

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

**1 Chapter 1. Introduction**

**2 a. Introduction / Executive Summary**

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

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

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

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

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

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

51

## 52 **b. Management Summary**

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

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

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<sup>1</sup> US Department of the Interior, National Park Service 1997

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

64

65 **c. Purpose and Need**

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

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

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

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

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

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

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

97

98 **d. Project Objectives**

99 The objectives of the LS/EA are to:

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

106

107 The objectives of the preferred treatment recommendation are to:

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

115

116 **e. Monument Purpose/Significance**

117 In the mid-1800s, thousands of emigrant pioneers traveled the Oregon Trail for over  
118 2,000 miles from Missouri to Oregon in what has been said to be one of the largest  
119 voluntary mass migrations in human history. In 1850, travelers excavated the most  
120 treacherous segments of the trail allowing for passage over Mitchell Pass and significantly  
121 shortening the distance traveled by the overland emigrants. From this time until the  
122 completion of the transcontinental railroad in 1869 thousands of emigrants followed this  
123 route over Mitchell Pass.

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

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

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

136

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

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

- 142 • Preserve and interpret the history of the Platte River transportation corridor  
143 and the influence of Scotts Bluff on these routes.
- 144 • Provide access, to preserve, and interpret the view from the top of Scotts  
145 Bluff.
- 146 • Preserve and interpret the geological processes and features of Scotts Bluff  
147 and adjacent landforms.
- 148 • Preserve the prairie ecosystem around the bluffs as it was used by American  
149 Indians, emigrants and frontier people.
- 150 • Preserve and interpret the monument's cultural resources: archeological  
151 sites, Oregon Trail remnants, historic buildings, museum collections and the  
152 cultural landscape.<sup>2</sup>

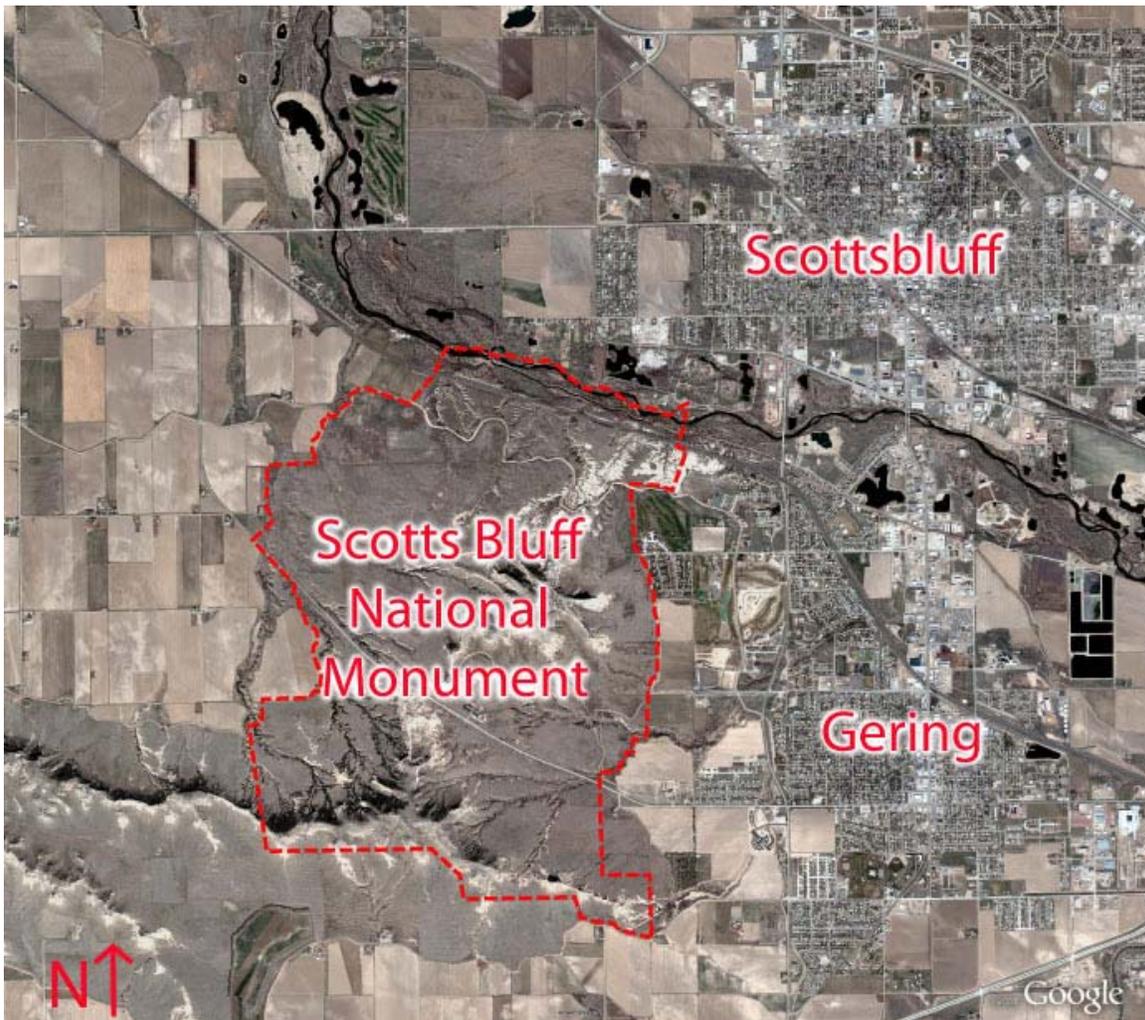
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<sup>2</sup> NPS 1998

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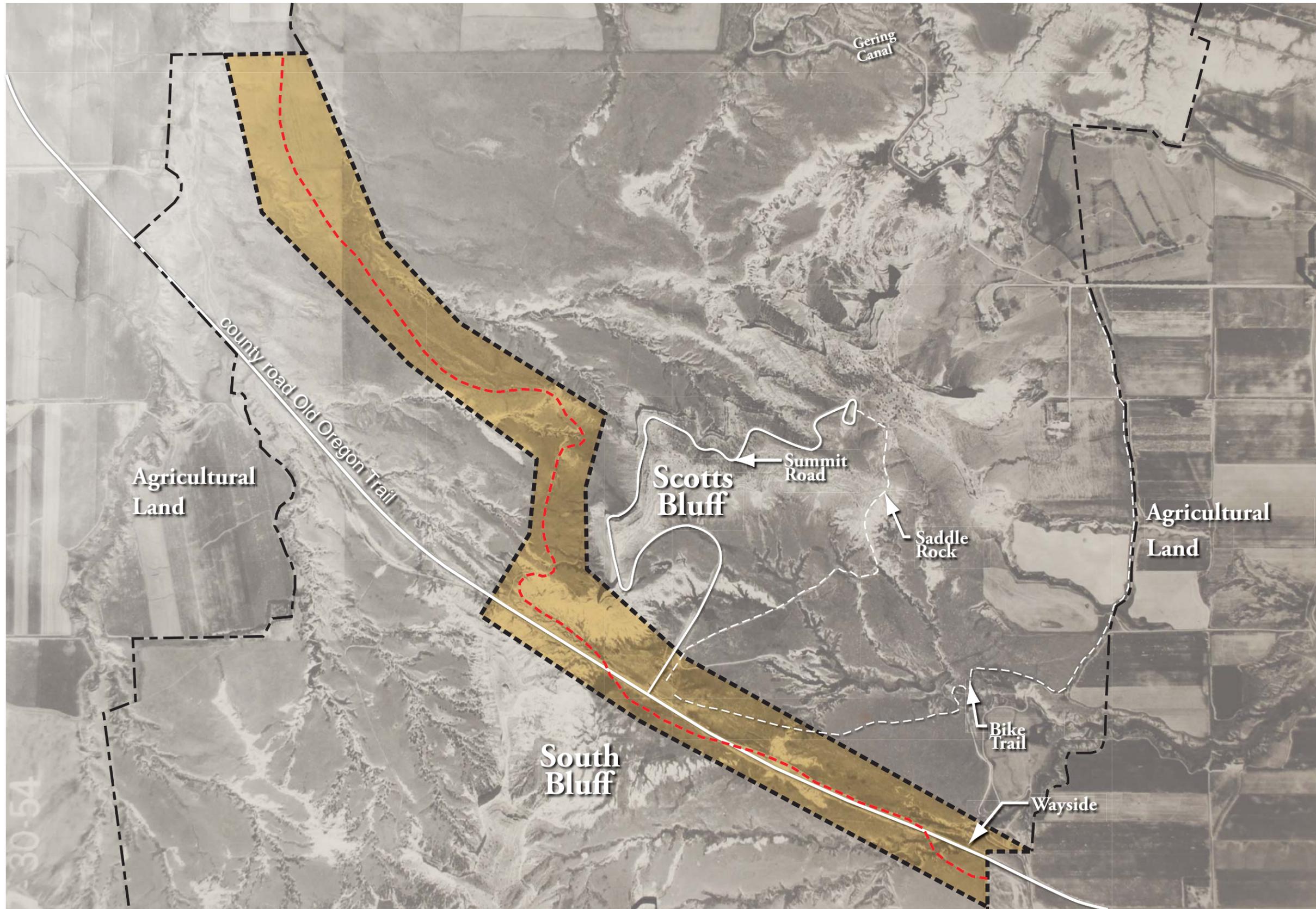
153 **f. Study Area Description and Boundaries**

154       The Oregon Trail Ruts are located within Scotts Bluff National Monument, which is  
155 located approximately two miles west of Gering, Nebraska. The study area consists of the  
156 emigrant trail corridor (the corridor includes the trail ruts that may include a single rut, a  
157 ‘trough’ or multiple ruts within an area) and adjacent landscape crossing the monument from  
158 the southeast to northwest.  
159



160  
161 **Figure 1 - 1.** Context Map  
162

163



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

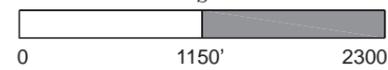


FIGURE 1 - 2

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
SCOTTS BLUFF NATIONAL MONUMENT

TITLE OF PROJECT  
OREGON TRAIL RUTS LANDSCAPE STUDY  
ENVIRONMENTAL ASSESSMENT  
DRAWING TITLE  
**STUDY AREA**  
NAME OF PARK  
SCOTTS BLUFF NATIONAL MONUMENT  
REGION COUNTY STATE  
MIDWEST SCOTTS BLUFF NEBRASKA



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167 **g. Project Methodology**

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

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

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

182

183 **Environmental Assessment/Assessment of Effect Methods**

184 This EA was prepared to evaluate potential environmental, socioeconomic, and cultural  
185 resource effects from three proposed alternative – the No Action Alternative (Alternative 1);  
186 Treatment Alternative 2 – Visitor Trail (Existing Alignment), which is the preferred  
187 alternative; and Treatment Alternative 3 - Visitor Trail (Visitor Boardwalk). Under the no  
188 action alternative, the monument would continue maintaining the existing condition of the  
189 Oregon Trail without modification. The EA was prepared in compliance with the National  
190 Environmental Policy Act (NEPA) of 1969 and implementing regulations, 40 CFR Parts  
191 1500-1508 and NPS Director’s Order – 12 and Handbook, Conservation Planning,  
192 Environmental Impact Analysis, and Decision-making. The NEPA process (40 CFR 1500-  
193 1508) is being used to comply with Section 106 of the National Historic Preservation Act of  
194 1966, as amended (NHPA), and implementing regulations, 36 CFR Part 800. The EA will  
195 determine whether significant impacts would occur as a result of the proposed project and if

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

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

198

199 **h. Relationship to other Planning Projects**

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

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

211 Visitor Center Expansion

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

214 Interpretation from Vehicles

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

218 Wagon Reenactments

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

222

223 **i. Scoping**

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

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

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

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

244

245 **j. Environmental Assessment Impact Topics**

246 **EA Impact Topics**

247 An important part of the decision-making process is seeking to understand the  
248 consequences of making one decision rather than another. The EA identifies the anticipated  
249 impacts of possible actions on certain resources and on monument visitors and neighbors.  
250 Impacts are organized by topic, such as “vegetation” or “visitor safety.” Impact topics serve  
251 to focus the environmental analysis and to ensure the relevance of impact evaluation. Table  
252 1 discusses retained impact topics; the reasons for retaining the topic; and relevant laws,  
253 regulations, and policies.

254

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

<b>Impact Topic</b>	<b>Reasons for Retaining Impact Topic</b>	<b>Relevant Laws, Regulations, and Policies</b>
<b>Soil</b>	The EA alternatives may result in disturbance to soils.	NPS Management Policies 2006
<b>Vegetation</b>	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
<b>Visitor Experience and Recreation Resources</b>	The treatment alternatives could provide long-term benefits to the visitor experience.	NPS Management Policies 2006
<b>Public Health, Safety, and Monument Operations</b>	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)
<b>Cultural Resources</b>	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.

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257 **Impact Topics Dismissed from Further Consideration**

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

260 ***Geologic and Paleontologic Resources***

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

269 An area known as the “badlands” is located between the north base of Scotts Bluff and  
270 the North Platte River, where deeply incised arroyos support little or no vegetation (NPS  
271 1998). The badlands area of the monument contains an important deposit of early mammal  
272 and reptile fossils in the Whitney and Orella Members of the Brule Formation from  
273 approximately 32 million years before present.<sup>6</sup>

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

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<sup>4</sup> NPS 1999

<sup>5</sup> Graham 2009

<sup>6</sup> Ibid.

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284 ***Prime or Unique Farmland***

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

292 ***Air Quality and Climate Change***

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

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

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<sup>7</sup> NRCS 2010

<sup>8</sup> NPS 2000

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

314 ***Visual Resources***

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

323 ***Lightscape***

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

332 ***Natural Soundscapes***

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

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<sup>9</sup> NPS 2000

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

346 ***Floodplains***

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

354 ***Water Resources***

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

369 ***Wetlands***

370 Executive Order (EO) 11990, NPS Management Policies 2006, and Director’s Order –  
371 77-1 direct that wetlands be protected, and that wetlands and wetland functions and values

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<sup>10</sup> NPS 1998

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

379 ***Ethnographic Resources***

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

387 ***Museum Collections***

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

396 ***Indian Trust Resources***

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

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<sup>11</sup> USFWS 2010

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

405 ***Wilderness***

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

411 ***Wild and Scenic Rivers***

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

414 ***Socioeconomics***

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

422 ***Environmental Justice***

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

428 According to the Environmental Protection Agency, environmental justice is the  
429 ...fair treatment and meaningful involvement of all people, regardless of  
430 race, color, national origin, or income, with respect to the development,  
431 implementation, and enforcement of environmental laws, regulations, and

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<sup>12</sup> NPS 2000: Section 6.2.1

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

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

443 ***Wildlife***

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

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463 3 would be local, long-term, and negligible; therefore, wildlife was dismissed as an impact  
464 topic in this EA.

465 ***Special Status Species***

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

486 ***Solid Waste***

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

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<sup>13</sup> USFWS 2007

<sup>14</sup> Nebraska Game and Parks Commission 2008

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

496 ***Energy***

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

503 ***Utilities***

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

508