



Circle Creek Overlook Trails Project

Environmental Assessment



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United States Department of the Interior • National Park Service • City of Rocks National Reserve

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I. Introduction

The Superintendent of City of Rocks National Reserve and the NPS Pacific West Regional Director are faced with a decision to add a Geological Interpretive Trail and an equestrian trail referred to in this document as the Smoky Mountain Connector near the new Circle Creek Overlook Parking Lot. This EA was prepared to assist the management to decide whether or not to construct the two trails and identify the environmental consequences of that decision.

In the Albion Mountains of the Northern Great Basin, City of Rocks National 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). One 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 the status as a national monument due to its unique cultural resources, scenic quality, and potential for high quality recreation. City of Rocks received its first designation in 1957, when the Idaho Department of Lands set aside Section 36 as a state park. In 1964, it was designated a national historic landmark. It received designation as a national natural landmark in 1974, the same year Section 36 was transferred to the Idaho Department of Parks and Recreation (IDPR) from the Idaho Department of Lands.

City of Rocks National Reserve was created November 18, 1988, by Public Law 100-696, the Arizona-Idaho Conservation Act of 1988. This act drew a 22-mile boundary around lands owned or managed by the US Forest Service, Bureau of Land Management (BLM), IDPR, and private individuals. After the approval of the 1996 City of Rocks National Reserve Comprehensive Management Plan, the National Park Service (NPS) officially transferred on-site management of the Reserve to IDPR on May 2, 1996.

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. In addition, 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, lodge pole 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 of note include big-horn sheep, which have been reintroduced a few miles north, but on rare occasions, are observed within the Reserve.

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 1 and October 30. 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 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.

Scope of this Environmental Assessment

This Environmental Assessment (EA) has been prepared to satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190, 42 U.S. C. 4321-4347, as amended), including the Council on Environmental Quality (CEQ) regulations found at 40 CFR 1500 -1508, Director's Order (DO) 12, and other applicable laws, NPS Management Policies (2006) and management directives. This Environmental Assessment facilitates compliance with Section 106 of the National Historic Preservation Act (NHPA), Section 7 of the Endangered Species Act, Clean Water Act, and the Clean Air Act enacted for the protection of the environment.

The Superintendent of City of Rocks National Reserve and the NPS Pacific West Regional Director are faced with a decision to create a Geological Interpretive Trail and the Smoky Mountain Connector, an equestrian trail, near the new Circle Creek Overlook Parking Lot and will use this EA to make a decision about the project. The purpose of this Environmental Assessment is to identify, evaluate, and document the potential effects of the proposed Circle Creek Overlook Trails Project (Figure 1). Existing conditions, described as the No-Action Alternative (Alternative 1), constitute the baseline for evaluating the effects of the proposed project.

The addition of trails near the Circle Creek Overlook was mentioned in the Comprehensive Management Plan (CMP) in 1996 as part of the development of the Circle Creek Overlook area. In the CMP (NPS 1996) the exact specifications of the trails' length and placement were not available at the time. An EA was completed for the Circle Creek Overlook Parking Lot Relocation Project (NPS 2010) and the FONSI was issued on June 18, 2010. The purpose of this EA is to inform and take comments from other state and federal agencies, our stakeholders and the general public in regard to this proposed action. The proposed action is not expected to be altered by the new General Management Plan, and if approved for construction the two trails would be considered under that plan as existing conditions.

Park Purpose and Significance

In 2007, the National Park Service in cooperation with the Idaho Department of Parks and Recreation developed a draft Foundation Statement to guide current and future planning and management of City of Rocks National Reserve. The Foundation Statement contains a description of the Reserve's purpose, significance, fundamental resources and values, primary interpretive themes, special mandates, and the legal/policy requirements for administration and resource protection.

The purpose is a statement of why Congress established the Reserve as a unit of the national park system. As documented in the Foundation Statement, the purpose of City of Rocks National Reserve is shown below.

City of Rocks National Reserve was created to preserve and protect through cooperative efforts the scenic qualities and attributes of the California Trail landscape, historic rural setting, and granite features, while interpreting its values and managing recreation.

Guided by legislation and the knowledge acquired through management, research, and civic engagement, statements of significance define what is most important about the Reserve's resources and values. The Foundation Statement identified seven attributes of the Reserve's resources and values that are of such significance to be included in the national park system:

- As part of the largest overland emigration in American history, City of Rocks National Reserve preserves the most intact and authentic setting of the California Trail. City of Rocks served as a landmark and critical refuge that inspired numerous written accounts of the landscape.
- The Reserve has a timeless natural quality and protects and preserves outstanding scenery set among sculpted granite monoliths framed by the Albion and surrounding mountains.
- City of Rocks National Reserve embraces the historic rural setting by preserving remnants of traditional occupation, transportation, and land use of prehistoric and historic peoples.
- The Reserve is a dramatic geologic landscape with naturally sculptured spires and domes that evoked emotional responses as recorded in emigrant diaries and from visitors of today.
- The Reserve preserves an uplifted and eroded landscape that reveals geologic structures, igneous intrusions, and a rare exposure of some of the oldest and deepest crustal metamorphic rocks in the western United States.
- City of Rocks National Reserve provides one of the highest quality granite face-climbing areas in the United States.
- The Reserve occurs at a biogeographic crossroads and protects a rich ecological diversity, providing exceptional opportunities for scientific study and shared learning.

City of Rocks National Reserve Circle Creek Overlook Trails Project

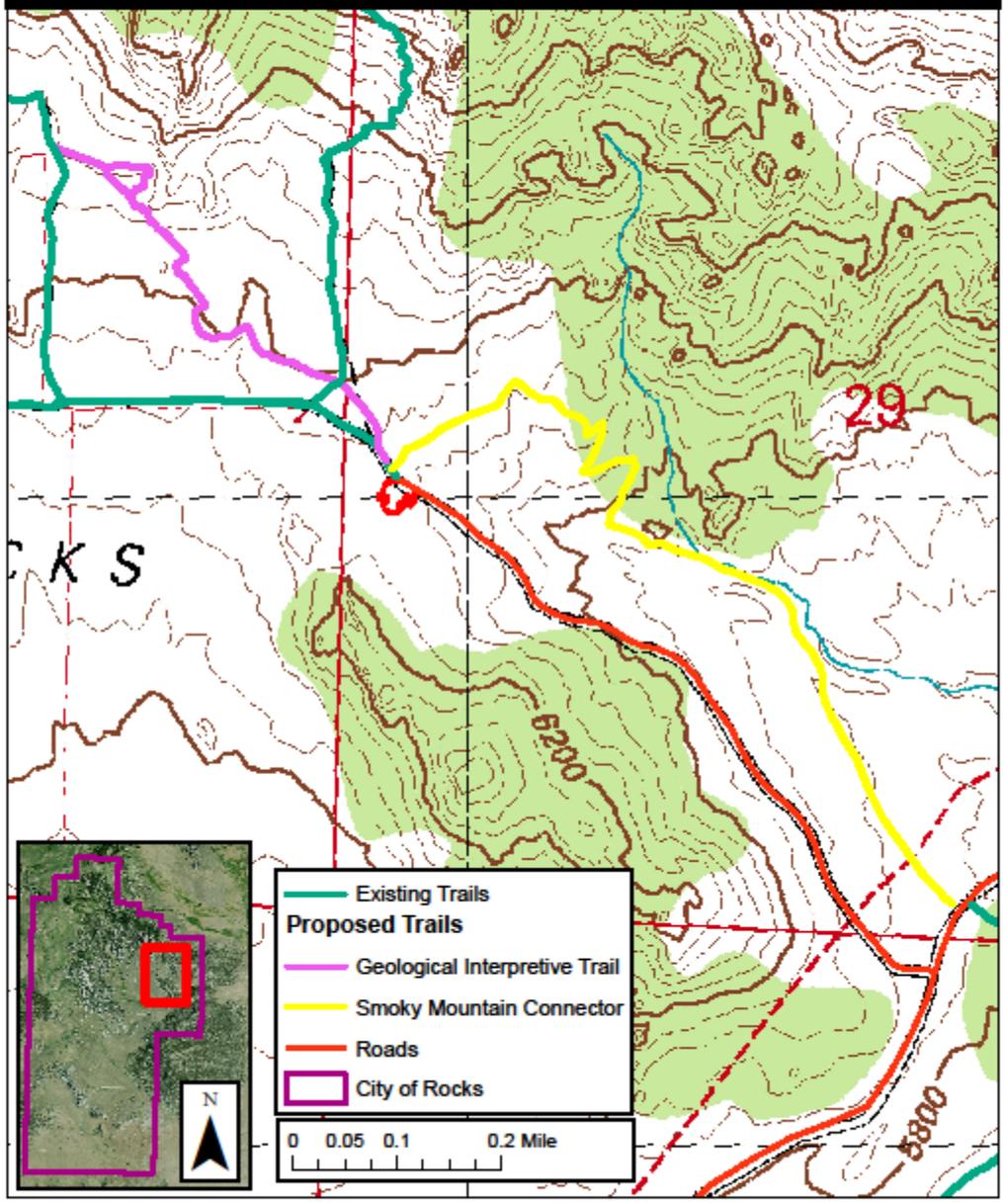


Figure 1. Project Location shown on the Almo Quadrangle 7.5' USGS Topographic Map

City of Rocks National Reserve Circle Creek Overlook Trails Project

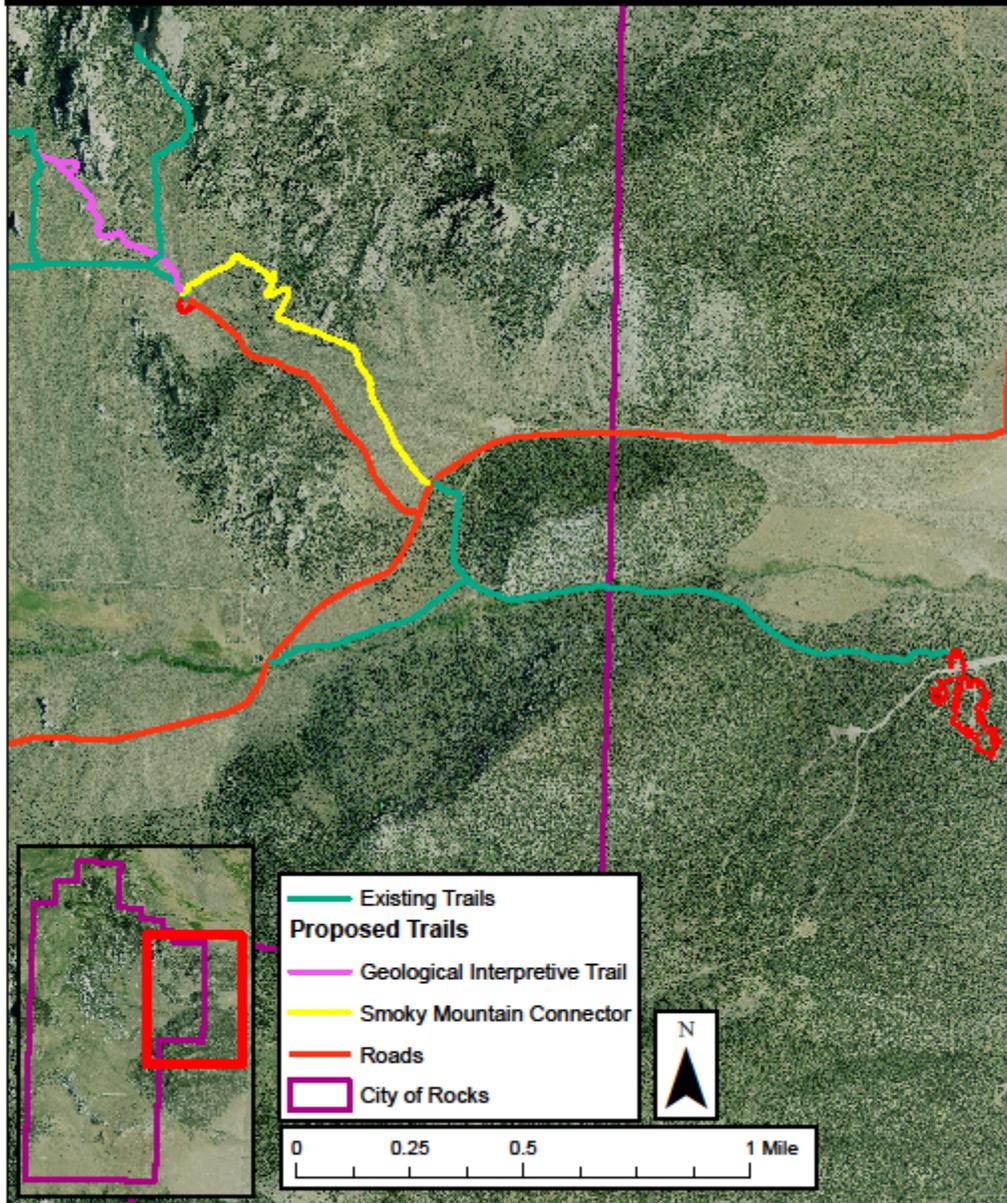


Figure 2. Project Location shown on aerial photograph

City of Rocks National Reserve Geological Interpretive Trail

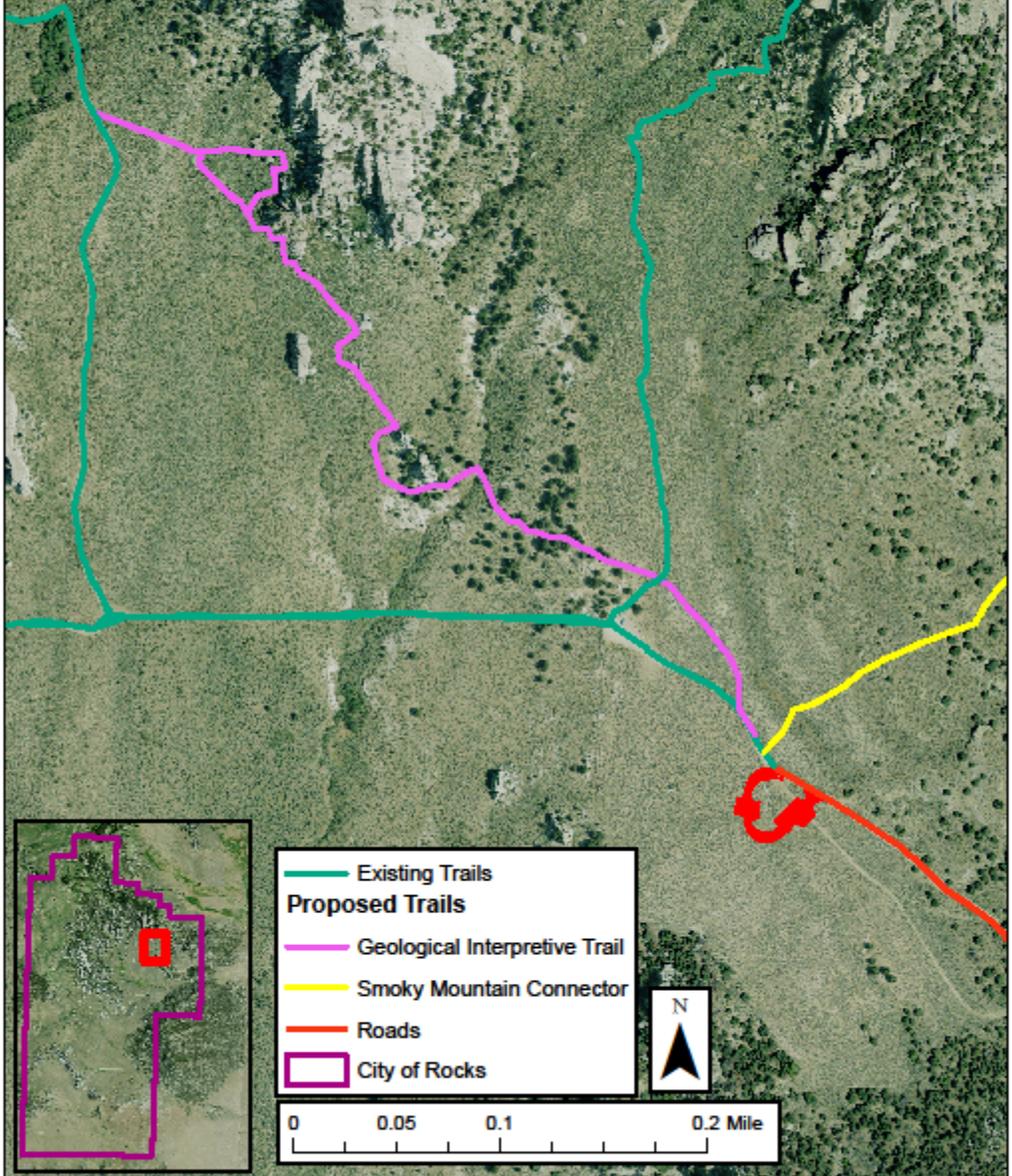


Figure 3. Geological Interpretive Trail

City of Rocks National Reserve Equestrian Trail

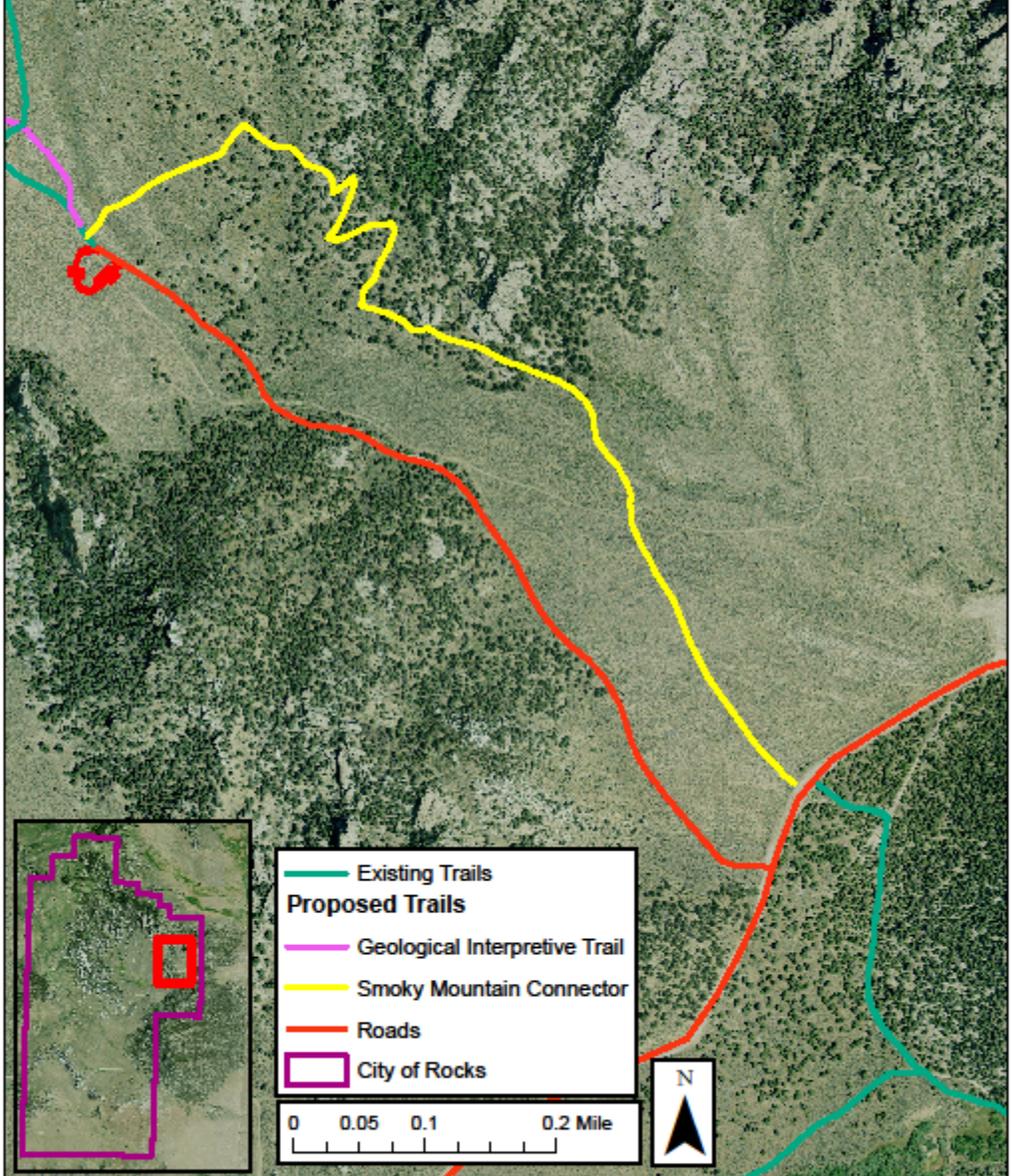


Figure 4. Equestrian Trail, Smoky Mountain Connector

II. Purpose and Need

Purpose and Need

Why are these two additional trails necessary? Congress mandated in the Reserve’s enabling legislation, for the Secretary of the Interior to “preserve and protect” the section of the California Trail within the Reserve, the geology of the area and to “manage recreational use” of the Reserve. The purpose of managing recreation is to ensure that the use of the Reserve does not degrade its nationally significant values while providing recreational and educational opportunities for the public.

Goals and Objectives

GOAL

The goal of the project is to provide facilities to support recreational opportunities while minimizing: (1) impacts to the Reserve’s nationally significant natural and cultural resource values, and (2) conflicts between visitors (e.g. horse/rider and vehicle).

OBJECTIVES

- Protect and preserve historic properties and ensure that the Reserve’s significance as a National Historic Landmark is not adversely affected by visitor use.
- Protect the overall integrity of significant cultural resources, which include (but are not limited to) the experiential aspects of the historic setting, the association between the historic event and the historic property, and the feelings which these aspects evoke.
- Manage visitor use so that impacts on natural resources (geology, soils, vegetation, rock, wildlife, air, water quality, scenery, and natural sounds/silence) are minimized.
- Ensure that natural resources are not impaired. The level of acceptable impact is defined, and measures to mitigate previous impacts are outlined.
- Interpret the nationally significant natural and cultural values of the Reserve to enhance visitor experience and promote the preservation and protection of these resources.
- Ensure that the protection of natural and cultural resources and values in the Reserve are articulated in interpretive, educational and orientation materials provided to visitors engaged in all forms of recreation.

Background

HISTORY OF THE RESERVE

The City of Rocks was formed by geologic forces of uplift of deep crustal granites and subsequent erosion which exposed the spires and peculiar formations seen by Native Americans, emigrants, and early settlers in the past as well as visitors today. The Shoshone and Bannock were encountered by explorers, trappers, and emigrants in the area. The Shoshone and Bannock hunted game and collected pine nuts from the area as part of their seasonal occupation of southeastern Idaho. The City of Rocks was documented and sketched in journals by emigrants on the California Trail (1841-1882). Wagon ruts and signatures in axel grease, evidence of the emigrant’s passage through the

area, are visible today in the Reserve. Congress established the City of Rocks National Reserve in 1988 in order to protect the remnants of the California Trail and the spectacular geological formations as well as manage recreation in the area. A detailed history of the Reserve is provided in the CMP. The plan can be viewed at the Reserve visitor center or on the internet at (<http://www.nps.gov/ciro/parkmgmt/planning.htm>).

RELATIONSHIP TO LAWS, NATIONAL PARK SERVICE POLICY, AND PARK PLANNING DOCUMENTS

National Park Service Organic Act

The key provision of the legislation establishing the National Park Service, referred to as the 1916 Organic Act, is:

The National Park Service shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified . . . by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations (16 USC 1).

1970 National Park Service General Authorities Act (as amended in 1978 – Redwood amendment)
This act prohibits the NPS from allowing any activities that would cause derogation of the values and purposes for which the parks have been established (except as directly and specifically provided by Congress in the enabling legislation for the parks). Therefore, all units are to be managed as national parks, based on their enabling legislation and without regard for their individual titles. Parks also adhere to other applicable federal laws and regulations, such as the Endangered Species Act, the National Historic Preservation Act, the Wilderness Act, and the Wild and Scenic Rivers Act. To articulate its responsibilities under these laws and regulations, the NPS has established management policies for all units under its stewardship.

National Environmental Policy Act (NEPA) (42USC 4341 et seq.)

NEPA requires the identification and documentation of the environmental consequences of federal actions. Regulations implementing NEPA are set for by the President’s Council on Environmental Quality (40 CFR Parts 1500-1508). CEQ regulations establish the requirements and process for agencies to fulfill their obligations under NEPA.

Clean Water Act (CWA) (33 USC 1241 et seq.)

Under this act, it is a national policy to restore and maintain the chemical, physical, and biological integrity of the nation’s waters, to enhance the quality of water resources, and to prevent, and control, and abate water pollution. Section 401 of the Clean Water Act as well as NPS policy requires analysis of impacts on water quality. NPS Management Policies provide direction for the preservation, use, and quality of water in national parks.

Clean Air Act (as amended) (42 USC 7401 et seq.)

The Clean Air Act states that park managers have an affirmative responsibility to protect park air quality related values (including visibility, plants, animals, soils, water quality, cultural resources and visitor health) from adverse air pollution impacts.

Endangered Species Act (16 USC 1531 et seq.)

The Endangered Species Act (ESA) requires federal agencies, in consultation with the Secretary of the Interior, to use their authorities in the furtherance of the purposes of the act and to carry out programs for the conservation of listed endangered and threatened species (16 USC 1535 Section 7(a)(1)). The ESA also directs federal agencies, in consultation with the Secretary of the Interior, to ensure that any action authorized, funded, or carried out by an agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat (16 USC 1535 Section 7(a)(2)). Consultation with the United States Fish and Wildlife Service (USFWS) is required if there is likely to be an effect.

National Historic Preservation Act (1966 as amended) (16 USC 470)

Section 106 of the NHPA directs federal agencies to take into account the effect of any undertaking [a federally funded or assisted project] on historic properties. An "Historic property" is any district, building, structure, site, or object that is eligible for listing in the National Register of Historic Places because the property is significant at the national, state, or local level in American history, architecture, archeology, engineering, or culture. This section also provides the Advisory Council on Historic Preservation and the State Historic Preservation Officer (SHPO) an opportunity to comment on the undertaking. The 1992 amendments to the act have further defined the roles of American Indian Tribes and the affected public in the Section 106 process.

National Park Service Management Policies (2006)

Management Policies govern the way park managers make decisions on a wide range of issues that come before them. Management Policies consolidates agency policy on a wide variety of laws, technology, resource management, and other issues pertinent to management of the National Park System. Sections applicable to the proposed project are quoted below.

NPS Policy 1.4.3 The NPS Obligation to Conserve and Provide for Enjoyment of Park Resources and Values

The "fundamental purpose" of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. This mandate is independent of the separate prohibition on impairment, and so applies all the time, with respect to all park resources and values, even when there is no risk that any park resources or values may be impaired. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts on park resources and values. However, the laws do give the NPS the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, so long as the impact does not constitute impairment of the affected resources and values.

The fundamental purposes of all parks also include providing for the enjoyment of park resources and values by the people of the United States. The "enjoyment" that is contemplated by the statute is broad; it is the enjoyment of all the people of the United States, not just those who visit parks, and so includes enjoyment both by people who directly experience parks and by those who appreciate them from afar. It also includes deriving benefit (including scientific knowledge) and inspiration from parks, as well as other forms of enjoyment. Congress, recognizing that the enjoyment by future generations of the national parks can be ensured only if the superb quality of park resources and values is left unimpaired, has provided that when there is a conflict between conserving resources and values and providing for enjoyment of them, conservation is to be

predominant. This is how courts have consistently interpreted the Organic Act, in decisions that variously describe it as making “resource protection the primary goal” or “resource protection the overarching concern,” or as establishing a “primary mission of resource conservation,” a “conservation mandate,” “an overriding preservation mandate,” “an overarching goal of resource protection,” or “but a single purpose, namely, conservation.”

NPS Policy 8.2 Visitor Use

Enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks. The NPS is committed to providing appropriate, high quality opportunities for visitors to enjoy the parks, and will maintain within the parks an atmosphere that is open, inviting, and accessible to every segment of American society. ...The NPS will therefore provide opportunities for forms of enjoyment that are uniquely suited and appropriate to the superlative natural and cultural resources found in the parks. ...To provide for enjoyment of the parks, the National Park Service will encourage visitor activities that: (1) are appropriate to the purpose for which the park was established; and (2) are inspirational, educational, or healthful, and otherwise appropriate to the park environment; and (3) will foster an understanding of, and appreciation for, park resources and values, or will promote enjoyment through a direct association with, interaction with, or relation to park resources; and (4) can be sustained without causing unacceptable impacts to park resources or values.

NPS Policy 8.2.2.1 Management of Recreational Use

Superintendents will develop and implement visitor use management plans and take management actions, as appropriate, to ensure that recreational uses and activities within the park are consistent with its authorizing legislation or proclamation and do not cause unacceptable impacts to park resources or values. ...visitor use management plans will (1) contain specific, measurable management objectives related to the activity or activities being addressed; (2) be periodically reviewed and updated; and (3) be consistent with the carrying capacity decisions made in the general management plan.

City of Rocks National Reserve Comprehensive Management Plan (p. 348)

The CMP indicates development of the Circle Creek Basin Overlook and associated trails and amenities will be consistent with the purpose of the Reserve. The 20 car gravel parking lot for day use, a vault toilet, and one interpretive sign have been constructed. This EA proposes to construct the approximately 1.6 miles of trail to provide interpretation of the geology, a nationally significant value, an overlook of Circle Creek basin, the primary California Trail emigrant camp site in the Reserve, and a safe trail for equestrian visitors to explore the Reserve.

(Note: The Comprehensive Management Plan was developed through a lengthy and open, public process beginning November 1989, leading to the final approval and activation on February 1, 1996. All other implementation plans concerning City of Rocks National Reserve are subject to the goals and objectives of the Comprehensive Management Plan. The plan can be viewed at the Reserve visitor center or on the internet at <http://www.nps.gov/ciro/parkmgmt/planning.htm>).

Cooperative Agreement between the NPS and the State of Idaho, IDPR; Article II.2

The State of Idaho Department of Parks and Recreation will (a) upon transfer of the Reserve to IDPR management and administration, assume, accept and embrace all on-site program management responsibilities associated with a unit of the National Park and Idaho State Park System, (b) adopt

and implement the Comprehensive Management Plan for the Reserve and subsequent and supplementary program or action plans developed in collaboration with, and approved by, the NPS for City of Rocks, (c) adopt and implement the amended Operational Plan and Guidelines for Management of City of Rocks National Reserve.

PUBLIC PARTICIPATION

Public involvement is a key part of the NEPA process. All implementation plans concerning City of Rocks National Reserve are subject to the goals and objectives and must be consistent with the CMP. The plan can be viewed at the Reserve visitor center or on the internet at <http://www.nps.gov/ciro/parkmgmt/planning.htm>. No additional public comment was sought for the preparation of this EA because it is a design phase of a concept plan that was included in the public process for the CMP.

Currently the NPS and Reserve are preparing a new GMP. To date, three newsletters have been sent to stakeholders and the general public for comment. The newsletters are available at the visitor's center and on the internet at (<http://www.nps.gov/ciro/parkmgmt/gmp.htm>). Comments on the material presented in Newsletter #3 were accepted through July 1, 2011.

(For more information about specific agency and staff consultation, see the section in this document entitled List of Persons and Agencies Consulted / Preparers).

III. Alternatives

The Alternatives were developed from collaborative interdisciplinary analysis based on the expertise of interdisciplinary planning team members, as well as on internal and external scoping with Native American Tribes, federal, state and local agencies, interested organizations and individuals during the public comment period for the CMP in 1989-1996. The proposed action has two foci; one is to alleviate an existing problem, horse/vehicle conflicts on two of the Reserve's roads and on enhancing the experience and increasing educational and interpretive opportunities for the visitor, thereby managing recreation without degrading the physical environment and providing a safe and healthful experience for the visitor.

Alternative 1: No Action (Do Not Build the Trails)

Under the Alternative 1, the trail system would remain the same. There would be no geological interpretive trail, no overlook into the Circle Creek Basin, and no Smoky Mountain Connector from the City of Rocks Road to the Circle Creek Service Road.

GENERAL MANAGEMENT

Leaving the trail system in its current state means the visitor will not have a self directed means of learning about the Reserve's complex geological features in the Reserve. The visitor would also not have the opportunity to view the Circle Creek Basin from a prime vantage point. The visitor would also not have the opportunity to view the Precambrian rock exposures and microclimate of the eastern edge of the Reserve.

The equestrian visitor would have to continue to take horses on the City of Rocks Road and the Circle Creek Overlook Road to reach the North Fork Trail. As a horse and rider travel on the roads the potential for a horse/vehicle conflict arises. Removing the horse and rider from the roads will increase safety of the horse and rider as well as the driver.

HISTORIC AND NATURAL PRESERVATION ZONE

California Trail Subzone:

The proposed trails would not be visible from the California National Historic Trail (CNHT) and are consistent with the management of the California Trail subzone, in that the trails are directly associated with access, enjoyment, and interpretation of the CNHT as well as the interpretation of the nationally significant geology of the Reserve.

Alternative 2: Proposed Action (Construction of the Trails)

Under Alternative 2, the Reserve would provide a 0.6 mile Geological Interpretive Trail with 12 locations, each describing a different aspect of the geology of the Reserve. The Circle Creek Overlook on the Geologic Interpretive Trail would provide an overlook of Circle Creek Basin, the

primary camp for emigrants on the California Trail in the Reserve. The overlook will include one bench. The Geological Interpretive Trail will be restricted to pedestrian use only. The Smoky Mountain Connector (1.0 miles) will provide visitors the option of traveling from Smoky Mountain Campground all the way to Indian Grove and Bread Loaves on a trail without having to travel on a road with vehicles. The Smoky Mountain Connector will be available to pedestrians, bicycles, and equestrian riders. As on all the Reserve's multi-use trails cyclists yield to both pedestrians and equestrians and pedestrians yield to equestrians. The trails will be designed using the best management practices and modern techniques to minimize erosion and impacts to the environment.

Under this alternative, two trails would be constructed for a total of 1.6 miles of trail. The newly constructed Circle Creek Overlook Parking Lot will provide vehicle access to the Geological Interpretive Trail and the Circle Creek Overlook; therefore, no additional facilities will be needed. The Smoky Mountain Connector will pass by the Circle Creek Overlook Parking Lot with its new vault toilet, providing a convenient stop along the trail from Smoky Mountain Campground to Indian Grove and Bread Loaves. There will be a hitching post so riders may hitch their horses and walk a short distance to the vault toilet.

Monitoring

The trails would be inventoried and their conditions formally monitored. These periodic assessments provide data for the Facility Maintenance Software System (FMSS), used to allocate funding for facility maintenance throughout the NPS.

Environmentally Preferred Alternative

In accordance with Director's Order-12, Conservation Planning, Environmental Impact Analysis, and Decision-making and CEQ (Council on Environmental Quality) requirements, the NPS is required to identify the "environmentally preferred alternative" in all environmental documents, including Environmental Assessments. The environmentally preferred alternative is determined by applying the criteria suggested in NEPA, which is guided by the CEQ. The CEQ (46 FR 18026 - 46 FR 18038) provides direction that the "environmentally preferable alternative is the alternative that would promote the national environmental policy as expressed in NEPA's Section 101," including:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- Preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources (NEPA Section 101(b)).

Generally, these criteria mean the environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources (46 FR 18026 – 46 FR 18038).

Alternative 2, the construction of the trails, has been determined as the environmentally preferred alternative. The construction of the new trails will cause an impact to vegetation; however, the impacts will be minimal and will not degrade the environment. Alternative 2 will provide the Reserve the opportunity to “attain the widest range of beneficial uses of the environment without degradation, risk of health or safety” as expressed in NEPA’s section 101.

Part of preserving important historic, cultural and natural aspects of our national heritage is educating the public through ranger led and self directed informational experiences. The Geological Interpretive Trail will provide visitors information concerning the geology of the Reserve, and the overlook will provide car-weary visitors a short easy trail with a bench and a fantastic view of the Circle Creek Basin, the primary camp for emigrants on the California Trail in the Reserve. In addition, the Smoky Mountain Connector will provide a trail for visitors to experience the eastern side of the Reserve. This will be the only trail that goes through the Precambrian zone; a microclimate within the Reserve where the temperature is a few degrees warmer and vegetation appears two to three weeks earlier in this unique area.

NEPA’s Section 101 also states that the environmentally preferred alternative will be the one that provides “safe, healthful, productive, and aesthetically and culturally pleasing surroundings”. The Smoky Mountain Connector will remove the horse/vehicle conflict that arises when riders attempt to use the City of Rocks Road and the Circle Creek Overlook Road to access the northwestern part of the Reserve. Removing horse and rider from the roads increases the health and safety of the horse, rider, and vehicle operator. Traveling via the proposed trail will be more aesthetically pleasing for the rider than traveling on the side of the roads.

Alternative 1 is not the environmentally preferred alternative because continued use of the City of Rocks Road and the Circle Creek Road by equestrian visitors continues the possible conflicts between cars and horses on the roads. Having a situation where horses and riders are on the same road as vehicular traffic is not “safe, nor healthy, aesthetically or culturally pleasing” to horse, rider or vehicle operator. The lack of the Geological Interpretive Trail precludes the visitor from learning about the nationally significant geology and the opportunity to take in a sweeping view of the primary encampment on the California Trail within the Reserve.

IV. Impact Topics and Methodology

Impact Topics Analyzed

Impacts of the alternatives on the following topics are presented in this environmental assessment: soils, water resources, vegetation, wildlife, special status species, prehistoric and historic archeological resources, ethnography, cultural landscapes, visitor experience, and park operations.

PHYSICAL RESOURCES

Geology: NPS Management Policies (2006) call for analysis of geology and geological hazards should they be relevant. This plan will construct an interpretive trail highlighting geological features along the trail, but will have no effect on the geology itself. Visitors are not subject to, nor is the trail in context with geological hazards.

Soils

Management policies require the NPS to understand and preserve and to prevent, to the extent possible the unnatural erosion, physical removal, or contamination of the soil. The alternatives involve activities with the potential for erosion or sedimentation impacts to occur. Therefore, soils are addressed as an impact topic.

Water Resources

The 1972 Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, is a national policy to restore and maintain the chemical, physical, and biological integrity of the nation's waters, to enhance the quality of water resources, and to prevent, and control, and abate water pollution. NPS management policies provide direction for the preservation, use, and quality of water in national parks.

Surface Water

Section 401 of the Clean Water Act and NPS policy require analysis of impacts on water quality.

BIOLOGICAL RESOURCES

Vegetation

NEPA calls for examination of the impacts on the components of affected ecosystems. NPS policy is to protect the natural abundance and diversity of park native species and communities, including avoiding, minimizing or mitigating potential impacts from proposed projects.

Wildlife

NEPA also calls for examination of the impacts on these components of the ecosystem. NPS policy is to protect the natural abundance and diversity of park native species and communities, including avoiding, minimizing or mitigating potential impacts from proposed projects.

Special Status Species

The Endangered Species Act (ESA) requires an examination of impacts to all federally listed threatened or endangered species. NPS policy also requires an analysis of impacts to state-listed

threatened or endangered species and federal candidate species. Under the ESA, the NPS is mandated to promote the conservation of all federal threatened and endangered species and their critical habitats within the park boundary. NPS management policies include the additional stipulation to conserve and manage species proposed for listing.

CULTURAL RESOURCES

Prehistoric and Historic Archeological Resources

Conformance with the Archeological Resources Protection Act (ARPA) in protecting known or undiscovered archeological resources is necessary.

Historic Structures/Cultural Landscapes

Consideration of the impacts to cultural resources is required under provisions of Section 106 of the National Historic Preservation Act of 1966, as amended, and the 2008 Programmatic Agreement among the National Park Service, the National Conference of State Historic Preservation Officers, and the Advisory Council on Historic Preservation. It is also required under NPS Management Policies (2006). Federal land managing agencies are required to consider the effects proposed actions have on properties listed in, or eligible for inclusion in, the National Register of Historic Places (i.e., Historic Properties), and allow the Advisory Council on Historic Preservation a reasonable opportunity to comment. Agencies are required to consult with federal, state, local, and tribal governments/organizations, identify historic properties, assess adverse effects to historic properties, and negate, minimize, or mitigate adverse effects to historic properties while engaged in any federal or federally assisted undertaking (36 CFR Part 800).

Visitor Services

Visitor Services

Impacts to visitor services are often considered in Environmental Assessments to disclose the degree to which proposed actions would change the visitor's experience of the park.

Impact Topics Dismissed From Further Consideration

The topics listed below either would not be affected or would be affected only negligibly by the alternatives evaluated in this Environmental Assessment. Therefore, these topics have been dismissed from further analysis. Negligible effects are effects that are localized and that would not be detectable over existing conditions.

Geology

There will be no effect to the geology of the Reserve so this topic has been dismissed from further analysis.

Land Use

Lands within the APE are federally-owned (NPS) land within the Reserve. This project is subject to and consistent with the management zones established by the City of Rocks National Reserve

Comprehensive Management Plan (National Park Service, 1996). Thus, the proposed action will not result in any changes to existing land use, and this topic has not been further analyzed in this document.

Air Quality

City of Rocks is located within an area that has been designated a Class II airshed under the Clean Air Act (1977). Class II areas are those that need reasonably or moderately good air quality protection. Due to the low population density and lack of large emission sources near the Reserve, air quality is generally very good. However, air quality data for the Reserve has not been systematically collected. High particulate matter concentrations occasionally occur in the area when strong winds increase dust emissions from exposed soils in agricultural fields or on dirt roads. Air quality within the Reserve is important primarily for visibility and visitor enjoyment of scenic vistas. However, neither of the alternatives examined in this document contain provisions that would affect air quality directly. Any indirect changes to air quality would not be detectable over existing conditions. Therefore, impacts to air quality have not been further analyzed.

Wetlands

Executive Order 11990 requires that impacts to wetlands be addressed. There are no wetlands within the project area so this topic has been dismissed from further analysis.

Floodplains

Executive Order 11988 (Floodplain Management) requires an examination of impacts to floodplains and potential risk involved in placing facilities within floodplains. NPS Management Policies, DO-2 (Planning Guidelines), and DO-12 (Conservation Planning, Environmental Impact Analysis, and Decision Making) provide guidelines for proposals in floodplains. Executive Order 11988 requires that impacts to floodplains be addressed. There are no floodplains within the project area so this topic has been dismissed from further analysis.

Water Quantity

Implementation of the plans analyzed in this document would have no measurable effect on the quantity of available water within the Reserve.

Ethnography

The NPS defines ethnographic resources as any “site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it” (DO-28, Cultural Resource Management Guideline, p. 181). The one known ethnographic resource within City of Rocks National Reserve is subsistence gathering of pine nuts from pinyon pine trees by the Shoshone-Bannock Tribe. Neither of the alternatives analyzed in this document would have any discernable effect on the pinyon pine forests within the Reserve or the ability of tribal members to gather the pine nuts. Thus, impacts to ethnography are dismissed from further consideration.

Museum Collections

Management Policies and other cultural resources laws identify the need to evaluate effects on NPS collections if applicable. The City of Rocks museum collections are stored off-site at Hagerman Fossil Beds National Monument in Hagerman, Idaho. These collections would not be affected by the proposed plan. Thus, impacts to museum collections are dismissed from further consideration.

Wilderness

There is no wilderness or wilderness study areas within City of Rocks National Reserve. This impact topic has been dismissed from further consideration.

Socioeconomics

Socioeconomic impact analysis is required, as appropriate, under NEPA and NPS Management Policies pertaining to gateway communities. Although tourism does play an important role in the local and regional economies, ranching and farming are dominant. There would be no measurable effects to regional or gateway community economies, or changes in visitor attendance or visitor spending patterns as a result of the implementation of the actions described herein.

Prime and Unique Farmlands

No prime or unique agricultural soils are known to exist in the Reserve.

Energy Consumption

Implementation of the plans analyzed in this document would have no measureable effect on the overall consumption of energy associated with visitation or for park operations and maintenance. There will be no lighting on the trails or at the trailheads.

Environmental Justice

Executive Order 12898 requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The plans evaluated in this environmental assessment would not adversely affect socially or economically disadvantaged populations.

Park Operations

There will be no impact on park operations. This impact topic has been dismissed from further consideration.

Methodology

This section contains the methods / criteria used to assess impacts for specific resource topics. The definitions of impacts adhere to both those generally used under NEPA to describe impacts as well as those used by Section 106 of the NHPA and those used under Section 7 of the ESA.

The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid or minimize to the greatest degree practicable adverse impacts on park resources and values. However, the laws do give the NPS management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. Impairment is an impact that, in the professional judgment of the

responsible NPS manager, would harm the integrity of park resources or values, including opportunities that would otherwise be present for the enjoyment of those resources or values. An impact to any park resource or value may be impairment. However, an impact would more likely constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- Identified as a goal in the park unit's General Management Plan or other relevant NPS planning documents.

Environmental Impact Analysis

The environmental consequences for each impact topic were defined based on the following information regarding context, type of impact, duration of impact, area of impact and the cumulative context. Unless otherwise stated at the beginning of the resource section in Environmental Consequences, analysis is based on a qualitative assessment of impacts.

CONTEXT: Setting within which impacts are analyzed – such as the project area or region, or for cultural resources – the APE.

TYPE OF IMPACT: A measure of whether the impact will improve or harm the resource and whether that impact occurs immediately or at some later point in time.

Beneficial: Reduces or improves impact being discussed

Adverse: Increases or results in impact being discussed

Direct: Caused by and occurring at the same time and place as the action, including such impacts as animal and plant mortality, damage to cultural resources, etc.

Indirect: Caused by the action, but occurring later in time, at another place, or to another resource, including, for example, changes in species composition, vegetation structure, range of wildlife, or offsite erosion

DURATION OF IMPACT: Duration is a measure of the time period over which the effects of an impact persist. The duration of impacts evaluated in this Environmental Assessment may be one of the following:

Short-term: Often quickly reversible and associated with a specific event, one to five years

Long-term: Reversible over a much longer period, or may occur continuously based on normal activity, or for more than five years

AREA OF IMPACT: Area is a measure of the space over which the effects of an impact persist. The duration of impacts evaluated in this Environmental Assessment may be one of the following:

Localized: Detectable only in the vicinity of the activity

Widespread: Detectable on a landscape scale (beyond the affected site)

CUMULATIVE: Cumulative impacts are the effects on the environment that would result from the incremental impacts of the action when added to other past, present and reasonably foreseeable

future actions. Impacts are considered cumulative regardless of what agency or group (federal or non-federal) undertakes the action.

The Council on Environmental Quality (CEQ) describes a cumulative impact as follows (Regulation 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 non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The cumulative projects addressed in this analysis include past and present actions, as well as any planning or development activity currently being implemented or planned for implementation in the reasonably foreseeable future. Cumulative actions are evaluated in conjunction with the impacts of an alternative to determine if they have any additive effects on a particular resource. Because most of the cumulative projects which could contribute are only in the early planning stages, the evaluation of cumulative impacts is based on a general description of the project. The cumulative impacts factors include:

- Continued vegetation damage and destruction around the current parking area
- Contamination of the soil by human waste in the landscape near the current parking area
- Erosion of the soils of the current parking area

IMPACT MITIGATION

Minimize the type, duration or intensity of the impact to an affected resource

Mitigate the impact by

- Repairing localized damage to the affected resource immediately after an adverse impact
- Rehabilitating an affected resource with a combination of additional management activities

All Impacts Except Special Status Species and Cultural Resources

Note: Special Status Species and Cultural Resources impact determinations are formally determined under the Endangered Species Act (Section 7) and the National Historic Preservation Act (Section 106), respectively.

Minor: Measurable or anticipated degree of change would have a slight effect, causing a slightly noticeable change of approximately less than 20 percent compared to existing conditions, often localized.

Moderate: Measurable or anticipated degree of change is readily apparent and appreciable and would be noticed by most people, with a change likely to be between 21 and 50 percent compared to existing conditions. Moderate effects can be localized or widespread.

Note: Cultural resources impacts are also initially characterized as noted above, however the conclusion follows the format below, and makes a formal determination of effect under Section 106 of the National Historic Preservation Act. In accordance with National Park Service Management Policies (2006), the analysis in this Environmental Assessment fulfills the responsibilities of the National Park Service under Section 106 of the National Historic Preservation Act.

Cultural Resources Impacts

No Effect: There are no historic properties in the APE; or there are historic properties in the APE, but the undertaking will have no impact on them. Also, the action, based on conditions of approval, would not likely result in impacts to presently unidentified cultural resources.

No Adverse Effect: There will be an effect on the historic property by the undertaking, but the effect does not meet the criteria in 36 CFR Part 800.5(a) (1) and will not alter characteristics that make it eligible for listing on the National Register of Historic Places (NRHP). The undertaking is modified or conditions are imposed to avoid or minimize adverse effects. This category of effects is encumbered with effects that may be considered beneficial under NEPA, such as restoration, stabilization, rehabilitation, and preservation projects. Under the terms of the 2008 PA, data recovery can mitigate affect to archaeological properties that are eligible for listing on the NRHP under criterion D. However, some archaeological sites are eligible as traditional cultural places under criterion A, and such mitigation may not be sufficient or appropriate.

Adverse Effect: The undertaking will alter, directly or indirectly, the characteristics of the property making it eligible for listing on the NRHP. An adverse effect may be resolved in accordance with the Stipulation VIII of 2008 Programmatic Agreement, or by developing a memorandum or program agreement in consultation with the SHPO, ACHP, American Indian tribes, other consulting parties, and the public to avoid, minimize, or mitigate the adverse effects (36 CFR Part 800.6(a)).

Special Status Species

No Effect: The project (or action) is located outside suitable habitat and there would be no disturbance or other direct or indirect impacts on the species. The action will not affect the listed species or its designated critical habitat (USFWS 1998).

IMPAIRMENT

The project will not impair any of the natural or cultural resources within the project's APE. The short term effect to soil, water, vegetation, and wildlife will be minimal and the long term effect will be beneficial. There will be no effect to prehistoric or historic archaeological sites, historic structures or the cultural landscape.

MITIGATION MEASURES INCORPORATED INTO THE PREFERRED ALTERNATIVE

Mitigation measures will include; the design of the trail, erosion control measures during construction, and the design of the drainage system, and drainage crossings on the trails. The design of the trails, erosion control measures, drainage crossings, and the drainage system will follow best management practices.

V. Affected Environment

Information in this section is derived from a comprehensive review of existing information pertaining to City of Rocks National Reserve. It includes information from the Reserve's Comprehensive Management Plan, various natural and cultural resources management plans and other park planning documents. Specific sections from these documents are cited appropriately in the text and the bibliographic information placed in the References section of this document.

PHYSICAL RESOURCES

Soils

The Natural Resource Conservation Service has published soil survey information on its Web Soil Survey page (NRCS, 2009). Soils data for City of Rocks National Reserve was generated from two soil surveys, Cassia County, Idaho, Eastern Part (ID708) and City of Rocks National Reserve, Idaho (ID721). A review of this data indicates that. The soil in the APE consists of Riceton Loamy Coarse Sand 4 to 12 % slopes. The soil is well drained with slow to medium run off. Although described with moderate wind and water erosion, the soil survey indicates that major management factors are wind and water erosion. Depth to bedrock can be more than 60 inches. This soil is not rated as a wetland (hydric) soil.

On a broader scale, granular disintegration and erosion of the pluton have created a hollowed landscape within the mountain range, which emigrants traveling west on the California trail appropriately named "Circle Creek Basin." Exfoliation of the exposed rock has shaped a maze of granite and gneiss spires encircling the basin, the bases of which are buried in coarse sand. Soil development is poor. Steep-sloped granitic terrains in arid and semi-arid climates are known for their inability to withstand land-use practices. At City of Rocks, cattle trails, social trails, dirt roads and un-designed campsites, all existing prior to establishment of the Reserve, have disturbed the coarse-grained soils and altered the associated vegetation. Erosion, due to past and current land-uses, is a serious and difficult-to-reverse process affecting both cultural and natural resources. Where erosion has been severe, streams have become locally entrenched and downstream locations have become sediment-choked.

Water Resources

Surface water within the APE consists of two small drainages; one which flows south toward Circle Creek and one that flows east toward the Almo Valley. The water in the eastern drainage usually dissipates before crossing the Reserve's Eastern boundary. The water in the western drainage dissipates in Circle Creek Basin; however, a major flood event may bring water into Circle Creek at the east end of the basin.

Under Idaho water quality standards, surface water that flows to the Raft River from the Reserve is protected for use as agricultural water supply, cold water habitat, salmonid spawning, and primary and secondary contact recreation. This surface water is used primarily for agricultural purposes, both by private landowners within the Reserve and downstream users outside the Reserve. Water quantity and quality of the Reserve streams and springs has not been extensively studied.

As detailed above (see Soils), the soils in the APE are moderately erodible, and these eroded areas could contribute sediment to streams during high flows corresponding to storm events and spring snowmelt. High stream sediment and associated turbidity can negatively affect stream organisms both in and outside the Reserve far downstream from the source of particulate matter.

Flooding, sometimes severe, typically occurs during brief but heavy thundershowers from June through August. Sediment from roads, trails and camping areas are inevitably washed into Circle Creek, resulting in potentially heavy sediment loading and decreased water quality. Due to the erodible soils, some erosion is natural, but per-Reserve land uses have caused accelerated erosion in some locations. Riparian areas have been impacted by gullification on steeper gradients and sediment loading on low gradients, resulting in altered vegetation communities.

BIOLOGICAL RESOURCES

Vegetation

A total relief of 3,147 feet and a variety of exposures and rock and soil types produce many different vegetation communities in City of Rocks. The vegetation in the reserve has recently been inventoried and the results of the inventory indicate a range of healthy vegetation types (Rodhouse 2011). The dominant plant communities in the APE include; big sagebrush and grasslands, mixed scrub, and Pinyon-Juniper woodlands. Despite the combination of previous and historic land uses, including cattle grazing, dry-land farming, fire suppression, brush control, seeding, development of roads and trails, and camping, overall the vegetative communities in the Reserve today are part of a healthy, well-functioning ecosystem.

BIG SAGEBRUSH/GRASSLANDS

The arid open valley floors of the City of Rocks were originally covered with a mosaic of vegetation dominated by open stands of big sagebrush with an under-story of native perennial grasses such as Idaho fescue. Recent vegetation studies indicate the reserve possesses a healthy sage-brush steppe environment (Rodhouse 2011). These recent studies indicate a high percentage of native grasses exist with the sage brush. Areas with sagebrush steppe vegetation in a natural condition are scarce in southern Idaho.

MIXED SCRUB

The higher slopes are covered with mountain big sagebrush, mountain snowberry, serviceberry, and bitterbrush, with other shrubs, grasses, and herbs growing in the openings between the shrubs.

PINYON-JUNIPER WOODLANDS

Pinyon-juniper woodlands and forests are located in the rockier and rougher terrain of the Reserve. These trees, single-leaf pinyon (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*), can grow to thirty feet in height, but are generally scrubby, less than fifteen feet tall and almost as wide. This forest type is the most visibly prominent on the slopes surrounding the basins in the Reserve.

Wildlife

MAMMALS

Results from a 2003 City of Rocks National Reserve mammal inventory included species lists and additional information on mammals in the area. The University of Idaho Department of Fish and Wildlife Resources conducted the inventory under a cooperative agreement with the NPS. The primary goal of the inventory was to confirm 90 percent of the species expected to occur within the Reserve. Expected species lists used for the inventory were developed from published literature, historic reports, and expert opinion.

The 2003 mammal inventory was productive and brought species confirmation totals to 75 percent. Thirty-five species of mammals were confirmed in the Reserve. The cliff chipmunk (*Tamias dorsalis*), a “peripheral species” in Idaho, was found to be common in the area and the Reserve appears to support a relatively large population of this species. The spotted bat (*Euderma maculatum*) was confirmed in the Reserve in 2003. This species is listed as a species of special concern by the state of Idaho and is poorly known in the state. The hoary bat (*Lasiurus cinereus*), silver-haired bat (*Lasionycteris noctivagans*), and pallid bat (*Antrozous pallidus*) were also confirmed in the Reserve for the first time during the 2003 inventory. The deer mouse (*Peromyscus maniculatus*) and the great basin pocket mouse (*Perognathus parvus*) were the two most abundant mammals represented in trapping results. The pinyon mouse (*Peromyscus truei*) was reconfirmed in the Reserve for the first time since an unvouchered report was made in 1967. City of Rocks is at the northern limit of the range for this unique species and the voucher specimen for this species collected in 2003 may represent a significant range extension for Idaho. In March of 2003, a ringtail (*Bassariscus astutus*) was found dead in nearby Castle Rocks State Park by the current Climbing Ranger and documented by Idaho Department of Fish and Game personnel. This was the first record of the species in Idaho and also represents a significant northward range extension. The status of this unique and secretive species in the Reserve should be further evaluated.

BIRDS

Approximately 143 species of birds are known or expected to occur within or adjacent to the Reserve boundary. Common, year-round residents include: American kestrel, northern flicker, black-billed magpie, common raven, mountain chickadee, dark-eyed junco, and Cassin's finch. More uncommon occurrences include: golden eagle, prairie falcon, common poorwill, gray flycatcher, pinyon jay, Say's phoebe, and Virginia's warbler. Breeding birds indicative of various habitats within the Reserve include: Sagebrush: sage thrasher, green-tailed Towhee, Brewer's sparrow, and vesper sparrow. Pinyon-juniper woodland and mountain mahogany: chipping sparrow, western scrub jay, robin, and Cassin's finch. Aspen-chokecherry: red-naped sapsucker, mountain bluebird, and mountain chickadee. Coniferous forest: Clark's nutcracker, red-breasted nuthatch, and yellow-rumped warbler. Riparian: house wren, yellow warbler, Lazuli bunting, and red-winged blackbird. Rock cliffs and ledges: white-throated swift, violet-green and cliff swallow, and red-tailed hawk.

AMPHIBIANS AND REPTILES

A herpetological inventory of the Reserve was conducted by Idaho State University in 2001. The primary objective of this study was to complete field surveys throughout the City of Rocks National Reserve, Idaho with the goal of documenting 90 percent of all amphibian and reptile species that potentially occur within the Reserve.

This study documented seven species within the area: Only one amphibian species, the boreal chorus frog (*Pseudacris maculata*) was detected. Two species of lizards were observed, including the common sagebrush lizard (*Sceloporus graciosus*) and the western skink (*Eumeces skiltonianus*). Four

species of snakes were observed including the rubber boa (*Charina bottae*), the striped whipsnake (*Masticophis taeniatus*), the gophersnake (*Pituophis catenifer*), and the terrestrial gartersnake (*Thamnophis elegans*).

CULTURAL RESOURCES

Prehistoric and Historic Archeology

The APE is located on the north side of the Circle Creek Basin on the east side of the Reserve (see Figure 1). Archaeological evidence indicates that Native Americans have used the City of Rocks area for the last few thousand years. Fur trappers and explores made their way along the Raft River but the documentation seems to show they did not spend much time in the vicinity of the Reserve as there are virtually no descriptions of the rock formations in their journals. The emigrants passed through the area on their way west and left evidence of signatures in axle grease on rock formations. They sketched rock formations and described their reactions to the sites. Some are basic factual writings and some verge on the poetic. Early Settlers to the area used Circle Creek as a source of water for their stock and fields.

Historic Structures / Cultural Landscapes

The Circle Creek Basin was used by the emigrants and the early settlers and later ranchers in the City of Rocks area. The APE is located within the viewshed of the California National Historic Trail but the trail will not be seen from the California Trail. There are currently no historic structures within the APE. The cultural landscape surrounding the CNHT and the rural ranching landscape are still very much in evidence within the APE.

VISITOR SERVICES

Visitor Services

Visitor Services provides information such as maps, guides, tours and other interpretive programs for visitors. The Reserve currently has 25 miles of trail and offers a variety of programs for visitors including a children's day camp, trail rides, a star party, snow shoe events, and hikes and tours related to specific topics such as wildflowers, birds, geology, history and the California National Historic Trail.

VI. Environmental Consequences

PHYSICAL RESOURCES

Soils

Alternative 1

There would be no impact to the soils since the trails would not be constructed.

Alternative 2

The APE for Alternative 2 contains types of soils that would be susceptible to the erosional forces of water and wind, however mitigation measures will be placed along the trails as needed for maximum control and minimal maintenance. Mitigation measures would include best practices in the design of the drainage system and to minimize erosion from the project area during construction. The retaining wall pictured below is one of the erosion control measures that will be used. The construction of the retaining wall involves building up the downstream side of the crossing with rocks to prevent sediment from entering the stream due to increased foot traffic. Thus, impacts to soils under Alternative 2 in the short term are expected to be adverse, direct, localized, and mitigated during the construction phase. The long terms impacts to soils are expected to be minimal.



Figure 5. Retaining wall similar to the one proposed for the Geological Interpretive Trail

Water Resources

Alternative 1

There would be no effect to water resources including surface water for Alternative 1.

Alternative 2

The impact on surface water from Alternative 2 is primarily from erosion. The erosion might occur during the construction phase and would be minimal, short term, direct, and localized. Mitigation measures for soil erosion would be in place during the construction phase and the project designed to avoid soil erosion throughout the lifetime of the project.

The impacts to surface water under Alternative 2 are expected to be direct, short term, localized, and minimal.

BIOLOGICAL RESOURCES

Vegetation

Alternative 1

There would be no effect on vegetation under Alternative 1.

Alternative 2

In Alternative 2 vegetation would be cleared to construct and maintain the trails. Best design and management practices will be used to minimize impacts to vegetation. The vegetation in the surrounding area is sage brush steppe and mountain mahogany. There are no threatened or endangered species or species of concern in the project area. The vegetation will be permanently cleared from the trail corridors. The effect to the vegetation in the trail corridors would be direct and long term but localized and minimal.

Wildlife

Alternative 1

There would be no impacts to wildlife as a result of Alternative 1.

Alternative 2

Wildlife can be impacted by noise which can disrupt breeding and nesting as well as cause wildlife to avoid an area during noise events. The noise of construction cannot be mitigated but the timing can be altered to avoid impacting sensitive species if necessary.

The impacts to wildlife as a result of Alternative 2 would be short term, and primarily due to noise during the construction phase and short maintenance periods. This noise would be confined to daytime (work) hours. Trial work is proposed for the fall, during the non-breeding season.

CULTURAL RESOURCES

Prehistoric and Historic Archeology

Alternative 1

Since the trails would not be constructed there would be no adverse effect on prehistoric or historic archeological sites under Alternative 1.

Alternative 2

In general, ground disturbance has a direct impact on archeological sites. A Phase I archeological survey was conducted within the APE to determine if any unknown archeological sites exist within the APE. The survey of the proposed APE was conducted on April 4- 6 and May 12, 2011 by Kristen Bastis, MA, Chief of Cultural Resources for the Reserve. No cultural material was observed during the survey. For the purposes of Section 106 of the National Historic Preservation Act, there would be No Effect on historic properties (Bastis 2011; SHPO concurrence letter dated June 28, 2011).

Historic Structures / Cultural Landscapes

Alternative 1

There are no historic structures in or within view of the existing parking area so there will be no effect to historic structures.

Alternative 2

In Alternative 2 there are no historic structures in or within the viewshed of the APE so there will be no effect to historic structures. Alternative 2 will have no impact of the cultural landscape or view shed of the CNHT. The trail surface will be 18 inches wide (larger at interpretive stations so that participants may stand together) and will be screened by existing vegetation. The mixed scrub vegetation community consists of sagebrush, antelope bitterbrush, snowberry, rabbitbrush, and Great Basin wild rye. These plants range from two-four feet in height and easily screen a foot path. Alternative 2 will have no effect on the cultural landscape of the CNHT.

VISITOR SERVICES

Visitor Services

Alternative 1, visitors are surrounded by evidence of geological processes but currently there is no information provided about the geology except through watching the short film about the Reserve, reading a book in the Visitor's Center, or occasional ranger led geology hikes offered on average once a month in the summer. The equestrian riders currently travel the City of Rocks Road and the Circle Creek Overlook Road to gain access to the northwest corner of the Reserve.

Alternative 2, visitors will have two new trails on which to experience the Reserve. The Geological Interpretive Trail will provide visitors an opportunity to learn about the nationally significant geology of the Reserve on self guided or ranger guided hikes. The Circle Creek Overlook will provide visitors the opportunity to view the Circle Creek Basin from an elevated vantage point, taking in the basin, an emigrant camp location as well as the view of the California Trail south of Circle Creek Basin to

Pinnacle Pass and the Twin Sisters formation. The short easy hike provides the visitor with limited time opportunities to get out of their cars and away from the road to experience the natural sounds and the magnificent landscape of the Reserve. The Smoky Mountain Connector will provide the visitor the ability to travel from Smoky Mountain Campground to Indian Grove and Bread Loaves completely on a trail. This will eliminate horse, bike, hiker/vehicle conflicts on the City of Rocks Road and the Circle Creek Overlook Road. The Smoky Mountain connector will also enable the visitor to experience all the ecological zones in the Reserve on one trail. The Smoky Mountain Connector starts in the pinyon forest of Smoky Mountain, passes through a sagebrush steppe environment, into the Precambrian zone, passed the Circle Creek Overlook and 10 points of geologic interest through the mahogany mountain ecological zone to a high elevation Aspen grove.

VII. Consultation and Coordination

Public Engagement

The public participation in this process took place as part of the public process for the CMP. The CMP was developed through a lengthy and open, public process beginning November 1989, leading to the final approval and activation on February 1, 1996. All other implementation plans concerning City of Rocks National Reserve are subject to the goals and objectives of the Comprehensive Management Plan. The plan can be viewed at the Reserve visitor center or on the internet at <http://www.nps.gov/ciro/parkmgmt/planning.htm>).

Internal and External Scoping

The public scoping period for this project was included in the public scoping for the CMP as described above.

The public outreach called for in Section 106 of NHPA was integrated into the NEPA process in accordance with NPS Management Policies (2006).

This environmental assessment is being made available to the public, federal, state and local agencies and organizations through press releases distributed to a wide variety of news media, direct mailing, placement on the Reserve's website as well as in local establishments in Almo, Idaho).

Agency Consultation

Original agency consultation regarding this project was included in the consultation for the CMP. With the completion of the archaeological survey in for the project in 2011, additional consultation with the Idaho State Historic Preservation Office was completed.

Native American Consultation

Native American consultation regarding this project was included in the consultation for the CMP.

Public Review

A press release will be distributed to people, businesses, and agencies who have expressed an interest in projects at City of Rocks National Reserve. The Environmental Assessment will also be available on the NPS Planning, Environment, and Public Comment system and the Reserve's website, located at <http://www.nps.gov/ciro>. Copies will be sent to those who request one during the review period. A notice requesting comments will be posted at local businesses.

Comments on this Environmental Assessment should be directed to:

Wallace Keck, Superintendent
City of Rocks National Reserve
P.O. Box 169
Almo, Idaho 83312

Wallace_Keck@partner.nps.gov

If reviewers do not identify substantial environmental impacts, this Environmental Assessment will be used to prepare a FONSI, which will be sent to the NPS Pacific West Regional Director for signature.

During the public review period, additional consultation will occur to affirm determinations of effect (if needed) with the Idaho SHPO. Notice of the concurrence with the determinations of effect for historical resources will be identified in the FONSI for this Environmental Assessment.

For more information concerning this Environmental Assessment, please contact Wallace Keck, Superintendent at (208)-824-5911 or email Wallace_Keck@partner.nps.gov . For a copy of this document, please call City of Rocks National Reserve at (208) 824-5901.

List of Persons and Agencies Consulted / Preparers

The following people and agencies were consulted during the preparation of this Environmental Assessment:

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Fran Gruchy, former Chief of Operations, Hagerman Fossil Beds National Monument
Juanita Jones, Visitor Services Ranger, City of Rocks National Reserve
Wallace Keck, Superintendent, City of Rocks National Reserve
Mark Pritchett, Section Chief, Park Roads and Parkways, NPS Denver Service Center
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Brad Shilling, Climbing Ranger, City of Rocks National Reserve
Jodi Vincent, former Natural Resources Ranger, City of Rocks National Reserve
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Mike Wissenbach, former Enviro. Compliance Specialist, Hagerman Fossil Beds National Monument

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