

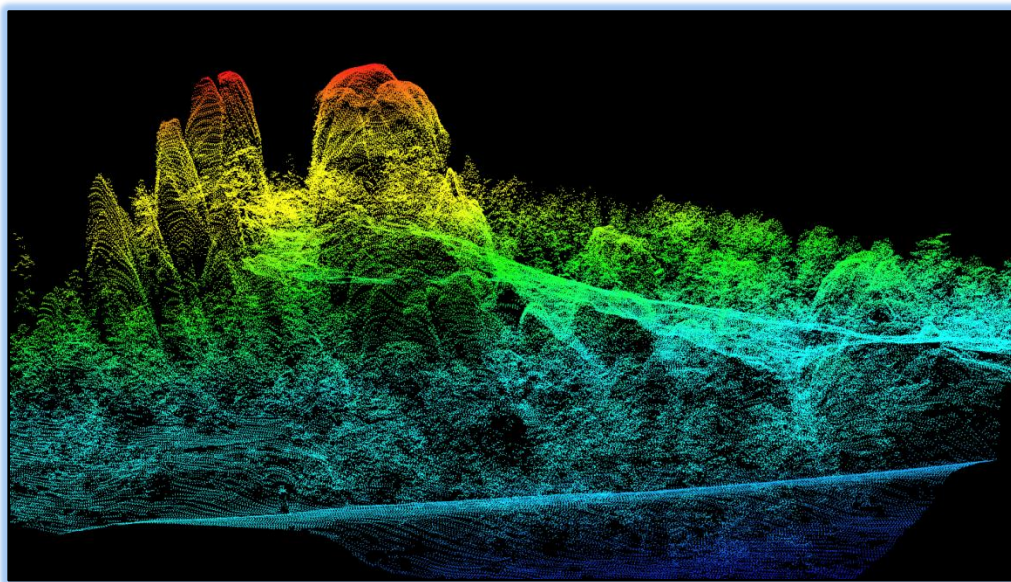
**National Park Service
U.S. Department of the Interior**



**Mount Rushmore National Memorial
South Dakota**

Hiking Trails to Climbing Areas Environmental Assessment

May 2013



Prepared for:
National Park Service
U.S. Department of Interior
Mount Rushmore National Monument
Keystone, South Dakota

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Mount Rushmore National Memorial Hiking Trails to Climbing Areas Environmental Assessment

Summary

Mount Rushmore National Memorial is proposing to implement actions to address visitor safety and environmental issues related to parking and hiking access to six rock climbing areas within the Mount Rushmore National Memorial (the Memorial). The proposed action is needed to manage the current network of unmarked and unmanaged user-created hiking trails rock climbers use to access six rock climbing areas; to reclaim redundant trails and trails in poor locations that are subject to erosion; to provide adequate access to the front country climbing areas; and to provide a safer environment for climbers near the parking pullout areas.

This Environmental Assessment (EA) evaluates 2 alternatives; a No Action Alternative and a Proposed Action Alternative. Under the No Action Alternative, rock climbers and hikers would continue to use the existing unmarked and unmanaged trail network; the Memorial would continue to disseminate resource and safety information to visitors at the three existing kiosks; and the speed limit would remain unchanged. The Proposed Action Alternative would manage the unmarked trails used to access the front country rock climbing areas through trail marking, reducing the speed limit to 25 mph near the parking pullouts, refurbishing the existing kiosks, adding two kiosks and updating the information currently displayed in the information kiosks. Each alternative is described in more detail in the “Alternatives Considered” section of this document.

This EA has been prepared in compliance with the National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA) to provide the decision-making framework that: 1) analyzes a reasonable range of alternatives to meet objectives of the proposed plan; 2) evaluates potential issues and impacts to the natural and cultural resources of Mount Rushmore National Monument; and 3) identifies specific and required mitigation measures that are designed to lessen the degree or extent of these impacts. Resource topics determined to potentially be affected by the alternatives include: Soil Resources, Vegetation Resources (including Invasive Weeds), Wildlife, Park Operations, Visitor Use and Experience, and Public Health and Safety. All other resource topics were dismissed because it was determined the Proposed Action Alternative would result in negligible to less than minor effects. No major effects were identified as a result of this project. No adverse effects on cultural resources under Section 106 of the National Historic Preservation Act would occur. Public scoping was conducted to assist with the development of this document and comments were received and considered in the evaluation of effects.

Public Comment

The National Park Service Planning, Environment and Public Comment (PEPC) site provides access to current plans, environmental impact analyses, and related documents on public review. Users of the site can submit comments for documents available for public review. If you wish to comment on the Environmental Assessment, you may post comments online at <http://parkplanning.nps.gov/moru> or mail comments to:

Attention: Bruce Weisman
Mount Rushmore National Memorial
13000 Highway 244, Building 31, Suite 1
Keystone, SD 57751

This Environmental Assessment will be on public review for 30 days. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

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1.0 PURPOSE AND NEED

1.1 Introduction

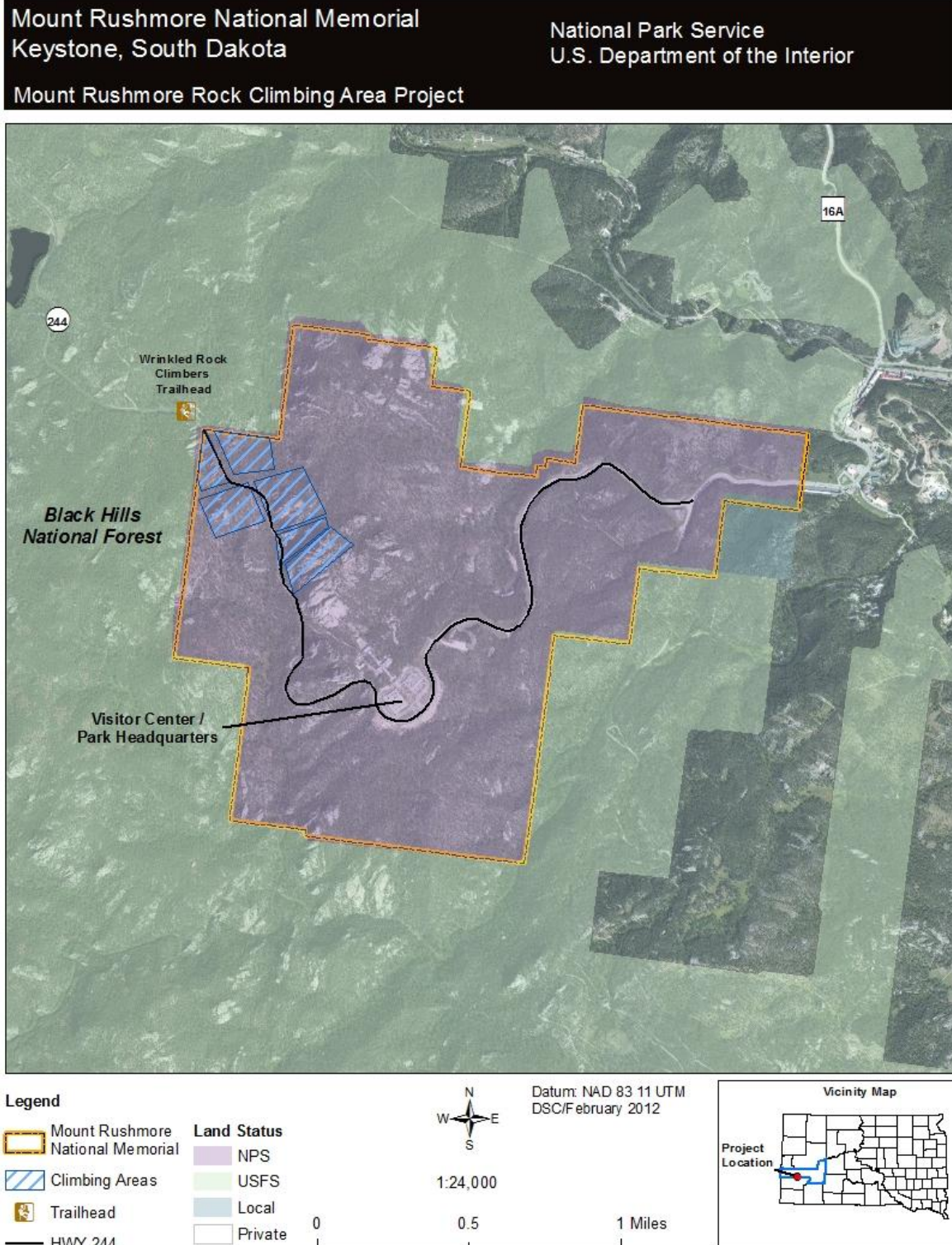
The 1,278-acre Mount Rushmore National Memorial (the Memorial) is located in the central Black Hills in southwestern South Dakota. The majority of the landscape is composed of massive granite outcrops intermingled with ponderosa pine forest. Mount Rushmore is a symbol for freedom and democracy and a special place for all people and cultures. The park hosts approximately 3 million visitors per year. The majority of visitation is for purposes of seeing the carved mountain and associated visitor facilities. A small amount of rock climbing, nature observation, and hiking currently occurs within the Monument. Some horse riding occurs on the Blackberry Trail which connects to the Centennial Trail System within the Black Hills National Forest. The Memorial considers these opportunities sufficiently important to provide management oversight. Most of the land surrounding the park is administered by the Black Hills National Forest (BHNF). The Black Elk Wilderness Area lies immediately south of the Memorial. The town of Keystone is located on the east boundary of the park. The project area is located in Pennington County, Section 12 and 13, Township 2 South, Range 5 East, Black Hills Meridian, South Dakota. See Figure 1 for the boundaries of the Memorial and surrounding land use.

There are nine major named rock climbing areas within the Memorial: South Seas, Chopping Block, Olton's Shoulder, Monster, Middle Marker, Emancipation, Old Baldy, Riordin's Rockphormation and Riordin's Rockphormation South. Two of the climbing areas, Chopping Block and South Seas, straddle the boundary between the Memorial and the BHNF along the Memorial western boundary. Additionally recreational users have extensively mapped and named many of the minor features.

The proposed action in this Environmental Assessment (EA) only addresses hiking access to six of the nine climbing areas: South Seas, Chopping Block, Olton's Shoulder, Monster, Middle Marker and Emancipation.

The primary vehicle access to parking and trails to the climbing areas is from the Peter Norbeck National Scenic Byway (Highway 244). Visitors either park at the Memorial boundary along the byway at one of the pullouts or in the parking area of the nearby Wrinkled Rock site in the BHNF.

The nearby Wrinkled Rock Trailhead Recreation Site administered by the BHNF also provides vehicle parking for rock climbers to access climbing areas both within the BHNF and the Memorial. Currently, the BHNF is implementing actions to rehabilitate and upgrade hiking trails within the Wrinkled Rock Trailhead Recreation Site.

Figure 1. Vicinity Map of the Memorial and Project Area

The Memorial was designated in 1925 “to commemorate our national history and progress, and to preserve and protect the sculpture and the historic, cultural, and natural setting while providing for the education, enjoyment, and inspiration of the public”. NPS assumed administration of the Memorial as of June 10, 1933 under Executive Order 6166. The Memorial presently consists of 1,295 acres.

The Memorial’s significance is explained by the following:

- Mount Rushmore is an internationally recognized symbol representing the ideals of freedom and democracy for all.
- Mount Rushmore preserves a diverse ecological landscape in a dramatic setting of granite walls and spires.
- Mount Rushmore preserves one of the largest contiguous stands of old-growth ponderosa pine forest and associated habitat remaining in the Black Hills region.
- The sculpting of Mount Rushmore is an early example of heritage tourism as an economic revitalization tool.
- Mount Rushmore is a marvelous engineering achievement.
- The carving is an artistic expression that forever changed the natural landscape to create a cultural icon reflecting the nation’s history.

Rolling mountainous terrain, evergreen forests and a semi-arid climate characterize the area of the Black Hills in which the Memorial is located. The scenery, recreation, and wildlife draw large numbers of people to the region. The Memorial receives approximately 2 million recreational visitors to the park each year. Most visits are concentrated to developed areas where visitor services and facilities are located. The major resource at the memorial is the sculpture itself, carved on the southeastern face of a granite up thrust called Mount Rushmore. Second in importance is the natural scene surrounding the sculpture as viewed by the Memorial visitors. The prominent sculptures make up a very small portion of the Memorial. The remaining area is primarily covered by dense ponderosa pine forest, crossed by rugged canyons, dotted with jagged granite outcrops.

1.2 Purpose and Need

This Environmental Assessment (EA) has been prepared in compliance with the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), regulations of the Council on Environmental Quality (CEQ) (40 CFR §1508.9), and the (NPS) Director’s Order (DO) 12 to provide the decision-making framework that:

- 1) analyzes a reasonable range of alternatives to meet the objectives for visitor safety, hiking trail management and dissemination of visitor information;
- 2) evaluates potential issues and impacts to the natural and cultural resources Mount Rushmore National Memorial; and

3) identifies specific and general mitigation measures that are designed to lessen the degree or extent of these impacts.

1.2.1 Purpose

The purpose of the Proposed Action is to:

- Protect visitor health and safety by reducing the speed limit in vicinity of the parking pullouts.
- Protect the Memorial resources by converting an unmanaged user-created trail network to a network of managed hiking trails.
- Enhance visitor experience by providing a network of marked hiking trails
- Expand visitor outreach by installing additional information kiosks.
- Update materials disseminated at kiosks to provide visitors with more consistent messages between the adjacent Wrinkled Rock Site in the Black Hills National Forest and the Memorial.

The primary purpose of the Proposed Action is to protect visitor health and safety by reducing the speed limit in vicinity of the parking pullouts. Currently the speed limit is 35 mph. Limited parking in the vicinity of the six climbing areas results in visitors parking at the parking pullouts or along Highway 244. This creates a safety hazard for pedestrians and for vehicles.

The second purpose is to protect the Memorial resources by converting an unmanaged user-created trail network to a network of managed and marked hiking trails. Some of the trails are redundant and in locations subject to erosion.

The third purpose is to enhance visitor experience by providing a network of marked hiking trails. The current unmarked trail network can be confusing and disorienting. A marked trail system would not only help recreational users orient themselves, it would also direct recreational users to trails the Memorial deems appropriate and facilitate the Memorial's program of educating users about resources and safety hazards.

The fourth purpose is to expand visitor outreach by installing additional information kiosks. Memorial currently relies exclusively on dissemination of safety and resource information through the three existing kiosks. However, not all visitors use these locations and two additional locations were considered as vital to effectively disseminate information.

The final purpose is to update materials distributed at kiosks and is to provide visitors with more consistent messages between the adjacent Wrinkled Rock Site in the Black Hills National Forest and the Memorial. Visitors are sometimes confused with what the rules are between the National

Forest and the Memorial. The Memorial would collaborate with the BHNF in an attempt to blend agency lines as much as policies and regulations allow.

1.2.2 Need

In the absence of management oversight, a network of what NPS calls “social trails” has evolved. These are user-created hiking trails that lead to rock climbing areas. Many of these trails are redundant and in poor locations which are subject to erosion.

Currently, NPS has determined that management of user-created trails needs to be addressed and how safety can be enhanced due to the limited parking. Although the current information kiosks provide resource and safety information to visitors, NPS questions whether additional locations and a more weather resistant kiosk would better serve visitors to the climbing area.

Project Objectives:

- Reduce erosion caused by defining the main trails with signage
- Provide safe reasonable trail access and identify appropriate routes;
- Redesign some trails to improve visitor safety and reduce erosion;
- Provide all-weather, self-serving information kiosks with adequate space at locations that best serve the visitors;
- Improve safety for visitor parking

1.3 Relationship to Other Plans and Policies

Current plans and policy that pertain to this proposal include the Organic Act (1916), the 2006 National Park Service Management Policies (NPS 2006), Backcountry Recreation Management (Reference Manual #77), Mount Rushmore National Memorial General Management Plan (NPS 1980), and the Draft Long Range Interpretive Plan (MRNM 2007).

The Organic Act of 1916 established the National Park Service (NPS) and its mission “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.”

The NPS Management Policies (NPS 2006) is the basic Service-wide policy document of the NPS and is the highest of three levels of guidance documents in the NPS Directives System. According to *Management Policies 2006*, the enjoyment of park resources and values by people is part of the fundamental purpose of all park units. 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 society. Further, the NPS will provide opportunities for forms of enjoyment that are uniquely suited and appropriate to the superlative natural and cultural resources found in the parks. The *Management Policies 2006* also state that scenic views and visual resources are considered highly valued associated characteristics that the National Park Service should strive to protect.

Backcountry use as defined in the Management Policies 2006 refers to primitive, undeveloped portions of parks (Section 8.2.2.2.4). This is not a specific management zone, but rather refers to a general condition of land that may occur anywhere within a park. Backcountry use will be managed in accordance with a backcountry management plan (or other plan addressing backcountry uses) designed to avoid unacceptable impacts on park resources or adverse effects on the visitor enjoyment of appropriate recreational experiences. The Service will seek to identify acceptable limits of impacts, monitor backcountry use levels and resource conditions, and take prompt corrective action when unacceptable impacts occur. Strategies designed to guide the preservation, management, and use of the backcountry and to achieve the park's management objectives will be integrated into the park's backcountry management plan.

The Mount Rushmore National Memorial General Management Plan (1980) is a park-wide plan for meeting the management objectives of the park and contains short term and long range strategies for resource management, visitor use and development. Management objective include managing the geological features and vegetative cover of the Memorial and adjacent environs to maintain the historical integrity and natural setting. The forest will be maintained to provide a natural setting for the Memorial.

1.4 Scoping

Scoping is a process to identify the affected environment that may be impacted by the proposed project, and to identify alternatives for achieving the proposed action, while minimizing the potential impacts. The Memorial conducted both internal and external scoping.

Internal scoping included a workshop held on March 15, 2012 at the Memorial administrative building. The workshop was attended by an interdisciplinary team of professionals from the Memorial and Black Hills National Forest personnel including resource management, NEPA specialists, law enforcement, the Superintendent, and the private contractor working on the EA. The interdisciplinary team discussed the purpose and need for the project, discussed potential alternatives to address these needs, and did preliminary determination of potential environmental impacts.

External scoping was conducted by distributing a scoping brochure dated February 27, 2012 to inform the public of the proposal and to solicit feedback for the EA. The scoping letter dated was mailed to various private organizations, federal and state agencies, and affiliated Native American tribes. Announcement of the external scoping meeting occurred on the NPS Planning Environment and Public Comment (PEPC) website. One open house style meeting was conducted to inform the public and various agencies of the proposed maintenance and reclamation of hiking trails used to access climbing areas and to solicit feedback for the EA. Public meeting was held on March 14, 2012, in Keystone, South Dakota at the Keystone Community Center. During the meeting, NPS representatives were available to present a short presentation of the proposed action and answer questions; attendees were able to submit oral and written comments or write in later, depending on their preference. A total of 21 people attended the meeting. Channel 8 Fox News was also present and provided a news clip of the meeting. Five comments were provided via the PEPC site.

1.5 Impact topics Retained for Further Analysis

Environmental issues, which are potential conflicts between the project proposal and environmental variables, were identified during the public scoping process, and from National Park Service staff. Impact topics, which are the specific resources impacted by the proposed project, were selected for consideration in the EA following the requirements of federal laws, regulations, and executive orders, including NPS Policies and using professional judgment. There were six impact topics retained for further analysis. The impact topics along with the rationale for retaining each of these topics are listed below in Table 1.

Table 1. Impact Topics Retained for Further Analysis and Relevant Laws, Regulations, and Policies

Impact Topic	Reason for Retaining Impact Topic	Relevant Laws, Regulations, and Policies
Soils	Maintaining trails and kiosk installation would result in disturbance to soils.	NPS Management Policies 2006
Vegetation	Trail side vegetation disturbance and the introduction of invasive nonnative species are possible from ground-disturbing activities during kiosk construction. Loss of vegetation would occur from construction of the kiosks.	NPS Organic Act; NPS Management Policies 2006; Resource Management Guidelines (NPS-77); Federal Noxious Weed Control Act; Executive Order (EO) 13112; Invasive Species (1999)
Wildlife	Temporary disturbance and displacement of individual wildlife species are possible from human presence of recreational users (i.e., hikers, rock climbers).	NPS-77; Migratory Bird Treaty Act, as amended; EO 13186; Lacey Act, as amended; NPS Management Policies 2006
Archaeological Resources	Thirty-eight previously recorded sites are known to occur within one mile of the current Area of Potential Effect (APE). One site—39PN2252—is within the maintained trails and one site—MORU 8—is within the reclaimed trails. The current social trails using portions of site MORU 8 will be reclaimed where the guardrail feature is located helping to protect it. Site 39PN2252 is recommended as ineligible and site MORU 8 is recommended as eligible for listing in the National Register of Historic Places (NRHP) and will be considered as such.	Section 106 of the NHPA of 1966, as amended (16 USC 470, et seq. and 36 CFR 800); EO 13084 of May 14, 1998; EO 13007 of May 24, 1996; American Indian Religious Freedom Act of 1978; the Native American Graves Protection and Repatriation Act of 1990; Indian Trust Resources: Secretarial Order 3175; DO-28; NPS Management Policies 2006
Visitor Use and Experience	The proposed managed trail network and updated kiosk materials would improve the recreation experience. The proposed improvements would provide long-term benefits to the visitor experience.	NPS Management Policies 2006
Public Health and Safety and Park Operations	The existing “social trails” pose a safety risk to visitors and potential for accidents. The proposed managed trail network is designed to improve trail conditions and safety. The proposed managed trail network would potentially increase staff time for trail maintenance and monitoring.	NPS Management Policies 2006; Directors Order 58; OMB Circular A-123; Federal Managers Financial Integrity Act of 1982 (31 USC 3512(d)); Government Performance and Results Act of 1993

1.6 Impact topics Considered, but Dismissed from Further Analysis

In this section of the EA, the Park Service provides an explanation as to why some impact topics are not evaluated in more detail. Impact topics were dismissed from further analysis if it was determined that the project did not have the potential to cause substantial change to these resources and values or resources would not be directly impacted by the project.

The following provides an overview of impact topics that were considered, but ultimately dismissed along with the reasons for dismissing each topic from further analysis.

Air Quality

The Clean Air Act of 1963 (42 U.S.C. 7401 *et seq.*) established federal programs that provide special protection for air resources and air quality related values associated with NPS units. Specifically, Section 118 of the Clean Air Act requires a park unit to meet all federal, state, and local air pollution standards. The Memorial is designated as a Class II air quality area under the Clean Air Act, which means emissions of particulate matter and sulfur dioxide are allowed up to the maximum increase in concentrations of pollutants over baseline concentrations as specified in Section 163 of the Clean Air Act. In addition, the Clean Air Act gives the federal land manager the responsibility to protect air quality related values (i.e., visibility, plants, animals, soils, water quality, cultural resources, and visitor health) from adverse pollution impacts.

Motor exhaust and fugitive dust caused by mechanical equipment used during the installation of the kiosks and trail markers would be negligible and temporary. The Class II air quality designation would not be affected by the project. Therefore, air quality was dismissed as an impact topic for further analysis.

Water Resources and Floodplains

NPS policies require protection of water quality consistent with the Clean Water Act. The purpose of the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." To enact this goal, the U.S. Army Corps of Engineers has been charged with evaluating federal actions that result in potential degradation of waters of the United States and issuing permits for actions consistent with the Clean Water Act. The U.S. Environmental Protection Agency also has responsibility for oversight and review of permits and actions, which affect waters of the United States. There are no perennial streams or waterbodies within the project area.

Executive Order 11988 *Floodplain Management* requires all federal agencies to avoid construction within the 100-year floodplain unless no other practicable alternative exists. The NPS, guided by the 2006 Management Policies and Director's Order 77-2 *Floodplain Management*, will strive to preserve floodplain values and minimize hazardous floodplain conditions. According to Director's Order 77-2 *Floodplain Management*, certain construction within a 100-year floodplain requires preparation of a Statement of Findings for floodplains. There are no floodplains perennial streams, or water bodies within the project area. The topic of water resources and floodplains was dismissed from further analysis.

Riparian/Wetlands

For regulatory purposes under the Clean Water Act, the term wetlands means "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas."

Executive Order 11990 *Protection of Wetlands* requires federal agencies to avoid, where possible, adversely impacting wetlands. Further, Section 404 of the Clean Water Act authorizes the U.S. Army Corps of Engineers to prohibit or regulate, through a permitting process, discharge of dredged or fill material or excavation within waters of the United States. NPS policies for wetlands as stated in Management Policies 2006 and Director's Order 77-1 *Wetlands Protection*, strive to prevent the loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. In accordance with DO 77-1 *Wetlands Protection*, Proposed Actions that have the potential to adversely impact wetlands must be addressed in a Statement of Findings for wetlands. There are no wetlands or riparian areas within the Memorial or the project area. Therefore, the riparian/wetland topic was dismissed from further analysis.

Special Status Species

The Endangered Species Act of 1973 requires an environmental assessment for projects on federally-managed lands to determine potential effects to all federally-listed endangered, threatened, and candidate species. Section 7 of the Endangered Species Act (ESA) requires all federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of federally listed species or designated critical habitats. In addition, the NPS Management Policies 2006 and Director's Order 77 *Natural Resources Management Guidelines* require the NPS to examine the impacts on federal candidate species, as well as state-listed endangered, threatened, candidate, rare, declining, and sensitive species. A list of federally listed species that may occur in or near the Memorial was obtained from the USFWS website on February 15, 2013 and is summarized in table 2 along with the corresponding state status (USFWS 2013). The complete lists and associated summary descriptions of habitats for federally protected species that are likely to occur in Pennington County were reviewed on the USFWS South Dakota field office website at http://www.fws.gov/southdakotafieldoffice/endangered_species_newVersionP2.htm. The South Dakota Game, Fish, and Parks' list of threatened and endangered species was obtained from the agency's website (SDGFP 2013). There are no known federally-listed or state-listed species that occur within the Memorial. No critical habitat is currently designated within the Memorial. *Viola selkirkii* (great-spurred violet), a state rare plant, is known to occur in the Black Hills region; however there are no known occurrences within the Memorial. The violet is found in high elevation areas of the granitic Central Core from 5,400 to 7,000 feet elevation in spruce forest habitats (USDA Forest Service 2003, Marriott 2001). In the Black Hills, the violet's habitat is limited to high elevation, cold, shaded, spruce-dominated forest habitats in moist, mossy or grassy, sheltered microsites and similar microhabitats on streamside benches, ledges in rock walls, and places where grass or litter has accumulated next to cliffs or canyon walls created by

the exposed granitic spires (Larson 1993, Hildebrand 1996, Marriott 2001). The proposed project area does not include spruce-dominated forest habitat and does not occur at high elevations; thus, this topic was dismissed from further consideration.

Because no federally listed threatened, endangered, proposed or candidate species are known or likely to inhabit the proposed project area; no designated critical habitats lie within or near the project area; and any effects to state listed species if present would likely have few measurable consequences, the topic of special status species has been dismissed from further consideration in this EA.

Table 2. Special Status Species Known to Occur or Likely Occur within Pennington County.

Species	Federal Status	State Status
Whooping Crane <i>Grus americana</i>	Endangered	Endangered
Interior Least Tern <i>Sterna antillarum athalassos</i>	Endangered	Endangered
Sprague's Pipet <i>Anthus spragueii</i>	Candidate	—
Black-footed ferret <i>Mustela nigripes</i>	Endangered	Endangered

Cultural Landscapes

"In the broadest sense, a cultural landscape is a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions (DO-28)." (NPS's Director's Order 28 *Cultural Resource Management Guideline*). These inventories are a computerized, evaluated inventory of all Cultural Landscapes in which NPS has or plans to acquire any legal interest. Cultural Landscapes must be documented then evaluated for significance and integrity and then may be nominated for listing on the National Register. No cultural landscapes have been documented in the project area; therefore, cultural landscapes was dismissed as an impact topic in this EA.

Ethnographic Resources

Director's Order 28 (DO-28), *Cultural Resource Management*, 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 an associated traditional group. According to DO-28 and Executive Order 13007, *Indian Sacred Sites*, the NPS should preserve and protect ethnographic resources. The proposed action would be designed to minimize any impacts to known cultural resources and to restore native plant communities that

could be identified as ethnographic resources. The Memorial regularly consults with tribes and associations and plans to continue such collaboration efforts. The Memorial has the goal of avoiding and minimizing impacts to ethnographic resources. However, the proposed action would have negligible effects on ethnographic resources; thus ethnographic resources were dismissed from further analysis.

Museum Collections

The Director's Order 24 *Museum Collections* states that NPS is required to consider the impacts on museum collections (historic artifacts, natural specimens, and archival and manuscript material), and provides further policy guidance, standards, and requirements for preserving, protecting, documenting, and providing access to, and use of, NPS museum collections. No museum collection items would be disturbed as a result of the proposed action. Therefore, museum collections were dismissed from further analysis.

Paleontological Resources

The 2006 Management Policies for the National Park Service (NPS) states the paleontological resources (fossils), including both organic and mineralized remains in body or trace form, will be protected, preserved, and managed for public education, interpretation, and scientific research. There are no known paleontological resources within the Memorial. Therefore, there would be no impacts to paleontological resources as a result of the Proposed Action and the topic was dismissed from further assessment.

Soundscape Management

In accordance with the 2006 Management Policies for the NPS and Director's Order 47 *Sound Preservation and Noise Management*, an important component of the NPS's mission is the preservation of natural soundscapes associated with national park units (NPS 2006). Natural soundscapes exist in the absence of human-caused sound. The natural ambient soundscape is the combination of all the natural sounds that occur in park units, together with the physical capacity for transmitting natural sounds. The frequencies, magnitudes, and durations of human-caused sound considered acceptable varies among NPS units as well as potentially throughout each monument, being generally greater in developed areas and less in undeveloped areas.

Impacts to the soundscape could occur over the long term if visitor use increases. In addition, temporary impacts could occur during construction of the information kiosks. However, these impacts would be either short term or negligible. Therefore, soundscape management was dismissed as an impact topic for further analysis.

Lightscape Management

The 2006 Management Policies for the NPS states the NPS will strive to preserve natural ambient landscapes, which are natural resources and values that exist in the absence of human caused light (NPS 2006). NPS strives to limit the use of artificial outdoor lighting to the amount necessary for basic safety requirements. There would be no outside lighting associated with the

proposed action and there should be no impacts to lightscape management; thus, this topic was dismissed from further analysis.

Prime and Unique Farmlands

The Farmland Protection Policy Act of 1981, as amended, requires federal agencies to consider adverse effects to prime and unique farmlands that would result in the conversion of these lands to non-agricultural uses. Prime or unique farmland is classified by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS). Prime farmland is defined as land that has the best combination of physical and chemical properties for producing food, forage, fiber, and oil seed, and for other uses (e.g., pasture land, forest land, and crop land). Unique farmland is defined as land other than prime farmland that can produce high value and fiber crops, such as fruits, vegetables, and nuts. There are no prime and unique farmlands designated in the project area; thus this topic was dismissed from further analysis.

Indian Trust Resources

Secretarial Order 3175 mandates any anticipated impacts to Indian trust resources from proposed project or action by the Department of Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes. It does not have any designated Native American trust resources. Therefore, Indian Trust Resources was dismissed as an impact topic for further analysis.

Environmental Justice

Presidential Executive Order 12898, "General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

According to the Environmental Protection Agency, environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

The goal of 'fair treatment' is not to shift risks among populations, but to identify potentially disproportionately high and adverse effects, and identify alternatives that may mitigate these impacts.

Keystone, South Dakota and other nearby small communities contain both minority and low-income populations; however, environmental justice was dismissed as an impact topic for the following reasons:

- The park staff and planning team actively solicited public participation as part of the planning process and gave equal consideration to all input from persons regardless of age, race, income status, or other socioeconomic or demographic factors.
- Implementation of the preferred alternative would not result in any identifiable adverse human health effects. Therefore, there would be no direct or indirect adverse effects on any minority or low-income population.
- The impacts associated with implementation of the preferred alternative would not disproportionately affect any minority or low-income population or community.
- Implementation of the preferred alternative would not result in any identified effects that would be specific to any minority or low-income community.

Wilderness

There are no lands designated as wilderness or proposed wilderness in the Memorial. The Black Elk Wilderness Area adjoins the Memorial boundary adjacent to the project area. However, there would be no actions within the wilderness area. Thus, wilderness was dismissed for further analysis.

Invasive Species

The Memorial promotes management practices to limit potential impacts to vegetation, to protect sensitive vegetation resources, and to prevent or limit invasive species. Under the proposed action, there would be a risk of invasive species introduction and spread associated with any ground or vegetation disturbing activity. However, surface disturbance associated with installing two new kiosks would be minimal. There would be no heavy equipment used during construction and the proposed action includes mitigation to include monitoring and treatment if necessary of any undesirable become established as result of construction activities. The Memorial considered whether there was the potential for invasive species under the No Action Alternative by continuing use of the “unmanaged setting” of the existing social trail network. However, there is no evidence that historic use has resulted in invasive species along the hiking trails. Thus, this topic was dismissed from further consideration.

Socioeconomics

The proposed action would neither change local and regional land use nor appreciably impact local businesses or other agencies. There could be minimal increases in employment opportunities and revenue generated in nearby small businesses from implementation of the proposed action. Any increase in workforce and revenue would be temporary and negligible. There could also be minor increases in income for commercial climbing activities. Because the impacts to the socioeconomic environment would be negligible, this topic was dismissed from further analysis.

2.0 ALTERNATIVES CONSIDERED

2.1 Alternative 1: No Action Alternative

This action represents the conditions that would continue to exist if the social hiking trails to the front country of the rock climbing areas are not managed, visitor parking remains unchanged, and the existing information kiosks remain unchanged. Social trails are user-created hiking trails. This alternative provides a baseline for comparing and evaluating the impacts to the environment by the action alternatives. Under this alternative, visitors would continue to use the existing network of user-created trails to access rock climbing areas and the numbers of trails would continue to increase (Figure 2). Visitor information would continue to be disseminated through the three existing information kiosks. The speed limit at the pullouts would remain unchanged.

2.2 Alternative 2: NPS Proposed Action Alternative

The proposed action includes maintenance and rehabilitation of existing social trails to create a hiking trail network to access the front country of the climbing areas (Figure 3). Associated kiosks would be refurbished with more sustainable materials and updated visitor information. Additional kiosks would be constructed to provide visitor information for southern climbing areas that are currently lacking a means to disseminate information.

Social Trails

The Memorial proposes to manage approximately 2.40 miles of existing social trails and to allow reclamation by natural re-vegetation of 2.19 miles of existing social trails (Figure 3). The decision of which trails to manage and which trails to reclaim was developed in cooperation with the local rock climbing coalition. The managed trails would be marked using brown Carsonite markers with small reflective stickers (Figure 4). These markers are designed to minimize the visual impact of signage, yet be visible enough to keep visitors on the trail. Distance between markers would be sufficient to keep hikers on the trail. It is the Memorial's intent to install the markers with volunteers from the local climbing coalition. The trails to be reclaimed would not be marked and would re-vegetate naturally over time without further management. The Memorial assumes most, if not all, hikers would use the managed trails. If the Memorial staff discovers continued use of social trails designated to be reclaimed, additional signing may be used to discourage that use.

Kiosks

The three existing information kiosks would remain in their current locations (Chopping Block, South Seas and Olton's Shoulder; Figure 3). The existing high-maintenance wood materials within these kiosks would be replaced with more sustainable materials made of recycled plastic or rubber. Two additional information kiosks would be installed using the same design as the existing kiosks (Figure 5) near Highway 244 access points to the Emancipation and Olton's Shoulder climbing areas. The new kiosks would be approximately 4' x 10' in size and would be installed manually (i.e., shovel) using native rock for the bases and would blend with the landscape. No heavy equipment would be used. The information currently displayed in the kiosks is dated and would be updated. The Memorial would collaborate with BHNF and the local rock climbing coalition to update its visitor information. The Memorial would also collaborate

with the BHNH in an effort to provide visitors with consistent messages on both sides of the administrative boundary. In addition, the speed limit would be lowered from 35 mph to 25 mph along the Byway between the new Emancipation kiosk and the Memorial boundary.

2.4 Alternatives Considered and Rejected

The following alternatives or variations were considered at the internal scoping session, but dismissed.

Install Diagonal Parking Spaces at Pullouts—Installing diagonal parking spaces at pullouts to accommodate more vehicles along Highway 244 was rejected because of increased safety concerns of vehicles backing into on-coming traffic.

Enforce Time Restrictions on Parking at Pullouts—Enforcing a 15 minute parking limit at pullouts was discussed but rejected. There is adequate parking at the Wrinkled Rock parking area and the pullouts serve as overflow parking. Additionally, visitors are allowed to park along Highway 244 as long as their vehicle is outside the painted white stripe along the road shoulder.

Construct Wider Shoulders and/or New Parking Lot—Providing additional parking was considered but dismissed because the steep terrain and narrow canyon along Highway 244 make this impossible.

Remove All Kiosks—Removing all kiosks would not meet the purpose and need. The kiosks are the primary points of contact with the recreational user groups.

Consider Alternative Hiking Routes—Using other routes was considered but there are no other reasonable routes.

2.5 Mitigation Measures during the Proposed Action

The following mitigation measures would be implemented:

- All construction of new information kiosks would be limited to the areas within the construction limits; all activity, including vehicle and material use and storage would not be allowed outside predetermined, marked construction/staging zones and would be within 4 miles of the project area.
- Construction zones would be identified and fenced with construction tape or safety barrier fence prior to any construction activity. The fencing would define the construction zone and confine activity to the minimum area required for construction.
- Traffic controls would be installed to protect pedestrians; barricades, lights, danger signals, and warning signs would be used; guardrails and fence would be installed to protect pedestrians; and pipes, hoses, pipes, and power lines crossing sidewalks and walkways would be covered with troughs using beveled edge boards.
- No imported fill material would be required under the proposed action.

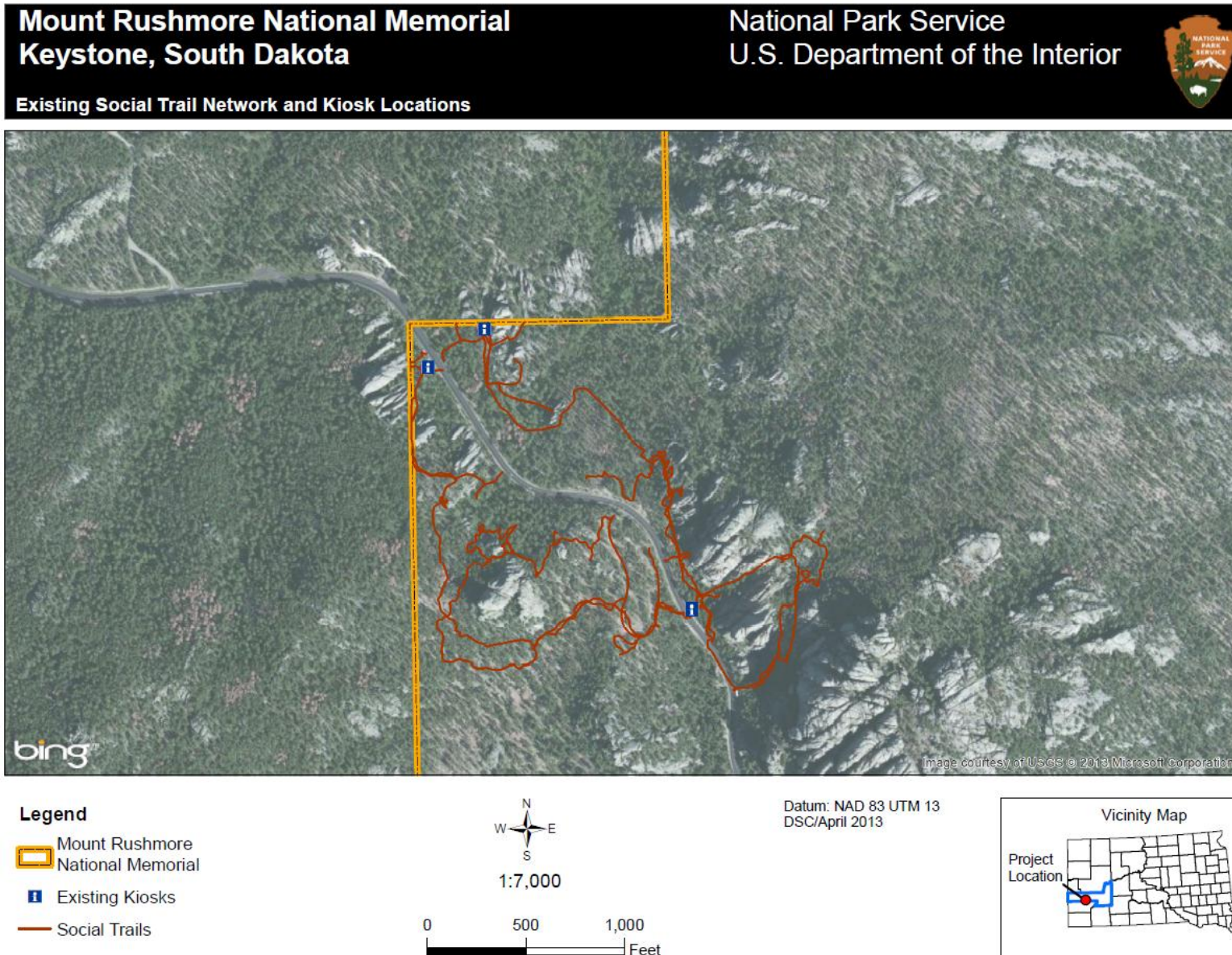
Figure 2. Existing Social Trail Network and Existing Information Kiosk Locations

Figure 3. Proposed Hiking Trail Network to Be Managed and Marked and Existing and New Information Kiosk Locations

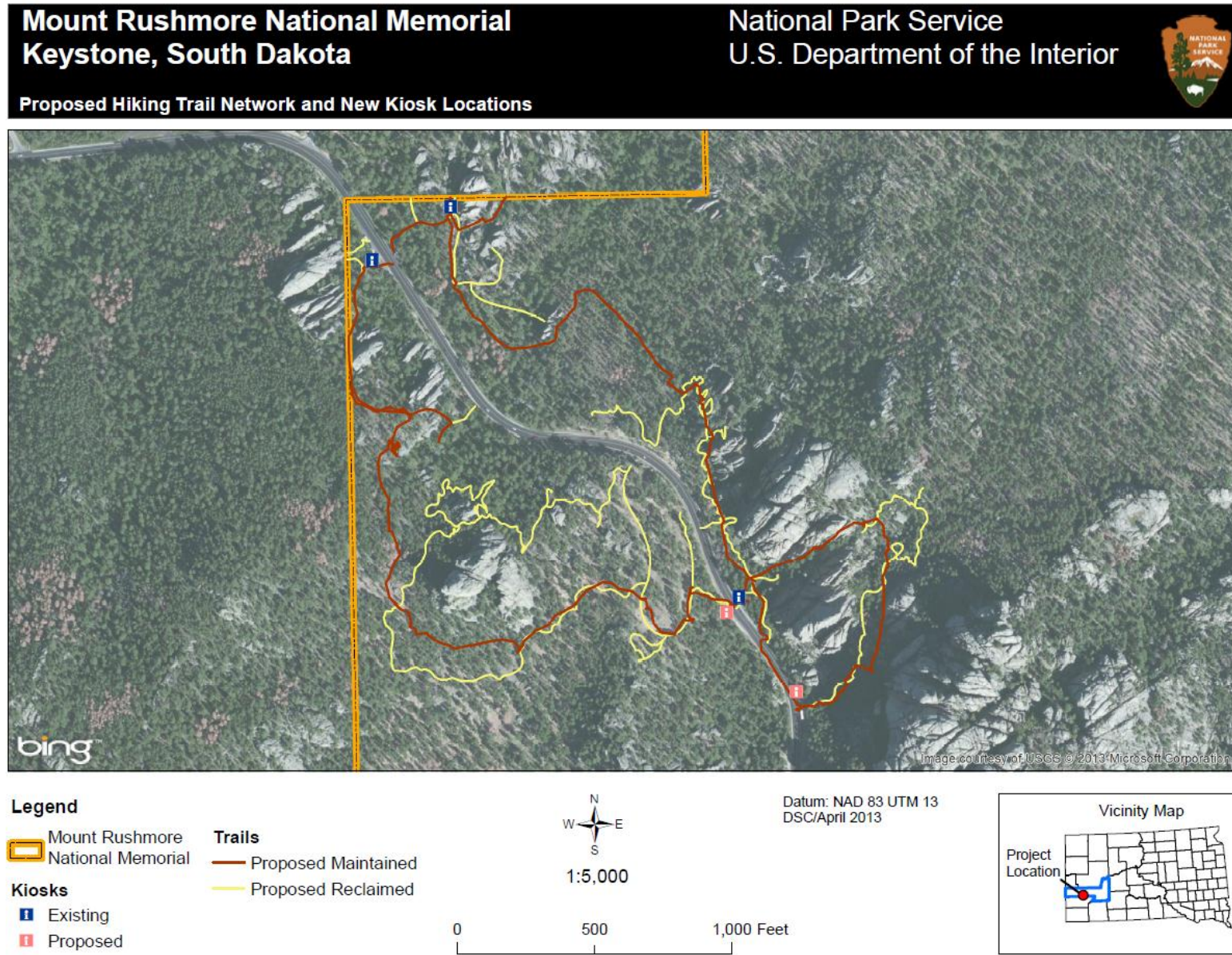


Figure 4. Trail Marker Design



Figure 5. Information Kiosk Design



- The NPS actively monitors for invasive plant species, and has staff dedicated to the control and removal of problem species if they are introduced.
- If during construction previously undiscovered archeological resources are discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and an appropriate mitigation strategy developed in consultation with the State Historic Preservation Officer.
- If any previously unrecorded threatened, endangered, or special status species is discovered during construction, then all work would stop until MORU staff evaluated the impact, and would allow modifications to any contracts or work plans for measures determined necessary to protect the threatened, endangered, or special status species.
- All work would be conducted during normal the Memorial operation hours, Monday – Friday, and workers would commute to and from the site each day and be confined to the day’s work area.

2.6 Environmentally Preferable Alternative

According to the CEQ regulations implementing NEPA (43 CFR 46.30), the environmentally preferable alternative is the alternative “that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources. The environmentally preferable alternative is identified upon consideration and weighing by the Responsible Official of long-term environmental impacts against short-term impacts in evaluating what is the best protection of these resources. In some situations, such as when different alternatives impact different resources to different degrees, there may be more than one environmentally preferable alternative.”

The preferred alternative is the environmentally preferable alternative for several reasons: 1) it provides a managed and marked hiking trail network for public use improving visitor safety; 2) reducing the amount of trails would reduce erosion overall and impacts to cultural resources; 3) update information kiosks with more sustainable material and provide two additional kiosks that the public has indicated are critical to orienting first time visitors; 4) result in updated visitor resource and safety information; and 5) reduce the speed limit along Highway 244 to improve visitor safety.

Under the No Action Alternative, the rock climbers and hikers would continue to use the existing unmarked, unmanaged trail network, the Memorial would continue to disseminate resource and safety information to visitors at the three existing kiosks, and the speed limit along the pullouts would remain unchanged. Thus, 1) the number of unmanaged and unmarked trails would continue to increase; 2) erosion would continue to increase with the unmanaged and unmarked trails; 3) information kiosks would continue to deteriorate; and 4) visitor safety at trail portals and kiosks would remain a visitor safety concern.

2.6 Summary of Environmental Consequences by Alternative

Table 3 summarizes the anticipated environmental impacts for all alternatives. Only those impact topics that have been carried forward for further analysis are included in this table. The Environmental Consequences chapter provides a more detailed explanation of these impacts.

Table 3. Summary Comparison of Impacts

Resource Topic	Alternative 1 No Action	Alternative 2 Proposed Action Alternative
Soil Resources	<ul style="list-style-type: none"> adverse negligible to minor, localized and long term impacts to soil along existing and expanded hiking trails 	<ul style="list-style-type: none"> beneficial negligible to minor long term impact on 2.19 miles of rehabilitated trails adverse negligible to minor long term impact on 2.40 mile of trail from increased use More effective monitoring and maintenance of designated trail system
Vegetation Resources	<ul style="list-style-type: none"> adverse negligible long term impact on existing and expanded user-created trail network 	<ul style="list-style-type: none"> adverse negligible long term impact from installing kiosks bases beneficial negligible to minor long term impact to vegetation from rehabilitated trails
Wildlife	<ul style="list-style-type: none"> adverse negligible long term impact from visitor-wildlife interactions on 4.59 miles of hiking trails 	<ul style="list-style-type: none"> adverse negligible long term impact from visitor-wildlife interactions on 2.40 miles of hiking trails
Archaeological Resources	<ul style="list-style-type: none"> adverse, minor to moderate long term impact from continual foot traffic in the known cultural site and expanded user-created trails near known cultural resources 	<ul style="list-style-type: none"> negligible long term impact from rehabilitation of trail section with original wooden guardrail feature and no impacts using 2.40 miles as managed hiking trails
Visitor Use and Experience	<ul style="list-style-type: none"> adverse minor long term impact due to outdated kiosk information, network of unmarked trails 	<ul style="list-style-type: none"> beneficial moderate long term impact due to marked trail network, updated kiosk information and two additional kiosks

Resource Topic	Alternative 1 No Action	Alternative 2 Proposed Action Alternative
Human Health and Safety and Park Operations	<ul style="list-style-type: none"> • adverse, minor and long term impacts to pedestrian safety related to speed limit • adverse, minor and long term impacts to hiker safety on unmanaged trail network 	<ul style="list-style-type: none"> • Beneficial moderate long term impacts due to increased pedestrian and hiker safety • minor long term increase in staff time for trail monitoring and maintenance • improved efficiency for reducing or eliminating public health hazards along hiking trails

3.0 ENVIRONMENTAL CONSEQUENCES

3.1 Methodology

The effects of each alternative are assessed for direct, indirect, and cumulative effects for each resource topic selected. Actions are first analyzed for their direct and indirect effects. Direct effects are impacts that are caused by the alternatives at the same time and in the same place as the action. Indirect effects are impacts caused by the alternatives that occur later in time or are farther in distance than the action. Potential impacts are described in terms of type, context, duration, and intensity. Specific impact thresholds are given for each resource at the beginning of each resource section. General definitions for potential impacts are described as follows:

Type: Describes the impact as either beneficial or adverse, direct or indirect:

Beneficial: A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.

Adverse: A change that moves the resource away from a desired condition or detracts from its appearance or condition.

Direct: An effect that is caused by an action and occurs in the same time and place.

Indirect: An effect that is caused by an action but is later in time or farther removed in distance, but is still reasonably foreseeable.

Context: Describes the location or area where the impacts will occur.

- 1) site-specific - impacts would occur within the location of the Proposed Action
- 2) local – impacts would affect areas within the location of the Proposed Action and land adjacent to the Proposed Action
- 3) regional – impacts would affect areas within the location of the Proposed Action, land adjacent to the Proposed Action, and land in surrounding communities.

Duration: Describes the length of time an impact would occur, as either short-term or long-term.

Short-term: impacts that generally last for the duration of the project. Some impact topics will have different short-term duration measures and these will be listed with the resource.

Long-term: impacts that generally last beyond the duration of the project. Some impact topics will have different long-term duration measures and these will be listed with the resource.

Intensity: Describes the degree, level, or strength of an impact. The impacts can be *negligible*, *minor*, *moderate*, or *major*. Definitions of intensity can vary by resource topic and are provided separately for each impact topic analyzed.

3.2 Cumulative Impacts

The Council on Environmental Quality (CEQ) regulations, which guide the implementation the National Environmental Policy Act of 1969 (42 USC 4321 et seq.), require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as "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" (40 CFR 1508.7). Cumulative impacts are considered for all Alternatives.

Cumulative impacts were determined by combining the impacts of the alternative with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects in the Memorial and, if applicable, the surrounding region. The temporal scope includes projects within a range of approximately 10 years. The following are past, present, and reasonably foreseeable future actions that have and could occur in the vicinity of the project area:

Recent and past timber treatments in the general area have impacted hiking trails by covering portions of trails with forest debris. Currently there is an infestation of bark beetles and the Memorial is currently removing infected trees in an attempt to reduce loss of healthy trees and maintain the old growth over story. Adjacent to the project area, the BHNF has recently completed a timber sale. Timber harvest activities have temporarily disrupted the natural appearance of the landscape along the forest boundary.

Foreseeable actions include continued treatment of pine beetles which will likely result in a further reduction in timber density. A reasonable assumption is completion of a comprehensive management plan addressing all climbing areas. This would likely result in additional managed marked and managed hiking trails that access climbing areas.

3.3 Natural Resources

3.3.1. Soil Resources

3.3.1.1 Affected Environment

The project area includes two soil-mapping units—Mocmont-Rock outcrop complex, 40 to 80 percent slopes and the Buska-Mocmont-Rock outcrop complex, 10 to 40 percent slopes—as described by the Natural resources Conservation Service (NRCS; USDA NRCS Soil Survey Staff 2012). The soil units include gravelly loam, very gravelly clay loam, loam, and channery loam soils (USDA NRCS Soil Survey Staff 2012). Both soils are well-drained and are Colluvium and/or slope alluvium derived from metamorphic rock and/or granite (USDA NRCS Soil Survey Staff 2012).

3.3.1.2 Methodology and Intensity Threshold

To analyze the impacts on soil resources, all available information on soil resources in the Memorial was compiled, and developed in consultation with NPS staff and other sources. The thresholds of change for the intensity and duration of an impact are defined as follows:

Negligible: The effects of the action on soils would be below or at a very low level of detection. Any effects on productivity or erosion potential would be slight.

Minor: The effects of the action on soils would be detectable. The action would change a soil's profile in a relatively small area, but would not appreciably increase the potential for erosion of additional soil. Mitigation measures, if needed to offset adverse effects, would be simple and successful.

Moderate: The action would result in a change in quantity or alteration of the topsoil, overall biological productivity, or the potential for erosion to remove small quantities of soil. Changes to localized ecological processes would be limited. Mitigation measures, if needed to offset adverse effects, could be extensive but would likely be successful.

Major: The action would result in a change in the potential for erosion to remove large quantities of soil or in alterations to topsoil and overall biological productivity in a relatively large area. Key ecological processes would be altered, and landscape-level changes would be expected. Extensive mitigation measures would be needed to offset any adverse effects and their success could not be guaranteed.

Duration:

Short-term: Recovers in less than 3 years.

Long-term: Recovers in more than 3 years.

3.3.1.3 Analysis of Alternatives and Impacts on Soils Resources

Impacts of Alternative 1: No Action Alternative

Direct and Indirect Impacts

User-created hiking trails would continue to be unmanaged and are likely to expand slightly under the No Action Alternative. Some hiking trails would likely develop in areas of high erosion potential. Continued use in some areas would wear away the vegetation, exposing the subsoil and subjecting it to wind and water erosion. The impacts would be adverse negligible to minor, localized, and long-term.

Cumulative Impacts

Over time, unmanaged hiking would result in additional user-created trails in undesirable areas increasing the potential for additional soil erosion and loss in localized areas.

Conclusion

Over time, the volume of soil erosion would increase proportional to the extent the user-created hiking trail network expands. These impacts are expected to be local, minor to negligible, and long-term. The area affected by hiking trails is not substantial and soil impacts are negligible when considered in a park context.

Impacts to Alternative 2: Proposed Action

Direct and Indirect Impacts

Under the Proposed Action Alternative, 2.40 miles of trails would be marked and managed, while 2.19 miles of user-created trails would be left to rehabilitate naturally. The Memorial assumes that most future visitors would use the marked trails, and the unmarked trails would receive little to no use. This would result in the unmarked trails rehabilitating over time, reducing erosion and soil loss in the project area. This would be a beneficial negligible to minor long term impact. Managed trails would experience additional foot traffic, increasing the potential for soil erosion through compaction and vegetation loss in some areas. This would be an adverse negligible to minor long term impact. However, confining hikers to defined trails would make monitoring and remedial actions more effective. Installation of two new kiosk bases would remove vegetation and top soil from two areas approximately 4'X10' in size, or a total of approximately 80 sq. ft. This would decrease the natural condition of the site and would have an adverse, local, and negligible to minor impact to soils.

Cumulative Impacts

Under the Proposed Action Alternative, the volume of soil erosion would decrease as unnecessary trails rehabilitate. A higher volume of hiking on managed trails would likely result in a negligible increase in soil erosion on these trails. The miles of managed trails are

substantially less than the unmanaged trails and should result in an overall decrease in soil erosion. The area affected by hiking trails is not substantial and soil impacts are negligible when considered in a park context.

Conclusion

The Proposed Action Alternative would likely result in a reduction in soil loss, helping move the resource toward the desired resource condition.

3.3.2 Vegetation

3.3.2.1 Affected Environment

The Memorial is located in the Great Plains (grassland) Biome, one of the largest biomes in North America. The vegetation at the Memorial was mapped according to National Vegetation Classification System (NVCS) in 1996-1997 (Salas and Pucherelli 1998). The proposed project area is mapped as Ponderosa Pine/Common Juniper Woodland and Ponderosa Pine Complex I and II. The Ponderosa Pine/Common Juniper Woodland Community is dominated by ponderosa pine with scattered common juniper in the shrub layer and a sparse understory (Salas and Pucherelli 1998).

The project area is dominated by ponderosa pine (*Pinus ponderosa*) with common juniper (*Juniperus communis*), kinnikinnick (*Arctostaphylos uva-ursi*), golden pea (*Thermopsis rhombifolia*) and white spirea (*Spiraea betulifolia*) in the understory.

3.3.2.2 Methodology and Intensity Threshold

The methodology used for assessing vegetation impacts included using available spatial data and literature to identify the plant communities present and identifying the potential effects to plant populations (e.g., composition, diversity, abundance) by the Proposed Action. The thresholds of change for the intensity of an impact are defined as follows:

Negligible: Some individual native plants would be affected, but there would be no effect on native plant species' populations (e.g., composition, diversity, abundance). The effects would be on a small scale.

Minor: The actions would affect some individual plants and a relatively limited portion of that species' population would also be affected. Mitigation measures, if needed to offset adverse effects, would be simple and successful. Reclamation is readily achievable through natural successional processes.

Moderate: The actions would affect some individual native plants and a sizeable segment of the species' population would also be affected over a relatively wide area. Mitigation measures, if needed to offset adverse effects, could be extensive, but would likely be successful. Reclamation is achievable but likely requires additional resources to accomplish goals.

Major: The actions would cause substantial alteration to individual native plants and affect a sizeable segment of the species' populations over a relatively wide area. Extensive mitigation measures would be needed to offset any adverse effects, and their success would not be guaranteed. Reclamation may not be attainable even with substantial efforts.

Duration:

Short: Recovers in 3 years or less.

Long: Recovers in more than 3 years.

3.3.2.3 Analysis of Alternatives and Impacts on Vegetation

Impacts of Alternative 1: No Action Alternative

There would be a loss of vegetation from expanding user-created trails where continual foot traffic would inhibit vegetative growth. This would be an adverse negligible long-term impact.

Cumulative Impacts

Over time, unmanaged hiking would result in additional user-created trails in undesirable areas increasing the potential for additional vegetation loss in localized areas. The area affected by hiking trails is not substantial and vegetation impacts are negligible when considered in a park context.

Conclusion

The No Action Alternative would result in an adverse negligible long-term impact from vegetation loss from expanding user-created hiking trails, moving away from the desired condition.

Impacts of Alternative 2: Proposed Action Alternative

Under the Proposed Action Alternative, approximately 2.19 miles of existing trails would be rehabilitated, reducing erosion and associated vegetation loss. This would likely result in a beneficial negligible impact due to decreased potential erosion and increased potential for vegetation cover. The 2.40 mile of managed trails would experience an increase in use, which could lead to increased erosion and additional loss of vegetation in some areas. However, the existing level of hiking use is low and the impacts to individual plants combined with the small area to be disturbed should not affect the plant populations or communities. Installation of two new kiosk bases would remove vegetation from two areas approximately 4'X10' in size, or a total of approximately 80 sq. ft. This would be an adverse negligible long-term impact. Since no heavy equipment would be used, surface disturbance would be limited to each 4'X10' pad. The potential for establishment of invasive species would be minimal as the rock base would cover the entire pad and monitoring would provide early detection. Overall, there would be a beneficial negligible to minor long-term impact to vegetation from the rehabilitated trails and new kiosks.

Cumulative Impacts

A decrease in the miles of hiking trails would improve the overall natural landscape. However, this could be offset if the pine beetle infestation results in a significant timber loss. The area affected by the proposed action is not substantial and vegetation impacts would be negligible when considered in a park context. The Proposed Action combined with the past, present, and foreseeable future actions would result in site-specific, negligible, adverse impacts.

Conclusion

The Proposed Action Alternative would result in a beneficial negligible impact on vegetation, moving the resource toward desired condition.

3.3.3 Wildlife

3.3.3.1 Affected Environment

The backcountry areas of the Memorial (wetlands, old growth forest, rock outcrops) provide a diverse and abundant habitat for many species of mammals, invertebrates, reptiles, amphibians, vegetation, and birds. There have been 96 vertebrate species documented within the Memorial (NPS 2012a). Wildlife habitat in the project area is dominated by ponderosa pine, and scattered common juniper, and granite rock outcrops.

There have been over 50 bird species documented within the Memorial, some year-round residents and some seasonal residents (NPS 2012a). Internal scoping identified that the proposed action could impact the Northern Goshawk and the mountain goat.

3.3.3.2 Methodology and Intensity Threshold

The methodology used for assessing wildlife impacts included using available literature to identify the wildlife species and habitat communities present and identifying the potential effects to wildlife populations (e.g., composition, diversity, abundance) by the Proposed Action. The thresholds of change for the intensity of an impact are defined as follows:

Negligible: No wildlife species would be affected or some individuals could be affected as a result of the alternative, but there would be no effect on wildlife species' populations. Impacts would be well within natural fluctuations.

Minor: Some wildlife species would be affected and a limited part of the species' population would be affected as a result of the alternative. Mitigation measures, if needed, would be simple and successful.

Moderate: Some wildlife species would be affected and a sizeable part of the species' population would be affected as a result of the alternative over a relatively large area within the Preserve. Mitigation measures, if needed, would be extensive and successful.

Major: A considerable effect on wildlife individuals and on a sizeable segment of the species' population as a result of the alternative over a relatively large area in and outside the Preserve. Extensive mitigation measures would be needed to offset any adverse effects and may not be successful.

Duration:

Short: If individual species or habitat recovers in ≤ 3 years.

Long: If individual species or habitat recovers in >3 years.

3.3.3.3 Analysis of Alternatives and Impacts on Wildlife

Impacts of Alternative 1: No Action Alternative

Currently, hiker access to climbing areas is through a network of an estimated 4.59 miles of user-created trails. Although there is no data to indicate substantial impacts to wildlife, the Memorial assumes that there are some on- and off-trail visitor-wildlife contacts that negatively affect wildlife. Under the No Action Alternative, the impacts would likely increase if the network of user-created trails expands. This would be an adverse negligible long-term impact.

Cumulative Impacts

Over the long term, prolonged hiking in areas not designated as formal trails by the Memorial could alter diversity of sensitive and other wildlife species within the project area. The area affected by hiking trails is not substantial and wildlife impacts are negligible when considered in a park context.

Conclusion

The No Action Alternative could result in negligible adverse impacts to wildlife diversity if hikers are allowed to continue unmanaged access to climbing areas, moving away from the desired condition.

Impacts of Alternative 2: Proposed Action Alternative

Under the Proposed Action Alternative, hiking access to climbing areas would be managed on fewer trails, thus reducing the number of hiker-wildlife interactions. This would result in a beneficial negligible long term impact. There are no known Northern Goshawk nesting sites along the proposed managed trails. Although mountain goats are present in the project area there would be no direct impacts because none of the proposed managed trails are within the species' habitat. The Proposed Action could result in indirect impacts if rock-climbing use increases as a result of the Proposed Action. Increased use of rock climbing areas has the potential to displace an individual mountain goat temporarily due to increased human presence. However, past studies have shown mountain goats that have repeated contact with humans have become habituated to the presence of humans (Chadwick 1983, Singer 1978, Holyrod 1967).

Cumulative Impacts

Visitor-wildlife interaction would likely decrease with fewer hiking trails which would be a long-term beneficial negligible impact. The area affected by hiking trails is not substantial and wildlife impacts would be negligible when considered in a park context.

Conclusion

The Proposed Action Alternative would result in beneficial impacts by reducing the miles of hiking trails and reducing the incidence of visitor-wildlife contacts.

3.4 Cultural Resources

3.4.1 Archaeological Resources

3.4.1.1 Affected Environment

A record search was conducted on February 13, 2013 by the South Dakota Archaeological Research Center within one mile of the project area. The purpose of the record search was to determine the location of any known cultural resources that may be affected by the preferred alternative. Thirty-eight previously recorded archeological sites are known to occur within one mile of the current APE. Two sections of the proposed maintained trail crosses portions of an abandoned segment of Horsethief Lake Road and an existing kiosk is using the stone base from an old park entrance sign. Sections of the proposed reclaimed trails cross portions of the three discontinuous segments of the old Horsethief Lake Road.

The project area was surveyed in 2007 by Molyneaux (2008) and re-surveyed in 2012 by Amy Bracewell (NPS Monument Historian), Anne Vawser and Amanda Davey (NPS Archeologists, Midwest Archaeological Center (MWAC)), on June 24–29 of 2012. Sites 39PN2252 and MORU 8 were re-located and re-plotted by the current survey. Site 39PN2252 is recommended as not eligible and site MORU 8 is recommended as eligible for the NRHP, and will be considered as such (Molyneaux 2008). MORU 8 consists of three discontinuous sections of Horse Thief Lake Road, a gravel road constructed with support of Senator Peter Norbeck, and has remnants of the original wooden guardrail that ran along the edge of the road (Molyneaux 2008).

Compliance with Section 106 of the NHPA is being subsumed under NEPA. South Dakota SHPO was notified of the proposed project by letter on April 3, 2013. A copy of the EA was also provided to the South Dakota SHPO for review and comment on April 3, 2013. On April 22, 2013, South Dakota SHPO concurred with the park's finding that no historic properties would be affected by the preferred alternative (Appendix A).

3.4.1.2 Methodology and Intensity Threshold

Section 106 of the NHPA of 1966, as amended (16 USC 470, et seq.) and its implementing regulations under 36 CFR 800 require all federal agencies to consider the effects of federal actions on cultural properties eligible for or listed in the National Register. In order for an

archeological site to be listed in the National Register, it must be associated with an important historic event, person(s), or that embodies distinctive characteristics or qualities of workmanship. The thresholds for change for intensity of impacts on cultural resources are defined as follows:

Negligible: Impact is at the lowest levels of detection, barely measurable, with no perceptible consequences, either adverse or beneficial. For the purposes of Section 106, the determination of effect would be no adverse effect to archaeological resources.

Minor: Disturbance of a site(s) is confined to a small area with little, if any, loss of important information potential. For purposes of Section 106, the determination of effect would be no adverse effect.

Moderate: Disturbance of the site(s) would not result in the loss of integrity. For purposes of Section 106, the determination of effect would be adverse effect.

Major: Disturbance of the site(s) is substantial and results in the loss of most or all of the site and its integrity. For purposes of Section 106, the determination of effect would be adverse effect.

Duration:

Short-term: Any disturbance to archaeological resources would be permanent, and are considered long-term.

Long-term: Any disturbance to archaeological resources would be permanent, and are considered long-term.

3.4.1.3 Analysis of Alternatives and Impacts on Archaeological Resources

Impacts of Alternative 1: No Action Alternative

Recreational users would continue to access climbing areas through approximately 4.59 miles of user-created trails, which cross a known cultural site, MORU 8 that is recommended as eligible and PN392522 that is recommended as ineligible for the NRHP. Foot traffic along the old roadbed should not negatively impact the integrity of the cultural sites. However, an existing social trail does use a portion of the old roadbed associated with an intact wooden guardrail and could potentially degrade the site by damage to the wooden guardrail or loss of hardware from continual foot traffic in the area. The user-created social trails could continue to expand into areas with associated features (e.g., wooden guardrails) important to preserving the integrity of known and unknown cultural resources. This would be an adverse, minor to moderate, long-term impact to cultural resources.

Cumulative Impacts

Over time, unmanaged hiking could result in additional user-created trails in undesirable areas increasing the potential for impacts to known and unknown cultural sites in localized areas. The

area affected by hiking trails is not substantial and cultural resource impacts are minor when considered in a park context.

Conclusion

The No Action Alternative would result in an adverse, minor to moderate, long-term impact from potential expanding user-created hiking trails impacting cultural sites.

Impacts to Alternative 2: Proposed Action Alternative

Under the Proposed Action Alternative, approximately 2.19 miles of existing user-created social trails would be rehabilitated by natural re-vegetation, including the trail section with remnants of the original wooden guardrail that ran along the edge of the road. Rehabilitating this section of the social trail will help to protect and maintain the integrity of the wooden guardrail remnants by reducing the number of people accessing this area and reducing the potential for damaging the guardrail and associated hardware. Sections along the Horse Thief Lake roadbed would be a part of the 2.40 miles of managed trails. These sections would experience an increase in use, but should not negatively affect the integrity of the roadbed as a cultural site. Foot traffic should not negatively impact the roadbed that was once used as a highway in the 1930s. No known cultural sites are located within the proposed footprint for the two new kiosks. The existing kiosk for the South Seas climbing area is located on a stone base that is thought to have been a historic park entrance sign base and built by the CCC. The kiosk is proposed to remain in the same location and have the wood replaced with more sustainable materials made of recycled plastic or rubber and this site is recommended as ineligible to the NRHP (Molyneaux 2008). Overall, this would be a negligible, long-term impact to cultural resources because the managed trail system would not negatively impact features important to preserving the integrity of known cultural sites.

If during construction previously undiscovered archeological resources are discovered, all work in the immediate vicinity of the discovery would be halted until the resources could be identified and documented and an appropriate mitigation strategy developed in consultation with the State Historic Preservation Officer.

Cumulative Impacts

A decrease in the miles of hiking trails would reduce the potential for negative impacts to known cultural sites, which would be a long-term beneficial negligible impact. The increased use of trail sections along the historic Horse Thief Lake road segments would not negatively impact the integrity of the known cultural sites. The area affected by the proposed action is not substantial and cultural resource impacts would be negligible when considered in a park context. The Proposed Action combined with the past, present, and foreseeable future actions would result in site-specific, negligible, long-term, adverse impacts.

Conclusion

The Proposed Action Alternative would result in an adverse, negligible, long-term impact from reduced user-created hiking trails, thus reducing potential impacts to cultural sites.

3.5 Social Resources

3.5.1 Visitor Use and Experience

3.5.1.1 Affected Environment

Visitors come to the Memorial to view and learn about the Memorial, visit the information center and bookstore and shop in the park gift shop (NPS 2007). Visitors enjoy a variety of activities at the Memorial, including hiking, bird watching, rock climbing, photography, and wildlife viewing. Survey of rock climbers at the Memorial indicates that climber use days have increased at the Memorial from 350 in 1989 to over 5,600 in 1996. Mount Rushmore tracks the number of climbers through self-registration boxes at 2 locations within the Memorial. Climbing numbers for 2006 (collected by NPS staff) were approaching 3,150 self-registered climbers.

Annual visitation to the Memorial was approximately 2,000,000 during 2011, with most visitors arriving between May through September (NPS 2012b). User groups include general visitor and park neighbors, organized groups, and education groups. The Evening Lighting Ceremony, which begins in May and concludes the end of September is very popular and attracts between 2,000 and 3,000 visitors nightly during the summer months.

3.5.1.2 Methodology and Intensity Threshold

The methodology used for assessing visitor use and experience impacts included identifying the potential effects to visitor use by the Proposed Action. The thresholds of change for the intensity of an impact are defined as follows:

Negligible: Visitors would not be affected or changes in visitor use and/or experience would be below or at the level of detection. Any effects would be short-term. The visitor would not likely be aware of the effects associated with the alternative.

Minor: Changes in visitor use and/or experience would be detectable, although the changes would be slight and likely short-term. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.

Moderate: Changes in visitor use and/or experience would be readily apparent and likely long-term. The visitor would be aware of the effects associated with the alternative, and would likely be able to express an opinion about the changes.

Major: Changes in visitor use and/or experience would be readily apparent and have substantial long-term consequences. The visitor would be aware of the effects associated with the alternative, and would likely express a strong opinion about the changes.

Duration:

Short-term: Impacts that generally last less than one year and would affect only one *season's* use by visitors.

Long-term: Impacts that generally last more than one year and would be more permanent in nature.

3.5.1.3 Analysis of Alternatives and Impacts on Visitor Use and Experience

Impacts of Alternative 1: No Action Alternative

Rock climbers would continue to access rock climbing areas through an unmarked social trail network. First time climbers new to the area would find it difficult to navigate to climbing areas without trail markers, increasing their risk of getting lost or hiking in areas that may contain hazards. Outdated Information at the kiosks would continue to be lacking. The combination of these factors would diminish their experience resulting in an adverse minor long term impact.

Cumulative Impacts

No cumulative impacts would be anticipated.

Conclusion

The No Action Alternative would result in adverse minor impacts that would continue to move visitor experiences away from desired conditions.

Impacts to Alternative 2: Proposed Action Alternative

The experience of both climbing and non-climbing visitors to the area would improve. Rock climbers would find it easier to access climbing areas through a network of marked trails, especially visitors new to the area. The addition of two additional kiosks would improve orientation of first time climbers. Non-climbing visitors would have opportunities to learn more about the Memorial resources through updated materials at the kiosks. A managed trail network would reduce the risk of visitor injury because they would be using trails marked, monitored, and managed. These combination of these factors would likely result in a beneficial moderate long term impact.

Cumulative Impacts

Coupled with other Memorial actions designed to educate visitors, the additional kiosks with updated resource and safety information and marked hiking trails would improve the Memorial overall program.

Conclusion

The Proposed Action Alternative result in beneficial moderate impacts that would move visitor experiences toward desired conditions.

3.5.2 Public Health and Safety and Park Operations

3.5.2.1 Affected Environment

The Memorial is open year round, except Christmas Day. Facilities at the Memorial include the Information Center, the Lincoln Borglum Museum and Visitors Center, two movie theatres, an amphitheater, Avenue of Flags, Viewing Terrace, the historic Sculptor's Studio, the 0.6 mile Presidential Trail, Restaurant and Gift Shop Concession buildings, administration building and parking facilities. All of the existing facilities at the Memorial can be accessed by the mobility impaired. The films are provided with closed captioning. Park brochures are available by request in Braille and large print.

Almost all contact with hikers/climbers in the area is done through the three existing information kiosks. The Memorial staff do not initiate contact with hikers/climbers with the express purpose of interpretation, safety talks, guiding or other such information. This system seems to work well for visitors who start their activity at or near the kiosks. For visitors who use the southern climbing areas, there are no kiosks from which to disseminate information.

The existing "social trail" network are unmarked and contain some segments that are eroded due to location and heavy use and pose potential safety hazards to backcountry users. Other health and safety issues relating to backcountry use include getting lost or injured from hiking. The speed limit at the pullout parking areas and areas adjacent to other kiosks is a potential danger to pedestrians trying to access the hiking trails to rock climbing areas.

3.5.2.2 Methodology and Intensity Threshold

The methodology used for assessing human health and safety impacts included identifying the potential effects to human health and safety by the Proposed Action. The thresholds of change for the intensity of an impact are defined as follows:

Negligible: The effects would be at low levels of detection and would not have appreciable effects on public health and safety and park operations.

Minor: The effects would be detectable and would be of a magnitude that would not have appreciable effects on public health and safety and park operations. If mitigation is needed to offset adverse effects, it would be simple and likely successful.

Moderate: The effects would be readily apparent and would result in a change in public health, safety that would be noticeable to park staff and the public. Mitigation measures would be necessary to offset adverse effects and would likely be successful.

Major: The effects would be readily apparent; would result in a substantial change in public health and safety in a manner noticeable to staff and the public; and would be markedly different from existing operations. Mitigation measures to offset adverse effects would be needed and extensive, and success could not be guaranteed.

Duration:

Short-term: Impacts that generally last for the duration of the project.

Long-term: Impacts that generally last beyond the duration of the project

3.5.2.3 Analysis of Alternatives and Impacts on Public Health and Safety**Impacts of Alternative 1: No Action Alternative**

The current speed limit of 35 mph would continue to pose a safety hazard to pedestrians along Highway 244. An expanding network of unmarked social trails would likely result in some visitors getting lost. Without marked trails off-trail use would continue. This would result in some hikers entering areas not monitored or managed for visitor safety, increasing the risk of injury. These impacts are adverse, minor and long term. Staff time for the program would remain unchanged.

Cumulative Impacts

Continuing a hands-off approach towards rock climbing would likely not be favorably met by the rock climbing community.

Conclusion

The No Action Alternative would move away from desired conditions.

Impacts to Alternative 2: Proposed Action Alternative

Marked and managed trails would assist climbing visitors in accessing climbing areas, especially first time visitors. This would reduce the potential for visitors getting lost or disoriented. Marked trails would improve conditions for emergency responses. Confining visitors to known and marked trails would reduce the potential for visitors to wander into hazardous areas and assist law enforcement in monitoring. Marked trails would improve efficiency by identifying the areas where park staff can focus their efforts towards reducing or eliminating public health hazards. These impacts would be beneficial, moderate and long term. Implementing the Proposed Action would result in a minor long term increase in staff time for trail monitoring and maintenance.

Cumulative Impacts

Management of rock climbing visitors would result in a minor increase in the Memorial's staffing commitments. However, benefits from improved relations with the rock climbing community would outweigh any cost increases.

Conclusion

The Proposed Action Alternative would result in beneficial moderate, long term impacts that would assist park staff in achieving desired conditions.

4.0 Consultation and Coordination

The following federal and state agencies, affiliated Native American tribes, and affiliated interests were sent scoping information or were contacted for information regarding this EA.

Federal Agencies

US Department of Agriculture (Natural Resources Conservation Service)
US Environmental Protection Agency
US Fish and Wildlife Service
US Forest Service (Black Hills National Forest)

State Agencies

Custer State Park
South Dakota Department of Environment & Natural Resources
South Dakota Department of Transportation
South Dakota Game Fish & Parks
South Dakota Historic Preservation Office
State Soil Scientist

Affiliated Native American Groups

Arapaho Business Committee
Cheyenne River Sioux Tribe
Cheyenne-Arapaho Tribes of Oklahoma
Crow Tribal Council
Crow Creek Sioux Tribal Council
Flandreau Santee Sioux Executive Committee
Fort Belknap Community Council
Fort Peck Tribal Executive Board

Lower Brule Sioux Tribal Council

Northern Cheyenne Tribal Council
Oglala Sioux Tribal Council
Ponca Tribe of Nebraska
Ponca Tribe of Oklahoma
Rosebud Sioux Tribal Council
Santee Sioux Tribal Council
Shoshone Business Committee
Sisseton-Wahpeton Sioux Tribal Council
Spirit Lake Tribal Council
Standing Rock Sioux Tribe
Three Affiliated Tribes Business Council
Yankton Sioux Tribal Bus. & Claims Commission

Private Organizations

American Alpine Club
Black Hills Climbing Coalition
Access Fund

4.1 Environmental Assessment Review and List of Recipients

The Environmental Assessment will be released for public review on May 8, 2013. To inform the public of the availability of the EA, the Park Service will publish and distribute a letter to various agencies, tribes, and members of the public on the park's mailing list, and issue a press release. Copies of the EA will be provided to interested individuals, upon request. Copies of the EA will also be available for review on the Internet at <http://parkplanning.nps.gov/moru>.

The Environmental Assessment is subject to a 30-day public comment period ending June 8, 2013. During this time, the public is encouraged to submit their comments online at <http://parkplanning.nps.gov/moru> or mail comments to Attn: Bruce Weisman; Mount Rushmore National Memorial; 13000 Highway 244 Building 31, Suite 1; Keystone, South Dakota 57751. Following the close of the comment period, all public comments will be reviewed and analyzed prior to the release of a decision document. The Park Service will issue responses to substantive comments received during the public comment period and will make appropriate changes to this EA, as needed.

4.2 List of Preparers**The Memorial Staff**

Bruce Weisman, Integrated Resource Program Manager
Cheryl A. Schreier, Superintendent
Paul R. Hammett, Safety & Occupational Health Director
Ace Crawford, MWRO
Duane Grego, US Park Ranger
Todd Van Alstyne, US Park Ranger
Blaine Kortemeyer, US Park Ranger
David Pickford, USFS Recreation Specialist
Alisha Hall, Facility Operations

Ecosystem Management, Inc. Staff

Stephanie Lee, NEPA Specialist, Ecosystem Management, Inc.
David Squires, Recreation Specialist, Ecosystem Management, Inc.
Mike Tremble, Project Manager, Ecosystem Management, Inc.

5.0 References

Executive Orders

Executive Order 11988 (Floodplain Management)

Executive Order 11990 (Protection of Wetlands)

Executive Order 12898 (Environmental Justice in Minority Populations and Low-income Populations)

Executive Order 13007 (Indian sacred sites)

NPS Director's Orders

DO-12 Conservation Planning, Environmental Impact Analysis and Decision Making

DO-24 Museum Collections

DO-28 Cultural Resource Management

DO-47 Sound Preservation and Noise Management

DO-77 Natural Resources Management Guideline (NPS-77)

DO-77-1 Wetland Protection

DO-77-2 Floodplain Management

Federal and Government

36 CFR Parks, Forests, and Public Property

40 CFR Protection of Environment

50 CFR Wildlife and Fisheries

1916 Organic Act

1963 Clean Air Act, as amended

1964 Wilderness Act

1966 National Historic Preservation Act

1969 National Environmental Policy Act

1970 General Authorities Act

1972 Clean Water Act

1973 Endangered Species Act

1979 Archeological Resources Protection Act

1981 Farmland Protection Policy Act

1993 Government Performance Results Act

Secretarial Order No. 3175 – Departmental Responsibilities for Indian Trust Resources

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South Dakota Game, Fish, and Parks

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U.S. Department of Interior Fish and Wildlife Service
2013 Endangered Species Program. Accessed February 2013 from
http://www.fws.gov/southdakotafieldoffice/endangered_species_newVersionP2.htm.

Appendix A

South Dakota SHPO Concurrence Letter



April 22, 2013

Ms. Cheryl A. Schreier
National Park Service
Mount Rushmore National Memorial
13000 Highway 244
Keystone SD 57751

SECTION 106 PROJECT CONSULTATION - EVALUATION

Project: 130225007F – Hiking Trails to Climbing Areas Environmental Assessment
Location: Pennington County
(NPS)

Dear Ms. Schreier:

Thank you for the opportunity to comment on the above referenced project pursuant to Section 106 of the National Historic Preservation Act of 1966 (as amended). The South Dakota Office of the State Historic Preservation Officer (SHPO) concurs with your determination regarding the effect of the proposed undertaking on the non-renewable cultural resources of South Dakota.

We have made this consensus determination based on the information provided in your letter and the document entitled *Hiking Trails to Climbing Areas Environmental Assessment, April 2013*. We concur with the determination of No Adverse Effect for this undertaking based on the following stipulations. Stipulation 1) properties 39PN2252 and MORU 8 appear to refer to the same road, Horse Thief Lake Road. It is unclear if my office has commented on a determination of eligibility for this property. Therefore, we consider the property unevaluated for listing on the National Register of Historic Places (National Register). Complete information assessing the eligibility of the property must be submitted. Stipulation 2) because the property has not been formally evaluated for the National Register, the property must be monitored on an annual basis for effects. If it is determined that the property is being negatively impacted, your agency must continue consultation with my office to identify ways to avoid or minimize the effects. Stipulation 3) activities occurring in areas not identified in your request will require the submission of additional documentation.

If historic properties are discovered or unanticipated effects on historic properties are found after the Section 106 process has been completed, your agency should follow the guidance established in the 2008 Programmatic Agreement between the National Park Service, the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers.

Concurrence of the SHPO does not relieve the federal agency official from consulting with other appropriate parties.

May 2013

MORU Hiking Trails Environmental Assessment

Should you require additional information, please contact Paige Olson at (605) 773-6004. Your concern for the non-renewable cultural heritage of our state is appreciated.

Sincerely,

Jay D. Vogt
State Historic Preservation Officer

A handwritten signature in dark ink, appearing to read "P. Olson", with a stylized, flowing script.

Paige Olson
Review and Compliance Coordinator

Cc: Steve Rogers, National Park Service