

FINDING OF NO SIGNIFICANT IMPACT

CASEY ADDITION VISITOR USE PLAN/ENVIRONMENTAL ASSESSMENT

WIND CAVE NATIONAL PARK

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS) has prepared an Environmental Assessment (EA) to examine alternatives and potential environmental impacts associated with allowing public access to and providing a minimal level of public services at the Casey Addition, a 5,556 acre ranch acquired by Wind Cave National Park.

On September 22, 2011, the Casey Addition officially became part of Wind Cave National Park. The Casey Addition is located adjacent to the southeast portion of the park and contains the 1918 Sanson homestead, a modern ranch, and an archeological site that has characteristics similar to other known prehistoric buffalo jumps, which are areas where American Indians would drive buffalo over the cliff as a hunting method over a thousand years ago. At the present time, the Park Superintendent has closed the Casey Addition land for visitor and employee safety until a Visitor Use Plan and EA is completed and approved.

The purpose of the Visitor Use Plan and EA is to determine the best way for visitors to use and access the key resources on the Casey Addition, as well as determine what type of visitor activities should take place along the access route to and/or at the key resources, and allow the public to participate in providing input into these decisions. The Visitor Use Plan will be coordinated with a comprehensive park-wide Management Zoning Plan that is being developed concurrently.

This Finding of No Significant Impact and the EA constitute the record of environmental impact analysis and the decision-making process for the project. The NPS will implement the Preferred Alternative, as described below, which includes actions to provide road access, parking, road pull-outs, trails, turnarounds, and a viewing area in the Casey Addition, along with allowing backcountry camping in most of the Casey Addition and an area within the park north and west of the Casey Addition.

THE SELECTED ALTERNATIVE

After reviewing public comments provided during the 63-day comment period, as well as reviewing all alternatives and the impacts of those alternatives, the NPS has identified the Preferred Alternative (Alternative D) as the Selected Alternative.

The Preferred Alternative (Alternative D) includes actions to provide access to the Casey Addition via 266th Street and 7-11 Road, construct a turnaround at the park entrance on 266th Street, develop several trails and two road pull-out sites, and provide parking, a trail, and a viewing area at the ranch house site. The main parking area will be located behind a knoll near the ranch house site. Backcountry camping will also be allowed under the Preferred Alternative in most of the Casey Addition and an area within the park north and west of the Casey Addition.

Rather than creating the main public parking area near the park boundary entrance as proposed under Alternative B, or south of the ranch house as proposed in Alternative C, the main public parking area will be developed under Alternative D on a flat bench south of a knoll located southwest of the ranch house site off the road to the Casey Pole Barn area. The knoll will serve to mostly block the view of the parking area from the ranch house. The parking area will include a vault toilet and gravel parking area for two buses/RVs and 20 vehicles. To access the ranch house site, visitors will walk east along a trail out of the parking area to a trail immediately adjacent to the road to the Casey Pole Barn area and walk north to the ranch house site parking area. Similar to Alternatives B and C, an accessible trail will lead visitors from the ranch house parking area to a viewpoint overlooking the bluffs, prairie, and buffalo jump site. Unlike Alternatives B and C, a gazebo-like structure will be installed at the viewpoint to provide shelter for interpretive programs and computer equipment used during distance learning educational programs. The design of the gazebo will blend with the historic visual character of the landscape.

Under the Preferred Alternative, backcountry camping will be allowed in the Casey Addition northwest of the trail leading from the Highway 385 pull-out and the 7-11 access road and throughout most of the northern portion of the property as shown in Figure 2-6. Within the park, backcountry camping will be allowed in the project area east of the Highland Creek Trail and west of NPS 5 Road up to the Casey Addition property boundary. This area is adjacent to the existing backcountry camping area within the park northwest of the Casey Addition. There will be no designated camping areas or sites within the backcountry camping area. Backcountry camping use within the Casey Addition and expanded area within the park will be subject to the same regulations as backcountry camping use in the remainder of the park. These regulations relate to obtaining a permit, low impact camping, resource protection, use of fires/stoves, campsite locations, food storage, tent/person maximums, and litter control.

MITIGATION MEASURES

The following mitigation measures were developed to minimize the degree and/or severity of adverse effects and would be implemented during design and construction of the project:

- Conduct additional archeological survey and testing prior to final facility siting and design.
- Conduct archeological monitoring during construction to identify resources to be protected prior to construction and identify any resources discovered during construction. If an unknown archeological resource is discovered during ground disturbance, all construction activities in the vicinity of the find would stop immediately. An archeologist will examine the find and determine its significance in coordination with NPS, South Dakota State Historic Preservation Office (SHPO), and affiliated tribes.
- Conduct archeological probability analysis and survey of backcountry areas.
- Site and design the viewpoint trail to be as visually unobtrusive as possible.
- Design the gazebo-like structure to blend with the historic visual character of the landscape.
- No ground disturbing activities occur during the development of parking areas

ALTERNATIVES CONSIDERED

Four alternatives were evaluated in the EA, the no action alternative and three action alternatives. Four alternative elements were considered but dismissed from further consideration because they did not conform to NPS policy or the existing General Management Plan.

Under **Alternative A (the No Action Alternative)**, the Casey Addition would remain closed to general public use as it is currently, though limited special events and NPS-led interpretive tours would be allowed within the property. Use of the site by American Indian tribes for tribal events (public or non-public) would also be allowed with prior approval from the NPS. No facilities for visitor use, such as parking areas, waysides or trails would be constructed within the Casey Addition or along roads surrounding the property under Alternative A. Existing two-track roads on the property would remain in place and would not be altered. Public access to the area would remain closed (gated) at the property boundary on 266th Street. Routine management activities such as vegetation and wildlife surveys and storage of equipment at the Casey Pole Barn area (a pole barn, outbuildings, and corrals used by a former owner for ranching operations) would occur under Alternative A, as well as light road maintenance (mowing) for any special events to reduce fire danger. When funding became available, a Cultural Landscape Report and Historic Structures Report would be completed for the Casey Addition.

Under **Alternative B**, public access to the Casey Addition would be provided via 266th Street, parking and vault toilet facilities would be constructed at two sites (near the park entrance and at the ranch house), and a short accessible trail would be developed between the ranch house site parking area and the viewpoint.

The parking area near the park boundary would include a gravel parking area for two buses/RVs and 20 vehicles. A vault toilet, entrance sign, swinging gate, and fencing would also be provided at the park boundary site. To access the main public use area near the ranch house, visitors would walk along a trail immediately adjacent to 266th Street from the proposed park entrance parking area to the ranch house parking area. At the ranch house site, improvements would include a concrete parking area for six vehicles, including two accessible parking spaces and a vault toilet. The parking area at the ranch house site would be for visitors needing accessible parking and for administrative use only. A concrete accessible trail would lead visitors from the parking area to a viewpoint overlooking the bluffs, prairie, and the buffalo jump site. Wayside signs would be installed at the viewpoint along with benches for resting and viewing the scenery.

Similar to Alternative B, **Alternative C** would include providing access to the Casey Addition via 266th Street and adding parking, a trail and a viewing area at the ranch house site. In addition to access on 266th Street, access to the property would also be provided from 7-11 Road through the Casey Pole Barn area along the existing two-track road alignment up to 266th Street at the ranch house site. In addition, a gravel turnaround area would be provided just off 7-11 Road and at the park entrance on 266th Street.

Under Alternative C, the ranch house site would be developed with the same trail and viewing area facilities in the same location as described under Alternative B. In Alternative C, the only parking area within the property would be at the ranch house site south of the ranch house (Figure 2-5). A gravel parking area would be provided that was large enough for 2 buses/RVs and 20 vehicles along with a vault toilet.

Under Alternative C, two trailhead pull-out sites for vehicles and horse trailers would be developed, one on 7-11 Road and one on Highway 385. A 1.4 mile self-guided interpretive hiking-only loop trail would be constructed from the ranch house site around the buffalo jump site and back. Another 16.5 miles of hiking-only trails would be provided in the northern section of the property and leading out of the two road pull-out sites. Trailhead signs would be installed for each trail. Where possible, the trails

would be designed to meet accessibility standards. A short gravel trail would also be provided around the ranch house.

Actions Common to All Action Alternatives

The following actions would occur under Alternatives B, C and D:

- Placing temporary seven-foot high chain-link fences around the historic Sanson ranch barn and outbuildings to prevent vandalism and other alterations to these structures, as well as prevent the public from entering these structures due to safety concerns. The fencing would be removed upon mitigation of these concerns.
- Administrative vehicle use of the existing two-track roads on the property would be allowed.
- The main parking areas in all three action alternatives would be gravel and located above the ground surface (raised) to minimize disturbance. The accessible parking area near the ranch house site would be hard-surfaced (concrete or asphalt).
- Limited special events and NPS-led interpretive tours would be allowed within the property.
- Use of the site by American Indian tribes for tribal events (public or non-public) would also be allowed with prior approval from the NPS.
- Recreational uses that would be allowed within the Casey Addition under all action alternatives include hiking and associated traditional park uses accessed on foot such as photography, wildlife viewing, nature observation, etc.; day use horseback riding; special events; and interpretive tours/programs. Horseback riding within the Casey Addition would be subject to the same regulations as horseback riding in other areas of the park, such as obtaining a free permit, using weed free hay, no feed allowed in the park, and prohibition on riding within certain areas (near historic buildings, water sources, on hiking trails and roadways, and in campgrounds and picnic areas).

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The environmentally preferable alternative is the alternative required by 40 CFR 1505.2(b), to be identified in a record of decision, that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historic, 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 (43 CFR 46.30).

Although an environmentally preferable alternative is identified, it may not be the NPS preferred alternative. The preferred alternative is the alternative the NPS believes would best fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors.

Alternative A (No-Action Alternative) is the environmentally preferable alternative for several reasons. Compared with the action alternatives, Alternative A would result in the least amount of disturbance to vegetation and cultural resources (including archeological resources, cultural landscapes, and ethnographic resources), and would also best protect the viewsheds/visual setting of ethnographic and cultural landscape resources due to lack of development of new facilities. Alternative A would also result in beneficial impacts to ethnographic resources due to limited public access.

THE SELECTED ALTERNATIVE AND SIGNIFICANCE CRITERIA

As defined in 40 CFR 1508.27, significance is determined by examining the following criteria:

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.*

No long-term major adverse impacts were identified that require analysis in an environmental impact statement. The Selected Alternative will substantially increase recreation opportunities and experiences within Wind Cave National Park and therefore will result in long-term beneficial impacts to visitor experiences and recreation.

Impacts to vegetation will include short- and long-term minor adverse impacts due to removal of vegetation for construction of new visitor facilities trails, as well as short- and long-term negligible impacts from allowing backcountry camping use.

Impacts to ethnographic resources will include short- and long-term negligible to minor adverse impacts from ground disturbance and visual setting changes related to development of visitor facilities, trails, and road improvements, as well as an increased risk of site disturbance due to greater public access to areas with sacred sites. Designed to blend with the landscape, the gazebo-like structure at the viewpoint location will result in short- and long-term minor impacts to ethnographic resources. In addition, short- and long-term negligible to minor adverse impacts to ethnographic resources will result from backcountry camping use due to greater public access to areas with sacred sites.

Impacts to archeological resources will include short- and long-term negligible to minor adverse impacts from ground disturbance related to construction of visitor facilities, trails, road improvements, and the gazebo-like structure, as well as long-term negligible to minor adverse impacts from backcountry camping use.

Impacts to cultural landscapes will include short- and long-term minor adverse impacts from development of the turnarounds, pull-out sites, road improvements, new parking areas and restroom facilities, as well as short- and long-term minor to moderate adverse impacts from development of the viewpoint trail. Short- and long-term minor adverse impacts to cultural landscapes will occur from placement of the gazebo-like structure at the viewpoint, while short- and long-term negligible adverse impacts will occur from development of hiking trails. Impacts to cultural landscapes will also include long-term negligible adverse impacts from backcountry camping use.

Adverse impacts will be reduced or eliminated by the use of the mitigation measures described previously.

2. *The degree to which the proposed action affects public health and safety.*

The Selected Alternative would provide visitors with a safe experience while in the Casey Addition. Parking areas, turnarounds, and pull-outs would be designed to provide safe circulation such that there would be separation between pedestrian walkways, hiking trails, and vehicle traffic. Orientation and interpretive signage would be provided at appropriate locations to direct visitors along safe travel ways and alert visitors to any potential hazards. A universally accessible trail to a viewpoint, as well as potentially other sections of accessible trail, would provide safe access for those with mobility restrictions.

3. *Unique characteristics of the Geographic Area such as Proximity to Historic or Cultural Resources, Wild and Scenic Rivers, Ecologically Critical areas, Wetlands or Floodplains, Park lands and so forth.*

The project area does not contain any wild and scenic rivers or ecologically critical areas. There is one wetland area located within the Casey Addition; however, none of the alternatives are anticipated to affect the wetland. Restroom facilities (vault toilets) would be located outside of the 100 year floodplain from the intermittent drainages within the Casey Addition. No action would be taken to permanently convert the prime agricultural lands from production. The Casey Addition does include known and potentially unknown historic and cultural resources. The locations of facilities within the Selected Alternative protect the viewsheds of the historic Sanson ranch headquarters and the buffalo jump. The large parking area under the Selected Alternative would reduce impacts to archeological resources and provide better protection of the cultural landscape viewshed and nearby ethnographic resources compared to the large parking areas in the other alternatives.

4. *The degree to which the impacts on the quality of the human environment are likely to be highly controversial.*

The adverse impacts from this project do not rise to the level of significance and are not controversial. Most commenters were in favor of the project and the Selected Alternative.

5. *Degree to which the potential impacts on the quality of the human environment is highly uncertain or involves unique or unknown risks.*

There are no highly uncertain, unique, or unknown risks to the human environment associated with this project.

6. *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.*

There could be future activities at the site related to the proposed action, such as renovation of the historic ranch house and expansion of proposed parking areas, but these actions are not anticipated to generate significant impacts and would be consistent with the Park's Comprehensive Management Zoning Plan.

7. *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.*

Cumulative impacts were determined by combining the impacts of the Selected Alternative with other past, present, and reasonably foreseeable future actions. Cumulatively, the implementation of the Selected Alternative and related park and other activities near the project area do not constitute a significant impact.

8. *The degree to which the action may adversely affect historic 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.*

Wind Cave National Park completed consultation with the South Dakota State Historic Preservation Office (SHPO) pursuant to Section 106 of the National Historic Preservation Act (16 USC 470f) and 36 CFR Part 800 in Chapter VIII for this project. The SHPO concurred with the NPS finding of "No Adverse Effect" for Alternative D in a letter dated December 10, 2014, provided that stipulations

outlined by the NPS archeologist are followed, such that the main parking area will be gravel and built up above ground to avoid any ground disturbance, and identification efforts continue once the locations of the restrooms, staging areas, signage, and trail relocations have been established.

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.

Section 7 of the Endangered Species Act requires Federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) when any activity permitted, funded, or conducted by that agency may affect a listed species or designated critical habitat, or is likely to jeopardize proposed species, or adversely modify proposed critical habitat. The NPS requested input from the USFWS in a letter dated September 19, 2013.

According to the USFWS, there are five special status species that may occur in the project area: whooping crane (*Grus americana*), black-footed ferret (*Mustela nigripes*), northern long-eared bat (*Myotis septentrionalis*), Rufa red knot (*Calidris canutus rufa*), and Sprague's pipit (*Anthus Spraguei*). Over the last 100 years that the park has been recording wildlife observations, there have been no documented sightings of the whooping crane, Rufa red knot, or Sprague's pipit within the park area. Therefore, no effect would occur to these species.

The black-footed ferret was reintroduced into the park in July 2007 and has become established in various prairie dog colonies throughout the park. Currently, however, there are no prairie dog colonies present within the Casey Addition. Therefore, no effect would occur to this species.

A finding of not likely to adversely affect was made for the northern long-eared bat (NLEB) because no trails or other facilities within ½ mile of the known hibernacula (winter hibernation habitat) for NLEB are located within the areas of the project proposed for improvements and minimal tree removal is expected as trails in the area would be located on or immediately adjacent to existing two-track roads; no major tree clearing is expected for the Selected Alternative.

There are a few historic ranch buildings that may potentially support bat habitat for roosting or maternity use in the summer. Park staff will survey these structures for presence of bats and determine if NLEB is present. If NLEB are found, park staff will consult with the USFWS to determine how to protect the bats while also protecting the historic structures.

The USFWS submitted a letter on May 19, 2014, concurring with the NPS conclusion that the project will not adversely affect listed species.

10. Whether the action threatens a violation of Federal, state, or local law or requirements imposed for the protection of the environment.

The Selected Alternative violates no federal, state, or local law, including environmental protection laws.

PUBLIC INVOLVEMENT

Internal (agency) and external (public) scoping occurred prior to preparation of this EA. Internal scoping involved an interdisciplinary process to identify issues, develop a public involvement plan, identify data needs, and develop a planning process schedule. An internal scoping meeting was held on February 24, 2012, which was attended by members of the project planning team. Based on this

meeting, a public involvement plan was developed that identified two stages in the process in which public comment would be solicited and considered: the public scoping stage and the public review of the Draft EA stage.

The public scoping period for the Casey Addition Visitor Use Plan and EA commenced on February 21, 2012, and ended March 30, 2012. A public notice for scoping was published in the local newspaper of record (The Hot Springs Star) on February 21, 2012, posted on the National Park Service Planning, Environment and Public Comment (PEPC) project website, and direct mailed to the project mailing list. The park issued a press release on February 17, 2012, announcing the initial public scoping period and planned scoping meetings. A second press release regarding the public scoping meetings was issued on March 7, 2012. The public was able to submit comments during scoping electronically through PEPC, by mail, or on comment cards distributed at public meetings.

Three open house public meetings were held during the scoping period on March 13th, 14th and 15th in Custer, Hot Springs, and Rapid City, South Dakota, respectively. All three meetings were held from 4 p.m. to 7 p.m. At all three meetings, the public was presented with the project description and background, purpose of and need for action, preliminary alternatives being considered, and a timeline for the EA process. Following the scoping period, an open house was held at the Sanson Ranch on July 7, 2012. Tours of the buffalo jump and ranch structures were offered and people were given the opportunity to receive an update on the planning process and provide additional input. Approximately 60 people attended the public scoping meetings.

Twenty-eight correspondences were received during the scoping period via email, comment cards from public meetings, on a PEPC form, or by letter for a total of 84 comments. The comments received were organized into five subject areas:

- Potential types of visitor opportunities
- Potential education or interpretive opportunities
- Potential future uses of the Casey Addition
- Effects of public use of the Casey Addition
- Additional issues/concerns the NPS should consider

The Draft EA was placed on public review for a 63-day period from October 18, 2014, to December 19, 2014. A letter announcing the availability of the Draft EA was mailed to the project mailing list and a press release was published in the local newspaper of record (The Hot Springs Star) on October 20, 2014. A copy of the press release was the subject of a post on the park's Facebook site. Hard copies of the Draft EA were available for review at the Wind Cave Visitor Center information desk, the Hot Springs Public Library, the Custer County Public Library, and the Rapid City Downtown Public Library. In addition, the Draft EA document was placed on the NPS PEPC website for electronic review. Additionally, a limited number of paper copies and CDs of the Draft EA were available upon request. During the Draft EA public review period, the public was able to submit comments electronically through PEPC, by mail, email, or on comment cards distributed at public meetings.

During the review period, a member of the public noticed the map showed the project boundary located outside of park property. Even though there is a difference between a project boundary (the area to be analyzed for impacts) and the project footprint (the area where construction would occur) due to the confusion, the map was changed to show the project boundary within the park and along

the section line road 266 Street right of way. The electronic map files were corrected and new paper copies of the map were sent to those who originally receive the paper copies.

Three open house public meetings were held during the Draft EA public comment period on November 11th, 12th, and 13th in Rapid City, Custer, and Hot Springs, South Dakota, respectively. All three meetings were held from 4 p.m. to 7 p.m.

Park staff also met with members of the Crow Creek Sioux Tribal Council on November 18 at Fort Thompson, South Dakota. The park hosted a consultation meeting the following day, November 19, for representatives of the park's affiliated tribes at Wind Cave National Park.

Approximately 15 people attended the draft EA public meetings. As a result of these public involvement activities, the NPS received 27 correspondences via the PEPC website, letters, and emails for a total of 69 comments on the Draft EA.

FINDING OF NO SIGNIFICANT IMPACT

The Selected Alternative does not constitute an action that normally requires preparation of an environmental impact statement (EIS). The Selected Alternative will not have a significant effect on the human environment. Negative environmental impacts that could occur are negligible to moderate in intensity. There are no significant impacts on public health, public safety, threatened or endangered species, cultural or historic resources, or other unique characteristics of the region. No uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any Federal, State, or local environmental protection law.

Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Recommended:

Vidal Davila

9/28/15

Superintendent, Wind Cave National Park

Date

Approved:

A. Shelby

11.2.15

Midwest Regional Director, National Park Service

Date

NON-IMPAIRMENT DETERMINATION

The National Park Service's *Management Policies* 2006 require analysis of potential effects to determine whether or not actions would impair park resources. The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. National Park Service (NPS) managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values.

However, the laws do give the NPS the management discretion to allow adverse impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. An impact to any park resource or value may, but does not necessarily, constitute an impairment. An impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park; or
- identified as a goal in the park's general management plan or other relevant NPS planning documents.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to pursue or restore the integrity of park resources or values and it cannot be further mitigated.

The park resources and values that are subject to the no-impairment standard include:

- the park's scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the natural dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the park. The NPS's threshold for considering whether there could be impairment is based on whether an action will have significant effects.

This determination on impairment has been prepared for the preferred alternative described in Chapter 2 of this EA. An impairment determination is made for all resource impact topics analyzed for the preferred alternative. An impairment determination is not made for visitor experience/recreation resources because impairment findings relate back to park resources and values, and this impact topic is not generally considered a park resource or value according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values. After dismissing visitor experience/recreation resources, the impact topics remaining to be evaluated for impairment include vegetation and cultural resources, including ethnographic resources, archeological resources, and cultural landscapes.

Vegetation

Under the Selected Alternative, six to seven acres of vegetation would be removed for construction of new visitor facilities and creation of six miles of new trails not within existing two-track roads or old trail corridors, resulting in short- and long-term minor adverse impacts to vegetation immediately surrounding the improvements. Areas disturbed during construction would primarily consist of prairie grasslands and shrublands, as well as some woodland areas west of the ranch house site. All disturbed areas not developed would be restored with native species.

Twelve miles of new hiking trails would be established on existing two-track roads or within old trail corridors. Little or no vegetation would be disturbed from trails on existing two-track roads because little to no alteration or grading of the roads would be needed.

Though backcountry camping within the Casey Addition and within an increased area of the park would be allowed under the Selected Alternative, backcountry camping use is projected to be very low on an annual basis throughout the entire backcountry area, thus it is unlikely that any large areas of vegetation would be disturbed. Therefore, allowing backcountry camping use would result in short- and long-term negligible adverse impacts to vegetation that would be dispersed throughout the backcountry area. Impacts to vegetation under the Selected Alternative would be short- and long-term, minor, and adverse. The Selected Alternative would not result in impairment to the park's vegetation.

Cultural Resources

Ethnographic Resources

Under the Selected Alternative, development of visitor facilities, trails, and road improvements would result in the potential for short- and long-term negligible to minor adverse impacts to ethnographic resources due to the introduction of new modern features into the landscape, potentially within view of sacred sites and ethnographic resources, and from construction activity disturbance near ethnographic resources, such as noise, dust, emissions, and visual appearance of construction areas. The addition of small modern features would change the landscape slightly, but these changes have been sited to avoid directly affecting known sacred sites and other ethnographic resources.

A gazebo-like structure would be placed at the viewpoint location under the Selected Alternative, which would result in short- and long-term adverse impacts to ethnographic resources due to its potential for views to, and visibility from, sacred and traditional sites in the vicinity. Impacts to ethnographic resources would be minor because the structure would be designed to blend with the historic visual character of the landscape.

Under the Selected Alternative, backcountry camping would be allowed in most of the Casey Addition and within an expanded area of the park. Backcountry camping use is projected to be very low, thus, few visitors would likely camp in backcountry areas that may be in proximity to sacred and traditional sites. Therefore, allowing backcountry camping, in addition to the other recreation uses, would result in short- and long-term negligible to minor adverse impacts to ethnographic resources from disturbance by visitors. Impacts to ethnographic resources under the Selected Alternative would be short- and long-term, minor, and adverse. The Selected Alternative would not result in impairment to the park's ethnographic resources.

Archeological Resources

Under the Selected Alternative, construction of visitor facilities, trails, and road improvements would result in short- and long-term negligible adverse impacts to known eligible archeological resources due to increased potential for site disturbance related to increased public access within areas containing known eligible archeological resources. In addition, development of visitor facilities could disturb as-yet unidentified subsurface archeological resources of unknown significance. This would result in short- and long-term negligible to minor adverse impacts to unknown, potentially eligible archeological resources. However, these impacts would be reduced by mitigation measures that include conducting additional archeological survey and testing prior to finalizing the facility siting and design, and monitoring during construction to avoid known resources, as well as identifying and protecting any unknown resources discovered during construction.

A gazebo-like structure would be placed at the viewpoint location under the Selected Alternative, which would result in short-term minor adverse impacts to known eligible archeological resources due to minimal, localized ground disturbance during construction.

Under the Selected Alternative, backcountry camping would be allowed in most of the Casey Addition and within an expanded area of the park. Backcountry camping use is projected to be very low, thus few visitors would camp within areas of undisturbed archeological resources. Therefore, allowing backcountry camping, in addition to the other recreation uses, would result in short- and long-term negligible to minor adverse impacts to archeological resources due to increased potential for disturbance by visitors. Mitigation activities, such as archeological probability analysis and survey of backcountry areas to identify and protect archeological sites from disturbance, would lessen the potential for adverse impacts. Impacts to archeological resources under the Selected Alternative would be short- and long-term, minor, and adverse. The Selected Alternative would not result in impairment to the park's archeological resources.

Cultural Landscapes

Development of the turnarounds, pull-out sites, road improvements, new parking areas and restroom facilities under the Selected Alternative would result in short- and long-term minor adverse impacts to the cultural landscape from introduction of some new modern features into the landscape, potentially within views that contribute to the cultural landscape integrity of the former ranch.

Development of the main parking area south of a knoll southwest of the ranch house site under the Selected Alternative would result in short- and long-term minor adverse impacts to cultural landscape resources as the topography of the knoll would mostly hide this parking area from viewsheds of the Sanson ranch buildings.

The construction of a concrete trail to a viewpoint overlooking the bluffs, prairie, and the buffalo jump site under the Selected Alternative would be a visible alteration within the historic landscape and would result in short- and long-term minor to moderate adverse impacts to the cultural landscape. Impacts from the trail would be reduced to a negligible to minor adverse level through siting and designing of the trail to be visually unobtrusive.

A gazebo-like structure would be placed at the viewpoint location under the Selected Alternative, which would result in short-term (during construction) and long-term adverse impacts to the cultural landscape due to its potential for visibility from contributing features of the cultural landscape in the vicinity of the ranch headquarters building cluster. The visual intrusion from the gazebo-like structure would be minor because the structure would be designed to blend with the historic visual character of the landscape and the structure itself would not be a dominant element of the viewshed from the ranch buildings.

Under the Selected Alternative, 18 miles of hiking trails would be created throughout the Casey Addition. These trails would result in indirect short- and long-term negligible adverse impacts on the cultural landscape because trails on existing roads would not change cultural landscape features and the new trail segments would generally not be visible from the majority of the identified features of the cultural landscape associated with the Sanson Ranch. In addition, the historic contributing circulation features would not be physically altered.

Though backcountry camping would be allowed in most of the Casey Addition and within an expanded area of the park under the Selected Alternative, the areas where backcountry camping would be allowed are generally not visible from the contributing cultural landscape resources. Thus a long-term negligible adverse impact to the cultural landscape would result from allowing backcountry camping use. Impacts to cultural landscapes under the Selected Alternative would be short- and long-term, minor, and adverse. The Selected Alternative would not result in impairment to the park's cultural landscapes.

