in the Reserve, some people perceive driving conditions to be unsafe. This perception could be related to a variety of factors, such as speed of vehicles; people walking, horseback riding, and biking on roadways with vehicles; and blind corners combined with people and vehicles sharing the roadway. Even when drivers are within the speed limit, driving conditions may still seem unsafe, especially to visitors who are not used to speeds up to 55 miles per hour on dirt roads (the county speed limit is 55 miles per hour unless otherwise posted). Because the Cassia County Sheriff's Office reporting area is significantly larger than the Reserve itself, it can be difficult to determine if traffic violations occurred inside or outside the Reserve boundary upon review of the basic violation reports.

The following data has been provided by the sheriff's office for 2009–2011 and include references to the Reserve: 17 cases with reports, 9 citations, and 14 traffic stops. There have been four accidents reported since 2002, and the previously mentioned proposed transportation study should provide useful information pertaining to speeds on the roads.

The Reserve staff would monitor the perception of unsafe conditions by tallying the number of complaints received on NPS- and county owned roads. The standard specifies that there would be no more than three visitor complaints per day on county roads, and no more than two visitor complaints per day on NPS jurisdictional roads. If conditions approach standards on the county roads, Reserve staff would contact the county sheriff's office for support. If conditions approach standards on NPS-managed roads, education would be increased to better inform visitors about regulations, a Reserve vehicle would be dispatched and made visible to minimize problems, speed limits would be posted in problem areas, and citations would be issued as necessary.

Incidents of Damage to Cultural Resources

Visitor use impacts on cultural resources include wear on historic structures, unintentional disturbances, and vandalism to archeological resources and historic structures. Cultural resources are nonrenewable, so impacts—especially those resulting from unintentional behaviors such as inadvertent disturbance or wear and tear, or intentional behaviors such as vandalism—must be minimized to the extent possible.

For indicators and standards related to cultural resource preservation, Reserve staff would refer to the protocols outlined in the condition assessments that are included in NPS cultural resource databases. These databases have measurable parameters that allow cultural resource specialists to

determine the physical condition and integrity of park cultural resources, include a monitoring component, and they are updated periodically. The List of Classified Structures, Cultural Landscape Inventory (CLI), and ASMIS databases provide measures of the physical condition of a resource and its cultural/historical significance (documenting the character, material, and integrity of the cultural resource).

The List of Classified Structures is an evaluated inventory of all historic and prehistoric structures that have historical, architectural, and/or engineering significance within parks of the national park system in which the National Park Service has, or plans to acquire, any enforceable legal interest. Structures are constructed works that serve some form of human activity and that generally are immovable. They include buildings and monuments, dams, millraces and canals, nautical vessels, bridges, tunnels and roads, railroad locomotives, rolling stock and track, stockades and fences, defensive works, temple mounds and kivas, ruins of all structural types that still have integrity as structures, and outdoor sculpture.

The CLI database is a comprehensive inventory of all culturally and historically significant landscapes within the national park system. The Cultural Landscape Inventory records the location, historical development, existing conditions, and management categories for maintaining the landscape as a cultural resource. A condition assessment of the cultural landscape is updated every six years to ensure that the inventory record is complete, accurate, and reliable. The condition assessment describes the current condition of the landscape and any impacts that may have an effect on the resources that contribute to the significance of the landscape and recommends corrective actions to stabilize and preserve the landscape. Each completed inventory is stored in the national CLI database in Washington, D.C., and in the regional database at the Olmsted Center for Landscape Preservation. The Cultural Landscape Inventory is accessible to the National Park Service through an intranet website.

The Archeological Sites Management Information System is a NPS database for the registration and management of park prehistoric and historic archeological resources. It supports archeological resources preservation, protection, planning, and decision-making by park managers, resource professionals, and the Washington Office. ASMIS records contain data on site location, description, significance, condition, threats, and management requirements for known park archeological sites. The indicator for human impacts to archeological resources and other cultural resources is based on existing monitoring protocols.

To assess resource conditions and the level of visitor-use impacts on cultural resources, staff would track the number of incidents of graffiti, ground disturbance, damage to structures, and loss of historical fabric. Incidents would be tracked by monitoring complaints, reports to rangers, and ranger observations. No more than an average of three incidences should occur over a five-year period with monthly monitoring. To ensure that this standard is maintained, visitor education and enforcement of park regulations would be continued, and closure of particularly vulnerable areas would be considered using fencing where appropriate. Increased patrols and ranger presence would also be considered for high-use areas where cultural resources are known to exist.

Noise around Campsites

Given the proximity of campsites to each other and high levels of visitor use at those sites, the number of complaints received about visitor caused noise was established as a priority indicator. Visitor-caused noise can affect the natural soundscape by disrupting wildlife, and it can significantly impact visitor experience. A 1998 survey of the American public revealed that 72% of respondents believed that providing opportunities to experience natural quiet and the sounds of nature was a very important reason to have national parks, while another 23% thought that it was somewhat important (Haas and Wakefield 1998). In another survey specific to park visitors, 91% of

respondents considered enjoyment of natural quiet and the sounds of nature to be compelling reasons to visit national parks (McDonald, Baumgartner, and Iachan 1995).

Baseline conditions for much of the Reserve's soundscape were characterized through comprehensive acoustical monitoring in 2008 and 2009 (NPS 2010). This study determined current acoustical conditions at City of Rocks National Reserve. Results included measures of existing ambient levels, calculations of sound source durations, and estimates of natural ambient levels. It was determined that human-caused sounds were audible between 1.9% and 20.2% of the time, depending on the site. Vehicles, voices, and domestic animals were frequently audible, but aircraft was the largest contributor of human-caused sound. More specifically, commercial jets were audible between 1.8% and 18.6% of the time. These results confirmed that visitor-caused noise is not currently a park wide issue. Therefore, Reserve staff established a soundscape indicator specific to campsites in order to address areas where noise has become an issue of concern. The Reserve staff would track the number of visitor complaints related to visitor-caused noise, particularly in the campgrounds, as logged by incident reports, general complaints, and comment cards. The standard has been set to no more than one report, citation, complaint, or warning per season. If conditions approach the standard, Reserve staff would increase education about the importance of natural soundscapes at the Reserve. Information could be shared via signs and kiosks, pamphlets, and on the Reserve America campsite reservation system. In an effort to maintain and improve soundscapes near the campgrounds, rangers would patrol areas of concern and contact visitors who are creating noise in campsites.

Wait Time for Climbing Routes

Part of the significance of the Reserve is that it provides one of the highest quality granite face-climbing areas in the United States. The geological features—consisting of granite spires ranging in height from 30 to 300 feet—are internationally renowned for rock climbing. These spires, carved out of the landscape by wind, rain, and snow, feature textured rock that is ideal for climbing. With about 700 developed routes in the area (including routes in nearby Castle Rocks State Park), they span a broad spectrum of features and challenges that require a full range of technique and style not usually found in one climbing area. The Reserve offers a mixture of moderate and advanced climbs, often found side by side. Because of the popularity and proximity of routes, queuing at staging areas has become a priority indicator for monitoring in several key locations such as Bath Rock and Elephant Rock.

Reserve staff would monitor the number of groups waiting in line for climbing routes to ensure that visitors are having high-quality experiences and that resources are not being damaged due to high-density use. The standard specifies that no more than two groups would wait outside of the staging area at one time to climb a route. If conditions approach standards, management strategies would be employed. Strategies include encouraging climbers to wait in already disturbed areas, and creating educational materials to inform climbers about similar routes in other areas of the Reserve. Finally, rangers would rove climbing areas and encourage dispersed use on similar climbing routes in various areas of the Reserve.

Human Waste

Incidences of improperly disposed human waste have decreased since the establishment of the Reserve, due to the construction of restroom facilities in higher-use areas. There are still some locations, however, where visitors are disposing of human waste and toilet paper improperly. Ensuring that visitors dispose of waste properly would enhance the visitor experience, reduce impacts on vegetation, and create a healthy and safe environment for visitors at the Reserve. The Reserve staff would track the number of human waste / toilet paper sightings via ranger patrol in problem areas and would monitor conditions twice a year. The standard specifies no more than one sighting of human waste or toilet paper in known problem areas. Management strategies to

continue improving conditions include increasing awareness of how to access restrooms, education on Leave No Trace principles, and adding new restroom facilities if needed and appropriate.

Long-Term User Capacity Monitoring

The staff would continue monitoring use levels and patterns throughout the Reserve. In addition, the Reserve staff would monitor these user capacity indicators. The rigor of monitoring the indicators (i.e., frequency of monitoring cycles and amount of geographic area monitored) might vary considerably depending on how close existing conditions are to the standards. If the existing conditions are far from exceeding the standard, the rigor of monitoring might be less than if the existing conditions are close to or trending toward the standard.

Initial monitoring would determine if the indicators are accurately measuring the conditions of concern and if the standards truly represent the minimally acceptable condition of the indicator. Reserve staff might decide to modify the indicators or standards and revise the monitoring program if better ways are found to measure changes caused by visitor use. Most of these types of changes should be made within the first several years of initiating monitoring. After this initial testing period, adjustments would be less likely to occur. Finally, if use levels and patterns change appreciably, Reserve staff might need to identify new indicators to ensure that desired conditions are achieved and maintained. This iterative learning and refining process is a strength of the NPS user capacity management program.

APPENDIX F: MANAGEMENT ZONES

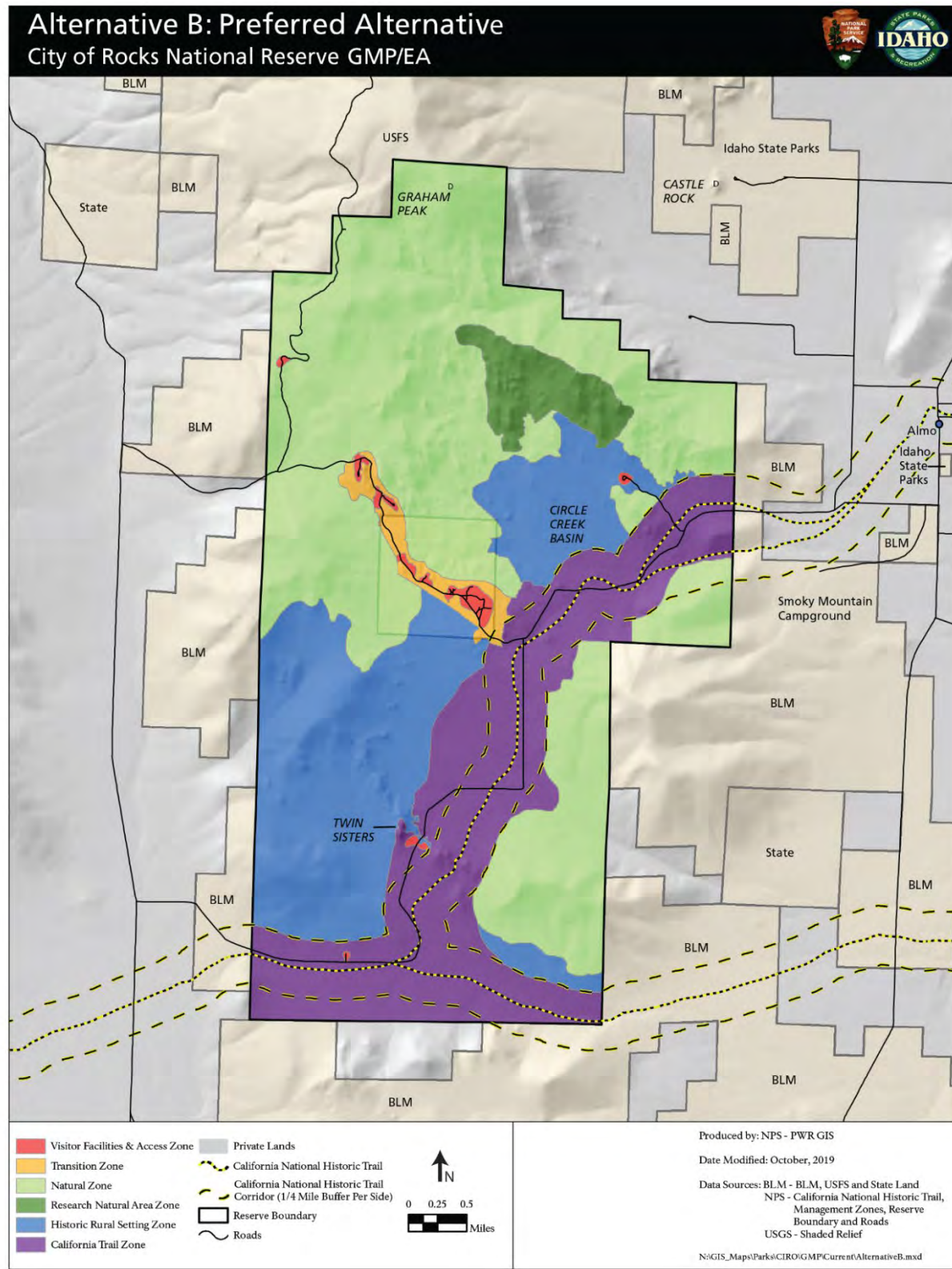


Table F-16. Zone Concepts

Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
The Visitor Facilities and Access Zone encompasses a variety of facilities that support the highest visitor capacity within the Reserve and serves as an access point for experiencing the Reserve.	The Transition Zone balances recreation with the protection of resources. It provides a more geographically dispersed recreational experience, offering scenic vistas and a sense of open, natural character while providing minimal developed comforts.	The Natural Zone preserves natural features, natural processes, diversity, and ecological values and provides for compatible recreational uses.	The Research Natural Area Zone preserves outstanding natural features, natural processes, diversity, and ecological values, and provides for non-manipulative research in the Research Natural Area. Activities will be restricted to non-manipulative research, education, and other activities that will not detract from the area's research values and according to NPS policies.	The Historic Rural Setting Zone preserves the western rural setting and perpetuates the visual character of historic ranching activities on the landscape.	The California Trail Zone preserves and interprets the major landmarks, trail remnants, inscription rocks, and historically significant viewsheds associated with the California National Historic Trail.

Table F-17: Cultural Resources

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Overall Conditions	Character-defining features of the National Historic Landmark (NHL) and California National Historic Trail (if trail resources occur in this zone) are preserved. When new developments occur to accommodate visitor use, administration, and safety, they are undertaken in a manner compatible with the historically significant values of the Reserve.	Character-defining features of the NHL are preserved. Preservation and interpretation of cultural resources are integrated into the development of all recreational facilities and visitor experience goals. In the rare occurrence that modifications to cultural resources occur to accommodate visitor use and safety, they are undertaken in a manner compatible with the historically significant values of the Reserve.	Actions for protection or restoration of natural resources are undertaken in a manner compatible with the historically significant values of the Reserve. Documentation and non-invasive data recovery of archeological resources are undertaken if loss of cultural resources due to natural process is imminent.	Actions for protection of natural resources are undertaken in a manner compatible with the historically significant values of the Reserve. Documentation and non-invasive data recovery of archeological resources are undertaken if loss of cultural resources due to natural processes is imminent.	The western rural setting and visual character of historic ranching activities are preserved and perpetuated. When new developments occur to accommodate ranching activities, visitor use, and safety, they are undertaken in a manner compatible with the visual characteristics of the historic rural setting.	Cultural resources and values associated with the California National Historic Trail receive priority over other resource and management objectives. Wagon trail remnants, inscription rocks, culturally significant natural features, archeological sites, and historically significant viewsheds are preserved and interpreted.

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Building and Structures Buildings and structures on the Reserve post-date the period of significance for the NHL (1843-1882). These structures are associated with mining and homestead activities and provide opportunities for interpretation of the larger history of use in the Reserve (Nicholson Ranch, Moon Homestead, mining sites).	If structures exist in this zone, they are stabilized near visitor facilities and operations to ensure visitor safety. Select structures are interpreted for their association with earlier land uses in the Reserve, such as mining, ranching, and homesteading.	If structures exist in this zone, they are stabilized near visitor facilities and operations to ensure visitor safety. Select structures are interpreted for their association with earlier land uses in the Reserve, such as mining, ranching, and homesteading.	Structures that exist in this zone are documented and stabilized or left to natural processes. Any preservation actions are determined on a case-by-case basis, depending on the condition, function, and associated interpretive values.	Structures that exist in this zone are documented and left to natural processes.	Existing buildings and structures would receive historic preservation treatment in support of interpretive objectives for the historic rural setting.	Existing buildings and structures that post-date the period of the California Trail could be stabilized and interpreted for their association with later periods of land use in the Reserve.

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
<p>Cultural Landscapes</p> <p>California Trail NHL, lands within the NHL boundary, and contributing resources associated with the NHL including viewsheds, wagon ruts, inscription rocks, and cultural significant natural features. There are also cultural landscape features associated with later periods, such as fence lines, corrals, trails, mining landscapes, and water works.</p>	<p>Visitor facilities, including interpretive structures and infrastructure required for Reserve management and operations, are sited and designed so that they do not adversely impact significant resources of the California Trail corridor, such as historic viewsheds, trail ruts, inscription rocks, and natural features with cultural values.</p> <p>New facilities and land uses are located in a manner that supports preservation of the rural character of the Reserve to the degree possible.</p>	<p>Cultural landscape resources of the California Trail are preserved when planning or implementing new developments related to recreational activities.</p> <p>The rural character of the Reserve including existing fence lines, county road, and open character of the Reserve landscape are maintained to the degree possible.</p> <p>All new facilities and uses are designed to be compatible with the rural character of the Reserve.</p>	<p>Cultural landscape resources, including culturally important vegetation (pinyon pine) are managed to maintain historically significant character and cultural values adjacent to the California Trail corridor.</p> <p>Cultural landscape resources related to the historic rural setting of the Reserve are managed on a case-by-case basis. In most cases, built features such as fences, would be stabilized or repaired. In other cases, where the condition, function, or resource value of the structure is not significant, the feature would be documented and managed to allow natural processes to prevail.</p>	<p>Cultural landscape resources in this zone are limited. Those that do occur are protected and managed according to NPS policy.</p>	<p>Cultural landscape resources associated with the California Trail corridor would be preserved and stabilized.</p> <p>Cultural landscape features associated with grazing, such as fence lines, troughs, enclosures, informal roads and trails, etc. are stabilized and managed to the degree they support and enhance the historic rural setting of the Reserve.</p>	<p>Cultural landscape resources associated with the California Trail NHL and trail corridor are stabilized and preserved.</p> <p>The addition of new structures within the NHL including small scale features, such as interpretive signs, is considered within the context of the specific and cumulative impacts to the visual character and physical integrity of the trail corridor.</p> <p>Cultural landscape features associated with the historic rural character of the Reserve such as fence lines would be considered for removal on a case-by-case basis as the need for fencing changes.</p>

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Archeological Resources	<p>Visitor facilities and operations are sited and designed so that they do not adversely impact known archeological sites. Particular consideration would be given to cumulative impacts.</p> <p>Archeological sites are preserved for their research values. Operational activities do not impede preservation strategies for archeological resources.</p>	<p>Actions for development of visitor services and the protection or restoration of natural resources are undertaken in a manner compatible with the preservation of archeological sites and may include further investigation or documentation and data recovery. Particular consideration would be given to cumulative impacts.</p>	<p>Actions for protection or restoration of natural resources are undertaken in a manner compatible with the preservation of archeological sites and may include further investigation or documentation and data recovery.</p>	<p>Documentation and non-invasive data recovery of archeological resources are undertaken if loss of cultural resources due to natural processes is imminent. Research into the effect of natural process on archaeological sites may occur.</p>	<p>Documentation and data recovery of archeological resources are undertaken, if appropriate, for furthering the understanding of the history of the Reserve.</p> <p>Data recovery strategies will accommodate extant resources related to the Historic Rural Setting. Replacement-in-kind of elements that require maintenance such as fences would be allowed.</p> <p>All archaeological sites are preserved.</p>	<p>Documentation and data recovery of archeological resources are undertaken, if appropriate, for furthering the understanding of the history of the Reserve.</p> <p>The preservation of extant cultural resources related to the California National Historic Trail take precedence over invasive data recovery. (Trail ruts could not be excavated to explore a prehistoric site).</p>

Table F-18: Natural Resources

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Overall Conditions	Natural resources are protected but may be modified in less sensitive locations for visitor use, park operations, or administrative use.	Natural resources retain their integrity but may be modified for visitor use and resource protection.	Natural resources are retained in as pristine a condition as possible. This zone supports resource protection.	Natural resources are retained in as pristine a condition as possible. This zone supports research and resource protection.	Natural resources are protected but may be modified in appropriate locations to support important cultural resources and their interpretation.	Natural resources are protected but may be modified in appropriate locations to support important cultural resources and their interpretation.
Vegetation and Wildlife	<p>Native vegetation communities and wildlife habitat are mostly intact, but may be modified by development and high visitor use in suitable areas. In developed settings native vegetation landscaping will be used. Efforts to suppress nonnative invasive species are focused on species that have the most severe adverse impacts on native communities.</p> <p>Special status species and associated habitats may be actively managed to perpetuate these species.</p>	<p>Native vegetation communities and wildlife habitat are mostly intact, but may be modified. Nonnative invasive species are managed with emphasis on species that have the most severe adverse impacts on native communities.</p> <p>Special status species and associated habitats may be actively managed to perpetuate these species.</p>	<p>Native vegetation communities and wildlife habitat are mostly intact, but may be minimally modified. Nonnative invasive species are managed with emphasis on species that have the most severe adverse impacts on native communities.</p> <p>Special status species and associated habitats may be actively managed to perpetuate these species.</p>	<p>Native vegetation communities and wildlife communities are intact. This area is managed to allow for the natural processes. Special status species and associated habitats may be actively managed to perpetuate these species.</p>	<p>Native vegetation communities and wildlife habitat are mostly intact, but may be minimally modified to protect cultural resources. Nonnative invasive species are managed with emphasis on species that have the most severe impacts on native communities. Vegetation may be modified to enhance the historical setting. Special status species and associated habitats may be actively managed to perpetuate these species.</p>	<p>Native vegetation communities and wildlife habitat are mostly intact, but may be minimally modified to protect cultural resources. Nonnative invasive species are managed with emphasis on species that have the most severe impacts on native communities. Vegetation may be modified to enhance the historic character and environmental setting of the trail corridor. Special status species and associated habitats may be actively managed to perpetuate these species.</p>

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Geological Resources and Soils	Geologic features and soils are protected, and geologic processes continue. Impacted areas, including areas adversely affected by incompatible development or visitor use, are restored to the greatest extent possible. Infrastructure is designed or relocated to avoid geologic features, hazards and erosion (both causal and effectual).	Geologic features and soils are protected, and geologic processes continue. Impacted areas are restored to the greatest extent possible. Infrastructure is designed or relocated to avoid geologic features, hazards and erosion (both causal and effectual).	Geologic features and soil are protected, and geologic processes continue. Impacted areas are restored to the greatest extent possible. Infrastructure is designed or relocated to avoid geologic features, hazards and erosion (both causal and effectual).	Geologic features and soil are protected, and geologic processes continue.	Geologic features and soil are protected, and geologic processes continue. Some alteration or intervention in geologic processes on public lands may occur to protect cultural resources. Impacted areas on public lands are restored to the greatest extent possible consistent with cultural resource protection.	Geologic features and soil are protected, and geologic processes continue. Some alteration or intervention in geologic processes may occur to protect cultural resources (such as removing or stabilizing a fragile or hazardous geologic feature). Impacted areas are restored to the greatest extent possible consistent with cultural resource protection and visitor safety.
Hydrologic Systems	Natural hydrologic systems and processes are left unimpeded except where stabilization and management are needed to protect significant resources. Where possible, infrastructure is designed or relocated to minimize impacts on hydrologic systems and restore natural functions.	Natural hydrologic systems and processes are left unimpeded except where stabilization and management are needed to protect significant resources. Where possible, infrastructure is designed or relocated to minimize impacts on hydrologic systems and restore natural functions.	Natural hydrologic systems and processes are primarily left unimpeded except where stabilization and management are needed to protect significant resources. Where possible, infrastructure is designed or relocated to minimize impacts on hydrologic systems and restore natural functions.	Natural hydrologic systems and processes are left unimpeded, unless mitigation action is required under NPS policies or to meet purposes if the RNA.	Natural hydrologic systems and processes are left unimpeded except where stabilization and management are needed on public lands to protect cultural and natural resources. Where possible on public lands, infrastructure is designed or relocated to minimize impacts on hydrologic systems and restore natural functions.	Natural hydrologic systems and processes are left unimpeded except where stabilization and management are needed to protect cultural and natural resources. Where possible, infrastructure is designed or relocated to minimize impacts on natural hydrology.

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Soundscape	An intact acoustical environment is experienced at certain locations. New facilities are sited and designed to minimize impacts on the acoustical environment. Natural sounds are generally audible but sounds from visitor and park activities can be heard. Wildlife may be disturbed by noise.	The acoustical environment is largely intact. Natural sounds dominate, however, sounds from visitor use and park operations may be heard. Wildlife may be disturbed by noise.	The acoustical environment is largely intact. Natural sounds dominate; however, distant artificial sounds may intrude occasionally. Wildlife habitats are free or nearly free of intrusive noise.	The acoustical environment is intact. Natural sounds dominate; however, distant artificial sounds are rarely heard. Wildlife habitats are free of noise.	Natural sounds dominate; however, some noise may intrude from visitor and park operations.	Natural sounds dominate; however, some noise may intrude from visitor and park operations.
Night Sky	An intact night sky can be experienced at certain locations. No artificial lighting is present although lighting from developed areas may be visible from certain locations. New public facilities within the Reserve are sited and designed without lighting. Facilities outside the Reserve boundary are sited and designed using best management practices for outdoor lighting.	The night sky is largely intact. No artificial lighting is present although lighting from developed areas may be visible from certain locations.	The night sky is largely intact. No artificial outdoor lighting is present although lighting from developed areas may be visible from certain locations.	The night sky is intact. No artificial outdoor lighting is present though distant lighting outside the Reserve may be visible from certain locations.	No artificial outdoor lighting is present though distant lighting outside the Reserve may be visible from certain locations.	No artificial outdoor lighting is present though distant lighting may be visible from certain locations.

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Air Quality	Reserve operations minimize air pollution emissions	Reserve operations minimize air pollution emissions.	No air pollution emissions are evident from Reserve operations. The Reserve maximizes its carbon sequestration (the uptake and storage of atmospheric carbon in soils, forests and other vegetation)	No air pollution emissions are evident from Reserve operations. The Reserve maximizes its carbon sequestration potential as appropriate.	Reserve operations minimize air pollution emissions and maintain carbon sequestration potential.	Reserve operations minimize air pollution emissions and maintain carbon sequestration potential.

Table F-19. Special Uses

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Hunting	Hunting is prohibited in this zone due to safety considerations associated with high visitor use.	Hunting is allowed in this zone, but may be limited, due to visitor safety. Landowner permission is required to hunt on private land in the Reserve.	Hunting is allowed in this zone. Landowner permission is required to hunt on private land in the Reserve.	Hunting is prohibited in the RNA consistent with NPS policy for research natural areas.	Hunting is allowed in this zone. Landowner permission is required to hunt on private land in the Reserve.	Hunting is allowed in this zone except near structures and roads. Landowner permission is required to hunt on private land in the Reserve.
Grazing	Trailing of cattle and pasturing in allotments (such as at Bread Loaves and Finger Rock) is allowed in this zone, though not in riparian areas.	Grazing in designated allotments and trailing of cattle are allowed in this zone, though not in riparian areas.	Although grazing and trailing of cattle are currently allowed in this zone, steps would be taken to ensure that it does not occur in riparian areas.	Grazing is prohibited in the RNA consistent with NPS policy for research natural areas.	Grazing in designated allotments is allowed in this zone, though not in riparian areas.	Grazing in designated allotments is allowed in this zone. Allotments may be reduced or eliminated over time where feasible and consistent with cultural resources protection.
Communication Facilities	Cell towers and other communication facilities are not allowed in this zone.	Cell towers and other communication facilities are not allowed in this zone.	Cell towers and other communication facilities, except for a park repeater station, are not allowed in this zone.	Cell towers and other communication facilities are prohibited in the RNA consistent with NPS policy for research natural areas.	Cell towers and other communication facilities are not allowed in this zone.	Cell towers and other communication facilities are not allowed in this zone.

Table F-20: Visitor Experience

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Overall Conditions	This zone is managed for visitor access and a wide range of self-directed and guided visitor activities, including education and interpretation, recreation, and orientation. Appropriate uses include camping, trail use, climbing, photography, and wildlife viewing.	This zone provides visitors with opportunities for unstructured and self-guided and guided experiences as well as guided walks and hikes. Appropriate activities include trail use, climbing, dispersed camping, photography, and wildlife viewing.	Visitors in this zone experience solitude, natural sounds, a sense of remoteness, self-reliance and discovery. Visitor activities are generally unstructured and self-guided and include trail use, backcountry camping by permit, and climbing with an emphasis on traditional climbing, photography, and wildlife viewing.	In this zone, protection of resources is paramount. Although visitor access is limited, it is allowed if not disruptive to research or protection activities.	Visitors in this zone have the opportunity to observe traditional ranching activities as well as remnant structures associated with ranching heritage. Visitor activities include unstructured experiences such as trail use, interpretation, and educational opportunities to view ranching operations on both public and private lands. Access to private land, however, requires permission of the landowner.	This zone provides the opportunity for visitors to imagine the emigrant experience on the California Trail. Visitors have the opportunity to observe inscription rocks, landmarks, and viewsheds that evoke the feelings and experiences of emigrants traveling the California Trail. Trail ruts and other trail remnants provide an opportunity for education and interpretation of the California Trail. Interpretation, education, and recreation that complement the historic setting would occur here.

-	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Climbing	Climbers must propose new fixed anchor routes through a permit process. No permit is needed for traditional climbing.	Climbers must propose new fixed anchor routes through a permit process. No permit is needed for traditional climbing.	Climbers must propose new fixed anchor routes through a permit process. No permit is needed for traditional climbing. Modifications to existing routes could to protect resources.	Access to all existing routes (fixed anchor and traditional) is allowed. No new fixed anchor proposals will be accepted. Traditional climbing is allowed as long as it does not interfere with ongoing research activity.	Climbers must propose new fixed anchor routes through a permit process. No permit is needed for traditional climbing.	There are no fixed anchors in the California Trail Zone. No climbing of technical routes is allowed in the California Trail Zone. Signature Rocks or rocks with inscriptions (e.g., Camp Rock, Register Rock) are closed to all climbing, including bouldering, and scrambling. Scrambling is allowed on rocks without signatures in the California Trail Zone.

Table F-21: Facilities and Operations

	Visitor Facilities and Access Zone	Transition Zone	Natural Zone	Research Natural Area Zone	Historic Rural Setting Zone	California Trail Zone
Overall Conditions	The existing public and administrative road corridors in this zone provide access to concentrated recreational facilities including campsites, parking, restrooms, trailheads and trails, developed staging areas, fixed anchor hardware, picnic areas, corrals, kiosks, signs, and interpretive waysides. This zone also includes facilities that support park operations such as utilities (wells, underground power lines, etc.).	Development is modest in this zone. There is no motorized access in this zone, except for administrative use and private landowner access. This zone allows for dispersed recreational facilities, including walk-in campsites, trails and trail infrastructure, trail signage, waysides, fencing and corrals, developed staging areas for climbing, and fixed anchor hardware. This zone includes primitive administrative road/access for administrative and emergency response.	This zone is limited to minimal facilities consistent with natural resource protection. Facilities include trails and trail infrastructure, fencing, water troughs and waysides. Existing public, private and administrative roads are allowed in this zone and some primitive roads would be removed where possible.	No development is allowed in this zone. The boundary of this zone is fenced where necessary to exclude cattle. No new trails will be allowed.	Development is minimal in this zone. Existing public, private and administrative roads are allowed in this zone. Fencing, corrals, water troughs, trails and their associated elements, trail signage, and waysides are allowed in this zone.	This zone has limited development to protect California Trail resources and to provide for visitor access, education and interpretation. Existing public and administrative roads are allowed. Some primitive roads would be removed where possible. Utilities would continue to be placed underground. This zone allows for parking, waysides, and road signs, interpretive and informational signage. Foot and equestrian trails may be appropriate. Administrative fencing is allowed, and historic fences will be removed when obsolete. No further development is allowed.

APPENDIX G: SPECIAL STATUS WILDLIFE SPECIES

Table G-1. Special Status Wildlife Species*

Wildlife Species	Status	Habitat Occurrence
Spotted bat <i>Euderma maculatum</i>	S3	Cracks and crevices of cliffs, but not documented or known
Pygmy rabbit <i>Brachylagus idahoensis</i>	S2, FE	Tall, dense sagebrush, but not confirmed within Reserve
Cliff chipmunk <i>Tamias dorsalis</i>	S1	Old-growth pinyon-juniper sites near outcrops
Great Basin ground squirrel <i>Spermophilus mollis</i>	S2	Southern portion of the Reserve in grasslands and/or low sagebrush
Greater sage-grouse <i>Centrocercus urophasianus</i>	S2, FC	Sagebrush steppe, documented leks and nests in nearby Castle Rocks State Park
American white pelican <i>Pelecanus erythrorhynchos</i>	S1B	Seen only in flight, no suitable habitat within the Reserve
Black-crowned night-heron <i>Nycticorax</i>	S2B	Lower Almo Creek and Raft River (Almo Valley); not confirmed in park
Bald eagle <i>Haliaeetus leucocephalus</i>	S4N	Observed in Almo Valley only during migration
Swainson's hawk <i>Buteo swainsoni</i>	S3B	Rocky Cliffs, often seen in the low hills northwest of Almo Valley
Ferruginous hawk <i>Buteo regalis</i>	S3B	Rarely observed in the Reserve or Almo Valley
Merlin <i>Falco columbarius</i>	S2N	Open landscapes; rarely observed in the Reserve
Peregrine falcon <i>Falco peregrinus</i>	S2B	High Rocky cliffs; confirmed April 2017
Sandhill crane <i>Grus canadensis</i>	S3B	Open fields in Almo Valley, riparian edges
Long-billed curlew <i>Numenius americanus</i>	S2B	Fields, marshes, and grasslands primarily outside the Reserve
Wilson's phalarope <i>Phalaropus tricolor</i>	S3B	Fields, marshes, and grasslands primarily outside the Reserve

* Special Status Designations Federal

FE = Federally Endangered: Listed by the U.S. Fish and Wildlife Service as a species that is in danger of extinction throughout all or a significant portion of its range.

Wildlife Species	Status	Habitat Occurrence
Burrowing owl <i>Athene cunicularia</i>	S2B	Raft River Valley grasslands; not confirmed in Reserve
Short-eared owl <i>Asio flammeus</i>	S4	Grasslands; not confirmed in the Reserve
Lewis' woodpecker <i>Melanerpes lewis</i>	S3B	Open woodlands; few records in the area
Pinyon jay <i>Gymnorhinus cyanocephalus</i>	S1	Pinyon-juniper woodlands, especially in low hills outside the Reserve
Juniper titmouse <i>Baeolophus griseus</i>	S2	Pinyon-juniper woodlands
Virginia's warbler <i>Vermivora virginiae</i>	S1B	Dry pinyon-juniper woodlands
Brewer's sparrow <i>Spizella breweri</i>	SB3	Sagebrush steppe
South Hills crossbill <i>Loxia sinesciuris</i>	S1	Fir-spruce-lodge pole forests in high elevations

FT = Federally Threatened: Listed by the U.S. Fish and Wildlife Service as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

FP = Federal Proposed: Species for which the U.S. Fish and Wildlife Service has proposed in the Federal Register listing as threatened or endangered.

FC = Federal Candidate: Species for which the U.S. Fish and Wildlife Service has sufficient information to propose for listing as threatened or endangered.

FSC = Federal Species of Concern: Species whose conservation standing is of concern to the U.S. Fish and Wildlife Service, but for which status information is still needed.

State

S1 = Idaho State Critically Imperiled: Listed by the Idaho Conservation Data Center as at high risk because of extreme rarity (often 5 or fewer occurrences), rapidly declining numbers, or other factors that make it particularly vulnerable to rangewide extinction or extirpation.

S2 = Idaho State Imperiled: Listed by Idaho Conservation Data Center as at risk because of restricted range, few populations (often 20 or fewer), rapidly declining numbers, or other factors that make it vulnerable to rangewide extinction or extirpation.

S3 = Idaho State Vulnerable: Listed by Idaho Conservation Data Center as at moderate risk because of restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors that make it vulnerable to rangewide extinction or extirpation.

S4 = Idaho State Apparently Secure: Listed by Idaho Conservation Data Center as Uncommon but not rare; some cause for long-term concern due to declines or other factors.

B = Idaho State Breeding: Listed by Idaho Conservation Data Center because the Conservation status refers to the breeding population of the species.

N = Idaho State Nonbreeding: Listed by Idaho Conservation Data Center because the Conservation status refers to the nonbreeding population of the species.

APPENDIX H: PLANS AND PROJECTS CONSIDERED IN THE CUMULATIVE EFFECTS ANALYSIS

CITY OF ROCKS

City of Rocks National Reserve Final Comprehensive Management Plan (CMP), Development Concept Plan, Environmental Impact Statement

Grazing Management Plan, City of Rocks National Reserve / Finding of No Significant Impact

Resource Management Plan for City of Rocks National Reserve

City of Rocks Interim Trail Management Plan

City of Rocks National Reserve Climbing Management Plan

Restroom Improvements at Finger Rock Finding of No Significant Impact

Borrow Pit Restoration Project Finding of No Significant Impact

Fire Management Plan: City of Rocks National Reserve

City of Rocks Cultural Landscape Inventory

Climate Friendly Parks: City of Rocks National Reserve Action Plan

Circle Creek Overlook Parking Lot Relocation (City of Rocks) Finding of No Significant Impact

Circle Creek Overlook Trails Project Finding of No Significant Impact

Northern Rocky Mountains Invasive Plant Management Plan Finding of No Significant Impact

OTHER NPS PROJECTS

Additional Routes of the Oregon, Mormon Pioneer, California and Pony Express National Historic Trails Feasibility Study

BLM PLANS

Castle Rocks Climbing Finding of No Significance Impact

Cassia Resource Management Plan

Potential Geothermal Development of Nearby Areas

USFS PLANS

Sawtooth National Forest Land and Resource Management Plan

STATE OF IDAHO PLANS

State Trust Lands Asset Management Plan

Castle Rocks State Park Master Plan

CASSIA COUNTY PLANS

City of Rocks Back Country Byway: Rural Heritage Stewardship Handbook and Byway Management Plan

Cassia County Code: Historical Preservation Zone

Cassia County Design Guidelines

PRIVATE DEVELOPMENT PLANS

Existing Water Development and Other Infrastructure Related to Grazing

Gateway West Transmission Line Project

Cassia County north of the East Hills, and then crosses the Golden Valley between Oakley and Burley

APPENDIX I: MITIGATION MEASURES

Mitigation measures are the practicable and appropriate methods that would be used under all alternatives to avoid and/or minimize harm to monument natural and cultural resources. These mitigation measures have been developed by using existing laws and regulations, best management practices, conservation measures, and other known techniques from past and present work in and around the Reserve.

The GMP provides a management framework for the Reserve. Within this broad context, the alternatives include the following measures that may be used to minimize potential impacts from the implementation of the alternatives. Additional mitigation would be identified as part of implementation planning and for individual projects to further minimize resource impacts.

GEOLOGY AND SOILS

- Refrain from taking gravel, sand, and materials from within the Reserve for road maintenance or construction—these materials would come from a nearby source and would be mineralogically and petrologically compatible with native rock in the Reserve.
- Locate construction staging areas where they would minimize new disturbance of area soils and vegetation.
- Minimize ground disturbance to the extent practicable during construction of new or modification of existing facilities.
- Minimize driving over or compacting root zones.
- Use mats or plywood to minimize soil compaction impacts when working in wet areas.
- Salvage topsoil from excavated areas for use in recovering source area or other project areas.
- Windrow topsoil at a height that would help to preserve soil microorganisms (below three feet).
- Reuse excavated materials where possible in the project area.
- Revegetate project areas through native seeding and planting.
- Import weed-free clean fill and store imported or excavated topsoil and fill in a weed-free area, covered by weed cloth to prevent contamination.
- Identify clearing limits to minimize the amount of vegetation loss.
- Clear and grub only those areas where construction would occur.
- Prepare and approve a hazardous spill plan or spill prevention containment and control plan, whichever is appropriate, before construction begins.

HYDROLOGY AND WATER QUANTITY

- Locate staging and stockpiling areas away from surface water resources.
- Continue to fence out sensitive areas— such as riparian areas and other wetlands—from grazing allotments.
- Install construction fencing around, adjacent to, or near wetland and/or riparian areas to be protected, or use other erosion protection measures to minimize sedimentation.
- Minimize soil disturbance and revegetate disturbed areas as soon as practicable.
- Use vegetable-based hydraulic fluid in heavy equipment.
- Minimize the creation of impervious surfaces.

- Evaluate dams on lands acquired by the National Park Service to determine whether these areas can be restored.
- Exclude cattle from riparian areas through a variety of means, such as by providing alternate water sources or adding fencing, as appropriate.

WATER QUALITY

- Modify livestock grazing permits to exclude wetlands and riparian areas.
- Develop only water sources that do not directly modify wetlands or change the timing, distribution, or amount of water supply to wetlands on public lands.
- Improve erosion control best management practices along roadways in the Reserve.
- Encourage permittees to lessen impacts on wetland and riparian areas and areas of concentrated use.

WETLANDS

- Avoid adverse impacts on wetlands and riparian areas when constructing buildings or other facilities on publicland.
- Complete jurisdictional wetland surveys for potential impacts associated with trails and avoid impacts on the extent possible.
- Refrain from increasing animal unit months by continuing to reallocate animal unit months to existing permittees, including family members, if grazing allotments are vacated within the Reserve.
- Delineate wetlands to determine site hydrologic, soil, and vegetation characteristics when work is proposed near springs and riparian areas.
- Encourage permittees to lessen impacts on riparian zones and areas of concentrated recreational use, and to implement other actions called for by the 2008 draft grazing management plan.

VEGETATION

- Identify and delineate construction limits to prevent expansion of construction operations into undisturbed areas.
- Minimize construction limits and areas to be cleared where possible.
- Salvage plant material prior to construction from areas to be disturbed.
- Restore staging and other temporarily impacted areas following construction.
- Align trails to climbing routes and continue to take into consideration climbing route access to minimize the development of social trails.
- Continue to develop and contain staging areas for climbers to limit spillover impacts into adjacent undisturbed areas.
- Conduct a baseline study of social trails and user-created trails.
- Continue to place barriers in front of social trails at campsites, day-use areas, and other necessary locations to restore area natural resources.
- Increase education about staying on trails if monitoring standards are exceeded for social trails.
- Take appropriate preventative measures, such as increasing signage about trails, creating natural barriers and erosion control measures, brushing out areas, closing off areas if needed, and formalizing trails to minimize impacts from social trails.

- Comply with resource restrictions in the BLM *Cassia Resource Management Plan* regarding work on state-leased lands, including construction periods that avoid impacts on native species such as Swainson's and ferruginous hawks.

Mitigation measures for preventing the spread of noxious weeds include the following:

- Import only freshly exposed subsurface materials when materials are imported from outside the Reserve.
- Wash all vehicles prior to commencing construction projects.
- Cover stored soil and rock, as appropriate, to prevent exposure to noxious weed seed.
- Separate salvaged weed-contaminated soil from weed-free soil and use the contaminated soil for subsurface fill.
- Conduct annual monitoring for potential weed infestation using early detection/ rapid response eradication techniques.
- Identify and control nonnative plant species infestations prior to construction

Measures that could be used to minimize the number of dog depressions at climber staging areas include the following:

- Increase dog owner education.
- Redesign fences at staging areas.
- Determine whether a permit should be required to bring dogs to the Reserve.
- Restrict dogs at climber staging areas.
- Restore impacted sites.
- Measures that would be used to minimize impacts from grazing and livestock trailing include the following:
- Meet the physiological needs of plants through manipulation of grazing by: 1) delaying initial grazing until range readiness, 2) allowing adequate leaf area to remain after a grazing period, 3) allowing adequate time between grazing periods to permit replenishment of leaf area and vigor, and 4) allowing adequate leaf area and time late in the growing season for replenishment of vigor and bud development (Reserve 2008b).
- Periodically rest grazing areas, allowing plants to reproduce, either through seed production or vegetatively (Reserve 1996b: p.15).

WILDLIFE

- Conduct site-specific surveys for wildlife in proposed construction areas.
- Continue to monitor climbing routes to limit impacts on wildlife, such as nesting raptors, including enacting seasonal closures as necessary.
- Continue to prohibit artificial modification of rocks for climbing, such as the introduction of glued hand-holds or removal of jutting or sharp edges.
- Continue to require permits for use of portable electric drills to create bolted sport climbing routes.
- Use information gained from inventory and monitoring of wildlife to improve management.
- Avoid impacting key wildlife habitat sites, such as nesting or denning areas, from construction projects.
- Minimize the degree of habitat removal (vegetation clearing) by delineation of construction limits.

- Limit the effects of light and noise on wildlife habitat through controls on construction equipment and timing of activities, such as limiting construction to daylight hours to the extent practicable.
- Ensure that construction personnel at work sites do not provide human food to wildlife.
- Maintain proper food storage and dispose of all food waste promptly.
- Schedule construction activities with seasonal consideration of wildlife life cycles to minimize impacts during sensitive periods (for example, nesting).
- Employ, monitor, and maintain erosion control measures at construction sites to minimize sediment inputs to aquatic habitats.
- Engineer trails and trail stream crossings to facilitate aquatic organism passage and to maintain ecological connectivity
- Employ spill prevention measures to prevent inadvertent spills of fuel, oil, hydraulic fluid, antifreeze, and other toxic chemicals that could affect wildlife.
- Conduct additional environmental impact analysis prior to undertaking actions associated with development proposals in this plan.
- Conduct surveys to determine whether sensitive, rare, threatened, or endangered species occur—if evidence of these species is found, actions would be modified to avoid impacting species or known habitat.
- Continue to monitor climbing routes to limit impacts on wildlife, such as nesting raptors.
- Determine whether special-status plant species are present in the area during the planning process for proposed actions in this plan—if special-status species occur in area, botanists would develop site-specific mitigations to ensure no adverse effects would occur.
- Conduct additional consultation with the U.S. Fish and Wildlife Service if listed species are later found in proposed project areas.
- Defer grazing from the mountains by grazing lower elevations, which would probably promote the growth and persistence of native shrubs, grasses, and forbs needed by sage-grouse for seasonal food and concealment, especially during the nesting period. This would also be expected to improve habitat for other sensitive sagebrush-obligate species. This conservation measure is recommended in the Conservation Plan for the Greater Sage-grouse in Idaho (Idaho Sage-grouse Advisory Committee 2006: p.4–61).
- Maintain residual herbaceous vegetation at the end of the grazing season, as expected through monitoring, and adhere to utilization standards to contribute to nesting and brood-rearing habitat during the coming nesting season. This conservation measure is recommended in the Conservation Plan for the Greater Sage-grouse in Idaho (Idaho Sage-grouse Advisory Committee 2006: p. 4-61).

ARCHEOLOGICAL RESOURCES

- Continue to increase the inventory and monitoring program for archeological resources, including conducting surface and subsurface testing as necessary to document the potential for archeological resources or to understand the presence, extent, and/or significance of archeological resources found.
- Halt work in the discovery area should unknown archeological resources be uncovered during project implementation. The Reserve Cultural Resources Program Manager would be contacted, the site secured, and the Reserve would consult according to 36 CFR 800.11 and, as appropriate, provisions of the Native American Graves Protection and Repatriation Act of 1990. In compliance with this act, the National Park Service would also notify and consult concerned tribal representatives for the proper treatment of human remains, funerary, and sacred objects, should these be discovered.

- Document and avoid previously unidentified archeological sites and prepare a determination of eligibility for the National Register of Historic Places for potentially eligible sites.
- Relocate work to a nonsensitive area if archeological resources are encountered during proposed construction activities. In conducting site testing and documentation, the emphasis would be on taking actions that would avoid further disturbance to the site.
- Track the number of incidents (by complaints, reports to rangers, and ranger observation) of graffiti, ground disturbance, damage to structures, and loss of historic fabric to assess resource condition and the level of visitor use impacts on cultural resources. To ensure that minimal incidences occur, visitor education and enforcement of Reserve regulations would continue, and closure of particularly vulnerable areas would be considered, such as by using fencing where appropriate. Increased patrols and ranger presence would also be considered for high-use areas where cultural resources are known to exist.
- Continue to survey recreational resource areas (such as hiking trails, climbing routes) to avoid impacts on archeological resources.
- Continue to conduct consultation with American Indian tribes. As appropriate, under the National Historic Preservation Act, additional consultation would also occur as specific plans are developed.
- Survey areas proposed for fires for the presence of archeological resources prior to the development of fire plans (and subsequent environmental impact analysis). Post-burn surveys would also be conducted.
- Refrain from allowing ground-disturbing activities in known sensitive archeological resource sites.
- Consider the location and extent of known sensitive archeological resources in the decision to use fire.
- Include the Reserve archeologist, historians, and other resource specialists (as applicable) in the multidisciplinary planning and fire suppression process to prevent damage to known sensitive resources. Conduct reconnaissance surveys after prescribed fires and wildfires in areas where surface vegetation has been removed to locate potential archeological resources and landscape features.
- Refrain from constructing fire lines in the vicinity of known archeological resources.

VISITOR EXPERIENCE

- Monitor the number of complaints related to day and overnight visitor conflicts. If more than three complaints occurred per day, over time management strategies could increase staff presence to guide visitors to appropriate locations, updated maps, and increased education about day- and overnight-use designations.
- Monitor and manage the number of vehicles parked in undesignated areas to gain a better understanding of damage to vegetation and soils, minimize safety hazards, reduce crowding and visual impacts on the City of Rocks Back Country Byway, and to ensure compliance with parking regulations.
- Work with Cassia County to manage undesignated parking along Cassia County roads. If necessary, the National Park Service would determine if additional parking is needed outside of the county right-of-way.
- Monitor the number of vehicles in undesignated areas during peak-use days (such as weekends and holidays) following the Cassia County transportation study and parking area redesign. No vehicles would be allowed to overflow from the designated parking areas onto Reserve roads. On county roads, no more than three vehicles could exceed designated

parking areas. If these numbers were surpassed, management strategies for county roads could include increased work with county officials and public education. Additional management strategies for Reserve roads include educating partners, installing temporary signs, adding parking bumpers to clearly designate parking spaces, increasing available parking where appropriate, and issuing parking citations if necessary.

- Increase education about the importance of staying on trails if the number of social trails emanating from visitor use areas rises above a monitoring standard.
- Employ appropriate preventative measures to reduce the number of social trails, such as increasing signage about trails, creating natural barriers and erosion control measures, brushing out areas, closing off areas if needed, and formalizing trails.
- Provide improved pre-trip information for the Reserve and for nearby camping facilities.
- Encourage camping during nonpeak times such as mid-week.
- Place informative signs at the entrance, fee stations, or at the visitor center when the campsites are full.
- Monitor the number of groups waiting in line for climbing routes to ensure that visitors are having high-quality experiences and that resources are not being damaged by high-intensity use.
- Encourage climbers to wait for climbs in existing disturbed areas, or provide information about similar routes in other areas of the Reserve.
- Rove climbing areas to encourage dispersed use on similar climbing routes in various areas of the Reserve.
- Continue to manage climbing routes to avoid impacts on natural and cultural resources, including nesting birds and archeological sites.

SCENIC RESOURCES

- Work with Cassia County to implement the Cassia County Historic Preservation Zone and design guidelines.
- Design additional development to minimize impacts on the viewshed(s).
- Identify and enhance opportunities for visitors to experience these viewsheds where possible.

SPECIAL USES AND DESIGNATIONS

- Use permits to ensure that use is consistent with the RNA purpose of being managed for nonmanipulative geologic or biological research and education.
- Consider planting vegetation to screen modern intrusions from the cultural landscape, such as recreational vehicles at Smoky Mountain Campground.
- Conduct condition assessment updates for the cultural landscape inventory (approximately every six years) to describe the current condition of the landscape and to identify any potential preventable adverse impacts.
- Develop an archeological treatment plan for stabilization of California Trail ruts and other features associated with the California Trail corridor.
- Remove nonhistoric fences within the California Trail corridor.
- Continue to relocate power lines outside of the California Trail viewshed.
- Photo-document emigrant inscriptions.

- Continue to remove bolts from the inscription rocks unless removal would result in damage to the rock—where it is not possible to remove anchors, remaining hardware would be camouflaged.

APPENDIX J: DGMP/DEIS PUBLIC REVIEW SUMMARY, PUBLIC CONCERNS, AND NPS RESPONSES

PUBLIC REVIEW OF THE DGMP/DEIS

The National Park Service (NPS) released the City of Rocks National Reserve Draft General Management Plan/Draft Environmental Impact Statement (DGMP/DEIS) to the public on April 23, 2015. The DGMP/DEIS was filed with the U.S. Environmental Protection Agency (EPA) on May 8, 2015, initiating a 60-day public comment period, which was later extended to a closing date of July 7, 2015. The NPS announced the availability of the DGMP/DEIS for public review and comment, and members of the public and government agencies were invited to submit comments by mail, email, online, and at public meetings. The official notice of availability was published in the Federal Register on July 2, 2015 (Vol. 80, No. 127, pp. 38228-38230).

The NPS announced the release of the DGMP/DEIS, public comment period, and public meetings through press releases, digital and social media announcements, and through the distribution of a newsletter. The NPS mailed 56 copies of the draft plan to agencies, organizations, government representatives, and stakeholders, and provided copies to members of the public who participated in the planning process or who requested a document. Copies of the DGMP/DEIS were also posted for public review on the NPS Planning, Environment and Public Comment (PEPC) website (<http://parkplanning.nps.gov/ciro>). This website provided electronic versions of the draft plan and newsletter, background information about the GMP process, and an online form to submit public comments.

A newsletter summarizing the DGMP/DEIS was produced and mailed to over 200 individuals, organizations, and stakeholder groups. The newsletter provided an overview of the planning process, described the four alternatives, and announced the schedule of public meetings.

Throughout the public review period, the public had opportunities to provide comments through attending public meetings, submitting comments on the project website in PEPC, writing a letter or e-mail, or providing comments on the postage paid comment form enclosed in the newsletter. Contact information for the public to either request more planning materials and/ or comment on the draft plan was printed in the newsletter and available on the web.

Public Meetings

The NPS held two public meetings in Idaho in May 2015 to provide the public with an opportunity to learn about the DGMP/DEIS and to offer comments. The first meeting was held in Twin Falls, Idaho, and was structured as an open house. The second meeting was held in Almo, Idaho and began with a presentation of the major elements of the plan, then transitioned into a facilitated question-and-answer session and group discussion. Twenty-five people attended the two meetings.

Written Comments

During the public comment period, the NPS received 13 written responses in the form of letters, emails, and comments submitted to the PEPC website. Of those, three responses were from government agencies and five were from nonprofit organizations. The majority of written comments were received from Idaho based commenters. Correspondence was also submitted from commenters in Colorado, Utah, Washington, Texas, and New Mexico. Comments analyzed also included the notes from both public meetings.

List of Agencies and Organizations Commenting

Written comments were received from the following organizations, agencies, and elected officials:

- The Access Fund
- Boise Climbers Alliance
- U.S. Bureau of Land Management
- Cassia County Commissioners
- Idaho State Historic Preservation Office
- Oregon-California Trails Association
- U.S. Environmental Protection Agency
- Western Watersheds Project
- WildLands Defense

In addition, the NPS consulted with the Shoshone-Bannock and Shoshone-Paiute tribes and received verbal comments at in-person consultation meetings in April and September 2016, respectively.

Range of DGMP/DEIS Public Comments

The following summary represents the full range of comments received. All comments received during the public comment period were entered into the NPS Planning, Environment, and Public Comment database and analyzed. NPS responses to substantive comments are provided following the comment summary below.

Alternatives.

Most comments received on the alternatives expressed support for the IDPR and NPS preferred alternative, Alternative B: Silent City of Rocks. Those in favor of alternative B appreciated its balanced approach to managing recreational use and protecting resources. One commenter observed that the proposed reorganization of camping and multiuse areas seems feasible and would be a welcome improvement. Commenters also noted that alternative B would best maintain the remote, wild atmosphere of the Reserve.

Some individuals voiced support for specific elements of alternative C (A Stage for Stewardship) and noted that they would like to see these reflected in the preferred alternative. These elements included the federal grazing permit buyout program, the addition of lands to the Reserve through a boundary adjustment, and increased opportunities for partnership, education and interpretation, outreach, and stewardship. The BLM objected to the boundary change proposed in alternatives C and D, suggesting that recreational access to additional lands would have an adverse effect on wildlife, cultural resources, and vegetation. Of the alternatives, alternative D (Treasured Landscapes Inspiring Stories) received the least support, with respondents citing concerns about increased facility development in the Reserve.

Cultural Resources.

Comments from both the Shoshone-Bannock and Shoshone-Paiute tribes voiced concern that the GMP/EA should do more to recognize tribal history and what came before the emigrants arrived, particularly Native American use of the trail corridor later used by the emigrants as the California Trail. Shoshone-Bannock tribal commenters also emphasized that both tribal consultation policy and information about tribal treaties should be described in the GMP/EA, and stated that archeological resources should not be moved if uncovered.

Grazing.

Livestock grazing in the Reserve continues to be an issue of concern, and the NPS received numerous comments about this topic. Several organizations and individuals requested that grazing in the Reserve be discontinued as soon as possible. One commenter stated that the draft EIS should have considered a no-grazing alternative. Many comments expressed concern about the adverse impacts of grazing on natural resources, in particular on water quality, riparian areas, native vegetation, wildlife habitat, and fire regime. Increased erosion, destruction of native plants, and dissemination of invasive species were also identified as primary resource threats associated with livestock use. One organization expressed concern about the potential threat posed to greater sage-grouse habitat by continued grazing in the Reserve.

A few respondents requested that the NPS incorporate more rigorous grazing restrictions into the preferred alternative to protect resources. To mitigate the effects of grazing, the NPS and IDPR were asked to restore vegetation in vulnerable riparian areas to reduce erosion and improve thermal conditions. The Environmental Protection Agency (EPA) recommended that the Reserve prepare proper functioning condition assessments and rangeland health assessments to inform the updated grazing management plan called for in the DGMP/DEIS.

Agencies and organizations advocating continued grazing in the Reserve voiced no concern about the management approach described in the preferred alternative, in which grazing would continue but would be reduced over time as permittees discontinue requests for permits due to changing business models or abandonment. The BLM supported grazing, suggesting that managed grazing is an acceptable form of stewardship. This comment also compared adverse impacts from recreational use to those resulting from livestock grazing.

Natural Resources Monitoring and Mitigation.

The NPS received a few comments from the EPA addressing natural resource concerns unrelated to grazing. These comments requested that the Reserve undertake additional monitoring and mitigation efforts to protect air and water quality. In addition to grazing, the development of new trails and increasing visitor use were cited as possible threats to natural resources, and in particular to water quality due to resulting erosion, pollution, and compaction. The comment noted that the Reserve should carefully monitor and mitigate potential ground-disturbing activities to avoid adverse impacts. Air quality monitoring was similarly recommended in high-traffic areas to inform management decisions, and the emission reduction measures outlined in the draft GMP/ EIS were commended.

Facilities and Circulation.

Public comments were generally supportive of the facility and circulation improvements outlined in the preferred alternative. These include a proposed trail connection from the California Trail to the Tea Kettle Trail that does not involve walking along the road, as well as recommendations from the Rim Development Concept Plan, which includes reconfiguration of existing campsites to protect resources and to address visual and safety issues. Commenters expressed appreciation for the backcountry emphasis of alternative B, noting that solitude is a deeply valued experience in the Reserve. To promote a sense of seclusion, one individual asked that the NPS and IDPR preserve trail-only access to some viewpoints.

The BLM raised concerns about the amphitheater that would be constructed at Smoky Mountain Campground under the preferred alternative. The campground is located on a parcel leased from the BLM. There are new restrictions regarding the construction of new structures on BLM-managed land. In view of these limitations, BLM cautioned that construction of the amphitheater would likely not be feasible. BLM also shared similar concerns related to the potential long-term development of a visitor center at Smoky Mountain Campground, an action approved in Reserve's

1996 Comprehensive Management Plan and in the 2006 Castle Rocks State Park Master Plan and identified in the preferred alternative as a long-term option if funds and land become available. Both the amphitheater and visitor center proposals are not carried forward in the GMP/EA, because the Smoky Mountain Campground lies outside of the Reserve boundary. Nothing in the GMP/EA, however, precludes such actions.

Camping.

Several comments were received regarding camping. The majority of commenters focused on camping amenities at Smoky Mountain Campground and on surrounding BLM lands; one comment letter also offered specific suggestions for campsite and circulation configurations within the Reserve. Several comments were submitted on camping outside the Reserve. These commenters favored maintaining free dispersed camping on BLM land and suggested that the NPS and IDPR could address resource protection concerns with the installation of a vault toilet and increased visitor education about wildfire risk and appropriate disposal of human waste.

The climbing community stressed the importance of first-come, first-served camping options in Smoky Mountain Campground and asked that the NPS and IDPR consider developing more secluded camping opportunities beyond the primitive group site described in the preferred alternative. Similarly, the climbing community expressed concern about the level of privacy afforded by the group camping proposal and requested that the NPS and IDPR provide further information about this opportunity. The cost of camping was also identified as a limiting factor for many climbers, and the NPS and IDPR were asked to provide lower-cost options to meet the needs of younger climbers and those camping for multiple nights.

BLM and others noted that appropriate Section 106 and tribal consultation are required to determine impacts on potential historic resources from development activities in Smoky Mountain Campground. Commenters from the Shoshone-Bannock Tribe expressed their interest in having ongoing free access to camping at Smoky Mountain Campground in order to take part in traditional practices within the Reserve.

Climbing.

In general climbers supported the climbing management approach outlined in the DGMP/DEIS, in particular the authorization of traditional climbing and existing bolted routes in the expanded Research Natural Area (RNA). However, the climbing community requested expanded climbing access in several areas of the Reserve. The Access Fund/Boise Climbers Alliance asked NPS/IDPR to permit limited development of new bolt-dependent routes in the RNA and continued to be opposed to the ongoing closure of Twin Sisters to technical climbing. Climbers were also concerned about the prohibition of technical climbing within the expanded California Trail Zone, as proposed in the preferred alternative. These concerns about the California Trail Zone expansion focused on high-quality climbing resources that are currently located on private property within the proposed zone, but which could be closed to technical climbing if the lands are ever transferred to the Reserve. There were also concerns about impacts to existing recreation that could occur as a result of the California Trail Zone expansion.

BLM and others expressed concern about the potential adverse impact of climbing and staging areas on cultural resources.

Land Management and Reserve Boundary.

The preferred alternative does not call for a change to the existing Reserve boundary; however, a few questions were raised about land management and jurisdiction. One private landowner within the California Trail Zone requested assurance that the NPS/IDPR would not impose additional restrictions on property owners within the expanded zone. A few suggestions were made about

how the Reserve could work with local landowners to provide appropriate visitor access within the Reserve. The NPS was also asked to clearly label private land on maps of the Reserve included in the DGMP/DEIS, noting that this is important information to provide to visitors and NPS/IDPR staff.

Commenters also requested that the plan provide more detail about protection of the California National Historic Trail corridor and Granite Pass viewshed at the southwest boundary of the Reserve. The preferred alternative notes that the NPS would encourage Cassia County and private landowners to protect the viewshed on lands outside the Reserve, and the NPS was asked to provide more information about what type of actions might be considered protective. Given that the NPS/IDPR has no jurisdiction outside the boundary, commenters also asked the NPS to describe its potential involvement with private landowners and other partners outside the Reserve boundary, including the BLM and the national trails system.

Partnerships.

A small number of comments were submitted on the subject of partnerships. The Reserve was encouraged to collaborate with the community and agency partners to protect water quality and enrich interpretation and education. Comments received on interpretation suggested that the Reserve connect to the local community by involving neighbors in educational tours and programs.

COMMENTS AND RESPONSES SUMMARY

Public comments allow the planning team, NPS decision-makers, and other interested parties to review and assess the views of other agencies, organizations, and individuals related to the preferred alternative, the other alternatives, and potential impacts.

All written comments were considered during the preparation of this GMP/EA in accordance with the requirements of the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (40 CFR 1503).

The identification of the preferred alternative and revisions to the preferred alternative are not based on how many people supported a particular alternative or action.

Analysis of Substantive Comments on the Draft Plan

Consistent with the requirements of 40 CFR 1503, NPS staff has provided written responses to those pieces of correspondence that include either substantive comments or comments that the NPS determined warrant a written response for clarification.

Substantive comments are defined by Director's Order 12, "Conservation Planning, Environmental Impact Analysis and Decision-Making" (NPS 2015) as those comments that:

1. Question, with reasonable basis, the accuracy of information in the environmental impact statement.
2. Question, with reasonable basis, the adequacy of the environmental analysis.
3. Present reasonable alternatives other than those presented in the environmental impact statement.
4. Cause changes or revisions in the proposal.

Substantive comments raise, debate, or question a point of fact or policy. Comments in favor of or against the preferred alternative or alternatives, or those that only agree or disagree with NPS policy are not considered substantive.

NPS Responses to Comments

Comments that contain substantive points regarding information in the DGMP/DEIS or comments that need clarification are extracted below. A concern statement has been developed to summarize the comment.

Where appropriate, text in the City of Rocks National Reserve General Management Plan/Environmental Assessment (GMP/EA) is revised to address comments and changes.

Those changes are noted in the following responses. Unless otherwise noted, all page number citations refer to the electronic version of the 2015 City of Rocks National Reserve Draft General Management/Environmental Impact Statement, as posted on the PEPC website (April 2015).

Visitor Experience

Concern 1:

There are other ways to reconfigure Look-out Rock and Site 22 parking that will have fewer adverse effects on visitor experience (solitude).

NPS Response:

As discussed on page 113 of the draft GMP/ EIS and in “Appendix C: Rim Development Concept Plan for City of Rocks National Reserve,” strategies for campsite closure, conversion to day use, or new development were made based on analysis of a variety of factors, including existing user conflicts, safety and maintenance issues, resource impacts, parking and circulation issues, and access to toilet facilities. The primary reason for closing campsite 22 and creating a day-use overlook is so that the majority of visitors could take advantage of one of the more spectacular views of the Inner City. Currently, when the campsite is occupied, day-use visitors are discouraged from that experience or the campsite occupant experiences encroachment. The toilet location was selected so that it is reasonably available to both day-use visitors and nearby campers. Regardless of the season, a day-use scenic overlook serves more visitors than does a single campsite. The vault toilet will be positioned so as not to intrude on the scene.

Camping

Concern 2:

Although more access to dispersed and overflow camping is important to climbers, the proposed social camping area outside the Reserve (at Smoky Mountain Campground) may not meet this need.

NPS Response:

The GMP/EA no longer proposes primitive or social camping areas outside the Reserve at Smoky Mountain Campground. The NPS acknowledges that additional planned facilities at the Reserve are not expected to meet all of the needs or preferences of all climbers or other visitors.

While the National Park Service and the Idaho Department of Parks and Recreation welcome partnerships with groups and organizations that share a similar mission, neither the NPS nor IDPR has jurisdiction over the availability of dispersed or overflow camping on jurisdictional lands of the BLM or U.S. Forest Service. For issues related to dispersed camping on BLM and USFS jurisdictional lands surrounding the Reserve, groups and organizations should contact the BLM Field Office in Burley and/or the Sawtooth National Forest Minidoka District Ranger Station in Burley.

Concern 3:

Native American Treaty rights, including access to Reserve facilities for camping, should be recognized and honored.

NPS Response:

Reserve managers are committed to facilitating tribal access to camping at Smoky Mountain Campground. Further communication and coordination with the tribes is needed to determine the best way for this to be managed. Concerns such as how much, if any, advanced notice for reservations should be expected and whether an online system can be put in place, are among the issues for discussion and resolution.

Regarding exercising treaty rights within the Reserve, the Reserve recognizes that there are concerns among tribal members about privacy while practicing traditional hunting and gathering. New policies and management strategies might be the means by which the request for privacy may be accommodated. Reserve management is willing to work with the tribes to better understand which areas are most important for privacy during the practice of traditional activities.

Carrying Capacity**Concern 4:**

The Reserve should consider reducing the number of visitors instead of additional development projects to meet capacity pressures.

NPS Response:

The preferred alternative has the smallest development footprint of any of the action alternatives, and does not propose development to expand visitor use. Development projects identified in the preferred alternative focus on protecting resources and visitor safety, reducing user conflicts, and limiting impacts of existing uses to defined areas. For instance, in the Rim DCP, there would be no net increase in campsites; rather, it is a reorganization intended to reduce current resource and visitor impacts and to limit those impacts in the future. Limiting impacts is also the purpose of providing designated horse trailer parking and a turnaround adjacent to Logger Springs Road. The physical carrying capacity of the park would continue to be limited by available parking areas and campsites, and the enforcement of regulations prohibiting vehicles from parking alongside the road in the traffic flow.

Issues and impacts from overcrowding and peak visitor use, including impacts to visitor experience are addressed in the DGMP/DEIS (see pages 209 and 263). Current backcountry use is minimally affected by day use and other front country visitors. The preferred alternative encourages the value of solitude and backcountry adventure, while at the same time providing opportunities for those who prefer to be in the front country near developed facilities. Additional development in the backcountry beyond existing trails is not proposed, so a large increase in backcountry use is not anticipated.

Climbing**Concern 5:**

Climbing is damaging cultural resources at the Reserve and should be better managed.

NPS Response:

Climbing is considered an appropriate recreational activity in the Reserve, and the current climbing management plan provides guidance for the locations and types of climbing that are permitted. This guidance is provided for safety as well as for resource protection, and compliance with the

plan is monitored by the Reserve's climbing ranger. In certain cases, such as at Twin Sisters, climbing is restricted in order to preserve known significant cultural resources. In popular climbing areas, crash pads are allowed only in designated bare ground staging areas and are not allowed in vegetated areas or areas of known sensitive resources. The GMP/EA calls for a climbing management plan update that will provide updated guidance for climbing activities within the Reserve based on resource protection, current resource conditions, observed impacts, and new climbing technology. In addition, the GMP/EA identifies resource protection guidance to reduce the impact of climbing on Reserve resources, which may include aligning trail routes to minimize social trails in climbing areas; prohibiting modification of rocks for climbing; monitoring climbing routes to limit impacts on wildlife; and surveying climbing routes to avoid impacts to archeological resources.

Concern 6:

Provide additional detail on bolt replacement for authorized climbing routes.

NPS Response:

This level of detail about the management of recreational climbing is beyond the scope of the general management plan. The current climbing management plan addresses fixed anchor maintenance and replacement. An updated climbing management plan is called for in the GMP/EA, and will also provide guidance on this issue.

Concern 7:

Technical climbing in the Research Natural Area (RNA) is consistent with the desired conditions.

NPS Response:

Research Natural Areas are intended to be areas where natural features and processes can exist in as pristine and undamaged a state as possible. While dispersed hiking, scrambling, and traditional climbing are allowed within the RNA, the development of trails (intentionally or socially) or the permanent placement of fixed anchors, which creates designated social and vertical trails, is inconsistent with NPS policy regarding the purposes and management of RNAs.

Concern 8:

Pre-existing technical climbing appears to fall into the California Trail Zone, and expansion of this zone should not prohibit climbing currently occurring in these areas.

NPS Response:

The California Trail Zone, as proposed in the GMP/EA's preferred alternative, does not include The Flintstone, Picnic Dome, Sun Cup Slab, BLM Corridor, Eagle Rock, Nausea Wall, Indian Chief, BFD, or Bull Dog Wall; therefore, climbing is not prohibited at these formations by this plan. On closer inspection, it does appear on the DGMP/DEIS's preferred alternative map, due to its scale, that the west-facing formations known as Dungeon and Electric Avenue are drawn within the California Trail Zone. This is not the intent of the preferred alternative, which removes the east-facing rock formations from climbing due to viewshed impacts, but allows for climbing on the above named west-facing routes.

The California Trail Zone covers east-facing rock formations in order to restrict climbing and prevent viewshed impacts. West-facing routes such as The Flintstone, Picnic Dome, Sun Cup Slab, BLM Corridor, Eagle Rock, Nausea Wall, Indian Chief, BFD, or Bull Dog Wall that are bordered by the California Trail Zone would fall under the adjacent Historic Rural Setting Zone; therefore, climbing would not be prohibited at those formations.

Concern 9:

Reinstate climbing at Twin Sisters.

NPS Response:

Opening the Twin Sisters formation to climbing was not considered because the closure is based on long-standing policy related to still-current concerns for protection of cultural resources. This policy has been in effect for more than 15 years, and the courts have upheld this ban. A history of the legal decisions supporting this policy can be found on pages 9 and 10 of the DGMP/DEIS.

CULTURAL RESOURCE IMPACTS**California Trail****Concern 10:**

The GMP/EA should provide more clarity on what is meant by increasing protection of the California Trail southwest of the park.

NPS Response:

The GMP/EA does not make any specific proposals for this area of the California Trail, both because it is outside the boundary of the Reserve and because such detailed site-specific actions would be outside the scope of the plan.

Conceptually, protection of the California Trail at the southwest corner of the Reserve (outside the Reserve Boundary) could be accomplished through cooperative agreements. The State of Idaho (represented by IDPR) has the authority to enter into agreements with landowners. Such cooperative agreements could provide for protection of trail remnants and views of Granite Pass through agreed-upon land conservation methods. Landowners could choose to enter into these agreements for stewardship of the land or opt to provide easements on a willing seller basis.

The Reserve would also work with the BLM on cooperative land and resource management as feasible and appropriate. While the Reserve could partner with BLM on protection of some lands in this area, most California Trail remnants are on private land.

Concern 11:

The scope of the California Trail condition assessment needs clarification.

NPS Response:

Any assessments of the California Trail resources would only take place on lands within the City of Rocks National Reserve boundary as stated on page 16 of the GMP/EA.

Consultation and Tribal Concerns**Concern 12:**

The NPS must adequately comply with cultural resource protection regulations (Section 106).

NPS Response:

The NPS has a strong commitment to compliance with the National Historic Preservation Act, and to conducting government-to-government consultation with potentially affected tribes. See the response to Concern 15 below for information about government-to-government tribal consultation. The NPS has been engaged in Section 106 compliance with the Idaho State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation (ACHP), historic preservation organizations and tribes since the project was initiated in 2009. A description of

Section 106 compliance associated with the GMP/EA can be found on page 477 of the DGMP/DEIS document. Subsequent to publication of the DGMP/DEIS, the NPS received correspondence from the SHPO expressing concurrence with the DGMP/DEIS preferred alternative, which was carried forward by the GMP/EA.

Nonetheless, implementation of actions outlined in the GMP/EA will require subsequent Section 106 compliance for specific projects. Therefore, the following language has been added to the end of the “Section 106” section in “Appendix M: Section 106 Consultation:”

The GMP/EA provides broad guidance for prospective undertakings; in other words, specific undertakings have not been fully developed. Because of the programmatic nature of the GMP and the progression of federal undertakings that may stem from the plan, the NPS cannot yet assess specific effects of future undertakings on historic properties. As implementation of the GMP selected alternative is carried out, the NPS will conduct Section 106 compliance for undertakings and continue to consult with the Idaho SHPO, ACHP, Native American tribes, and other consulting parties as necessary on the effects of the undertakings on historic properties. Therefore, the NPS has determined that historic properties will not be adversely affected by the development or planning process of the selected alternative in the GMP/EA.

To meet the NPS’s responsibilities for Section 106 and to complete the Section 106 process for the General Management Plan, the NPS intends to include the following language in the Finding of No Significant Impact: City of Rocks National Reserve commits in this decision to complete the Section 106 review for federal undertakings that have the potential to affect historic properties that stem from the General Management Plan in accordance with the 2008 Programmatic Agreement among the National Park Service, the ACHP, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act and the ACHP’s regulations (36 CFR Part 800).

Concern 13:

The NPS should recognize the Shoshone-Paiute as well as the Shoshone-Bannock Tribes and the Northwestern Band of the Shoshone as having knowledge and information about the City of Rocks Area and these groups should be engaged in government-to-government consultation.

NPS Response:

NPS officials in the Pacific West Region are working to accomplish consultation with tribes potentially affected by planning and resource management at City of Rocks National Reserve. A southern Idaho liaison for Tribal affairs has been appointed to serve as the primary NPS point-of-contact for tribal concerns in the region. At key planning process milestones, including when the DGMP/DEIS was published, the NPS has followed standard consultation procedures and corresponded via mail, email and follow-up phone calls with the Shoshone-Bannock Tribes of the Fort Hall Reservation and the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation. NPS staff also met with the Shoshone-Bannock Tribal Council and representatives of the Shoshone-Paiute Tribe to receive comments on the GMP/EA. Responses to comments received at those meetings have been incorporated into this document. In addition, implementation of the GMP will entail engaging in ongoing Section 106, SHPO, and tribal consultation for individual actions identified in the GMP/EA, as they are proposed for implementation.

In addition, the Reserve acknowledges the importance of consultation with all tribes that may have associations with the Reserve, in the interest of being inclusive. Current research is broadening NPS understanding of tribal lands and potential use by other Shoshone people that currently identify separately from the Shoshone-Bannock Tribes. The GMP/EA calls for an ethnographic study that may shed additional light on these connections.

The NPS and Reserve managers are aware that there are three tribes with knowledge and information about the City of Rocks area and have engaged in conversations with the Shoshone-Bannock Tribes, the Shoshone-Paiute Tribes, and the Northwestern Band of Shoshone to better understand these cultural affiliations and the interests of the tribes in traditional use activities at the Reserve.

The NPS recognizes that the Shoshone-Bannock Tribes, the Shoshone-Paiute Tribes, and the Northwestern Band of Shoshone are culturally similar people and have a legacy that includes family members being divided between reservations. The NPS and IDPR will continue to seek information to better understand these connections.

Tribal consultation will continue as projects and plans outlined in the GMP/EA, such as the grazing management plan and climbing management plan, are implemented. The NPS would also engage the tribes in the ethnographic study called for in the GMP/EA.

Concern 14:

The Reserve and the GMP do not fully recognize and address tribal history. The story of City of Rocks did not begin with European settlers and the emigrants.

NPS Response:

The NPS acknowledges that tribal history in the City of Rocks area predates the westward emigration of European Americans. The GMP/EA provides a very brief summary of the area's habitation prior to the arrival of the emigrants in Chapter 3: Affected Environment. A more detailed understanding of this history will help staff to integrate the perspectives and stories of tribal people into the Reserve's interpretive programs and materials.

The Reserve recently hosted a representative from the Shoshone-Bannock Tribes who provided information and background in support of interpretive programming. The Reserve hopes to continue to expand relationships like this in the future. In addition, updated statements and interpretive themes are being developed as part of the Reserve's foundation document process.

To further support an understanding of tribal history and significant resources within the Reserve, implementation of the GMP would include a condition assessment to identify instances of pictographs and other features of native significance, as well as an ethnographic study, undertaken in partnership with local tribes. To reflect the addition of these actions, the text on page 15 has been updated with the following information:

The following plans and studies are among the identified planning and data needs: resource stewardship strategy; vegetation management plan; updated fire management plan; geologic inventory; expanded wildlife monitoring; acoustical monitoring; soundscapes management plan; night sky inventory and planning; archeological management plan; condition assessment and treatment plan for features associated with the California Trail corridor; grazing plan update; climbing management plan update; condition assessment for pictographic and petroglyphic features; and ethnographic study in partnership with local tribes; and long-range interpretive plan.

Concern 15:

Ethnographic resources would be affected by the GMP.

NPS Response:

At the time the DGMP/DEIS was written, no properties associated with ethnographic resources were listed on the National Register. Although the Reserve and surrounding area have a long history of habitation and resource use by prehistoric and contemporary American Indians, there has been no formal designation of a traditional cultural property, nor has one been found eligible

for listing on the National Register, within the Reserve to date. Therefore, a conclusion was made in the draft GMP/EA that there would be no or negligible effects on traditional cultural (ethnographic) resources (those listed on or eligible for the National Register). That conclusion remains the same, based on the documentation currently available, and therefore “ethnographic resources,” was dismissed as an impact topic in the GMP/EA.

However, the NPS is aware that tribes have a long association and relationship with the lands now within the Reserve. The NPS will continue to work with the tribes as documentation efforts of those associations occur.

Currently, there is a lack of documentation concerning natural resources, landscape features, and sacred spaces of tribal concern within the Reserve. Because these resources are unknown, the NPS and Reserve managers have been unable to assess potential impacts.

As with other effects on potential, but unknown resources, such as archeological resources, if these were later found to be significant or found within a proposed project area, the preferred course of action would be to avoid impacts. For this reason, tribal consultation on future actions will be essential for ensuring the preservation and protection of those resources important to local tribes. If a traditional cultural property is developed, information about tribal interests could be documented, and that information could be used to inform future management decisions in the Reserve.

To ensure that implementation of the GMP does not result in significant impacts to tribally-significant resources, consultation will be undertaken, and project-specific environmental compliance will be completed for implementation of specific actions outlined in the GMP/EA.

Concern 16:

Treaties and federal laws related to tribal consultation should be detailed in the GMP.

NPS Response:

The following language has been added to the GMP/EA (after the first sentence in the first paragraph on page 262) to provide additional background on the Fort Bridger Treaty of 1868 and the rights it affords to the Shoshone-Bannock tribes:

The Fort Bridger Treaty not only established a geographic area to be set aside for tribal use and provided for specific facilities and services to support the tribal community, it also afforded the tribes with the right to hunt on unoccupied land of the United States where game can be found.

The DGMP/DEIS also described existing laws and policies related to cultural resources and tribal consultation on pages 64 and 68 (“Desired Conditions and Potential Management Strategies Derived from Law and Policy”). This discussion also references Executive Order 13007, “Indian Sacred Sites” (61 FR 26771, 42 USC 1996), among other policies relevant to the protection of sensitive archeological resources, sites, and remains. The Reserve is subject to all federal laws related to tribal consultation.

Concern 17:

The GMP should address protection of archeological resources (artifacts).

NPS Response:

The GMP/EA provided a general summary of the management approach to addressing potential impacts to archeological resources. The GMP/EA calls for the development of an archeological management plan, which would provide more specific guidance for the protection of archeological resources. The GMP/EA identifies mitigation measures to address inadvertent discovery of

artifacts. Conformance with the Archaeological Resources Protection Act (ARPA) in protecting known or undiscovered archeological resources is also required by the National Historic Preservation Act.

The GMP/EA also outlines strategies for ensuring proper protection of archeological resources given the level of current and potential future visitor use in the Reserve (pages 159-160).

Grazing Management

Concern 18:

A no-grazing alternative should be considered.

NPS Response:

The DGMP/DEIS considered immediate removal of grazing as well as the phased elimination of grazing. It was found that while immediate removal of grazing in the Reserve would provide the greatest benefit to the natural environment, this approach would also result in more adverse socioeconomic impacts, especially on the local community. Because of the adverse socioeconomic and other impacts on current permittees and park operations that a no grazing alternative would have, the DGMP/DEIS considered but dismissed it (see page 166).

In addition, because some lands within the Reserve are private, the National Park Service (NPS) does not have the authority to eliminate grazing on them. Within the Reserve, grazing has been eliminated in some areas as the NPS has purchased private parcels and relocated their grazing to other more appropriate areas, and this practice would continue under the preferred alternative. As permittees discontinue requests for permits due to changing business models or abandonment, grazing would also continue to be reduced.

Additional guidance has been added to the grazing section of the preferred alternative (page 16 of GMP/EA) for clarification, as follows: “Grazing privileges and associated animal unit months that are lost, relinquished, canceled or “bought out” by third parties would be withdrawn from grazing allotments and reallocated for watershed protection and wildlife habitat.”

Analysis of grazing within the Reserve has shown it to be consistent with the congressional intent of Public Law 100-696, which directs the National Park Service to preserve and interpret some elements of the historic rural setting, as well as to allow for traditional uses of the land prior to 1988 to continue (see also the response to Concern 1 under “Grazing Management”).

Concern 19:

A grazing permit buyout program would benefit the Reserve and the permittees.

NPS Response:

The National Park Service does not have a funding source or authority to pay permittees an incentive to discontinue requests for permits. At the Reserve, allotments are not considered tangible assets of permittees that can be bought or sold. This differs from the model traditionally available to the Bureau of Land Management per the Federal Land Policy Management Act. However, if third parties such as conservation organizations were able to provide such incentives, attrition could occur under the preferred alternative if permittees take part in such a program or discontinue their permit requests for any reason.

Language has been added to the preferred alternative (page 16) to clarify what would occur if a private buy-out transaction occurred. This language states, “Although the preferred alternative does not include grazing buy-outs, there is nothing to preclude buy-outs that are originated

between a private landowner and a third party, such as a conservation organization. Buy-outs are defined as compensation given to a permittee by a third party to permanently cease grazing in an allotment.”

Natural Resource Impacts

Concern 20:

Livestock should be removed from the Reserve to minimize natural resource impacts.

NPS Response:

The preferred alternative calls for reducing livestock grazing through attrition. Because there are also private lands within the Reserve, the National Park Service (NPS) does not have the authority to fully eliminate livestock use within the Reserve. Grazing has been eliminated in some areas as the NPS has purchased private parcels within the Reserve, and this practice would continue in the preferred alternative. As permittees discontinue requests for permits due to changing business models or abandonment, grazing would continue to be reduced.

See Concern #19 for the language added to the preferred alternative (on page 16) to clarify the potential opportunity for buy-outs to occur.

As noted in the response to Concern 18, the following additional guidance has also been written into the grazing section of the preferred alternative (page 16): “Grazing privileges and associated AUM that are lost, relinquished, canceled or “bought-out” by third parties would be withdrawn from grazing allotments and reallocated for watershed protection and wildlife habitat.”

Concern 21:

Livestock grazing could have negative impacts on riparian areas.

NPS Response:

There are a small number of perennial and intermittent streams in the Reserve, combined with a fairly large number of springs, some of which feed intermittent streams. Where these are used as a source of water for cattle, changes would continue to be made to limit impacts on Reserve resources, including by grazing exclusions and by piping water away from the source. No streambank entrenchment has been observed in Reserve streams, however erosional features are found in the area landscape. Based on repeated monitoring of grazing operations, there is no evidence of an increase in bedload sediment. In a small number of areas where loss of streambank vegetation has occurred, active restoration includes increasing vegetative cover.

Grazing can cause streambank erosion where cattle are allowed to graze or take water directly from the stream. Grazing will continue to be managed to meet the long-range objectives of the Reserve: to preserve and protect significant resources and scenic quality in the Reserve. Grazing is not allowed within the Research Natural Area and will continue to be removed from wetlands and riparian areas as grazing permits are abandoned through attrition. Fencing out grazing in wetland areas is an ongoing process to comply with the Clean Water Act and to minimize impacts to wetlands per Executive Order 11990 and NPS policy, Director’s Order 77-1: Wetland Protection. As grazing is removed or fenced out of wetland and riparian areas, those areas will be restored to revegetate the streambanks, thereby reducing soil erosion and improving water quality and wildlife habitat.

As stated in the GMP/EA, the natural and cultural resources and scenic quality of the Reserve would not be impaired by livestock use. Therefore, range utilization management decisions are based on minimizing natural and cultural resources impacts. The GMP/EA recognizes the damage

potential that may be attributed to cattle grazing and includes strategies to reduce those impacts and to rehabilitate those areas that have been impacted by grazing (see Appendix I: Mitigation Measures).

Concern 22:

Livestock use at the Reserve could impact sage-grouse habitat.

NPS Response:

There are no known active sage-grouse leks within the Reserve. The map included with the comment showed sage-grouse leks in Castle Rocks State Park. These locations are monitored annually during lekking season by Idaho Fish and Game (IDFG) and IDPR staff. The IDFG and partners have been engaged in a multi-year study of sage grouse in the Almo Valley area as well as other areas in Idaho. The Reserve's grazing allotments are generally active only in summer, therefore they are not being used during potential sage grouse nesting and brooding periods. Although one allotment includes late spring use, there are no leks within it or nearby. Annual monitoring of grazing allotments in the Reserve ensures that grazing utilization remains at sustainable levels and sage grouse are not affected.

Concern 23:

Include additional mitigation measures in the GMP/EA to reduce or avoid impacts from grazing to water quality in vulnerable streams.

NPS Response:

No streams or drainages are considered to be vulnerable or at high risk from water quality impacts as a result of grazing management activities. The GMP/EA calls for continued withdrawal of grazing near springs in the Reserve (where this has not already occurred). As impacts are identified, they would be mitigated by moving the water source to a trough and fencing cattle out of the water source. The revised grazing management plan, which would tier from the GMP/EA, would also include additional site-specific mitigation measures to address impacts from grazing.

Concern 24:

Ground disturbance associated with recreational use and facility development could lead to adverse effects on the Reserve's water quality.

NPS Response:

No ground-disturbing activities, including blasting, grading, excavation, paving, or increased use of recreational equipment are proposed near springs or surface waters. Mitigation measures are included in the GMP/EA to prevent contamination of groundwater by sedimentation and pollutants. The Reserve must also comply with National Pollutant Discharge Elimination System (NPDES) permit requirements for construction projects. The Reserve regularly evaluates management actions and monitors visitor use impacts to avoid the noted impacts. No extensive erosion is occurring within the Reserve. Potential impacts from construction of new facilities, such as a visitor center on state-owned or -leased lands, would undergo separate environmental impact analysis to assess and mitigate environmental impacts.

Concern 25:

Development of new facilities would require an EPA NPDES permit.

NPS Response:

Design and construction of new facilities would be tied to the GMP/EA in subsequent environmental compliance. Upon preparation of design documents, environmental impact analysis documentation would be prepared to disclose site-specific impacts, including impacts to water quality. This analysis would evaluate the need for obtaining a NPDES permit and would also include a stormwater pollution prevention plan and other applicable permitting and compliance with laws, regulations and policies.

Concern 26:

Increased visitor traffic could result in more air quality impacts.

NPS Response:

Areas near the Reserve in nonattainment for fine particulates are in northern Utah (Salt Lake City and Logan), where urban conditions have additional detrimental effects on air quality. The Upper Columbia Basin Inventory and Monitoring Network monitors air quality at the Reserve. Interpolated fine particle (PM_{2.5}) concentrations at the Reserve are far below the National Ambient Air Quality Standards (NAAQS). Typical monitoring conducted in national park units reflects unit-wide or even regional conditions and would not provide targeted data for high-use areas. Nevertheless, if interpolated data indicate deteriorating air quality, future monitoring could be considered at the Reserve. Additionally, the NPS would mitigate air quality impacts as appropriate to address the impacts of individual development projects. A variety of mitigation measures, such as spraying gravel roadways with magnesium chloride to reduce localized particulate releases, would continue to be used to ensure air quality in the park remains within acceptable levels.

Concern 27:

Future rangeland health assessments are recommended for the Reserve.

NPS Response:

Additional proper functioning condition and rangeland health assessments would be completed prior to and/or in concert with preparation of the revised grazing management plan. Ongoing annual assessments of grazed lands would also continue.

Facilities**Concern 28:**

Bureau of Land Management (BLM) regulations limit development of structures on BLM land.

NPS Response:

OMB Memorandum No. 2013-02 states, "On an annual basis, an agency shall not increase the size of its domestic real estate inventory, measured in square footage, for space predominantly used for offices and warehouses." Although the DGMP/DEIS proposed an amphitheater, that is no longer part of the GMP/EA. In addition, because the proposed amphitheater would not have not be used for offices and warehouses, the memorandum does not preclude or restrict its development. The amphitheater is neither an office, nor a warehouse, and it had previously been permitted as an allowable facility by BLM under an existing lease agreement, issued to the Idaho Department of Parks and Recreation since 2003. NPS and IDPR will continue to work with BLM to ensure that any proposed facilities meet agency policies and the terms of lease agreements.



United States Department of the Interior

NATIONAL PARK SERVICE
City of Rocks National Reserve
Box 169
Almo, ID 83312



IN REPLY REFER TO:

L1429 (PWR-CIRO)

01 MAR 2012

SJS/SL 3/27/12
T. L. L. 4/11/12
R. M. 4/11/12
M. O. 04.13.12
P. O. SELL 4.16.12
C. J. 4/17/12

Memorandum

To: Director, National Park Service

Through: Regional Director, Pacific West Region
Deputy Regional Director, Resource Management & Planning

From: Superintendent, City of Rocks National Reserve

Subject: Wilderness Eligibility Assessment for City of Rocks National Reserve

This Wilderness Eligibility Assessment has been reviewed in accordance with National Park Service (NPS) Management Policies 2006 Section 6.2.1 and is addressed in the updating of the General Management Plan.

Overview of the Reserve and its Values

In the Albion Mountains of the Northern Great Basin, the Reserve is a unique geologic area with granite pinnacles and monoliths. This area has long been an oddity and wonder, especially for passing emigrants of the California Trail (1843-1882). Emigrant artist, James F. Wilkins named the area that contained these geologic features "City of Rocks" in 1849.

As early as the 1920s, City of Rocks has been recognized as an outstanding landscape worthy of national monument status due to its unique cultural resources, scenery, and potential for high quality recreation. The Idaho Legislature declared Section 36 within City of Rocks as a state park under the jurisdiction of the Idaho Lands Board on February 27, 1957. In 1964, 13,195 acres including the state park was designated a national historic landmark. Ten years later, 20,259 acres received designation as a national natural landmark. That same year, 1974, the state park was transferred to the Idaho Department of Parks and Recreation (IDPR) from Department of Lands.

The Reserve was created November 18, 1988, by Public Law 100-696, entitled the Arizona-Idaho Conservation Act. This act drew a 22-mile boundary around lands owned or managed by the USDA Forest Service, Bureau of Land Management (BLM), IDPR, and private individuals. After the approval of the Reserve's 1996 Comprehensive Management Plan, the NPS officially transferred on-site management of the Reserve to IDPR on May 2, of that year.

These 14,407 acres preserve and protect a 6.2-mile segment of the congressionally designated California National Historic Trail and the surrounding cultural landscape. That landscape also includes a portion of the

Salt Lake Alternate (of the California Trail), Mormon Battalion Trail, Kelton-Boise Stage Route, remnant trail ruts, and emigrant signatures written with axle grease. Other cultural resources include prehistoric artifacts, homesteads, irrigation and ranching improvements, and mica mines. The grazing of cattle on private lands and on seven authorized allotments in the Reserve continues today.

Elevation in the Reserve ranges from 5,720 feet (east entrance) to 8,867 feet (Graham Peak). Total relief is 3,147 feet. The geologic features have become world renown for rock climbing and academic study. The natural resources are diverse. Vegetation communities include sagebrush steppe, pinyon-juniper woodlands, mountain mahogany woodlands, and higher forest communities of aspen, sub-alpine fir, lodgepole pine, and limber pine. There are more than 498 species of plants, 142 birds, 5 amphibians, 14 reptiles, and 56 mammals documented or expected in the Reserve. Idaho's only known population of cliff chipmunks is in the Reserve and on adjacent lands. Other fauna viewed on rare occasions within or very near the Reserve include big-horn sheep, ringtail, elk, moose, and pronghorn.

Today, the Reserve offers camping, climbing, hiking, backpacking, equestrian riding, mountain biking, sightseeing, and much more. About 100,000 visitors pass through the Reserve annually, primarily between April and October. Many come from the metropolitan areas of the Wasatch Front in Utah or the populated areas of southern Idaho (Boise, Twin Falls, Pocatello, and Idaho Falls). Nearly every state is represented in visitor registers and on camping receipts — with Wyoming, California, Colorado, and Oregon most frequently listed. Foreign countries (about 15 to 20) are also represented annually. Although the Reserve is open year-round, the roads are often impassable in winter.

Summary of Public Involvement

Public involvement with respect to wilderness was addressed during the spring of 2011 as part of the General Management Plan (GMP) process.

Summary of the Wilderness Eligibility Assessment Process

CIRO Resource staff conducted field assessments on November 5, 2010. The following eligibility discussion is based on that field work and extensive knowledge of the Superintendent of this area. Staff took into consideration current Reserve boundaries, suitable size of the two zones, ownership, established recreational uses and visitation trends, current development, and cultural and natural conditions. This information was used to address the Primary Eligibility Criteria, Section 6.2.1.1, of the 2006 Management Policies. Portions of the Reserve were eliminated from consideration due to incompatible GMP zone, inconsequential size, private ownership, and/or development, including roads, trails, campsites, restrooms, fences and areas of heavy visitor use.

The remaining tracts of land with the least amount of development have been examined closely (Fig. 1), and the acreage's eligibility was evaluated for inclusion in the National Wilderness Preservation System.

Graham Peak Study Area – approximately 2,361 acres

The Graham Peak Study Area is located at the north end of the Reserve and stretches from the northwest corner (including Indian Grove) and northern boundary to south of the East Ridge and includes the Research Natural Area (RNA). The Graham Peak Study Area was considered in two separate zones: (1) Indian Grove Zone, 522 acres, and (2) East Ridge Zone, 1,839 acres. Although remote, highly scenic, and fairly wild,

currently the Indian Grove Zone does not exemplify all the characteristics of wilderness. This area has primitive roads and trails; has designated camping; and is frequented by hikers, mountain bikers, equestrian riders, campers, and hunters. This small area is also part of the large Graham Creek Grazing Allotment where summer grazing is often encountered (it does have a pole fence protecting the spring). Indian Grove was also utilized by local residents to extract lodgepoles, Christmas trees, and fire wood prior to the Reserve establishment. Some evidence of these disturbances remains, although it is possible to change stewardship strategies and perform long-term restoration and eventually achieve the characteristics of wilderness.

Despite its small areal extent, at this time East Ridge Zone eligibility is assessed, as follows:

- 1. Where the Earth and its community of life are untrammelled by man. Where man himself is a visitor who does not remain.**

No camping is allowed along the East Ridge. There are two trails that pass through the East Ridge area and mountain bikers and equestrian riders will be present on these trails. Hikers and fall deer hunters may be present on these trails as well as in off trail areas of the East Ridge. Canada thistle is present, and therefore noxious weed treatment (including herbicidal treatments) occurs. The fence that separates the RNA from the Graham Creek Grazing Allotment is on the south side of the East Ridge (see Fig. 1).

- 2. Undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation**

The East Ridge is a little visited area with breathtaking views and fascinating geological formations. However, some improvements have been made in this area. An historic wagon/jeep road running from the Bruesch Ranch to Indian Grove spans almost the entire Graham Creek study area from east to west. It is possible to traverse the road in a four wheel drive vehicle, although currently it is closed to the public. The northern boundary fence for the RNA is located on the south side of the ridge and a fence divides the Graham Creek Grazing Allotment into two pastures. A small 8'x12' metal structure sits atop Graham Peak and is referred to as the Graham Peak radio repeater station. The building houses the system, batteries, and antennas. The color of the structure was chosen to blend in with the hillside; however in the summer months, the metal can reflect light across the entire viewshed. A narrow jeep road approaches the site from the north side and lands administered by the US Forest Service. Only administrative vehicles are permitted to use the road within the Reserve boundaries.

- 3. Which generally appears to have been affected primarily by the forces of nature, with the imprints of man's work substantially unnoticeable**

Three steel post barbed wire fences in this area delineate the northern boundary of the Reserve, the RNA/Graham Creek Grazing allotment boundary, as well as divide the two pastures within the Graham Creek Grazing Allotment (see Fig. 1). The imprint of the repeater station is intrusive, and historic two-track roads are readily discernible. A restoration program could be designed to ameliorate the existing degraded conditions.

- 4. Which is protected and managed so as to preserve its natural conditions**

Since acquisition, the Reserve has taken steps to protect this area by managing visitor use and restoring natural conditions. Motor vehicle use is restricted to the grazing allotment permittees and Reserve staff, which has cut motor vehicle travel down substantially. Currently, this area contains a grazing allotment and the RNA which comprises most of the acreage. The RNA is protected from any ranching disturbance while the Graham Creek Allotment is managed for sustainable grazing and a back country experience. Tree cutting has been eliminated and steps have been taken to remove visible signs of logging in the area. Noxious weeds are found in the area and steps have been taken to control their spread.

5. Which has outstanding opportunities for solitude or primitive unconfined type of recreation

Opportunities for solitude are abundant in this little visited section of the Reserve despite the variety of use in this area. Hikers, mountain bikers, equestrian riders, permittees, and Reserve staff frequent the established trails. Other than the limited trails, the East Ridge is steep and difficult to access. Those who do enter this remote high country will plainly see in the distance a network of county roads and the village of Almo. The area's small size of 1,839 acres limits its ability to provide complete solitude. Some popular forms of recreation such as climbing and backcountry camping are naturally restricted by the RNA designation that would remain.

Conclusion

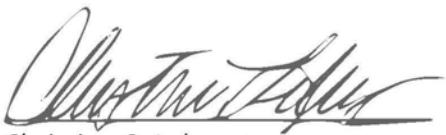
The Wilderness Eligibility for the Reserve conducted by staff determined that lands within the boundary fail to meet the requirements necessary to qualify for the Congressional designated National Wilderness Preservation System. Although by itself Reserve lands do not of meet the criteria, the area could contribute to a larger area of potential wilderness if the Sawtooth National Forest were to reconsider its management plan prescription of inventoried roadless areas immediately north of the Reserve. The Graham Creek Study Area will continue to be managed in accordance with the NPS Organic Act of 1906. For any questions on this Wilderness Eligibility Assessment please contact Wallace Keck, Superintendent, at (208) 824-5911.



Wallace Keck, Superintendent

March 13, 2011

Date

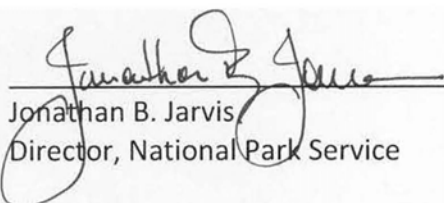


Christine S. Lehnertz
Regional Director, Pacific West Region

03/01/12

Date

Concurred: ☒ Not Concurred: ☐



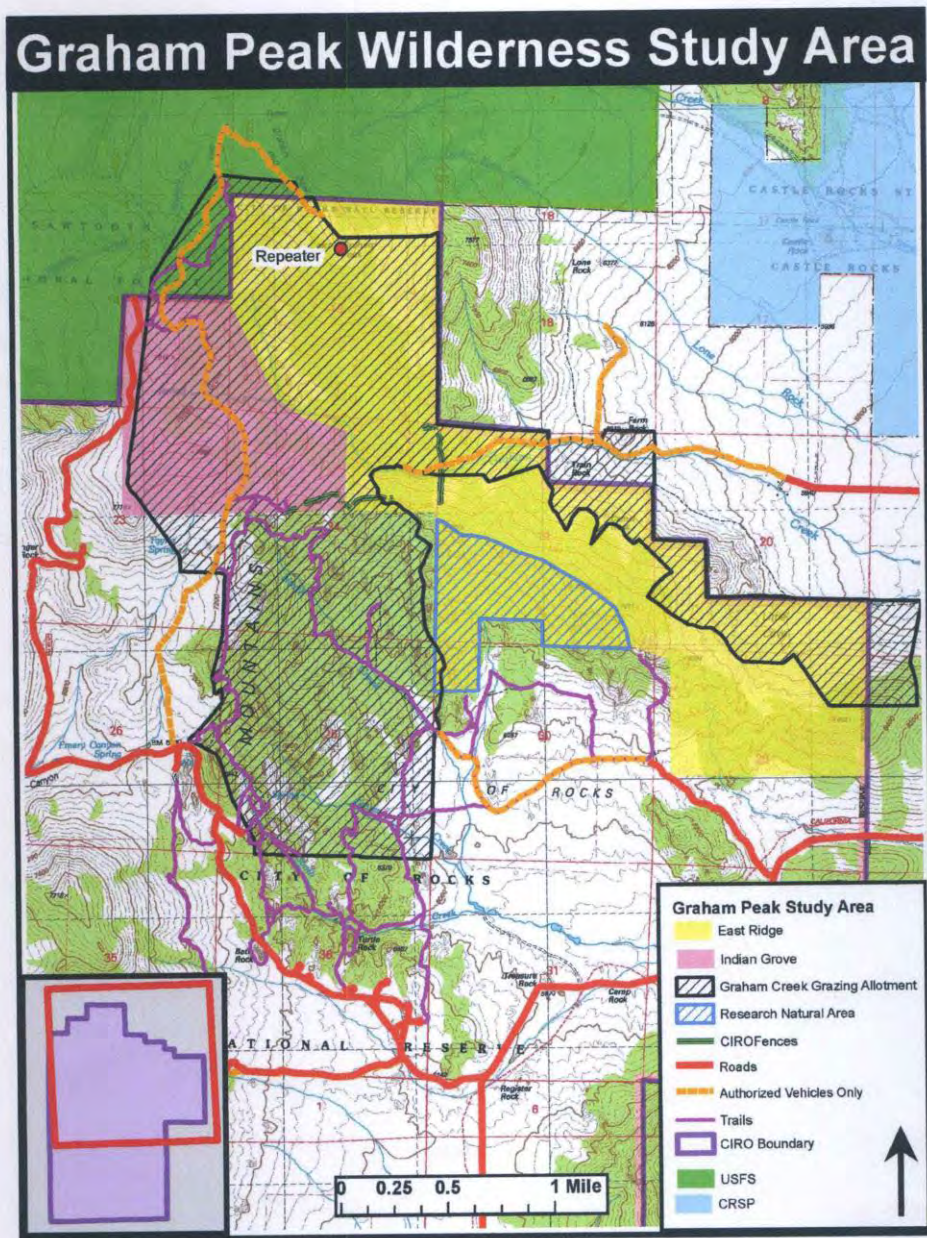
Jonathan B. Jarvis
Director, National Park Service

4/19/12
Date

Approved: ☒ Not Approved: ☐

Figure 1

Map of City of Rocks National Reserve Wilderness Eligibility Assessment



APPENDIX L: ANALYSIS OF BOUNDARY ADJUSTMENT AND LAND PROTECTION

The following is a review of the criteria for boundary adjustments as initially published in the DGMP/DEIS. This GMP and EA incorporates this analysis and proposes no boundary modifications in the NPS preferred alternative. Alternatives C and D, as described below, are no longer considered in the GMP/EA.

As one of the provisions of Public Law 95-625, the National Parks and Recreation Act of 1978, Congress directed that the National Park Service consider, as part of a planning process, what modifications of external boundaries might be necessary to carry out park purposes. Subsequent to this act, Congress also passed Public Law 101-628, the Arizona Desert Wilderness Act. Section 1216 of this act directs the Secretary of the Interior to develop criteria to evaluate any proposed changes to the existing boundaries of individual park units. Section 1217 of the act calls for the National Park Service to consult with affected agencies and others regarding a proposed boundary change, and to provide a cost estimate of acquisition cost, if any, related to the boundary adjustment.

The NPS *Management Policies 2006* (3.5 Boundary Adjustments) states that the National Park Service will conduct studies of potential boundary adjustments and may make boundary revisions for the following reasons:

- To include significant resources or opportunities for public enjoyment related to the purposes of the park
- To address operational and management issues such as boundary and identification by topographic or other natural features
- To protect park resources critical to fulfilling park purposes

NPS policies instruct that any recommendation to expand park boundaries be preceded by determinations that the added lands will be feasible to administer considering size, configuration, ownership, cost, and other factors, and that other alternatives for management and resource protection have been considered and are not adequate.

The following is a review of the criteria for boundary adjustments as applied to City of Rocks National Reserve. The preferred alternative, alternative B, does not include a change in the current Reserve boundary. However, this analysis is included as supporting documentation for alternatives C and D, which include recommendations for boundary changes to the Reserve. One land area totaling approximately 4,247 acres, involving three parcels, is proposed for addition to the Reserve boundary under both alternative C and alternative D.

- Lands of the United States as currently managed by the Bureau of Land Management—one parcel of approximately 3,595 acres, including 240 acres under the use of the Idaho Department of Parks and Recreation through R&PP leases (R&PP leases: I-28350, IDI-32732 and ROW leases: IDI-31531 and IDI-30770)
- Tracy, J.E. Inc.—one parcel of approximately 364 acres (private ownership subject to county ordinances would remain, or an appropriate resource protection interest could be purchased by willing buyer from the willing seller)
- Ward, Harold Olen, Trustee—one parcel of 288 acres attached to a larger parcel currently within the Reserve (private ownership subject to county ordinances would remain, or a conservation easement could be purchased by willing buyer from willing seller)

All property owners proposed for inclusion in the Reserve boundary under alternatives C and D have been notified in advance and consulted prior to the public release of the draft general

management plan. This proposed boundary change would require congressional legislation to authorize a revision to the Reserve boundary.

SIGNIFICANT RESOURCES OR OPPORTUNITIES FOR PUBLIC ENJOYMENT RELATED TO THE PURPOSES OF CITY OF ROCKS NATIONAL RESERVE

The lands within the proposed alternatives C and D boundary expansion are primarily associated with Smoky Mountain, which—at 7,580 feet—is covered by Idaho’s largest intact pinyon pine (*Pinus monophylla*) woodland. These lands include Smoky Mountain Campground (and proposed campground expansion), equestrian and hiking trails (as well as the potential for more recreational trails to the peak), and the California National Historic Trail, the primary nationally significant resource that the Reserve was charged to preserve and interpret. Potential public recreational opportunities associated with the boundary expansion include the development of the outdoor learning center and visitor center proposed by this GMP, with views of the historic trail entering City of Rocks; a potential hiking trail to one of the area’s higher summits; experiences along the trails of old-growth pinyon and associated wildlife; and recreational hunting.

The proposed boundary expansion area for alternatives C and D contains two riparian areas that originate in the Albion Mountains and drain into the alluvial fans and the Almo Valley. Riparian areas are unique natural habitats that provide excellent birding and wildflower viewing opportunities. The parcels also contain grand geological features such as an isolated schist monolith and Elba Quartzite cliffs and boulder fields. With the expansion, dispersed camping on BLM lands would be organized, and sanitation facilities, picnic tables, fire rings, as well as a proposed bivouac (social camping) area would be installed. This would address existing visitor safety concerns and improve the overall visitor experience, as well as coordinate land uses between livestock grazing and visitor use outside the designated campground. Natural plant ecology and succession would be monitored and managed under NPS management guidelines.

OPERATIONAL AND MANAGEMENT ISSUES RELATED TO ACCESS AND BOUNDARY IDENTIFICATION BY TOPOGRAPHIC OR OTHER NATURAL FEATURES

The expansion described in alternatives C and D provides a more logical entry point and boundary to the Reserve from the gateway community of Almo. The entry and boundary are easily identified and communicated to visitors as defined by primary roads. Visually and from a resource management perspective, the transition from sagebrush steppe to pinyon-juniper woodlands closely resembles the proposed boundary north of City of Rocks Road. The expansion would also place the Smoky Mountain Campground and IDPR leases within the Reserve, allowing for cost-sharing of this critical recreational facility to the Reserve. Additionally, the entire Smoky Mountain physiological features would be included under a single agency, mission-tasked with recreation management, scientific study, and resource protection of the pinyon-juniper woodland. Currently, the jurisdictional boundaries are difficult to fence, sign, and communicate to visitors and agency personnel due to steep slopes and angular boundaries traversing rugged mountain terrain.

PROTECTION OF PARK RESOURCES AND FULFILLMENT OF PARK PURPOSES

The boundary adjustment in alternatives C and D emphasizes and aids consistent ecological protection of the northernmost pinyon pine woodland and associated biotic community. The pinyon is important both ecologically and ethnographically and is related to two of the Reserve’s significance statements:

- The Reserve embraces the western rural setting by preserving remnants of traditional occupation, transportation, and land use of prehistoric and historic peoples.

- The Reserve occurs at a biogeographic crossroads and protects a rich ecological diversity, providing exceptional opportunities for scientific study and shared learning.

As scientists and researchers learn more about the Reserve's pinyon forest, it has become apparent that this location may play a role in understanding climatic changes in the Northern Basin and Range of the Intermountain West. At the crossroads and extreme edges of biogeographic regions, the effects of climate change may first be observed as ebbs and flows of plant and animal populations and diversity.

The Reserve, and in particular Smoky Mountain, is just such an area. Research identifying the importance of this habitat to pinyon jays, as well as the arrival, age, and advancement of the forest is currently underway. Other questions could be answered here as well, such as the potential for the woodlands to advance north, or the success or inability of pine bark beetle to attack the pinyon. These unique resources attract further research, learning, and understanding of the natural environment, which is a key goal of this general management plan and part of the mission of the National Park Service.

FEASIBILITY TO ADMINISTER THE LANDS ADDED THROUGH BOUNDARY ADJUSTMENT

The recommended boundary adjustment described in alternatives C and D would be feasible for the National Park Service to manage and without substantially adding to the NPS or IDPR workload. The added acreage would create a logical block of land contiguous with the existing park boundary. Approximately 240 acres within the proposed boundary adjustment area are already being managed by Reserve staff under the jurisdiction of two R&PP leases, which contain the Smoky Mountain Campground and equestrian day-use area.

Administration of the additional acres by the National Park Service might reduce the amount of federal presence needed to manage and protect the land and critical natural and cultural resources. Activities that impact resources are occurring on BLM lands immediately surrounding the campground; however, BLM enforcement is often unable to respond in a timely manner or to address the level of use or conflict resolution. Reserve employees are currently on site daily but do not have the jurisdiction to prevent or mitigate the impacts. If the boundary were adjusted to include lands around the campground, Reserve staff would be able to observe and enforce protective regulations.

There are no known environmental hazards associated with either private or federal lands and appropriate site inspections and hazardous material surveys would be conducted prior to acquisition.

PROTECTION ALTERNATIVES CONSIDERED

Private property within the adjusted alternative C and D boundary is subject to Cassia County land ordinances and is currently zoned multiple-use, with the exception of a strip along the entrance road designated as part of the Historical Preservation Zone. Historic land uses by private property owners are compatible with the Reserve concept. Public lands within the proposed boundary adjustment area are currently under the jurisdiction of the Bureau of Land Management. The GMP planning team considered continuing this jurisdiction but designating those lands as a monument/preserve, similar to the Craters of the Moon National Monument and Preserve. After consideration, it was determined that the parcel simply wasn't large enough to warrant the dual management approach.

Another option was to expand the IDPR R&PP lease to include the entire boundary expansion area, so that it could be managed consistently with the campground and other recreation facilities. This was less desirable on three accounts:

- The National Park Service would still be restrained from consistently managing the pinyon woodland or sharing in the cost of providing needed recreational facilities.
- Idaho Department of Parks and Recreation cannot achieve the resource management objectives alone, but can be an active partner with the National Park Service through the existing cooperative agreement.
- The Bureau of Land Management would still need to dedicate resources to writing compliance reports and managing the lease, thus taxing that bureau even more.

The boundary adjustment in alternatives C and D would support the conversion of the R&PP lease to an R&PP patent to the state of Idaho.

PROPOSED ADDITIONS TO THE PARK BOUNDARY AND OTHER ADJUSTMENTS

Under the preferred alternative, no boundary adjustment is proposed. However, alternatives C and D both propose approximately 4,247 acres for inclusion within the boundaries of City of Rocks National Reserve. Congressional action would be required to authorize this change and authorize and appropriate the funds from the Land and Water Conservation Fund, which would be necessary to acquire interests in private lands from willing sellers. Two parcels of private lands would be included within the proposed boundary change, but retaining private ownership is consistent with the Reserve concept. Some land within the proposed boundary change is currently managed by the Twin Falls District (Burley Field Office) of the Bureau of Land Management. These lands could be administratively transferred to the National Park Service. The Idaho Department of Parks and Recreation R&PP leases could be administered by the National Park Service, or as outlined in a revised cooperative agreement, but it would be preferable to have the leased BLM lands become State of Idaho lands by an R&PP patent.

APPENDIX M: SECTION 106 CONSULTATION

CONSULTATION

Section 106

In accordance with the National Historic Preservation Act of 1966 and the Advisory Council on Historic Preservation regulations, the Reserve must consult the Idaho State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation (ACHP), historic preservation organizations and tribes regarding any resources management proposal that may affect a cultural resource listed on or eligible for listing on the National Register of Historic Places. Formal consultation for section 106 was initiated by the planning team in September 2009 during the initial scoping period for the GMP. Letters were sent to the Idaho SHPO and consulting parties (e.g., Idaho State Historical Society in Boise). Letters included an invitation to attend stakeholder and public meetings and were accompanied by the first GMP newsletter (public scoping). At the same time, an informational letter was mailed to the Advisory Council on Historic Preservation in Washington, D.C.

In 2010, the second GMP newsletter (summary of public comments) was mailed to the Idaho SHPO. On April 1, 2010, before release of the preliminary alternatives, the GMP project manager spoke to the SHPO deputy director regarding a request from the office to be more involved in the planning process. SHPO concerns about the GMP project centered around 1) climbing activities, 2) the historic landscape, and 3) level of development in the Reserve. In December 2010, the planning team briefed the Idaho SHPO in Boise in advance of release of the preliminary alternatives to ensure that any requested changes were identified and considered before mailing the third GMP newsletter (preliminary alternatives) to the public.

During March 2011, letters and copies of newsletter #3 Preliminary Alternatives were sent to the Idaho SHPO and the Advisory Council on Historic Preservation, soliciting review of the alternatives and attendance at the April public meetings.

In late 2012, the planning team sent the Idaho SHPO a copy of the unpublished draft GMP for their review. In January 2013, the Idaho SHPO mailed the planning team comments on the draft GMP. The office's comments mainly focused on proposed development in the National Historic Landmark, in particular, the location of the equestrian staging area and the process for determining that location. These concerns were addressed in a meeting with the Idaho SHPO in Seattle in February and new language was added to the draft GMP to address these concerns.

After the release of the DGMP/DEIS in April 2015, the NPS submitted a copy of the document to SHPO with cover letter dated April 23, 2015 requesting review and comment. SHPO responded with a comment letter dated June 22, 2015 concurring with the DGMP's Preferred Alternative (Alternative B).

On December 22, 2016, the NPS submitted a letter to the Idaho SHPO requesting review of the Area of Potential Effect and concurrence on the DGMP/DEIS "no adverse effect" determination. On the same day, the NPS sent letters to the Shoshone-Bannock and Shoshone-Paiute tribes to inform them of the SHPO review and to invite concurrent participation in these Section 106 consultations regarding the selected alternative of the DGMP/DEIS. On January 17, 2017, the Idaho SHPO responded, expressing full support for the preferred alternative. Stating that they don't "typically provide a Section 106 recommendation regarding project effect for GMPs," the SHPO nevertheless expressed full support for the preferred alternative and the planning team's proposed language to describe Section 106 compliance in the decision document. Subsequently,

during the preparation of a Final EIS, the process was streamlined as an environmental assessment (EA). No new proposals were added, and the document retains the “broad guidance” perspective relied on by the SHPO to support the preferred alternative. The GMP/EA provides broad guidance for prospective undertakings; in other words, specific undertakings have not been fully developed. Because of the programmatic nature of the GMP and the progression of federal undertakings which may stem from the plan, the NPS cannot yet assess specific effects of future undertakings on historic properties. As implementation of the GMP selected alternative is carried out, the NPS will conduct Section 106 compliance for undertakings and continue to consult with the Idaho SHPO, ACHP, Native American tribes, and other consulting parties as necessary on the effects of each undertaking on historic properties. Therefore, the NPS has determined that historic properties will not be adversely affected by the development or planning process of the preferred alternative in the GMP/EA.

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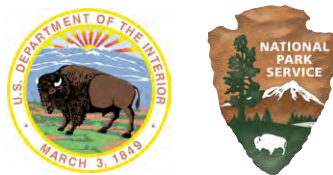
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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our 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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City of Rocks National Reserve

