# Scotts Bluff National Monument Trail Development Plan and Environmental Assessment

Photo courtesy of Bret Betnar, Professor of Landscape Architecture, University of Nebraska-Lincoln

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# Scotts Bluff Trail Development Plan and Environmental Assessment

**Summary**

The National Park Service (NPS) at Scotts Bluff National Monument is proposing a trails development plan for the entire park. The proposed project is intended to address issues such as offering community members and visitors a more cohesive way of interacting with geologic, cultural, and natural resources through the development of recreational trails.

The proposed trails development plan is needed to enhance educational, interpretive and recreation opportunities about the geological, natural, and cultural resources to trail users, to protect and preserve historic properties and ensure Scotts Bluff's significance as a National Monument. In addition, the plan seeks to manage visitor use so that impacts on natural resources are minimized, to create established travel routes to minimize impacts to park resources and to enhance public safety for park trail users.

This environmental assessment evaluates three alternatives: a No-Action alternative and two action alternatives. The No-Action alternative describes the current condition with no construction of pedestrian or bicycling trails. Both action alternatives address the construction of the trails.

This Environmental Assessment has been prepared in compliance with the National Environmental Policy Act to provide the decision-making framework that: 1) analyzes a reasonable range of alternatives to meet the project's purpose and needs, 2) evaluates potential impacts to cultural, natural, visitors and park management resources, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. Resource topics included in this document to address foreseeable potential impacts include: soils, wetlands, floodplains, vegetation, cultural landscapes, archeology, paleontology, visitor use and experience, and park operations. All other resource topics were dismissed because the project would not have measurable impacts to these resources. The Preferred Alternative is not anticipated to have any impacts to meet the significance threshold.

**Public Comment:**

If you wish to comment on the environmental assessment, you may post comments online at http://parkplanning.nps.gov/projectHome.cfm?projectID=44254 or mail comments to: Superintendent, Scotts Bluff National Monument, P.O. Box 27, Gering, NE. 69341-0027.

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. Although you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we would be able to do so.

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# Chapter 1- Purpose of and Need for Action

**Introduction:**

This Environmental Assessment (EA) documents the results of a study of the potential environmental impacts of alternative trail networks for Scotts Bluff National Monument (Monument). This document is a plan for trail type and locations. This plan does not specify where and what types of interpretation will occur; only that certain trails will have an opportunity to include interpretation. Funding to implement the plan will be sought after the plan is signed.

This EA has been prepared in compliance with:

- The National Environmental Policy Act (NEPA) of 1969 (42 USC 4321); which requires an environmental analysis for major Federal Actions having the potential to impact the quality of the environment;
- Council of Environmental Quality (CEQ) Regulations at 40 CFR 1500-1508, which implement the requirements of NEPA;
- Regulations of the Department of the Interior for the implementation of NEPA at 43 CFR 46; and
- Director's Order (DO) #12 and Handbook: Conservation Planning, Environmental Impact Analysis, and Decision Making.

There are three primary purposes of an EA:

- To help determine whether the impact of a proposed action or alternative could be significant;
- To aid in compliance with NEPA when no Environmental Impact Statement (EIS) is necessary by evaluating a proposal that will have no significant impact, but that may have measurable adverse impacts; and
- To facilitate preparation of an EIS if one is necessary.

Key goals of NEPA are to help Federal agency officials make well-informed decisions about agency actions and to provide a role for the general public in the decision-making process. The study and documentation mechanisms associated with NEPA seek to provide decision-makers with sound knowledge of the comparative environmental consequences of the several courses of action available to them. NEPA studies, and the documents recording their results, such as this EA, focus on providing input to the particular decisions faced by the relevant officials. In this case, the Superintendent is faced with a decision concerning a trails development plan as described below.

This decision will be made within the overall management framework for the Monument, including previous environmental assessment of the Monument Valley Pathway trail project along the east boundary of the park from August 2002.

In making decisions about National Park Service (NPS)-administered resources, the NPS is guided by the requirements of the 1916 Organic Act. The authority for the conservation and management of the NPS is

stated in the Organic Act as the agency's purpose: "…to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations." This law provides overall guidance for the management of units of the National Park System, including the Monument.

The Organic Act establishes the management responsibilities of the NPS. While Congress has given the NPS management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that park resources and values be left unimpaired, unless a particular law directly and specially provides otherwise. This cornerstone of the Organic Act establishes the primary responsibility of the NPS. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them. *Management Policies 2006* provides the NPS interpretation of the Organic Act and the definition of impairment.

The mission of the NPS at the Monument arises from the Monument's initial proclamation (no. 1547-41 Stat. 1779) in 1919 and the Boundary Revision Authorization Act of June 30, 1961 (75 Stat. 148). During development of the 1998 General Management Plan for the Monument, these legislative authorities were reviewed by the planning team in order to develop a purpose statement for the Monument, which is:

- Preserve and interpret the history of the Platte River transportation corridor and the influences of Scotts Bluff on these routes;
- Provide access, to preserve, and interpret the view from the top of Scotts Bluff;
- Preserve and interpret the geological processes and features of Scotts Bluff and adjacent landforms;
- Preserve the prairie ecosystem around the bluffs as it was used by American Indians, emigrants, and frontier people;
- Preserve and interpret the Monument's cultural resources: archeological sites, Oregon Trail remnants, historic buildings, museum collections, and the cultural landscape.

**Location and Background:**

The Monument consists of 3,003 acres of prairie and bluff habitat, situated along the North Platte River in the panhandle region of western Nebraska. The Monument is adjacent to the city of Gering to the east and to the city of Scottsbluff to the north, in Scotts Bluff County, Nebraska. The massive 800-foot high promontory is a notable natural landmark and resting place along the Oregon/California/Mormon and Pony Express Trails (collectively, the Overland Trail). The Monument attracts approximately 120,000 visitors each year.

The Monument is recognized primarily for its historical significance and unique geological features, the latter consisting of steep, rocky, siltstone and sandstone bluffs, ridges that extend from them and areas of badlands formations. The Monument also contains fossil deposits within its geological strata. The

Monument preserves the historical scene and associated geological features and natural and cultural resources in perpetuity.

The Monument's visitor and support facilities are located three miles west of Gering, and include a museum/visitor center, administrative building, ranger residence, maintenance building and yard, visitor parking lot, and employee parking lot. Originating from the visitor center is the Prairie View Trail that connects to Gering's Monument Valley Pathway System just outside the Monument's east boundary. This is currently the only trail that connects to the communities of Gering and Scottsbluff. The Monument's Oregon Trail pedestrian path leads to the Overland Trail remnants, which allows visitors to experience the environment emigrants encountered over 150 years ago. Another highlight of the Monument is the Summit Road which passes through three tunnels and terminates at the summit parking lot. At the summit, a network of trails lead to several key overlooks which highlight the views in all directions. Interpretive exhibits and signs are located along the trails.

**Purpose of and Need for Action:**

The 1998 General Management Plan (GMP) for the Monument indicated that a trails plan was one of the highest priorities for the park. The purpose of the Monument Trail Development Plan is to study the adequacy of the existing 4.2 miles of trails and the necessity or desirability of changes to this trails system. Most of the park's current trail system is composed of paved, high capacity trails and accesses only a small portion of the interpreted Oregon National Historic Trail. Connections to adjacent recreational trails are only partly complete, while additional community planning efforts are underway to extend their trail networks. The Trail Development Plan is intended to address issues such as offering community members and visitors a more cohesive way of interacting with geological, cultural, and natural resources through the development of recreational trails.

The purpose of the proposed project is to provide educational, informational, and recreational opportunities at the Monument through the development of a trails plan, while minimizing impacts to cultural and natural resources. This trails plan is intended to open other portions of the Monument to visitor access for the purposes of education, interpretation and recreation.

The project is needed to accomplish the following objectives:

- Offer visitors and community members a more cohesive way of interacting with geological, cultural, and natural resources through the development of recreational trails.
- Enhance educational, interpretive and recreation opportunities about the geological, natural, and cultural resources to trail users.
- Protect and preserve historic properties and ensure Scotts Bluff significance as a National Monument.
- Manage visitor use so that impacts on natural and cultural resources are minimized.
- Create established travel routes to minimize impacts to park resources.
- Enhance public safety for park trail users.

**Scoping**

Scoping is a process to identify the resources that may be affected by a proposed project, and to explore possible alternative ways of achieving the project objectives while minimizing adverse impacts. The Monument conducted internal scoping with appropriate NPS staff to identify potential issues, impact topics, and alternative ways to meet project needs. The Monument also conducted external scoping with the public and interested/affected groups.

Scoping is discussed in more detail within Chapter 5: Consultation and Coordination.

**Impact Topics**

NPS Policy requires that all proposed projects be screened for potential impacts against a list of natural and cultural resource categories. Park management used an interdisciplinary review process to determine which resources could be affected by this project.

**Identification of topics to be analyzed:**
NEPA requires that agencies consider whether a number of different possible issues require detailed analysis as impact topics. Impact topics are resources of concern that could be affected, either beneficially or adversely, by implementing any of the proposed alternatives. Impact topics were identified during the completion of the Environmental Screening Form. The following impact topics are analyzed in this document:

- **Soils:**
  Soils can be adversely affected during trail construction as well by heavy trail usage as a result of erosion. Therefore, impacts to soils are analyzed in this EA.

- **Wetlands:**
  Presidential Executive Order 11990 mandates protection of wetlands. The Monument contains 27 acres of wetlands adjacent to the North Platte River. The wetlands are identified as marsh and seasonally flood in the spring, or temporarily flood at other times due to heavy rainfall events or dam releases upstream. One of the alternatives proposes trails through the wetlands area and therefore impacts to wetlands are analyzed in this EA.

- **Floodplains:**
  Presidential Executive Order 11988 mandates floodplain management. The Monument contains 102 acres of floodplains adjacent to the North Platte River. One of the alternatives proposes trails through the floodplains and therefore impacts to floodplains are analyzed in this EA.

- **Vegetation:**
  Native vegetation of the Monument consists of three major plant associations: 1) the moderately dense mixed-grass/short-grass prairie, 2) the ponderosa pine/Rocky Mountain juniper areas, and 3) the riparian woodland along the floodplain of the North Platte River. The

protection and management of these plant associations are cited in the Monument's purpose and mission statements. Trail construction and usage will have impacts on vegetation, and has the potential to introduce exotic invasive species. As a result, this EA will analyze the impacts of the proposed trail development plan on vegetation and how it relates to the introduction and spread of exotic invasive species.

- **Cultural Resources (Cultural Landscapes & Archeology):**
  Section 106 of the National Historic Preservation Act of 1966, as amended, provides the framework for Federal review and protection of cultural resources, and ensures that they are considered during Federal project planning and execution. The Monument is on the Cultural Landscapes Inventory and contains a total of 19 features that have been included on the List of Classified Structures, including the remnants of the Oregon Trail at Mitchell Pass, several Civilian Conservation Corps-era buildings, the summit road and tunnels, historic markers (North Observation Point Marker and Pony Express Centennial Marker), the Scott Memorial, and the Hiram Scott Memorial Arch Ruin. Archeological surveys within the moment have identified 66 sites. Not all areas of the Monument have been surveyed for archeological resources. Trail placement and construction can adversely affect archeological resources. As a result of potential trails impacts and potential unknown locations of archeological resources, this topic will be carried forward for additional analysis.

- **Paleontology:**
  Paleontological resources are abundant throughout the Monument. The Paleontological Resource Inventory and Monitoring report conducted by the Northern Great Plains Inventory and Monitoring Network in 2011 will help determine locations of paleo-resources and appropriate mitigation measures. This topic will be retained for further analysis within the EA.

- **Visitor Use and Experience:**
  The 1916 Organic Act directs the NPS to provide for public enjoyment of the scenery, wildlife and natural and historic resources of national parks "in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations." The introduction of additional trails would increase recreational opportunities to trail users. Some alternatives also propose trail connections to the nearby communities of Gering and Scottsbluff. Part of the purpose of the Monument is to preserve and interpret the view from the summit of Scotts Bluff. Any introduction of new trails could be visible, to some extent, from certain locations on the summit of the bluff. As a result, visitor use and experience will be retained for further analysis.

- **Park Operations:**
  Topics could include staffing, maintenance, facilities, ability to enforce park regulations and protection of park resources and employee and visitor health and safety. Changes in Monument operation needs could occur as a result of implementing any of the action alternatives, so this

topic is retained for further analysis.

**Impact Topics Not Retained**

The topics listed below were dismissed from further analysis as a result of being identified during the internal scoping process as not affecting the environment.

- **Wilderness:**
  There is no wilderness or wilderness study area within the Monument. This impact topic has been dismissed from further consideration.

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

- **Prime and Unique Farmlands:**
  No prime or unique agricultural soils are known to exist within the Monument.

- **Energy Consumption:**
  Implementation of the plans analyzed in this document would have no measurable effect on overall consumption of energy associated with visitation or park operations and maintenance. There will be no lighting of the trails or trailheads.

- **Air Quality:**
  The Federal 1970 Clean Air Act stipulates that Federal agencies have an affirmative responsibility to protect a park's air quality from adverse air pollution impacts. The Monument is located within a Class II air quality area. This is less stringent and pristine as compared to a Class I area. Trail construction impacts on air quality would be limited to short term affects including the temporary introduction of particulates into the environment. As a result, air quality will not be included for further analysis with the EA.

- **Land Use, including occupancy, income, values, ownership, type of use:**
  The Monument itself consists primarily of mixed-grass prairie. Visitor and administrative facilities also occur within the Monument. Outside the Monument boundaries are the communities of Gering and Scottsbluff which support a mix of land uses typical of small to mid-sized settlements, including residential, industrial, agricultural, and commercial land uses. The trail development plan would not affect land uses to adjacent areas. Land uses within the Monument would be the same other than the addition of pedestrian trails in some locations.

Therefore, this impact topic is not included for further analysis in this EA.

- **Wildlife:**
  The long-term goal of the Monument's natural resource management program is to maintain wildlife populations with healthy plant communities. There are resident populations of various species of reptiles, amphibians, birds, mammals, and invertebrates. No foreseeable impacts will occur to wildlife, as a result of the trails development plan. As a result, this topic will not be included for additional analysis.

- **Special Status Species:**
  Analysis of the potential impacts on special status species (federal or state endangered, threatened, or candidate species; or species of concern) is required by the Endangered Species Act, NPS Management Policies, the National Environmental Policy Act, and other regulations. Consultation with U.S. Fish and Wildlife concluded no adverse impacts to special status species would result. Special status species will not be retained for further analysis.

- **Historic Structures:**
  The Monument contains a total of 19 features that have been included in the List of Classified Structures, including the remnants of the Oregon Trail at Mitchell Pass, several Civilian Conservation Corps-era buildings, the Summit Road and tunnels, historic markers (North Observation Point Marker and Pony Express Centennial Marker), Scott Memorial, and the Hiram Scott Memorial Arch Ruin. The action alternatives will not impact historic structures, as a result, this topic will not be retained for additional analysis.

- **Ethnography/Indian Trust Resources:**
  Indian trust resources are those resources held in trust for American Indians by the United States. These can be lands or specific resources granted by treaty. Sacred sites are locations that are held as sacred places by a tribal or other group. In 1998 the Monument completed an Ethnographic Resource Study which concluded there were no affiliated tribes. The Monument consulted ten federally recognized tribes. There are no known properties that can be classified as trust resources, no resources at the Monument that have been protected through treaty or by other government, or sacred sites that would be impacted by the alternatives. As a result, ethnography will not be carried forward for analysis unless the Monument receives comments to that affect.

- **Socioeconomic:**
  The National Environmental Policy Act requirements include an analysis of social and economic impacts caused by federal actions. The economics of nearby communities of Scottsbluff and Gering would not be affected by the Monument's proposed trail development plan. Usage of the proposed trails would be almost exclusively by citizens of the local communities. While the Monument is not a destination park, out of town visitors tend to make the Monument a 'stop'

during their vacation to destination parks and are most interested in learning about the Oregon Trail and driving to the top of Scotts Bluff as opposed to hiking on trails.

# Chapter 2: Alternatives

**Alternatives:**

NEPA requires that federal agencies conduct a careful, complete, and analytical study of the impacts resulting from proposals that have the potential to affect the environment, and to consider alternatives to those proposals, well before any decisions are made. This section describes the three alternatives considered, including the No-Action alternative. Following a description of the alternatives selected for analysis is a discussion of the environmentally-preferable alternative and preferred alternative.

The Alternatives were developed from collaborative interdisciplinary analysis based on the expertise of interdisciplinary planning team members, as well as on internal and external scoping processes.

Please see the attached trail alternative maps, pages 17-19.

**Alternative A – No-Action:**

This Alternative maintains the existing trails in place at the Monument. There would be no changes to the existing trail infrastructure. Recent trail use trends consist of visitors, not from the local area, walking along the Oregon Trail Pathway to learn about the 'ruts' and emigrant experience. In addition, non-local visitors tend to stop at the Visitor Center and drive to the summit of Scotts Bluff. However, visitors from the nearby communities tend to utilize the trails for recreational purposes in addition to the interpretive opportunities. The Prairie View Trail which links Gering to the Monument is widely used by locals, for walking, jogging, and bicycling. Current trails at the Monument include the following:

- *Saddle Rock Trail*: This asphalt trail runs 1.6 miles from the Visitor Center to the summit of Scotts Bluff. This trail allows park visitors to experience the prairie setting for the immediate first third of the trail and ascend to the foot tunnel leading to the final section which showcases the unique geological formations located alongside Scotts Bluff. This trail has been identified as a circulation feature of the cultural landscape.
- *North Overlook Trail*: This 0.5 mile asphalt trail starts on the north end of the summit parking lot and provides an amazing view of the North Platte River Valley, the badlands, and the cities of Scottsbluff and Gering. This view illustrates why pioneers traveling by wagon went through Mitchell Pass and not the badlands due to the difficult terrain. This trail has been identified as a circulation feature of the cultural landscape.
- *South Overlook Trail*: This 0.4 mile asphalt trail starts on the south end of the summit parking lot and provides a view of Mitchell Pass, remnants of the Oregon Trail, and the Oregon Trail Museum and Visitor Center. The view also allows visitors to see all five rock formations: Crown Rock, Dome Rock, Eagle Rock, Sentinel Rock and Saddle Rock.

- *Oregon Trail Pathway*: This 0.5 mile part asphalt and dirt trail starts at the Visitor Center and traverses along the Oregon Trail route via Mitchell Pass that pioneers began using in 1851, ending at William Henry Jackson's campsite. This trail gives visitors a firsthand account of the path pioneers traveled in the mid-19th Century. The Oregon Trail Ruts have been identified as a circulation feature of the cultural landscape.
- *Prairie View Trail*: This 1.2 mile asphalt trail is open to bicycle riding as well as foot traffic and leads from the Visitor Center parking lot to the east boundary of the Monument. At the east boundary, the path connects with the cities of Scottsbluff and Gering's Monument Valley Pathway System. This is the only trail that connects the communities with the park.

**Features Common to Action Alternatives:**

- Natural Surface Trails: Natural surface trails are designed and constructed with high consideration of the natural lay of the land. Natural trail surface will be the existing grass or mineral soils with removal of vegetation like shrubs along the proposed trail corridor only when required for clearance. While every park is encouraged to use 'universal design' principles when constructing new trails, a high level of accessibility would be difficult throughout the Monument given the topography. Typical trails will be approximately four-feet wide with cleared shoulders to prevent vegetation from blocking the trail. Natural trails would be mowed, or otherwise appropriately maintained, on an annual basis. The primary trail users for the natural trails are pedestrians as bicycling is not permitted. Areas where the potential for erosion exists, such as steeper terrain, will utilize best management practices such as trail climbs, outslopes, grade reversals, armoring the tread, edge protection and soil stabilizers. These techniques reduce the likelihood of erosion through the proper management of erosion and its impact on trail surfaces. More detailed discussion of the implementation of these techniques is found within Appendix X. Majority of trail construction would be completed through manual labor and use hand equipment. Construction of the natural trails may utilize a compact dozer or small skid-steer loader for the transportation of soil stabilizers and removal of vegetation. Natural trails within alternative B consist of the Oregon Trail Pathway Extension and Old Country Club Trail. Natural trails within alternative C consist of the Oregon Trail Pathway Extension, Northern Community Link Trail to the Central Canal, Old Country Club Trail and the Ravines Trail.

- Hardened Trails: All hardened trails are specific to the trail location which is highlighted in each alternative's description. Generally, hardened trails have a corridor of six-to-ten feet with cleared shoulders to prevent vegetation from blocking the trail. The Old Oregon Trail Road path would be ten feet wide which is highly recommended for multiple use trails. Hardened trails are much more accessible. Some hardened trails will permit bicycle use. Construction methods include the excavation of the surface layer of soils and vegetation along the proposed trail corridor that provides a firm, accessible surface. The base of the trail tread will be taken down to rock and a layer of crushed rock will be laid for a stable base. Surface material would be crushed aggregate standard for the area (crushed limestone or comparable). Areas where the potential for erosion exists, such as steeper terrain will utilize techniques such as edge

protection, outslopes and armoring the tread. These techniques reduce the likelihood of erosion through the proper management of erosion and its impact on trail surfaces. More detailed discussion of the implementation of these techniques is found within Appendix X. Construction of the hardened trails will use a combination of a skid-steer loader and a front loader for the removal of vegetation and placement of crushed rock and crushed aggregate. Hardened trails within alternative B consist of the Ravines Trail which is located along an abandoned service road and a section of the Old Oregon Trail Road right-of-way. Hardened trails within alternative C consist of Old Oregon Trail Road, Northern Community Link Trail from the North Platte River to the Central Canal and the Central Canal path.

- Electronic Trails (E-Trails): E-Trails use GPS devices, which dictate virtual trail routes that the park staff has established. E-Trails do not exist on the ground in any physical sense but allow the trail user to follow GPS data points, or E-points, on their device which displays the route. E-Trails are not permanent and can be changed at any time based on circumstances to meet the Monument's needs to protect resources, at the completion of an interpretive program, or weather conditions. The Monument can also alter the E-Trail route as needed for resource management interpretation and preservation. Access to E-Trail data is provided through the park website where visitors can download the trail data to an electronic device such as a smart phone or tablet. Alternative B E-trail consists of the Oregon Trail Experience loop; while alternative C E-trails consist of the Oregon Trail Experience loop, the Ravines Trail loop and the South Bluff trail loop.

**Alternative B –**

Under Alternative B, approximately 3.2 miles of additional trails would be constructed in two different sections of the Monument and 1.6 miles of E-trail. The proposed trails would help accomplish the project's needs by providing visitors with more enhanced educational, interpretive and recreational opportunities about the geological, natural, and cultural resources within the park and ensure public safety for park trail users. Methods of proper mitigation and best management practices for the implementation of the trails plan is discussed in Appendix X. The appendix also highlights accessibility issues as it relates to trails. The following proposed trail additions include:

- *The Ravines Trail*: This proposed six-foot wide hardened surface trail with cleared shoulders to the old picnic grounds would utilize the abandoned service road and right-of-way along Old Oregon Trail Road. Trail users would park their bicycles or cars in the visitor center parking lot on the north side of the Old Oregon Trail Road and cross the road at the visitor center to the origin of the trail directly across the road. This location allows for a safer crossing of the road than at other locations in the park as the contours of the road ensure greater visibility to pedestrians. From its origins on the south side of the road across from the visitor center, the trail would run parallel to the road towards the west, making its way to the abandoned service road. This proposed trail would highlight the historical importance of Civilian Conservation Corps' (CCC) role throughout the Great Depression and in the development of the Monument.

This trail would also allow visitors an opportunity to see an area of the Monument not commonly explored by the public, as the old picnic grounds have been formally closed since 1940.

- *Old Country Club Trail and extension of the Oregon Trail Pathway*: This link would connect with the Monument Valley Pathway system creating a loop around Scotts Bluff (North Bluff). This proposed trail would consist of natural surfaces. A portion of the trail would utilize the Old Country Club road. The trail would highlight geological, natural and cultural resources in this area of the park, and also give park visitors a unique trail experience by allowing a closer examination of these resources compared to current trails in place.
- In order to further interpret the existing Oregon Trail remnants this plan proposes an E-Trail loop (Oregon Trail Experience E-Trail) off what would be the new portion of the Oregon Trail Pathway extension. The E-Trail would accommodate visitors wanting a lengthier path while allowing additional interpretive opportunities of the Oregon Trail remnants. The proposed E-trail would be approximately 1.6 miles in length.

**Alternative C – (Preferred)**

Under Alternative C, the trails would include the routes proposed in Alternative B plus additional trails towards the northern end of the park and within the easement of the Old Oregon Trail Road. This would result in a total of 7 additional miles of constructed trails and 3.6 miles of E-trails. The proposed trails within Alternative C would accomplish the project's purpose by providing visitors with enhanced educational, interpretive and recreational opportunities about the geological, natural, and cultural resources with the park and ensure public safety for park trail users. Methods of proper mitigation and best management practices for the implementation of the trails plan are discussed within Appendix X. The Appendix also highlights accessibility issues as it relates to trails. In addition to proposed trails within Alternative B, this Alternative includes the following trails:

- *Northern Community Link Trail* [1]: This proposed trail would link the Monument with the City of Scottsbluff's Monument Valley Pathway trail network. The proposed route would establish a bridge across the North Platte River and another bridge across the Central Irrigation District Canal (Central Canal). Between the Central Canal and North Platte River crossings, a boardwalk is proposed to pass through wetlands. South of the Central Canal crossing, pedestrians would utilize a drainage culvert for safe passage under the existing Union Pacific Railroad tracks. This trail would continue south utilizing the abandoned CCC service road to the Gering Irrigation Canal (Gering Canal). Another bridge would be needed to cross the Gering Canal. South of the

[1] Alternative C provides for the construction of a bridge to span the North Platte River and a boardwalk to cross the wetlands adjacent to the North Platte River. While the construction of these features is proposed, they are not analyzed in this plan because there is no design or foreseeable funding for a boardwalk and bridge crossing at this time. If, in the future, the Monument and the cities of Gering and/or Scottsbluff wish to construct these features they will be subject to their own compliance process, including the preparation of a statement of findings to detail the impacts to the floodplain and wetlands. These requirements would need to be completed prior to implementation.

Gering Canal, the trail would utilize the abandoned Old Country Club Road, which is discussed in Alternative B, and provide an additional community link at Country Club Road into the City of Gering. The Old CCC Road section of the trail (south of the Central Canal to the Old Country Club Trail) would be a four-foot wide natural trail that would create a community trail link from the northern end of the Monument and also allow visitors to experience the badlands area of the Monument. All sections of this trail south of the Central Canal will be for pedestrians only. Only the 0.1 mile portion of the trail from the Central Canal to Scottsbluff is proposed to be open to bicyclists and pedestrians. This 0.1 mile portion is classified as an undeveloped area with regards to the bicycle regulation. In accordance with 36 CFR 4.30, new trails for bicycle use outside developed areas require a special regulation to authorize its implementation. However, issues with funding, design and third party agreement must be completed prior to compliance with 36 CFR 4.30.

- *Central Canal Trail*: This proposed 0.5 mile trail would connect where the Northern Community Link Trail crosses the Central Canal and traverse along the canal right-of-way (ROW) to the east. This trail would support the use of bicycles and pedestrians. This is contingent upon access agreements with the Central Irrigation District. The Central Canal is non-NPS property; as a result 36 CFR 4.30 would not be applicable.
- *Old Oregon Trail Road:* This proposed ten-foot wide hardened trail would be along the county right-of-way easement of Old Oregon Trail Road. The specific location along the north or south side of the road would be decided based upon value engineering. This trail would function as a non-motorized transportation enhancement supporting bicycle and foot traffic from the eastern boundary of the Monument which would connect with the Monument Valley Pathway Trail network and extend to the western boundary of the Monument. There will be a divide between the road and the bicycle/pedestrian trail. The trail would accommodate anticipated road bicycle traffic and ensure safety for all recreational users. Since this is a public road and this trail will be extending the road's footprint into the right-of-way, this enhancement will not be subject to 36 CFR 4.30. This trail will not result in the current right-of-way being extended.
- In addition to the Ravines Trail as proposed in Alternative B, a small parking lot is proposed to accommodate up to ten vehicles. This parking lot would be located near the Monument entrance sign on the western edge of the park boundary. This parking lot would help ensure public safety as it would be situated on the south side of Old Oregon Trail Road reducing the need for visitors to cross the road. Construction for the parking lot would consist of the removal of vegetation and the placement of crushed stone as base material and crushed aggregate for surface material. The parking lot would link trail users to the trail proposed in Alternative B. The Ravines Trail within Alternative C would be natural surface.
- Two E-Trails are proposed on the south side of Old Oregon Trail Road. The first E-trail extends off the Ravines Trail. The second E-trail would start directly south of the Visitor Center and traverse the South Bluff. The steep slopes throughout this area are of particular concern as erosion may result. These proposed E-trails would allow visitors an opportunity to explore the South Bluff, which typically does not see a high degree of visitor use. In addition, views from the South Bluff towards the Oregon Trail and Scotts Bluff would highlight the cultural landscape.

**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".

Alternative A is the environmentally preferable alternative. The No-Action alternative will cause the least damage to the biological and physical environment. While it also best protects and preserves historical, cultural, and natural resources.

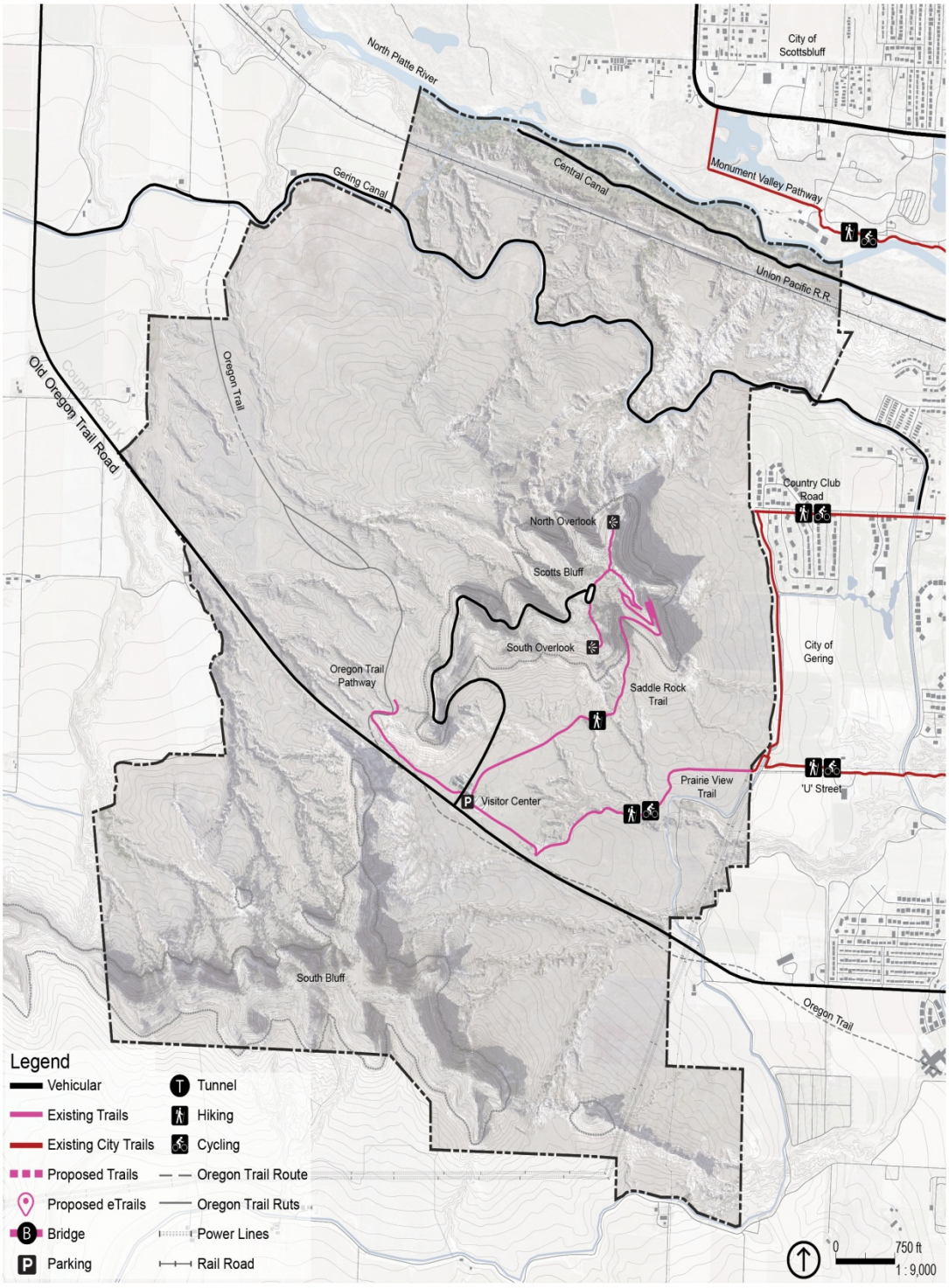
**Preferred Alternative:**
The NPS preferred alternative was developed following an analysis of the advantages of each preliminary alternative, including consideration of public comments received during the scoping process. The NPS uses a process called "Choosing By Advantages" (CBA) that allows the agency to evaluate the relative advantages based on the Monument's purpose and related public interest, and assess whether those advantages are worth their associated costs.

The topics that the interdisciplinary team used to evaluate the relative advantages between the alternatives were as follows:

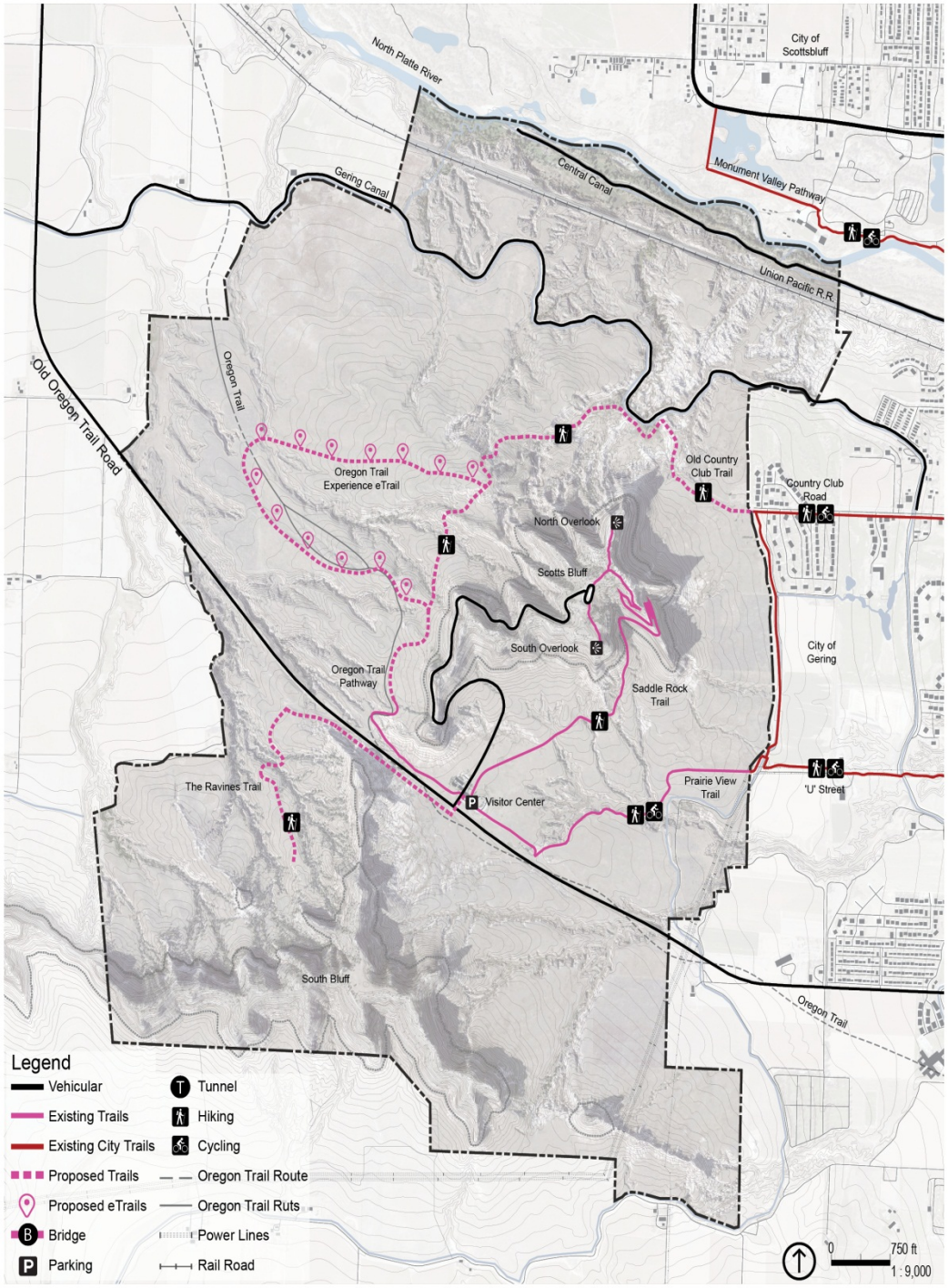
- Provide trail access to a variety of park resources to facilitate interpretation
- Preserve or provide protection for cultural resources and viewshed
- Preserve or provide protection to natural and paleontological resources
- Offers enhanced links to the surrounding communities through trails
- Provides additional recreational opportunities and diversity of trail experience

The evaluation of the advantages and costs of each alternative were initially identified by the interdisciplinary team during a multi-session workshop, with a follow-up discussion to identify which alternative would provide the greatest value for the Monument. This analysis process lead the team to recommend Alternative C as the NPS preferred alternative.

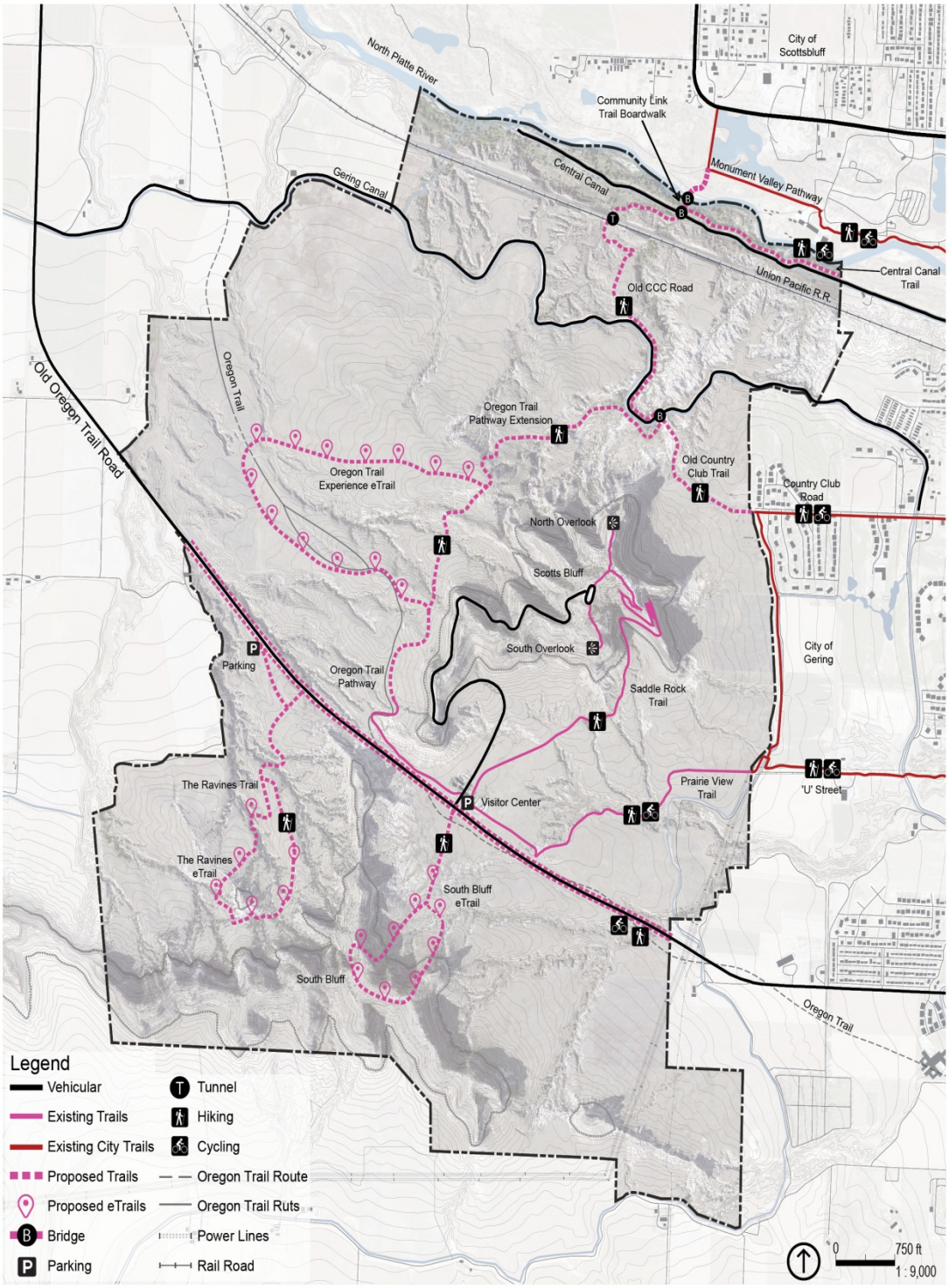
## Master Plan Alternative A (No Action Alternative)



## Master Plan Alternative B



## Master Plan Alternative C (Preferred Alternative)



# Chapter 3: Affected Environment

This chapter summarizes relevant resource components of the existing environment directly in the project area. It describes environmental components that would be affected by the alternatives if they were implemented, and provides a baseline against which environmental consequences of the Trails Development Plan can be compared. Additional material, specifically related to impacts and effects of the alternatives, is included in Chapter 4, Environmental Consequences.

**Identification of topics to be analyzed:**
The following is a list of resources retained for further analysis within this Environmental Assessment:

- **Soils:**
  According to the Soil Survey for Scotts Bluff County, Nebraska, there are three principal soil associations found at the Monument: Tassel-Anselmo-Rock, Mitchell-Keith-Epping, and Mitchell-Otero-Buffington. The Tassel-Anselmo-Rock outcrop association consists of steep, rocky soils with sandy soils and outcrops of rock on uplands. The Mitchell-Keith-Epping association is generally very gently sloping to sloping and steep in places with loamy and sandy soils on uplands. The Mitchell-Otero-Buffington association is predominantly level with occasional slight slopes with deep soils of silty, sandy, and clayey texture on valley floors. These soils have rapid permeability, low water capacity, and are highly erodible. The greatest potential threat to these soils is erosion. The erosion potential is highest during and after precipitation events. Annual precipitation is approximately 14.5 inches, most of which falls during the spring and summer, although recently less rain has occurred as a result of the drought.

- **Wetlands:**
  In 1992 the U.S. Fish and Wildlife Service identified three areas of wetlands within the Monument. All three areas are adjacent to the North Platte River on the Monument's north boundary. These three areas consist of approximately 27 acres and are identified as marsh. The plants are classified as emergent in two areas, which are plants rooted in soil with basal portion that typically grow beneath the surface of the water. The third type is scrub-shrub, which is similar to emergent plants, but has a woody stem and can grow to considerable size. The areas can be seasonally flooded in the spring as the river rises from melted snow in the Rocky Mountains and temporarily flooded at other times of the year due to seasonal precipitation events and dam releases upstream.

- **Floodplains:**
  The north boundary of the Monument is the centerline of the North Platte River. Approximately 102 acres of the Monument lie adjacent to the river and are considered to be part of the North Platte River floodplain by the City of Scottsbluff. According to the U.S. Army Corps of Engineers (1975), only a portion of the Monument's land adjoining the river lies within the river's Special Flood Hazard Area, an area that has the statistical potential to be inundated by 100-year frequency floods. Before dams and reservoirs were completed upstream on the North Platte

River, spring floods from melting snow in the Rocky Mountains were common. These floods produced a river that was much wider than today's with a more thoroughly scoured floodplain possessing a lower concentration of trees and other woody vegetation than what is now present. Today the floodplain of the North Platte River within the boundaries of the Monument is forested by large plains cottonwood (*Populus deltoids*) trees, other woody species, and several species of exotic herbaceous vegetation.

- **Vegetation:**
  The protection and management of the plant associations are cited in the Monument's purpose and mission statements. The native vegetation of the Monument consists of three major plant associations: 1) the moderately dense mixed-grass/short-grass prairie, 2) the Ponderosa Pine/Rocky Mountain juniper woodlands, and 3) the riparian woodlands along the floodplain of the North Platte River. Within these areas of the Monument can be found seven major habitat types: riverine woodland, coniferous woodland, mixed-grass/short-grass prairie, riparian habitat, pine studded bluffs, shrub-dominated slopes, and badlands.

  The mixed-grass prairie comprises approximately 87% of the total acreage within the Monument and includes the relatively flat prairie surrounding Scotts Bluff and South Bluff as well as the grassy slopes leading to their summits. The mixed-grass prairie is dominated by blackroot sedge (*Carex filifolia* var. Nutt) and needle-and-thread grass (*Stipa comata*). Other native grasses, such as western wheatgrass (Agropyron smihii), blue grama (Bouteloua gracilis), prairie sandreed (*Calamovilfa longifolia*), and side oats grama (*Bouteloua curtipendula*) are common.

  The Ponderosa Pine/Rocky Mountain juniper woodlands comprise approximately 10% of the total acreage within the Monument and include the summits of the Scotts Bluff and South Bluff, as well as the ravines and draws. Ponderosa pine (*Pinus ponderosa*) is the most abundant tree species on the summits, while Rocky Mountain juniper (*Juniperus scopulorum*) and some eastern red cedar (*Juniperus virginiana*) occupy the ravines and draws. The most abundant grass species in the understory of the ponderosa pine are little bluestem (*Schizachyrium scoparium*), needle-and-thread (*Stipa comate*), blue grama (*Bouteloua gracilis*), and side oats grama (*B.curtipendula*). The ravines and draws contain western snowberry (*Symphoricarpos occidentalis*), skunkbush sumac (*Rhusaromatica)*, and various sedges.

  Non-native vegetation, including state-designated noxious weeds, has invaded an estimated 1,500 acres within the Monument. Non-native vegetation occurs primarily in the damp ravines and in the floodplain. Canada thistle (*Cirsium arvense*) and musk thistle (*Carduus nutans*) are state listed noxious weeds that occur at the Monument and are considered the highest priority for control. Canada thistle occurs along the irrigation canals and both species occur along the bottoms of ravines and in riparian zones along the North Platte River. More than 100 species of exotic plants, though not state-designated as noxious weeds, infest large areas of native prairie in varying concentrations. These include smooth brome (*Bromus inermis*), cheatgrass (*Bromus*

*techtorum*), Japanese brome (*Bromus japonicus*), kochia (*Kochia scoparia*), white sweet clover (*Melilotus alba*), yellow sweet clover (*Melilotus officinalis*), and Russian thistle (*Salsola iberica*). In general, these exotic plants have degraded native plant communities in the Monument.

- **Cultural Resources:**
  - **Cultural Landscapes:**

    Cultural Landscapes illustrate how people have used, changed, and adapted to their surroundings through time. The Monument consists of one cultural landscape with two separate components – the first component is the Oregon Trail landscape with its associated Bluffs which was a major route of migration that westward settlers used to reach the interior and Pacific Coast of the United States during the 19th century. It passes through lands now within the Monument. The second component is the Civilian Conservation Corps (CCC) visitor facilities and surroundings built by the CCC date from the 1930's, when the federal government dispatched men to the area to build and improve infrastructure and facilities. This landscape component consists of visitor facilities and the Summit Road which includes tunnels the CCC had to carve out of Scotts Bluff.

    Currently, the cultural landscape of the Monument is in "good" condition, as per definitions in the CLI Professional Procedure Guide. However, portions of the landscape, including features such as the CCC-built structures/landscapes, need to be stabilized to better preserve their historic character. The most widespread threats to the Monument's landscape include erosion, invasive non-native species, incompatible land use within the Monument's boundaries (Various irrigation districts and Union Pacific Railroad operating as easements), and development outside Monument boundaries. Erosion from storm water runoff has already compromised the historic Oregon Trail ruts; preservation has focused on diverting this runoff to minimize future damage. Non-native species often outcompete native plant species and completely alter the landscape experienced by American Indians, early pioneers, and settlers. Power lines that run through the Monument on utility right-of-ways mar the historic viewshed. The presence of railroad tracks and irrigation canals in the Monument, as well as the escalation of residential development directly adjacent to the Monument, represent the impact western migration had on the surrounding landscape and the concept of manifest destiny that followed the migration period.

    **Archeology:**

    Eighty percent of the Monument has been surveyed for archaeological resources and 66 archaeological sites have been documented. Forty-eight sites have been included in the Park Service's Archeological Sites Management Information System (ASMIS). Of the forty-eight sites; thirteen are in good condition, twenty-nine in fair condition, two in poor condition, two not relocated-unknown condition and two unknown condition. The remaining eighteen sites are classified as Local Resource Type (LRTs) and include one

destroyed site, one district (National Register District of the entire Monument), and sixteen isolated sites. The Monument's predominant archaeological resources pertain to American Indian cultures that have been present in the area for approximately 10,000 years. The American Indian habitation sites consist of prehistoric lithic material scatter (e.g, chipped stone debris, and stone tools), as well as sites with pottery, animal bone, and domestic features such as the remains of fire hearths. Scottsbluff points – long, thin, flaked-stone points used by American Indians as tips on hunting spears – have been found within the Monument and helped archaeologists date prehistoric human use of the area back at least 10,000 years. The Monument's archaeological resources are endangered by erosion that can expose and damage artifacts, and by some limited illegal collection in the badlands.

- **Paleontology:**
  The geology of the badlands area is significant not only for being a barrier to the pioneer wagon trains, but it is significant also for the fossils it contains. The majority of fossils found at the Monument are located in the badlands section. Here the Orella Member of the Brule Formation is exposed. It consists of interbedded sandstone and siltstone layers that represent floodplain and channel deposits of ancient streams that flowed eastward from the uplifting Rocky Mountains. This is the oldest rock outcrop at the Monument. Fossils of horses, oreodonts (extinct, sheep-sized, four-toed mammals), prairie dogs, foxes, turtles, rodents, beavers, and cats have been found in the badlands. Some of the richest fossil-bearing strata in Nebraska are found here. The Monument's fossils have become type, or indicator, fossils for the Oligocene Epoch (40-25 million years before present). Most of these fossils were collected prior to the establishment of the Monument in 1919. Many other fossils could still exist within the Monument. Fossil hunting in the badlands remains a real threat to the publicly owned paleontological resources of the Monument. The Paleontological Resource Inventory and Monitoring report conducted by the Northern Great Plains Network in 2011 has identified some of these fossil resources.

- **Visitor Use and Experience:**
  For many non-local visitors, the Monument is a brief stop on their vacation route, which frequently terminates at such destination areas as the Black Hills of South Dakota or Yellowstone National Park. Most visitors spend time in the Monument's museum and visitor center, and a majority travel to the summit of Scotts Bluff. For local visitors, the Monument serves recreational needs, through the use of the trails and education needs for nearby schools. This is most observed through the use of the Prairie View Trail, 1.2 mile paved bicycle and foot traffic trail that leads from the visitor center to the east boundary of the Monument and connects with the cities of Gering and Scottsbluff's Monument Valley Pathway System. This is the only trail that connects the communities with the park.

  There are two main interpretive facets to the visitor experience at the Monument: 1) the story of the westward migration on the Oregon, California, and Mormon Trails, and 2) the natural and

scenic beauty of the bluffs and surrounding prairie. While the Monument is open year-round, visitors use is highest from June through August, with the greatest number of visitors staying for a few hours. On average, the Monument has approximately 120,000 visitors per year (http:Irma.nps.gov/Stats/Reports/ReportList).

Visitors to the Monument are able to experience a significant representation of the westward expansion era as it relates to the historic trails, Pony Express, and first transcontinental telegraph. Visitors can walk in wagon ruts through Mitchell Pass just as emigrants did over 150 years ago. For those visitors who hike or drive to the summit of the 800-foot high Scotts Bluff, a significant part of their experience is the panoramic view of the prairie, bluffs and badlands within the Monument and the more distant views of the North Platte River Valley and the historic landscape beyond.

**Park Operations:**
The staff at the Monument are responsible for managing approximately 3,000 acres of National Park System land and accommodating about 120,000 visitors each year. The Monument currently has 11 permanent and 12-15 seasonal employees who perform a variety of functions including: park management and administration, facility management, maintenance of historic structures and grounds, resource management, and interpretive operations. Facility Management has three permanent and two seasonal employees that could take up additional trail maintenance duties. The Rangers have three permanent and 7-12 seasonal employees that could take on additional patrol, roving and interpretive trail duties. Maintenance of trails would require the use of project funds (cyclic) to periodically hire a trail crew for trail maintenance. The Monument's trail experience with existing high-capacity paved trails suggests that a 7-12 year maintenance cycle in their climate and terrain would be sufficient. Approximately 90% of those funds would be utilized for water-bar maintenance and some slight tread maintenance where water-bars fail. The remaining 10% would be used for unanticipated problems such as trail cutting, slope maintenance and bridge maintenance.

# Chapter 4: Environmental Consequences

This chapter analyzes the potential environmental consequences, or impacts, that would occur as a result of implementing the trail development plan, including the No-Action Alternative. Topics analyzed in this chapter include soils, wetlands, floodplains, vegetation, cultural resources, paleontology, visitor use and experience; and park operations.

**General Methodology for Analyzing Impacts:**

In accordance with the CEQ regulations, direct, indirect, and cumulative impacts are described (40 CFR 1502.16) and the impacts are assessed in terms of context and intensity (40 CFR 1508.27). Where appropriate, mitigating measures for adverse impacts for each resource may vary; therefore, these methodologies are described under each impact topic.

**Type of Impact** describes the classification of the impact as either *beneficial* or *adverse*, *direct* or *indirect*. The terms "impact" and "effect" are used interchangeably throughout this EA.

- *Beneficial*: An impact that would result in a positive change to the resource when compared to the existing conditions.
- *Adverse*: An impact that causes an unfavorable result to the resource when compared to the existing condition.
- *Direct*: Impacts that would occur as a result of the proposed action at the same time and place of implementation (40 CFR 1508.8).
- *Indirect*: Impacts that would occur as a result of the proposed action, but later in time or farther in distance, but still reasonably foreseeable from the action (40 CFR 1508.8).

**Cumulative Impact Scenario Analysis Methodology**

CEQ regulations require the 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 both the no-action and action alternatives.

Cumulative impacts were determined by combining the impacts of the action alternatives (implementation of the trails plan) with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at the Monument and, if applicable, the surrounding region. No reasonably foreseeable future development is anticipated for the Monument other than within the administrative area (new comfort station and a shelter for the tour bus), but the Monument does anticipate that the surrounding communities of Scottsbluff and Gering are likely to continue in their development of their recreational trails systems. These trails can only interconnect to the Monument with the development of this trail plan. If the plan is not implemented, there will be no additional trail connections between the Monument and the

communities. If implemented, an increased ease of access for the members of the communities is likely to lead to some increase in visitation by those who utilize the trails system.

**Assessing Impacts Using CEQ Criteria:**

The impacts of the alternatives are assessed using the CEQ definition of "significantly" (1508.27), which requires consideration of both context and intensity:

- **Context:** Significance varies with the physical setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale, rather than in the world as a whole. This means that the significance of any action may be analyzed within the appropriate context, such as society as a whole (human, national), the affected region, or the locality. Both short-term and long-term effects are relevant which is often characterized as duration.
    - **Duration:**
        1. *Short-term*: impacts generally last only during the initiation and implementation of the project, and the resources resume their pre-project conditions following the implementation of the project.
        2. *Long-term*: impacts last beyond the initiation and implementation of the project, and the resources may not resume their pre-project conditions for a longer period of time.
- **Intensity:** this refers to the severity of the impact. The following should be considered in evaluating intensity:
    1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
    2. The degree to which the proposed action affects public health or safety.
    3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
    4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.
    5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
    6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
    7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
    8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of

Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the impact.

For each impact topic analyzed, an assessment of the potential significance of the impacts according to context, intensity and duration is provided in the "conclusion" section that follows the discussion of the impacts under each alternative. Intensity of the impacts fully considers the relevant factors from the list above. Intensity factors that do not apply to a given resource topic and/or alternative are not discussed.

## Soils

Alternative A: No-Action

- Impacts:
  There would be no impact to the soils since the trails would not be constructed. No evidence has suggested current trail use has resulted in erosion. Nearly all current trails are paved and as a result, trail users stay on the designated paths which reduce the possibility of erosion.
- Cumulative Impacts:
  Past actions impacting soils at the Monument include the Overland Trail itself, Old Oregon Trail Road which bisects the Monument, the Summit Road which carved tunnels on the side of Scotts Bluff, the CCC service roads which are abandoned, the canals and paralleling service roads, the Union Pacific Railroad, and the recreational trails. No additional impacts would occur under the No-Action Alterative. Natural occurring erosion due to rain, ice, and wind will continue just as it has the past.
- Conclusion:
  No impacts to soils will result under the No-Action Alternative. Naturally occurring erosion will continue to impact soils at the Monument. There is no beneficial or adverse impact to soils as a result of the No-Action Alternative.

Alternative B: Action

- Impacts:
  This alternative calls for the construction of two separate trails, including an E-Trail. There will be little or no impact from the establishment of the E-trails, since that will be an electronic route across the landscape that can be changed periodically to lessen impacts from its use; what impacts there may be would be slight compaction of soils from use. There are no construction-related impacts with the E-Trail.

The hardened trail calls for the removal of the surface layer of soils. The hardened trail will require excavation of soils for the placement of crushed stone base and crushed aggregate surface. Excavation of soils has an adverse impact on soils; however, the context of this impact is restricted to the immediate trail corridor and shoulder.

Natural surface trails may involve the removal of vegetation along the trail corridor and shoulder. This in turn can result in the exposure of unstable soils which can lead to erosion. In some circumstances the sidehill of natural trails will require grading the bed for the trail. This is most likely along the steep section of the route northwest of Scotts Bluff. The transportation of construction related machinery would likely result in some additional compaction to soils. Grading and exposure of unstable soils can be adverse; however, the context is restricted to the immediate trail corridor and shoulder. Although some trail locations will be situated in areas of no development, other sections will utilize abandoned service roads. Trail sections, natural and hardened that utilize abandoned service roads are less likely to have an adverse impact on soils as the placement of a trail will not involve creating a foot path. For a description of grading techniques and other BMPs, see Appendix X.

- Cumulative Impacts:
  The cumulative impacts as a result of this alternative and the ongoing natural erosion would be minimal. However, it is foreseeable that a trail directly linking the Monument with the community of Gering will result in additional recreational use into the Monument. Excessive trail use would be recognized by increased trail surface erosion of natural and hardened trail surfaces and edges which would require additional mitigation (BMPs) to resolve the impacts.
- Conclusion:
  Alternative B would have adverse impacts on soils. The impacts would be direct and restricted to the immediate surroundings of the trail placement. However, excessive use of these trails could also result in long-term soil impacts as compared to the short-term construction impacts. Overall, impacts to soils associated with Alternative B do not meet any of the significance criteria.

Alternative C: Action (Preferred)

- Impacts:
  Impacts to soils as a result of Alternative C are similar to those in Alternative B. Alternative C includes all the same routes as Alternative B but with additional trails (including E-trails) and a small parking lot. There will be little or no impact from the establishment of the E-trails, since that will be an electronic route across the landscape that can be changed periodically to lessen impacts from its use; what impacts there may be would be slight compaction of soils from use. There are no construction-related impacts with the E-Trails.

  The hardened trails call for the removal of the surface layer of soils. The hardened trails will excavate soils for the placement of crushed stone base and crushed aggregate surface. Excavation of soils has an adverse impact on soils; however, the context of this impact is

restricted to the immediate trail corridor and shoulder. The 0.1 mile section of the Northern Community Link trail from the Central Canal to the community of Scottsbluff will support bicycle use. Additional soil impacts as a result of the bicycle use may occur due to bicycles creating long swaths of wear, which may make the trail surface more prone to channelizing the soil, creating gullies for water to flow (Latrop, 2004). However, approximately half of the 0.1 mile section surface will consist of boardwalk and a bridge. Both of these structures will not be impacted as a result of bicycle use. Natural surface trails will remove vegetation along the trail corridor and shoulder. This in turn can result in the exposure of unstable soils which can lead to erosion. In some circumstances the sidehill of natural trails will require grading the bed for the trail. This is most likely along the steep section of the route northwest of Scotts Bluff. The transportation of construction related machinery would likely result in some additional compaction to soils. Grading and exposure of unstable soils can be adverse; however, the context is restricted to the immediate trail corridor and shoulder. Although some trail locations will be situated in areas of no development, other sections will utilize abandoned service roads. Trail sections; natural and hardened that utilize abandoned service roads are less likely to have an adverse impact on soils. The placement of a trail will not involve creating a foot path. For a description of grading techniques and other BMPs, see Appendix X.

The parking lot calls for the excavation of the surface layer of soils. The proposed parking lot would be constructed of a porous sub-base and crushed rock for the surface. The porous sub-base is designed to reduce surface water runoff, increase infiltration, reduce erosion and enhance groundwater recharge. Excavation of soils has an adverse impact on soils; however, the context of this impact is restricted to the footprint of the parking lot.

This Alternative calls for the placement/construction of three bridges and one boardwalk to gain access to the Monument Valley Pathway on the northern edge of the Monument (see Northern Community Link Trail). The installation of bridges and a boardwalk will result in the excavation of soils for the placement of structural support. This would result in a short term, adverse impact to soils; however, the context of this impact is restricted to the location of the foundation of the bridges and the footings of the boardwalk.

- Cumulative Impacts:
  The cumulative impacts as a result of this alternative and the ongoing natural erosion would be minimal. However, it is foreseeable that trails directly linking the Monument with the communities of Gering and Scottsbluff will result in additional recreational use into the Monument. Excessive trail use would be recognized by increased trail surface erosion of natural and hardened trail surfaces and edges which would require additional mitigation (BMPs) to resolve the impacts.
- Conclusion:
  Alternative C would have adverse impacts on soils. The impacts would be direct and restricted to the immediate surroundings of the trail and structure placements. However, excessive use of these trails could also result in long-term soil impacts as compared to the short-term

construction impacts. Overall, impacts to soils associated with Alternative C do not meet any of the significance criteria.

**Wetlands**

Alternative A: No-Action

- Impacts:
  No trails would be developed under the No-Action alternative. There would be no change in the ability of wetlands to function.
- Cumulative Impacts:
  The No-Action Alternative would not impact wetlands because no change in facilities or activities is proposed.
- Conclusion:
  The No-Action Alternative would have no impact on wetlands.

Alternative B: Action

- Impacts:
  No trails would be developed under this Alternative. There would be no change in the ability of wetlands to function.
- Cumulative Impacts:
  This Alternative would not impact wetlands because no change in facilities or activities is proposed.
- Conclusion:
  Alternative B would have no impact on wetlands.

Alternative C: Action (Preferred)

- Impacts:
  This Alternative proposes the Northern Community Link Trail which would pass through wetlands adjacent to the North Platte River. Executive Order (EO) 11990 (Wetland Protection) requires Federal agencies "…to avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practical alternative…". This Alternative calls for constructing a boardwalk through wetlands. Director's Order No. 77-1, Wetland Protection, exempts activities that impact less than 1/10 acre of wetlands where the purpose is for scenic overlooks, and foot/bicycle trails or boardwalks. It is unclear if this boardwalk would meet the acreage exemption. Wetlands are very important component for the purification of water, flood control and the biologically diversity, serving as home to a wide range of plant and animal life. The effectiveness of a wetland and its functions can be adversely affected by the placement of impediments such as a boardwalk.

  Alternative C provides for the construction of a boardwalk through wetlands adjacent to the

North Platte River. While the construction of this feature is proposed, it is not part of this analysis because there is no design or foreseeable funding for a bridge crossing at this time. If, in the future, the Monument and/or the City of Gering and/or Scottsbluff wish to construct this feature, it will be subject to its own compliance process, including the preparation of a statement of findings to detail the impacts to the wetlands.

- Conclusion:
  Impacts analysis for wetlands as a result of this alternative will be completed under its own compliance process.

**Floodplains**

Alternative A: No-Action

- Impacts:
  No trails would be developed under the No-Action Alternative. There would be no change in the ability of a floodplain to convey floodwaters, or its values and functions.
- Cumulative Impacts:
  The No-Action Alternative would not impact floodplains because no facilities or activities are proposed.
- Conclusion:
  The No-Action Alternative would have no impact on the floodplains.

Alternative B: Action

- Impacts:
  No trails would be developed in floodplains under this Alternative. There would be no change in the ability of a floodplain to convey floodwaters, or its values and functions.
- Cumulative Impacts:
  This Alternative would not impact floodplains because no facilities or activities are proposed within the floodplains.
- Conclusion:
  Alternative B would have no impacts on the floodplains.

Alternative C: Action (Preferred)

- Impacts:
  This Alternative proposes the Northern Community Link Trail which would pass through the floodplain of the North Platte River. Executive Order (EO) 11988 (Floodplain Management) requires federal agencies to minimize occupancy of and modification to floodplains. Specifically, the EO prohibits federal agencies from funding construction in the 100-year floodplain unless there are no practicable alternatives. This Alternative calls for constructing a bridge across the North Platte River. Director's Order No.77-2, Floodplain Management, does not exempt structures in the floodplain, such as a bridge. The floodplain is a very important component of

the North Platte River natural processes. It functions to slow and disperse the energy of floodwaters, providing diverse habitat for wildlife and plants that thrive on flood disturbance. The effectiveness of a river and floodplain to convey and store flood-water can be adversely affected by the placement of impediments to the floodplain's ability to slow and disperse flood energy.

Alternative C provides for the construction of a bridge to span the North Platte River. While the construction of these features is proposed, it is not part of this analysis because there is no design or foreseeable funding for a bridge crossing at this time. If, in the future, the Monument and/or the City of Gering and/or Scottsbluff wish to construct these features, it will be subject to its own compliance process, including the preparation of a statement of findings to detail the impacts to the floodplain.

- Conclusion:
  Impacts analysis for floodplain as a result of this alternative will be completed under its own compliance process.

**Vegetation**

Alternative A: No-Action

- Impacts:
  There would be no effect on vegetation under the No-Action Alternative. All existing trails are paved which limits the impacts of trail users on the designated routes.
- Cumulative Impacts:
  Cumulative impacts associated with vegetation are the ongoing spread of invasive species. Trail users can unknowingly spread non-native exotic species through transporting by clothing, boots, or even littering.
- Conclusion:
  While visitors are vector for invasives, the nature of the trails themselves (paved) hinders the establishment of invasives. Additionally, the Monument has an ongoing management plan to address invasives, so the overall effect is long term and adverse, but not significant.

Alternative B: Action

- Impacts:
  This Alternative calls for the construction of two separate trails, including an E-Trail. There will be little or no impact from the establishment of the E-Trails, since that will be an electronic route across the landscape that can be changed periodically to lessen impacts from its use; what impacts there may be would be slight disturbance to vegetation from use. There are no construction impacts associated with the E-Trail. However, indirectly, trail users could unknowingly act as a vector of invasives. This would adversely affect native plant communities

within the Monument. The context of this impact is not restricted to the trail corridor. Methods at preventing the spread of invasives by trail users are discussed within Appendix X.

The hardened trails call for the removal of the vegetation along the proposed trail corridor and associated shoulder. Trail corridor widths under this Alternative are six-feet with a two two-foot wide cleared shoulder. The removal of vegetation is an adverse impact; however, the context of this impact is restricted to the trail corridor and shoulder. Natural surface trails will remove vegetation along the trail corridor and shoulder. Direct impacts to vegetation associated with the natural trails are restricted to the trail corridor. Vegetation will be restored to all non-trail surfaces where necessary following completion of the project. Little or no vegetation will be disturbed by the establishment of the trail surfaces on existing or abandoned service roads since these are not normally vegetated surfaces. However, indirectly, trail users could unknowingly act as a vector of invasives. This would adversely affect native plant communities within the Monument. The context of this impact is likely larger than the trail corridor as invasive species can easily spread. Methods at preventing the spread of invasives by trail users are discussed within Appendix X as are mitigation measures for revegetation and recontouring of disturbed areas.

- Cumulative Impacts:
  Cumulative impacts associated with this alternative include the possibility of further spreading invasive species and damage to vegetation by heavy trail use. However, proper education of trail users through waysides could help minimize vegetation impacts and invasive species.
- Conclusion:
  Alternative B would have adverse impacts on vegetation. Impacts associated with construction would be direct and restricted to the immediate surroundings of the trail placement. However, indirectly, trail users could further the spread of invasives. The intensity of the impact to vegetation would be minimal in overall context. Proper mitigation measures for direct and indirect impacts to vegetation are discussed within Appendix X which would reduce the intensity of those unavoidable impacts. Overall, impacts to vegetation associated with Alternative B do not meet any of the significance criteria.

Alternative C: Action (Preferred)

- Impacts:
  Impacts to vegetation as a result of Alternative C are similar to those in Alternative B. Alternative C includes all the same routes as Alternative B but with additional trails (including E-trails) and a small parking lot. There will be little or no impact from the establishment of the E-trails, since that will be an electronic route across the landscape that can be changed periodically to lessen impacts from its use; what impacts there may be would be slight disturbance to vegetation from use. There are no construction impacts associated with the E-Trail. However, indirectly, trail users could unknowingly act as a vector of invasives. This would adversely affect native plant communities within the Monument. The context of this impact is

not restricted to the trail corridor. Methods at preventing the spread of invasives by trail users are discussed within Appendix X.

The hardened trails call for the removal of the vegetation along the proposed trail corridor and associated shoulder. Trail corridor widths under this Alternative are eight to ten feet wide with two-foot wide cleared shoulders. The removal of vegetation is an adverse impact; however, the context of this impact is restricted to the trail corridor and shoulder. Natural surface trails will remove vegetation along the trail corridor and shoulder. Direct impacts to vegetation associated with the natural trails are restricted to the trail corridor. Vegetation will be restored to all non-trail surfaces where necessary following completion of the project. Little or no vegetation will be disturbed by the establishment of the trail surfaces on existing or abandoned service roads since these are not normally vegetated surfaces. However, indirectly, trail users could unknowingly act as a vector of invasives. This would adversely affect native plant communities within the Monument. The context of this impact is likely larger than the trail corridor as invasives can easily spread. Methods at preventing the spread of invasives by trail users are discussed within Appendix X as are mitigation measures for revegetation and recontouring of disturbed areas.

The parking lot calls for the removal of vegetation. Vegetation would be permanently removed in the footprint of the parking lot. This would have an adverse impact on vegetation, however, the context of this impact is restricted to the parking lot boundary.

This Alternative calls for the placement/construction of three bridges and a boardwalk to gain access to the Monument Valley Pathway on the northern edge of the Monument (see Northern Community Link Trail). The installation of bridges and a boardwalk would result in the removal of vegetation for placement of structural support. This would result in long term adverse impact to vegetation; however, the context is restricted to the placement of the structural support of the bridges and boardwalk. The same mitigation measures as described in Alternative B to prevent the spread of invasive spices could also be utilized.

- Cumulative Impacts:
  The cumulative impacts as a result of this alternative and the ongoing attempts to control exotic species would be minimal. However, it is foreseeable that trails directly linking the Monument with the communities of Gering and Scottsbluff will result in additional recreational use into the Monument. Excessive trail use would be recognized by the presence of trampled vegetation and the spread of invasives where none are presently located. These impacts would require additional mitigation through BMPs.
- Conclusion:
  Alternative C would have adverse impacts on vegetation. The impacts would be both direct, and indirect. The context of these impacts would be restricted to the trail corridor from construction related activities, while the context from invasives would possibly be larger than the trail corridor. Construction related impacts would be short term, however, invasive impacts would be long term. The intensity of construction and invasive impacts would be reduced through proper

mitigation techniques as discussed within Appendix X. Overall, impacts to vegetation associated with Alternative C do not meet any of the significance criteria.

**Cultural Landscapes**

Alternative A: No-Action

- Impacts:
  There would be no impact to the cultural landscape since the trails would not be constructed. No evidence has suggested current trail use has resulted in impacts to the landscape.
- Cumulative Impacts:
  Any project that occurs within the Monument has the potential to have an effect on the cultural landscape. If the surrounding communities were to develop around the Monument the cultural landscape would be impacted adversely. At this time there are no known development plans.
- Conclusion:
  The No-Action alternative would result in no direct impacts to the cultural landscape because no trails or development would result.

Alternative B: Action

- Impacts:
  This Alternative calls for the construction of two separate trails, including an E-Trail. There will be no impact from the establishment of the E-trails, since that will be an electronic route across the landscape that can be charted to avoid potential impacts to historic resources and changed periodically to prevent impacts from its use; as to prevent a social trail from developing which could impact the cultural landscape.

  Under this Alternative, there would be a slight alteration in the cultural landscape from the placement of trails within the landscape since they would be visible, especially from higher vantage points in the Monument, which may distract from the visual continuity of the landscape. However, the trail surfaces would be colored and placed on the ground to blend into the landscape and utilize previously disturbed areas such as the abandoned service roads, which should lessen the visual intensity of the impact to the cultural landscape. Impacts associated with this alternative would be long term and adverse on the cultural landscape. In addition, some portions of the proposed trails may be beneficial in stabilizing historic circulation patterns within the landscape.
- Cumulative Impacts:
  Any project that occurs within the Monument has the potential to have an effect on the cultural landscape. However, the landscape at the Monument is substantially disturbed from its historic setting due to the development of the two communities and the agricultural development that surrounds the Monument on all sides. This alternative calls for creating a trail link between the nearby communities of Scottsbluff and Gering's Monument Valley Pathway Trail system. While

noticeable, the development of the trails under this alternative is not likely to distract from the overall landscape of the Monument.

- Conclusion:
  The construction of the proposed recreational trails would result in adverse impacts on cultural landscapes at the Monument. Trails would be designed to blend into the landscape, and the opportunity to supplement interpretive information about the Monument's history would have long-term, beneficial impacts on the cultural landscape. The intensity of the impact would be minimized through mitigation measures as described in Appendix X. However, the proposed trails will not intrude or change the character of the landscape or detract from the visitor's perspective of the cultural landscape. Overall, impacts to the cultural landscape associated with this alternative do not meet any of the significance criteria.

Alternative C: Action (Preferred)

- Impacts:
  Impacts to the cultural landscape of Alternative C are similar to those in Alternative B. Alternative C includes the same paths as Alternative B but with additional trails (including E-trails) and long-term structures. There will be no impact from the establishment of the E-trail, since that will be an electronic route across the landscape that can be charted to avoid potential impacts to historic resources and changed periodically to lessen impacts from its use; as to prevent a social trail from developing which could impact the cultural landscape.

  Under Alternative C, recreational trails, a small parking lot, a boardwalk, and multiple bridges would be constructed. There would be a greater degree of intrusion into the cultural landscape as compared to Alternative B because of the parking lot and the Northern Community Link Trail structural requirements. As in Alternative B, trails in this alternative would be designed to blend into the landscape and utilize previously disturbed areas such as the abandoned service roads, which should lessen the visual intensity of the impact to the cultural landscape. The other features, such as bridges, boardwalk, and parking lot would be small features and in locations that would not be out of place. For instance, the parking lot would be small and adjacent to Old Oregon Trail Road. The bridges would be located on the canals and the North Platte River where the landscape is already heavily modified and the bridges would not seem out of place. The boardwalk is likely to be a relatively small feature, appropriately colored to blend into the surrounding landscape. Impacts associated with this alternative would be adverse and long-term on the cultural landscape but of minimal impact.
- Cumulative Impacts:
  Any project that occurs within the Monument has the potential to have an effect on the cultural landscape. However, the landscape at the Monument is substantially disturbed from its historic setting from the development of the two communities and the agricultural development that surrounds the Monument on all sides. This alternative calls for creating a trail link between the nearby communities of Scottsbluff and Gering's Monument Valley Pathway Trail system. While

noticeable, the development of the trails under this alternative is not likely to distract from the overall landscape of the Monument.

- Conclusion:
  The construction of the proposed recreational trails and associated structures would result in adverse impacts on cultural landscapes at the Monument. Trails would be designed to blend into the landscape, and the opportunity to supplement interpretive information about the Monument's history would have long-term, beneficial impacts on the cultural landscape. The intensity of the impact would be minimized through mitigation measures as described in the Appendix. However, the proposed trails will not intrude or change the character of the landscape or detract from the visitor's perspective of the cultural landscape. Overall, impacts to the cultural landscape associated with this alternative do not meet any of the significance criteria.

**Archeology**

Alternative A: No-Action

- Impacts:
  Under the No-Action Alternative, there would be no trail construction, resulting in no direct or adverse impact to archeological resources other than those that may already be occurring.
- Cumulative Impacts:
  Any project that occurs within the Monument has the potential to have an effect on the archeological resources. If the surrounding communities were to develop around the Monument, resulting in greater number of visitors at the park, impacts to archeological resources could occur.
- Conclusion:
  The No-Action Alternative would result in no additional direct or adverse impacts to the archeological resources because no trails or development would result.

Alternative B: Action

- Impacts:
  Proposed trail construction would not impact known archeological resources since project design would avoid known archeological resources. However, ground disturbances still have the potential to reveal unknown archeological resources, especially in areas of the Monument that have yet to be inventoried, such as the areas northwest of Scotts Bluff. However, mitigation in the form of an on-site monitor prior construction would further lessen the potential to disturb unknown archeological sites. If visitors veer off the formal trails or E-trails, it could result in adverse impacts to archeological resources through illegal collecting. This appears to be more likely with the E-trails as no formal path is established. However,

archeological site density is not high; as a result, these types of impacts would be rare. The context of the archeological impacts would be direct and concentrated to the immediate vicinity of the trail corridors while the intensity would be minimal.

- Cumulative Impacts:
  The full story of the archeology of the North Platte River valley is not known; development has removed much of the remains in the area surrounding the Monument. Any development in the Monument has the potential to have an effect on archeological resources. It is not anticipated that the construction and use of these trails and associated features will greatly disturb the remaining resources in the Monument; mitigation is intended to prevent this from happening.
- Conclusion:
  Trail construction as proposed in this alternative would not impact known archeological resources. Monitoring prior to construction would minimize the impacts from trail construction on unknown resources. All trails would allow visitors greater access to more areas of the Monument, which could potentially have direct, adverse effects to unknown archeological sites if visitors were to veer off the trail. These are anticipated to be rare instances, since the density of archeological sites at the Monument is not great. Impacts to the archeological resources associated with this alternative do not meet any of the significance criteria.

Alternative C: Action (Preferred)

- Impacts:
  Trail construction, including the placement of bridges, boardwalk and a visitor parking lot would not impact known archeological resources since project design would avoid known archeological resources. However, ground disturbances still have the potential to reveal unknown archeological resources, especially in areas of the Monument that have yet to be inventoried, such as the areas northwest of Scotts Bluff. However, mitigation in the form of an on-site monitor prior construction would further lessen the potential to disturb unknown archeological sites. If visitors veer off the formal trails or E-trails, it could result in adverse impacts to archeological resources through illegal collecting. This appears to be more likely with the E-trails as no formal path is established. However, archeological site density is not high; as a result, these types of impacts would be rare. The context of the archeological impacts would be direct and concentrated to the immediate vicinity of the trail corridors while the intensity would be minimal.
- Cumulative Impacts:
  The full story of the archeology of the North Platte River valley is not known; development has removed much of the remains in the area surrounding the Monument. Any development in the Monument has the potential to have an effect on archeological resources. It is not anticipated that the construction and use of

these trails and associated features will greatly disturb the remaining resources in the Monument; mitigation is intended to prevent this from happening.

- Conclusion:
  Trail construction as proposed in this alternative would not impact known archeological resources. Monitoring prior to construction would minimize the intensity of impacts from trail construction on unknown resources. All trails would allow visitors greater access to more areas of the Monument, which could potentially have direct, adverse effects to unknown archeological sites if visitors were to veer off the trail. These are anticipated to be rare instances, since the density of archeological sites at the Monument is not great. Impacts to the archeological resources associated with this alternative do not meet any of the significance criteria.

**Paleontology**

Alternative A: No-Action

- Impacts:
  Under the No-Action Alternative, there would be no trail construction, resulting in no direct or adverse impact to paleontological resources.
- Cumulative Impacts:
  Any project that occurs within the Monument has the potential to have an effect on the paleontological resources. If the surrounding communities were to develop around the Monument, resulting in a greater number of visitors at the park, indirect impacts to paleontological resources could occur.
- Conclusion:
  The No-Action Alternative would result in no direct or adverse impacts to the paleontological resources because no trails or development would result.

Alternative B: Action

- Impacts:
  Under Alternative B trail construction could have direct, adverse impact on paleontological resources. The Monument is abundant with paleontological resources. In order to construct the trails without causing damage to resources it is recommend that a paleontologist be hired to survey the proposed trail routes for potential fossils. If surveying is not possible prior to trail construction, a paleontologist could monitor during construction. Any fossils collected would be required to be prepared, curated and housed at a NPS approved repository. (*NPS Northern Great Plains Network: Paleontological Resource Inventory & Monitoring Report, 2011*). The context of the paleontological resources is restricted to the trail construction area/corridor. Duration would be long-term, if an impact were to occur. Intensity is minimal to the resource since inventory and monitoring would

reduce impacts, and result in permanent curation of the remains found. If visitors veer off the formal trails or E-trails and inadvertently discover fossils, the context of this impact would be greater than the trail corridor. Off trail use increases the potential for visitors to enter a sensitive site, which could result in adverse impacts to fossils. This appears to be more likely with the E-trails as no formal path is established. This type of impact may be unavoidable; however, mitigation in the form of education and interpretation such as ranger talks, waysides and warning signs would help reduce impacts.

- Cumulative Impacts:
  The full story of the paleontological resources of the North Platte River valley is not known; development has removed most of the remains in the area surrounding the Monument. Any development in the Monument has the potential to have an effect on paleontological resources. It is not anticipated that the construction and use of these trails and associated features will greatly disturb the remaining resources in the Monument; mitigation is intended to prevent this from happening.
- Conclusion:
  Trail construction as proposed in this alternative would not impact known paleontological resources. Construction surveying or monitoring by a paleontologist would minimize the impacts from trail construction on unknown fossil resources. As a result, the intensity of impacts would be minimal due to mitigation planning. All trails would allow visitors greater access to more areas of the Monument, which could potentially have direct, adverse effects to unknown and known fossils if visitors were to veer off the trail. These are anticipated to be rare instances, since the density of fossils at the Monument is concentrated in a few areas and not widespread. Impacts to the paleontological resources associated with this alternative do not meet any of the significance criteria.

Alternative C: Action (Preferred)

- Impacts:
  Under Alternative C trail construction and related structures could have direct, adverse impact on paleontological resources. The Monument is abundant with paleontological resources, especially throughout the badlands area. In order to construct the trails and the parking lot without causing damage to resources it is recommend that a paleontologist be hired to survey the proposed trail routes for potential fossils. If surveying is not possible prior to trail construction, a paleontologist could monitor the site during construction. This would be most beneficial for the proposed Northern Community Link Trail through the badlands. Any fossils collected would be required to be prepared, curated and housed at a NPS approved repository. (*NPS Northern Great Plains Network: Paleontological Resource Inventory & Monitoring Report, 2011*). The context of the paleontological resources is restricted to the trail construction area/corridor. Duration would be long-term, if an impact were to occur. Intensity is minimal to the resource since inventory and monitoring would reduce impacts, and result in permanent

curation of the remains found. If visitors veer off the formal trails or E-trails and inadvertently discover fossils, the context of this impact would be greater than the trail corridor. Off trail use increases the potential for visitors to enter a sensitive site, which could result in adverse impacts to fossils. This appears to be more likely with the E-trails as no formal path is established. This type of impact may be unavoidable; however, mitigation in the form of education and interpretation such as ranger talks, waysides and warning signs would help reduce impacts.

- Cumulative Impacts:
  The full story of the paleontological resources of the North Platte River valley is not known; development has removed most of the remains in the area surrounding the Monument. Any development in the Monument has the potential to have an effect on paleontological resources. It is not anticipated that the construction and use of these trails and associated features will greatly disturb the remaining resources in the Monument; mitigation is intended to prevent this from happening.
- Conclusion:
  Trail construction as proposed in this alternative would not impact known paleontological resources. Construction surveying or monitoring by a paleontologist would minimize the impacts from trail construction on unknown fossil resources. As a result the intensity of impacts would be minimal due to mitigation planning. All trails would allow visitors greater access to more areas of the Monument, which could potentially have direct, adverse effects to unknown and known fossils if visitors were to veer off the trail. These are anticipated to be rare instances, since the density of fossils at the Monument is concentrated in a few areas and not widespread. Impacts to the paleontological resources associated with this alternative do not meet any of the significance criteria.

**Visitor Use and Experience**

Alternative A: No-Action

- Impacts:
  Under the No-Action Alternative, there would be no change to the existing recreational trails at the Monument. The objective to offer community members and visitors a more cohesive way of interacting with the resources of the Monument would not be realized, however, this would not result in an adverse impact to visitor use and experience.
- Cumulative Impacts:
  The cumulative impacts as a result of no additional recreational trails would be adverse to the communities of Gering and Scottsbluff. Without additional trails from within the Monument there is no possibility of creating additional connections to the nearby communities, most notably the Scottsbluff link. Additional trail links to the Monument can correlate into additional use of the trails, mostly by local visitors.
- Conclusion:
  Implementation of the No-Action Alternative would result in the current visitor experience

within the Monument to remain the same. This alternative will have no beneficial impact on enhancing the visitor experience. Any impact would be the loss of the potential to increase trail connections to those local visitors who desire to see a trails network which is intertwined with those of the Monument Valley Pathway system maintained by Gering and Scottsbluff.

Alternative B: Action

- Impacts:
  Under this alternative recreational trails would enhance visitor experience. The construction of trails would provide access to important natural and cultural features at the Monument. These trails would enhance the two main facets of the visitor experience at the Monument: 1) the story of the westward migration on the Oregon, California, and Mormon Trails by creating new recreational trails through this area. The trails themselves would provide visitors an opportunity to experience the landscape by walking the trails and gaining that perspective, and 2) the natural and scenic beauty of the bluffs and surrounding prairie by establishing trails in areas that are largely unexplored by visitors. This alternative would result in an additional trail connection to the nearby community. Impacts would be beneficial and long-term to the visitor experiences at the Monument.
- Cumulative Impacts:
  The Monument Valley Pathway trail project that created the first link to the Monument was an important addition to the visitor experience. The addition of new trails to that experience is a long-term beneficial addition to the visitor use and experience.
- Conclusion:
  The proposed alternative would have beneficial and long-term effects on visitor experience. The intensity of this beneficial impact would be moderate under this alternative.

Alternative C: Action (Preferred)

- Impacts:
  Under this alternative recreational trails would enhance visitor experience. The construction of trails and associated structures would provide access to important natural and cultural features at the Monument. These trails would enhance the two main facets of visitor experience at the Monument: 1) the story of the westward migration on the Oregon, California, and Mormon Trails by creating new recreational trails through this area. The trails themselves would provide visitors an opportunity to experience the landscape by walking the trails and gaining that perspective, and 2) the natural and scenic beauty of the bluffs and surrounding prairie by establishing trails in areas that are largely unknown to visitors. This alternative would result in additional trail connections to the nearby communities, which was identified as a desire during the public scoping process. Impacts would likely be restricted to local visitors as compared to outside visitors who tend to not explore the recreational trails. However, the Ravines Trail parking lot would be located directly off the Old Oregon Trail Road which bisects the

Monument. This could potentially encourage non-local visitors to explore the recreational trails in the area. Impacts would be beneficial and long-term to visitor experiences at the Monument. Additionally, those trails which call for bicycle and pedestrian use can include appropriate signage and educate trail users to reduce and minimize trail user conflicts and provide safety to all trail users.

- Cumulative Impacts:
  The Monument Valley Pathway trail project that created the first link to the Monument was an important addition to the visitor experience. The additional tails to that experience is a long-term beneficial addition to the visitor use and experience.
- Conclusion:
  The proposed alternative would have beneficial and long-term effects on visitor experience. The intensity of this beneficial impact would be moderate to major under this alternative as a result of additional links to the Monument Valley Pathway trails as compared to alternative B.

**Park Operations**

Alternative A: No-Action

- Impacts:
  Under the No-Action Alternative, park management and operations would continue as they are now. There would be no construction of trails or a parking lot under the No-Action Alternative. As a result, park management would not be impacted.
- Cumulative Impacts:
  Past projects have had impacts on the Monument's operations such as construction and maintenance of trails and other Monument infrastructure. Aging facilities (e.g., trails, pavement, visitor center, etc.) and utilities would continue to be repaired or replaced as needed when funds become available.
- Conclusion:
  The No-Action Alternative, if implemented, would cause no new impacts on Monument operations. Thus, there would be no project-related cumulative impacts. No significant impacts would occur.

Alternative B: Action

- Impacts:
  Implementing Alternative B could result with an increased workload to park operations. The initial construction of trails would impact the park operations the greatest. Trail construction would be a short-term, adverse impact on park staffing. Long-term maintenance would not require additional staff. Additional time may be needed initially for monitoring the impact of the trails on the natural and cultural resources, such as preventing the spread of invasive species. Monument staff would be able to take up additional trail maintenance duties such as patrolling, roving and interpretation without the need for additional staff or a trails crew. This would help

alleviate the need to hire permanent employees for trail maintenance. Long-term trail maintenance would be slightly strain park staff with additional duties; however, this would not result in adverse impact.

- Cumulative Impacts:
  Past projects have had impacts on the Monument's operations such as construction and maintenance of trails and other Monument infrastructure. Aging facilities (e.g., trails, pavement, visitor center, etc.) and utilities would continue to be repaired or replaced as needed when funds become available. Cumulatively, with the existing repairs and replacements the long-term trail maintenance would adversely impact resources.
- Conclusion:
  Implementation of Alternative B would result an increased workload to park staff on the trail maintenance activities. Staff will need time the first year or two to monitor the impact of the trails on the natural and cultural resources. These impacts are not expected to be significant.

Alternative C: Action (Preferred)

- Impacts:
  Implementing Alternative C could result in adverse impacts to park operations. The initial construction of trails and the parking lot would impact the park operations the greatest. Construction would be short-term, adverse impact. Long-term trail maintenance would require two additional seasonal employees. Additional time may be needed initially for monitoring the impact of the trails on the natural and cultural resources, such as preventing the spread of invasive species. Current park staff would be unable to incorporate additional duties to alleviate the need for new employees. Long-term trail maintenance would be adverse to park staffing.
- Cumulative Impacts:
  Past projects have had impacts on the Monument's operations such as construction and maintenance of trails and other Monument infrastructure. Aging facilities (e.g., trails, pavement, visitor center, etc.) and utilities would continue to be repaired or replaced as needed when funds become available. Cumulatively, with the existing repairs and replacements the long-term trails maintenance would strain resources.
- Conclusion:
  Implementation of Alternative C would result in short-term adverse impacts as a result of staff needing to monitor the impact of the trails on natural surfaces and long-term adverse impacts to Monument operations as a result for the need to acquire two additional seasonal employees. These impacts are not expected to be significant. Life-cycle costs on the 0.1 mile bicycle section of the Northern Community Link trail will be completed when design, funding and third party agreements are finalized.

## Chapter 5: Consultation and Coordination

- **Internal Scoping:**
  Internal scoping was conducted by an interdisciplinary team of professionals from Scottsbluff National Monument, and the Midwest Regional Office. Interdisciplinary team members spoke on January 23, 2013 about the various alternatives, potential environmental impacts; past, present, and reasonably foreseeable projects that may have cumulative effects. The team also gathered background information and discussed potential outreach for the project. Over the course of the project, some team members have conducted individual site visits and coordinated with other resource and technical specialists for additional information.

- **External Scoping:**
  Public scoping was conducted to inform the public about the proposal to construct recreational trails at the Monument and to generate input on the preparation of this EA. To initiate external scoping, the University of Nebraska-Lincoln (UNL) Landscape Architecture students with the guidance of NPS staff conducted scoping with interested parties and individuals on October 12, 2012 at the Farm and Ranch Museum, 2930 Old Oregon Trail, Gering, Nebraska. The 30-day comment period began on October 10, 2012.

- **Consultation:**
  On January 31, 2013 the NPS consulted with a representative of the U.S. Fish and Wildlife Service (FWS) to evaluate the potential impacts of this project on threatened or endangered species and their habitat. The FWS had no specific concerns about the project at this time. FWS recommends to comply with the Migratory Bird Treaty Act, as amended, to avoid removal or impacts to vegetation during the primary nesting season for migratory birds in Nebraska, or April 1 to July 15. If this is unavoidable, FWS recommends that the project manager arrange to have a qualified biologist conduct an avian pre-construction risk assessment of the affected habitats to determine the absence or presence of breeding birds and their nests. FWS would need to see the risk assessment for their file. Please see the attached correspondence with the FWS.

  The NPS consulted with the Nebraska State Historic Preservation Officer (NE SHPO) on February 1, 2013, regarding the construction of the trails. The SHPO did not have specific concerns about the project at that time. Please see the attached correspondence with the NE SHPO.

  A scoping letter introducing the proposed project accompanied with maps was sent to the Oglala Sioux Tribe, Apache Tribe of Oklahoma, Cheyenne and Arapaho Tribes of Oklahoma, Crow Creek Sioux Tribe, Northern Arapaho Tribe, Ponca Tribe of Oklahoma, Ponca Tribe of Nebraska, Rosebud Sioux Tribe, and Standing Rock Sioux Tribe and their associated Tribal Historic Preservation Officers (THPOs) on January 29, 2013. Only the Rosebud Sioux Tribe, THPO had comments to be updated as the project moves forward. Please see the attached correspondence.

- **List of Preparers and Contributors :**
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        - Sändra Washington, Associate Regional Director for Planning, Construction, Communications and Legislation
    - Scotts Bluff National Monument (SCBL)
        - Ken Mabery, Superintendent
        - Robert Manasek, Natural Resource Management Specialist
        - Thomas Schaff, Chief Ranger
    - University of Nebraska-Lincoln (UNL)
        - Bret Betnar, Professor of Landscape Architecture
        - College of Architecture, 5th Year Landscape Architecture Program Students
    - Other: Northern Great Plains Inventory and Monitoring Network (NGPN)
        - Michael Prowatzke, Biologist

# Appendix X: Best Management Practices for Trail Development

**Introduction:**
Successful management of the trails at Scotts Bluff National Monument (Monument) will be critical for the protection of the Monument's resources and to provide safe and enjoyable recreational trails. Modern sustainable trail design methods lessen the impacts of trails on the land, improve visitor safety and experience, and reduce park management resource needs. This document describes best management practices (BMPs) for the design, construction, management, maintenance and monitoring of the trails.

**Guiding Principles:**
To achieve the desired conditions of the trails in the Monument these principles are set forth to guide the work of the Monument and its partners.

- **Ecological:** Develop trails in a manner to avoid diminishing the natural environment or the experience of being in a natural setting through the protection, restoration and management of natural ecosystems associated with trail development.

- **Physical:** The physical condition of the trails shall aim to achieve the following goals:
  - Design trails to retain their physical form relative to their use and natural conditions in which they exist.
  - Safety for trail users, including bicyclist is a primary part of the design process.
  - Connectivity to provide key access areas for multiple trail options and linking trails together for recreational opportunities.

- **Stewardship:** Design trails that will provide a positive visitor experience that encourages the trail user to want to protect that experience through stewardship activities including using trails appropriately, avoiding impacts and educating others about sustainable trail ethics.

(Adapted from the Minnesota Department of Natural Resources, Trail Planning, Design, and Development Guidelines, 2006)

**Mitigation Measures:**
Mitigation measures to minimize the degree and/or severity of adverse effects should be implemented during construction of the action alternative, as needed.

- Soil stabilizers would be tested with native soils from the Monument to ensure a good color match and ability to blend in with the natural environment. The soil stabilizer selected would not contain any toxic substances that, once cured, could potentially contaminate the environment at the Monument.
- Revegetation and recontouring of disturbed areas, as necessary, would take place following construction and would be designed to minimize the visual intrusion of the improvements.

Revegetation efforts would strive to reconstruct the natural spacing, abundance, and diversity of native plant species. All disturbed areas would be restored as nearly as possible to pre-construction conditions shortly after construction activities are completed.

- Strict invasive weed control Best Management Practices would be used, including, but not limited to, thoroughly pressure washing equipment before bringing it on site, would be implemented to minimize the introduction of noxious weeds.
- Following construction, the placement of waysides could direct trail users on proper techniques to prevent the spread of invasive species or through the placement of brushes at trailheads for boots, shoes and clothing as these materials are common vectors for invasive species.
- According to *Management Policies 2006*, the NPS would strive to construct the new trail alignment with sustainable designs and systems to minimize potential adverse environmental effects. Development would not compete with or dominate the Monument's features, or interfere with natural processes, such as the seasonal migration of wildlife or hydrologic activity associated with wetlands. To the extent possible, the design and management of the trails would emphasize environmental sensitivity in construction, use of nontoxic materials, resource conservation, recycling, and integration of visitors with natural and cultural settings. The NPS also reduces energy costs, eliminates waste, and conserves energy resources by using energy-efficient and cost-effective technology. Energy efficiency is incorporated into the decision-making process during the design and acquisition of buildings, facilities, and transportation systems that emphasize the use of renewable energy sources.

**Trail User Conflict/Safety Considerations:**
To help prevent or minimize user conflicts between pedestrians and bicyclists, the following techniques can be implemented:

- Signage
- Educate all trail users about sharing the trail with other user groups
- Yielding right-of-way to pedestrians
- Meeting with the user groups
- Brochure articles in newsletters or local newspapers
- Imposing speed limits
- Ranger patrols
- Volunteer trail patrols
- Bicycle bell giveaways

**Trail Construction:** This section outlines the general guidance for construction of trails. Collaboration on trail design, with maintenance and resource management professional disciplines and utilization of sustainable trail construction techniques are the cornerstones for successful construction of the trails and their long term sustainability.

Utilizing BMPs to construct new trails is critical to the future maintenance and management of the trail system. The Monument's trail guidelines and practices shall stay updated to national and regional trail industry standards enhancing the trail users' experiences and protecting the Monument's resources. Information in this section is adapted from various trail guidance manuals identified in the reference

section of this document, but primarily from the NPS, Cuyahoga Valley National Park Trail EIS, Minnesota Department of Natural Resources Trail Guidelines, and the International Mountain Bicycle Association Trail Solutions Manual.

- **General Guidance on Primary Trail Construction Practices:**
  - **Trail Design:** Director's Order #77, NPS Natural Resource Management Reference Manual 2006 sets the goal of sustainable trails as stated: S*ustainability of backcountry trail corridors is defined as the ability of the travel surface to support current and anticipated appropriate uses with minimal impact to the adjoining natural systems and cultural resources. Sustainable trails have negligible soil loss or movement and allow the naturally occurring plant systems to inhabit the area, while allowing for the occasional pruning and removal of plants necessary to build and maintain the trail. If well-designed, built, and maintained, a sustainable trail minimizes braiding, seasonal muddiness and erosion. It should not normally affect natural fauna adversely nor require re-routing and major maintenance over long periods of time.*

  - **Base Construction:** Each trail is constructed to reduce erosion and maintenance. Construction of sidehill trails usually requires grading the bed for the trail, flat surfaces may need buildup of tread materials, and wetland areas need to consider boardwalks or re-routing.

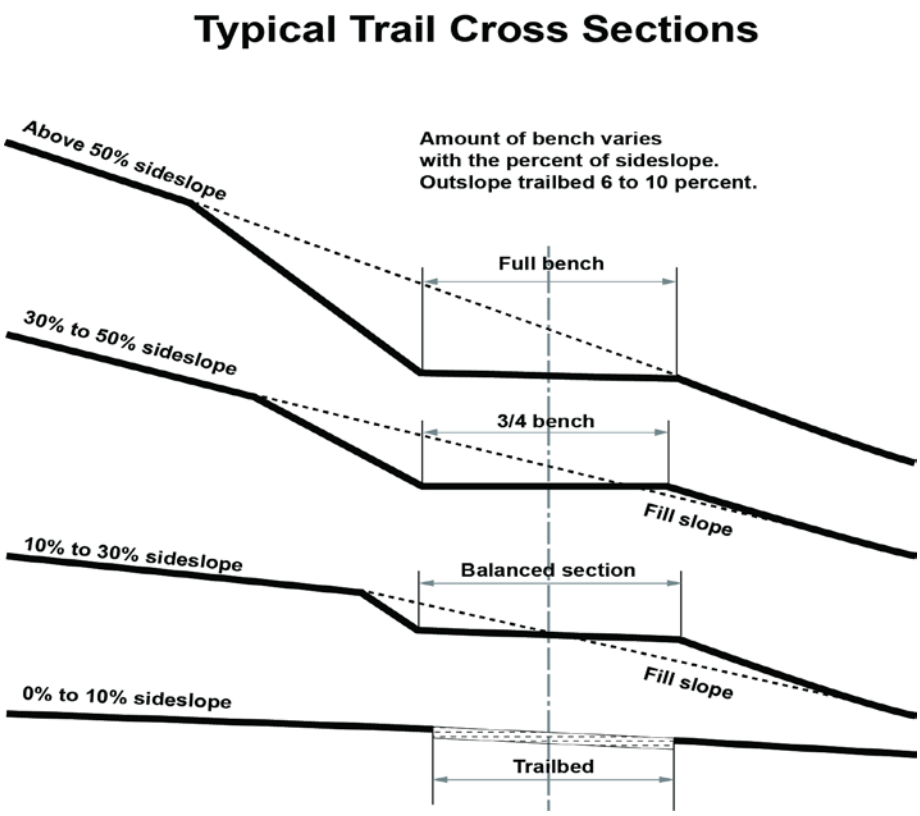


**Figure 1: Typical Trail Cross Sections.**

- **Drainage:** Proper drainage is a key component to the sustainability of any trail. Drainage control on a trail relates to two primary types of water control; surface and subsurface water.
  - Surface Drainage: Methods to manage surface drainage include outslope, grade reversals, varying the trail grade, edge protection, mixed aggregate and armored crossings.
  - Outslope: Establishing an outslope to a trail will assist water to sheet across and off the trail instead of funneling down its center. Outslope design should exceed running slope to be effective.

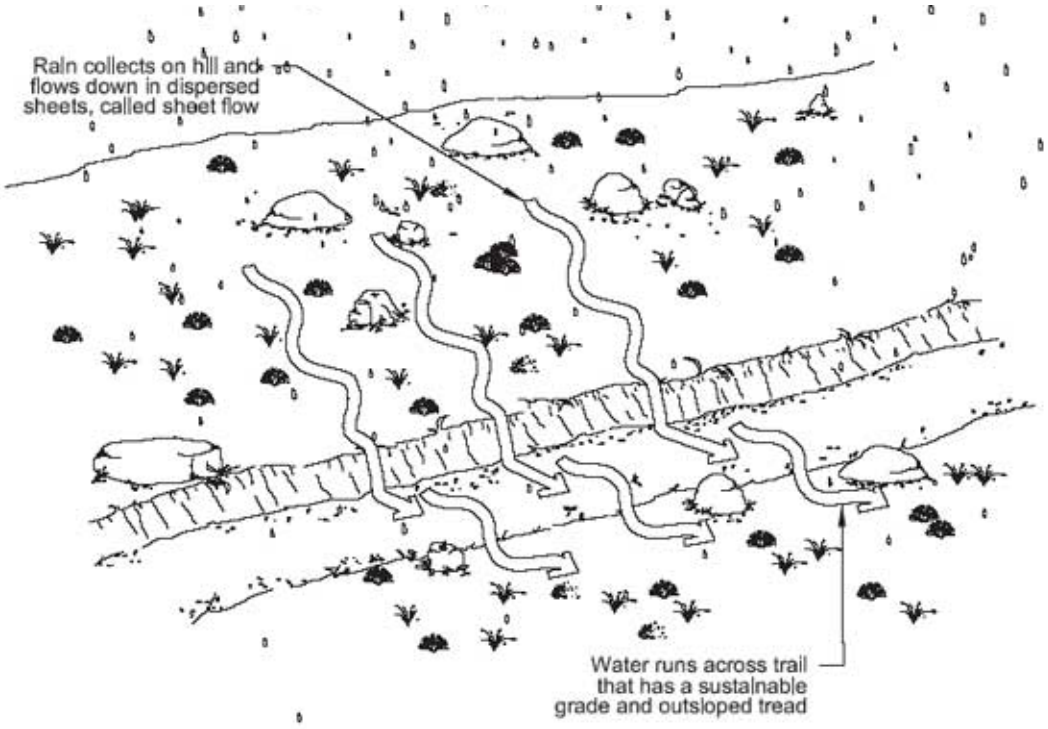


**Figure 2: Maintaining sheet flow on a trail.**

  - Grade Reversals (drain dips): A grade reversal provides subtle grade changes to a trail allowing water to exit the trail at intervals. This will assist to reduce the volume and erosive power of water runoff along a trail corridor. Features such as natural contours, side slope and trail grade must be studied closely to determine where the largest volume of water can be intercepted. Soil conditions, vegetation cover and downslope steepness must also be considered when selecting a drain point and outflow location.

**Figure 3: Grade reversal using locally available materials (rocks).**

- Armoring the tread: When natural drainage and/or use types create conditions that prevent the maintenance of a natural tread and no other locations are available the use of hardening material is recommended. Hardening the tread will minimize maintenance, stabilize the surface for the use impact and minimize erosion and drainage impacts to the natural resources. Other armoring techniques to evaluate for use include geosynthetics, stepping stones, and rocks.

**Figure 4: Trail being built with rock as armor coating, but not finished.**

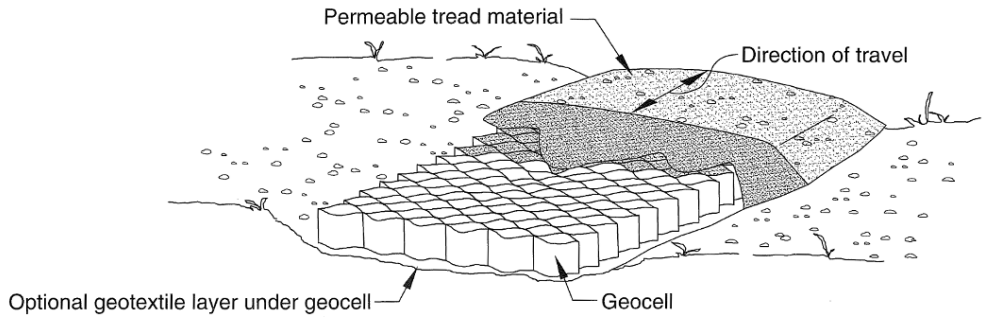


**Figure 5: Geocell usually has geotextile underneath to provide separation from saturated soils.**

- Mixed aggregate: Mixed aggregate is typically used on trails located on flat terrain with poor drainage and where the use of dips and reversals are not feasible. Aggregate mix material that looks similar of the trail mix material is recommended for this application.
- Turnpike: Turnpike construction is used in areas where the trail tread remains very wet during the year and no relocation options are available. Turnpiking designs the trail tread to be higher than the water.
- Edge Protection: Where a trail travels along a sideslope, drainage and erosion issues can arise due to trail user patterns.

- **Trail Climbs:** To maintain sustainable grades but meet existing topographic terrain within the Monument, trails will require direction changes or grade changes to help gain the elevation at a consistent and sustainable grade. Turnouts are typically included to allow trail users room to pass comfortably on narrow trails or to provide an area for trail users to rest while not blocking movement along the trail.

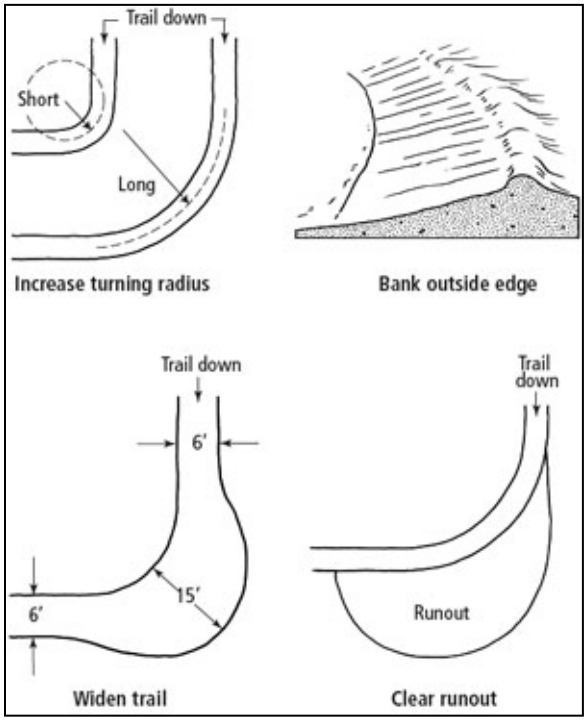


**Figure 6: Designs for turnouts.**

- **Waterway Crossings**: In the Monument's proposed trail plan crossings of streams, irrigation canals and the North Platte River could have significant impacts on the resources if not implemented properly.
  - Bridges/Boardwalks: Bridges and boardwalks are the preferred method for drainage crossings, when avoidance of waterway crossings is not possible. The scale, width and materials for structures should be compatible with trail use, trail experience and minimizing resource impacts. Span of bridges should aim not to install piers or footers into waterways. Spans greater than 24 feet should examine alternative material from wood to maintain its long-term sustainability. A minimum bridge width should match the width of the trail. Railings, materials and styles should be considered for the level of use, ABA requirements, proximity and characteristics of trail. Cultural landscapes and historic characteristics of the area should be considered during design.

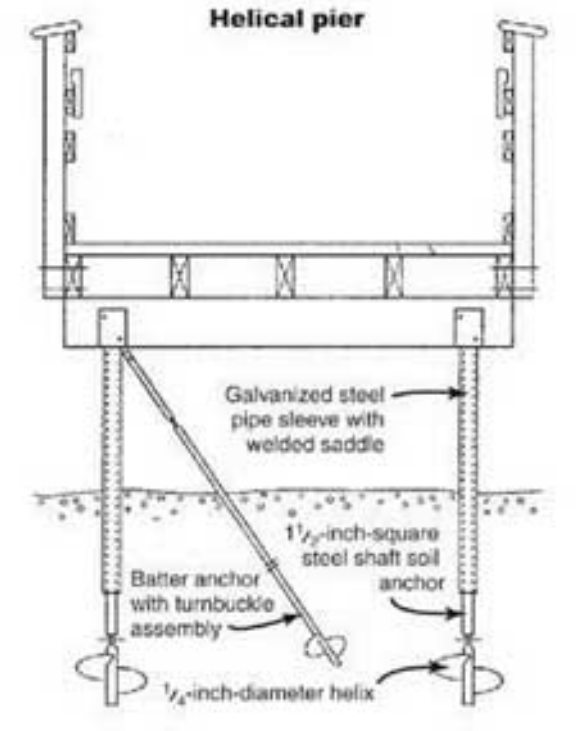


**Figure 7: Typical helical pier and walkway on wetlands.**

**Figure 8: Boardwalk with edge.**

**Figure 9: Pedestrian Bridge above floodplain.**

- **Trail Restoration:** The Monument will identify existing trails that require restoration through trail condition assessments. Restoration activities may include tread improvements, tread stabilization, trail relocation, infrastructure changes to minimize drainage or resource impacts, narrowing existing trail treads, and other conditions identified by park staff. Use of native plant materials is recommended for all restoration activities. Trail restoration priorities will be conditional based upon level of use, severity of current impact to Monument resources, and safety of visitors.

**Trail Management, Maintenance and Monitoring**:
A critical step often forgotten in the trail development process is a strategy for the management, maintenance and monitoring of a trail after its construction. This section provides recommendations for three management actions;

1. Trail management under Monument Resource Conditions,
2. Basic trail maintenance practices, and
3. Methods for monitoring and trail condition assessment

- **Trail Management under Monument Resource Conditions:** The goals of the Monument's trail system include providing experiences for a variety of trail users, minimizing the trail's impact to resources, and establishing a trail network that can be sustained over time.
  - **General Trail Operating Levels:** The Monument will utilize three operating levels.
    - Trail Open/Fully Operating: The trail is operating as currently permitted with no restrictions for use or trail modifications required.
    - Trail Seasonal/Temporary Closure: The trail is temporarily closed on a seasonal basis or other temporary purpose for a resource condition. A notice will be provided on the duration of the closure.

- Full Permanent Closure: Trail conditions cannot be sustained to meet the goals set forth in these guidelines. Upon recommendation from Monument staff, the Superintendent will determine trail closures. Upon the Superintendent's decision, Monument staff will proceed with the trail closure and its site restoration.

- **Trail Maintenance:** On-going maintenance of the trails preserves the aesthetics, safety, accessibility and the user experience, while minimizing long-term resource impacts. Activities could include tread maintenance to repair erosion and washout spots, corridor clearing, and mowing.

  Maintenance schedules will be predicated on the capacity of Monument operations, including staffing and volunteers available to conduct work.

- **Monitoring:** Monitoring trail conditions (including E-trails) and their response to changes in natural conditions, visitor use or operational resources will be an important management tool for the Monument's trail system to prevent minor problems from increasing.
  - **Trails Condition Assessment:** Continued assessment of trail conditions is a critical activity. The NPS Trail Inspection Guidance identifies actions to maintain a trail's desired condition and to minimize degradation: fully restored tread, working drainage systems, corridors brushed to appropriate levels, cultural resources stabilized and protected including paleontological resources, all trail features and structures are operational and safe, ability to withstand current and anticipated level of use, and has instituted sustainable design and construction elements (NPS, 2007). Determining trail conditions can be conducted by staff or volunteers observing changes. A written or electronic record of these observations will help schedule workloads and provide information for risk assessments. Park staff and volunteers can do immediate repairs to prevent later expensive restorations.
  - **Limits of Acceptable Change/Carrying Capacity:** The NPS Management Policies on visitor carrying capacity (NPS 8.2.1), provide general guidance on developing and determining visitor carrying capacity. As defined in NPS Management Policies 8.2.1, "visitor carrying capacity is the type and level of visitor use that can be accommodated while sustaining the desired resource and visitor experience conditions in the park." Trails exhibit resource impacts at varying degrees of visitor use. Therefore, it is recommended the Monument establish levels of visitor use and change in the park landscape that will define management guidance actions for visitor carrying capacity.

# Appendix Y: Accessibility

**Accessibility Guidelines for Trails:**

**Director's Order #42, Accessibility for Visitors with Disabilities in National Park Service Programs and Services:**

Since 1979, the NPS has strived to improve accessibility of all parks and programs based upon the various legal mandates that require all government agencies to make facilities and programs accessible. It simply makes good sense to employ principles of "universal design" in providing facilities and programs for everyone fairly and lowering overall expenses by preventing later corrections.

Examples of "universal design" for the Monument projects could include:

1. Cell phone audio recordings interpreting points of interest along a trail.
2. No or minimal steps or barriers along trails.
3. Provide information on the physical conditions on a trail though a webpage, trailhead kiosk, or visitors center so the visitor will know if the trail is appropriate for them.

There are several Federal laws that require the NPS to make programs, facilities, and services accessible.

**The Architectural Barriers Act 1968 (ABA):**

The United States Access Board is developing accessibility guidelines, "pursuant to the Architectural Barriers Act (ABA) for camping facilities, picnic facilities, viewing areas, outdoor recreation access routes, trails and beach access routes." (United States Access Board, 2010) The guidelines apply to Federal land management agencies, including the development of trails of the National Park Service that are constructed or altered by or on behalf of the Federal government.

The Monument will adhere to the Interim Proposed Rule of the Accessibility Guidelines for Outdoor Developed Areas (http://access-board.gov/outdoor/draft-final.htm) upon rulemaking for all new and altered trails. During the Monument's design process, evaluation and determination of accessibility for trails will be conducted by the landscape architect/designer of the trails project using the Universal Trail Assessment Process (UTAP).

<u>General Technical Provisions of Trail Accessibility</u>
These provisions for accessibility determination includes the following design elements. Design and construction of trails dedicated for universal accessibility and limited accessibility will address these elements at all phases of the implementation process in accordance with the ABA.

- Surface
- Clear Tread Width
- Openings
- Protruding Objects
- Tread Obstacles
- Passing Space
- Slope
- Resting Intervals
- Edge Protection
- Signage

Adherence to technical provisions for access routes, outdoor access routes and accessible trails:
Under the definitions of the Federal Accessibility Guidelines, there are three types of accessible routes;

1. Access routes relate to the built environment where all routes need to meet accessibility requirements,
2. Outdoor recreation access routes relate to facilities in the outdoor environment where reasonable access is required, and
3. Accessible trail relates to a natural trail that is designated as suitable for all levels of ability and consistent with conditions that have been set forth by the federal guidelines.

Conditions for Departure:
The Outdoor Development Areas Draft Final Rule by the United States Access Board has defined four conditions that would allow for departure from the technical provisions in the guidelines. These conditions include:

1. Where compliance would cause substantial harm to cultural, historic, religious or significant natural features or characteristics.
2. Where compliance would substantially alter the nature of the setting or the purpose of the facility or portion of the facility.
3. Where compliance would require construction methods or materials that are prohibited by federal regulations or statutes.
4. Where compliance would not be feasible due to terrain or prevailing construction practices.

# Appendix Z: Definitions

- Alignment: How a trail is laid out on the ground relative to the topography, landscape features, and natural and man-made obstacles.
- Accessibility (ABA): Architectural Barriers Act of 1968.
- Backslope: The reshaped or process of reshaping of the upslope bank of a benchcut to a lesser angle that blends into the natural topography.
- Barrier-free-design: A trail design that promotes the elimination of physical barriers that reduces access by people with disabilities.
- Bed: The excavated surface for a trail.
- Bed Material: The substrate in the streambed or trailbed which can be silt, clay, sand, cobble or bedrock or any combination of these soil materials.
- Bench-cut: An excavation along a sideslope to create a trailbed. A full bench cut creates a trailbed that is all natural soil in place, i.e., none of the bed is fill material. A partial bench cut has the inside of the bed lying on soil that is in place and the outside is fill material. A half bench cut is a bed 50% on soil in place and 50% composed of fill material.
- Best Management Practices (BMPs): Best management practices are those practices that are currently believed to provide the most effective, practicable means of preventing or reducing the likelihood for soil erosion and sedimentation problems.
- Clearing-width: The cleared width of the trail corridor, i.e., the horizontal distance between the outer edges of the corridor, and within which vegetation and other obstacles that may interfere with the trail traffic are removed.
- Connectivity: The extent of possibilities to link trails to form trail systems and the linkage of trail systems to accommodate trail travel over broad landscapes.
- Contours: An imaginary line on the surface of the earth connecting points of the same elevation. A line on a map connecting the points of the same elevation.
- Contour Trails: Trail that generally follows a particular topographical contour.
- Downslope: The downhill side of a trail.
- Drainage Sheet (sheet flow): Situation in which water flows relatively evenly across the ground surface. This is a desirable condition as the energy of the water flow is dispersed thereby decreasing the probability of major erosion. This is in contrast with channeled flow where the energy is concentrated and gully erosion is probable.
- Erodible Soils: Soils that are composed of materials that are likely to be moved when exposed to water and wind runoff. Soils having a Natural Resources Conservation Service (NRCS) erosion hazard rating of “moderate” or “severe” should be considered erodible. Scotts Bluff NM has a Soil Inventory and Monitoring Program - http://soils.usda.gov/survey/online_surveys/nebraska/ScottsBluffNM_NE2013/ScottsBluff.pdf.
- Erosion: The process by which the soil materials are worn away by the action of wind or water in the form of raindrops, surface runoff, and waves.

- Exotic (invasive) species: A non-native plant that is particularly successful in its competition with native or indigenous species for space in an ecosystem introduced by human activity or natural processes, e.g., wind, water, and wild animal movements.
- Fall Line: The shortest slope distance over which free flowing water will maximize its change in elevation as it moves down slope.
- Fillslope: Soil materials, including rock and gravel, typically displaced in a benchcut and deposited on the outer side of the bench to widen the trailbed.
- Footpath: Typically, a natural surface path that only allows walkers. Wheelchairs are also permitted, although this may not be practical due to width, surface, or slope.
- Geotexile: Water permeable textile material (fabrics, etc.) used as an underlay to conserve gravel on trails and stabilize erodible surfaces. Textile allows for water to pass through it but keeps soil layers from mixing and breaking down.
- Grade (slope): The slope of a road or trail expressed as a percentage of change in elevation over the horizontal distance traveled.
- Grade reversals (drain dips): A short section of a sideslope trail in which the vertical direction is reversed. That is, the negative grade of the trail bed is changed to a positive grade for a short distance. The purpose of the design is to shorten the length of the downslope grade thus curtailing the amount of energy that water following the tread might gain.
- Grade dip (rolling dip): A modified waterbar. A structure in which the tread is graded down and sloped out to move water away from the trail in a sheetflow. However, no bar is constructed on the portion of the tread immediately on the downgrade side of the turnout. Instead, the tread is gently rolled to blend in with the upslope portion of the tread.
- Helical Pier: Steel post with auger-shaped bit end that is screwed into wet soils either by hand, or with the aid of specialized hydraulic tools to establish a foundation boardwalk.
- Hiker-biker trails: Usually, but not exclusively, an urban paved trail designed for use by pedestrians and bicyclists. It also may include wildland trails where horses and motorized traffic are excluded.
- Hiking trails: Moderate to long distance trail with the primary function of providing a long distance walking experience
- Pervious surface: allows rainwater to pass through and soak into the ground instead of flowing into surface waterways.
- Maintenance: Routine tasks performed to keep a trail safe for the intended uses and ecologically sound.
- Monitoring: Systematic gathering, comparing, and evaluation of data.
- Mitigation: To rectify adverse environmental impacts resulting from human disturbance of the ecosystem.
- Natural drainage: The course followed by surface water flow.
- Non-point source pollution (NPS): Occurs when rainfall or snowmelt runoff moves across the ground carrying pollutants into streams, lakes, wetlands, and groundwater. For example, soil can become a pollutant when water runoff moves across a road or trail and carries large amounts of soil into a waterbody.

- Outslope: To shape the trail surface so that water flows towards the downslope edge of the trail.
- Pre-field investigation: Performing a physical examination of the project work site in order to evaluate solution to trail deficiencies, select the appropriate course of action, formulate the design and quantify the material, equipment, and effort requirements.
- Right-of-way: A linear corridor for which there is a legal easement or ownership for public or private use.
- Riparian area: A habitat that is strongly influenced by surface water and hydric soil conditions and that occurs adjacent to streams, shorelines, and wetlands.
- Rill erosion: An erosion process on sloping terrain in which numerous and randomly occurring small, very shallow channels are formed; occurs mainly on recently bare soils.
- Sediment: Eroded soil particles that are deposited downhill or downstream by surface runoff.
- Sheet erosion: The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and runoff.
- Silt fence: A temporary barrier used to intercept sediment-laden surface water runoff.
- Cross slope: The slope that is at an angle to the direction of the trail.
- Surface soil: The uppermost part of the soil profile.
- Surface material: Material placed on top of the trailbed or base course that provides the desired tread.
- Soil stabilization: A process or application of materials to increase or maintain stability.
- Soil stabilizers: Artificially changing soil properties for trail construction purposes (by physical or chemical methods) at the natural site.
- Trail: Linear route on land or water that provides for recreation or transportation purposes.
- Turnpike: A structure created to raise the trailbed above the surrounding landscape.
- Universal design: The design of projects, programs, and environments to be usable by all people to the greatest extent possible without the need for adaptation or specialized design. A term related to the Americans with Disabilities Act and accessible trails.

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NATIONAL PARK SERVICE
Scotts Bluff National Monument
P.O. Box 27, Gering NE. 69341-0027

Memorandum

To: Field Supervisor, U.S. Fish & Wildlife Service, Ecological Services Office, Grand Island, Nebraska

From: Ken Mabery, Superintendent, National Park Service, Scotts Bluff National Monument

Subject: Informal Consultation under the Endangered Species Act

Scotts Bluff National Monument (Monument) plans to develop trails in T22N, R55W and T21N, R55W in the county of Scottsbluff, Nebraska. The trails plan currently consists of two alternatives, each having a proposal to develop a number of new paths. The purpose of the Trail Development Plan is to study the adequacy of the existing 4.2 miles of trails and the necessity or desirability of changes to this trails system. Most of the park's current trail system is composed of paved, high capacity trails and accesses only a small portion of the Monument and the Old Oregon Trail. Connections to adjacent recreational trails are only partly complete, while additional community planning efforts are underway to extend their trail networks. Please see the attached maps.

The Monument lies within the western Great Plains in an area that was once almost continuous mixed and short grass prairie. The Monument is adjacent to the community of Scottsbluff to the northeast and Gering to the east. Most of the land within the boundary consists of three major plant associations; native mixed-grass prairie, ponderosa pine areas and a hardwood community along the floodplain of the North Platte River. That floodplain also has areas of wetlands and there is an area of mostly barren badlands between the base of Scotts Bluff and the North Platte River.

Your list for the state of Nebraska includes a total of 20 threatened, endangered, and candidate species of invertebrates, fishes, reptiles, amphibians, birds, mammals, and plants. From this list there are a total of three species within the county of Scottsbluff, which are the river otter (*Lutra canadensis*), swift fox (*Vulpes velox*) and the whooping crane (*Grus americana*). The whooping crane is the only species to have been recently observed within the Monument, its presence is infrequent and associated with migration. Neither the otter nor swift fox have been seen at the Monument in recent years. No other listed or candidate species or critical habitat exists at the project area.

Based upon the review of the species list, the Monument believes the Trails Development Plan, if implemented, would likely result in no effects to listed species.

Please respond to Superintendent Ken Mabery at 308-436-9711 if you require additional information.

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Nebraska Field Office
203 West Second Street
Grand Island, Nebraska 68801

February 5, 2013

**FWS-NE: 2013-212**

Ken Mabery-Superintendent
National Park Service
Scotts Bluff National Monument
P.O. Box 27
Gering, NE 69341

**RE: Scotts Bluff National Monument trail development, Scottsbluff, NE**

Dear Mr. Mabery:

This responds to your January 31, 2013 request for comments and concurrence from the U.S. Fish and Wildlife Service (Service) regarding the subject project. The Service has responsibility for the conservation and management of fish and wildlife resources for the benefit of the American public under the following authorities: 1) Endangered Species Act of 1973, 2) Fish and Wildlife Coordination Act, 3) Bald and Golden Eagle Protection Act, and 4) Migratory Bird Treaty Act. The National Environmental Policy Act requires compliance with all of these statutes and regulations. The project proponent and lead federal agency are responsible for compliance with these federal laws.

The Service has special concerns for endangered and threatened species, migratory birds, and other fish and wildlife and their habitats. Habitats frequently used by fish and wildlife species are wetlands, streams, riparian (streamside) woodlands, and grasslands. Special attention is given to proposed developments that include the modification of wetlands, stream alterations, loss of riparian habitat, or contamination of habitats. When this occurs, the Service recommends ways to avoid, minimize, or compensate for adverse effects to fish and wildlife and their habitats.

## ENDANGERED SPECIES ACT

Pursuant to section 7(a)(2) of the Endangered Species Act (ESA), every federal agency, shall in consultation with the Service, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. If a proposed project may affect federally listed species or designated critical habitat, section 7 consultation is required.

**Based on the information you have provided and due to the project type, size, and location, we do not anticipate any impacts on federally listed species, or their critical habitats.** Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be initiated to assess any potential impacts on listed species.

All federally listed species under ESA are also State-listed under the Nebraska Nongame and Endangered Species Conservation Act. However, there are also State-listed species that are not federally listed. To determine if the proposed project may affect State-listed species, the Service recommends that the project proponent contact Michelle Koch, Nebraska Game and Parks Commission (Commission), 2200 N. 33rd Street, Lincoln, NE 68503-0370

## REVIEW, COMMENTS, AND RECOMMENDATIONS ON THE PROPOSED PROJECT ACTION UNDER OTHER FISH AND WILDLIFE STATUTES

### Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (Eagle Act) provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*). The golden eagle is found in arid, open country with grassland for foraging in western Nebraska and usually near buttes or canyons which serve as nesting sites. Golden eagles are often a permanent resident in the Pine Ridge area of Nebraska. Bald eagles utilize mature, forested riparian areas near rivers, streams, lakes, and wetlands and occur along all the major river systems in Nebraska. The bald eagle southward migration begins as early as October and the wintering period extends from December through March. Additionally, many eagles nest in Nebraska from mid-February through mid-July. Disturbances within 0.5-mile of an active nest or within line-of-sight of the nest could cause adult eagles to discontinue nest building or to abandon eggs. Both bald and golden eagles frequent river systems in Nebraska during the winter where open water and forested corridors provide feeding, perching, and roosting habitats, respectively. The frequency and duration of eagle use of these habitats in the winter depends upon ice and weather conditions. Human disturbances and loss of wintering habitat can cause undue stress leading to cessation of feeding and failure to meet winter thermoregulatory requirements. These effects can reduce the carrying capacity of preferred wintering habitat and reproductive success for the species. To comply with the Eagle Act, it is recommended that the project proponent determine whether the proposed project would impact bald or golden eagles. If it is determined that either species could be affected by the proposed project, the Service recommends that the project proponent notify this office as well as the Commission for recommendations to avoid adverse impacts to bald and golden eagles.

### Migratory Bird Treaty Act

Under the Migratory Bird Treaty Act (16 U.S.C. 703-712: Ch. 128 *as amended*) (MBTA) construction activities in grassland, roadsides, wetland, riparian (stream), shrubland and woodland habitats, and those that occur on bridges or culverts (e.g., which may affect swallow nests on bridge girders) that would otherwise result in the taking of migratory birds, eggs, young, and/or active nests should be **avoided**. Although the provisions of MBTA are

applicable year-round, most migratory bird nesting activity in Nebraska occurs during the period of April 1 to July 15. However, some migratory birds are known to nest outside of the aforementioned primary nesting season period. For example, raptors can be expected to nest in woodland habitats during February 1 through July 15, whereas sedge wrens, which occur in some wetland habitats, normally nest from July 15 to September 10.

The Service recommends that the project proponent avoid removal or impacts to vegetation during the primary nesting season for migratory birds in Nebraska or April 1 to July 15. In the event that construction work cannot be avoided during peak breeding season, the Service recommends that the project manager (or construction contractor) arrange to have a qualified biologist conduct an avian pre-construction risk assessment of the affected habitats (grassed drainages, streamside vegetation) to determine the absence or presence of breeding birds and their nests. Surveys must be conducted during the nesting season. Breeding bird and nesting surveys should use *appropriate* and *defensible* sampling designs and survey methods to assist the proponent in avoiding the unnecessary take of migratory birds. The Service further recommends that field surveys for nesting birds, along with information regarding the qualifications of the biologist(s) performing the surveys, be thoroughly documented and that such documentation be maintained on file by the project proponent (and/or construction contractor) until such time as construction on the proposed project has been completed.

The Service requests that the following be provided to this office prior to the initiation of the proposed project if the above conditions occur.

a) A copy of any survey(s) for migratory birds done in conjunction with the proposed project, if any. The survey should provide detail in regard to survey methods, date and time of survey, species observed/heard, and location of species observed relative to the proposed project site.

b) Written description of specific work activity that will take place in all proposed project areas.

c) Written description of any avoidance measures that can be implemented at the proposed project site to avoid the take of migratory birds.

The Service appreciates the opportunity to review and comment on the subject project. Should you have questions regarding these comments, please contact Mrs. Angelina Wright within our office at angelina_wright@fws.gov or (308)382-6468, extension 21.

Sincerely,

John Cochran

for Michael D. George
Nebraska Field Supervisor

cc: NGPC; Lincoln, NE (Attn: Michelle Koch)
NGPC; Lincoln, NE (Attn: Carey Grell)

NATIONAL PARK SERVICE
Scotts Bluff National Monument
P.O. Box 27, Gering NE. 69341-0027

(Correspondence Code)

State Historic Preservation Office
Nebraska State Historical Society
P.O. Box 82554
Lincoln, Nebraska 68501-2554

Dear Sirs:

Scotts Bluff National Monument (Monument), National Park Service, plans to develop trails in T22N, R55W and T21N, R55W in county of Scottsbluff, Nebraska. The trails plan currently consists of two alternatives each proposing to develop a number of new paths. The purpose of the Trail Development Plan is to study the adequacy of the existing 4.2 miles of trails and the necessity or desirability of changes to this trails system. Most of the park's current trail system is composed of paved, high capacity trails and accesses only a small portion of the interpreted Old Oregon Trail. Connections to adjacent recreational trails are only partly complete, while additional community planning efforts are underway to extend their trail networks. The Trail Development Plan is intended to address issues such as offering community members and visitors a more cohesive way of interacting with geological, cultural, and natural resources through the development of recreational trails. Please see the attached maps.

Section 106 of the National Historic Preservation Act, as amended, requires that the Monument take into account the effect of our undertakings on historic properties, look to avoid or reduce adverse effects on historic properties, and afford the Advisory Council on Historic Preservation an opportunity to comment on our project and its effects on historic properties. The Monument itself is listed on the National Register of Historic Places (National Register). Our records show that there are 19 structures within the Monument either listed on or are eligible for the National Register. Of these 19 structures the Oregon Trail remnants or ruts are the only known resources where the trails could encounter a National Register site. However, the area northwest of Scotts Bluff has yet to be surveyed for cultural resources. This is the same area where the trails could encounter the Oregon Trail remnants.

This letter initiates consultation under Section 106 for the Trails Development Plan. It is the intent of the Monument that during the implementation of the trail plan that we would ensure development be confined to already disturbed areas to the greatest extent possible in order to avoid any potential adverse effects to all cultural resources. We intend to use the environmental assessment developed under the process of the National Environmental Policy Act to consult with you when the plan is fully developed.

The Monument has a continuing interest in working with your office to ensure impacts to resources of concern to the Monument are adequately addressed. For continued consultation and coordination, please contact Superintendent Ken Mabery, telephone 308-436-9711.

Nebraska
STATE HISTORICAL SOCIETY

February 21, 2013

Ken Mabery
Scotts Bluff National Monument
PO Box 27
Gering, NE 69341

RE: Trails Development in T22N, R55W and T21N, R55W, Scotts Bluff National Monument
HP #1302-009-01

Dear Mr. Mabery:

Thank you for submitting the referenced project proposal for our review and comment. Our comment on this project and its potential to affect historic properties is required by Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulations 36 CFR Part 800.

Given the information provided, in our opinion there will be no historic properties affected by the project as proposed. Should any changes in the project be made or in the type of funding or assistance provided through federal or state agencies, please notify this office of the changes before further project planning continues.

Please retain this correspondence and your documented finding in order to show compliance with Section 106 of the National Historic Preservation Act, as amended. If you have any questions, please contact Jill Dolberg at 402-471-4773.

Sincerely,

L. Robert Puschendorf
Deputy State Historic Preservation Officer
Nebraska State Historic Preservation Office

1500 R Street
PO Box 82554
Lincoln, NE 68501-2554
p: (800) 833-6747
(402) 471-3270
f: (402) 471-3100
www.nebraskahistory.org

# United States Department of the Interior

National Park Service
Scotts Bluff National Monument
P.O. Box 27
Gering, Nebraska 69341

File Code:

January 29, 2013

President Bryon V. Brewer
ATTN: Wilmer Mesteth, THPO
Oglala Sioux Tribe
P.O. Box 2070
Pine Ridge, SD 57770

Dear President:

Scotts Bluff National Monument (Monument), National Park Service, plans to develop trails within the boundaries of the Monument in county of Scottsbluff, Nebraska. The trails plan currently consists of two alternatives each proposing to develop a number of new paths. The purpose of the Trail Development Plan is to study the adequacy of the existing 4.2 miles of trails and the necessity or desirability of changes to this trails system. Most of the park's current trail system is composed of paved, high capacity trails and accesses only a small portion of the interpreted Old Oregon Trail. Connections to adjacent recreational trails are only partly complete, while additional community planning efforts are underway to extend their trail networks. The Trail Development Plan is intended to address issues such as offering community members and visitors a more cohesive way of interacting with geological, cultural, and natural resources through the development of recreational trails. Please see the attached maps.

It is the intent of the Monument that, during the implementation of the trail plan, we will ensure that development is confined to already disturbed areas to the greatest extent possible in order to avoid any potential adverse effects to cultural resources. The Monument itself is listed on the National Register of Historic Places (National Register). In addition, there are sites or structures within the Monument either listed on or are eligible for the National Register. Most of the standing structures relate to the Civilian Conservation Corps and the development of the park, but there are Oregon Trail remnants or ruts, and there are numerous archeological resources. At this time, we are unaware of any sacred sites or ethnographic resources within the park boundaries.

To honor our government-to-government relationship, we hereby extend this opportunity to you to comment on this project. Specifically, we would like to know if there are any ethnographic resources that are of concern to you and if you would like to be involved in this project in more detail. Please provide comments by March 1, 2013 to enable us to make the most use of your information as we begin the next steps of the environmental compliance process.

Thank you in advance for your comments and we look forward to hearing from you! If you have any comments or need clarification, please contact me at the above address, by telephone at 308-436-9711, or Ken_Mabery@nps.gov.

Sincerely,

Ken Mabery
Superintendent

Attachments

**Additional Tribal contacts and cc's.**

1.
Mr. Louis Maynahonah, Chairman
Apache Tribe of Oklahoma
P.O. Box 1220
Anadarko, OK 73005

2.
Governor Janice Boswell
Cheyenne and Arapaho Tribes of Oklahoma
P.O. Box 38
Concho, OK 73022

cc: Ms. Lynette Gray, THPO

3.
Mr. Brandon Sazue, Sr., Chairman
Crow Creek Sioux Tribe
P.O. Box 50
Fort Thompson, SD 57339

cc: Ms. Wanda Wells, THPO

4.
Mr. Darrell O'Neal, Sr., Chairman
Northern Arapaho Tribe
P.O. Box 396
Fort Washakie, WY 82514

cc: Ms. Darlene Conrad, THPO

5.
President Bryon V. Brewer
Oglala Sioux Tribe
P.O. Box 2070
Pine Ridge, SD 57770

cc: Wilmer Mesteth, THPO

6.
Mr. Douglas Rhodd, Chairman
Ponca Tribe of Oklahoma
20 White Eagle Drive
Ponca City, OK 74601

7.
Ms. Rebecca White, Chairwoman
Ponca Tribe of Nebraska
P.O. Box 288

Niobrara, NE 68760

cc: Ms. Gloria Hamilton, THPO

8.
President Cyril Scott
Rosebud Sioux Tribe
P.O. Box 430
Rosebud, SD 57570

cc: Mr. Russell Eagle Bear, THPO

9.
Mr. Charles Murphy, Chairman
Standing Rock Sioux Tribe
P.O. Box D
Fort Yates, ND 58538

cc: Waste' Win Young, THPO

Tribal Historic Preservation Office
P.O. Box 809
Rosebud, South Dakota
Telephone: (605) 747-4255
Fax: (605) 747-4211
Email: rstthpo@yahoo.com

Protecting the Land, Cultural, Heritage and Tradition for the Future Generation

Russell Eagle Bear
Officer

Kathy Arceren
Administrative Assistant

Date: February 14, 2013

To: Ken Mabery
Superintendent
Scotts Bluff National Monument
P. O. Box 27
Gering, NE 69341

Re: The plans to develop trails within the boundaries of Scotts Bluff National Monument.

Dear: Ken Mabery,

We are responding to your letter dated January 29, 2013, regarding the plans to develop trails within the boundaries of Scotts Bluff National Monument.

As the Tribal Historic Preservation Officer for the Rosebud Sioux Tribe I appreciate your notification of the undertaking and the awareness you are demonstrating for the archaeological sites and cultural heritage of Indigenous peoples.

I would like to request additional information on the cultural resource inventories that have been completed in the area and to schedule a site visit for further consultation.

Thank you for your time and consideration of this letter.

Sincerely,

Russell Eagle Bear
THPO Officer