

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

Chapter 1. Introduction

a. Introduction / Executive Summary

Scotts Bluff National Monument (SCBL) was established in 1919. The monument encompasses over 3,000 acres of prairie and bluff habitat located in the panhandle of western Nebraska. SCBL is dedicated to preserving the natural and cultural resources within the monument including Scotts Bluff and the Oregon-California Trail. The primary reasons for visiting include experiencing the emigrant trail remnants, trail hiking, the extensive museum collection, and travelling the Summit Road to take in views from the top of Scotts Bluff. Throughout this document the Oregon-California Trail is referred to as the Oregon Trail or emigrant trail when referencing the existing emigrant trail resources within the monument.

As part of the planning process, the National Park Service (NPS) has prepared this combined Landscape Study/Environmental Assessment (LS/EA) with the intent to support management decisions for the Oregon Trail historic resources within the monument and to supplement the existing 1998 General Management Plan (GMP). The purpose of this report is to provide the NPS with an assessment of the character-defining features of the Oregon Trail, document historic and existing conditions, and develop specific treatment recommendations to ensure the future protection of the Oregon Trail and its natural and cultural resources. The EA portion of the report is an assessment of how implementing the alternative treatment recommendations would affect various environmental factors such as natural and cultural resources. The LS has been combined with the EA into a single report to minimize duplicated information and to provide the reader with a clear understanding of how treatment recommendations were developed and what effects those treatments would have if implemented.

As part of preparing the LS/EA, a field investigation and evaluation of the historic landscape of the Oregon Trail has been conducted using the NPS and National Register of Historic Places Guidelines and the Oregon-California Trails Association's Mapping Emigrant Trails Manual (MET). The findings of the field investigation and evaluation are included with a detailed documentation of historical development, an evaluation of existing conditions of landscape features according to condition (good, fair and poor), and an analysis and evaluation of Scotts Bluff National Monument's emigrant trail resources. The

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

evaluation of the trail ruts was completed using a modified version of the classification system developed for the MET manual (see Table on page 3-10).

The Treatment Alternatives, including the preferred alternative, contain recommendations on how to preserve the emigrant trail resources and significant contributing features of the emigrant trail cultural landscape. These recommendations are based on historical documentation, analysis of existing conditions and site history, and the Secretary of the Interior's standards and guidelines as they apply to the treatment of historic landscapes.¹ This section includes treatment options, and will set priorities and inform Section 106 compliance.

The EA portions of this report evaluate potential effects on environmental, socioeconomic, and cultural resources from proposed treatment alternatives and were prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations, 40 CFR Parts 1500-1508 and NPS Director's Order – 12 and Handbook, Conservation Planning, Environmental Impact Analysis, and Decision-making. The NEPA process (40 CFR 1500-1508) is being used to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and implementing regulations, 36 CFR Part 800. This LS/EA will determine whether significant impacts would occur as a result of the preferred alternative and if an environmental impact statement (EIS) or finding of no significant impact (FONSI) would be required.

b. Management Summary

The general management philosophy is to preserve and protect the extant remnants of the Oregon Trail. The section of the emigrant trail immediately to the west of the Visitor Center; that extends to the W.H. Jackson campsite is the area (Character Area A) that receives the most visitor use, has the most erosion problems, and requires the most frequent maintenance. Routine maintenance for this section of the emigrant trail includes: removal of sediment from storm events; regrading of washed off trail sections; and cleaning of drainage channels and culverts.

Management practices and requirements for other areas of the emigrant trail are minimal. In general, erosion is not an issue in these areas and visitor use is intermittent. Trail markers

¹ US Department of the Interior, National Park Service 1997

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

have been installed and are maintained along the visible portions of the emigrant trail within the monument.

c. Purpose and Need

The NPS faces many challenges associated with the long-term management of the monument, including maintaining the Oregon Trail resources and the associated historic landscape. Without an informed, comprehensive plan for landscape treatment the existing emigrant trail will continue to be altered and may eventually lose integrity. This could result in a misrepresentation of the historic qualities of the trail and lead to reduced visitor understanding. Natural resources could also be negatively impacted.

To inform decisions regarding management, the NPS has prepared the LS/EA for the Oregon Trail ruts landscape. The LS is intended to provide an assessment of the character-defining features of the Oregon Trail, document historic and existing conditions, and develop specific treatment recommendations to ensure the future protection of the Oregon Trail ruts and the associated landscape.

The LS/EA will also be used to support the monument's GMP, Long-Range Interpretive Plan, Cultural Landscape Inventory (CLI), and associated compliance as required by the National Environmental Policy Act of 1969, as amended. It will also guide any additional landscape treatments beyond those discussed in the report.

The purpose of the Oregon Trail Ruts Landscape Study is to record the history and current conditions of the emigrant trail resources, and to provide guidance for the future treatment and use of the historic landscape.

The monument's GMP and CLI identify the Oregon Trail as a component landscape and an important landscape feature that contributes to the significance of the monument's larger cultural landscape. The study is needed to guide treatment and use of the emigrant trail resources and associated features. The LS/EA builds on work done in the GMP and CLI to provide a comprehensive understanding of the historic development of the landscape and its condition, and to provide treatment recommendations that respond appropriately to their historic character while accommodating park and visitor needs.

The purpose of implementing a preferred treatment recommendation is to 1) reduce degradation of portions of the trail ruts, 2) improve visitor experience and safety, and 3)

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

facilitate maintenance. Implementing a preferred treatment recommendation is necessary because the character of the emigrant trail is currently being degraded by erosion, there are a number of noncontributing elements that reduce the authenticity of the visitor experience, and some portions of the visitor trail are difficult for some visitors to use safely.

d. Project Objectives

The objectives of the LS/EA are to:

1. Document the history and existing condition of the emigrant trail resources within Scotts Bluff National Monument.
2. Identify appropriate treatments to preserve and protect the emigrant trail resources.
3. Identify appropriate strategies to further locate and identify emigrant trail ruts.
4. Provide an assessment of the pertinent impacts from treatment alternatives and fulfill federal consultation requirements.

The objectives of the preferred treatment recommendation are to:

1. Reduce degradation of the emigrant trail resources from erosion.
2. Locate and document the known trail rut resources for future reference.
3. Minimize impacts of exotic invasive species.
4. Enhance visitor experience by preserving historic resources and enhancing interpretation opportunities.
5. Efficiently implement recommendations while minimizing visitor impacts.
6. Minimize operational effort to maintain the historic landscape and related resources.

e. Monument Purpose/Significance

In the mid-1800s, thousands of emigrant pioneers traveled the Oregon Trail for over 2,000 miles from Missouri to Oregon in what has been said to be one of the largest voluntary mass migrations in human history. In 1850, travelers excavated the most treacherous segments of the trail allowing for passage over Mitchell Pass and significantly shortening the distance traveled by the overland emigrants. From this time until the completion of the transcontinental railroad in 1869 thousands of emigrants followed this route over Mitchell Pass.

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

In 1919 President Woodrow Wilson signed a Presidential Proclamation, which officially established Scotts Bluff National Monument to maintain and protect the Oregon Trail (and other trails) within the monument's boundaries.

As stated in the 1998 GMP, Scotts Bluff National Monument is significant for several reasons including:

- The natural features, specifically the bluffs and geologic formations.
- The historic use as transportation corridor for many different people from Native Americans to emigrants to ranch operators.
- The many trails that traverse the monument.
- The museum collections of William Henry Jackson.
- The Civilian Conservation Corps construction and development.
- The geological resources.

Scotts Bluff, Mitchell Pass, and the Oregon Trail ruts possess national historic significance due to their major role during the period of mass migration to and settlement of America's western frontier. The importance of these features has been formally recognized by listing on the National Register of Historic Places (1976).

The purpose of the area's designation as a national monument is to:

- Preserve and interpret the history of the Platte River transportation corridor and the influence 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.²

² NPS 1998

**Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report**

f. Study Area Description and Boundaries

The Oregon Trail Ruts are located within Scotts Bluff National Monument, which is located approximately two miles west of Gering, Nebraska. The study area consists of the emigrant trail corridor (the corridor includes the trail ruts that may include a single rut, a ‘trough’ or multiple ruts within an area) and adjacent landscape crossing the monument from the southeast to northwest.

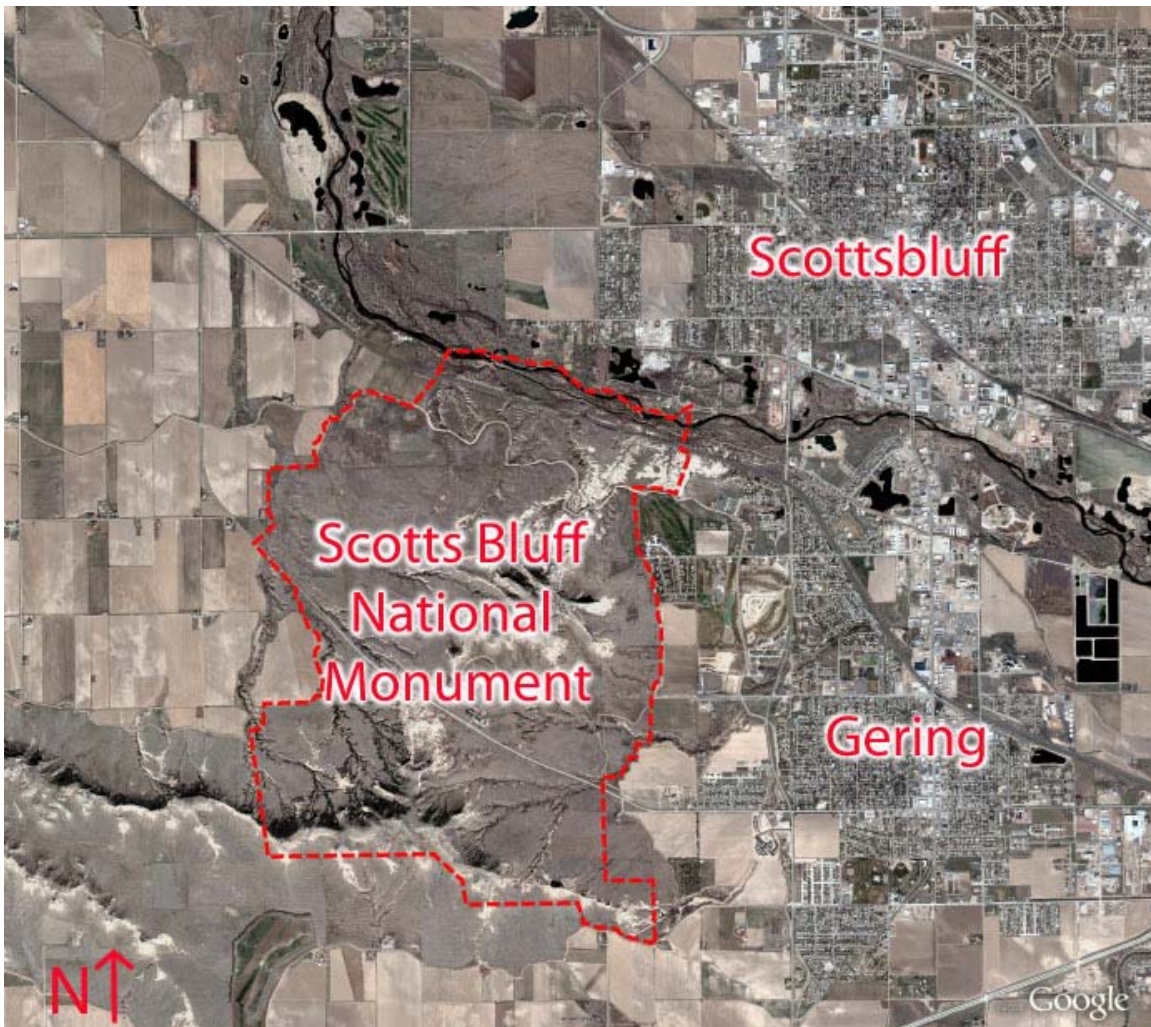
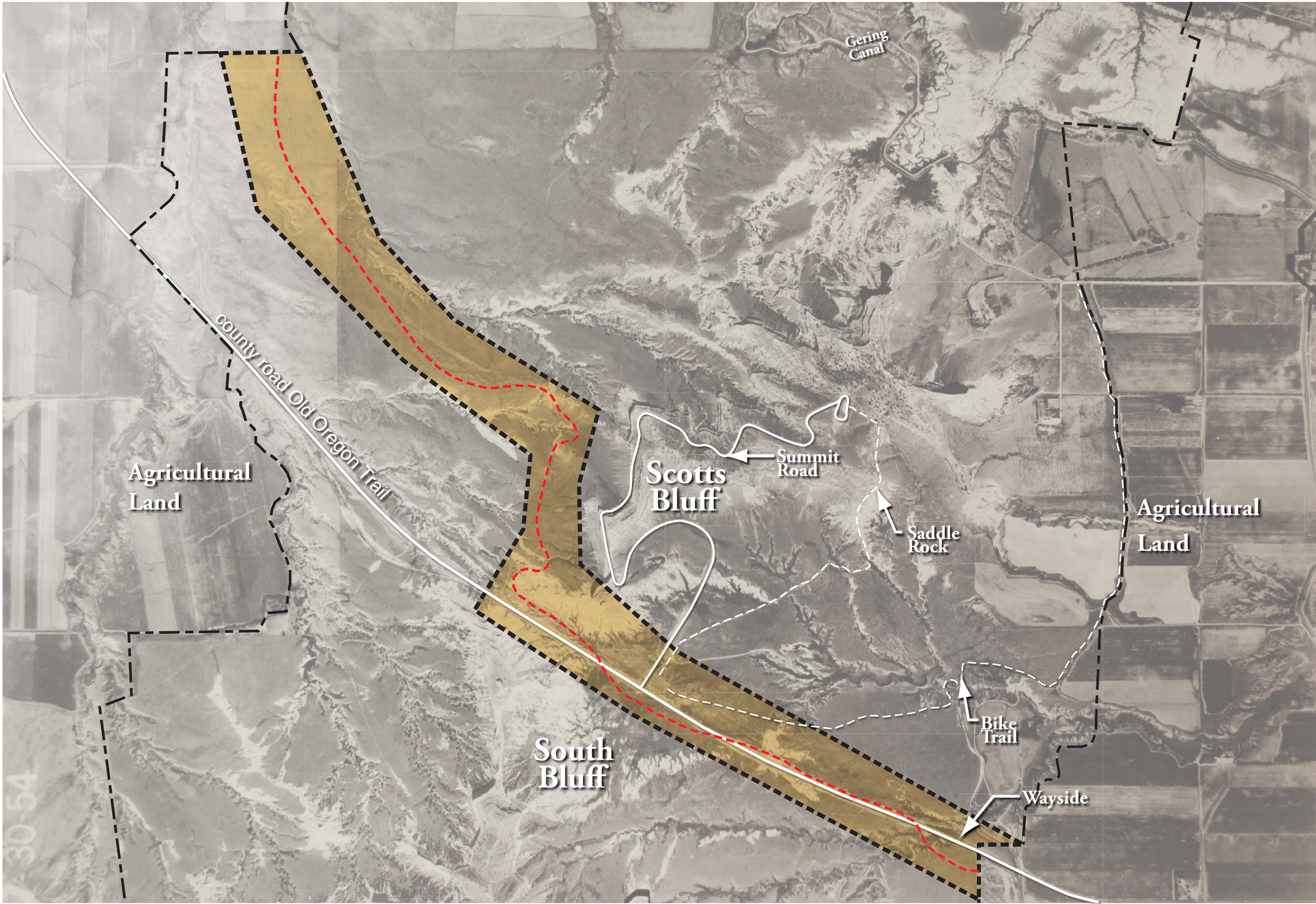





Figure 1 - 1. Context Map



Legend

-  Study Area Boundary
-  National Park Service Boundary
-  Oregon/ California Trail/ Pony Express (approximate historic alignment)

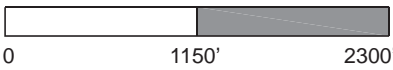


FIGURE 1 - 2	TITLE OF PROJECT		
	OREGON TRAIL RUTS LANDSCAPE STUDY		
	DRAWING TITLE		
	STUDY AREA		
	NAME OF PARK		
UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE SCOTTS BLUFF NATIONAL MONUMENT	SCOTTS BLUFF NATIONAL MONUMENT		
	REGION	COUNTY	STATE
	MIDWEST	SCOTTS BLUFF	NEBRASKA

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

g. Project Methodology

A substantial amount of investigation and documentation had been completed for the Scotts Bluff National Monument prior to work performed for the Oregon Trail Ruts Landscape Study and Environmental Assessment; therefore, this study was conducted at a limited level of investigation and documentation.³ This work included historical research, existing condition assessment and analysis.

In November of 2009, investigations were conducted by Mundus Bishop Design and ERO Resources to document the existing condition of the emigrant trail resources and related landscape features. Archival research was conducted utilizing primary and secondary sources to produce the landscape history and evaluate the cultural resources. The majority of the research was conducted at the monument archives. The monument has an extensive and well organized collection of historic photographs, drawings and administrative archives.

Aerial photography was completed for the known trail corridor within the monument and topographic mapping was developed from the photography to better locate and document emigrant trail resources.

Environmental Assessment/Assessment of Effect Methods

This EA was prepared to evaluate potential environmental, socioeconomic, and cultural resource effects from three proposed alternative – the No Action Alternative (Alternative 1); Treatment Alternative 2 – Visitor Trail (Existing Alignment), which is the preferred alternative; and Treatment Alternative 3 - Visitor Trail (Visitor Boardwalk). Under the no action alternative, the monument would continue maintaining the existing condition of the Oregon Trail without modification. The EA was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations, 40 CFR Parts 1500-1508 and NPS Director's Order – 12 and Handbook, Conservation Planning, Environmental Impact Analysis, and Decision-making. The NEPA process (40 CFR 1500-1508) is being used to comply with Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), and implementing regulations, 36 CFR Part 800. The EA will determine whether significant impacts would occur as a result of the proposed project and if

³ This document builds upon the Cultural Landscape Inventory (CLI), General Management Plan (GMP), Long-Range Interpretive Plan, and Administrative History.

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI) would be required.

h. Relationship to other Planning Projects

This LS/EA builds upon the numerous studies, investigations and documentation that have occurred since the establishment of Scotts Bluff National Monument. These include the 1998 General Management Plan for Scotts Bluff National Monument (GMP), 2008 Scotts Bluff National Monument Long-Range Interpretive Plan, and 1996 Scotts Bluff National Monument Cultural Landscape Inventory (CLI). The LS/EA also relies on NPS Management Policies 2006, which provides guidance for all management decisions, including those related to cultural resources.

During the development of the LS/EA several additional project possibilities were discussed that have the potential to impact historic resources. These potential projects are not funded at the time of this report and will require additional study and planning to determine their suitability.

Visitor Center Expansion

Any expansion of the Visitor Center shall be done to minimize impacts to emigrant trail resources and the historic landscape.

Interpretation from Vehicles

Opportunities may exist for interpreting the Oregon Trail ruts while travelling on county road Old Oregon Trail. The opportunities may include waysides or marking the portions of the road that pass over historic locations of the trail.

Wagon Reenactments

The potential of driving horse-pulled wagons along the emigrant trail route on a limited basis has discussed during the development of the LS. Additional study of this action should be undertaken prior to evaluating the impacts.

i. Scoping

Scoping is an early and open process to determine the breadth of issues and alternatives to be addressed in an EA. The staff of SCBL and resource professionals of the NPS Midwest Region conducted internal scoping. This interdisciplinary process defined the

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

purpose and need, identified potential actions to address the need, determined the likely issues and impact topics, and identified the relationship of the proposed action to other planning efforts at SCBL.

The monument initiated public review and comment in November 2010 by presenting the treatment alternatives to interested individuals and neighbors of the monument in open house-format meeting. Comments on the proposed action will be solicited from public and private parties and will be documented in the LS/EA. The general public, federal and state agencies, and American Indian groups traditionally associated with the lands of SCBL also will have an opportunity to review and comment on the draft EA.

Several laws and directives, including the National Historic Preservation Act (16 United States Code [USC] 470 et seq.); National Environmental Policy Act; NPS Organic Act; NPS Management Policies 2006; DO-12: Conservation Planning, Environmental Impact Analysis, and Decision-making (2001); and DO-28: Cultural Resources Management Guideline require the consideration of impacts on cultural resources, either listed in or eligible to be listed in, the national register. The Nebraska State Historical Society — State Historic Preservation Office will be notified of the project to initiate consultation and request input on the proposed project.

j. Environmental Assessment Impact Topics

EA Impact Topics

An important part of the decision-making process is seeking to understand the consequences of making one decision rather than another. The EA identifies the anticipated impacts of possible actions on certain resources and on monument visitors and neighbors. Impacts are organized by topic, such as “vegetation” or “visitor safety.” Impact topics serve to focus the environmental analysis and to ensure the relevance of impact evaluation. Table 1 discusses retained impact topics; the reasons for retaining the topic; and relevant laws, regulations, and policies.

**Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report**

255 **Table 1. Impact Topics Retained for Further Evaluation and Relevant Laws,**
256 **Regulations, and Policies**

Impact Topic	Reasons for Retaining Impact Topic	Relevant Laws, Regulations, and Policies
Soil	The EA alternatives may result in disturbance to soils.	NPS Management Policies 2006
Vegetation	Vegetation resources could be lost or disturbed by the treatment alternatives. The introduction or spread of invasive non-native species from ground disturbing activities during construction is possible.	NPS Organic Act; NPS Management Policies 2006; Resource Management Guidelines (NPS-77); Federal Noxious Weed Control Act; Executive Order 13112; Invasive Species (1999); Executive Order 11988; Executive Order 11990; Clean Water Act
Visitor Experience and Recreation Resources	The treatment alternatives could provide long-term benefits to the visitor experience.	NPS Management Policies 2006
Public Health, Safety, and Monument Operations	Visitor safety could benefit from the treatment alternatives. The alternatives could have varying effects on monument operations during construction of the treatment alternatives and due to on-going maintenance.	NPS Management Policies 2006; OMB Circular A-123; Federal 'Managers' Financial Integrity Act of 1982 (31 U.S.C. 3512(d)); Government Performance and Results Act of 1993 (GPRA)
Cultural Resources	The EA alternatives could affect the Oregon Trail, which is listed on the National Register of Historic Places. The entire monument is considered a cultural landscape, with the features associated with the Oregon Trail forming a separate component landscape. The monument includes archeological resources, some dating to about 9,000 years ago. In addition to prehistoric sites and artifacts, artifacts associated with users of the emigrant trail are also present. Changes to the cultural resources that could result from the EA alternatives could be of concern to visitors, the public, the state historic preservation officer, and NPS managers.	Sections 106 and 110 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470); Advisory Council on Historic Preservation's implementing regulations regarding the "Protection of Historic Properties" (36 CFR 800); DO/NPS-28: "Cultural Resources Management Guideline"; Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes (1996); NPS Management Policies 2006; Secretary of the Interior's Standards for the Treatment of Historic Properties; the National Environmental Policy Act.

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

Impact Topics Dismissed from Further Consideration

The following impact topics or issues were eliminated from the list of potential impacts because the effects would be negligible to minor.

Geologic and Paleontologic Resources

Scotts Bluff rises 4,659 ft above sea level and 800 ft above the North Platte River and is the prominent geologic feature at the monument.⁴ Scotts Bluff served as an important landmark along the historic Oregon Trail. Scotts Bluff also is significant because geologic strata spanning the time period from 33 to 22 million years before present are exposed on its north face.⁵ The steep elevation, ridges, and broad alluvial fans at the base of Scotts Bluff are composed of layers of sandstone, siltstone, volcanic ash, and limestone that record a history of wind and stream depositions as well as groundwater supersaturated with calcium carbonate (lime).

An area known as the “badlands” is located between the north base of Scotts Bluff and the North Platte River, where deeply incised arroyos support little or no vegetation (NPS 1998). The badlands area of the monument contains an important deposit of early mammal and reptile fossils in the Whitney and Orella Members of the Brule Formation from approximately 32 million years before present.⁶

Although Scotts Bluff National Monument contains important geologic and paleontologic resources, the project area itself does not contain outstanding geological formations, rock outcrops, or known paleontologic resources at shallow depths. Under the No Action Alternative, current management practices would continue and there would be no new ground-disturbing activities. The action alternatives, including the preferred alternative, would require shallow excavation that could encounter shallow rock strata. The area disturbed under the action alternatives would be negligible in when compared to the extent of similar areas in the monument. Any excavation of rock would have a negligible effect on geologic and paleontologic resources in the proposed project area; therefore, this topic was dismissed from consideration in this EA.

⁴ NPS 1999

⁵ Graham 2009

⁶ Ibid.

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

Prime or Unique Farmland

In 1980, the Council of Environmental Quality (CEQ) directed federal agencies to assess the effects of their actions on farmland soils classified as prime or unique by the United States Department of Agriculture, Natural Resources Conservation Service. Prime or unique farmland is defined as soil that particularly produces general crops such as common foods, forage, fiber, and oil seed; and specialty crops such as fruits, vegetables, and nuts. No prime or unique farmlands are associated with the project area; therefore, prime or unique farmland was dismissed as an impact topic in this EA.⁷

Air Quality and Climate Change

The 1963 Clean Air Act, as amended (42 U.S.C. 7401 et seq.), requires federal land managers to protect monument air quality, while the NPS Management Policies 2006 address the need to analyze air quality during monument planning. Scotts Bluff National Monument is classified as a Class II area under the Clean Air Act.⁸ This air quality classification is designed to protect the majority of the country from air quality degradation.

Under the No Action Alternative, current management practices would continue and there would be no change in vehicle or equipment emissions or generation of dust during maintenance activities. Under the treatment alternatives, including the preferred alternative, earthwork and hauling material during construction would temporarily increase dust and vehicle emissions and would result in localized effects on air quality. Hydrocarbons, nitrogen oxide, and sulfur dioxide vehicle emissions would be rapidly dissipated; and visibility, deposition, and other air quality-related values are not expected to be appreciably impaired. These effects would be short-term, negligible, and adverse. Neither overall monument air quality nor regional air quality would be more than negligibly affected by the short-term increase in emissions. Under the treatment alternatives, some greenhouse gases, such as carbon dioxide, would be emitted from the use of construction equipment and trucks. These emissions would be negligible and would have a short term contribution to climate change. The treatment alternatives would not result in an increase in traffic or vehicle emissions. Because the alternatives would result in local short-term negligible adverse effects and the

⁷ NRCS 2010

⁸ NPS 2000

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

No Action Alternative would have no new effects, air quality and climate change were dismissed as impact topics in this EA.

Visual Resources

Under the two treatment alternatives, visual impacts would occur during construction of improvements to the trail from the presence of construction equipment, materials, and ground disturbances. The construction-related impacts under the improvement alternatives would be local, short-term, and negligible. Proposed improvements would primarily occur in the footprint of the existing trail and would not substantially change the visual character of the area. The No Action Alternative would have no new effect on visual resources. There would be short-term negligible adverse impact on the visual resources under the treatment alternatives; therefore, visual resources were dismissed as an impact topic in this EA.

Lightscape

In accordance with NPS Management Policies 2006, the NPS strives to preserve natural ambient lightscapes, which are natural resources and values that exist in the absence of human-caused light. SCBL strives to limit the use of artificial outdoor lighting to that which is necessary for building security and human safety. SCBL also strives to ensure that all outdoor lighting is shielded to the maximum extent possible to keep light on the intended subject and out of the night sky. No structures or outdoor lighting are proposed in the EA alternatives that would affect the lightscape; therefore, lightscape was dismissed as an impact topic in this EA.

Natural Soundscapes

NPS Management Policies 2006 and Director's Order 47: Soundscape Preservation and Noise Management recognize that natural soundscapes are a national monument resource and call for the NPS to preserve, to the greatest extent possible, the monument's natural soundscapes.⁹ The policies and director's order further state that NPS staff will protect natural soundscapes from degradation due to noise (undesirable human-caused sound). Noise can adversely affect, directly and indirectly, the natural soundscape and other recreation area resources. It can also adversely affect the visitor experience. The treatment alternatives would result in a local short-term increase in noise during construction. Under the No Action Alternative, current management practices and visitor use would continue, so

⁹ NPS 2000

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

there would be no new effect on soundscape. Because the treatment alternatives would result in short-term negligible adverse effects with no long-term effect and the No Action Alternative would have no new effect, soundscape was dismissed as an impact topic in this EA.

Floodplains

Executive Order 11988: Floodplain Management requires an examination of impacts to floodplains and potential risks involved in placing facilities within floodplains. NPS Management Policies 2006 and Director's Order 77-2: Floodplain Management provides guidelines for proposed actions in floodplains. No areas of flooding have been identified in the project area. The EA alternatives do not propose work activities or structures in a floodplain. Because there would be no impact to floodplains under any alternative, floodplains was dismissed as an impact topic in this EA.

Water Resources

The Clean Water Act and NPS Management Policies 2006 direct the NPS to protect monument waters and avoid pollution of monument waters by human activities. There are no free flowing streams in SCBL and there are no streams in the immediate project area.¹⁰ Most of the ground disturbance associated with the treatment alternatives would be on the east side of Mitchell Pass. The areas of disturbance would be a minimum of about 1,600 feet from the nearest ephemeral stream channel. A stormwater pollution prevention plan and erosion and sediment control best management practices would be implemented during construction to prevent or minimize the potential for erosion and transport of sediments to streams. With the SWPPP in place, potential effects on water resources from the treatment alternatives would be short term, negligible, and adverse. In the long term, implementing the treatment alternatives would have a beneficial effect on water quality by reducing trail erosion. Under the No Action Alternative, current management practices and existing levels of erosion would continue; therefore the No Action Alternative would have no new effect on water resources. For these reasons, water resources were dismissed as an impact topic.

Wetlands

Executive Order (EO) 11990, NPS Management Policies 2006, and Director's Order – 77-1 direct that wetlands be protected, and that wetlands and wetland functions and values

¹⁰ NPS 1998

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

be preserved. These orders and policies further direct that direct or indirect impacts to wetlands be avoided when practicable alternatives exist. The project area is covered by upland vegetation typical of the Great Plains. The National Wetland Inventory website does not show any mapped wetlands in the project area and field observations confirmed that there are no wetlands in the proposed area of disturbance.¹¹ Because there would be no impacts to wetlands from the EA alternatives, wetlands were dismissed as an impact topic in this EA.

Ethnographic Resources

Ethnographic resources are defined by the NPS as any “site, subsistence, or other significance in the cultural system of a group traditionally associated with it” (Director’s Order 28). No specific issues related to ethnographic resources have been identified. Because it is unlikely that ethnographic resources would be affected by the EA alternatives, and because appropriate steps would be taken to protect any ethnographic resources that are inadvertently discovered, ethnographic resources was dismissed as an impact topic in this EA.

Museum Collections

Museum collections include historic artifacts, natural specimens, and archival and manuscript material. These collections may be threatened by fire, vandalism, natural disasters, and careless acts. The preservation of museum collections is an ongoing process of preventative conservation, supplemented by conservation treatment, when necessary. The primary goal is preservation of artifacts in the most stable condition possible to prevent damage and minimize deterioration. The proposed EA alternatives would not affect the museum objects of SCBL and there is no potential to add objects to the collection; therefore, museum collections were dismissed as an impact topic in this EA.

Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by the Department of the Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights. The order represents a duty to carry out the mandates of

¹¹ USFWS 2010

**Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report**

the federal law with respect to American Indian and Alaska Native tribes. None of the lands of SCBL are trust resources according to this definition; therefore, Indian trust resources were dismissed as an impact topic in this EA.

Wilderness

The Wilderness Act and NPS Management Policies 2006 require that all lands administered by the NPS be evaluated for their suitability for inclusion within the National Wilderness Preservation System.¹² There are no designated wilderness areas within monument boundaries. Because there would be no direct effects on wilderness resources and values, this impact topic was dismissed from further evaluation in this EA.

Wild and Scenic Rivers

No Wild and Scenic Rivers are designated within SCBL; therefore, this impact topic was dismissed in this EA.

Socioeconomics

The local economy and most businesses within the communities adjacent to SCBL are based on professional services, construction, tourism, and light industry. The treatment alternatives would improve the overall quality of the visitor experience, which could be a negligible benefit to the local economy. Under the No Action Alternative, current levels of economic activity would continue and it would have no new beneficial or adverse socioeconomic. No adverse socioeconomic effects were identified; therefore, this impact topic was dismissed from detailed discussion in the EA.

Environmental Justice

Executive Order 12898: General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. According to the Environmental Protection Agency, environmental justice is the ...fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and

¹² NPS 2000: Section 6.2.1

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

The goal of ‘fair treatment’ is not to shift risks among populations, but to identify potentially disproportionately high and adverse effects, and identify alternatives that may mitigate these impacts. No actions in the EA alternatives would have disproportionate health or environmental effects on minorities or low-income populations or communities as defined in the Environmental Protection Agency’s “Draft Environmental Justice Guidance” (July 1996); therefore, this topic was dismissed from further consideration in this EA.

Wildlife

Information about wildlife resources is based on the monument’s GMP (1998) and on Cox and Franklin’s 1989 article “Terrestrial vertebrates of Scotts Bluff National Monument.” The monument is one of the few places in the Panhandle region of Nebraska where wildlife is protected in a natural environment. More than 100 bird, 28 mammal, nine reptile, and six amphibian species have been identified within the monument. The project area is located within habitat for a number of these wildlife species. Under the action alternatives, construction activities would temporarily displace wildlife in and near the project area. Because of the large amount of similar habitat nearby, the displacement would have a negligible effect on wildlife. In addition to temporary displacement of wildlife, Alternative 3 would result in the permanent loss of at most 0.61 acre of vegetation that provides wildlife habitat, primarily for birds and small mammals. The loss of habitat would have a negligible adverse effect on wildlife because the lost habitat is a small fraction of similar habitat in the monument. Because the location of the proposed improvements are in the immediate vicinity of the existing trail, which is an area of high visitor use, and includes areas with no wildlife habitat (the existing trail), adverse impacts to wildlife are expected to be negligible. Under the No Action Alternative, current management practices would continue and there would be no loss of wildlife habitat; therefore, the No Action Alternative would have no new effect on wildlife. Adverse effects on wildlife under the No Action Alternative and Alternative 2 would be local, short-term, and negligible and adverse effects under Alternative

**Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report**

3 would be local, long-term, and negligible; therefore, wildlife was dismissed as an impact topic in this EA.

Special Status Species

Special status species include species listed as threatened or endangered under the Endangered Species Act (ESA), species protected other federal regulations, and other species considered sensitive by the monument and the state of Nebraska. Black-footed ferret (*Mustela nigripes*) and whooping crane (*Grus Americana*) are the two Federally-listed species with potential habitat in SCBL.¹³ River otter (*Lutra Canadensis*) and swift fox (*Vulpes velox*) are the two state-listed species listed as having potential habitat in Scotts Bluff County.¹⁴ Two other protected species previously observed in SCBL are bald eagle (*Haliaeetus leucocephalus*) and burrowing owl (*Athene cunicularia*). Both species are protected by the Migratory Bird Treaty Act (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) and bald eagle is additionally protected by the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). Whooping crane, river otter, and bald eagle are primarily associated with riverine and riparian habitats, which are not present in the project area. Large black-tailed prairie dog colonies are the primary habitat for burrowing owl; no prairie dog burrows are present in the project area. Although suitable habitat for swift fox may be present in other parts of Scotts Bluff County, the terrain of the monument is more broken and crossed by ravines than is preferred by the species. Swift fox has also never been observed in SCBL. Based on monument resource data and staff knowledge, there are no federally- or state-listed species or special status species known to be present in the project area that would be affected by the EA alternatives. Because no special status species would be adversely impacted by the EA alternatives, this topic was dismissed from consideration in this EA.

Solid Waste

Under the No Action Alternative, current management practices would continue and there would be no change in the type or amount of solid waste generated in the monument. The treatment alternatives would generate small quantities of solid wastes during construction. Solid waste could include miscellaneous trash, excess excavated soil, and scrap building materials such as crusher fines, wood, and packing material. The treatment

¹³ USFWS 2007

¹⁴ Nebraska Game and Parks Commission 2008

Scotts Bluff National Monument
Oregon Trail Ruts Landscape Study
and Environmental Assessment ■ 100% Report

alternatives would be unlikely to generate waste meeting definitions of hazardous materials that would require disposal in special solid waste facilities. Because changes in solid waste management under the action alternatives would be short term and negligible, solid waste was dismissed from consideration in this EA.

Energy

Under the No Action Alternative, current management practices would continue and there would be no new uses of energy. The treatment alternatives would require expenditures of energy, including natural and depletable resources, during construction; however, the use would be short-term and would have negligible impacts to energy resources with no appreciable effect on energy availability or costs. Because impacts would be no greater than negligible, energy resources was dismissed as an impact topic in this EA.

Utilities

Generally speaking, some kinds of projects, especially those involving construction, may temporarily effect above and below-ground telephone, electrical, natural gas, water, and sewer lines and cables, potentially disrupting service to customers. None of the alternatives would affect utilities, and therefore utilities are eliminated from any additional analysis.