



## Environmental Assessment Improve Visitor Services at Bear Paw Battlefield February 2016



*Nez Perce National Historical Park offers for all Americans an important perspective about our history as a people. It is not the view from the Gateway Arch looking west; it is a view from a homeland looking out, witnessing the march of history and change, yet continuing today and tomorrow to commemorate and celebrate Nez Perce culture and traditions.*

*It is a park about a people, for all people.*

**United States Department of the Interior  
National Park Service  
Nez Perce National Historical Park**

**Environmental Assessment  
Improve Visitor Services at Bear Paw Battlefield**

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## **Executive Summary**

The Bear Paw Battlefield of Nez Perce National Historical Park is located 16 miles south of Chinook, Montana along Montana Secondary Highway 240. Bear Paw Battlefield is the site of the last battle between the non-treaty Nez Perce, with their Cayuse and Palouse allies, and the U.S. military in 1877.

In 1928, lands comprising the Bear Paw Battlefield were withdrawn by congressional action from those available under the 1862 Homestead Act. The site is listed on the National Register of Historic Places; it is a designated National Historic Landmark and is the legislated terminus of the Nez Perce (Nee-Me-Poo) National Historic Trail. In 1992 the site was designated as part of Nez Perce National Historical Park and eventually acquired by the National Park Service from the State of Montana in 2005.

Today, despite the addition of walking trails, a few low-profile interpretive signs and some minimal visitor use facilities, the site remains similar to its appearance in 1877. There are few visual intrusions from modern facilities and the landscape still conveys a sense of an area unchanged.

This Environmental Assessment describes the impacts associated with the proposed replacement and construction of visitor facilities at Bear Paw Battlefield. The No Action Alternative (Alternative 1) describes the existing site conditions, developments and operations associated with managing the battlefield. Alternative 2 proposes relocation of visitor facilities from the upper to the lower parking area, construction of a small visitor contact station, and revegetation of the upper parking area. Alternative 3 (Preferred Alternative) proposes the same actions as Alternative 2 at the battlefield but includes the new construction or adaptive reuse of an existing structure in Chinook to serve as a NPS visitor information station/administrative headquarters. Alternative 4 proposes construction of a visitor center/administrative complex on the southern portion of the battlefield and removal of all existing facilities at the site.

Within this document, the alternatives and their impacts are described in relationship to the current management of Bear Paw Battlefield. Alternative 1 describes the continuation of existing site management practices and it is used as the baseline of current conditions to compare the other alternatives against. This analysis describes the potential environmental (natural, cultural and recreational) consequences of implementing each of the alternatives.

Following public comment on this document, the park interdisciplinary planning team will recommend one of these alternatives or a combination of actions from them for adoption by Nez Perce National Historical Park Superintendent following approval by National Park Service Pacific West Regional Director.

## **Notes to Reviewers and Respondents**

If you wish to comment on this EA, you may mail comments to the name and address below. This document will be on public review for thirty days. Please note that names and addresses of people who comment become part of the public record. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Please address comments to:

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## **SECTION 1. PURPOSE AND NEED FOR ACTION**

### **I. Introduction**

This Environmental Assessment (EA) has been prepared to satisfy requirements of the National Environmental Policy Act (NEPA) of 1969 as amended, including the Council on Environmental Quality (CEQ) regulations found at 40 CFR 1500 *et seq.* This EA was prepared following guidance presented in National Park Service (NPS) 2011 Director's Order 12. It also facilitates compliance with NPS policy and federal laws, including Section 106 of the National Historic Preservation Act (NHPA), Section 7 of the Endangered Species Act (ESA) and other laws enacted for the protection of the environment.

An earlier version of this EA was released for public comment in March of 2009. After careful consideration of the comments received, the NPS rescinded the EA in November of 2010 and began the process of revising and addressing issues presented during the initial release. The majority of these revisions have focused on adequately addressing the NPS's federal compliance responsibilities and refining their associated impact topic analyses. No significant changes to the range of alternatives analyzed in this EA were made from the 2009 release.

### **II. Project Setting**

Bear Paw Battlefield is located in north-central Montana 16 miles from the city of Chinook. The Bear Paw Battlefield, recognized as a National Historic Landmark (NHL) under the 1935 Historic Sites Act, is the site of the attack upon, siege and eventual surrender of the remaining non-treaty Nez Perce and their Cayuse and Palouse allies at the end of their 1877 flight (Figure 1). The battlefield "*is a place of mourning, not just for memorializing a past, but as a place for letting go of what might have been*" (NPS nd). In the course of events during the Bear Paw battle the White Bird band succeeded in escaping to Canada, but with Chief Joseph's surrender, the rest of the non-treaty Nez Perce remaining at the battlefield were exiled first to Kansas and later to Oklahoma before returning to the Pacific Northwest.

The battlefield was initially set aside from development through an act of Congress in 1928 to be managed by the Bureau of Land Management (BLM). In the 1960s the original 150 acre site, and an additional 40 acres of private property, were transferred to the Montana Department of Fish Wildlife and Parks for management as the Chief Joseph's Battleground of the Bear's Paw State Monument. In 1992, the site was added to Nez Perce National Historical Park and the NPS began leasing the property from the state to "*facilitate establishment, development, administration, and public use of the Bear's Paw Battleground unit of Nez Perce National Historical Park*" (NPS 2001:5). The NPS acquired the property from the State of Montana in 2005.

### **III. Purpose and Need**

The need to modify visitor services at Bear Paw Battlefield is not simply a result of changes in visitation and ownership; it arises from recognition of the site's long-standing significance and the desire to provide a visitor experience commensurate and in-keeping with that significance.

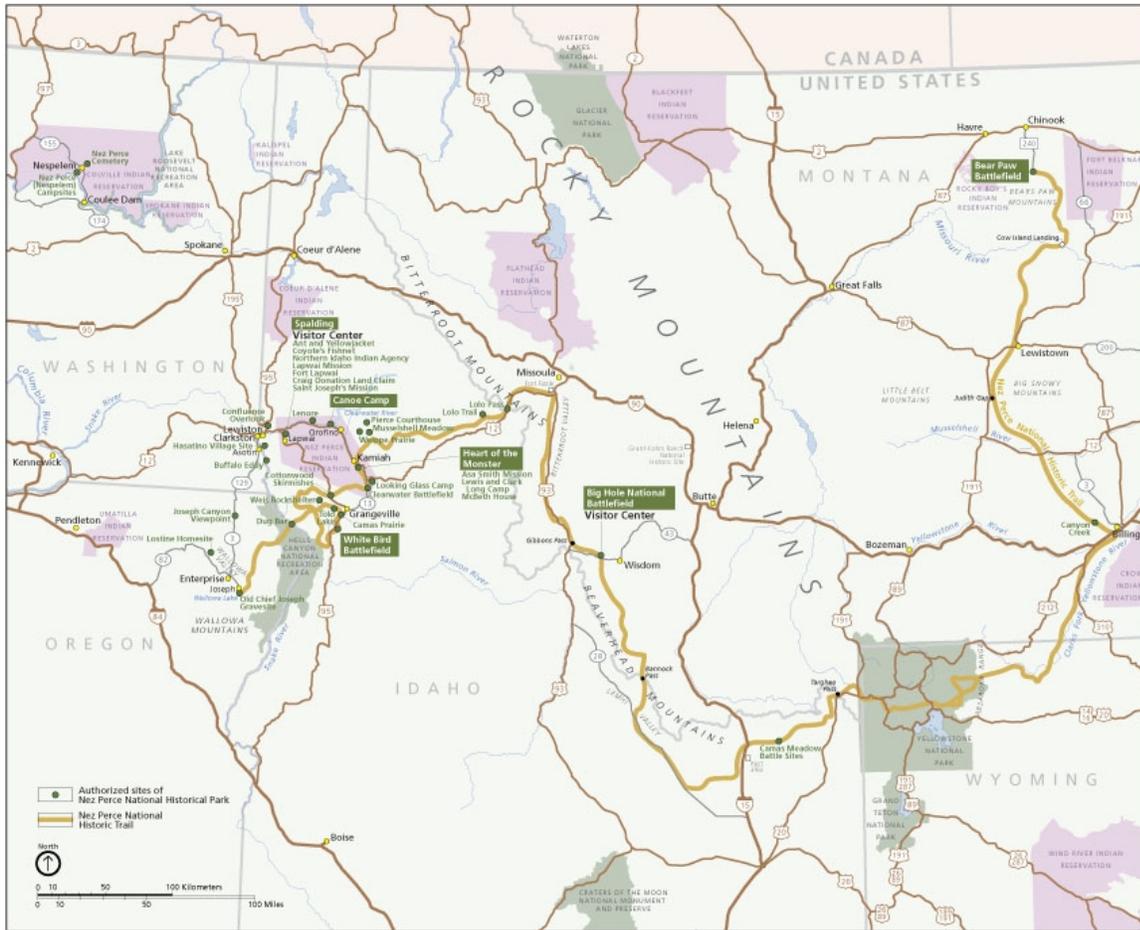


Figure 1. Overview map of Nez Perce National Historical Park Sites.

These changes are needed to provide a more rounded and informative interpretive opportunity, while maintaining and preserving the nationally significant resources of the Bear Paw site.

One of the key needs for the site is providing for better onsite NPS presence during the visitor season. A regular and visible NPS presence would help discourage resource damage, increase visitor contacts, and improve the overall experience for visitors. During peak visitation periods, park staff roves the site for several hours each day, but there is no shelter at the site to protect them from the often changing and severe weather conditions. Due to this lack of onsite shelter, NPS personnel are often unavailable to visitors and sometimes even unaware of visitors being at the site. It is therefore difficult to provide even a modest amount of routine personal services interpretation. While some onsite information is provided through interpretive waysides and a trail guide, much of the overall context of the Nez Perce experience leading up to and resulting from the Nez Perce War of 1877, are not fully explained. In addition, visitors passing through the greater Havre/Chinook area may be unaware of the site and the NPS presence in the region.

As identified in the most recent Nez Perce National Historical Park visitor survey (Littlejohn 1995), park staff provide personal interpretation to more than 50 percent of visitors park-wide. Given these trends, revised and updated facilities for staff and visitors are needed at the Bear

Paw site allowing the NPS to provide at least this level of service and to adequately interpret the events that occurred during this last battle between the Nez Perce people and the U.S. Army.

The need for improved visitor services must also be carefully weighed against the inherent need to maintain the rural character and undisturbed nature of the surrounding area. This issue was frequently identified to the NPS during all aspects of project scoping. The battlefield's ambience is derived, in part, from its relatively unchanged natural setting allowing the visitor to contemplate the events that took place there. This rural undisturbed character, and its remote visual characteristics, are also contributing components of the NHL designation for the site that the NPS is mandated to preserve.

#### **IV. Park Purpose and Significance**

Nez Perce National Historical Park currently encompasses 38 sites, spread over more than 1,000 miles in Oregon, Idaho, Washington, and Montana (Figure 1). The park was established on May 15, 1965 to "*facilitate protection and provide interpretation of sites in the Nez Perce Country of Idaho that have exceptional value in commemorating the history of the Nation.*"

Specifically mentioned are sites related to "*the early Nez Perce culture, the Lewis and Clark Expedition through the area, the fur trade, missionaries, gold mining and Logging, the Nez Perce War of 1877, and such other sites as will depict the role of the Nez Perce Country in the westward expansion of the Nation*" (NPS 1997). Twenty four sites were designated part of the park as a result of this legislation. Subsequent legislation (October 30, 1992) authorized additional sites in Oregon, Washington, Montana and Wyoming and specified 14 sites be added to the park, including Bear Paw Battlefield (NPS 1997:3). Today Nez Perce National Historical Park includes historic buildings, Native American sacred and religious sites, battlefields, missions, landscapes, cemeteries, trails, archeological sites and geological formations among other resources, sites and features of prominence in the story of the Nez Perce peoples.

According to the parks' Long Range Interpretive Plan (LRIP), Nez Perce National Historical Park presents a challenge for visitors and park interpretation programs. It states: "*There is no single collective 'park;' no managed entry and exit experience; no centrally located visitor center providing basic park-wide thematic and way-finding orientation; and no park managed system of roads and trails to deliver visitors to significant interpretive locations*" (NPS 2000). Instead, many of the park sites include challenges similar to those at Bear Paw Battlefield, a small remote site south of Chinook in north-central Montana, without adequate visitor facilities to provide basic orientation and interpretation. Some park sites do have minimal facilities (such as interpretive wayside panels), vault toilets and small picnic areas. Others consist of only signs along a highway overlooking a significant site or feature.

The 1997 General Management Plan (GMP) for Nez Perce National Historical Park and Big Hole National Battlefield identified the following significance statements for the park:

- 1) *The park preserves a continuum of at least 11,000 years of Nez Perce culture. Its archeological record, museum collection, cultural landscapes and structures are of national significance. The park contains historical and cultural landmarks that are of legendary significance to the Nez Perce people. The Nez Perce (Nee-Me-Poo) National Historical Trail commemorates a significant event in the history of the Nez Perce people.*

- 2) *Nez Perce National Historical Park offers a unique opportunity for visitors to gain an understanding of present-day Nez Perce culture within and outside the Nez Perce homeland and to learn about important events of the past.*
- 3) *Past and present Nez Perce culture was shaped by the geography and the rich and varied resources of the Nez Perce homeland.*
- 4) *The park includes parts of the Lewis and Clark National Historic Trail and the Lolo Trail, both of which were used by other cultures. The Nez Perce country, Nez Perce National Historical Park sites, and other Native American cultures overlap but also differ in many ways.*
- 5) *The park contains burial sites and sacred sites; it is also a focal point for current Nez Perce culture and allows for the continued traditional use of resources. The park honors the rights retained in the 1855 and 1863 treaties and will fully apply all applicable laws, executive orders, policies, and treaties related to the protection of cultural properties and sacred sites.*

## **V. Planning Background**

In response to congressional direction in 1999, the NPS undertook a study to determine the economic, philosophical, physical and social feasibility of constructing a visitor facility for Bear Paw Battlefield. This study was conducted at the request of Congressman Rick Hill and focused on the potential suitability of various visitor facility locations for Bear Paw Battlefield (Portico Group 2000:1). As a result, in June 1999, sixteen people, including representatives of the NPS, the Confederated Tribes of the Colville Reservation, the Confederated Tribes of the Umatilla Indian Reservation, the Assiniboine and Gros Ventre Tribes of the Fort Belknap Reservation, the Office of U.S. Congressman Rick Hill, the University of Idaho, Blaine County Museum and other concerned individuals met to discuss improving visitor services at Bear Paw Battlefield. The NPS contracted with The Portico Group, a consulting firm, to facilitate the workshop and produce a summary report detailing the feasibility of building a visitor center onsite.

Goals for the June 1999 workshop were derived from the park GMP (NPS 1997) and included:

- 1) *Provide an onsite facility from which to base site protection and preservation, interpretation and maintenance;*
- 2) *Provide visitor facilities, appropriate in location, size, scale and character, to minimize the impacts on natural and cultural resources;*
- 3) *Provide a network of trails of varying difficulty to allow for a variety of visitor experiences and to minimize crowding;*
- 4) *Provide appropriate office space to accommodate current and projected staffing levels;*
- 5) *Locate facilities to provide easy and safe access for park visitors; and*
- 6) *Cooperate with other public land management agencies and organizations, such as the Blaine County Museum, Montana Department of Fish, Wildlife and Parks, and others in exploring partnerships for sharing administrative and interpretive facilities.*

The feasibility study workshop, held in Chinook, Montana, included a battlefield walk-through and discussion of site viewsheds as well as consideration of options for visitor center locations. Resulting from this workshop were the identification of nine potential options for a visitor center all proposed either on the battlefield or other surrounding private lands.

At the time of the feasibility study workshop, the NPS did not own the battlefield. The NPS was, however, managing 190 acres of the site through a lease agreement with the State of Montana

and beginning to explore transfer of land ownership to the NPS (The Portico Group 2000: 3). Federal acquisition of the land was not addressed in the workshop or the subsequent document produced by the Portico Group; nor was the environmental impact of locating a visitor center or feasibility of increasing visitor contacts (NPS 2005a) at the battlefield explored.

After the Chinook workshop, seven public meetings were held in Montana (Chinook and Helena), Idaho (Spalding, Kamiah and Lapwai – including a presentation to the Nez Perce Tribal Executive Committee), Oregon (Mission) and Washington (Nespelem). At the Mission, Oregon public meeting, several members of the Chief Joseph Band of Nez Perce on the Colville Reservation and the Confederated Tribes of the Umatilla Indian Reservation asked the NPS to organize and facilitate an inter-tribal meeting among the three tribal governments (Confederated Tribes of the Colville Reservation, Confederated Tribes of the Umatilla Indian Reservation and the Nez Perce Tribe) and the NPS (The Portico Group 2000:26). Two such meetings were subsequently held in 2003, after completion of the feasibility report. The first meeting was held in Missoula, Montana, on November 5, 2003, and the second in Spokane, Washington, on December 9, 2003.

There was no clear consensus found on the nine options developed during the feasibility study workshop and presented at the various public and tribal consultation meetings held in 1999, 2000 and 2003. There was also concern that none of the options adequately avoided or addressed potential impacts to significance park resources. So, no preferred option was identified and all nine were presented in the subsequent feasibility study report.

The following options were considered in the feasibility study report (The Portico Group 2000: 11-19):

- 1) *No Action*
- 2) *Interpretive Trail with no Structures*
- 3) *Visitor Contact Facilities in Chinook and Improved Facilities at Bear Paw Battlefield*
- 4) *Visitor Facilities at Existing Picnic Area*
- 5) *Visitor Facilities at the South Knoll*
- 6) *Visitor Facilities at South Site*
- 7) *Visitor Facilities East of the Battlefield*
- 8) *Visitor Facilities at Northwest Overlook*
- 9) *Visitor Facilities Near Existing Cattle Corrals*

Although no clear preference for any one option was shown, a common thread found throughout the public and tribal meetings was a concern that preserving the undisturbed character of the battlefield and its surrounding landscape be considered foremost in the planning effort. The feasibility study was valuable in identifying concerns, but lacked even a preliminary identification of potential impacts associated with each of the options considered for the battlefield. In hindsight, the feasibility study was premature in identifying locations for the creation of a visitor center rather than looking at whether or not, and at what scale, revised visitor facilities were needed and feasible for the site. However, it did provide a context for continuing to improve upon the level of interpretation provided at the battlefield and for evaluating the visitor experience at the site. Finally, the process provided the NPS a general range of potential options to consider when alternatives aimed at addressing specific needs were derived.

## VI. Planning Issues

As determined through internal and external project scoping, the alternatives presented in this EA are aimed at addressing the following issues:

### A. *Traditional Use/Access*

- 1) The battlefield is a place of profound spiritual and cultural significance and the NPS must continue to accommodate and respect its traditional use as a venue for ceremonial activities and remembrances.
- 2) Descendants of those who participated in the events of 1877 frequently return to pay tribute to those who fought and died here.
- 3) There is a need to continue to provide for unrestricted traditional cultural access to the site.

### B. *Preservation of Natural Setting and Viewsheds*

- 1) The rural location and general absence of infrastructure (similar to historic natural conditions found in 1877) is crucial to the visitors' ability to visualize and understand the events that occurred there.
- 2) The site's ambience is derived from its relatively unchanged natural setting allowing the visitor to contemplate the events that took place there.
- 3) The rural undisturbed character and its remote visual characteristics are contributing components of the NHL designation for the site.
- 4) The ability to look over the landscape from the battlefield to the south towards the Bear's Paw Mountains without the intrusion of modern structures and infrastructure encourages a deeper intellectual and emotional connection to the events that occurred here.
- 5) The importance of maintaining and protecting this site's historic natural setting was a key consideration in the transition from state to federal ownership.

### C. *Interpretation/Education*

- 1) Interpretation at Bear Paw Battlefield inadequately addresses the themes and visitor experience goals outlined in the park's LRIP (NPS 2000).
- 2) Interpretation at the site should complement that at the Blaine County Museum.
- 3) Personal and non-personal interpretive services are limited and inconsistent, and fail to instill widespread public respect for the site and the gravity of all aspects of the Nez Perce story.
- 4) Battlefield audiences include tribal descendants, schoolchildren, educators, commercial tour groups, an array of special interest groups (military history buffs, battlefield historians, scholars etc.) and casual visitors. A wider range of interpretation tailored to engage this diverse audience is needed.
- 5) Battlefield visitors may not understand the historical context of the story due to limited interpretive exhibits and intermittent staff presence at the site.

### D. *Visitor Use*

- 1) Conditions at the battlefield make it difficult to conduct visitor contact onsite because of frequent temperature extremes and other site conditions.

#### *E. Visitor Access*

- 1) The upper parking area is located uphill, approximately 0.1 mile, from the lower parking area where the vault toilet and picnic facilities are located.
- 2) Although the vault toilet is Americans with Disabilities Act (ADA) accessible, the pathway to it from either the upper or lower parking areas is not.
- 3) There are no ADA accessible walking trails at the site.
- 4) The overlook, where site orientation, interpretive panels and site monuments are found, is confusing and does not meet ADA accessibility standards.
- 5) There is limited access to key interpretive landscapes.

#### *F. Resource Protection*

- 1) With federal acquisition, the NPS is the primary party responsible for resource protection.
- 2) The entire battlefield should be preserved and protected.
- 3) There is a need for continued public awareness of resource protection concerns and for reducing vandalism.
- 4) Increased NPS presence onsite should help deter vandalism and resource damage.

#### *G. Park Operations and Maintenance*

- 1) Additional staff is needed if large-scale visitor facilities are developed onsite.
- 2) Daily onsite maintenance currently requires approximately five to six hours per week during peak summer months.
- 3) During the peak visitor season several daily site visits by NPS personnel, a 32 mile round-trip between the site and the NPS office in Chinook, are often needed to complete all maintenance and visitor contact responsibilities.
- 4) Park tools and supplies are stored in a rented storage facility in Chinook, resulting in the need for constant back-and-forth transport. This situation is inefficient and can lead to maintenance delays and missed visitor contact opportunities.

#### *H. Visitor and Employee Safety*

- 1) There is no onsite public telephone and limited cellular service to report emergencies.
- 2) The lack of protection from sun and inclement weather pose health concerns for staff stationed onsite for extended periods and forces staff to use vehicles for shelter.

#### *I. Energy Efficiency and Sustainable Location Standards*

- 1) All new or adaptively reused buildings must be designed or retrofitted to adhere to all applicable energy efficiency requirements as expressed in the Energy Conservation and Production Act.
- 2) As described in Executive Order 13514, sustainable locations will be given priority for new federal buildings or new leases and federal agencies must consider sites that are "...pedestrian friendly, near existing employment centers, and accessible to public transit, and emphasizes existing central cities and rural town centers."

## **VII. Project Goals**

As determined through internal and external project scoping, the alternatives presented in this EA have been developed to address the following specific goals:

- 1) Maintain the battlefield to accommodate and respect the traditional use of the property by Nez Perce descendants and continue to provide unrestricted ceremonial access to the site.
- 2) Preserve the rural undisturbed character of the site (the integrity of the site, the mood, viewshed, solitude and solemnity).
- 3) Preserve the nationally significant characteristics and site integrity that contribute to the NHL designation.
- 4) Maintain and preserve park resources.
- 5) Consolidate and increase accessibility of facilities for all park visitors.
- 6) Enhance and expand upon the interpretive message provided to park visitors.
- 7) Enhance park operations, maintenance and employee/visitor safety.

## **VIII. Scoping**

The scoping process identifies issues and concerns relating to a proposed action and provides a basis for defining environmental impacts and developing alternatives. Among other uses, information gathered during scoping enables the NPS to determine important issues (including those that may be eliminated from consideration) and to determine the breadth of the additional planning process. Scoping often provides an opportunity for early input by interested individuals, agencies and organizations.

Both internal scoping with appropriate NPS staff and external scoping with the public, organizations and groups, agencies and tribes was conducted to determine the range of issues to be discussed in this EA. An interdisciplinary team composed of staff from Nez Perce National Historical Park, Big Hole National Battlefield and from the NPS Pacific West Region Office was established. The team's first meeting was held on April 26, 2005. This initial internal scoping meeting focused on identifying the purpose and need and detailing planning issues and project goals.

Outreach to Native American Tribes followed this April 2005 internal scoping meeting. This consultation included a May 26, 2005 meeting with the Confederated Tribes of the Colville Reservation (CCT), a June 1, 2005 meeting with the Nez Perce Tribe (NPT), and a June 7, 2005 meeting with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). Tribal comments were conveyed to the interdisciplinary planning team on June 9, 2005. These consultation sessions were vital in exploring the past options presented in an earlier feasibility study report and to begin development of the purpose and need, planning issues and project goals presented in this document.

After the first round of meetings between the NPS and tribal partners, the interdisciplinary team met again on July 6, 2005 and subsequently on September 9, 2005 in Chinook, Montana. These meetings focused on refining the purpose and need based on internal and tribal comments and beginning to develop draft alternatives for action.

After a series of meetings with tribal partners to provide a status and update and to discuss overall concepts for the planned alternatives, the team met again in Chinook, Montana on March 27-30, 2006. Subsequent meetings were held in April and May of the same year. These meetings were focused on further refining the purpose and need, crafting and refining alternatives to address the need, determining the likely issues and impact topics and identifying the relationship of the alternatives to other planning efforts in the park or surrounding area.

A new series of meetings were held with representatives of the NPT, the CCT, and the CTUIR to discuss the initial proposed alternatives for the Bear Paw Battlefield project in June of 2006. The meeting with the CTUIR was held on June 2, 2006, the meeting with the NPT on June 6, 2006 and the meeting with the CCT on June 21, 2006. Letters regarding this project were sent to the three tribes discussed above, the Gros Ventre and Assiniboine Tribes of the Fort Belknap Indian Reservation, and also the Chippewa-Cree Tribe of the Rocky Boy Indian Reservation on July 19, 2006. The packet included copies of the draft alternatives, the purpose and need for action, the planning issues and the project goals.

Of the five tribes consulted, the NPT (January 31, 2007), the CCT (August 21, 2006) and the CTUIR (March 6, 2007) responded with written comments which have been incorporated into the alternatives presented in this EA. The NPT and CTUIR expressed a strong preference for Alternative 3. In addition, the CTUIR requested that tribal access to the existing ceremonial location in the upper parking lot continue to be provided by the NPS and that ceremonies be allowed to continue at this location whenever a Tribe desires to do so. Both the CTUIR and the CCT noted that applicable cultural resources laws must be complied with, including Section 106 of the NHPA. The CCT made a series of recommendations regarding continued involvement of the tribe through the planning process and encouraged the NPS to meet with the Colville Confederated Tribes Nez Perce Liaison Committee to discuss which of the proposed alternatives may be best received by the descendants of the Chief Joseph Band of Nez Perce residing on the Colville reservation. The CCT technical recommendations included the following:

- 1) That *“...the NPS set aside ample time and funding for conducting consultation with the Colville Confederated Tribes (CCT) under Section 106 of the NHPA.”* They state that consultation should be with the Tribal Historic Preservation Officer (THPO) and that *“...formal consultation be initiated as soon as possible;”*
- 2) that *“...a reasonable and good faith effort by the NPS be conducted to identify historic properties within the Area of Potential Effects for whatever alternative is selected.”* Especially with respect to not only archeological resources, *“...but also properties of traditional religious and cultural importance to the CCT, especially the Chief Joseph Nez Perce;”*
- 3) that *“additional data gathering efforts involving descendants of Chief Joseph may provide important information;”*
- 4) encouragement for the *“NPS to make use of the best available technology to identify archaeological resources affected by the project,”* including the use of *“metal detectors, ground-penetrating radar, or other advanced techniques;”*
- 5) that the NPS should consider the use of a professional archaeologist as a construction monitor; and lastly
- 6) that the CCT *“...would consider many of the objects recovered from the Bear Paw Battlefield to be “cultural items” covered under the Native American Graves Protection and Repatriation Act (NAGPRA)”* and that *“...the NPS should develop a written plan of action for treating human remains and NAGPRA cultural items that may be recovered,”* in consultation with the THPO of the CCT.

These recommendations were included in development of the alternatives and mitigation measures analyzed in this EA. The July 19, 2006 scoping letter and packet was also sent to a total of 71 interested individuals, organizations and agencies to solicit comments on the initial proposed alternatives for action. The mailing included organizations such as the Nez Perce (Nee-Me-Poo) National Historic Trail, the Blaine County Museum, the Havre Chamber of Commerce, the Montana State Historic Preservation Officer and the U.S. Fish and Wildlife Service among others. Letters and informational packets were also sent to private individuals interested in Nez Perce National Historical Park and the Bear Paw Battlefield site. In addition to containing information about how agencies, organizations and individuals could participate in the planning process for Bear Paw Battlefield, the letter included a summary of the preliminary alternatives being considered by the NPS for the site.

As a result, two letters from interested individuals (one of whom identified himself as a previous member of the Nez Perce Trail Advisory Committee), two organization letters (commercial and non-profit organizations) and two agency comment letters were received. Letters from organizations included those from the Havre Area Chamber of Commerce and the Blaine County Museum. Letters from agencies included the Montana State Historical Society (SHPO) and the U.S. Fish and Wildlife Service (USFWS).

Comments included the following:

- 1) A preference for Alternative 3 (private individual #1 and the NPT, CTUIR and CCT).
- 2) A preference for Alternative 4 (Blaine County Museum and Havre Area Chamber of Commerce).
- 3) Acknowledgement of the need for additional visitor service facilities associated with the battlefield (multiple comments).
- 4) Concern that Alternative 3 would spread the assets of the NPS between the battlefield site and Chinook (Havre Chamber of Commerce).
- 5) A recommendation that in planning for adequate physical facilities that the projected time horizon be 10-20 years (private individual #2).
- 6) Concern that contracting out maintenance services would not be feasible (private individual #2).
- 7) Concern about visitation to area facilities in the winter due to extreme climatic conditions and the resultant recommendation to close the visitor center proposed in Alternative 4 on weekdays in the winter and after hours with a locked gate at the junction with Montana Secondary Highway 240 (private individual #2).
- 8) Belief that the battlefield is one of Montana's premiere historic sites and that the story cannot be told with wayside interpretive signs (Blaine County Museum).
- 9) Recognition of the change in management from state to NPS (Havre Chamber of Commerce).
- 10) Concern about the battlefield as "unprotected" and "in greater jeopardy of vandalism" without a visitor center and staff onsite (Blaine County Museum).
- 11) Encouragement for the NPS to seek congressional action for the development of the visitor center in Alternative 4 and for increased operational funding (Blaine County Museum).
- 12) Concern that without a major NPS visitor center, potential visitors to Bear Paw Battlefield will continue to pass by the site (Blaine County Museum).

A response to the initial July 19, 2006 NPS scoping letter was received from the Montana Historical Society, State Historic Preservation Officer and State Archeologist on July 28, 2006. The SHPO noted that "*We continue to believe that alternatives that both increase the protective*

*presence of the NPS staff on site and protect the visual qualities of the property are preferred.* To better understand the effects of the Preferred Alternative, the SHPO requested a visual quality analysis be conducted and scaled plans of proposed structures and associated facilities be presented in order to understand relative potential effects to the battlefield setting.

A letter was sent to the USFWS on August 7, 2007 to initiate informal consultation in regards to Section 7 of the Endangered Species Act (ESA). The USFWS responded on August 21, 2007 and noted that because of the location of the proposed action, no occurrence of any federally listed threatened, endangered, candidate or proposed species was anticipated.

A version of this EA was originally released for public comment in March of 2009. One hundred and two copies of the EA were mailed out to park partners, tribal groups, local community organizations and interested individuals. In addition, a printed copy the EA was available at the Chinook library throughout the comment period and electronic versions were available on the park website. The EA analyzed four alternatives (three action alternatives and a no action alternative). Public release of the EA was followed by a series of informational meetings held with tribal partners and local communities. Meetings were held in March with the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation and the Confederated Colville Tribes. A meeting was conducted with the Blaine County Museum Board and a public meeting held with the city of Chinook, Montana on March 31, 2009. Based on requests from the public, the original 30-day comment period was extended an additional 60 days to close on June 30, 2009.

The NPS received 40 comment letters or e-mails within the comment period. Several individuals sent their comments in both letter and e-mail form and since these comments were identical, and from the same recipient, they were only counted as one comment. Of the 40 comments received, 13 were from other federal, state, local or tribal agencies and/or groups and the remaining from interested citizens.

A majority of the comments generally focused on individual feelings and preferences regarding the specific alternatives reviewed in the 2009 EA. The comments received included the following:

- 1) One commenter expressed support for the Alternative 1.
- 2) Five of those who commented were in favor of Alternative 3, which is the Preferred Alternative.
- 3) Eight comments in favor of Alternative 4, calling for the onsite visitor center and administrative complex.
- 4) 23 of those who commented selected no alternative from the 2009 EA to support, but were in favor of some form of visitor facility on or immediately adjacent to the battlefield.
- 5) One commenter favored an "off-site memorial."
- 6) Two comments exhibited no preference.

An April 06, 2009 letter was also received from the SHPO in response to the initial public release of the EA correctly indicating that the NPS had misunderstood and misrepresented their comments from the 2006 letter in the version of the EA released for public comment. It also stated that the document reflected that the NPS had not complied with regulations found in 36 CFR 800 in regards to the impacts from the potential action alternatives presented in the EA. They reiterated the need for the NPS to provide additional information to adequately assess the potential effects of the alternatives on the battlefield prior to any decision being reached by the NPS. The SHPO also noted the status of the battlefield as an NHL "*...requires that federal*

*agencies, to the maximum extent possible, plan and act as is necessary to minimize or avoid harm to a NHL (470h-2(F)).”*

After consideration of all comments received, the NPS decided to revise the 2009 EA. A majority of these revisions were directed at refinements to Alternative 2, 3 and 4, the need to adequately address Section 106 responsibilities, the need to address potential impacts to rare, threatened and endangered species not recognized as such in 2009, and other statutory and federal compliance responsibilities not covered in the 2009 draft. Additional editorial changes were made elsewhere as needed in the document to reflect comments by federal, state, local and tribal entities and update information as it may relate to the effected environment and impact topic analysis included herein.

In order to begin to address these inadequacies, the NPS conducted an archeological assessment of the areas proposed for facility placement under the action alternatives in 2013. In addition, a visual impact analysis was also completed to determine and predict potential impacts from facilities proposed through Alternative 2, 3 and 4 on significant battlefield viewsheds. This information was compiled and submitted to the SHPO and the THPO's of the NPT, CTUIR and CCT in March of 2013. A response was received from the SHPO on March 19, 2013 indicating that the SHPO agreed with the NPS findings of effect on impacts to significant battlefield viewshed for Alternative 4, but could not concur with the NPS finding of no adverse effect for Alternative 2 and 3. This was based on a lack of detailed information provided by the NPS regarding the final color, texture and design of the facilities called for in those alternatives. They did indicate that the facilities proposed in Alternative 2 or 3 would likely result in a potential reduction in visual intrusions over the existing facilities at the battlefield, but could still present an adverse effect. To mitigate these potential impacts, the SHPO recommended the NPS develop a phased consultation process through a Memorandum of Agreement (MOA) establishing SHPO, THPO and ACHP review of design elements prior to implementing either Alternative 2 or 3. These findings were concurred with by the THPO's and agreed to by the NPS and a MOA will be established to mitigate potential adverse effects regarding implementation of either Alternative 2 or 3 (see III. Cultural Resources in Section 4. Affected Environment and Environmental Consequences section for more detailed discussion).

A follow-up letter was sent to the USFWS on December 9, 2011 and again on January 18, 2012 to reinstate informal consultation in regards to Section 7 of the ESA. The USFWS responded on February 09, 2012 indicating that two species (greater sage-grouse and Sprague's pipit) have become candidates for listing within Blaine County since our 2007 communications. They also recommend that if they, or the habitat types they frequent, occur at the Bear Paw Battlefield potential impacts should be considered and minimized to the extent practicable. Several additional general comments made in the 2012 letter are incorporated into the alternatives and mitigation measures proposed in this EA.

An additional inquiry with USFWS was sent on June 16, 2015 regarding threatened and endangered species potentially present at or near the battlefield. A response was received on June 26, 2015 from the USFWS indicating that four listed and/or candidate species (black-footed ferret, pallid sturgeon, greater-sage grouse, and Sprague's pipit) may occur in Blaine County. They also recommended that the NPS implement and follow the guidelines found in the *2010 Montana Bald Eagle Management Guidelines: An Addendum to Montana Bald Eagle Management Plan (1994)* if eagles are known to reside and/or nest in the area of the battlefield. These most recent recommendations and comments from the USFWS have been incorporated into the mitigation measures for the alternatives addressed here and potential impacts to listed or candidate species were included in the environmental analysis.

The Montana Natural Heritage Program (MNHP) species of concern database was checked for Montana Species of Concern (SOC) potentially present in the area on August 20, 2015 as well. A formal research request was also submitted to the MNHP on the same day and was responded to on August 21, 2015. The MNHP database search and response packet indicated the potential presence of 6 additional SOC (Baird's sparrow, long-billed curlew, bobolink, Iowa darter, sauger, northern redbelly dace, and pearl dace) in the general area of the battlefield. Comments and recommendations from the MNHP have been incorporated into the mitigation measures presented in this EA and the potential impacts from the action alternatives on Montana SOC have been analyzed here.

## **IX. Relationship to Laws, NPS Management Policies and Park Planning**

### *A. National Park Service Organic Act*

The key provision of the legislation establishing the NPS, the 1916 Organic Act, is:

*The National Park Service shall promote and regulate the use of the federal areas known as national parks, monuments, and reservations hereinafter specified . . . by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations (54 U.S.C 100101(a) et seq.).*

As with all units of the national park system, the management of Nez Perce National Historical Park and its affiliated sites is also guided by the General Authorities Act of 1970 and the Redwoods Act of March 27, 1978 which states essentially that all units are to be managed as national parks, based on their enabling legislation and without regard for their individual titles. Parks also adhere to other applicable federal laws and regulations, such as the ESA, the NHPA, the Archeological Resources Protection Act and the Clean Air Act among others. To articulate its responsibilities under these laws and regulations, the NPS has established management policies for all units under its stewardship (NPS 2006). *Management Policies* (see *National Park Service Policies and Directives* below) governs the way park managers make decisions on a wide range of issues that come before them.

### *B. National Park Service Policies and Directives*

National Park Service Management Policies (NPS 2006). The following sections excerpted from *NPS Management Policies* are among those that most specifically pertain to the proposed construction of visitor services facilities for Bear Paw Battlefield. Adherence to *Management Policies* was one guiding factor in the development of the alternatives for Bear Paw Battlefield analyzed in this EA.

Cultural Resources – *The cultural resources Management Policies of the National Park Service are derived from a suite of historic preservation, environmental and other laws, proclamations, executive orders and regulations . . . Taken collectively, this guidance provides the Service with the authority and responsibility for managing cultural resources in every unit of the national park system so that those resources may be preserved unimpaired for future generations (NPS 2006: 5.0).*

Cultural Resources – Planning: *Effective park stewardship requires informed decision-making about a park’s cultural resources. This is best accomplished through a comprehensive planning process. Effective planning is based on an understanding of what a park’s cultural resources are, and why those resources are significant. To gain this understanding, the Service must obtain baseline data on the nature and types of cultural resources, and their (1) distribution; (2) condition; (3) significance; and (4) local, regional and national contexts (NPS 2006: 5.2).*

Use of the Parks – Visitor Use: *To provide for enjoyment of the parks, the National Park Service will encourage visitor activities that:*

- 1) *Are appropriate to the purpose for which the park was established; and*
- 2) *Are inspirational, educational, or healthful, and otherwise appropriate to the park environment; and*
- 3) *Will foster an understanding of, and appreciation for park resources and values, or will promote enjoyment through a direct association with, interaction with, or relation to park resources; and*
- 4) *Can be sustained without causing unacceptable impacts to park resources and values (NPS 2006: 8.2).*

Park Facilities – General: *In protecting park resources and values, the Service will demonstrate environmental leadership and a commitment to the principles of sustainability and asset management in all facility developments and operations (NPS 2006: 9.1).*

*. . . the Service will not develop, or redevelop a facility within a park until a determination has been made that the facility is necessary and appropriate, and that it would not be practicable for the facility to be developed, or the service provided, outside the park (NPS 2006:9.1).*

Park Facilities – Integration of Facilities into the Park Environment: *If facilities must be located inside of park boundaries, then the preferred locations will be those that minimize the impacts on park resources, and are situated to stimulate the use of alternative transportation systems, bicycle routes, and pedestrian walkways. Major facilities within park boundaries will be placed only in locations identified in an approved general management plan or implementation planning document as being suitable and appropriate. Facility siting will take into account the need for protection from fires and take maximum advantage of factors such as solar energy, wind direction and speed, natural landscaping and other natural features (NPS 2006: 9.1.1.2).*

Park Facilities – Construction Sites: *Construction sites will be limited to the smallest feasible area. . . Ground disturbance and site management will be carefully controlled to prevent undue damage to vegetation, soils, and archeological resources and to minimize air, water, soil and noise pollution. Protective fencing and barricades will be provided for safety and to preserve natural and cultural resources. Effective storm water management measures specific to the site will be implemented, and appropriate erosion and sedimentation control measures will be in place at all times. . . All materials will be recycled whenever possible (NPS 2006:9.1.3.1).*

*The cost of restoring areas impacted by construction will be considered part of the cost of construction, and funding for restoration will be included in construction budgets (NPS 2006: 9.1.3.1).*

Park Facilities – Revegetation and Landscaping: *Wherever practicable, soils and plants affected by construction will be salvaged for use in site restoration (NPS 2006: 9.1.3.2).*

### Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-Making

The purpose of this Director's Order is to set NPS policy and procedures for compliance with NEPA. This Director's order, and accompanying NPS Handbook 12, provide direction for park planning, environmental evaluation and public involvement in management actions that may affect NPS resources. Together with the 1916 NPS Organic act, Director's Order 12 commits the NPS to make scientifically informed decisions that perpetuate the conservation and protection of park resources unimpaired for the benefit and enjoyment of future generations (NPS-12: 2011).

### Director's Order 28: Cultural Resources Management Guideline

As noted in this NPS Director's Order, management of cultural resources includes first, to discover the significance or meaning of each resource; second, to slow the rate at which their essential material qualities are lost; and third, to support the use and enjoyment of cultural resources while minimizing negative effects on them (NPS-28: 1D1).

The goal of cultural resource planning in the NPS is to identify and preserve park cultural resources and provide for their appreciation by the public. It strives to integrate cultural resource concerns into broader NPS planning processes, to avoid or minimize harm to cultural resources, to identify the most appropriate uses for cultural resources, and to determine the ultimate treatment (preservation, rehabilitation, restoration, reconstruction/ reproduction) or deliberate neglect or destruction for cultural resources (NPS-28: 3A).

### *C. Other Selected Laws*

Other applicable regulatory requirements governing activities addressed in this EA include the following:

Clean Air Act, as amended, PL Chapter 360, 69 Stat. 322, 42 USC §7401 et seq. Section 118 of the Clean Air Act requires all federal facilities to comply with existing federal, state, and local air pollution control laws and regulations.

Endangered Species Act of 1973, as amended, PL 93-205, 87 Stat. 884, 16 USC §1531 et seq. The ESA protects threatened and endangered species, as listed by the USFWS, from unauthorized take, and directs federal agencies to ensure that their actions do not jeopardize the continued existence of such species. Section 7 of the Act defines federal agency responsibilities for consultation with the U.S. Fish and Wildlife Service and requires preparation of a Biological Assessment to identify any threatened or endangered species that is likely to be affected by the proposed action. The NPS has initiated and maintains informal consultation with the U.S. Fish and Wildlife Service.

Energy Efficiency Standards for the Design and Construction of New Federal Commercial and Multi-Family High-Rise Residential Buildings, 10 CFR 433 and 435; 42 U.S.C 6831-6832, 6834-6835; 42 U.S. C. 7107 et seq. This rule became effective October 11, 2011. It establishes the baseline federal energy efficiency performance standards for the construction of new federal buildings. This standard has been set to meet or exceed the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 90.1-2007. The rule also bars the expenditure of any federal funds for the construction of new federal facilities unless the building meets or exceeds the applicable federal building energy standards established under section 305 of the Energy Conservation and Production Act (42 U.S.C. 6835(b)).

Executive Order 13007, 61 FR 26771, Indian Sacred Sites. Executive Order (EO) 13007, issued on May 24, 1996, requires that in managing federal lands, agencies must facilitate tribal access and ceremonial use of sacred sites and must avoid adversely affecting the integrity of these sites.

Executive Order 13514, Federal Leadership in Environmental , Energy, and Economic Performance and the September 15, 2011 Implementing Instructions for Sustainable Locations for Federal Facilities. EO 13514, issued on October 5, 2009, states that “It is the policy of the United States that federal agencies shall...design, construct, maintain, and operate high performance sustainable buildings in sustainable locations, and strengthen the vitality and livability of the communities in which federal facilities are located.” This Executive Order specifies that agencies should seek “location-efficient” sites giving “first consideration” to locating in “central business areas” and to emphasize such areas in central cities and in rural town centers to “strengthen the vitality and livability of the communities in which federal facilities are located.” The EO and the 2011 implementing instructions call for federal agencies to maximize use of resources by leveraging investment in existing infrastructure. It states: “Agencies should maximize the use of existing infrastructure and resources, wherever possible, by prioritizing areas that are currently well-served by water, sewer, and other relevant public infrastructure. This infrastructure represents significant local and federal investment for its construction and maintenance. Locations requiring additional state and local infrastructure investment to solely meet the federal need should be minimized...” The EO (and the implementing instructions) also emphasize that agencies should “preserve existing ecosystems” while also striving to “avoid development of green space” through striving to “avoid development of agricultural and other previously undeveloped land.”

Federal Water Pollution Control Act (commonly referred to as the Clean Water Act) of 1977, 33 USC §1251 et seq. The Clean Water Act provides for the restoration and maintenance of the physical, chemical, and biological integrity of the nation’s waters. Section 404 of the Act prohibits the discharge of fill material into navigable waters of the United States, including wetlands, except as permitted under separate regulations by the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency.

Historic Sites Act (1935): 54 U.S.C 320101 et seq. (P.L. 74-292, 49 Stat. 666) declared “a national policy to preserve for public use historic sites, buildings, and objects . . . “

- 1) Authorized the programs known as the American Buildings Survey (HABS), the Historic American Engineering Record (HAER), and National Historic Landmarks (NHL) program;
- 2) Authorized the NPS to “*restore, reconstruct, rehabilitate, preserve, and maintain historic or prehistoric sites, buildings, objects, and properties of national historical or archeological significance and. . . establish and maintain museums in connection therewith;*” and
- 3) Authorized cooperative agreements with other parties to preserve and manage historic properties.

The Historic Sites Act also directed the NPS to: “*Develop an educational program and service for the purpose of making available to the public facts and information pertaining to American historic and archaeological sites, buildings, and properties of national significance.*”

National Historic Preservation Act (1966 as amended): 54 U.S.C 300101 et seq. (P.L. 89-665, 80 Stat. 915; as amended by P.L. 91-243, P.L. 93-54, P.L. 94-422, P.L. 94-458, P.L. 96-199, P.L. 96-244, P.L. 96-515, P.L. 98-483, P.L. 99-514, P.L. 100-127, and P.L. 102-575) declared a national policy of historic preservation, including the encouragement of preservation on the state and private levels. In addition, the act:

- 1) Authorized the Secretary of the Interior to expand and maintain a National Register of Historic Places including properties of state and local as well as national significance;
- 2) Authorized matching federal grants to the states and the National Trust for Historic Preservation for surveys and planning and for acquiring and developing National Register properties; established the Advisory Council on Historic Preservation (ACHP); and
- 3) Required federal agencies to consider the effects of their undertakings on National Register properties and provide the ACHP opportunities to comment (Section 106).

Native American Graves Protection and Repatriation Act: 25 USC §§ 3001-3013. The Native American Graves Protection and Repatriation Act of 1990 mandates federal agencies and federally funded institutions to return both human remains and other cultural items (funerary objects, sacred objects or objects of cultural patrimony) to lineal descendants, and culturally affiliated tribes and Native Hawaiian organizations. This Act specifies that steps also be taken to determine whether a planned activity may result in the excavation of human remains, funerary objects, sacred objects and items of cultural patrimony from federal lands or federally entrusted areas. The 1995 NAGPRA Rules provide specific requirements for notification and consultation with tribes that all federal agencies and federally funded institutions must follow.

#### *D. Park Planning*

The analysis of alternatives presented here for Bear Paw Battlefield has a direct relationship with two other significant park planning efforts, the Nez Perce National Historical Park GMP of 1997 and the LRIP of 2000.

General Management Plan (NPS 1997) Purpose of Nez Perce National Historical Park -The GMP for Nez Perce National Historical Park and Big Hole National Battlefield identified the following park purposes:

- 1) *Facilitate protection and offer interpretation of Nez Perce sites in Idaho, Oregon, Washington, Montana and Wyoming that have exceptional value in commemorating the history of the United States.*
- 2) *Preserve and protect tangible resources that document the history of the Nez Perce peoples and significant role of the Nez Perce in North American history.*
- 3) *Interpret the culture and history of the Nez Perce peoples and promote documentation to enhance that interpretation.*

*Management of Bear Paw Battlefield*- The GMP for Nez Perce National Historical Park identified actions for the long-term management of Bear Paw Battlefield. Several of those actions include:

- 1) *Increase Ranger Presence onsite.*
- 2) *Develop strategies to protect the viewshed and resources outside current boundary.*
- 3) *Use the site as a portal to expand on Nez Perce culture, the park and the Nez Perce (Nee-Me-Poo) National Historic Trail.*
- 4) *Add the aftermath of the events at Bear Paw Battlefield to the interpretive program.*

All of these specific action items were integrated into the purpose and need for action, the planning issues and goals presented in this EA. These issues were also taken into account throughout scoping and alternative development for this project. To varying degrees all the alternatives studied here address these specific management action issues.

*Zoning-* GMP's identify zoning criteria and zones for parks to determine where development is most appropriate and how preservation and use will occur in a park. The Bear Paw Battlefield includes two such zones identified as:

- 1) *Historic Zone: The historic zone will be the actual battlefield sites where General Miles' troops charged on the first day of the battle and the siege positions of the next five days (headquarters, field hospital, rifle pits, Napoleon and Hotchkiss gun sites, and troop locations). It also will incorporate the Nez Perce Village site, the warriors' defensive positions, and the retreat route of some of the Nez Perce during the opening engagement (NPS 1997: 69).*
- 2) *Development Zone: The development zone will be occupied by a parking lot, an interpretive trail, the wayside exhibits, picnic tables and shelter, the wind-sheltered benches, the pit toilet and a visitor facility (NPS 1997: 69).*

The site zoning presented in the GMP was taken into consideration as much as possible when developing the alternatives for action presented in this EA. Alternatives 2 and 3 are consistent with current NPS battlefield zoning, while Alternative 4 is not.

Long Range Interpretive Plan (NPS 2000) The LRIP for Nez Perce National Historical Park was developed to identify and document the park's primary interpretive themes and visitor experience goals. The plan analyzed then current park interpretive facilities and outlined changes necessary to facilitate the appropriate visitor experiences. Several of the park-wide visitor experience goals and actions outlined in the LRIP are incorporated into the action alternatives presented here. These goals helped shaped the purpose and need for this project. Those visitor experience goals directly influencing the alternatives developed for the Bear Paw Battlefield include:

- 1) *Understand and appreciate the significance of the park and its resources.*
- 2) *Be satisfied with their experience at the park.*
- 3) *Have a safe park experience.*
- 4) *Have the opportunity for an emotional experience at the battlefields.*
- 5) *Understand that the Nez Perce culture is alive and well.*
- 6) *Have the opportunity to hear the voices of people involved in the story through use of primary documentation, quotes, images, oral history, etc.*
- 7) *Understand how any given site fits into the bigger story.*
- 8) *Know the park is managed by the National Park Service.*
- 9) *Understand their role in resource protection*
- 10) *Have the opportunity to appreciate and value other cultures through their experience with Nez Perce culture.*

*Bear Paw Battlefield Actions (NPS 2000: 52-53)* Several actions were developed specifically for Bear Paw Battlefield in the LRIP. The following action directly influenced the alternatives presented in this EA:

- 1) *If a visitor facility at or near the battlefield is found to be feasible and the planning for that facility enters the design stage, adequate exhibit space will be planned to allow for interpretation of the events leading up to the Bear Paw Battle (including the course of the 1877 War, the impact of the Little Bighorn Battle, U.S. Indian Policy, Treaty/Non-Treaty Nez Perce, etc.) and the aftermath of the battle (Oklahoma exile, Nez Perce tribal divisions, Canada, etc.). Other exhibits will provide orientation to the battle and battlefield resources to enhance the visitor's experience and understanding as they interact with those onsite resources and interpretive media. A small theater space might be included to show the planned park-wide audiovisual presentations (one on the continuum of Nez Perce culture and the other on the Nez Perce War of 1877).*

## **X. Impact Topics Analyzed**

Impact topics are the resources of concern that may be affected by the range of alternatives reviewed in this EA. Specific impact topics were developed to ensure alternatives were compared on the basis of the most relevant issues. The following impact topics were identified through internal and external scoping, federal laws, regulations, Directors Orders and NPS policies, and approved park management documents. A brief rationale for the selection or non-selection of each impact topic is given below.

### *A. Air Quality*

The Clean Air Act states that park managers have an affirmative responsibility to protect park air quality and air quality related values (including visibility, plants, animals, soils, water quality, cultural resources and visitor health) from adverse air pollution impacts. For example, preservation of a clear dark night sky is an air quality related value where impacts are also regulated by the NPS *Management Policies* (NPS 2006). Implementation of any of the action alternatives presented here has the potential to impact air quality.

### *B. Cultural Resources*

This section includes several individual impact topics that are defined by, and associated with, past and current NPS management of cultural resources at the battlefield. For the purposes of this EA, cultural resources are categorized as archeological resources, ethnographic resources and sacred sites, historic structures and viewsheds and are all individually addressed under the combined cultural resources section.

#### Archeological Resources

Consideration of impacts to archeological resources is required under provisions of Section 106 of the NHPA of 1966, as amended. It is also required under *Management Policies* (NPS 2006). Federal land management agencies are required to consider the effects proposed actions have on resources listed in, or eligible for inclusion in, the National Register of Historic Places (i.e., Historic Properties), and to allow the ACHP, SHPO/THPO and Indian tribes a reasonable opportunity to comment. Agencies are required to consult with federal, state, local, and tribal governments/organizations, identify historic properties, assess adverse effects to those historic properties, and negate, minimize, or mitigate adverse effects to historic properties while engaged in any federal or federally assisted undertaking (36 CFR Part 800). Ground

disturbance associated with any of the action alternatives could affect park archeological resources.

The Bear Paw Battlefield site is also a listed National Historic Landmark (NHL). Section 110(f) of the NHPA requires federal agencies must exercise a “higher standard of care” when considering undertakings that may directly and adversely affect NHL’s and “minimize impacts to the NHL to the maximum extent possible.”

### Ethnographic Resources and Sacred Sites

Bear Paw Battlefield and other sites within Nez Perce National Historical Park and its surroundings have a long history of use by prehistoric, historic and contemporary Native American peoples. The NPS defines ethnographic resources as any “*site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it*” (DO-28, *Cultural Resource Management Guideline*, p. 181). Ethnographic resources that are eligible for listing in the National Register can also be considered a Traditional Cultural Property (DO-28, *Cultural Resource Management Guideline*, p. 189). A Traditional Cultural Property is defined as “...*one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community*” (National Register Bulletin 38, *Guidelines for Evaluating and Documenting Traditional Cultural Properties*, p. 1). The undertakings described in this EA could affect ethnographic resources including traditional cultural properties and historic properties of religious and cultural significance to Indian tribes.

Department of Interior Departmental Manual 512 Chapter 3 (512 DM 3) implements Executive Order 13007 “Indian Sacred Sites” and requires the NPS to identify and analyze the potential effects of proposed actions, decisions, or activities on the physical integrity of sacred sites or use of and/or access to known sites. It directs the NPS to enter into Memoranda of Agreement or Memoranda of Understanding as needed to avoid adverse impacts to sacred sites, accommodate use of sacred sites by Indian religious practitioners, safeguard confidentiality of sacred sites, develop notification processes and develop dispute resolution procedures. The undertakings described in this EA could affect the use of and/or access to known sacred sites.

### Historic Structures

Consideration of impacts to historic structures listed in or eligible for listing in the National Register of Historic Places is required under provisions of Section 106 of the NHPA of 1966, as amended. It is also required under the NPS Management Policies (NPS 2006). Federal land management agencies are required to consider the effects proposed actions have on properties listed in, or eligible for inclusion in, the National Register of Historic Places and to allow the ACHP, SHPO/THPO and Indian tribes a reasonable opportunity to comment. Appropriate measures to protect and preserve historic structures are also required in adherence to the *Secretary of the Interior’s Standards for the Treatment of Historic Properties*, which provides guidelines for preserving, rehabilitating, restoring and reconstructing these structures.

Rehabilitation or remodeling of an existing structure in Chinook is included as a potential component of the Preferred Alternative analyzed in the EA. In addition, one of two historic structures onsite, the Daughters of the American Revolution (DAR) monument, is proposed for

relocation under the alternatives considered here, therefore historic structures will be addressed as an impact topic.

#### Viewsheds

The rural location and general absence of infrastructure (similar to historic natural conditions found in 1877) is crucial to the visitors' ability to visualize and understand the events that occurred at the Bear Paw Battlefield in 1877. Also, the rural undisturbed character and its remote visual characteristics are contributing components of the NHL designation for the site. NPS Management Policies and the NPS Organic Act also identify the need to protect the scenic values and viewsheds of parks, and significant battlefield viewsheds have a potential to be impacted by the action alternatives discussed in this EA.

#### *C. Federal Facility Energy Usage, Alternative Energy, and Environmental Sustainability*

An October 5, 2009 Executive Order (EO13514) titled *Federal Leadership in Environmental Energy and Economic Performance* requires federal agencies to identify and analyze impacts through the NEPA process from energy usage and alternative energy sources when proposing new or expanded federal facilities. Implementing instructions for the EO were released on September 15, 2011 and these reaffirm these requirements and highlight the need for agencies to "seek location-efficient sites" and to "prioritize central business districts and rural town centers" when making decisions on siting new federal facilities.

#### *D. Geology/Soils*

*Management Policies* (NPS 2006) require the NPS to understand and preserve and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil or alteration of geological resources. Soils will be disturbed by actions proposed under the alternatives in this EA.

#### *E. Land Use*

Lands within the Bear Paw Battlefield proposed for development are entirely owned by the NPS and currently support either visitor use functions or the preservation of natural and cultural resources. Through establishment of the GMP, these lands were zoned as either Historic or Development based on current and future land use. Implementation of any of the action alternatives may result in varying degrees of impact on land use within and surrounding the battlefield and within the city of Chinook.

#### *F. Park Operations*

Impacts to park operations and visitor services are often considered in NEPA documents to disclose the degree to which proposed actions would change park management strategies and methods. Impacts to NPS operations at Bear Paw Battlefield and Nez Perce National Historical Park will be analyzed in the EA.

#### *G. Rare, Threatened and Endangered Species*

The ESA requires an examination of impacts to all federally listed threatened or endangered species. NPS policy also requires an analysis of impacts to state-listed threatened or

endangered species and federal candidate species. Under the ESA, the NPS is mandated to promote the conservation of all federal threatened and endangered species and their critical habitats within the park boundary. *Management Policies* include the additional stipulation to conserve and manage species proposed for listing. Informal consultation with the U.S. Fish and Wildlife Service revealed the potential for federally listed species to occur on or near the battlefield and potential impacts to those species will be analyzed in this EA.

#### *H. Socioeconomics*

The economic impact of tourism to NPS sites is important to communities near a park. Proposed development within and outside park boundaries could affect the gateway community of Chinook and other nearby municipalities. So, the potential socioeconomic impacts of the action alternatives will be presented in this EA.

#### *I. Topography*

With the exception of the existing site facilities and an old road cut in the south/central portion of the battlefield, the topography of the site and the surrounding area remains basically unchanged from that experienced by the Nez Perce in 1877. Effects to the general site topography may result in varying degrees from the action alternatives presented in this EA and topography will be analyzed as an impact topic.

#### *J. Vegetation*

The *National Environmental Policy Act* (NEPA) calls for an examination of impacts of NPS management activities on the components of affected ecosystems. NPS policy is to protect the natural abundance and diversity of park vegetative species and communities, including avoiding, minimizing or mitigating potential impacts from proposed projects. All action alternatives analyzed here have the potential to impact intact vegetation.

#### *K. Visitor Experience*

Providing for visitor enjoyment is one of the fundamental missions of the NPS, according to the Organic Act of 1916 and *Management Policies* (NPS 2006). Depending upon the selected alternative, a variety of impacts to visitor access, visitor experience, visitor use opportunities and/or interpretive programming may occur.

#### *L. Water Resources*

The 1972 Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, is a national policy to restore and maintain the chemical, physical and biological integrity of the nation's waters, to enhance the quality of water resources, and to prevent, and control and abate water pollution. *Management Policies* (NPS 2006) provide direction for the preservation, use, and quality of water in national parks.

- 1) Water Quality: Section 401 of the *Clean Water Act* and *Management Policies* require the protection, conservation and analysis of project impacts on water quality.
- 2) Wetlands: Water resources in the park, including wetlands, are protected and managed in accordance with Executive Order 11990 and the accompanying Director's Order 77-1

and procedural manual which require the examination of project impacts on wetlands and the preparation of a Statement of Findings if necessary.

- 3) Water Quantity: Increased use of water would occur under at least one alternative.

All action alternatives have the potential to impact water resources.

#### *P. Wildlife*

The NEPA calls for examination of the impacts on the components of affected ecosystems. NPS policy is to protect the natural abundance and diversity of park native species and communities, including avoiding, minimizing or mitigating potential impacts from proposed projects. Some wildlife species may be temporarily disturbed during construction through implementation of any of the action alternatives presented in the EA.

### **XI. Impact Topics Dismissed From Further Consideration**

The topics listed below either would not be affected or would only be negligibly affected by the alternatives evaluated in this EA. In addition, none of the topics discussed below were identified during project scoping as resources of concern for the Bear Paw site. Therefore, these topics have been dismissed from further analysis. Negligible effects are those effects which do not have effects outside the immediate area and are not detectable over current conditions. Further definition is included in Section 3 of this document.

#### *A. American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act*

Department of the Interior (DOI) Secretarial Order 3206 (5 June 1997) clarifies the responsibilities of DOI agencies with regard to the effects of ESA compliance actions that affect or may affect Indian lands, tribal trust resources or the exercise of American Indian tribal rights. As the Bear Paw Battlefield does not include any Indian Trust lands, and will have no known impact on Indian Tribal Rights or Trust Resources, this topic has been dismissed from further analysis.

#### *B. 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 disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The actions evaluated in this EA would not adversely affect socially or economically disadvantaged populations.

#### *C. Floodplains*

In cooperation with the Federal Emergency Management Agency (FEMA), the State of Montana Department of Natural Resources and Conservation (DNRC) began the Montana Map Modernization project. A key component of this effort is the production of Digital Flood Insurance Rate Map conversions and extensive floodplain mapping statewide. The updated floodplain maps were completed for Blaine County, Montana in the fall of 2006. A review of

these maps shows that Bear Paw Battlefield is located well out of the 100- or 500-year (regulatory) floodplain for Snake Creek and this topic was dismissed from additional analysis.

#### *D. Geologic Hazards/Geothermal Resources:*

NPS *Management Policies* (NPS 2006) call for analysis of geological hazards and geothermal resources should they be relevant. There are no known effects to these resources resulting from actions described in this EA. Therefore, this topic was dismissed from further consideration.

#### *E. Indian Trust Resources, Trust Assets and Tribal Health and Safety*

Department of Interior Departmental Manual 512 Chapter 2 (512 DM 2) requires the NPS to recognize and fulfill legal obligations to identify, protect, and conserve the trust resources of federally recognized tribes and tribal members, and to consult with tribes on a government-to-government basis whenever plans or actions affect tribal trust resources, trust assets, or tribal health and safety.

"*Trust resources*" are those natural resources reserved by or for Indian tribes through treaties, statutes, judicial decisions, and executive orders which are protected by a fiduciary obligation on the part of the United States (NPS *Management Policies* 2006, 1.11.3). As part of the planning process, the NPS must identify any potential effects on Indian trust resources. Any effect must be explicitly addressed in the EA which shall clearly state the rationale for the recommended decision and explain how the decision is consistent with the Department's trust responsibility. In considering a proposed program, project, or action, the NPS will ensure that effects on trust resources are explicitly identified and evaluated in consultation with potentially concerned tribes and that they are addressed in planning, decision, and operational documents (NPS *Management Policies* 2006, 1.11.3).

"*Indian Trust Assets*" are lands, natural resources, money, or other assets held by the federal government in trust or that are restricted against alienation for Indian tribes and individual Indians (303 DM 2). Department of Interior Departmental Manual 303 Chapter 2 (303 DM 2) provides guidance for carrying out the Secretary's trust responsibility as it pertains to Indian trust assets. Among other things, it directs agencies to protect treaty-based fishing, hunting, gathering, and similar rights of access and resource use on land traditionally used by tribes.

In the event an evaluation reveals any impacts on Indian trust resources, trust assets, or tribal health and safety, the NPS must consult with affected tribes, the appropriate office(s) of the Bureau of Indian Affairs, the Office of the Solicitor, and the Office of American Indian Trust.

The Bear Paw Battlefield does not contain any lands held in trust for tribes or individual tribal members. Issues of access, continuance of traditional ceremonies or practices of memorialization are primarily addressed under the Ethnography and Sacred Sites analysis of the Cultural Resource Section in Section 4 of this EA but are also discussed in other sections throughout this environmental assessment. The alternatives have been designed to have no or negligible effects on trust resources or trust assets. Therefore, Indian Trust Resources, Trust Assets and Tribal Health and Safety will not be subjected to additional analysis in this EA.

#### *F. Museum Collections*

Requirements for proper management of museum objects are defined in 36 CFR 79 and promulgated in the NPS Museum Handbook. *Management Policies* (NPS 2006) and other cultural resources laws identify the need to evaluate effects on NPS Collections as applicable. None of the facilities proposed in this EA would have museum items on display as part of any exhibits proposed therein. Therefore, museum collections will not be impacted through implementation of any of the alternatives presented in this EA.

#### *G. National Wild and Scenic Rivers*

The National Wild and Scenic Rivers Act requires analysis of impacts to designated, eligible or proposed National Wild and Scenic Rivers. There are no designated, eligible or proposed wild and scenic rivers at Bear Paw Battlefield. Therefore, this topic has been dismissed from further analysis.

#### *H. Noise*

A key component of the Bear Paw Battlefield site is the general absence of noise. This contributes to the integrity of the site and allows visitors to engage in a contemplative experience. However, there would be no noticeable long-term change in average ambient noise at the battlefield as a result of the implementation of any of the action alternatives here and all short-term impacts would be negligible. As a result, this topic was dismissed from additional analysis.

#### *I. Prime and Unique Farmlands*

No prime or unique agricultural soils are present at Bear Paw Battlefield, therefore, this topic was dismissed from further consideration.

#### *J. Wilderness*

There is no designated, proposed or potential wilderness at or near the Bear Paw Battlefield. Therefore, this topic was dismissed from further consideration.

## SECTION 2. DESCRIPTION OF ALTERNATIVES

### I. Alternative 1: No Action (Continue Current Management)

#### A. Onsite Facilities for Staff and Visitors

Under this Alternative, existing visitor facilities would remain as they are currently configured at the battlefield (Figure 2). The site entrance from Montana Secondary Highway 240 would continue to direct visitors to the upper parking lot. The NPS site entrance sign and flag pole would remain in their current locations immediately south of the entrance along the gravel access road. Parking would continue to be provided in both the upper and lower parking areas, with a short gravel road connecting the two. Parking capacity would remain at approximately 6 cars in the upper lot and approximately 6 cars in the lower lot.

The current vault toilet located in the lower parking area would remain and there would continue to be no septic system or potable water provided at site. The current 16 x 24 foot covered picnic shelter (with three tables) and trash cans located in the lower parking area would remain unchanged. There would continue to be no onsite enclosed shelter for staff or visitors. While at the battlefield, staff would continue to use vehicles for temporary shelter when conditions warrant. With no potable water source present onsite, water would be transported to the site as needed. No electrical or phone connections would be provided, although power for special events could be provided via a portable generator, when approved under the terms of a special use permit.

There would continue to be very few accessible facilities at the battlefield. During specially scheduled events, however, accommodations for portable toilets or improved site access could be arranged through planning with site staff. Most of the loop trail, eastern bluff, access to the monuments and vault toilet would continue to not meet accessibility standards. The site interpretive trail would remain unchanged and would be accessed using the existing trailhead located in the upper parking lot with an additional access provided in the lower parking lot. It would continue to be a loop trail with a spur trail to Death's Point of Rocks.

The park would employ approximately one and a half full-time equivalent employees (1.5 FTEs), including one permanent career seasonal Park Ranger and one to two seasonal employees in the summer as needed. Regularly scheduled, guided battlefield tours are currently offered in the summer and that will continue under this Alternative. During the shoulder season (spring and fall) and winter months, groups may request site tours by calling ahead and making a reservation with NPS staff in Chinook. Current site interpretation includes several wayside exhibits located along the battlefield's 0.75 mile interpretive trail and at the trailhead. The site also has an interpretive trail guide entitled: *Bear Paw Battlefield Map and Guide* that has text keyed to numbered stops along the trail.

There are five monuments currently located on the battlefield. Four of these monuments [Noyes monument, Joseph/Miles monument, the DAR monument, and the NHL plaque] are located at the trailhead in the upper parking lot. The fifth monument to the Nez Perce, placed by L.V. McWhorter and several Nez Perce war participants in the late

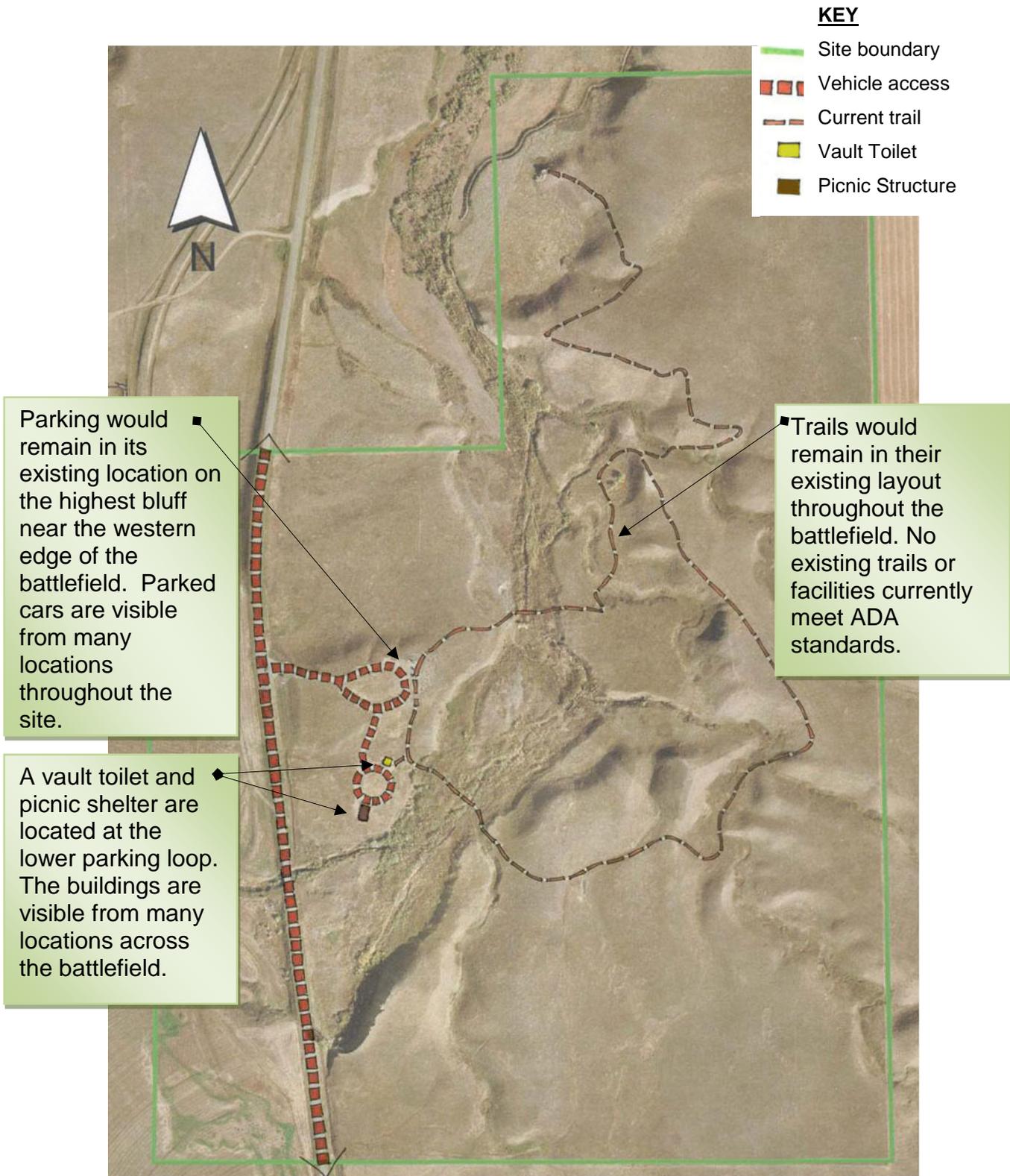


Figure 2. Bear Paw Battlefield Alternative 1: No Action (Continue Current Management).

1920's, is located on a small ridge to the east overlooking the Nez Perce encampment area on the battlefield. All five monuments would remain in their current configuration under this Alternative.

NPS staff would continue to work with the local neighboring communities and park partners to foster site stewardship through visitor education. Ongoing vegetation management programs to reduce non-native plant populations and to maintain native vegetation through restoration of social trails and other denuded areas would continue. The park would continue to provide unrestricted access to the battlefield for commemorative events.

#### *B. Offsite Facilities for Staff and Visitors*

The NPS operational headquarters for the battlefield would continue to be in a leased building in Chinook, with no publicly accessible space or exhibits provided. This facility (approximately 1,100 square feet) contains sufficient office space for two employees, storage, restroom, and a meeting room. NPS vehicles would continue to be parked on the street outside the leased facility. Maintenance storage would continue to occur in a separate location within the town of Chinook. The park currently rents an approximately 300 square foot storage space, which provides adequate room for maintenance supplies and equipment.

The Blaine County Museum in Chinook has devoted one of its exhibit rooms to the battle at Bear Paw and offers a 20-minute multimedia audio-visual presentation, *40 Miles from Freedom*, upon request. An existing cooperative agreement between the NPS and the Blaine County Museum provides for the museum to function as a visitor contact station for Nez Perce National Historical Park and this would continue under this Alternative. Also included is NPS funding, which provides for extended operating hours at the Blaine County Museum in the summer.

## **II. Activities Common to Alternatives 2-4**

Under all action alternatives (2-4) discussed in this EA the following actions would occur:

All facilities currently located in the upper parking area development zone (flagpole, monuments and trailhead) would be relocated to minimize intrusions on the skyline and historic scene (either to the lower parking area – Alternatives 2 and 3, or to another location at the battlefield – Alternative 4). Modifications would improve visitor orientation to the site while minimizing impacts on resources. Large vehicle (bus and recreational vehicle) pull-through parking would be designated. Shelter for employees while stationed at the battlefield would also be added.

All new facilities proposed under any of the action alternatives would be fully ADA accessible, compatible with the landscape and constructed of durable, sustainable materials requiring minimal maintenance. The NPS would also insure that sustainable design principles are applied in the siting, design, and construction of any new or remodeled facilities to increase energy efficiency and to achieve a high level of performance. All facilities proposed under any of the alternatives presented here would meet or exceed the revised federal energy efficiency requirements as stated in 10 CFR 433 and 435. Additional conservation and reuse measures would be explored and utilized where applicable, including installation and use of solar panels, high-efficiency restroom fixtures, CFL or LED lights, *Energy Star* rated appliances and the recycling of waste materials.

All new utilities would be installed underground, where possible, to minimize visual impacts on the battlefield and the surrounding landscape. To facilitate staff operations, special events and safety, electrical power and phone connections to the site would be added under all action alternatives.

There would be improved information provided to visitors traveling to Chinook, Montana on U.S. Highway 2, including improved signage through the city of Chinook and along Montana Secondary Highway 240 directing visitors to the battlefield site. Regularly scheduled, Ranger guided battlefield tours would continue to be offered in the summer and also at other times of the year by request, when conditions permit. An outdoor site orientation panel would be added to the onsite contact station (as detailed in Alternative 2 and 3) or on the visitor center (as detailed in Alternative 4) to provide necessary site information when NPS staff are not available. The interpretive loop trail would be retained in essentially its same configuration (however, the trailhead would be made accessible and modified slightly by Alternative 2 or 3 and relocated in Alternative 4. These modifications would allow for the creation of ADA accessible portions of trail providing access to overlook locations along the trail in all action alternatives. Overall, accessibility at the site would be improved, including access to restrooms, the visitor contact station, interpretive information and monuments under all action alternatives.

Clustering of site facilities would increase opportunities for revegetation of disturbed areas and would reduce visual impacts from battlefield administrative facilities (Alternative 2 and 3). Natural colors, textures and shapes would be used on the exterior of all new facilities to minimize visual impacts. All revegetation and any new landscaping associated with the removal of old, or the construction of new facilities, would be with locally derived, native species.

NPS staff would continue to work with the local neighboring communities and park partners to foster site stewardship through visitor education. Ongoing vegetation management programs to reduce non-native plant populations and to maintain native vegetation through restoration of social trails and other denuded areas would continue. The park would also continue to conduct routine, but unscheduled visits to the site and to work with local law enforcement agencies to foster site protection and preservation.

### **III. Alternative 2: Reconfigure Battlefield Visitor Use Area**

#### *A. Onsite Facilities for Staff and Visitors*

Under this Alternative, the existing site entrance from Montana Secondary Highway 240 would remain in its current configuration with the existing gravel access road to the lower parking lot area becoming the primary site entrance and access road. All other facilities currently located in the upper parking area including vehicle parking, flagpole, trailhead, monuments and interpretive panels would be relocated to the approximately 5 acre lower parking area (Figure 3). Upon relocation of visitor use facilities from the upper parking area it would be revegetated.

The lower parking area would be redesigned to make better use of the space and existing topography and help deter vandalism by clustering facilities on approximately 1 acre of land in the existing development zone identified in the GMP near the northwestern edge of the landform. This would include utilizing the existing pull-through loop of the lower parking area and establishing a graveled parking area on the west side of the loop sufficient for 6 vehicles (including two additional spaces for oversized vehicles). Immediately west of the parking location would be a small visitor contact station (with attached flagpole), and a vault toilet.

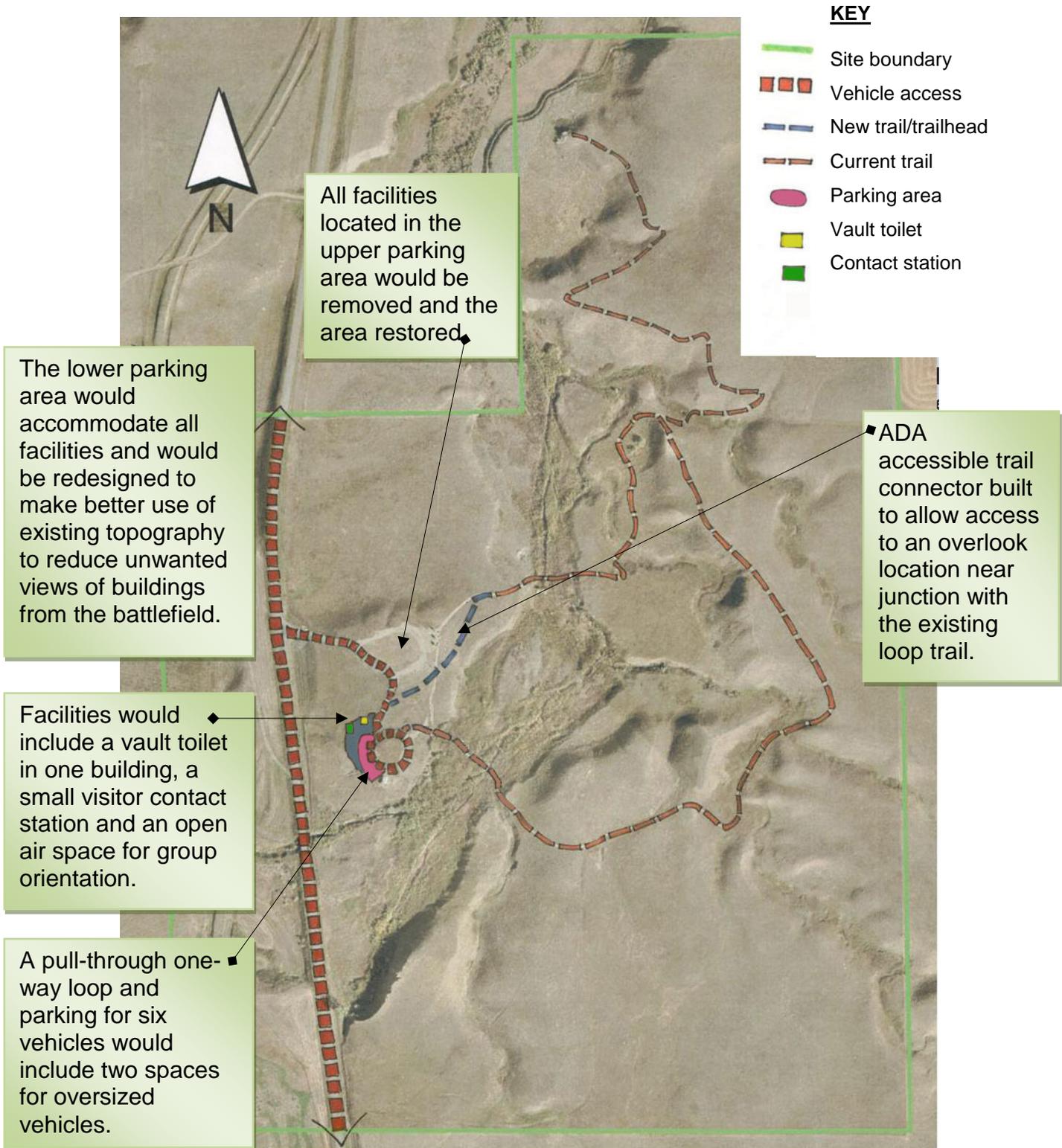


Figure 3. Onsite developments proposed for Bear Paw Battlefield under Alternative 2 and 3.

The small visitor contact station (approximately 200 square feet) would be a prefabricated structure designed to be self-contained and placed entirely above ground on a compacted aggregate pad. This small facility would serve as shelter for staff as needed and would allow for seasonal storage of maintenance supplies necessary for daily site chores. The facility will have a securable access door and a securable, opening window on the east side toward the parking area. The structure would be of a prefabricated design with an exterior color and texture selected to blend into the natural landscape. An outdoor site orientation panel would be added to the contact station near the window to provide necessary site information when NPS personnel are not available. Electrical power and phone service would be installed to the visitor contact station from Montana Secondary Highway 240 to the west. The structure would have no exterior lighting and no potable water would be available onsite.

The existing open-air picnic shelter would be removed and that location revegetated. The existing picnic tables and trash/recycling receptacles would be retained and relocated to the southern edge of the new visitor contact station. A heavy duty collapsible, portable outdoor shelter would be purchased and utilized to provide temporary shelter for school groups or special functions on an as needed basis.

A new vault toilet (approximately 100 square feet in size) would be located northeast of the visitor contact station and north of the new parking area to improve the clustering of site development. The existing vault toilet would be removed and the building footprint revegetated with native species. An ADA accessible pathway linking the new vault toilet and visitor contact station to the new trailhead location and parking area would also be constructed.

The remainder of the current battlefield interpretive trail would be retained in essentially the same configuration with only a new trailhead designed to access it from the reconfigured lower parking area. This new trailhead would begin near the proposed visitor contact station, would meet ADA standards, and would include relocation of four of the current site monuments (Noyes, Joseph/Miles, NHL plaque, and DAR monument) and two of the existing interpretive panels from the upper parking area. The McWhorter monument would remain in its current location along the trail overlooking the Nez Perce encampment.

A portion of the trail extending from this new trailhead location near the proposed visitor contact station north to where it connects into the existing trail west of the current bridge over Snake Creek (a total trail distance of approximately 1000 feet) would be constructed to meet ADA standards. This connector trail and trailhead would be developed above ground using the existing site topography with the trail base placed on filter fabric to avoid subsurface excavation. The trailhead and connector trail would be surfaced with a permeable, finely crushed rock, decomposed granite or similar surface meeting accessibility requirements. A bench created from visually compatible materials would be provided along the accessible portion of the battlefield trail connector to allow for a site overlook location near the junction of the new connector trail and the existing battlefield interpretive trail. Despite trailhead realignment, the existing *Bear Paw Battlefield Map and Guide* would not require revision.

Regularly scheduled, guided battlefield tours would still be offered throughout the summer season under this Alternative, but the presence of the visitor contact station and reconfigured onsite facilities will allow for an increased NPS presence at the battlefield during business hours in summer and off-season as needed. This will afford the NPS greater opportunities for increased in-person visitor contacts and also help deter potential resource damage and vandalism. The current NPS staffing level of 1.5 FTEs (as described in Alternative 1), would

continue under this Alternative. Staff would continue to conduct all maintenance and visitor service functions at the battlefield.

With relocation of all existing battlefield visitor use and informational facilities from the upper parking area to the redesigned lower parking area, the disturbed areas of the approximately 5 acre upper parking lot would be restored. This would include removal of all existing gravel via grading. The removed gravel would be collected and reused in the redesign of the lower parking area. Once the gravel has been removed, those areas will be planted with a locally derived native grass and forbs mix. Native grass species proposed for use include prairie Junegrass (*Koeleria cristata*), blue grama (*Bouteloua gracilis*), and needle and thread (*Stipa comata*). Forbs and shrubs used in the revegetation efforts would include low goldenrod (*Solidago missouriensis*), wild bergamot (*Monarda fistulosa*), amica (*Amica cordifolia*), green rabbitbrush (*Chrysothamnus viscidiflorus*) and sage (*Artemisia* sp.). The grass and forbs seed would be broadcast at approximate rate of 15 to 20 lbs per acre. If available, plugs of grass, forbs, shrubs or existing vegetation salvaged from other areas proposed for construction may be used in the revegetation efforts.

In addition to the upper parking area, revegetation of the former vault toilet and picnic shelter locations in the lower parking area would be undertaken resulting in a total of 1.25 acres of revegetation. As detailed above in: Actions Common to Alternatives 2-4, all landscaping and revegetation near the new visitor contact station, picnic shelter, vault toilet, parking area, and trailhead would be with locally derived, native plants with a similar species composition as proposed for revegetation of the upper parking area.

Despite the revegetation activities, the former upper parking lot location would still be freely available for ceremonial use as it has in the past and the park would continue to provide unrestricted access to the site for traditional and ceremonial uses under this Alternative. The existing site entrance, access road and newly designed lower parking area would continue to be open 24-hours a day to provide access to the site for traditional and ceremonial observances. Electrical power would be available upon request for special events as needed.

#### *B. Offsite Facilities for Staff and Visitors*

Under this Alternative, the park administrative headquarters and maintenance operations would be the same as in Alternative 1 (in rented facilities in Chinook). Also as in Alternative 1, the Blaine County Museum would continue to serve as the primary visitor contact point in Chinook. NPS funding allowing for extended hours of operation at the Museum during the summer would continue. The park would continue to direct visitors seeking publications or other commercially available sale items to the Blaine County Museum, as no sales area would be provided in the visitor contact station.

### **IV. Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield (Preferred Alternative)**

#### *A. Onsite Facilities for Staff and Visitors*

All onsite actions under this Alternative would be the same as those described in detail for Alternative 2. All facilities (parking area, flagpole, trailhead, monuments and interpretive panels) currently situated in the upper parking area would be removed and reconfigured in the existing

Development zone in lower parking area (Figure 3). A small visitor contact station (approximately 200 square feet) with no exterior lighting would be placed adjacent to the lower parking area at the battlefield to serve as shelter and a visitor contact point for staff. The installation of a new vault toilet to the north of the visitor contact station and removal of the existing toilet would be included in this Alternative. Construction of an ADA accessible trailhead placed near the new visitor contact station and creation of an ADA accessible connector trail linking the new trailhead to the existing battlefield interpretive loop trail would be installed as well. These actions together are designed to improve the clustering of site development, increase visitor accessibility, reduce vandalism potential and minimize visual impacts from structures on battlefield viewsheds. Also as noted in Alternative 2, the upper parking area, former vault toilet and picnic shelter locations would be restored with a mix of native grasses, forbs and shrubs. All ceremonial and traditional use would continue to be unrestricted as it is under Alternative 1 and 2.

### *B. Offsite Facilities for Staff and Visitors*

Under this Alternative the NPS would construct or adaptively reuse building space in the existing commercial or light industrial use areas of Chinook for a modest, occasionally unattended visitor information station/administrative headquarters. This facility could be leased, rented, purchased outright or developed in partnership with another agency or group. The NPS operation would require approximately 2,500 square feet of space to allow for an efficient mix of visitor and administrative uses, including office space for two employees, unheated storage for maintenance equipment and supplies, a multipurpose room (with future potential for audiovisual capabilities), a public greeting area/information desk and interior public restrooms (Figure 4). As with all other proposed facilities studied under this EA, the Chinook building would be designed or retrofitted to meet or exceed the revised federal energy efficiency requirements as stated in 10 CFR 433 and 435. This includes utilizing sustainable design principles and creating (or upgrading in the case of adaptive reuse of an existing structure) the building envelope, HVAC, lighting and other mechanical systems to maximize energy efficiency and minimize the carbon footprint.

Included adjacent to the proposed Chinook facility would be approximately 300 square feet of additional outdoor exhibit space to provide park visitors with an opportunity for self-service orientation to the battlefield site and Nez Perce National Historical Park, including interpretation, when staff are unavailable or at the battlefield.

Information and interpretation provided in this outdoor area would complement that at the battlefield and give visitors an opportunity to receive an orientation to the battlefield, including directions, hours of operation, and basic interpretive information. Information would also be provided to highlight the presence of the Blaine County Museum and other visitor attractions in the surrounding region.

Off-street parking would be provided for at least five vehicles, including one oversized vehicle at the Chinook based visitor information station/administrative headquarters. Indoor, storage for maintenance equipment including mowers, park vehicle, and supplies, would also be included in the Chinook facility.

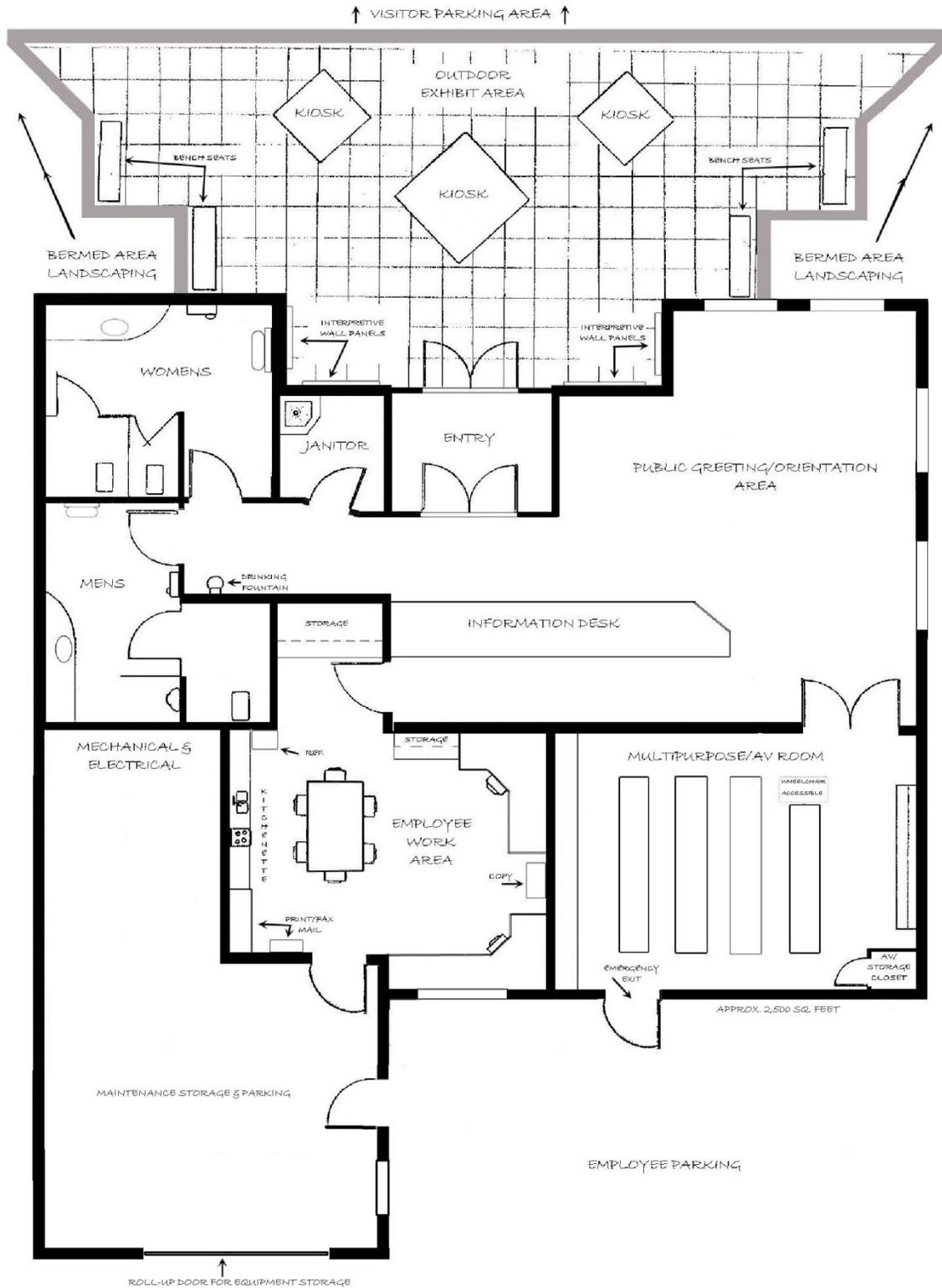


Figure 4. Conceptual design (for comparison purposes only) of a NPS Information Station/Administrative Headquarters in Chinook.

Under this Alternative, NPS staff would be accessible to all park visitors at either the visitor contact station at the battlefield or in the visitor information station/administrative headquarters in Chinook during business hours throughout the summer and shoulder seasons. During the winter season, NPS staff would primarily be located at the visitor information station/administrative headquarters site in Chinook, with less frequent occupancy of the visitor contact station at the battlefield. The NPS staffing requirements for this Alternative would be slightly more than those described in Alternatives 1 and 2 with 2 FTE's. As described in Alternative 1 and 2, all maintenance and visitor contact functions would be conducted by NPS personnel.

Because the NPS visitor information station/administrative headquarters would be located in Chinook, it would allow for a permanent, publicly accessible NPS presence in Chinook. As a result, the Blaine County Museum would no longer be considered an NPS visitor contact station and NPS funding to the museum provided for that purpose would be discontinued. However, no sales areas would be planned for the battlefield visitor contact station or the NPS Chinook visitor information station/administrative headquarters so visitors wishing to purchase books or other mementos would continue to be directed to the Blaine County Museum or other local businesses as appropriate to fill that need.

## **V. Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield**

### *A. Onsite Facilities for Staff and Visitors*

Under this Alternative, the NPS would construct a full-service visitor center/administrative complex on approximately 6 acres at Bear Paw Battlefield. The site would include a roughly 3,100 square foot visitor center building on NPS property at the southern edge of the site (Figure 5). The visitor center/administrative complex would be located near the Feasibility Study option #6 South Site location, overlooking the battlefield. The building includes an indoor exhibit room, greeting desk/sales area, auditorium, office space/break area for employees, maintenance shop and storage, public restrooms and drinking fountain (Figure 6).

As noted above in: Actions Common to Alternatives 2-4, the facility would be designed to meet or exceed the revised federal energy efficiency requirements as stated in 10 CFR 433 and 435. Unlike other alternatives, outdoor lighting (downward facing on a timer) would be provided for visitor and employee safety in the parking area, around the visitor center, and along walkways and sidewalks.

Sustainable design principles will guide the development of the visitor center/administrative complex. The building envelope, HVAC, lighting and other mechanical systems will be designed to maximize energy efficiency and minimize the carbon footprint. The installation of solar panels and high-efficiency restroom fixtures will be explored to offset energy use and increase water conservation.

A covered area with space for at least four picnic tables immediately adjacent to the visitor center would be provided. Electrical power, trash/recycling receptacles, outdoor informational panels and a seasonal drinking fountain would also be located near the picnic area.

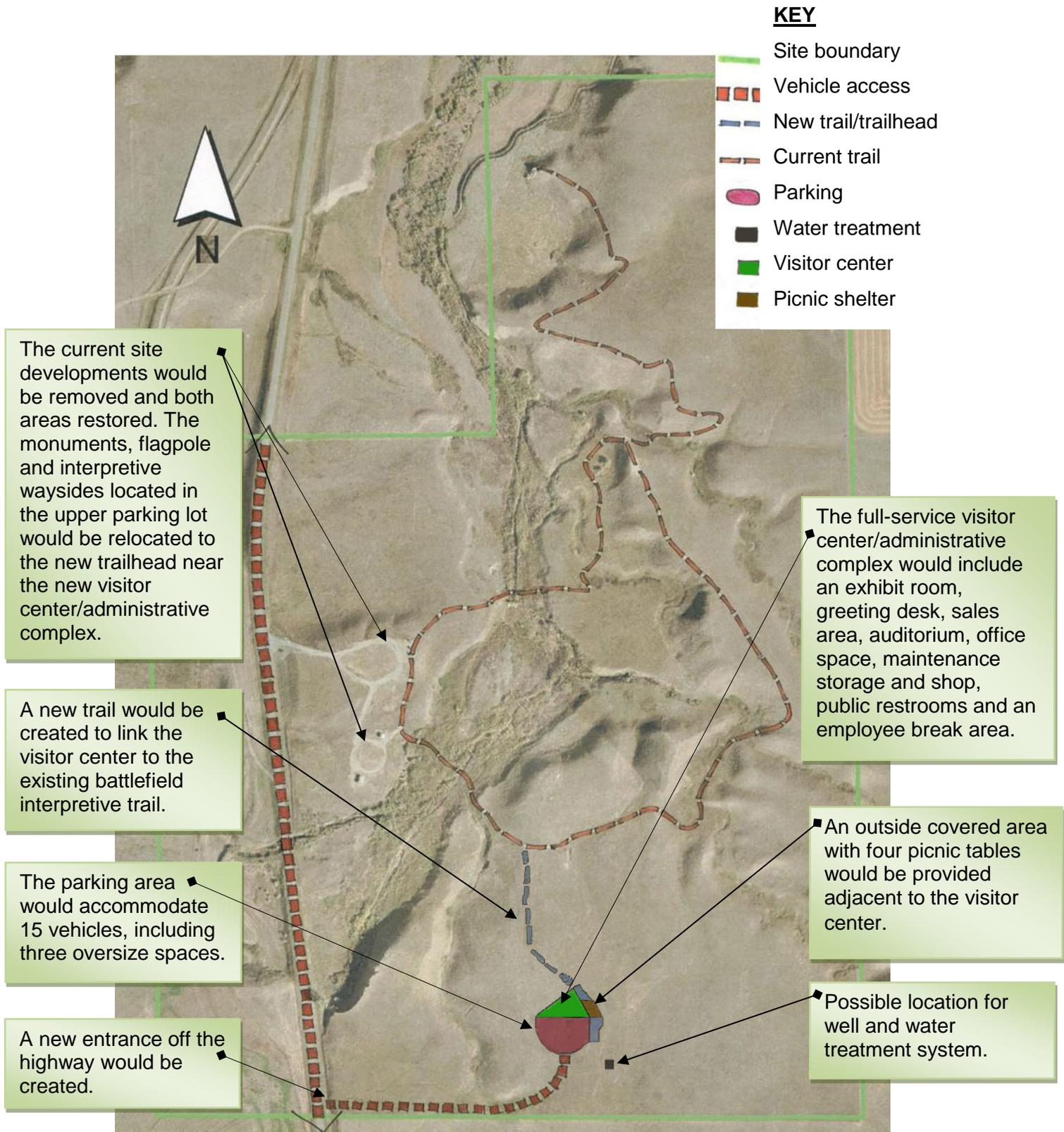


Figure 5. Bear Paw Battlefield Alternative 4: Visitor Center/Administrative Complex.



Indoor exhibit space (approximately 1,000 square feet) at the new visitor center would provide interpretive panels and displays with information about the context and significance of Bear Paw Battlefield. The NPS would pursue future creation of a Bear Paw Battlefield orientation film to be shown regularly in the visitor center auditorium. A sales area, operated in conjunction with the park cooperating association, would be included to allow visitors to purchase books and other NPS authorized items. The *Bear Paw Battlefield Map and Guide* would be redesigned to reflect the new configuration of all battlefield visitor use facilities. As in Alternative 1, 2 or 3, battlefield tours would continue to be regularly scheduled in the summer. During other times of the year, tours would be available upon request, when conditions permit.

Unlike Alternative 1, 2 and 3, which would continue to require one to two employees to cover all NPS operations at Bear Paw Battlefield, Alternative 4 would require approximately three to four employees (3.5 FTEs). The additional personnel would be necessary to fully operate and staff the visitor center/administrative complex for year-round operation. The facility proposed here will have potable water available so the park will be required to have a water treatment facility and certified staff to maintain and operate it. If constructed, the NPS may consider contracting for some or all of the facility maintenance and day-to-day operational needs. This could result in a possible reduction of one full-time staff person (1.0 FTE), but would continue to require a similar operational funding level.

A new trailhead immediately north of the visitor center would be created to link an ADA accessible connector trail from the visitor center to the existing battlefield interpretive trail. The new trail would be developed above ground using the existing site topography to avoid subsurface excavation to the maximum extent possible. The trail would be surfaced with a permeable, finely crushed rock, decomposed granite, or similar surface meeting accessibility requirements. A bench created from visually compatible materials would be provided along the battlefield trail connector to allow for a site overlook location near the junction of the westernmost connector trail and the existing battlefield interpretive trail. The monuments, flagpole, and interpretive waysides located in the upper parking area would be relocated to the new trailhead at the north edge of the visitor center. All other facilities in the upper and lower parking areas would be removed.

To access the site, a new entrance off Montana Secondary Highway 240 would be created near the southern border of the battlefield. The ¼ mile two-lane asphalt access road would have a new park entrance sign and securable gate near its junction with Montana Secondary Highway 240. The access road would lead park visitors east to the 11,000 square foot parking area south of the visitor center/administrative complex building. The parking lot would be surfaced with asphalt and large enough to accommodate 15 vehicles, including three oversize spaces for buses or large recreational vehicles. If constructed, the NPS would work with the Montana Department of Transportation to facilitate creation of an acceleration and deceleration turning lane along Montana Secondary Highway 240 to provide safe vehicle ingress and egress to and from the site.

Along the new site access road electrical and phone service would be installed in buried trenches from Montana Secondary Highway 240 to the new visitor center/administrative complex (approximately 1600 feet). A septic system and leach field would be installed to facilitate treatment and disposal of the visitor center/administrative complex waste water. A well would be drilled and an approximately 65,000 gallon underground water storage system constructed to provide adequate water volume to meet visitor and administrative needs, and also to provide for legally mandated emergency structural fire suppression to the new site

complex. A water treatment and water quality monitoring system would also be installed to facilitate the provision of potable water at the facility.

As in Alternative 2 or 3, once removal of facilities from the upper parking area occurred, that area would be restored with locally derived native plant species. Unlike Alternative 2 or 3, however, the lower parking area facilities would also be removed and that area revegetated as well. As in other alternatives, all landscaping and revegetation near the new visitor center, parking area, water and septic systems, utility trenches, entrance road, and any other areas disturbed through construction would be with locally derived, native species utilizing a similar mix and species composition as noted in Alternative 2.

Under this Alternative the restored upper parking area would no longer be accessible by vehicles as the current park entrance road would be obliterated and revegetated as a function of the restoration process. While vehicle access would be eliminated, the area would still be available for ceremonial use as it has in the past. Ceremonial use could also be accommodated at the relocated trailhead or parking areas adjacent to the new visitor center/ administrative complex. Electrical power for ceremonial use would be available near the new visitor center only.

#### *B. Offsite Facilities for Staff and Visitors*

All visitor contact, book sales, administrative and maintenance functions would be housed in the onsite visitor center/administrative complex at Bear Paw Battlefield. The existing facilities in Chinook, and all NPS presence in the town of Chinook, would be relocated to the battlefield. The visitor center would maintain regular hours and be open daily in the summer and shoulder seasons. During the winter season, the visitor center would likely be open only five days a week (Tuesday through Saturday) during regular business hours.

All visitor contact would occur at the battlefield site. As in Alternative 3, the Blaine County Museum would no longer be considered an NPS visitor contact facility and NPS funding to support extended hours of operation in the summer would be discontinued.

## **VI. Environmentally Preferable Alternative**

In accordance with the 2011 Director's Order-12, *Conservation Planning, Environmental Impact Analysis, and Decision-making* and CEQ requirements, the NPS is required to identify the environmentally preferred alternative in all environmental documents, including Environmental Assessments. The environmentally preferred alternative is determined by applying the criteria suggested in the NEPA of 1969, which is guided by the CEQ. The CEQ (46 FR 18026 - 46 FR 18038) provides direction that the "*environmentally preferable alternative is the alternative that would promote the national environmental policy as expressed in NEPA's Section 101,*" including:

- 1) *Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;*
- 2) *Ensuring for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;*
- 3) *Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;*

- 4) *Preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;*
- 5) *Achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and*
- 6) *Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources (NEPA Section 101(b)).*

Generally, these criteria mean the environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources (46 FR 18026 – 46 FR 18038), Council on Environmental Quality, “Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations” [40 CFR 1500-1508], Federal Register Vol. 46, No. 55, 18026-18038, March 23, 1981: Question 6a.). In this EA, the alternative that best meets and fully addresses these criteria is Alternative 3.

Alternatives 2, 3 and 4 would all provide an opportunity for the visitor to receive a more detailed and enhanced account of what happened at Bear Paw Battlefield over that currently provided. Alternative 2 or 3 would cluster visitor use facilities near the key battlefield area, while reducing visual impacts over Alternative 1 and would therefore best meet Criteria 1 and 2. In contrast, Alternative 4 would place these facilities where they would intrude more on the historic scene, both from the southern approach to the battlefield and from the battlefield itself. Alternative 1 would not fulfill the intent of Criteria 1 or 2 because it doesn’t provide for an appropriate degree of information about the battlefield and aesthetically pleasing surroundings, compatible with the battlefield setting.

All three action alternatives would add interpretive facilities and a more effective NPS presence at the site helping visitors better understand its significance and contribute to a reduced potential for vandalism. Alternative 1 would only minimally meet Criterion 3 because of its reduced potential to contribute to visitor understanding. Without a more comprehensive visitor use facility, Alternative 2 would not go as far as Alternative 3 or 4 in telling the story because there is no provision for exhibits in the small visitor contact station at the site. Alternative 3 or 4, however, would have similar opportunities to tell the story by increasing the amount of interpretive space and NPS staff presence for visitors; however, Alternative 3 would maximize the ability to do so without further impacting additional parts of the historic scene or area viewsheds by locating a more comprehensive visitor facility in the town of Chinook, instead of within the battlefield. As a result, Alternative 3 would best meet Criterion 3.

There would be no gain in the preservation of natural or cultural resources associated with Alternative 1. Alternative 2, 3 or 4 would all result in some revegetation at the site, with Alternative 4 resulting in both the greatest loss and the greatest revegetation. Unlike Alternative 4, Alternative 2 or 3 would also minimize impacts associated with the overall footprint of development at the site. With combined facilities at the battlefield and in Chinook, Alternative 3 would best provide increased interpretive services for the battlefield in the most visited seasons without the impacts to the battlefield present in Alternative 4. As a result, Alternative 3 would best meet Criterion 4.

Alternative 2, 3 or 4 would meet Criterion 6, because facilities would be designed to meet or exceed the revised federal energy efficiency requirements as stated in 10 CFR 433 and 435. Criterion 6 does not apply to Alternative 1 because no new or additional facilities and no less resource use are proposed.

## VII. Preliminary Options Considered But Dismissed

### A. Other Feasibility Study Options (# 2, 3, 4, 5, 7, 8, 9)

*Note:* Feasibility Study Option 1 is the no action (the same as Alternative 1 in this document) and Feasibility Study Option 6 is Visitor Facilities at South Site (similar to Alternative 4 in this document).

Feasibility Study Option #2: Interpretive Trail with No Structures. This option proposed to relocate the entry road, parking and trailhead to the current picnic area in the lower parking lot. As in the no action option, site access, parking, monuments, the picnic area, and toilets would remain along the western edge of the battlefield, adjacent to the county road. Components of this option have been incorporated into the action alternatives in this EA, but it has been dismissed as a stand-alone alternative because it would not meet the purpose and need to improve visitor services and to facilitate staff presence at the site.

Feasibility Study Option #3: Visitor Contact Facilities in Chinook, and Improved Facilities at Bear Paw Battlefield. This option is similar to Alternative 3 in this EA, however there is no improvements in visitor facilities at Bear Paw Battlefield proposed, therefore like feasibility study option #2 it does not meet the Purpose and Need.

Feasibility Study Option #4: Visitor Facilities at Existing Picnic Area at Bear Paw Battlefield. This option called for the construction of a full-service visitor center/administrative complex in the lower parking area hillside location identified by the feasibility study adjacent to Bear Paw Battlefield. Due to the limited area for construction and large amount of infrastructure needed for to support such a facility, this option was dismissed as an alternative in this EA.

Feasibility Study Option #5: Visitor Facilities at the South Knoll at Bear Paw Battlefield. This option would have added visitor facilities, including two new parking areas, a visitor center, picnic shelters, windbreaks, and maintenance facility south of the battlefield. It would also have provided ceremonial access at the current lower parking area where road access, toilets and a picnic shelter would remain. This option has been dismissed as an alternative in the EA due to the extensive development for this small site, including the number of parking lots (2) and toilet facilities needed (3).

Feasibility Study Option #7: Visitor Facilities East of the Battlefield. This option would have located visitor facilities on the east side of the battlefield on land that continues to be privately held. This option was dismissed as an alternative because the NPS does not own the land. In addition, it would have required extensive road development (approximately 1.2 miles) and would have surrounded the battlefield with roads, contributing to deterioration of the historic setting and site viewsheds.

Feasibility Study Option #8: Visitor Facilities at the Northwest Overlook. This option would have located visitor facilities northwest of the current entrance road on a plateau overlooking the battlefield (corral site). It was dismissed as an alternative for several of the same reasons option #7 was dismissed – namely, because the NPS does not own the land, because it would have required extensive road development (.75 mile), and because it would contribute to deterioration of the historic landscape by placing visitor facilities in areas that were used by both the military and the Nez Perce during the battle.

Feasibility Study Option # 9: Visitor Facilities Near Existing Cattle Corrals. This option would have located visitor facilities northwest of the current entrance road in an area currently used for

cattle corrals. Except that it contains considerably less road development (.25 mile), it was dismissed as an alternative for the same reasons option #8 was dismissed. It would also present a potential safety hazard for park visitors as they would be required to cross Montana Secondary Highway 240 to get between the visitor center and the battlefield interpretive area.

*B. Mobile Visitor Contact Station during Peak Seasons at Bear Paw Battlefield*

This alternative was tried in the late 1990s and was dismissed as a long-term solution following the feasibility study because it was infrequently used by park staff and visitors due to the lack of electricity provided to the structure. Providing a similar structure with electrical connections has also been dismissed due to the remoteness of the site, the fragile nature of such structures lasting in extreme weather conditions over time, the need to repeatedly transport it to and from the site and because over the long-term, site development needs and maintenance expenses would be similar or greater than erecting a permanent structure as proposed in Alternative 2 or 3.

*C. Construct a Maintenance Storage Area (Without Visitor Contact Space)*

This alternative was dismissed because it would not meet the purpose and need (to improve visitor facilities/services at the battlefield).

*D. Make Interpretive Trail Accessible*

This alternative option, originally brought up during the feasibility study scoping, is not feasible due to the extensive need to loop back and forth across the battlefield to maintain an accessible grade and the disturbance that would create. However, all of the action alternatives discussed in this EA call for the creation of short sections of accessible trails.

*E. Provide for Special Event Camping at the Battlefield*

This alternative was dismissed because it is outside the scope of the project and would not meet the purpose and need (to improve visitor facilities/services at the battlefield). It is also something that can be considered as a temporary special event if circumstances warrant on a case by case basis as it is currently.

*F. Relocate Montana Secondary Highway 240 out of the Battlefield*

In preliminary discussions with the Montana Department of Transportation, relocating the road is infeasible due to the associated impacts on adjacent private lands and the amount of construction and associated restoration that would be needed for this small section.

*G. Locate Visitor Center on Private Property to the South of the Battlefield*

This option would have located a visitor center operation of similar scope and scale to that proposed in Alternative 4 farther to the south just across the southern border fence on non-NPS owned lands. The hope with this Alternative (tentatively discussed as Alternative 5) was to identify a place where the facility proposed in Alternative 4 could be located where the natural topography screened it from a majority of the significant battlefield viewsheds. Upon additional inspections of the landform, review of the Geographic Information System (GIS) based line of sight analysis presented Appendix A and an evaluation of the lack of existing visual intrusions in

the background it was determined such a location is not readily identifiable. While it would be possible to place a facility way to the south of the battlefield such that impacts on viewsheds from the battlefield looking south are minimal, the facility would then be so far removed from the primary interpretive locations that the existing site facilities (as described under Alternative 1) would have to be maintained to allow for effective use of the site. This would require the NPS to operate and maintain two visitor contact operations at the battlefield (existing site facilities and a new visitor facility to the south).

In addition, this potential Alternative is not in compliance with guidance provided in the implementing instructions for EO 13514 directing federal agencies to avoid development of "green space" when siting and constructing new federal facilities. All land to the south of the battlefield is undeveloped and currently being utilized for agricultural purposes. For this reason, and the fact that a suitable location to place a visitor contact facility where it would be removed from significant battlefield viewsheds, while still close enough to the site to allow for effective interpretation and removal of the existing site facilities was not identified, this Alternative was dismissed from detailed analysis in this revised EA.

**Table 1. Alternative Comparison Chart for Improved Visitor Services at Bear Paw Battlefield**

	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
<b>ONSITE FACILITIES FOR STAFF AND VISITORS</b>				
<b>Visitor Contact Facility</b>				
Visitor Contact Station		Approx. 200 sq. ft.	Approx. 200 sq. ft.	
Visitor Center				Approx. 3,100 sq. ft.
<b>Restrooms</b>				
Vault Toilets	X	X	X	
Flush Toilets				X
Accessible Toilets	X (Building accessible, path to it is not)	X	X	X
<b>Parking</b>				
Designated Parking for Oversize Vehicles	X (Available but undesignated)	X	X	X
Accessible Parking		X	X	X
<b>Picnicking</b>				
Picnic Shelter and Tables	X Unchanged	X Replace with portable structure	X Replace with portable structure	X Near New Facility
<b>Interpretation</b>				
Scheduled Interpretive Programs	X	X	X	X
Roving Interpretation	X	X	X	X

	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Park Film				X
Wayside Exhibits	X	X	X	X
Indoor Exhibits				X
Outdoor Exhibits		X (Orientation panel)	X (Orientation panel)	X
Monuments	Same Location	Lower Parking Area	Lower Parking Area	Near New Facility
<b>Trails</b>				
Interpretive Trail	X	X	X	X
Accessible Trail Segment		X	X	X
New Trail Connector		X	X	X
New Trailhead		X	X	X
<b>Utilities</b>				
Electricity		X	X	X
Phone		X	X	X
Potable Water				X
Drill Well				X
Water Treatment/Storage				X
Install Septic System				X
<b>Ceremonial Use</b>				
At Upper Parking Area Overlook	X	X	X	X (No Vehicle Access)
At New Visitor Services Facility				X
Electrical Connections		X	X	X
<b>Safety / Law Enforcement</b>				

	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Periodic Patrol/ Maintenance	X	X	X	X
Seasonal Presence at Site	X	X	X	
Year-round Presence at Site				X
Install Deceleration/ Turn Lane				X
<b>Revegetation/Restoration</b>				
Revegetation of upper parking area and small portion of lower area		X	X	
Revegetation of entire upper and lower parking areas				X
<b>Administration</b>				
Administrative Offices				W/in 3,100 sq. ft. visitor center
Maintenance Storage				W/in 3,100 sq. ft. visitor center
Maintenance Supplies Storage		X W/in 200 sq. ft. visitor contact station	X W/in 200 sq. ft. visitor contact station	X

#### OFFSITE FACILITIES FOR STAFF AND VISITORS

<b>Visitor Facility</b>				
Visitor Information Station			Approx. 2,500 sq. ft.	

	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Flush Toilets			X	
Parking for Oversize Vehicles			X	
Off-street Parking			X	
<b>Interpretation</b>				
Scheduled Interpretive Programs			X	
Park Film	X Blaine Co. Museum	X Blaine Co. Museum	X Not planned, future potential at new NPS facility	
Indoor Interpretive Panels	X Blaine Co. Museum	X Blaine Co. Museum	X Not planned, future potential at new NPS facility	
Outdoor Interpretive Panels			Approx. 300 sq. ft.	
<b>Administration</b>				
Administrative Offices	1,100 sq. ft. (existing)	1,100 sq. ft. (existing)	W/in new, approx. 3,000 sq. ft. space	
Maintenance Storage	400 sq. ft. (existing)	400 sq. ft. (existing)	W/in new, approx. 2,500 sq. ft. space	
<b>Staffing Needs</b>				
1-2 Employees	X	X	X	
3-4 Employees				X
<b>Funding Needs</b>				
Base funds Increase				X
Construction Funding		X	X	X

## SECTION 3. ENVIRONMENTAL IMPACT ASSESSEMENT METHODOLOGY

### I. Introduction

The NEPA requires that environmental documents disclose the environmental impacts of the proposed federal action, reasonable alternatives to that action, and any adverse environmental effects that cannot be avoided should the proposed action be implemented. This section analyzes the environmental impacts of the project alternatives on affected park resources. These analyses provide the basis for comparing the effects of the alternatives. NEPA requires consideration of context, intensity and duration of impacts, indirect impacts, cumulative impacts, and measures to mitigate impacts. Impact analysis for historic properties is based on the NHPA 36 CFR Part 800 criteria of effect as detailed below.

### II. Environmental Impact Analysis

The environmental consequences for each impact topic were defined (unless otherwise noted) based on the following information regarding context, type of impact, duration of impact, area of impact and any cumulative impacts. Unless otherwise stated in the Section 4 of this document, analysis is based on a qualitative assessment of impacts.

#### A. *Context of Impact*

The setting within which impacts are analyzed – such as the project area or region, or for cultural resources – the area of potential effects (APE).

#### B. *Type of Impact*

A measure of whether the impact will improve or harm the resource and whether that harm occurs immediately or at some later point in time.

- 1) Beneficial: Reduces or improves impact being discussed.
- 2) Adverse: Increases or results in impact being discussed.
- 3) Direct: Caused by and occurring at the same time and place as the action, including such impacts as animal and plant mortality, damage to cultural resources, etc.
- 4) Indirect: Caused by the action, but occurring later in time at another place or to another resource, including changes in species composition, vegetation structure, range of wildlife, offsite erosion or changes in general economic conditions tied to park activities.

#### C. *Duration of Impact*

Duration is a measure of the time period over which the effects of an impact persist. The duration of impacts evaluated in this EA may be one of the following:

- 1) Short-term: Often quickly reversible and associated with a specific event, one to five years.
- 2) Long-term: Reversible over a much longer period, or may occur continuously based on normal activity, or for more than five years.

#### *D. Area of Impact*

Area of impact is a measure of the geographical location of the impacts.

- 1) Localized: Detectable only in the vicinity of the activity.
- 2) Widespread: Detectable on a landscape scale (beyond the affected site).

#### *E. Intensity of Impact*

Impact intensity is the degree to which a resource would be affected.

- 1) Negligible: Anticipated degree of change would not be detectable or would only be slightly detectable. Localized or at the lowest level of detection.
- 2) Minor: Measurable or anticipated degree of change would be have a slight effect, causing a noticeable change of approximately less than 20 percent compared to existing conditions, often localized.
- 3) Moderate: Measurable or anticipated degree of change is readily apparent and appreciable and would be noticed by most people, with a change likely to be between 21 and 50 percent compared to existing conditions. Can be localized or widespread.
- 4) Major: Measurable or anticipated degree of change would be substantial, causing a highly noticeable change of approximately greater than 50 percent compared to existing conditions. Often widespread.

#### *F. Cultural Resources Impacts*

For the purposes of this EA, cultural resources are categorized as archeological resources, ethnographic resources and sacred sites, historic structures and viewsheds and are individually addressed under the larger cultural resources section. Impacts to resources under cultural resources will be presented in the format found in the ACHP regulations implementing Section 106 of the NHPA (36 CFR 800). Although impacts may be initially characterized to fulfill the requirements of NEPA as noted in Sections B. through E. above, the conclusion will follow the criteria below:

- 1) No historic properties affected or no effect: This means that either there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them (36 CFR 800.4(d)(1)).
- 2) Adverse effect: An adverse effect occurs whenever an impact alters, directly or indirectly, any characteristic of a historic property that qualifies it for inclusion in the National Register in a manner that would diminish the integrity of its location, design, setting, materials, workmanship, feeling, or association (36 CFR 800.5(a)(1)).
- 3) No adverse effect: No adverse effect means there is an effect, but the effect would not meet the criteria of an adverse effect, i.e. it would not diminish the

characteristics of the historic property that qualify it for inclusion in the National Register (36 CFR 800.5(b)).

A determination of effect is included in the conclusion section for each analysis of impacts to National Register listed or eligible cultural resources in accordance with the ACHP's regulations implementing Section 106 of the NHPA (36 CFR 800, *Protection of Historic Properties*).

#### G. Visual Impacts

Potential impacts to visual resources are discussed as components of the Visitor Experience and Cultural Resources (Viewshed and Ethnographic Resources and Sacred Sites) sections of this document. The potential intensity of impacts to visual resources were based on field observations, potential changes in the use of the battlefield site, an evaluation of existing non-NPS visual intrusions on the landscape surrounding the battlefield, and the proposed addition of new buildings and utilities to the viewshed. A GIS-based line of sight analysis was also conducted on potential facility locations on the battlefield. While helpful, the results are somewhat inconclusive because of the accuracy and resolution of the Digital Elevation Model (DEM) it was based on (Appendix A).

Beneficial effects to visual resources are defined as those that protect the characteristics of the historic viewshed, as well as views of the Bear Paw Mountains to the south and rolling hills to the west of the site. Adverse effects on visual resources are those that dominate or compete with the historic viewshed, rural landscape or views of the battlefield's natural features. Impacts to visual resources will be generally characterized as noted in Sections B through E above. For those visual resource qualities associated with cultural resources, the framework described in Section F above will be utilized to characterize effects in the conclusion section.

#### H. Cumulative Impacts

Cumulative impacts are effects on the environment that would result from the incremental impacts of the action when added to other past, present and reasonably foreseeable future actions. Impacts are considered cumulative regardless of what agency or group (federal or non-federal) undertakes the action.

The CEQ describes a cumulative impact as follows (Regulation 1508.7):

*A cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.*

The projects addressed in this analysis include past and present actions, as well as any planning or development activity completed, being implemented or planned for implementation in the reasonably foreseeable future. Cumulative actions are evaluated in conjunction with the impacts of an alternative to determine if they have any additive effects on a particular resource. Do to the large amount of private lands surrounding the

battlefield very few other projects or planning exercises have occurred or are underway in the general vicinity of the battlefield. However, two recent projects (BLM Upper Missouri River Breaks National Monument Management Plan and the Triangle Telephone Cooperative fiber optic line installation) occurred within the general area of the battlefield. These projects are included in the cumulative effects analysis presented in Environmental Consequences (within Section 4) of this document where applicable.

The following projects are considered in the cumulative effects analysis that follows each impact topic:

1) Upper Missouri River Breaks National Monument Resource Management Plan

The Approved Plan emphasizes protection and restoration of natural resources while still providing for resource use and enjoyment. It set forth a combination of management actions including allowing natural processes to continue, applying more treatment methods to achieve a natural range of native plant associations, and protecting the remote settings that currently exist in the Monument. The approved plan identifies and accommodates changing conditions over time through the application of management decisions responsive to these changing conditions. Through implementation and monitoring this alternative provides more opportunities to respond to increasing visitation and risks to resources that could occur over time..

The plan focuses on recreation resources and opportunities and discusses continued BLM partnership with the City of Fort Benton and the River and Plains Society in the Missouri Breaks Interpretive Center. A portion of the Nez Perce National Historic Trail passes through the Monument and the BLM manages that section of trail in accordance the Nez Perce National Trail Comprehensive Management Plan.

2) Fiber optic line installation adjacent to Bear Paw Battlefield.

The Triangle Telephone Cooperative Association (TTCA) recently upgraded existing telecommunications cables throughout much of Blaine County, Montana. The TTCA received funding from the Rural Development Utilities Program to replace buried copper telephone cable with fiber optic line. Construction consisted of subsurface installation of approximately 1,900 miles of new shielded and insulated fiber optic telecommunications cable throughout the region. In most places the cable was directly buried via vibration paralleling the current lines on or adjacent to existing right-of-ways. At the Bear Paw Battlefield site, the existing telecommunication cables are buried immediately west of the battlefield, along Montana Secondary Highway 240. The fiber optic line was installed in 2011 on private property to the west of the battlefield.

I. *Impact Mitigation*

These are measures proposed to mitigate potential impacts associated with the action alternatives included in this EA. Examples of mitigation measures include:

- 1) Avoid: conducting management activities in the vicinity of the affected resource.
- 2) Minimize: the type, duration or intensity of the impact to an affected resource.

3) Mitigate the impact by:

- **Repairing** localized damage to the affected resource immediately after an adverse impact;
- **Rehabilitating** an affected resource with a combination of additional management activities; or
- **Compensating** a major long-term adverse direct impact through additional strategies designed to improve an affected resource to the degree practicable.

In this EA measures for mitigation of impacts are discussed in the Environmental Consequences section specific to the impact topic for which they were prepared.

## SECTION 4. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

### I. Introduction

This section describes the environmental consequences associated with each alternative. It is organized by impact topic as detailed in Section 1 of this EA. For each impact topic, a discussion of existing conditions is provided followed by a focused presentation of the potential environmental consequences of each alternative. This allows for a standardized comparison between alternatives based on the impact topics. NEPA requires consideration of context, intensity, and duration of impacts; direct or indirect impacts; cumulative impacts; and measures to mitigate for impacts.

### II. Air Quality

Nez Perce National Historical Park is designated a Class II airshed under the Clean Air Act. Sections 118 and 176 of the Act require federal facilities to comply with, and conform to, State Air Quality Implementation Plan requirements where an action could adversely affect air quality. Bear Paw Battlefield is under the jurisdiction of Blaine County and Air Quality Control Region 141. Because there have been no recorded ambient air quality violations in the Bear Paw Battlefield area, it's placed in the *attainment / unclassified* status. Areas classified as *attainment* are those which meet the National Ambient Air Quality Standards under the Clean Air Act (NPS 2001:22). These standards are health-based for PM<sub>10</sub> (particulate matter less than 10 microns in diameter) or fine dust. There are also attainment standards for ozone, nitrogen and sulfur dioxides.

There are currently no major point sources of air pollution in the vicinity of the site. As a result, air quality and visibility are generally considered excellent. Occasional periods of degradation may occur due to regional haze, wind, smoke or agricultural activities. The primary sources of air pollution in the vicinity are related to motor vehicles, unpaved roads, agricultural uses and fires.

#### A. Impacts of Alternative 1: No Action (Continue Current Management)

There would be no additional impacts to air quality under this Alternative. Existing impacts, including periodic disturbance from travel on gravel roads and grounds maintenance of the areas surrounding the parking lots and trails would continue. In addition, staff would continue to travel approximately 32 miles roundtrip from the Chinook headquarters to access the site for interpretation and maintenance. Maintenance equipment would also continue to be stored in Chinook, necessitating the same 32 mile roundtrip to procure and store equipment. Emissions from vehicle trips made by park staff and volunteers would continue to be negligible against the background of day-to-day traffic patterns in Chinook and the surrounding area.

#### B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area

In addition to the existing impacts described in Alternative 1, there would be a potential for short-term, negligible to minor impacts from construction related activities under this

Alternative. These would include vehicle and equipment emissions and the generation of fugitive dust from grading, excavation and other site preparation activities.

There would also be negligible chemical and particulate emissions associated with the importation of materials, increased construction vehicle traffic and the siting of proposed structures. To the degree possible, these impacts would be mitigated by the use of mitigation measures to reduce dust from project excavation activities (including the use of a watering truck if necessary), and by carpooling and traveling with full loads to the extent possible. Chemical finishes and other substances with low volatile organic compound (VOC) ratings and other green products would be used to minimize effects on indoor and outdoor air quality. Any treated wood would comply with standard conditions approved by the Western Wood Preserver's Institute that minimize impacts to air quality.

Where applicable, structures would be outfitted with Light Emitting Diode (LED), rather than incandescent lighting, double-paned windows, energy star appliances, insulation and other measures that would reduce the overall energy consumption (and therefore impact on air quality). No outdoor lighting would be used on any of the buildings proposed in this Alternative.

For landscaping work, including construction of new sections of trail and vegetation restoration, there would be additional negligible impacts to air quality when the existing gravel is removed (upper parking area), the areas stabilized with accessible surfacing (trailhead and trail addition) or replanted (upper parking area). Combined with the placement of the vault toilets, monuments/waysides and the visitor contact station, air quality impacts would be negligible to minor, short-term and localized.

#### *C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Short-term impacts to air quality would be the same as those detailed in Alternative 2 (negligible to minor and localized) at the Bear Paw Battlefield site. Impacts associated with the proposed visitor information station/administrative headquarters located in Chinook would be similar depending on whether remodeling an existing building or construction of a new building occurred. There would likely be fewer impacts from remodeling an existing building than from constructing a new approximately 2,500 square foot building with associated outdoor exhibit space and parking, since there would be less excavation and foundation preparation. Overall with implementation of the mitigation measures, impacts associated with Alternative 3 would be short-term, localized and negligible to minor.

#### *D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

Under this Alternative, construction of a 3,100 square foot visitor center, plus associated parking, trails and landscaping would result in the need for excavation, grading and transportation of materials on a much larger scale than what is proposed for Alternative 2 or 3. Impacts to air quality nonetheless would be of a similar short-term nature as described above, although likely lasting longer than those under Alternative 2 or 3. This is due to the larger building requiring more space for staging and a much longer construction period. With mitigation measures, short-term impacts would vary from negligible to minor over the construction period.

Additional impacts to air quality, not as a result of building construction, would occur from constructing the access road, utilities, septic system, well drilling and water treatment/storage systems. These short-term impacts would combine with those associated with the building, parking and landscaping (trail and revegetation) work and would increase short-term contributions to minor or moderate, depending on the phasing of construction activities at the site.

Long-term adverse impacts at the battlefield, albeit negligible, would result from the year-round need to commute to the site by NPS employees and from increased electrical use to heat and light a much larger building in inclement weather and to run other utility systems. Outdoor lighting, although used in this Alternative, would be minimal and directed inward and downward effectively reducing both energy consumption and night sky impacts.

#### *E. Impact Avoidance, Minimization and Mitigation Strategies for All Action Alternatives*

To the extent possible:

- 1) The use of a palliative (dust suppressant) or water truck would minimize dust generation.
- 2) Low VOC and green chemicals and finishes would be required.
- 3) Vehicles carrying equipment and materials would travel with full loads.
- 4) Treated wood, if used, would comply with air quality requirements from the Western Wood Preserver's Institute.
- 5) Buildings would employ LED lighting, double-paned windows, energy star appliances, efficient insulation and other energy reduction measures.

#### *F. Cumulative Effects*

There have been few cumulative impacts to air quality in the Bear Paw Battlefield area other than seasonal agricultural and fire related haze and motor vehicle emissions. This is evidenced by the attainment designation for monitored components of air pollution by the local air quality management district. When added to impacts occurring in Chinook and the region within the air quality management district, effects on air quality from construction impacts would be minor and short-term. Long-term impacts related to use of the new and replacement structures would be negligible against a background of many more structures in the region and much greater use of energy to sustain them.

#### *G. Conclusion*

There would be no new impacts to air quality under Alternative 1. Existing impacts would continue under all alternatives. Short-term impacts under Alternative 2 would be negligible to minor with negligible long-term impacts. Short-term impacts under Alternative 3 would be negligible to minor and long-term impacts would be also negligible. Short-term impacts under Alternative 4 would be minor to moderate but negligible over the long-term.

### III. Cultural Resources

This section includes several individual impact topics defined by, and associated with, past and current NPS management of cultural resources at the battlefield. For the purposes of this EA, cultural resources are categorized as archeological resources, ethnographic resources and sacred sites, historic structures, and viewsheds. Anticipated effects from each of the alternatives proposed in this EA will be addressed under each of these individual impact topics (archeological resources, ethnographic resources and sacred sites, historic structures, and viewsheds) detailed below. However, a general overview of cultural resources research and management at the battlefield that led up to the individual resource impact findings will be presented here prior to addressing each of the individual impacts topics from the action alternatives.

In the late 1920s L.V. (Lucullus Virgil) McWhorter visited many of the Nez Perce War battlefields. Accompanying him were surviving Nez Perce veterans of the various battles and conflicts of 1877. At the Bear Paw site, Nez Perce veterans identified locations of key events, individual family camps and other vital historical information about the battle, the site and participants. McWhorter placed stakes at many of these locations and recorded the remembrances of the Nez Perce participants associated with these locations. In 1935-36, C. R. Noyes would conduct a formal survey of the site and permanently mark the stakes placed by McWhorter. The resulting map of the battlefield created by Noyes has become an important historical document helping to preserve the efforts of McWhorter and his Nez Perce informants. This ethno-historical work has become a vital bridge to the events of 1877, and remains today as a tangible link to the site for all who visit Bear Paw.

Starting as early as a few weeks after the battle the site was the focus of collecting efforts by numerous individuals. Only the most recent of these efforts are documented. The most extensive collections and associated research projects were undertaken by the late Thain White, Gordon Pouliot, and Norman Johnson. Their efforts constitute a primary data set of types and quantities of camp and battle debris left on the field after the battle (Scott 1997). Local researchers Leroy "Andy" Anderson of Chinook, Montana and Paul English of Havre, Montana also identified possible rock cairns, stone circles and alignments both within and adjacent to the battlefield boundary. Some of these stacked rock features were reported to yield metallic debris when metal detecting work was conducted by Anderson and English in the area after a range fire in 1991 (Scott 2001). The feature locations were subsequently staked by Anderson and English with wooden stakes, and the locations were hand plotted on the orthoquad for the area (Scott 2001). These private collecting and historic research efforts produced variable levels of documentation, along with over 1,700 individual metallic artifacts consisting of bullets, cartridge cases, cannonball fragments and fuses (Scott 2001).

As a result of the early archeological efforts and the ethnohistorical work by McWhorter, the Bear Paw Battlefield was listed on the National Register of Historic Places (NR) in 1970 (NR#19701006). The NR documentation is lacking in detail according to today's standards, but establishes the national significance of the site and the current park boundaries. From this we can infer the types and kinds of archeological resources and features preserved at the site.

The property was also listed as a National Historic Landmark in 1989. The NHL program was created through the Historic Sites Act (1935) (P.L. 74-292, 49 Stat. 666) and

intended for historic properties of extreme historic significance to the nation. The documentation for the Bear Paw Battlefield NHL listing is more detailed and provides a general historic background of the battle and the positions of both the Nez Perce and US Military forces. It also includes several references to the rural undisturbed character of the property and its associated remote visual characteristics as being important aspects of the setting and feel of the property.

As noted in the NHL documentation:

*Intrusions upon the historic scene, where the Nez Perce War climaxed, are minimal, and most of these are beyond the site's core-area. To the west is [then] graveled State Secondary Highway 240 linking Chinook (16 miles to the north) with Cleveland (eight miles southeast and beyond). Barbed wire fences bound the road and define property lines; telephone poles and wire parallel highway 240; the Snake Creek bottoms north and south of the battleground are seeded in hay and alfalfa; there is a corral to the west of highway 240; several unobtrusive ranch buildings are visible in the Snake Creek bottom southwest of the site; and there are the sparse visitor amenities constructed west of Snake Creek by the State of Montana Fish and Game Commission, Recreation and Parks Division.*

*Of these low key intrusions, the only ones located within the proposed National Historic Landmark area: State Secondary Highway 240, several fences, the telephone line, and the visitor support and interpretive facilities. . . . (NPS 1986).*

These concepts of rural location and general absence of infrastructure (similar to historic natural conditions found in 1877) were determined to be contributing elements to the national significance of the property. These more abstract elements associated with feel and place are critical to the visitors' ability to visualize and understand the events that occurred at the Bear Paw Battlefield in 1877. Most often these feelings are manifested through site setting, the vegetative components of the site and the open unobstructed views from the battlefield. All these aspects are contributing components to the national significance of the site, and provide the property with its historic setting and overall site integrity.

Eleven years after establishment of the NHL, a formal archeological inventory of the entire property was conducted at the Bear Paw Battlefield. This survey was performed in 2000 under the direction of Doug Scott and encompassed the entire 190 acre battlefield site plus an additional 1,000 acres of private lands surrounding the battlefield. Work focused on utilizing field notes and anecdotal information produced from surveys by earlier local experts in attempts to relocate and map potential sites and features as well as identify any previously undiscovered resources. The project was marginally successful due to poor ground visibility with only 30 to 40 percent of the features noted by previous local researchers actually identified and mapped (Scott 2001:17). Scott did digitize the find locations from Anderson and English during this project as well as those discovered by his own team.

Following the Scott work, an archeological inspection project was undertaken by the NPS in response to proposed installation of five interpretive waysides at the battlefield. All work was limited to the proposed locations of the new waysides and involved intensive archeological survey coupled with metal detector sweeps at each of the locations. Nothing of archeological or historical significance was discovered as a function

of that project. This work was conducted within the battlefield proper and no work took place within or near any of the areas proposed for facilities discussed in this EA.

In 2009, an archeological inventory was conducted along Montana Secondary Highway 240 as it runs along the west side of the battlefield in response to fiber optic line installation by Triangle Communications. This work was conducted primarily within the highway right-of-way, on the west side of the highway as it runs by the battlefield, by Ethos Consultants of Havre, Montana. The fiber optic installation was determined to have no effect on the battlefield and no areas within the battlefield proper were surveyed or impacted as a function of that project.

The most recent work was an archeological inventory conducted by the NPS in 2013 to determine potential effects to archeological resources at the battlefield from the alternatives presented in this EA. This inventory focused only on those areas within the 190 acre NPS owned battlefield (representing a combined 8 total acres) that could potentially be impacted from any of the action alternatives presented here. The total area archeologically inspected for proposed facility locations under Alternative 2, 3 or 4 were slightly larger than that proposed for construction to allow for a buffer for final siting adjustments and to account for the potential location of subsurface utilities. Results of the 2013 inventory were very similar to those reported by Scott during his 2000 survey. No archeological resources were encountered in the area proposed for placement of facilities called for in Alternative 2 or 3. No new significant archeological resources were encountered in those areas proposed for placement of facilities under Alternative 4 either. However, archeological features noted by Anderson and English and verified by Scott in the general vicinity of the Alternative 4 placement were identified and confirmed via the 2013 project.

In addition to the archeological inventory work conducted in 2013, a visual impact analysis was also completed to determine and predict potential impacts from facilities proposed through Alternative 2, 3 and 4 on significant battlefield viewsheds. Two methodologies were used to conduct the visual impact assessment. The first was a Line of Sight Analysis (LOSA) and the second a photographic visual observation study. The LOSA was performed with ESRI's Geographic Information System (GIS) based ArcMap software package. This analysis focused on utilizing the LOSA function in ArcMap to calculate the visibility of potential visitor contact facility locations across the battlefield from key observer points on the site interpretive trail. The result of this assessment was inconclusive due to the general inaccuracies of the available Digital Elevation Model (DEM). The DEM was just too coarse a resolution to account for the general small size of the facilities proposed, and the subtleness of the site's topography.

The second methodology utilized was a photographic visual observation study. This involved placing a temporary structure at each of the proposed building sites where potential facilities could be constructed. On the ground photographs were then taken from the same observation points used in the LOSA study toward the temporary structure. This methodology helped refine the results of the LOSA analysis, and presented findings allowing for quantification of the potential viewshed impacts related to each of the alternatives under review here. A more detailed discussion of these efforts is presented in the Viewshed section below.

Based on the visual impact analysis and the archeological survey information, the NPS prepared a NHPA finding of effect regarding potential impacts to significant cultural

resources from the facilities proposed at the battlefield for each of the action alternatives presented in this EA. The NPS determined that there would be no adverse effect to the Bear Paw Battlefield from actions called for in Alternative 2 or 3 and potential adverse effects resulting from implementation of Alternative 4. These findings were submitted to the Montana SHPO and the THPO's of the NPT, CTUIR, and CCT for review and comment in March of 2013. The NPS received comments from MT SHPO on March 19, 2013. The SHPO determined they did not concur with the NPS finding of no adverse effect for actions called for under Alternatives 2 and 3. They did concur with the NPS findings of adverse effect for Alternative 4 and also added that implementation of the no-action alternative (Alternative 1) would result in continuing adverse effects to battlefield visual resources. The SHPO findings were also reviewed and concurred with by the THPO's.

The Montana SHPO provided clarification regarding their non-concurrence to the NPS findings as it related to potential impacts to the battlefield from Alternative 2 and 3 in their 2013 letter. They indicated facilities proposed for the battlefield in Alternative 2 and 3 would have an adverse effect on the visual resources of the battlefield, though they did indicate that those facilities would result in a reduction in visual impacts at the battlefield over the current onsite visitor facilities. Their findings rightly stemmed from a lack of significant detail provided by the NPS on the overall color, texture and design of the onsite facilities proposed in Alternative 2 and 3. The SHPO also proposed the NPS create a Memorandum of Agreement between the park, SHPO and THPO's to establish a phased consultation process regarding implementation of Alternative 2 or 3. The MOA would call for SHPO/THPO review and comment at predetermined stages during the design process. These comments would then be incorporated into the NPS final facility design and fully executed prior to any on the ground implementation for either Alternative 2 or 3.

Subsequent to the 2013 SHPO consultation, the NPS has agreed with the SHPO's determination of effect for Alternative 2 and 3 and met with the Montana SHPO and the THPO's of the NPT, CTUIR and CCT to draft a MOA stipulating a phased consultation procedure throughout the final facility design process. The MOA will allow for mitigation of adverse effects to the Bear Paw site under implementation of Alternative 2 or 3. In addition, since the battlefield is an NHL, the ACHP will be invited to participate in the NHPA consultation.

### **Archeological Resources**

The region around the Milk River in Northcentral Montana was well known to Native American people and had been used for generations for a variety of habitation and food procurement reasons. Archeological resources associated with the Bear Paw Battlefield include features and artifacts representative of both the Nez Perce and US Military involvement in the 1877 conflict. Other sites reported to exist on or near the property include tipi rings and large game drive or herding lanes. Even prior to the events of 1877, campsites along Snake Creek were known to Native peoples. The Nez Perce name for the place was *cáynim á·likinwa·spa* – Place of the Manure Fire (NPS nd). As a campsite, it offered abundant game and fresh water from the creek and nearby springs.

Over the nearly 139 years since the battle occurred, the site has been subjected to various artifact collecting, historic documentation and archeological work. In more recent times local researchers collected artifacts and sometimes made notations as to their

locations at the battlefield through the 1970's, 80's and early 1990's. The best documented of these efforts was by local researchers Leroy "Andy" Anderson and Paul English. Their primary effort was conducted after a 1991 range fire. They collected numerous battle related artifacts and documented the find locations to the best of their abilities. This information was utilized by Doug Scott when he conducted his archeological survey of the battlefield in the spring of 2000. Scott was able to identify some of the features noted by Anderson and English which are documented in his 2001 report.

Several other smaller archeological efforts were conducted in response to projects related to battlefield management or efforts off the NPS property. The most recent work was conducted in 2013 by the NPS to analyze potential impacts from the action alternatives presented through this EA. Though numerous battle related artifacts were noted and collected via the early projects, no artifacts directly related to the battle have been encountered in the most recent surveys. However, several of the stacked rock features described by Anderson and English in 1991 have been noted and identified by these later projects.

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no additional ground disturbance and therefore no effect on archeological resources as a result of the implementation of this Alternative.

*B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

Wherever possible, new facilities and site improvements proposed under this Alternative will be designed with measures in mind to minimize potential impacts. This will include clustering site facilities in one location and reducing their current footprints by concentrating development in areas where no major events are known to have occurred during the battle. A majority of the improvements proposed for this Alternative (visitor contact station, parking area and connector trail/trailhead) will be designed for above ground installation. The only site improvements that will result in subsurface disturbance is the proposed new vault toilet installation, the vibratory plow trenching needed for the utilities from the highway right-of-way and the work required for revegetation efforts.

Through consultation with the Montana SHPO, the THPO's of the NPT, CTUIR, CCT, and the ACHP a phased MOA will be developed to mitigate potential effects to the Bear Paw site. The MOA will specifically address adverse visual effects from the facilities proposed under Alternative 2 and 3, but also stipulates the NPS will provide archeological monitoring during all ground disturbing activities onsite. It will call for the NPS to produce an inadvertent discovery plan for review and approval of the SHPO and THPO's prior to commencing any onsite activities. The MOA further states that if at any time during implementation of the project a previously unidentified property or archeological resource is encountered, or the project is found to have unanticipated impacts to the Battlefield, the NPS will ensure all work activities halt until the find can be properly assessed in accordance with 36 C.F.R. § 800.13. The NPS will ensure the SHPO and tribes are contacted immediately if that occurs. The NPS will also ensure that representatives from the NPT, CTUIR and CCT are present onsite during all ground disturbing activities.

### *C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Actions at Bear Paw Battlefield, and therefore potential impacts associated with this Alternative would be the same as described in Alternative 2.

If an undisturbed site in Chinook is selected for construction of a new visitor information station/administrative headquarters building, an archeological inventory of the proposed location will be undertaken to determine if archeological resources are present at the site. The inventory methodology will include intensive pedestrian survey transects with visual inspection and subsurface testing as needed and appropriate. If significant archeological resources are discovered and impacts are anticipated from facilities proposed in the final site design, the NPS will make every effort to avoid those resources through a redesign as needed. An assessment of effect will then be completed (along with finalized construction drawings of the selected Alternative) and submitted to the SHPO and associated tribes for review and comment. If impacts to cultural resources are anticipated from facilities proposed in the site design and avoidance is not possible, the NPS will prepare a mitigation plan and implementing MOA. This will ensure the NPS mitigates and resolves any potential adverse impacts prior to the start of development. These mitigation measures will be created in close consultation with the SHPO and THPO's and agreed upon and fully implemented prior to commencement of work.

If an existing building is chosen for rehabilitation or remodeling under this Alternative, an archeological survey of the property (using the same general methodology discussed above), coupled with an evaluation of the structure by a qualified architectural historian, will be undertaken to determine if National Register eligible resources exist on the site. If significant archeological resources are discovered as a result of this inventory, every effort will be made to avoid them during implementation of this Alternative. If avoidance is not feasible, a mitigation plan will be developed in close consultation with the Montana SHPO and the associated tribes and implemented through a MOA to mitigate and resolve any potential adverse impacts to historic properties prior to the start of development.

### *D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

Due to the much greater area impacted, including greater subsurface excavation for its component parts (visitor center/administrative complex, parking lot, access road, utility lines, water treatment and storage, and septic systems), Alternative 4 would have a greater potential for impacting previously undiscovered archeological resources. Nonetheless, the selection of this site outside of the primary battle area, and where previous surface surveys have not identified significant archeological resources, would minimize that impact.

If this Alternative is implemented, during the preparation of site designs for all new facilities, the NPS will conduct (in consultation with the Montana SHPO, the NPT, CTUIR, CCT and affiliated tribes) an updated archeological inventory of the project area to determine if impacts to currently unknown cultural resources are anticipated from improvements. This inventory would include intensive archeological visual assessment coupled with metal detector sweeps and subsurface testing across the entire project area. If impacts to cultural resources are anticipated from facilities proposed in the site

design, the NPS will make every effort to avoid those resources through a redesign of facilities in close coordination with the SHPO and associated tribes. If avoidance is not possible the NPS will prepare a mitigation plan and implementing MOA in close consultation with the SHPO, THPO's, and the ACHP to ensure the NPS mitigates and resolves any potential impacts prior to the start of the development.

#### *E. Impact Avoidance, Minimization and Mitigation Strategies for all Action Alternatives*

- 1) To reduce ground disturbance all new facilities will be designed to minimize subsurface impacts to the extent possible. This will include placing new ground disturbing structures in previously disturbed areas where possible, staying with above ground trail development, utilizing non-permanent picnic tables and trash receptacles, connecting to existing in-place utilities where available, limiting landscape plantings to disturbed areas only and incorporating existing vegetation in the new landscape design. In addition, all staging would occur in previously disturbed areas such as existing parking locations or those disturbed (or scheduled to be disturbed) by construction, access or parking.
- 2) Prior to any ground-disturbing activities, the NPS will establish a plan for archeological monitoring of all ground-disturbing site work, including vegetation clearing, topsoil removal, structure or utility excavation, staging area delineation and landscaping. Archeological monitoring will be conducted by an archeologist meeting the Secretary of Interior's professional qualifications for archeology (as detailed in 36 CFR Part 61) and will include visual monitoring of excavated materials, preparation of stratigraphic profiles of excavated cut banks, or hand excavation and screening of sediments to provide archeological and geological information as needed. Provisions will also be made to have representatives of the NPT, CTUIR, and CCT present during all onsite work at the battlefield.
- 3) An inadvertent discovery plan will be developed by the NPS through consultation and approval of the SHPO and THPO's prior to the commencement of any onsite work. If at any time during implementation of this project, a previously unidentified property or archeological resource is encountered, or the project is found to have unanticipated impacts to the battlefield, the NPS will ensure all work activities halt until the find can be properly assessed in accordance with 36 C.F.R. § 800.13. The NPS will also ensure the SHPO and tribes are contacted immediately.
- 4) The disposition of any artifacts and/or archeological samples identified during monitoring will be addressed in the approved inadvertent discovery and archeological monitoring plan prior to any onsite work.
- 5) If it is necessary to stop work due to discovery of unforeseen archeological resources, the contractor will cease all activities and take measures to protect the resources discovered as directed by the NPS.
- 6) In the event the discovery represents human remains or any objects subject to the Native American Graves Protection and Repatriation Act, the NPS will follow procedures outlined in 25 U.S.C. 3002 and 43 CFR 10.4-6.

#### *F. Cumulative Effects*

Archeological resources at Bear Paw Battlefield have been subjected to varying degrees of past disturbance from construction of roads and visitor use facilities, collection of artifacts prior to NPS ownership, vandalism, erosion and other natural and human processes. The alternatives analyzed here have been designed to limit subsurface

impacts where possible and mitigation measures will be incorporated to minimize potential impacts to cultural resources. Implementation of any of the action alternatives would not adversely contribute to impacts from other past, present, and reasonably foreseeable future actions at the battlefield. Therefore, no cumulative impacts to cultural resources are anticipated from the implementation of Alternative 2, 3, or 4.

### *G. Conclusion*

The actions proposed under Alternative 1 would have no additional effect on archeological resources. Those actions presented under Alternative 2 and 3 have been designed to limit potential impacts to archeological resources and mitigations measures have been developed and will be implemented through a MOA created in consultation with the SHPO and THPO's to ensure this occurs. Through these actions there should be no adverse effect on archaeological resources from Alternative 2 or 3.

Overall impacts to the battlefield are much greater under Alternative 4, though no archeological resources are currently known to exist in the proposed footprint of the facilities called for in this Alternative. Based on these findings adverse effects to archeological resources are not anticipated from Alternative 4. However, the potential for disturbance of unobserved, subsurface archeological resources cannot be completely ruled out for Alternative 4 and therefore if this Alternative is selected for action the NPS will conduct more intensive subsurface archeological excavations as discussed above. These actions will be undertaken prior to initiation of any onsite action. If currently unidentified resources are discovered and avoidance of those resources is not possible (as discussed above), the NPS (in consultation with the Montana SHPO, the NPT, the CTUIR, the CCT, the ACHP, and affiliated tribes) will prepare a mitigation plan and implementing MOA prior to the start of any development.

### **Ethnographic Resources and Sacred Sites**

As noted in the Impact Topics section above, the NPS defines ethnographic resources as any

*"...site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (DO-28: Cultural Resource Management Guideline, p. 181).*

Executive Order 13007, Indian Sacred Sites, defines a "sacred site" as any:

*"...specific, discrete, narrowly delineated location on federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion: provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site" (FR Vol. 61, No. 104, pp 26771-26772).*

Bear Paw Battlefield, and other sites within Nez Perce National Historical Park, have a long history of use by prehistoric, historic and contemporary Nez Perce, Cayuse, and

Palouse descendants. Prior to the battle of 1877, the Bear Paw site was well known to Native Americans as a place of available water and game. This is demonstrated through the presence of archeological resources on the lands surrounding the battlefield and the continued remembrances of the site and setting through the oral traditions of the tribes.

The Nez Perce people have had a long and continuing role in the preservation, maintenance and interpretation of the Bear Paw Battlefield through all of the previous site owners and managers. The site continues to be viewed as a spiritual and sacred place with deep religious and philosophical meaning; it is a place where descendants of the Native participants in 1877 mourn family members who fought, died and are buried there. The tribes view this site as a traditional cultural property and historic property of religious and cultural significance.

This religious and cultural significance is held within the tribes and is often manifested through individual tribal members in many different ways. For those who ascribe this cultural and religious significance to the site, the physical setting and natural processes all create a feeling of place and are a defining part of their personal, cultural and religious connection to the site. This collective feeling of sacredness is a defining characteristic of the property and is key to the site being considered a traditional cultural property by the Nez Perce people.

Other Native American tribes such as the Assiniboine and Gros Ventre of the Fort Belknap Reservation and the Chippewa-Cree of the Rocky Boy Reservation also have long standing cultural ties to the region. Native Americans, including Nez Perce descendants, routinely place offerings at various locations throughout the battlefield as an act of commemoration and remembrance.

Members of these tribes routinely and ceremonially visit the site individually and in groups to engage in memorials and other activities in remembrance of the people and events of the 1877 conflict. The site is also used formally for annual commemoration ceremonies by the Lapwai, Idaho, Veterans of Foreign Wars Post 10933, and for other individual or group ceremonial cultural gatherings.

#### *A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no additional effect on ethnographic resources including traditional cultural properties and historic properties of religious and cultural significance to Indian tribes or sacred sites as a result of the implementation of this Alternative. Existing adverse effects to visual resources from current site facilities impacting the cultural significance and sacredness of the battlefield would continue under this Alternative.

#### *B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

As discussed above, much of the cultural significance of the battlefield is manifested through the feeling of place. Through consultation with the SHPO and THPO's potential adverse effects to the viewshed, while reduced from those currently encountered, are still present under this Alternative. Visual resources are a primary component of the feeling of place associated with the battlefield and therefore adverse effects to the visual resources can have an associated effect on the cultural significance and sacredness of the site. The NPS, in consultation with the SHPO, THPO's and ACHP, will develop a

MOA outlining a process of phased consultation regarding implementation of facility design and placement associated with this alternative. The proposed MOA would call for SHPO/THPO review and comment at predetermined stages during the design process. These comments would then be incorporated into the NPS final design and fully executed prior to implementation of this alternative. Through implementation of the stipulations of the MOA, impacts to visual resources would be reduced from those currently present onsite and there would be no additional adverse effect on ethnographic resources including traditional cultural properties and historic properties of religious and cultural significance to Indian tribes or sacred sites. In addition, though this Alternative calls for revegetation of the upper parking area currently used for tribal commemorations, the location would continue to be available and easily accessible for ceremonial use in the same unrestricted manner as it has in the past.

#### *C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Impacts at the battlefield would be the same under this Alternative as those described for Alternative 2 above and would result in a reduction in the adverse visual effects of the present facilities. There would be no effect to ethnographic resources, including traditional cultural properties and historic properties of religious and cultural significance to Indian tribes or sacred sites, associated with the activities proposed for Chinook under this Alternative.

#### *D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

This Alternative calls for development of a visitor center/administrative complex on approximately 6 acres of land on the southern edge of the battlefield property. Creation of this new facility in a location where no development was located in the past, coupled with the potential impacts on significant site visual resources from the battlefield south toward the Bear's Paw Mountains, has the potential to adversely impact the integrity of the setting and feeling of the religious and cultural significance of the Bear Paw site.

Under this Alternative vehicle access to the location currently used for the traditional commemoration ceremony by the Nez Perce would be restricted as the existing site access into the upper parking area would be obliterated and revegetated. However, this location, as with the rest of the NPS owned battlefield property, would be open and available to opportunities for site commemoration and traditional use as desired, though vehicle access would be limited to the visitor center complex only. While pedestrian access to the entire NPS site for would be maintained under this Alternative, the potential exists for adverse effects to ethnographic resources including traditional cultural properties and historic properties of religious and cultural significance to Indian tribes or sacred sites through development of the new visitor center/administrative headquarters in previously undeveloped areas.

#### *E. Cumulative Effects*

No major development has occurred at the battlefield site aside from the existing visitor use facilities and adjacent private development of ranching/agricultural lands, so there have been few cumulative impacts on the site. Proposed improvements under Alternative 2 and 3 would cluster site facilities in the lower parking area while still

retaining easy access to the current location used for ceremonial practices. Alternative 4 would result in restriction of vehicle access to the current ceremonial use area, though continuing access to that location and the overall site for any traditional or ceremonial practices would remain undeterred. While the potential for direct impacts may exist in varying degrees with all the alternatives, there are no foreseeable cumulative impacts anticipated from any of the action alternatives.

#### *F. Conclusion*

The actions proposed under Alternative 1 would continue the on-going visual effects the existing facilities have on the cultural significance and sacredness of the battlefield. Alternative 2 or 3 would have an effect (reduced over the current facilities) and those effects can be mitigated through consultation with the SHPO and THPO's and implementation of the MOA discussed above.

Creation of the new visitor facilities called for in Alternative 4 has the potential to create an adverse effect on the integrity of setting and feeling of the traditional cultural property and historic property of religious and cultural significance to Indian tribes or sacred sites. Actions under Alternative 4 would also result in restriction of vehicle access to the current ceremonial use area, though continuing pedestrian access to that location and the overall site for any traditional or ceremonial practices would remain undeterred.

#### **Historic Structures**

Although there are no buildings associated with the events of 1877, there are historic features that still exist on the NPS property today. These features include entrenchments used by Nez Perce warriors (pits excavated as a means of temporary shelter during the battle), likely impact craters from the military cannon fire into the Nez Perce encampment area, areas excavated for shelter by the Nez Perce and the mass soldier's grave. All of these features (with the exception of the soldier's grave) are located in the northwestern portion of the battlefield along or near the snake creek drainage, near the site of the former Nez Perce encampment. The soldier's mass grave is located near the south-central part of the battlefield. All of these historic features are positioned well away from actions proposed in this EA.

Stacked rock features are also known to exist within the NPS site boundary as well as within the larger NHL boundary. The majority of these features were discovered in 1991 by researchers Anderson and English following a range fire (see Cultural Resources and Archeological Resources discussions above). Some of these features were also relocated by Doug Scott in 2000 during his archeological work. One stacked rock feature in particular was first identified by Anderson and English, noted by Scott in 2000, and also observed during the 2013 NPS archeological project. This feature is located adjacent, but not within, the proposed facility siting discussed in Alternative 4.

In addition to the historic battle related features, two historic monuments (as well as three non-historic monuments) are located on the battlefield. The two historic monuments include one dedicated to the Nez Perce placed by L. V. McWhorter and Nez Perce War veterans in 1928 and one placed by the DAR in 1929. The McWhorter monument is located near the center of the battlefield on a main ridge overlooking the Nez Perce encampment and will not be impacted by any of the alternatives in this EA.

The DAR monument is currently located on the northeastern edge of the upper parking area. The DAR monument was moved to this spot by the State of Montana when the current site facilities were constructed in the 1970s. This monument originally sat on a point overlooking the battlefield near the south-central portion of the site, immediately north of the soldier's grave. In addition, the base the DAR plaque currently sits on has been modified as well and only the plaque itself is original. The remaining three monuments (Noyes, Joseph/miles, and NHL) are all of relatively recent origin and were placed in their existing locations by the State of Montana to be near the relocated DAR monument.

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no additional impacts to historic structures through the implementation of Alternative 1.

*B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

Moving the DAR monument and the other three more recent monuments from the upper to the lower parking area, as proposed under this Alternative, would have no adverse effect on the integrity of the monuments, whose current location was chosen to accommodate the arrangement of visitor facilities at the site in the 1970s. The DAR monument was originally located on a knoll near the soldier's grave on the south-central portion of the battlefield. There would be no adverse effect on historic structures from implementation of this Alternative.

*C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

The onsite effects at the battlefield under Alternative 3 would be the same as those described for Alternative 2 above.

This Alternative also presents the option of either constructing a new building or remodeling/rehabilitation of an existing building for the establishment of a visitor information station/administrative headquarters in the city of Chinook. If an existing building is chosen for rehabilitation or remodeling, the NPS will insure an architectural historian performs an evaluation of the structure to determine the structure's potential eligibility for inclusion in the National Register of Historic Places. This evaluation will occur prior to the onset of any rehabilitation efforts. If the structure is determined to be a significant historic property, a rehabilitation plan will be developed in close consultation with the Montana SHPO and implemented through a MOA to insure all work conforms to the *Secretary of Interior's Standards for Rehabilitation* which provides guidelines for preserving, rehabilitating, restoring and reconstructing historic structures. With implementation of these measures, there should be no adverse effects to historic structures as a result of this Alternative.

*D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

As with Alternative 2 and 3, moving the DAR and the other three more recent monuments from their existing location to the visitor center/administrative complex would result in no adverse effect on historic structures.

### *E. Cumulative Effects*

No major development has occurred at the battlefield site aside from the existing visitor use facilities and adjacent private development of ranching/agricultural lands, so there have been few cumulative effects on the site. Proposed improvements under all three action alternatives would cluster site facilities in the lower parking area (Alternative 2 or 3) or place them near a new visitor center/administrative complex on the southern edge of the battlefield (Alternative 4). No cumulative impacts to historic structures are anticipated from any of the action alternatives.

### *G. Conclusion*

There would be no adverse effect on historic structures or features from the implementation of any of the alternatives described in this EA.

### **Viewsheds**

The Bear Paw Battlefield site still retains high levels of historic integrity and looks much the same as it did in 1877, some 139 years after the battle. The site was included on the National Register of Historic Places on October 6, 1970 and then in 1989 as a NHL (NPS 1986). The NHL boundary includes the location of the Nez Perce encampment, offensive and defensive positions, canon placements and the assault and siege positions of the U.S. Army covering a mix of public and private lands. The impacts of the battle can still be understood from the site's spatial organization, historic features (rifle pits and entrenchments), landscape patterns (draws, ridges, and depressions), natural systems and features as well as from its vegetation. This landscape coupled with documentation recorded by L.V. McWhorter in the late 1920s with surviving battle participants, serves to identify characteristics and features of the battlefield and link those to the memory of events that would otherwise have been lost or faded with time.

Together, the nearly unchanged topography of the landscape; the views beyond the battlefield south toward the Bear's Paw Mountains and north toward Canada; the low lying shrubby vegetation surrounding perennial Snake Creek; the rural atmosphere; the natural quiet and the natural darkness of the site combine to give the site a unique ambiance that allows park visitors to imagine the continuing significance of the events that occurred at the site with little intrusion from the modern world. While nobody can completely understand the feelings of the people who fought at Bear Paw, the unchanged character of the site does enable visitors to see what they saw, hear the natural sounds that would have been heard before and after the battle and begin to understand the impact of the events that occurred here.

Today, the character-defining features of the battlefield, including use of the natural terrain and how it was modified during the battle, are evident as pointed out by interpretive waysides along the battlefield loop trail. As noted in the NHL documentation (discussed in the Cultural Resource section above), the modern intrusions on battlefield viewsheds are "*low key*" when compared with other such places across the west.

However, even these *low key* developments can have a dramatic impact on the site viewsheds. When occupied with vehicles, the upper parking lot can be intrusive on views from the battlefield. This is especially true in the morning hours when sun reflecting off

glass and chrome vehicle surfaces causes distinct glare to visitors on much of the interpretive trail. In addition, the location and color of the existing vault toilet and picnic shelter in the lower parking area are plainly visible from nearly all places on the battlefield. While these views to the west/southwest from the Nez Perce encampment area and interpretive trails are already impacted to some degree by distant neighboring non-NPS development, the existing visitor use facilities quickly draw the eye to them and detract from the visitor experience.

Due to the general topography of the area and vegetation of the Bear Paw site and surrounding private agricultural lands, it is not possible to completely remove visitor contact facilities from site viewsheds, while still placing facilities close enough to the primary resource to provide the necessary visitor services. With that in mind, every attempt was made to select locations for visitor facilities (as detailed for Alternatives 2, 3 and 4) which represented the least potential impact on existing site viewsheds. As noted in the NHL documentation, the existing intrusions on the viewshed can be considered *low key* and a majority of those intrusions lie to the west/southwest of the battlefield site. Located to the immediate west/southwest of the lower parking area are Montana Secondary Highway 240, utility poles and wires, fences/corrals and private ranch buildings. These existing impacts on the viewsheds to the west/southwest located outside the NPS land ownership were taken into consideration when developing the action alternatives analyzed in this EA.

In an attempt to quantify the potential impacts to significant park visual resources from the existing site facilities and those proposed under the action alternatives, two visual impact studies were conducted. The first study was a Line of Sight Analysis and was performed with ESRI's GIS based ArcMap software package. This analysis focused on utilizing the LOSA function in ArcMap to calculate the visibility of potential visitor contact facility locations across the battlefield from key observer points along the site interpretive trail. There are some limitations to the LOSA methodology in that it doesn't easily allow for a determination of "how much" of a given point is visible, just whether it is visible or not. However, it was determined that utilization of this method would be an appropriate first step to help refine the alternatives, and guide other more detailed visual studies for the Bear Paw site

The LOSA analysis was conducted in two phases. The initial phase looked at six potential building site locations across the southern portion of the battlefield. This preliminary work was tasked with determining if other locations existed across the southern part of the battlefield (on NPS or adjacent private lands to the south) that were better suited to site a facility than what was currently identified through Alternative 4 in the EA presented here. The results of the LOSA were somewhat inconclusive; however, the study did indicate that impacts on battlefield views from any of the six different southern locations were going to be similar regardless of where the structure proposed in Alternative 4 was placed.

The second phase of the LOSA study focused on whether the facilities called for in each of the action alternatives were "visible" from the seven different observer points across the battlefield. Observer points are the locations from which impacts on visual resources were analyzed from. Selection of these points primarily focused on identification of locations from which key aspects of the battle story or interpretive message are tied to the views looking out from the battlefield across the landscape. Seven such sites were identified at different locations across the battlefield along the interpretive trail.

Accuracy of the LOSA is dependent on the resolution and accuracy of the DEM used and the size and location of the items being modeled. The available DEM for the Bear Paw Battlefield has a 10 meter resolution. While this resolution is adequate for some planning purposes, in topography such as that found at the battlefield, a resolution of 10 meters is not ideal. The LOSA graphic line is drawn from point to point via GIS based on the DEM grid itself, so the resolution and location of the DEM cells determines the resolution and location of the line of sight. No matter where the line crosses within a cell the value for that entire cell will be the same. So, with a resolution of ten meters you are assuming that there are no elevation changes in 100 square meters on the actual ground surface. To say it another way the "pixel" size is 10 x 10 x 10 meters (approximately 33 x 33 x 33 feet) resulting in a footprint on the ground of 100 square meters or 1,076 square feet and a "cube" shaped "pixel" of 1,000 cubic meters. Each of the "pixels" is assigned an averaged elevation and the computer assumes everything within that 10 x 10 x 10 meter square is the same height. With the subtle variability in topography common to the Bear Paw site, this level of resolution is simply too coarse and not accurate enough to allow for a detailed analysis of the facilities proposed for the potential building sites presented here.

The second visual resource analysis conducted was a photographic visual observation assessment. The photographic visual observation assessment was conducted to help refine the results of the LOSA study, and provide tangible visual evidence to better understand the scale and nature of impacts on battlefield visual resources from potential future facilities. This involved placing a temporary structure at each of the building sites where facilities were proposed for construction. Photographs were then taken from the same seven observation points utilized in the LOSA study toward the temporary structure.

The results of the visual observation study indicate that facilities proposed under Alternative 4 represent an all or nothing kind of scenario as far as visibility from the battlefield is concerned. From four out of the seven observer locations the observer would see nearly the entire building and associated infrastructure. There is no topographic relief or effective form of mitigation available to conceal the proposed facilities and their associated impacts on views from the battlefield toward the south. In addition, views from the battlefield south toward the Bear Paw Mountains are highly significant and are currently among some of the most pristine and unimpaired on the battlefield. The only existing intrusions on these visual resources are those associated with the NPS boundary fence and a few utility lines in the extreme distance.

This is in contrast to the results for the proposed facility locations identified for Alternative 2 and 3 which was 100% visible from only one location, 50% visible from another, and only barely visible from the third. It seems highly likely that with careful development and utilization of mitigation measures discussed in this EA, the location's "barely visible" finding can be mitigated and eliminated. This would reduce the locations from where the facilities proposed under Alternative 2 or 3 are visible to just two observation points. It is important to note the highest degrees of existing impact on views from the battlefield are already present to the west/southwest of the NPS site on private lands. This viewshed corridor (to the west/southwest from the battlefield and specifically from observation points where the facilities called for in Alternative 2 and 3 lie) already includes existing visual impacts from Montana Secondary Highway 240, privately owned ranch buildings, irrigated farm ground, utility lines/poles, fences and cattle operations.

Though these impacts are dispersed across the private lands to the west and southwest of the battlefield and somewhat low key, they are virtually all visible from these two observation points and impact the background views from the battlefield to an extent not present in views to the south, east, or north.

The results of the visual observation study also indicate the facilities proposed under Alternative 2 or 3 would be significantly less visible than the existing facilities they would replace. The existing facilities are visible to some extent from five of the seven observation points. With the exception of the soldier's grave location and the trailhead near the upper parking lot, the existing facilities can be seen from all the other points along the current interpretive trail. Facilities proposed for Alternative 2 or 3 would result in a significant reduction in impacts on views from the battlefield over those currently present, and they would be in the foreground of viewsheds to the southwest already impacted by agricultural developments.

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no change to viewsheds through the implementation of Alternative 1 and adverse effects to visual resources associated with the current visitor use facilities would remain unchanged.

*B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

There would be short-term visual impacts related to the construction of the facilities and rerouted accessible interpretive trail called for under this Alternative. These short-term adverse impacts would be present during the construction period only and considered negligible.

Most importantly, however, the proposed relocation of visitor facilities presented for Alternative 2 has been sited to reduce long-term impacts on existing battlefield viewsheds over those currently present by using the natural topography of the existing developed visitor use area. This Alternative also takes into consideration the current non-NPS infrastructure, roads and buildings located to the west/southwest of the battlefield and is focused on placing new facilities in areas where development already exists in the background of the site. While the new facilities proposed under this Alternative (visitor contact station and vault toilet) will be partially visible from some locations on the battlefield, their collective impact on the viewshed will be reduced over the current facilities described in Alternative 1.

Revegetation of the upper parking area and development of the new consolidated parking proposed for the lower parking area will remove visitor vehicles from the prominent upper parking area hill and reduce morning vehicle glare. Removal and revegetation of the existing vault toilet location, coupled with installation of a new toilet, colored to match the natural environment and moved to the northwestern edge of the lower parking area will reduce visual impacts associated with that facility. Removal of the picnic shelter and revegetation of the former building footprint will also be a beneficial impact on views from the key battlefield areas looking southwest. Together, removal and revegetation of the upper parking area, as well as relocating site visitor contact facilities, would result in a long-term, negligible to minor beneficial impact to viewsheds.

### *C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

The onsite impacts at the battlefield under Alternative 3 would be the same as those described for Alternative 2 above. This Alternative also proposes the construction or remodeling/rehabilitation of an existing building for the establishment of a visitor information station/administrative headquarters in the city of Chinook. No impacts to viewsheds are anticipated with the offsite facilities discussed under this Alternative.

### *D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

The same benefits of restoring the upper parking area and removing the restrooms, picnic shelter and parking areas from the viewshed would be realized in this Alternative as it is for Alternative 2 or 3. The removal of these features would result in a long-term, minor beneficial impact. In addition, similar short-term, negligible to minor adverse impacts to viewsheds, albeit at a larger scale, would be associated with the construction of facilities proposed under this Alternative.

In this Alternative the new visitor center would be constructed near the southern NPS boundary, to the south of the primary battlefield interpretive area. While it would not be located in an area directly involved in the 1877 conflict, it would still be located within the NPS boundary and in an area not currently developed. Unlike Alternative 2 or 3, the facilities called for in this Alternative would be visible from numerous locations on the battlefield. Also unlike those alternatives, this Alternative calls for siting a structure in a location where no development has existed previously and within a viewshed to the south that has very little to no infrastructure or buildings visible. These relatively pristine viewsheds from the battlefield looking south create strong visual connections between the Bear's Paw Mountains and the battlefield. Placing a new visitor center/administrative headquarters, and the accompanying infrastructure needed to support that facility, in a location on the battlefield where none has existed previously would create a direct, long-term, moderate to major adverse impact on battlefield viewsheds.

Mitigation measures would be utilized in the final building and site design to help minimize these impacts on viewsheds. However, it's likely that even with mitigation measures the new visitor facility proposed in Alternative 4 would still exhibit moderate to major, long-term adverse impacts on site viewsheds. While impacts of the buildings could be minimized to some extent through the utilization of landscape appropriate designs, non-reflective glass, natural colors and textures, the presence of the supporting infrastructure, visitor vehicles parking in the paved parking lot, paved access roads and utilities would all intrude upon character defining battlefield viewsheds to the south. These visual resources were important considerations in the NHL designation of the site. The infrastructure needed to support the facilities proposed in Alternative 4, would stand-out from the surrounding landscape and could no longer be considered *low key* as the existing site facilities are labeled in the NHL documentation for the battlefield.

### *E. Impact Avoidance, Minimization and Mitigation Strategies for all Action Alternatives*

Impacts of building construction on the landscape under Alternatives 2, 3 and 4 would be minimized to the extent possible by creating low profile structures of appropriate size, with natural colors and textures, the lack of exterior lighting (except Alternative 4 where it

would directed inward and downward), and locating new roads and trails along previously used/less visible topographic features.

#### *F. Cumulative Effects*

Little development has occurred in the vicinity of the battlefield over the last 135 years and because the site retains a great deal of integrity associated with the battle related landscape features, there have been few (negligible to minor) cumulative effects on area resources. The impacts that do exist are *low key* and associated primarily with views from the battlefield looking west/southwest resulting from Montana Secondary Highway 240, which creates the battlefield's western boundary, existing private ranch buildings and from the provision of existing visitor use facilities. Since the time of the NHL designation, there have been no additional site impacts except for the paving of Montana Secondary Highway 240. None of the action alternatives would contribute any additional cumulative impacts.

#### *G. Conclusion*

All action alternatives would result in short-term, localized impacts ranging from negligible (Alternative 2 or 3) to minor (Alternative 4) for construction related effects. Minor, long-term beneficial impacts on viewsheds would be realized from all action alternatives site revegetation proposals.

There would be no change in viewsheds associated with Alternative 1 as the existing site facilities would remain in place. As determined through consultation with the Montana SHPO and THPO's the presence of these facilities represent a continuing adverse effect on the character defining visual resources of the battlefield that would remain under this Alternative.

Implementation of Alternative 2 or 3 would result in an overall reduction in impacts to visual resources over those currently present. This would represent a long term, minor beneficial impact. However, as determined through consultation with the Montana SHPO, even though the impacts to visual resources are reduced over those currently associated with Alternative 1, they still could present an adverse effect on significant visual resources of the battlefield. To address those potential adverse effects the NPS will develop a MOA calling for a phased consultation process throughout the design, development and installation of the onsite facilities called for in Alternative 2 or 3. The successful implementation of the MOA will mitigate adverse effects on significant viewsheds at the battlefield.

As noted above, there will be beneficial impacts associated with site revegetation under Alternative 4. However, those beneficial impacts would be contrasted with long-term, moderate to major adverse impacts on visual resources associated with placing the visitor center, and associated infrastructure, within the prominent unimpeded viewshed to the south. These impacts would also create an adverse effect to the integrity of character defining visual resources contributing to the NHL status of the battlefield.

#### **IV. Federal Facility Energy Usage, Alternative Energy, and Environmental Sustainability**

The energy efficiency requirements for new federal buildings, and any federal buildings undergoing major renovation are established in 10 CFR Parts 433 and 435. This legislation sets standards requiring buildings be designed to reduce their energy consumption and requires that sustainable design principles be applied in the siting, design, and construction of federal buildings. This standard has been set to meet or exceed the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 90.1-2007. The rule also bars the expenditure of any federal funds for construction of new federal facilities unless the building meets or exceeds the applicable federal building energy standards established under section 305 of the Energy Conservation and Production Act (42 U.S.C. 6835(b)).

Currently none of the visitor use facilities located at the battlefield are connected to a power source, nor do they require energy for their operation. The existing NPS administrative offices and equipment storage areas are located in the city of Chinook in rented space. These facilities are connected to the city of Chinook utilities and rely on the existing power, water and sewer infrastructure.

Executive Order 13514, issued on October 5, 2009, states that “It is the policy of the United States that federal agencies shall...design, construct, maintain, and operate high performance sustainable buildings in sustainable locations, and strengthen the vitality and livability of the communities in which federal facilities are located.” This EO specifies that agencies should seek “location-efficient” sites giving “first consideration” to locating in “central business areas” and to emphasize such areas in “central cities” and in “rural town centers” to “strengthen the vitality and livability of the communities in which federal facilities are located.” The EO, and the 2011 implementing instructions, call for agencies to use existing resources by leveraging investment in existing infrastructure. The EO states: “Agencies should maximize the use of existing infrastructure and resources, wherever possible, by prioritizing areas that are currently well-served by water, sewer, and other relevant public infrastructure. This infrastructure represents significant local and federal investment for its construction and maintenance. Locations requiring additional state and local infrastructure investment to solely meet the federal need should be minimized....”

The EO, and implementing instructions, also specifies that agencies should “foster protection of the natural environment.” It goes on to discuss how agencies should “lead by example” through working to “preserve existing ecosystems” while also striving to “avoid development of green space” and should consider the impacts of placing federal facilities within existing natural resource functions or in locations that have the potential to “...disrupt efforts to restore or protect local ecosystems or natural resources.” They also stress that “wherever possible, agencies should strive to avoid development of agricultural and other previously undeveloped land.”

One hundred and fifty acres of the Bear Paw Battlefield (this includes the key battlefield locations like the soldier mass grave, Nez Perce encampment and primary zone of conflict) has been withdrawn from settlement since May of 1928. This was expanded slightly in 1965 and the 1989 NHL boundary includes that property plus an additional 785 acres of mixed private ownership. With these designations and through the caring

ownership of the surrounding private landowners, the battlefield area retains much of its historic integrity. Much of the vegetation within the NPS owned parcel is also in good condition and is considered a small representative fragment of native short-grass prairie. The relatively untouched landscape within the NPS parcel taken in context with the surrounding agricultural lands, makes this site environmentally significant as a remnant of the once large spread short-grass prairie ecosystem.

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no new impacts on federal facility energy usage, alternative energy, and environmental sustainability as a result of the implementation of Alternative 1 as no new federal facilities would be created under this Alternative.

*B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

There would be negligible impacts on federal facility energy usage, alternative energy, and environmental sustainability as a result of implementing Alternative 2. Structures in the lower parking area will be reconfigured to replace the existing vault toilets, to add the small visitor contact facility, to designate parking and to construct an accessible connector to the battlefield loop trail. All facility replacement at the site will be with structures designed to meet or exceed the new federal energy efficiency standards as discussed above. Power will be provided to the visitor contact station to support NPS staff use of the structure. This will result in a slight increase in energy usage over the long-term for the Bear Paw site, but this increase is deemed negligible.

Clustering of existing site facilities will reduce the overall footprint of visitor use facilities at the battlefield. New facilities proposed under this Alternative would be situated within the previously designated Development zone (as identified in the GMP) for the site in already developed areas. Implementation of this Alternative will be in keeping with the implementing instructions for EO 13514 and will result in no adverse impacts to environmental sustainability.

*C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Impacts under Alternative 3 would be the same as those under Alternative 2 at Bear Paw Battlefield. This Alternative also calls for the development of an approximately 2,500 sq. ft. information station/administrative headquarters in the city of Chinook. The NPS will design this facility to meet or exceed the revised federal energy efficiency requirements as stated in 10 CFR 433 and 435. This includes utilizing sustainable design principles and creating (or upgrading in the case of adaptive reuse of an existing structure) the building envelope, HVAC, lighting and other mechanical systems to maximize energy efficiency and minimize the carbon footprint. Energy star rated systems and appliances will be utilized throughout the structure to insure maximum structural efficiency. The NPS will also explore possibilities for alternative energy equipment like solar power generation or water heating devices in the new Chinook structure.

In total, the facilities called for by Alternative 3 would be designed to meet or exceed the federal facility energy usage requirements. Clustering of visitor contact facilities at the battlefield within the designated Development zone would result in only limited disturbance of undeveloped grounds and allow restoration of previously disturbed areas.

The new facilities proposed for Chinook would be designed to take full advantage of all available energy efficiency measures and would likely result in overall NPS energy usage for the Bear Paw Battlefield operation being the same or possibly even reduced over current usage levels. Implementation of this Alternative will likely result in negligible, long-term impacts on energy usage and alternative energy, and no adverse impacts to environmental sustainability.

*D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

Alternative 4 calls for the creation of a visitor center/administrative complex on the southern edge of the NPS property at the Bear Paw Battlefield. This would result in removal of all existing visitor contact facilities at the site and closing and relocation of the NPS offices in Chinook to the battlefield. The new facility would be placed on approximately 6 acres of land located near the southern boundary of the NPS property. The new facility would be designed to meet or exceed the federal energy efficiency requirements discussed above and take full advantage of all energy saving measures currently available.

Sustainable design principles will guide the development of the visitor center/administrative complex. The building envelope, HVAC, lighting and other mechanical systems will be designed to maximize energy efficiency and minimize the carbon footprint. The installation of solar panels and high-efficiency restroom fixtures will be explored to offset energy use and increase water conservation. However, location of this facility away from the utility infrastructure of an existing city will require the NPS to drill and maintain a well, water pumps, septic systems and water treatment facilities. These mechanical systems will require energy to operate and maintain.

The siting of this building within the battlefield, and within the larger NHL boundary, will result in the direct disturbance of around 1.5 acres of previously undisturbed ground. The approximately 6 acre operation will include the visitor center structure, parking lot, access road, sidewalks and any adjacent areas disturbed through utility infrastructure installation. With the exception of the developed areas currently utilized for visitor contact purposes at the battlefield (the upper and lower parking areas), all the remaining NPS owned property at the battlefield fits the definition of “undeveloped” land as described in the implementing instructions for EO 13514. In addition, nearly all of the surrounding lands within larger NHL boundary can be considered “agricultural” land as described in the implementing instructions for EO 13514.

Implementation of Alternative 4 would likely result in the overall energy usage for NPS operations at the Bear Paw Battlefield being equal or slightly increased over current usage levels. Development of this new facility within previously undisturbed lands would not be in keeping with the guidance provided in the implementing instructions for EO 13514 as agencies are directed to “avoid development of green space” and “wherever possible, agencies should strive to avoid development of agricultural and other previously undeveloped land.” Alternative 4 would result in negligible, long-term adverse impacts on energy usage and localized, minor to moderate, long-term adverse impacts to environmental sustainability.

### *E. Cumulative Effects*

The Bear Paw Battlefield was withdrawn from settlement in the late 1920's so very few changes have occurred at the site itself leaving much of the area undeveloped. The lands surrounding the battlefield are used for agriculture and ranching and also have not changed much over time. None of the current visitor use facilities at the battlefield require power for operation. Through the use of energy saving designs, all new facilities proposed under any of the action alternatives will comply with all applicable federal energy conservation guidelines. The actions proposed under any of the alternatives in this EA will have negligible cumulative impacts on overall energy usage for Nez Perce National Historical Park. No cumulative impacts for environmental sustainability are anticipated.

### *F. Conclusion*

There would be no change in federal facility energy usage, alternative energy, and environmental sustainability from Alternative 1. There would be negligible, localized long-term impacts to energy usage in Alternative 2 and no impacts anticipated to environmental sustainability. Alternative 3 would also result in negligible, localized long-term impacts to energy usage and no impacts anticipated to environmental sustainability. Alternative 4 would result in negligible, long-term impacts on energy usage and minor to moderate, long-term adverse impacts to environmental sustainability.

## **V. Geology/Soils**

Bear Paw Battlefield lies on a former glaciated plain created during several periods of late Wisconsin glaciations. The landscape of gently rolling hills is bisected from the southwest to the north by Snake Creek, a tributary of the Milk River. There are twelve mapped soils present at the site consisting of loams and clay loams. The three soils that may be impacted through implementation of any of the action alternatives include the Bear Paw-Vida Clay Loam, the Farnuf Loam and the Zahill-Vida Clay Loam. The Bear Paw-Vida Clay Loam soil is deep and relatively well-drained though water permeability can be slow, especially when compacted. This soil is commonly found on the hill tops of the upper parking area and near the southern edge of the site where the facility proposed in Alternative 4 would be located. This soil is classified as a moderate hazard for wind and water erosion. The soils located in the lower parking area include the Farnuf Loam and Zahill-Vida Clay Loam. The Farnuf Loam is the dominant soil type found on the flat areas of the lower parking area. These soils are deep and well drained with moderate permeability. The Farnuf Loam can be subject to wind and water erosion when vegetative cover is removed. The last soil present in the project area is the Zahill-Vida Clay Loam. This soil is found on hillsides and slopes of 15 to 35% like that found between the upper and lower parking areas at the site. This soil is deep and well drained, though it has slow permeability and moderate to rapid runoff potential. If unvegetated, this soil can be a severe hazard for water erosion and a moderate hazard for wind erosion (NPS 2002:81-83).

### *A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no additional impacts on soils from implementation of this Alternative.

## *B. General Impacts of Alternatives 2-4*

The following specific actions called for by Alternatives 2, 3 and 4 in this EA would affect soils (unless noted all activities would take place at the battlefield site):

- 1) Construction staging (Alternatives 2-4) (Alternative 3 also in Chinook);
- 2) Excavation for building foundations (Alternative 4 and possibly Alternative 3 in Chinook);
- 3) Relocation of the monuments from upper parking area (Alternatives 2-4);
- 4) Revegetation of the upper parking area (Alternatives 2-4);
- 5) Construction and placement of subsurface utility lines (power and phone service in Alternatives 2-4 and well, water service, sewer and water storage tank trenches in Alternative 4).
- 6) Revegetation and landscaping (Alternatives 2-4) (Alternative 3 also in Chinook);
- 7) Placement of a vault toilet (Alternative 2 and 3);
- 8) Construction of accessible connector trail from the lower parking area (Alternative 2 and 3);
- 9) Construction of an access road, parking area, visitor center, well, water treatment system, and septic system (Alternative 4);
- 10) Construction of accessible trail linkage (Alternative 4); and
- 11) Revegetation of the lower parking area (Alternative 4).

All action alternatives would include impacts to soils (Table 2). In Alternative 2 and 4, these would occur at the battlefield (albeit in different locations and at different scales).

In Alternative 3, these would occur at the battlefield and potentially in Chinook. Soils would be affected wherever grading, excavation and/or fill is called for. Varying scales of grading and excavation including that needed for building locations, parking areas, utility lines, walkways, landscaping, and for effective drainage would occur in Alternatives 2-4. During these activities, soils would be mixed, moved, and replaced throughout the project areas, causing a negligible to moderate, localized but long-term adverse impact to the area's soil profiles in the project areas. The greatest degree of impact to soils would occur in areas not previously disturbed by grading or construction in the past (such as the new visitor center site proposed in Alternative 4). The extent of the affected area has been estimated above for each of the alternatives (Table 2) and discussed in more detail below. Impacts associated with impervious surfacing would constitute approximately half of each extent (including the buildings, associated parking and circulation) of Alternative 4 and would result in a minor, localized, long-term adverse impact. Short-term adverse impacts for all action alternatives would be localized to the construction sites, but would be temporary in nature, lasting only through the rehabilitation/landscaping phase of the projects while soil was excavated, stored and then placed and revegetated.

Table 2. Estimated impacts on soils at the battlefield from action alternatives

Facility	Alternative 2 and 3		Alternative 4	
	Volume of Disturbance	Nature/Type of Disturbance	Volume of Disturbance	Nature/Type of Disturbance
Contact Facilities	0	Placed on gravel pad.	350 cu. yards.	Subsurface excavation required for footings.
Access Road	0	Existing access road will be used.	est. 200 cu. yards.	Most of the excavation will occur on the western end of near the existing highway.
Parking Area	0	Existing mowed overflow parking will be graveled.	est. 150-300 cu. yards.	Excavation depends upon grade of visitor center.
Connector Trail	0	Existing topography allows for above ground trail construction.	0	Existing topography allows for above ground trail construction.
Well/Water Treatment	NA	No potable water provided at site.	est. 960 cu. yards.	The volume of disturbance is if cistern is placed outside footprint of parking area. If placed under developed space disturbance can be reduced 50-90%.
Septic System	NA	No septic system will be required.	30 cu. yards	Septic system will be installed to service the visitor center.
Vault Toilet	16 cu. yards.	Installation of the vault toilet will require excavation of an approximately 5 x 6 x 14 foot hole for placement of the vault.	NA	Flush toilets provided in visitor center building.
Utilities	est. 2-5 cu. yards.	Vibrating cable plow will be used for both phone and power lines. Holes will need to be excavated at both connection points (existing lines and contact structure).	est. 5-100 cu. yards.	Vibrating cable plow will be used for both phone and power lines. Holes dug at both connection points (existing lines and visitor center). Subsurface water lines will be installed from well to water treatment facility and visitor center.
Revegetation	0	This entails removing the gravel and then seeding. The footprint of the old vault toilet and picnic shelter would also be seeded. Total area reseeded is approximately 1.25 acres.	0	This entails removing gravel and then seeding for both the upper and lower parking area facilities and site entrance. Total area reseeded is approximately 1.75 acres.
Monument Relocation	est. 0-2 cu. yards.	The monuments and waysides currently located in the upper parking lot will be relocated to the lower and placed by the visitor contact station.	est. 0-2 cu. yards.	The monuments and waysides currently located in the upper parking lot will be relocated to the new visitor center location.
Total disturbance	Max=23 cu. yards or 18 cu. meters Min=18 cu. yards or 14 cu. meters		Max=1,942 cu. yards or 1,485 cu. meters Min=831 cu. yards or 635 cu. meters	

C. *Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

- 1) Visitor Contact Station: Installation of the 200 square foot visitor contact station would not require subsurface excavation. The building would be a prefabricated structure designed to be self-contained and placed entirely above ground on a prepared and compacted aggregate pad. Approximately 12 cubic yards of compactable fill and aggregate would be imported to the site to be placed around the new structure for grading purposes and to facilitate accessibility to the building.
- 2) Vault Toilets: Installation of the 100 square foot prefabricated concrete vault toilet facility would require the excavation of approximately 16 cubic yards of soil and the importation of another 10 cubic yards of compactable fill or finely sorted aggregate to place around the exterior for finish grading of the structure. The existing concrete vault toilets would be removed and the soils excavated during placement of the new toilets used to fill the former toilet location. Revegetation of the old vault toilet site with locally derived native plants would also occur.
- 3) Monument Relocation: Minimal soil would be affected by the relocation of the monuments to the lower parking area – approximately 2 cubic yards.
- 4) Accessible Trail: Construction of the approximately 750 foot long accessible trail link to the battlefield loop trail would not result in soil disturbance as the proposed trail will follow the existing topography of the site and be built entirely above ground. To ensure accessibility in all appropriate seasons, this section of trail would be surfaced with compactable decomposed granite or another finely sorted aggregate surface.
- 5) Picnic Shelter: The existing picnic shelter would be removed and the area revegetated. No new picnic shelter would be provided under this alternative. Restoration of the existing picnic shelter footprint after removal will result in minimal if any soil disturbance and only limited to the top couple inches.
- 6) Upper Parking Area: The clustering of facilities and relocation of the monuments to the lower parking area would allow for revegetation of the upper parking area. This would include removal of all existing gravel via grading until bare soil is reached. Once the gravel has been removed, those areas would be planted with a locally derived native grass and forbs mix. This activity should result in disturbance to only the upper few inches of soil in the previously compacted and disturbed road and parking areas of the upper parking lot.
- 7) Utilities: Construction of subsurface utility lines for power and phone access would also occur. Access would be from Montana Secondary Highway 240 to the proposed visitor contact station, a distance of approximately 200 feet. These utilities would be installed via a tractor mounted vibrating cable plow resulting in minimal ground disturbance.
- 8) Lower Parking Area: The existing lower loop parking area would be used as it is currently configured under this Alternative. The only modifications to this parking area would be the delineation of the parking locations on the western edge of the loop near the new visitor contact station and new vault toilet location. The parking area and access road would be surfaced with crushed aggregate as they currently are.

Impacts associated with the implementation of Alternative 2 would be considered negligible and short-term. Long-term, negligible beneficial impacts would also result from

the revegetation of the upper parking area and stabilization of those soils through planting of locally-derived native species.

*D. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Impacts at the battlefield under Alternative 3 would be the same as those in Alternative 2 (negligible, short-term adverse impacts from construction related activities and negligible, long-term beneficial impacts from revegetation). Additional impacts from the construction and/or remodeling of a visitor information station/administrative headquarters facility in Chinook would be short-term and negligible.

- 1) Visitor Information Station/Administrative Headquarters in Chinook: The approximately 2,500 square foot visitor information facility in Chinook, if constructed as a new building, would require the excavation of approximately 200 cubic yards of soil. In addition to the excavation for the building itself, there may be some excavation associated with a 1,650 square foot off-street parking area and the 300 square foot outdoor exhibit space (approximately 30-70 cubic yards depending upon the site).

Although remodeling or rehabilitating of an existing facility would likely not require foundation excavation, it would require construction of the outdoor exhibit space component. However, the anticipated soil disturbance associated with these exhibits would depend upon the final design and the characteristics of the existing structure/site and would likely be negligible.

In either case (new construction or remodeling/rehabilitation of an existing structure), impacts to soils in Chinook would be negligible and short-term.

*E. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

- 1) Visitor Center: Construction of the 3,100 square foot visitor center/administrative complex would require the excavation of approximately 350 cubic yards of soil which would be reused around the site as needed for bringing the site to grade for landscaping and development purposes around buildings, utility trenches and parking areas.
- 2) Access Road: Construction of the approximately .25 mile long access road and parking area would require the excavation of approximately 200 cubic yards of soil and the placement of road base requiring approximately 500 cubic yards of compactable aggregate. After placement of compacted aggregate to level and prepare the road surface, it would be paved with new asphalt pavement. As appropriate, pavement markings would be applied to the surface of the two lane road and road signs would be added. A series of culverts would be installed to facilitate drainage as needed.
- 3) Parking area: Construction of the 11,000 sq. foot parking area would require the excavation of approximately 150 to 300 cubic yards of soil and the placement of at least 500 cubic yards of crushed aggregate. After placement of aggregate, the parking area would be paved with new asphalt pavement. As appropriate, pavement markings would be applied to the surface of the parking area and curbs added to facilitate proper drainage and parking lane delineation.

- 4) Connector Trail: Construction of the approximately 800 foot long accessible trail link to the battlefield loop trail would not result in soil disturbance as the proposed trail will follow the existing topography of the site and be built entirely above ground. To ensure accessibility in all appropriate seasons, this section of trail would be surfaced with compactable decomposed granite or another finely sorted aggregate surface placed on a filter fabric laid directly on the ground surface.
- 5) Well / Water Treatment System: Development of the water treatment system would require construction of a small water treatment building (approximately 150 square feet) and a 65,000 gallon water storage tank to meet the demands of the visitor center/administrative headquarters structure and to provide for adequate structural fire protection. If developed outside the footprint of the proposed structures and facilities, this cistern would result in the disturbance of approximately 960 cubic yards of soil. However, every attempt would be made during design and construction to place the storage tank in the footprint of the parking area and/or other site developments thereby reducing the additional soil disturbance by 50 to 90 percent.
- 6) Septic System: Construction of the septic system would displace approximately 30 cubic yards of soil, including the importation of 5 to 10 cubic yards of sorted aggregate to meet requirements for drainage.
- 7) Upper and Lower Parking Area Revegetation: Because all battlefield visitor use facilities would be located south of the current parking areas both the upper and lower parking areas would be revegetated with native species. This would include removal of all existing gravel via grading until bare soil is reached. Once the gravel has been removed, those areas would be seeded with a locally derived native grass and forbs mix. This activity should result in disturbance to only the upper few inches of soil, if that, in the previously compacted and disturbed road and parking areas of the upper and lower parking areas.
- 8) Monument Relocation: Minimal soil would be affected by the relocation of the monuments to the lower parking area – approximately 2 cubic yards.
- 9) Utilities: Construction of utility line trenches for power, water and phone access would also occur along the same route as the new access road. Access for the phone and power would be from Montana Secondary Highway 240 to the new visitor center/administrative complex with additional lines feeding from the visitor center to the other systems and site developments as needed, a total distance of approximately 1600 feet of utility trenches. Access for the water lines would be from the proposed well and water storage tank to the visitor center/administrative facility with an estimated distance of approximately 500 feet. Where applicable, a tractor mounted vibrating cable plow will be utilized to minimize soil disturbance for utility installation. Anticipated soil disturbance would vary from 0 to 100 cubic yards depending upon the effectiveness and applicability of the cable plow system but will likely be around 5 to 10 cubic yards.

Impacts to soils under this Alternative would be more extensive than those anticipated for other alternatives with minor to moderate, short-term adverse impacts on soils and soil properties expected as a result of the construction of a much larger facility and the needed support infrastructure. In addition, a negligible to minor, long-term beneficial impact would be expected from revegetation of the upper and lower parking areas.

#### *F. Impact Avoidance, Minimization and Mitigation Strategies for Action Alternatives*

- 1) Locating staging areas in locations that will minimize new disturbance of soils and vegetation or in areas proposed for subsequent construction;
- 2) Minimizing ground disturbance to the extent possible;
- 3) Using mats or plywood to minimize construction related soil compaction impacts in sensitive areas;
- 4) Salvaging topsoil from excavated areas for use in recovering source area or proposed revegetation areas;
- 5) Storing conserved topsoil in a separate location (segregated from subsoil);
- 6) Windrowing stored topsoil at a height that will preserve soil microorganisms and limit wind erosion;
- 7) Reusing (rather than removing from the project area) excavated materials for use in constructing landscaping or in bringing areas to grade;
- 8) Revegetating disturbed areas with locally derived, native species utilizing a site specific mix and species composition;
- 9) Importing weed-free specified clean fill and/or aggregate to facilitate revegetation and construction efforts; and
- 10) Insuring that all erosion control devices installed during construction will be left in place until such time that the revegetation projects have been completed and are stabilized.

#### *G. Cumulative Effects*

Over time, localized impacts to soils have occurred within the parking and trail areas at Bear Paw Battlefield. These impacts have primarily been a result of visitor use and past pre-NPS construction activities and have resulted in soils that have been moved, mixed, replaced and compacted to varying degrees. Additional soil loss has also occurred through natural processes and through development, including purposeful removal associated with construction and where vegetation has been removed or lost. When combined and compared to the extensive rural agricultural landscape comprising the park and surrounding area and taken in context with any foreseeable future projects in the area, these impacts would be considered negligible. Proposed impacts as a result of project activities, or from other proposed activities at the site and vicinity, would contribute additional localized negligible (Alternative 2 or 3) or minor (Alternative 4) cumulative incremental impacts.

#### *H. Conclusions*

Alternative 1 would have no additional impacts on soils or soil properties. Alternative 2 would result in negligible, short-term adverse impacts from construction and negligible, localized, long-term beneficial impacts from revegetation of the upper parking area on soils and soil properties. Alternative 3 would have the same impacts as Alternative 2 at the battlefield plus additional negligible adverse impacts on soils and soil properties in Chinook. Alternative 4 would result in more extensive, minor to moderate short-term impacts on soils and soil properties as a result of the construction of a much larger facility and the needed support infrastructure. Alternative 4 would also have negligible to minor, localized, long-term beneficial impacts on soils from revegetation of the upper and lower parking areas.

## VI. Land Use

Public Law 450 (May 21, 1928) withdrew 150 acres from settlement under the Homestead Act for preservation of the historic site of the Battle of Bear's Paw. In 1959, the BLM, the agency who managed the land at that time, began leasing the area to the Montana Highway Commission as the Chief Joseph's Battleground of the Bear's Paw State Monument. By 1965, the site was transferred to the Montana Department of Fish, Wildlife and Parks and an additional 40 acres of property was donated to the State of Montana by a private landowner. The area was designated a NHL in 1989 and added to Nez Perce National Historical Park in 1992 through Public Law 102-576. The NPS began leasing what was then state land from the Montana Department of Fish, Wildlife and Parks to "*facilitate establishment, development, administration, and public use of the Bear's Paw Battleground unit of Nez Perce National Historical Park*" (NPS 2001:5).

In 1997, the NPS finalized the GMP for Nez Perce National Historical Park and Big Hole National Battlefield. This document includes management actions and issues for each of the 38 park sites. Included in this site-by-site analysis was the delineation of management zones at each of the sites directly maintained by the NPS. For Bear Paw Battlefield, Historic and Development zones were identified for the site and the allowed uses detailed for each zone. Located in the Historic zone are the actual battle related features and troop movement areas on the battlefield. The primary focus of this zone is to support protection and preservation of significant cultural and natural resources of the site. The Development zone includes the upper and lower parking areas and associated visitor use facilities. The purpose of the Development zone is to designate a location suitable for all current and future park facilities and developments.

In spring 2005, the NPS acquired the battlefield from the Montana Department of Fish, Wildlife and Parks. Besides the NPS ownership, the battlefield is surrounded by private lands with a long history of agricultural uses including livestock grazing and management, farming, and some limited petroleum/gas exploration activities. Since the site was reserved a few decades after the battle, and withdrawn from settlement under the Homestead Act, the site retains much of its original vegetation, despite being surrounded on all sides by agricultural lands. The few structures existing on surrounding private property include typical ranch and agricultural buildings, and single family farm-based dwellings. Taken as a whole, the open and rural nature of the surrounding land contributes to the site's ambiance and similarity to the viewshed in 1877.

The city of Chinook generally consists of a central commercial district surrounded by residential areas (primarily single family dwellings). Clustered along US Highway 2 are areas of mixed commercial (primarily traveler's amenities) and light industrial uses. Also located along Highway 2 is a large fairgrounds/arena. Current NPS leased administrative offices are located on the eastern edge of the commercial district, across from City Hall and near a USDA office facility.

The potential impacts from each Alternative to surrounding non-NPS lands at the battlefield or in the city of Chinook were analyzed through consideration of traditional and current uses of surrounding lands and compatibility of actions with anticipated vehicular traffic. Also reviewed were potential conflicts with continued agricultural, resource extraction, commercial or residential use, and impacts to current "open spaces" or architectural settings.

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no additional impacts to land use of NPS or surrounding lands resulting from the implementation of this Alternative.

*B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

Impacts under this Alternative would be limited to the GMP designated Development zone for Bear Paw Battlefield. The existing visitor facilities would be consolidated and the lower parking area reconfigured to include a vault toilet plus a visitor contact station. This rearrangement and the addition of a visitor contact station would result in a localized, negligible adverse impact on land use by developing a very small amount of existing open space for the new facilities, even though they would be contained within the existing Development zone. The previous disturbance of the upper parking area (approximately 1.25 of the five acre area) would be revegetated using native species, a negligible to minor beneficial impact. This Alternative would have no additional impact to use of lands surrounding the battlefield site or within the city of Chinook.

*C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Actions at the battlefield under Alternative 3 would be identical to those described in Alternative 2 above. Therefore, the impacts would be the same, constituting a negligible adverse impact on land use because of facility rearrangement and negligible to minor beneficial impacts from revegetation of the upper parking area. As with Alternative 2, this Alternative would have no additional impact on continued traditional use of lands surrounding the battlefield.

Under this Alternative the NPS would pursue the acquisition or leasing of land in Chinook to construct or adaptively reuse building space for a modest, occasionally unattended visitor information station/administrative headquarters. Depending upon the location of the property, some minor zoning changes or construction permits may be needed to accommodate the structure, structural changes and parking.

Adaptive reuse of an existing structure or new construction in commercial areas of Chinook would have a short-term, localized, negligible to minor adverse impact on surrounding land uses during the period of construction. Prior planning for contractor parking, storage and handling of construction materials, and periods of work would help mitigate these impacts to negligible. The same construction related actions within a light industrial area would have a no to negligible, short-term adverse impact during the same period. A long-term, beneficial minor impact would result from the establishment of the centralized NPS information station/administrative headquarters within the commercial or light industrial use areas of Chinook.

*D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

Impacts under Alternative 4 would include development of areas outside the Development zone and within the Historic zone through the creation of a new full-service visitor center/administrative complex with accompanying water and wastewater treatment facilities and other utilities, a new paved access road and parking, and

realignment of trails on approximately six acres. Construction of the visitor center/administrative headquarters and the needed support infrastructure in a location previously zoned Historic where no structures currently exist, would result in a moderate, long-term adverse impact to land use at Bear Paw Battlefield. However, the removal of existing facilities from the upper and lower parking area would also result in the revegetation of approximately 1.75 acres of now developed space, a long-term, minor beneficial impact.

In addition to the impacts on NPS lands, short-term, negligible adverse impacts to uses of surrounding lands would result from construction of the visitor facility and associated infrastructure under this Alternative. Most of these impacts would be associated with the increased construction-related traffic to the site and the operation of machinery during the construction period. Implementation of Alternative 4 could also result in the potential for adverse impacts on the traditional agricultural uses of surrounding lands. Anticipated conflicts between livestock, agricultural equipment, and product movement on Montana Secondary Highway 240 and the year-round need for visitor/staff traffic flow to the new facility at the battlefield would be present. However, over the long-term these seasonal impacts would be negligible once the visitation levels stabilized.

#### *E. Cumulative Effects for Land Use*

The Bear Paw Battlefield site's significance was recognized soon after the events that occurred there and the area was withdrawn from settlement, resulting in few changes to land use on the battlefield over time. The greatest impacts have resulted from the conversion of surrounding lands from native prairie to agricultural and ranching uses. Some minor topographical modifications have been made on these lands through road, home, and agricultural developments. Nonetheless, the battlefield retains a high degree of historic integrity and the impacts on surrounding lands have primarily been a vegetative rather than topographic change. When added to the impacts of previous changes in the vicinity of the battlefield site and any foreseeable future actions, the actions proposed under Alternative 1 contribute no additional cumulative impacts. Actions proposed under Alternatives 2 and 3 would add negligible cumulative impacts to land use by relocating the site facilities even though the number of structures onsite would remain at two. Alternative 4 would add moderate cumulative impacts through the planned addition of a comparatively larger building and associated infrastructure where none previously existed, and a needed change in the long-term zoning from Historic to Development for the area encompassing the visitor center/administrative complex.

#### *F. Conclusion*

Alternative 1 would have no additional impacts on land use on either NPS lands or surrounding properties. Alternative 2 or 3 would have negligible adverse and negligible to minor beneficial impacts on land use at Bear Paw Battlefield and no impact on continued use of lands surrounding the battlefield. The impacts in Alternative 3 would also be combined with additional short-term, negligible adverse and minor, long-term beneficial impacts on land use in Chinook depending upon the location and/or structure chosen for the visitor information station/administrative headquarters site. Alternative 4 would result in long-term, moderate adverse impacts and minor, long-term beneficial impacts on land use at Bear Paw Battlefield and the surrounding lands.

## VII. Park Operations

The NPS currently has a budget and workload sufficient to maintain a staff of around 1.5 FTE at the Bear Paw Battlefield site. This includes one permanent career seasonal Park Ranger and one seasonal Park Ranger. These individuals are supervised by the Montana Unit Manager of Nez Perce National Historical Park who is also the site manager at Big Hole National Battlefield. All personnel and administrative functions are administered through Big Hole National Battlefield.

The Bear Paw Battlefield staff has primary responsibility for all visitor interpretation and education at the site. This includes working with local school groups to coordinate site visits, conducting onsite interpretive talks, and working with local community members and groups to facilitate battlefield education. Battlefield staff are also responsible for all routine and day-to-day site maintenance and resource management functions. This includes cleaning restrooms, emptying trash receptacles, mowing paths, monitoring resources and other routine caretaking tasks. Any major repairs, maintenance work or resource management issues are either performed by NPS staff from Big Hole National Battlefield in Wisdom, Montana, from Nez Perce National Historical Park headquarters in Spalding, Idaho, or through contracts with local providers.

### *A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no additional site caretaking or maintenance as a result of the implementation of this Alternative.

### *B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

This Alternative would be very similar to Alternative 1 with respect to impacts on park operations. It would, however, result in some increased efficiency over the existing park operations because some seasonally needed day-to-day maintenance supplies could be stored at the battlefield site. In addition, staff would be available to visitors in the contact station instead of confined to their vehicles while awaiting visitors in inclement weather. The presence of a small visitor contact station onsite would also enhance visitors' ability to locate the Park Ranger and the ability of that individual to offer resources such as additional maps or information to the visitor. Like Alternative 1, this Alternative would also include continued NPS funding support of the Blaine County Museum and those visitors who stopped at the Museum would tend to get much of their overview of the events from the multimedia presentation shown there. Also as with Alternative 1, administrative operations and most maintenance equipment storage for the site would continue to remain in Chinook.

Taken as a whole, Alternative 2 would result in long-term, minor beneficial impacts on park operations from the addition of staff shelter and enhancement of visitor facilities at the battlefield.

### *C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

In this Alternative, visitor facilities would continue to be divided between Chinook and the battlefield, with enhanced visitor services at both sites. With consolidated maintenance storage, administrative operations and a visitor information station in Chinook, there

would be a small degree of savings associated with travel time to the battlefield with a minor increase in maintenance and caretaking responsibilities. Overall, there would be an increase of approximately 1000 square feet to maintain over Alternative 2 but that space would be in one building as opposed to two separate structures located in different parts of Chinook. Despite the larger consolidated facility in Chinook, there would be a continued need to transport maintenance equipment to the battlefield as described in Alternative 2.

The outdoor exhibit portion of the visitor information station in Chinook could operate as a self-service facility with the rest of the structure secured when the NPS staff was at the battlefield. Therefore, only a slight increase (.5 FTE) in staffing over the current 1.5 FTE of base operational funding would be required under this Alternative. With the continuing responsibility for maintaining two slightly larger NPS bases of operation, there would be a long-term, negligible to minor adverse impact on park operations under this Alternative. These impacts would be contrasted with a long-term, minor to moderate beneficial impact from consolidating all NPS administrative and maintenance functions in Chinook and from the addition of shelter and enhancement of visitor facilities at the battlefield.

#### *D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

With all visitor, administrative and maintenance storage facilities concentrated in one building under this Alternative, there would be a long-term, minor to moderate beneficial impact on park operations. This Alternative, however, would also require the construction of site specific water and septic treatment systems. These systems would be stand-alone NPS maintained operations requiring specialized staffing with water treatment qualifications to operate and maintain them to state, local and federal standards. In addition, because the facility would be open year-round it would require snow removal to provide access from Montana Secondary Highway 240 to, and throughout, the park facility. To operate and maintain visitor facilities under this Alternative, 3 to 4 FTE would be required. A significant increase in base operational funding to cover these basic facility operation and maintenance requirements would be needed under this Alternative whether conducted by NPS staff or via contract. This would result in a long-term, moderate to major adverse impact on park operations.

#### *E. Cumulative Effects*

Alternatives 1, 2 and 3 would result in no additional cumulative impacts on park operations. Implementation of Alternative 4 would require increased funding to support the hiring and retention of an additional 1.5 to 2 FTE over the current 1 to 2 FTE stationed at Bear Paw Battlefield. In order to maintain and operate the full service visitor center proposed under this Alternative, at least one individual would require specialized water treatment certifications to maintain safe drinking water for visitor center use. These certifications are not required for Alternative 2 or 3 because the NPS facilities described in those alternatives would be connected to city services. Without significant base operational funding increases, the financial resources needed to hire, train, and retain this additional staff would have to be redirected from other Nez Perce National Historical Park priorities. This impact would be felt park-wide and could result in other vital park functions not being met on a timely basis at many of the other 37 Nez Perce National

Historical park units resulting in a long-term, moderate indirect adverse impact to park operations.

#### *F. Conclusion*

There would be no new impacts under Alternative 1 on park operations. Alternative 2 would result in long-term, minor beneficial impacts on park operations from the addition of shelter and enhancement of visitor information at the battlefield. With the continuing responsibility for maintaining two NPS bases of operation proposed under Alternative 3, there would be a long-term, negligible to minor adverse impact on park operations. These impacts would be contrasted with a long-term, minor to moderate beneficial impact from consolidating all NPS administrative and maintenance functions in Chinook and from the addition of shelter and enhancement of visitor facilities at the battlefield. With visitor, administrative and maintenance storage facilities concentrated in Alternative 4, there would be a long-term, minor to moderate benefit to park operations. However, because these operations would require additional staffing and funding, they would also result in long-term, moderate to major adverse impacts on operations across Nez Perce National Historical Park.

### **VIII. Rare, Threatened and Endangered Species**

Rare, threatened and endangered species are those listed as endangered or threatened under the Endangered Species Act (ESA). This group also includes candidates or species proposed for listing under the ESA and species of special management concern or considered sensitive by the State of Montana.

Informal consultation with the USFWS indicated that no known federally listed threatened and endangered species likely exist within the battlefield boundaries, but two endangered species may occur in Blaine County. These two species are the black-footed ferret (*Mustela nigripes*) and the pallid sturgeon (*Scaphirhynchus albus*). There were also two candidate species identified by the USFWS as potentially present within the Blaine County area. These are the greater sage-grouse (*Centrocercus urophasianus*) and Sprague's pipit (*Anthus spragueii*).

The Montana Natural Heritage Program (MNHP) Species of Concern (SOC) database was accessed via the internet at <http://mtnhp.org/SpeciesOfConcern/?AorP=a> on August 20, 2015 to produce a list of Montana State sensitive species for the Bear Paw site. The search parameters for state species of interest were focused on a 36 square mile area centered around the battlefield based on the Township and Range coordinates. A search of the MNHP database revealed seven SOC that may possibly be present in the vicinity of the Bear Paw site (Table 3).

The black-footed ferret was originally listed as endangered in 1967 under the ESA and was on the verge of extinction through the 1970's and early 1980's. Through a program of captive breeding and reintroductions, small populations have been reestablished in Eastern Montana, South Dakota, Wyoming, Arizona, Colorado, Utah, Kansas, Canada and Mexico. Even with these efforts, this member of the weasel family still remains one of the rarest mammals, and only ferret native to North America.

Table 3. List of sensitive species for the Bear Paw site.

Species	Status	
	USFWS	MNHP
Black-footed ferret ( <i>Mustela nigripes</i> )	E	
Pallid Sturgeon ( <i>Scaphirhynchus albus</i> )	E	
Greater Sage-Grouse ( <i>Centrocercus urophasianus</i> )	C	
Sprague's Pipit ( <i>Anthus spragueii</i> )	C	SOC
Baird's Sparrow ( <i>Ammodramus bairdii</i> )		SOC
Long-billed Curlew ( <i>Numenius americanus</i> )		SOC
Bobolink ( <i>Dolichonyx oryzivorus</i> )		SOC
Iowa Darter ( <i>Etheostoma exile</i> )		SOC
Sauger ( <i>Sander canadensis</i> )		SOC
Northern Redbelly Dace ( <i>Chrosomus eos</i> )		SOC
Pearl Dace ( <i>Margariscus margarita</i> )		SOC

Upwards of 90% of the black-footed ferret's diet consist of prairie dogs (*Cynomys spp.*). This heavy reliance on prairie dogs is consistent throughout the black-footed ferret's range and they are only found in association with viable prairie dog colonies. They are sometimes known to prey on ground squirrels, small rodents and birds, but these species are generally only relied upon during prairie dog hibernation. The heavy reliance on prairie dog habitat is one of the key factors that led to the near extinction of the species. As prairie dog populations declined, so did the ferret. Only large prairie dog complexes (several thousand acres of closely spaced colonies) can support and sustain a breeding population of black-footed ferrets. It has been estimated that about 100 to 150 acres of prairie dog colony is needed to support one ferret, and females with litters have never been found on colonies less than 120 acres (Miller et al. 1996).

As noted on the Montana Fish Wildlife and Parks Montana Field Guide, black-footed ferret webpage <http://fieldguide.mt.gov/speciesDetail.aspx?elcode=AMAJF02040> accessed on August 20, 2015, there has been one confirmed black-footed ferret occurrence in east-central Blaine County observed more than 20 years ago. All of Blaine County does, however, fall within the historic, permanent range of the black-footed ferret where it was described as a once permanent resident.

No observations of black-footed ferret have ever been noted within, or near, the Bear Paw Battlefield. In addition, since no prairie dog colonies large enough to support a viable population of ferrets existing within the project area, its presence within the project area is extremely unlikely.

The greater sage-grouse is dependent on sagebrush habitats year-round. Habitat loss and degradation, as well as loss of population connectivity have been identified as important factors contributing to the decline of the greater sage-grouse population range-wide. Greater sage-grouse are known to occupy portions of Blaine County to the north, east and south of the general Chinook area, though no suitable habitat exists within the areas around the battlefield. This lack of suitable habitat near the battlefield and the fact that no greater sage-grouse have been observed at the site, make its presence within the project area extremely unlikely.

Sprague's pipits are endemic to the North American grasslands and they prefer native, short to intermediate height grass prairie landscapes. This ground nesting bird has suffered dramatic declines in numbers throughout its range as prairie has disappeared

via cultivation, grazing, and invasion by invasive plants. Based on North American Breeding Bird Survey data for the period between 1966 and 1999, the Sprague's pipit declined in the western U.S. at an average annual rate of 7.4% (Bachand 2001). Studies designed to address the effects of invasive plant species on the densities of Sprague's pipits all showed a significantly greater abundance of Sprague's pipits in native prairie than in introduced vegetation (Dixon and Garrett 2009). Sprague's pipit has been observed at the battlefield and was identified as a confirmed "breeder" at the Bear Paw site in 2005 during an avian inventory of battlefield (Dixon and Garrett 2009:20).

The Baird's Sparrow is a grassland species endemic to the northern Great Plains. The Baird's Sparrow has suffered population declines due to the conversion of native prairie to cropland, invasion of native grasslands by invasive plant species, proliferation of shrubs due to fire suppression, and single focus range management. The Baird's Sparrow was identified at the Bear Paw site in 2005 (as noted in Dixon and Garrett 2009:20). Like the Sprague's pipit, the Baird's sparrow was also recorded as a "breeder" at the battlefield (Dixon and Garrett 2009:20).

The long-billed curlew is a migratory bird that spends summers breeding in the meadows and grasslands of the northern Great Plains. The curlew favors areas with sparse, short grasses, including mixed-grass prairies and moist meadows throughout Montana. After their young leave the nest in the summer, the birds move to areas of taller, denser grasses. In the winter, long-billed curlew migrate to the coasts and interior of Mexico where they spend time in wetlands, tidal estuaries, mudflats and other wetland environments. Long-billed curlew are known to exist in the general west-central area of Blaine County and they generally prefer grasslands and meadows adjacent to ponds, sloughs, and wetlands for nesting and feeding. During the 2005 avian inventory at Bear Paw Battlefield, long-billed curlews were identified as present at the battlefield (Dixon and Garrett 2009:20).

The bobolink is a small songbird with large, somewhat flat heads exhibiting a distinctive brown to orange stripe on the crown of their head. They are known to inhabit most all of Montana and the adjacent Western Plains areas, but prefer tall and mixed-grass prairies near hay or agricultural fields. They have been noted throughout Blaine County, but no observations have yet been recorded from the battlefield.

Bald and golden eagles are known to inhabit much of Montana and are reported to occur within the Blaine County area. Though eagles are not known to nest at the battlefield they have been observed via flyovers from the site in the past. The U.S. Fish and Wildlife Service noted in recent correspondence regarding the potential action alternatives discussed in this EA that "We recommend that the presence and activity of bald and golden eagle nests within one mile of the project be determined prior to construction." They went on to add "Where work is proposed within 0.5 mile of an active eagle nest, we recommend that you comply with seasonal restrictions and distance buffers specified in the *2010 Montana Bald Eagle Management Guidelines: An Addendum to Montana Bald Eagle Management Plan (1994)* during construction." (USFWS 2015)

Four additional sensitive species were noted within Blaine County by the MNHP and one additional endangered species by the USFWS. These five species are all fish and include the Iowa darter, sauger, northern redbelly dace, pearl dace, and the pallid sturgeon. None of these fish species are known to be present at the Bear Paw site as no

aquatic habitat with the ability to support these species exists on the NPS owned properties. Snake Creek does run through the battlefield, but it is a seasonal stream that frequently goes dry for long periods of time.

Of the eleven endangered, candidate or sensitive species possibly present at the Bear Paw site, five of these species are birds, one mammal and the remaining five are fish. Three of the five sensitive bird species, the Baird's sparrow, Sprague's pipit and long-billed curlew have been identified at the battlefield in the past (Dixon and Garrett 2009:20). All three of these birds are ground nesters, avoid human contact and prefer healthy native grasslands for nesting and foraging. There is no suitable prey or habitat to support the endangered black-footed ferret present in the vicinity of the battlefield. The fish species noted as endangered or SOC's for the area by the MNHP and USFWS are not present at the Bear Paw site as no suitable aquatic habitat exists at the battlefield. No sensitive plant species were identified for the site.

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no additional impacts to rare, threatened and endangered species as a result of the implementation of Alternative 1.

*B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

There would be few impacts to rare, threatened and endangered species through implementation of this Alternative. No intact habitat areas would be disturbed through this Alternative and new construction would be limited to already developed locations within the site. These developed areas are already impacted to some degree by existing facilities, roads and infrastructure. While no new roads will be constructed under this Alternative, there would be above average human activity and machinery operation during project implementation. Due to the relatively short summer season available for construction, work would also likely coincide with the visitor use season. This has a potential to impact the three SOC bird species known to exist within the Bear Paw site (Baird's sparrow, Sprague's pipit and long-billed curlew), but those impacts would be restricted to the already developed lower parking area which is poor habitat for these species. The increased activity associated with construction will have short-term, negligible impacts on rare, threatened and endangered species.

Development and siting of the new facilities in the lower parking area will result in removal of some existing vegetation between the lower parking area and Montana Secondary Highway 240 and along areas designated for the new connector trail. However, areas near the highway are not good habitat for any of the three species discussed here due to the proximity to the existing visitor services and associated traffic disturbance. In total, an estimated .11 of an acre of vegetation is anticipated to be removed through implementation of this Alternative.

This Alternative, like other action alternatives, would include revegetation of the disturbed areas of the approximately 5 acre upper parking lot with native plant species. After the existing vault toilets and picnic shelter located in the lower parking area are removed those footprints would be vegetated with native species too. In total, these efforts would result in the revegetation of approximately 1.25 acres.

With implementation of the mitigation measures below, adverse impacts to rare, threatened and endangered species under this Alternative would be localized, negligible and short-term having no lasting impacts beyond the revegetation period. Revegetation of the upper parking area and a small portion of the lower parking area would result in a long-term, negligible, localized beneficial impact in increasing native plant cover and therefore potential habitat for the SOC at the Bear Paw site.

*C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Actions at Bear Paw Battlefield, and therefore impacts associated with this Alternative, would be the same as described for Alternative 2. There would be no impacts to rare, threatened and endangered species from any activities planned for the city of Chinook under this Alternative.

*D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

This Alternative would comparatively have the greatest potential for impact on the three SOC birds of the action alternatives discussed in this EA because it would occur in natural areas of the site that have limited access and are currently undeveloped. These portions of the battlefield are also located some distance from the interpretive loop trail and are not routinely, if at all, intruded on by park visitors. These areas on the southern edge of the NPS property connect to several hundred acres of private grazing lands to the south. This connection is currently interrupted only by the boundary fence and no developed roads or infrastructure exists.

As a result of the actions proposed, approximately 1.5 acres of vegetation would be converted to a built environment encompassing a roughly 6 acre complex. This includes the visitor center building, water and septic treatment systems, water storage, connector trail and trailhead area, access road and associated parking. This habitat modification would preclude a return to the former level of use in the entire 6 acre affected area due to the increased human and vehicle presence and include a paved road running west to east across a lengthy portion of the southern NPS boundary. All of the three SOC birds present at the battlefield shy away from human and vehicle interactions and it is likely the presence of the visitor center/administrative complex in this portion of the battlefield property would greatly reduce available nesting and foraging locations across much of the southern portion of the battlefield. Creation and use of the access road leading to the visitor center/administrative headquarters could also effectively limit access and use of available habitat across the southwestern portions of the NPS property and the private properties to the south as well. Even with the mitigation measures discussed below, development of the facilities called for under this Alternative would result in long-term, direct, minor to moderate adverse impacts to three SOC bird species known to be present at the Bear Paw site.

Revegetation of the upper and lower parking areas and removal of all visitor access to these locations would result in a long-term, direct, negligible to minor, localized beneficial impact in increasing native plant cover and therefore potential habitat for rare, threatened and endangered species. However, these areas are still located adjacent to Montana Secondary Highway 240 and the resulting vehicle traffic makes the sites less than ideal nesting and foraging habitat for the three SOC discussed here.

Additional short-term, direct, negligible to minor adverse impacts to rare, threatened and endangered species will also potentially result from construction related activities at the site under this Alternative.

#### *E. Impact Avoidance, Minimization and Mitigation Strategies for all Action Alternatives*

- 1) New construction would be sited to avoid existing vegetation and preserve habitat as much as practicable, and to minimize ground disturbance (to the extent possible).
- 2) Construction would be monitored to prevent accidental loss of habitat and unnecessary ground disturbance by construction machinery.
- 3) All new construction would include landscaping with native plants from locally derived sources. The intent of such landscaping would be to rehabilitate or improve site vegetation and associated habitat where possible.
- 4) Activity would be minimized during the early morning and late evening hours to limit disturbance impacts on rare, threatened and endangered species.
- 5) All vegetation to be salvaged or removed would be clearly marked to avoid impacts to the vegetation/habitat to remain.
- 6) Sediment barrier fencing would be installed on the lower edges of the construction site(s) to prevent unintended runoff during inclement weather.
- 7) As recommended by the USFWS, the NPS will comply with the *2010 Montana Bald Eagle Management Guidelines: An Addendum to Montana Bald Eagle Management Plan (1994)* and schedule all onsite work and potential construction activities according to the recommendations presented in the guidelines.

#### *F. Cumulative Effects*

Despite early conversion to a publicly accessible historic site with associated visitor traffic, there are few obvious changes to the site aside from the parking areas and loop trail. In general, the park continues to appear primarily as a natural landscape modified only by the past historic events that occurred there. As a result, three sensitive bird species (Baird's sparrow, Sprague's pipit, and long-billed curlew) have been identified at the site, two of which (Sprague's pipit and Baird's sparrow) are confirmed breeders on the Bear Paw property (Dixon and Garrett 2009:20). Visitor use at the site varies by season and time of day but is limited to the current visitor use areas and the mowed trails. Over most of the park these impacts are not noticeable (negligible) and habitat for the three SOC birds remain similar to historic conditions. All action alternatives would result in impacts to diminishing rare, threatened and endangered species via potential habitat modifications and reorganization of the park infrastructure and the resulting human presence. However, these impacts under Alternative 2 or 3, when analyzed in conjunction with their respective revegetation proposals, would cumulatively contribute no to negligible impacts on rare, threatened and endangered species. The potential for cumulative impact increases with Alternative 4 as development of new facilities in a previously undeveloped area and placing a site access road across half of the southern NPS boundary, would contribute minor to moderate impacts on potential habitat.

#### *G. Conclusion*

Alternative 1 would have no new impacts on rare, threatened and endangered species. Alternative 2 or 3 would have localized, short- and long-term, direct, negligible adverse

impacts on the three state sensitive species known to exist at the battlefield site. Both Alternative 2 and 3 would have localized, direct, long-term, negligible beneficial impacts associated with revegetation activities. Alternative 4 would result in localized, direct, short-term, negligible to minor adverse impacts from construction related disturbances. It would also result in direct, localized, long-term, minor to moderate adverse impacts due to habitat loss and the potential for territorial restrictions on SOC. The long-term adverse impacts would be offset by localized, direct, negligible to minor beneficial impacts associated with the revegetation efforts.

## **IX. Socioeconomic Environment**

According to the Bureau of Economic Analysis Regional Facts (BEAR FACTS) accessible via the BEA website at: <http://www.bea.gov/regional/bearfacts/> accessed on August 24, 2015, Blaine County was ranked 30<sup>th</sup> in population (6,604 as of 2013) of 56 counties in the State of Montana. .

Per capita income is calculated as the personal income of the residents of a given area divided by the resident population of the area. In 2013, the per capita income of residents in Blaine County was \$30,775, which ranked 51<sup>st</sup> in the state, or 78 percent of the Montana average (\$39,366) and 69 percent of the national average (\$44,765). In 2003 the per capita personal income of Blaine County was \$18,484 and ranked 56<sup>th</sup> in the State of Montana. The 2003-2013 average annual growth rate of per capita personal income for Blaine County was 5.2 percent while the average annual growth rate for Montana was 4.0 percent and nationally it was 3.2 percent.

Tourism associated with Bear Paw Battlefield is economically important to communities near the park. Proposed development in and outside the park could also affect Chinook and other nearby communities. In 1990, Dr. Ken Hornback of the Denver Statistical Office of the NPS developed an economic model that can be used to estimate economic benefits of parks on local economies. This model is called the Money Generation Model, or MGM. The current version of the MGM (MGM2) estimates the direct economic impacts of visitor spending based on a combination of the park visitation times the average spending times a regional multiplier. According to the MGM website (Stynes 2007), [http://35.8.125.11/mgm2\\_new/](http://35.8.125.11/mgm2_new/) the MGM2:

*“... estimates the impacts that park visitors have on the local economy in terms of their contribution to sales, income and jobs in the area. The MGM produces quantifiable measures of park economic benefits that can be used for planning, concessions management, budget justifications, policy analysis and marketing.”*

The impact of Bear Paw Battlefield on the economic conditions of Chinook and Blaine County was studied in 2012 under the MGM2. Most visitor services are available in nearby towns, including Chinook and Havre, and both feature food, gas, lodging and other local attractions. Based on the MGM2, the estimated 7,000 battlefield visitors per year result in a direct economic benefit of creating and sustaining approximately six jobs in motel, restaurant, admissions and retail trades. Under this model, it is estimated that visitors spend approximately \$243,740 per year visiting the area.

Although there is currently no economic activity at Bear Paw Battlefield itself, many visitors to the area do spend money on mementos and publications at the Blaine County Museum, which has an extensive collection of local area historical publications.

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no change in impacts to the socioeconomic environment as a result of the implementation of Alternative 1.

*B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

There would be a short-term economic benefit to the local and regional economy from construction related expenditures under this Alternative. The slight economic benefit from continued rental of maintenance and administrative facilities in Chinook would remain as well. Development of improved facilities at Bear Paw Battlefield under this Alternative is not expected to significantly increase visitation to the site over the long-term, though a slight short-term increase would be expected. Nor would any additional NPS staff positions be needed to maintain or operate new facilities under this Alternative. Nonetheless, economic input to the local area would continue to be similar to that in Alternative 1 and may be enhanced in the short-term by construction related expenditures and the provision of better facilities at the battlefield, a minor, short-term, localized beneficial impact.

*C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Alternative 3 would also have short-term economic benefit to the local and regional economy from battlefield related construction expenditures. There would be an additional economic benefit to Chinook from the long-term NPS rental or purchase of land, or an existing building, for use as a visitor information station/administrative headquarters facility. There would also be an added short-term benefit associated with the new construction or remodeling/rehabilitation of those facilities in Chinook. The short-term construction related (at the battlefield and in Chinook) socioeconomic impacts associated with this Alternative would be localized and moderate.

After completion of the new facilities proposed in this Alternative, a short-term increase in park visitation would be expected. It would be anticipated that this visitation would drop-off over time and stabilize at a point slightly higher than that at current. In addition, the ongoing association with the park administrative and maintenance offices located in Chinook may provide additional economic benefits. Most visitors would experience both the battlefield and visitor information station in Chinook, thus extending the time of their visit to the area. The presence of a NPS visitor information station in Chinook would likely result in more people being aware of the NPS presence in the area and therefore stopping and spending increased amounts of time in the community, resulting in slightly increased economic benefits to the services and businesses of Chinook. This would result in a long-term, localized, minor beneficial impact to the surrounding economy.

Funds currently provided to the Blaine County Museum for extended hours of summer operation would be discontinued, a slight adverse impact. However, no sales area would be provided at either the battlefield or the visitor information station in Chinook and

visitors wishing to purchase books or other mementos would continue to be directed to the Blaine County Museum or other local businesses for those items.

The implementation of Alternative 3 would result in moderate, short-term localized socioeconomic benefits from construction related expenditures and minor, long-term, localized beneficial impacts from the new NPS facilities at the battlefield and in Chinook.

#### *D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

As with Alternative 3, there would also be moderate short-term economic benefit to the local economy from construction related expenditures associated with Alternative 4. It is also likely that this Alternative, would provide for a short-term spike in site visitation after the new visitor facilities are completed, leading to a long-term stable visitation level slightly higher than current levels. This would result in a long-term minor to moderate socioeconomic benefit. However, because the park administrative offices and maintenance storage would be removed from Chinook under this Alternative, there would also be a slight adverse economic impact to the community from the loss of rental income. With the new visitor center located at the battlefield, site visitors would continue to pass through Chinook on their way to the NPS facility, but there would be no NPS presence in the community, as in Alternative 3, to attract them to stop. In addition, NPS funds currently provided to Blaine County Museum to cover extended hours in the summer would be withdrawn. The new visitor center at the battlefield would also include a sales area run through a NPS cooperating association where visitors could purchase books and other NPS authorized items at the battlefield. These actions would result in a potential localized, negligible to minor adverse impact on the Blaine County Museum and city of Chinook.

#### *E. Cumulative Effects*

Further development of visitor facilities at the site (as called for in each of the action alternatives) is likely to result in varying degrees of beneficial impact to the socioeconomic environment in surrounding communities in general as more visitors arrive and potentially stay longer to experience the new facilities. Increasing the quality of the visitor experience at the battlefield, whether by the means described in Alternatives 2, 3 or 4 and/or by improving facilities in Chinook as in Alternative 3, will likely result in visitors having a more positive experience resulting in a better feeling about area facilities and opportunities for recreation. These experiences may encourage them to spend more time in the area or create opportunities for repeat visitation. Improvements in other visitor facilities in Chinook, or the region over time, such as the Blaine County Wildlife Museum and the Upper Missouri River Breaks National Monument visitor center at Fort Benton, would also cumulatively contribute long-term beneficial socioeconomic impacts to the regional economy.

#### *F. Conclusion*

There would be no impact from the implementation of Alternative 1 on socioeconomic resources. Alternative 2 would result in minor short-term beneficial impacts and negligible long-term beneficial impacts on socioeconomic resources. Implementation of Alternative 3 would result in moderate, short-term, localized socioeconomic benefits from

construction related expenditures and minor long-term, localized beneficial impacts from the new NPS battlefield and Chinook facilities. Implementation of Alternative 4 would result in moderate, short-term benefits from construction related expenditures and minor to moderate, long-term beneficial impacts from the new battlefield visitor center/administrative complex. There would also be potential for negligible to minor adverse economic impacts to Chinook and the Blaine County Museum through potential loss of book sales and rental income under Alternative 4 as well.

## **X. Topography**

Bear Paw Battlefield contains several ridges and valleys or “coulees” as well as broad sloping plains and meadows. Snake Creek runs generally north to south before trending west, near the center of the battlefield. The Bears Paw Mountains are located south of the site. With the exception of the existing site facilities and an old road cut in the south/central portion of the battlefield, the topography remains basically unchanged from that experienced by the Nez Perce in 1877.

### *A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no new impacts on topography as a result of the implementation of Alternative 1.

### *B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

There would be negligible impacts on topography as a result of implementing Alternative 2. Structures in the lower parking area will be reconfigured to replace the existing vault toilets, to add the small visitor contact facility, to designate parking and to construct an accessible connector to the battlefield loop trail. Excavated soil from the new vault toilet placement would be reused onsite. Additional soil and aggregate would be added to the visitor contact station and vault toilet construction sites, which are fairly flat now due to the natural topography, to maintain an accessible grade.

### *C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Impacts under Alternative 3 would be the same as those under Alternative 2 at Bear Paw Battlefield. In the town of Chinook, it is anticipated that there would be no impacts to topography because the site selected for the new visitor information station/administrative headquarters would be a previously graded site located in the city of Chinook or because the facility would be located in a remodeled existing structure .

### *D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

Under this Alternative, approximately 200 cubic yards of soil would be excavated to locate the .25 mile long access road off Montana Secondary Highway 240 to the visitor center/administrative complex and to create the one way loop to the parking area. In addition, approximately 400 cubic yards of soil would be excavated from the new building footprint to prepare the surface for construction of the 3,100 square foot visitor center/administrative complex building, utilities and associated parking. Secondary

access would be created to the water treatment system, which would need another small 150 square foot building to house the water treatment system. Finally, approximately 100 cubic yards of soil would be excavated to construct the septic system. Where applicable all the excavated soil will be reused as fill for final site grading and landscaping. Together these actions would constitute minor to moderate, localized long-term impacts to topography.

#### *E. Cumulative Effects*

Because the Bear Paw Battlefield was withdrawn from settlement, very few changes to topography have occurred at the site itself. To a large degree the features associated with it remain intact. In addition, because the surrounding lands are used for agriculture and ranching, they have also not changed much. The current alignment of Montana Secondary Highway 240 with its road cuts and periodic power/telephone poles bisects the western edge of site. In addition, the current telecommunications lines are buried along the western edge of the battlefield adjacent to Montana Secondary Highway 240. Communities tend to form in naturally flat or semi-flat areas, and because it has remained small, it is also likely that little has changed about the topography of Chinook. The actions proposed under any of the alternatives in this EA are on a comparatively small scale and even when taken in context with the recent Triangle Telephone telecommunications line replacement project, there would be negligible cumulative impacts on topography.

#### *F. Conclusion*

There would be no additional impacts to topography from Alternative 1. There would be negligible, localized long-term impacts to topography from the placement of the vault toilet and visitor contact station in Alternative 2. Alternative 3 would have negligible, localized long-term impacts at the battlefield site and no impacts in Chinook. Alternative 4 would result in minor to moderate, localized long-term impacts to topography as the access road, visitor center, septic system, and other utilities, including the well and water treatment system, were constructed on the battlefield.

## **XI. Vegetation**

Bear Paw Battlefield is located in the high plains, in a transition area containing both short and tall grass prairie in west central Montana. The short grass prairie encompassing much of the battlefield site is characterized by flat or rolling expanses of low to moderate relief. The region is relatively dry (receiving about 15-19 inches of annual precipitation) so it is dominated by species such as blue bunch wheatgrass (*Agropyron smithii*), needle and thread grass (*Stipa comata*), and blue grama (*Bouteloua gracilis*) (NPS 2002:79). With the area being withdrawn from settlement under the Homestead Act due to its historic significance, it represents a relic area of short grass prairie surrounded by agricultural and ranch land development. Except for the removal of natural grazing (primarily by buffalo) and wildfire, it can be considered relatively untouched and pristine. Although the site does contain invasive or non-native plant species, they have a limited areal extent. Surrounding the park to the south are the uplands of the Bear Paw Mountains, considered to be one of the most extensive and productive stock ranges in the western U.S. (Visitors Guide: 41).

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

This Alternative would have no additional impacts on vegetation.

*B. Impacts of Alternative 2: Reconfigure Battlefield Visitor use Area*

Much of the vegetation located in the area proposed for development in this Alternative has been previously disturbed by impacts associated with the existing development and current use of lower parking area. This Alternative would result in the conversion of approximately 4,100 sq. feet of existing vegetation to create the accessible trail connection to the battlefield loop trail and trailhead. An additional estimated 400 sq. feet of vegetation would be disturbed to install the new visitor contact station, monuments and vault toilet. This area is located in the Development zone (as identified in the GMP) and contains a mix of native vegetation and exotic species introduced through vehicle and visitor traffic. The native vegetation includes species such as blue bunch wheatgrass (*Agropyron smithii*), needle and thread grass (*Stipa comata*), and blue grama (*Bouteloua gracilis*) (NPS 2002:79). Additional vegetation disturbance may result during the installation of phone and electric lines servicing the site. However, this should be very minor as a tractor mounted cable plow will be employed for the majority of the distance. All together an anticipated 4,800 square feet (.11 acre) of vegetation would be impacted under this Alternative. This would constitute a short-term, negligible to minor, localized adverse impact. The importation of fill materials also has the potential to cause weedy species to proliferate, an impact that would be minimized by the importation of specified clean fill or aggregate from park-approved sources and continuation of ongoing NPS efforts to limit introduction and spread of exotic and/or invasive plants.

This Alternative, like other action alternatives, would also include the revegetation of the disturbed areas of the approximately 5 acre upper parking lot with locally derived native plant species. All the existing gravel would be removed from these heavy use areas via grading until bare soil is reached. With the gravel removed, the areas would be planted with a locally derived native grass and forbs mix.

After the existing vault toilets are removed from the lower parking area, the space once occupied by the toilets will be backfilled with soil excavated from the new toilet installation and vegetated with native species. In addition, the existing picnic shelter and adjacent parking spaces will be removed and those areas restored. These efforts will result in the revegetation of approximately ¼ acre of additional land in the lower parking lot. In total, the revegetation efforts at the battlefield under Alternative 2 would include the revegetation of approximately 1.25 acres of current denuded land in the approximately 10 acre combined upper and lower parking area footprints resulting in long-term, minor to moderate beneficial impacts to vegetation.

*C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

This Alternative would have the same impacts on vegetation as those described for Alternative 2 at the battlefield site. In Chinook it is likely this Alternative will have negligible impacts on vegetation because of the desire to have the facility located in the existing commercial or light industrial use areas of the city. However, depending upon the site selected, and whether it is new construction or rehabilitation of an existing structure, some impacts to existing landscape or property vegetation may occur. Due to

its city setting, impacts would most likely be to nonnative landscaping plants and/or weedy species located in currently vacant lots. In either case, these impacts would be considered negligible.

#### *D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

Impacts under this Alternative would involve the removal of approximately 10,000 sq. feet of vegetation for the visitor center/administrative complex, picnic area, outdoor exhibits/monuments and associated circulation space, 5,500 sq. feet of vegetation for the battlefield trail connection and trailhead, 30,000 sq. feet of vegetation for the road construction and park entrance, 11,000 sq. feet of vegetation for the parking area (and associated access roads, aisles, landscaping and sidewalks), 100 to 200 sq. feet of vegetation for the utility lines, 175 sq. feet of vegetation for the well/water treatment facility, 2,000 sq. feet of vegetation for the septic system and around 2,600 sq. feet of vegetation for the water storage tank. This equates to an estimated 61,500 sq. feet or approximately 1.5 acres of vegetation removal, a short-term, localized, minor to moderate adverse impact.

The area affected through the construction proposed under this Alternative consists primarily of undisturbed short grass prairie in the Historic zone of Bear Paw Battlefield. The vegetation is dominated by species such as blue bunch wheatgrass (*Agropyron smithii*), needle and thread grass (*Stipa comata*), and blue grama (*Bouteloua gracilis*) (NPS 2002:79).

As in Alternative 2 or 3, once removal of facilities from the upper parking area occurred, that area would be restored with locally derived native plant species. Unlike Alternatives 2 and 3, however, the all currently denuded areas of lower parking area would be revegetated as well resulting in a total revegetation effort of 1.75 acres across the approximately 10 acre combined upper and lower parking lot visitor use areas. As in other alternatives, all landscaping and revegetation near the new visitor center, parking area, water and septic systems, utility trenches, entrance road, and any other areas disturbed through construction would be with locally derived, native species. These revegetation efforts would constitute a long-term, localized, minor to moderate beneficial impact on vegetation.

#### *E. Impact Avoidance, Minimization and Mitigation Strategies for all Action Alternatives*

1. Equipment used in the project would be cleaned prior to use in the park.
2. No straw mulch would be used for erosion control.
3. Fill materials imported from outside the park would be from approved sources and would be inspected and/or approved by NPS staff prior to importation into the park.
4. Staging areas would be protected from sedimentation impacts by the placement of silt fencing or other barriers as appropriate and would be returned to pre-construction conditions upon completion of the proposed project.
5. Only locally-derived, native species, appropriate to the site, would be used in revegetation (seeding or planting).
6. Salvage of topsoil would occur as appropriate.

7. Salvage of vegetation would occur to the degree possible, staff time and need permitting. However, most plants would be propagated from seed acquired from local sources.
8. New construction would be sited to avoid existing vegetation as much as practical, and to minimize earthwork.

#### *F. Cumulative Effects*

As noted above, because it was withdrawn from the Homestead Act, much of the Bear Paw Battlefield landscape is a remnant short grass prairie. Other areas near the battlefield site are a combination of agricultural land and ranch lands, with impacts of current and past uses evident. Bear Paw Battlefield is the only site of Nez Perce National Historical Park that preserves the once widespread short grass prairie environment in Montana. Compared to the impacts on this region that have occurred as a result of agricultural and development use over the past, there would be no or negligible additional cumulative impacts from Alternatives 1 through 3 and minor cumulative impacts from Alternative 4.

#### *G. Conclusion*

There would be no additional impacts from Alternative 1. Alternative 2 or 3 would have negligible to minor, localized, short-term adverse impacts associated with construction of facilities and long-term, minor to moderate beneficial impacts associated with revegetation at the site. Alternative 3 would also have negligible adverse impacts in Chinook. Alternative 4 would have both adverse, minor to moderate, short-term localized impacts and long-term, minor to moderate beneficial impacts at Bear Paw Battlefield.

## **XII. Visitor Experience**

Several hundred thousand people visit Nez Perce National Historical Park annually. The most recent visitor profile information for the park comes from a visitor survey conducted in cooperation with the University of Idaho from July 17 to 23, 1994. In general, most visitors responding to the survey (69 percent) reported their length of stay at a particular park site as one hour or less. Some (36 percent) reported having received no information about the park before their visit. Almost two-thirds (64 percent) of visitors cited learning Nez Perce history as a reason for visiting the park. Visitors also rated the importance of each of the visitor services and facilities they used. The five point scale for importance included:

- 1 = extremely important
- 2 = very important
- 3 = moderately important
- 4 = somewhat important
- 5 = not important

Several services or facilities received the highest “very important” to “extremely important” ratings: ranger-led programs/tours (86 percent), interpretive shelters (78 percent). Visitor center facilities were rated “extremely important,” specifically, the ratings were as follows: 49 percent for the visitor center movie/video, 52 percent for visitor

center exhibits, and 30 percent for visitor center sales publications (Littlejohn 1995:17-23).

Although this survey was completed prior to the acquisition of Bear Paw Battlefield, the NPS was co-managing the property with State of Montana at the time. The survey also provides some useful information about those who visit Nez Perce National Historical Park. Visitors were surveyed at the following locations:

- 1) Idaho: Spalding Visitor Center and picnic area, White Bird Battlefield, USFS Lolo Pass Visitor Center, Heart of the Monster (East Kamiah) and Canoe Camp;
- 2) Oregon: Old Chief Joseph's Gravesite;
- 3) Montana: Big Hole National Battlefield and Bear Paw Battlefield.

The proportion of questionnaires distributed at each of the eight locations was based on estimates of the proportion of total visitation to each location during the previous July (1993) (Littlejohn 1995:2). Forty-two questionnaires (only four percent of the total of 1,178 questionnaires handed out) were distributed at Bear Paw Battlefield. Of these, 35 were returned, an 83 percent response rate. Although the introduction to the report states that caution should be used when interpreting or relying on fewer than 30 responses, the following specific information about Bear Paw Battlefield was identified (Littlejohn 1995:15):

- 1) 7 percent of the total visitors surveyed visited Bear Paw Battlefield (slightly higher than the four percent of surveys distributed there).
- 2) 11 respondents started their day in Havre, Montana.
- 3) 15 respondents started their day in Chinook, Montana.
- 4) 11 respondents planned to end their day in Chinook, Montana.
- 5) 6 respondents planned to end their day in Havre, Montana (Littlejohn 1995: 40-41).

It is extremely difficult to draw any definite conclusions from this small sample of visitors. However, over three-quarters of the respondents were either beginning or ending their day in Chinook, or a nearby community. It is unknown whether these visitors were local inhabitants of these communities near the battlefield, or if they were visitors from outside the area spending additional time in the local communities after, or prior to, their battlefield experience. In either case, the presence of the local communities, and the potential services they provide, are important components to the battlefield visitor experience.

Visitors access the battlefield by driving through the town of Chinook on Montana Secondary Highway 240, a distance of about 16 miles. The park currently maintains an administrative headquarters building in Chinook but there are no NPS facilities available to the public in this town. Visitors do occasionally stop by and regularly call the NPS administrative offices in Chinook. It contains offices for the Park Ranger and any seasonal workers as well as a small meeting room/library/storage area. Many battlefield visitors also stop at the Blaine County Museum in Chinook. For those who have planned ahead and have a NPS interpretive trail guide/site brochure available, it suggests beginning the visit at the Blaine County Museum and then experiencing the battlefield.

The Blaine County Museum currently serves as an interim visitor contact station and interprets the homestead era, Native American presence in the area, paleontology, the

Nez Perce War of 1877, and other local and regional historical themes. Bear Paw Battlefield interpretation at the museum includes exhibits, paintings, and artifacts related to the events at the site as well as a 20-minute multimedia audiovisual presentation “*Forty Miles to Freedom*” which augments information currently provided at the battlefield by the NPS. The NPS maintains an agreement with the Blaine County Museum to provide funding for additional hours of operation during the busier summer months.

Interpretation currently available at the battlefield includes NPS Ranger led walks and interpretive talks during the summer, roving casual interpretation with visitors along the trail, wayside exhibits along the trail, monuments and the interpretive trail guide/site brochure. During peak visitation periods, park staff may be found roving the site for several hours each day, but there is no shelter at the site to protect staff from often changing and severe weather conditions. Due to this lack of onsite shelter, staff is often unavailable to visitors and sometimes even unaware of visitors being at the site. It is therefore difficult to provide even a modest amount of routine in-person interpretation at the battlefield. In addition, there is no telephone service to the site and cellular phone coverage is inconsistent.

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no improvements in onsite visitor safety, visitor contact or interpretation as a result of implementation of this Alternative. Initial visitor contact would be, as it is now, primarily at the Blaine County Museum or as visitors occasionally encounter park staff onsite. Staff would be more likely to be present onsite during the summer than at other times of year. Except at the administrative offices in Chinook or during the summer at the battlefield, park staff would not be as available to visitors as at other park sites with more formal visitor facilities.

Except for special events or anniversaries, visitation would be expected to remain similar to that now occurring, however, over time, it is likely that increasing population would cause slight increases in visitation.

*B. General Impacts on Visitor Experience from All Action Alternatives*

There would be a potential for short-term impacts on the visitor experience associated with the increased activity generated by construction related work under all action alternatives. Alternative 2 or 3 would result in less construction time at the battlefield (approximately 1 month), whereas Alternative 4 would result in construction over a period of approximately 6 to 8 months. Due to the site location in northern Montana, the onsite construction under all action alternatives would have to occur during the primary visitor use season (May through October). Specific provisions in the construction requirements, however, would ensure that the majority of material deliveries were made during the week, rather than on weekends or holidays. In addition, most of the potentially disruptive construction work would not occur on weekends or holidays. In general, visitors would enjoy a better overall long-term experience, with increased accessibility, more logical arrangement of visitor use facilities, including improved access to park staff and an enhanced understanding of the historic events under all action alternatives.

Staging areas would be minimized to the degree possible, affecting a small portion of the lower parking lot in Alternative 2 and 3 and away from most visitor use areas to the

southern edge of the battlefield in Alternative 4. Under all action alternatives, the upper and lower parking areas would not be revegetated until new facilities were available and accessible.

Traffic congestion would likely occur during utilities installation, which may involve work alongside Montana Secondary Highway 240. As a result, there would be increased monitoring by park staff to support visitors during the construction period. Minor road delays related to materials deliveries, transport of soil or aggregate, delays during utility line trenching and placement could also occur. These impacts would be most apparent during construction under Alternative 4. To the extent possible, these would be identified in advance, conducted during low use periods and appropriate delay warnings posted. During construction, facilities may be sporadically unavailable to park visitors, resulting in disruption of their visits but park staff would work to insure those disruptions were negligible.

To prevent accidents related to worker procedures or unexpected occurrences to the extent possible, an accident prevention plan would be a required submittal for all contractors under implementation of any of the action alternatives. This plan would include job hazard analyses associated with each major phase of the proposed project and would emphasize both worker and public safety. It would also include planning for emergency situations and take into consideration the nature of the construction, site conditions, seasonal weather conditions and the degree of risk or exposure associated with the proposed activity. Regular project inspections and safety meetings would ensure the safety of the premises to construction staff, NPS personnel and visitors.

### *C. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

Under this Alternative, the NPS would continue to rent administrative facilities in Chinook resulting in the on-going presence of NPS staff within the city of Chinook. At the battlefield, the clustering of site facilities and installation of a visitor contact station would allow for limited shelter for employees while at the site. The contact station at the battlefield would provide shelter during inclement weather allowing park staff to spend more time at the site before and after scheduled programs increasing their availability and effectiveness and the likelihood of new visitor contacts. Visitor and staff safety would also be improved through the installation of telephone service at the site providing the ability to call for assistance in case of an emergency.

Revegetation of the upper parking area and improved accessibility to the restrooms and battlefield interpretive loop trail would result in negligible, short-term, localized adverse impacts during construction then moderate, long-term beneficial impacts once completed. Visitors who formerly would have had to travel from the upper to lower parking areas to use the restrooms would now be directed immediately to the lower parking area as the primary visitor use area. Native American ceremonial events could continue to take place in the restored former upper parking area. Those visitors with mobility impairment would find improved access to the vault toilets and would be able to travel some distance to a battlefield overlook point and bench on the ADA accessible interpretive connector trail. All visitors would likely enjoy improved access to battlefield facilities and park staff.

In addition, revegetation of the upper parking area and removal/restoration of the existing vault toilet and picnic shelter would reduce impacts on viewsheds from the

battlefield looking west. These viewsheds are an important component of the visitor experience and revegetation of these areas would contribute beneficially to that visitor experience. Taken as a whole, the improvements to onsite facilities and revegetation proposed through this Alternative would result in long-term, moderate beneficial impacts on visitor experiences at the park.

*D. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Impacts under this Alternative (increased safety, accessible accommodations for staff and visitors, and improved viewsheds) at the battlefield would be the same as Alternative 2. Unlike Alternative 2, however, visitor opportunities for NPS interpretation would also be enhanced in Chinook. As in Alternative 2, the visitor contact station at the battlefield would increase the likelihood that visitors to the site would encounter park staff on the battlefield. Visitors stopping at the NPS visitor information station/administrative headquarters in Chinook would also find expanded visitor facilities providing more information and added detail about the context of the battle and the Nez Perce story, as well as directions to the battlefield and other area attractions. In this Alternative, as in Alternative 1 and 2, visitors would continue to be encouraged to visit the Blaine County Museum. However, it would no longer be considered an NPS contact station and funding by the NPS for extended hours of operation in summer would be discontinued.

The combined developments providing additional opportunities for improved visitor understanding of battle events, both onsite and in Chinook, would result in long-term, moderate to major beneficial impacts on the visitor experience.

*E. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

Under this Alternative, all NPS presence in the city of Chinook would be relocated to the new visitor center/administrative complex developed at the battlefield. At the battlefield, visitors would routinely encounter park staff at the visitor center and would have telephone access to call for assistance in case of emergencies. The visitor center/administrative complex would be open seven days a week in the summer and shoulder seasons and five days a week in the winter months. Staff would have access to shelter during inclement weather and would be better able to monitor visitation to the battlefield during regular business hours, including the arrival of school and other large groups for scheduled programming. Native American traditional and ceremonial use would continue to be facilitated. Although visitors would still be encouraged to visit the Blaine County Museum, it would no longer be considered an NPS contact station and funding by the NPS for extended hours of operation in the summer would be discontinued. The ability to overlook the battlefield from the bluff to the south on the ADA accessible connector trail would offer an increased opportunity for understanding the site and its topography, providing all visitors a unique perspective on the events. The location of administrative, interpretive and maintenance operations adjacent to the battlefield site would result in a visitor experience situated at, and focused on the resource. Combined, these enhancements would result in long-term, localized, major beneficial impacts on the visitor experience.

However, the presence of the visitor center/administrative complex and its associated infrastructure in one of the site's primary, character defining viewsheds to the south, visible from many locations on the battlefield, would likely have an adverse impact on visitor experience. As noted previously in the Planning Issues section of this document and identified through internal and external scoping, the site's ambience is derived from its relatively unchanged natural setting allowing the visitor to contemplate the events that took place there. Also, the rural location and general absence of infrastructure add to the visitors' ability to visualize and understand the events of the battle. Even though mitigation measures can be used to minimize viewshed impacts from the structures (as discussed above), impacts associated with the related infrastructure (paved parking lot and access road, visitor vehicles, and other utilities) will continue to contribute localized, long-term minor to moderate adverse impacts on the viewshed which is a key component of the visitor experience at the battlefield.

#### *F. Cumulative Effects*

Over time, the visitor experience at the battlefield has been enhanced through the placement of interpretive wayside exhibits and the development of a guide to the battlefield as well as by interpretive presentations and programs. Actions under the alternatives presented in this EA would all enhance the visitor experience to varying degrees. All actions would also result in some short-term adverse impacts from general construction related activity, traffic disruption and other events during construction. These would be greatest in Alternative 4 and least in Alternative 2 or 3.

Over the long-term, any of the action alternatives presented in this EA, when combined with the Upper Missouri River Breaks National Monument visitor center at Fort Benton, would cumulatively contribute widespread, negligible to minor beneficial impacts on visitor experiences across the region.

#### *G. Conclusion*

There would be no additional impacts on the visitor experience as a result of implementing Alternative 1. Alternatives 2, 3, and 4 would all result in short-term, negligible adverse impacts during construction. Alternative 2 would result in a localized, long-term, moderate beneficial impact on visitor experience once completed. Beneficial impacts under Alternative 3 would be moderate to major, long-term and localized as the improved visitor facilities at the battlefield and in Chinook would provide additional chances for increased visitor understanding of the battle and the context in which it took place. Taken as a whole, the major beneficial impacts anticipated with Alternative 4 would be tempered with minor to moderate viewshed impacts (an important component of the visitor experience) resulting in Alternative 4 having an overall long-term, localized, minor beneficial impact on the visitor experience.

### **XIII. Water Resources (including water quality, wetlands, and water quantity)**

The Snake Creek drainage runs from the southwest to the north across the battlefield generally through the west-center of the site. Although water is sometimes seasonally evident in the creek, it generally appears as marshy areas rather than a creek except during high spring runoff events and occasionally following major precipitation events. In

the 33 years (1959-1992) the site was managed by the Montana Department of Fish, Wildlife and Parks and in the 24 years (since 1992) the NPS has been involved with the site, there has been no real flooding at the battlefield. In addition, the presence of pits excavated into the banks on the northern edge of the creek and stream bottom (well downstream of the existing or any proposed development areas) used by the Nez Perce for shelter in 1877, or as a result of explosive cannonball impacts from the battle, remain essentially unaltered. The fact that these historic excavations remain in virtually the same condition today as they did in 1877 is a strong indicator that no large volumes of water has continuously flowed through the creek in the 139 years since the battle occurred. Any flooding on Snake Creek would have easily eroded or significantly altered these pits. Therefore, it is unlikely that flooding has occurred or would occur at the site in the future.

Water quality at the battlefield is currently affected to an unknown degree by adjacent agricultural practices and livestock as well as by natural processes and components, such as erosion, wildlife and fire. In addition, there could be unknown impacts relating to surface water runoff of petroleum products from the presence of nearby Montana Secondary Highway 240, particularly during spring melt and large storms. It is also possible that the current site developments (vault toilet, picnic shelter, and vehicle access and parking) may negligibly contribute to water quality issues from unchecked storm runoff. As noted above, portions of the soils in the current upper and lower parking areas have been previously disturbed by the construction of the existing visitor facilities located there. In these areas soils have been disturbed and then compacted by repeated motor vehicle travel and parking. Such localized soil compaction can decrease soil permeability, change soil moisture content, and lessen its water storage capacity, which would impact both water infiltration and transport rates.

With the exception of the existing picnic shelter and a small vehicle parking area adjacent to the shelter, all current site developments in the upper and lower parking areas are located a good distance from Snake Creek and are surrounded by sufficient undisturbed soil and vegetation to greatly reduce, or eliminate entirely, any sedimentation issues. However, the current picnic shelter and adjacent vehicle parking spots located in the lower parking area are situated only 20 to 30 feet from the northern edge of the Snake Creek riparian area. While there is a strip of vegetation between the existing developments and the riparian area, if an extremely heavy runoff event were to occur it may be possible for sediment from the parking spots and picnic area to reach the riparian zone creating the potential for impacts to water quality through sedimentation.

The Snake Creek riparian area and seasonal wetlands is relatively narrow and contained within the creek channel itself. The vegetation is comprised of willows and other shrub and forbs species and is denser at the southern end of the creek (upstream portion) as it stretches across the battlefield. These areas are dominated by willow (*Salix exigua*) and various roses (*Rosa acicularis*, *R. arkansana* or *R. woodsii*) with additional natives such as currant (*Ribes* sp.), snowberry (*Symphoricarpos alba*), buttercup (*Ranunculus* sp.), horsetail (*Equisetum* sp.), stinging nettle (*Urtica dioica*), milkweed (*Asclepias speciosa*), blue-eyed grass (*Sisyrinchium montanum*) and cattail (*typha latifolia*). A box elder (*Acer negundo*) and a few cottonwood (*Populus* sp.) trees are also scattered along the creek bottom (NPS2002:80).

According to the Montana Department of Natural Resources Conservation Water Right Query System, 24 groundwater wells are located in a three mile radius of the battlefield. These wells have an average flow rate of 4 to 20 gallons per minute with eleven of these wells reporting a flow rate of 10 gallons a minute or more. The depth of wells recorded in the database varies from unknown to 640 feet. Water use also varies with 13 reported as stock use, 6 as domestic use, 1 as domestic and stock use, 1 for domestic, stock and landscape purposes and 2 as unknown.

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

Although no new impacts would occur as a result of the implementation of Alternative 1, there would continue to be occasional ongoing potential for negligible to minor sedimentation impacts to wetlands from spring runoff as a result of the existing gravel road and parking areas at the battlefield site. This is especially true with the location of the current picnic shelter and associated vehicle parking area in the lower parking lot. There would be no additional use of water under this Alternative.

*B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

Short-term moving, covering, trampling, and compaction of soils by equipment and workers within the construction work zone at the battlefield would occur through the implementation of Alternative 2. These impacts could create potential effects to water quality (sediment transported offsite during uncontrolled storm water runoff) as a result of erosion of bare areas, especially those located near Snake Creek, during the first rains following construction. Additional areas sensitive to short-term erosion would include uncovered spoil materials stockpiled during construction. Other potential impacts could occur from spills of fluids or petroleum products during refueling or maintenance operations within construction areas. Through implementation of mitigation measures, the potential for these kinds of impacts would be greatly minimized.

Revegetation efforts throughout the project area resulting in plant establishment and soil stabilization would have long-term, localized, negligible to minor beneficial impacts on wetlands through sediment retention by increasing plant cover and, over time, soil fertility as plants grow and decompose. This biological activity increases the water holding capacity of the soils and greatly reduces or eliminates the potential of sedimentation impacts. This would be especially true with the removal and revegetation of the existing picnic shelter and the adjacent parking spaces in the lower parking area. Once these facilities were removed and native vegetation established, it would provide an expanded buffer greatly reducing the potential for sediment to reach Snake Creek.

There would be no impacts to water quantity anticipated from the implementation of Alternative 2 and potential adverse impacts to water quality and wetlands would be negligible, short-term and localized.

*C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

The impacts for Alternative 3 would be the same as those described for Alternative 2 at the battlefield (localized, negligible short-term impacts to water quality during construction coupled with long-term, negligible to minor beneficial impacts once the revegetation efforts are finished). Alternative 3 is not anticipated to have any additional

impacts on water quality or wetlands from proposed construction or structure rehabilitation in Chinook. However, the new information station/administrative headquarters would be connected to the public utilities in the City of Chinook and water would be utilized for drinking, restroom fixtures, break room facilities, and maintenance operations. Anticipated water use for this facility, due to its relatively small size (2,500 sq. feet) and staff (2 FTE), is around 15 to 40 gallons a day on average. This would have a negligible, long-term adverse impact on water quantity in the city of Chinook.

*D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

Construction related impacts associated with Alternative 4 would be similar to those described in Alternative 2 and 3 at the battlefield, though at a larger scale. However, due to the proposed location of construction for the visitor center/administrative complex being well away from Snake Creek and with the implementation of mitigation measures, short-term impacts to water quality and wetlands through project construction would be localized and negligible.

With the implementation of Alternative 4, use of water at Bear Paw Battlefield would go from no use to approximately 30 to 60 gallons per day (on average) for the visitor center and administrative operations including drinking water, restroom fixtures, water spigots, employee break room facilities and maintenance operations. This water would be supplied by a new well drilled on NPS lands in the vicinity of the new visitor center/administrative complex development. In addition to the daily water needed to support operations, an onsite water storage tank with a capacity of approximately 65,000 gallons would be required. This volume of water would adequately support all park water uses coupled with that required for emergency structural fire prevention for NPS facilities at the site. Due to the relatively sparse population and because withdrawal of water in the vicinity of the battlefield is primarily for domestic and agricultural purposes, additional NPS water use under this Alternative would constitute a long-term, localized, negligible to minor adverse impact on water quantity.

As with Alternative 2 and 3, revegetation planned under Alternative 4 would result in long-term, localized, minor beneficial impacts on wetlands and water quality. Unlike Alternative 2 and 3, this Alternative calls for the construction of an 11,000 square foot parking lot and 1,600 foot access road from Montana Secondary Highway 240. Additional long-term, adverse impacts may result from the heat island effect of the paved parking area and access road during the summer months. These elevated pavement temperatures can drastically increase the temperature of storm water runoff which can be particularly stressful to aquatic ecosystems. However, with the position of the parking area and access road proposed in this Alternative well away from the Snake Creek drainage and any other associated aquatic environments, these long-term, adverse impacts should be negligible.

*E. Impact Avoidance, Minimization and Mitigation Strategies for all Action Alternatives*

Measures that would be included (as appropriate to the Alternative) to minimize construction impacts to water quality include:

- 1) Using temporary erosion control devices (such as silt fences and/or coconut fiber wattles) during construction to minimize transport of sediment to the Snake Creek wetland.
- 2) Covering stockpiled soil and aggregate with semi-permeable matting or another type of erosion control material as appropriate during the project to minimize transport of sediment during wind or water erosion.
- 3) Minimizing soil disturbance and re-seeding or revegetating disturbed areas as soon as practicable.
- 4) Retaining erosion control devices in disturbed areas until stabilization by reseeding or revegetation is completed.
- 5) Using swales, trenches or drains to divert storm water runoff away from disturbed areas (if needed).
- 6) Locating staging areas away from drainage areas.
- 7) Designing the proposed project to avoid or minimize impacts to any wetland areas, Snake Creek and surrounding vegetation to the greatest extent possible (USFWS recommendation).

#### *F. Cumulative Effects*

Although it is described as a creek in early accounts of the Bear Paw Battle, it is unknown to what extent Snake Creek has flowed through the intervening years and seasons. Today, it is more of a seasonal marsh than a creek. It is likely, however, that surface water withdrawal for agriculture and ranching in the vicinity has had some effect on the creek flow. As noted above, water quality in Snake Creek is currently likely affected to an unknown degree by adjacent agricultural practices and livestock as well as by natural processes and components, such as erosion, wildlife and fire, and from the adjacent road. When juxtaposed against the long-term withdrawal of water for ranching and agriculture in the vicinity and the natural, year-round inputs to area water quality, the actions proposed under the alternatives in this EA would have negligible impacts on water quality and wetlands (Alternatives 2-4), and either no (Alternatives 1-3) or negligible to minor (Alternative 4) cumulative impacts on water quantity.

#### *G. Conclusion*

Alternative 1 would have no additional impacts on water quality, water quantity or wetlands. Alternative 2 or 3 would have no or negligible additional impacts on water quantity. They would also have short-term, localized, negligible impacts on water quality and wetlands. These impacts would be coupled with negligible to minor, long-term beneficial impacts to wetlands through revegetation. Alternative 4 would have minor, beneficial, long-term impacts to wetlands, coupled with long-term, localized, negligible to minor adverse impacts on water quantity, and negligible long-term impacts on water quality.

### **XIV. Wildlife**

The Missouri Basin, the larger topographical setting of Bear Paw Battlefield, was once home to large herds of bison (*Bison bison*). Now, pronghorn antelope (*Antilocapra americana*) are the most common large mammal, however mule deer (*Odocoileus hemionus*) are also found along streams and where brush cover is abundant. Other

wildlife sometimes found at the battlefield include: Richardson's ground squirrels (*Spermophilus richardsonii*), coyotes (*Canis latrans*), and badgers (*Taxidea taxus*). Among birds, hawks are abundant, including nesting Northern Harriers, with smaller perching birds such as the lark bunting (*Calamospiza melanocorys*), horned lark (*Eremophila alpestris*), and meadowlarks (*Sturnella neglecta*) commonly observed.

*A. Impacts of Alternative 1: No Action (Continue Current Management)*

There would be no additional impacts on wildlife as a result of the implementation of Alternative 1. Ongoing visitor use would continue to provide for human presence at the site having short-term negligible impacts on wildlife.

*B. Impacts of Alternative 2: Reconfigure Battlefield Visitor Use Area*

In general, there would be few impacts to wildlife since no intact habitat areas would be disturbed and construction would occur in areas previously impacted by existing facilities in the Development zone. There would, however, be above average human activity and machinery operation during project implementation. Due to the relatively short summer season available for construction, work would also likely coincide with the visitor use season. As a result, wildlife would tend to avoid the project area during daylight hours when work was occurring. In the evening and during times when work would cease pronghorn, coyote, or mule deer would be expected to return to the project areas. Some species, such as birds would be seen throughout the day.

The excavation needed to place the vault toilets would likely result in some disturbance and/or elimination of small mammals and invertebrates not able to move quickly away from the project site. With the proposed construction area already in the currently used Development zone, this impact is likely to be negligible. There is little intact habitat due to the project's location between Montana Secondary Highway 240 and the existing parking area. In addition, there is a slight potential for sedimentation to occur in nearby wetland habitats, which would be avoided to the degree possible by the installation of erosion control fencing around the project area to prevent runoff toward Snake Creek during inclement weather until the revegetation efforts are completed (as discussed above).

Overall, adverse impacts to wildlife would be localized, negligible and short-term having no lasting impacts beyond the revegetation period. Revegetation of the upper parking area and a small portion of the lower parking area would result in a long-term, negligible to minor, localized beneficial impact in increasing plant cover and therefore habitat for some species of wildlife.

*C. Impacts of Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield*

Actions at Bear Paw Battlefield, and therefore impacts associated with this Alternative, would be the same as Alternative 2. In Chinook, there would be no or negligible impacts to wildlife, except for the short-term disturbance associated with construction or rehabilitation/remodeling of the visitor information station/administrative headquarters in the already developed city of Chinook. .

#### *D. Impacts of Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield*

Comparatively this Alternative would have the greatest impacts on wildlife of the three action alternatives because it would occur in areas now undisturbed through park visitation. As a result of the actions proposed, approximately 1.5 acres of vegetation would be converted to a built environment encompassing a roughly 6 acre complex which includes the visitor center, water and septic treatment systems, water storage, connector trail and trailhead area, access road and associated parking. This habitat modification would preclude a return to the former level of use in the entire 6 acre affected area by some species of wildlife, a long-term, minor to moderate, localized adverse impact.

Revegetation of the upper and lower parking areas and removal of all visitor access to these locations would result in a long-term, minor or moderate, localized beneficial impact in increasing plant cover and therefore habitat for some species of wildlife.

#### *E. Impact Avoidance, Minimization and Mitigation Strategies for all Action Alternatives*

- 1) New construction would be sited to avoid existing vegetation, as much as practicable and to minimize ground disturbance (to the extent possible).
- 2) Construction would be monitored to prevent accidental loss of habitat and unnecessary ground disturbance by construction machinery.
- 3) All new construction would include landscaping with native plants from locally derived sources. The intent of such landscaping would be to rehabilitate or restore site vegetation and associated wildlife habitat where possible.
- 4) Activity would be minimized during the early morning and late evening hours to limit disturbance impacts on wildlife.
- 5) All vegetation to be salvaged or removed would be clearly marked to avoid impacts to the vegetation/habitat to remain.
- 6) Sediment barrier fencing would be installed on the lower edges of the construction site to prevent unintended runoff during inclement weather.
- 7) The area necessary for construction would be minimized to reduce direct habitat impacts (USFWS recommendation).

#### *F. Cumulative Effects*

Despite early conversion to a publicly accessible historic site with associated visitor traffic, there are few obvious changes to the site aside from the parking areas and a mowed loop trail. In general, the park continues to appear primarily as a natural landscape modified only by the past events that occurred there. As a result, there have been few impacts to native wildlife related to park establishment. Visitor use at the site, however, has resulted in a slight increase in human activity that varies by season and time of day. Over most of the park these impacts are not noticeable (negligible) and opportunities to see wildlife remain similar to when the park was established (most evident at night and during the cooler hours of the day). All action alternatives would result in similar contributions to diminishing wildlife presence from habitat modifications and human presence. However, these actions, when analyzed in conjunction with their respective revegetation proposals, would cumulatively contribute only negligible impacts on wildlife.

### *G. Conclusion*

Alternative 1 would have no new impacts on wildlife. Alternative 2 or 3 would have localized, short-term negligible adverse impacts on wildlife at the battlefield site. Alternative 3 would have some additional negligible impacts in Chinook. Both Alternative 2 and 3 would have long-term, negligible to minor beneficial impacts associated with revegetation activities. Alternative 4 would result in short-term, negligible to minor adverse impacts (from construction related disturbances) and long-term, minor to moderate adverse impacts (habitat loss) on wildlife. These long term impacts would be offset by minor to moderate beneficial impacts associated with the revegetation efforts.

**Table 4. Environmental Consequences by Alternative Comparison Chart**

	<b>Alternative 1: No Action (Continue Current Management)</b>	<b>Alternative 2: Reconfigure Battlefield Visitor Use Area</b>	<b>Alternative 3: Enhanced Visitor Services in Chinook and at Battlefield (Preferred Alternative)</b>	<b>Alternative 4: Construct Visitor and Administrative Facilities at Bear Paw Battlefield</b>
<b>Air Quality</b>	There would be no additional impacts to air quality.	With mitigation measures there would be short-term, localized negligible to minor impacts from construction activities including equipment emissions, generation of dust and fine particulate matter associated with site preparation, construction, and finish work.	Short-term impacts would be the same as Alternative 2 (negligible to minor) at the battlefield site and similar from the establishment of the proposed visitor information station in Chinook. Overall impacts would be short-term, localized and negligible to minor.	Because of the much larger facility and longer construction period, short-term impacts would vary from minor to moderate at the battlefield. Long-term negligible adverse impacts would result from the additional year-round commute times incurred by the employees and from the increased use of electricity to light and heat a larger building.
<p><b>Cumulative Effects:</b> There would be no additional cumulative effects on air quality under Alternative 1. Under Alternatives 2-4, there would be minor short-term impacts associated with construction of facilities coupled with negligible long-term impacts from the use and maintenance of those facilities.</p> <p><b>Conclusion:</b> There would be no new impacts to air quality under Alternative 1. Short-term impacts under Alternative 2 would be negligible to minor with negligible long-term impacts. Short-term impacts under Alternative 3 would be negligible to minor and long-term impacts would be negligible. Short-term impacts under Alternative 4 would be minor to moderate but negligible over the long-term.</p>				
<b>Cultural Resources – Archeological Resources</b>	There would be no additional ground disturbance and therefore no additional effect on archeological resources.	The potential for impacting previously unidentified archeological resources would be reduced by concentrating development in areas where no major events during the Bear Paw Battle occurred. Mitigation measures will be developed and implemented via a MOA with the SHPO, THPO's and ACHP. Through these actions a finding of no adverse effect on archeological resources is expected.	As in Alternative 2, The potential for impacting previously unidentified archeological resources would be reduced by concentrating development in areas where no major events during the Bear Paw Battle occurred and mitigation measures put in place via a MOA with the SHPO, THPO's and ACHP. If significant archeological resources are discovered at the Visitor Information Station site in Chinook, every effort will be made to avoid them during implementation of this Alternative. If avoidance is not feasible, a mitigation plan will be developed in close consultation with the Montana SHPO, associated tribes and the ACHP and implemented through a MOA to mitigate and resolve any potential adverse impacts to historic properties.	The potential for impacts to archeological resources is much higher with Alternative 4 and the potential for disturbance of unobserved subsurface archeological resources cannot be completely ruled out. Therefore, if this Alternative is selected for Action the NPS will conduct more intensive subsurface archeological excavations prior to taking any onsite action. If archeological resources are discovered and avoidance of those resources is not possible, the NPS (in consultation with the Montana SHPO, associated tribes, and the ACHP) will prepare a mitigation plan and implementing MOA prior to the start of any development.

**Cumulative Effects:** The alternatives analyzed here have been designed to limit subsurface impacts and mitigation measures will be incorporated to minimize potential impacts to cultural resources. Implementation of any of the action alternatives would not adversely contribute to impacts from other past, present, and reasonably foreseeable future actions at the battlefield. Therefore, no cumulative impacts to cultural resources are anticipated from the implementation of any of the alternatives.

**Conclusion:** The actions proposed under Alternative 1 would have no additional effect on archeological resources. Those actions presented under Alternative 2 and 3 have been developed and designed to limited potential impacts to historic properties and with the mitigation measures implemented through a MOA, there should be no adverse effect to archeological resources. With Alternative 4, no currently known archeological resources are located within the footprint of the proposed facilities. However, this Alternative requires additional subsurface archeological testing prior to making a final determination of effect for archeological resources. If archeological resources are discovered and avoidance of those resources is not possible under alternative 4, the NPS (in consultation with the Montana SHPO, the NPT, the CTUIR, the CCT and the ACHP) will prepare a mitigation plan and implementing MOA prior to any onsite work.

<p><b>Cultural Resources – Ethnographic Resources</b></p>	<p>There would be no additional effect on ethnographic resources including traditional cultural properties and historic properties of religious and cultural significance to Indian tribes or sacred sites as a result of the implementation of this Alternative. Existing adverse effects to visual resources contributing to the significance and sacredness of the battlefield would continue.</p>	<p>Through implementation of the stipulations of the MOA, impacts to visual resources would be reduced from those present with Alternative 1 and there would be no additional adverse effect on ethnographic resources including traditional cultural properties and historic properties of religious and cultural significance to Indian tribes or sacred sites. The upper parking area currently used for tribal commemorations would continue to be available for ceremonial use in the same unrestricted manner as it has in the past.</p>	<p>Impacts at the battlefield would be the same under this Alternative as those described for Alternative 2. There would be no additional impacts to ethnographic resources including traditional cultural properties and historic properties of religious and cultural significance to Indian tribes or sacred sites associated with the activities proposed for Chinook under this Alternative.</p>	<p>Access to the currently used location for ceremonial purposes would be maintained, but no vehicle access would be provided under this Alternative. Adverse effects to ethnographic resources including traditional cultural properties and historic properties of religious and cultural significance to Indian tribes or sacred sites would result through impacts to significant visual resources resulting from development of the new visitor center/administrative headquarters in previously undeveloped areas.</p>
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**Cumulative Effects:** No major development has occurred at the battlefield site aside from the existing visitor use facilities and adjacent private development of ranching/agricultural lands, so there have been few cumulative impacts on the site. Proposed improvements under Alternative 2 or 3 would cluster site facilities in the lower parking area while still retaining access to the current location used for ceremonial practices. Alternative 4 would result in restriction of vehicle access to the current ceremonial use area, though continuing access to that location and the overall site for any traditional or ceremonial practices would remain undeterred. While the potential for direct impacts may exist in varying degrees with all the alternatives, there are no foreseeable cumulative impacts anticipated from any of the action alternatives.

**Conclusion:** The actions proposed under Alternative 1 would continue existing adverse effects. Alternative 2 or 3 would have reduced adverse effects over those currently present which would be mitigated through development and implementation of a MOA with the SHPO, THPO's and ACHP. Those actions under Alternative 4 would result in restriction of vehicle access to the current ceremonial use area, though continuing pedestrian access to that location and the overall site for any traditional or ceremonial practices would remain. The Alternative 4 facilities have the potential to create an adverse effect on the integrity of setting and feeling of the traditional cultural property and historic property of religious and cultural significance to Indian tribes or sacred sites through impacts to the visual resources.

<b>Cultural Resources – Historic Structures</b>	<p>There would be no additional effects on historic structures or viewshed through the implementation of Alternative 1.</p>	<p>There would be no adverse effect on historic structures or features from implementation of this Alternative.</p>	<p>Impacts at the battlefield would be the same as Alternative 2. In Chinook If a structure chosen for rehabilitation is determined to be a significant historic property, a rehabilitation plan will be developed in close consultation with the Montana SHPO and implemented through a MOA to insure all work conforms to <i>the Secretary of Interior's Standards for Rehabilitation</i>. With implementation of these measures, there should be no adverse effects to historic structures as a result of this Alternative.</p>	<p>There would be no adverse effect on historic structures or features from implementation of this Alternative.</p>
<p><b>Cumulative Effects:</b> No major development has occurred at the battlefield site aside from the existing visitor use facilities and adjacent private development of ranching/agricultural lands, So there have been few cumulative effects on the site. Proposed improvements under all three action alternatives would cluster site facilities in the lower parking area (Alternative 2 or 3) or place them near a new visitor center/administrative complex on the southern edge of the battlefield (Alternative 4). No cumulative impacts to historic structures are anticipated from any of the action alternatives.</p> <p><b>Conclusion:</b> There would be no adverse effect on historic structures or features from the implementation of any of the alternatives described in this EA.</p>				
<b>Cultural Resources -- Viewsheds</b>	<p>There would be no change to viewsheds through the implementation of Alternative 1 and adverse effects to visual resources associated with the current visitor use facilities would remain.</p>	<p>There would be short-term, negligible visual impacts from construction and minor, long-term beneficial impacts on viewsheds from site revegetation. Visitor facilities called for in this alternative would reduce impacts on the viewshed over the current facilities, but still present potential adverse effects. These impacts would be mitigated through development of a MOA with the SHPO, THPO's and ACHP. With implementation of the MOA, this alternative will result in no adverse effect.</p>	<p>Impacts and effects at the battlefield under Alternative 3 would be the same as those described for Alternative 2. No impacts to viewshed are expected from offsite facilities.</p>	<p>There would be short-term, negligible to minor visual impacts from construction and minor, long-term beneficial impacts on viewsheds from site revegetation. This Alternative calls for siting a structure that would be visible from numerous locations on the battlefield and in a spot where no development has existed previously. This facility would result in moderate to major, long-term adverse impacts onsite viewsheds and constitute an adverse effect on character defining visual resources of the battlefield.</p>
<p><b>Cumulative Effects:</b> The site retains a great deal of visual integrity associated with the battle related landscape features, and there have been few (negligible to minor) cumulative effects on area resources. The impacts that do exist are low key and associated primarily with views from the battlefield looking west/southwest resulting from roads, fences and utility lines, existing private buildings and from the current visitor use facilities. None of the action alternatives would contribute any additional cumulative impacts.</p>				

**Conclusion:** All action alternatives would result in short-term, localized impacts ranging from negligible (Alternative 2 and 3) to minor (Alternative 4) for construction related effects. Minor, long-term beneficial impacts on viewsheds would be realized from site revegetation under all alternatives. There would be no change in viewsheds associated with Alternative 1. Alternative 2 or 3 would result in an overall reduction in impacts to visual resources over those currently present. This would represent a long term, minor beneficial impact. However, the proposed facilities still present an adverse effect on significant visual resources of the battlefield. To address those effects the NPS will develop a MOA calling for a phased consultation process throughout the design, development and installation of onsite facilities called for in Alternative 2 or 3. The successful implementation of the MOA will mitigate adverse effects on significant viewsheds at the battlefield. No impacts to viewshed are anticipated from offsite facilities under Alternative 3.

The beneficial impacts associated with revegetation under Alternative 4 would be contrasted with long-term, moderate to major adverse impacts on visual resources on the prominent unimpeded viewshed to the south. These impacts would also create an adverse effect to the integrity of character defining visual resources contributing to the NHL status of the battlefield.

<b>Federal Facility Energy Usage, Alternative Energy, and Environmental Sustainability</b>	No impacts	There will be slight increase in overall energy usage over the long-term for the battlefield, but this increase is negligible. No impacts to environmental sustainability are associated with this Alternative.	The impacts at the battlefield are the same as described in Alternative 2. Overall this Alternative will result in negligible, long-term impacts on energy usage and no impacts on environmental sustainability.	Development of this new facility within previously undisturbed lands would not be in keeping with the guidance provided in the implementing instructions for EO 13514. Alternative 4 would result in negligible, long-term adverse impacts on energy usage and localized, minor to moderate, long-term adverse impacts to environmental sustainability.
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**Cumulative Effects:** None of the current visitor use facilities at the battlefield require power for operation. Through the use of energy saving designs, all new facilities proposed under any of the action alternatives will comply with all applicable federal energy conservation guidelines. The actions proposed under any of the alternatives in this EA will have negligible cumulative impacts on overall energy usage for Nez Perce National Historical Park. No cumulative impacts for environmental sustainability are anticipated.

**Conclusion:** There would be no change in federal facility energy usage, alternative energy, and environmental sustainability from Alternative 1. There would be negligible, localized long-term impacts to energy usage under Alternative 2 or 3, and no impacts anticipated to environmental sustainability. Alternative 4 would result in negligible, long-term impacts on energy usage and minor to moderate, long-term adverse impacts to environmental sustainability.

<b>Geology / Soils</b>	There would be no additional impacts on soils.	Impacts associated with Alternative 2 would be considered negligible and short-term. Long-term, negligible beneficial impacts would also result from the revegetation of the upper parking area and stabilization of those soils through planting of locally-derived native species.	Impacts at the battlefield under Alternative 3 would be the same as those in Alternative 2. Additional impacts from the construction and/or remodeling of a visitor information station/administrative headquarters facility in Chinook would be short-term and negligible.	Impacts to soils under this Alternative would be more extensive than those anticipated for other alternatives with minor to moderate, short-term adverse impacts on soils and soil properties expected as a result of facility and infrastructure construction. In addition, a negligible to minor, long-term beneficial impact would be expected from restoration of the upper and lower parking areas.
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**Cumulative Effects:** Proposed impacts as a result of project activities or from other proposed activities at the site and vicinity would not contribute other than additional localized negligible (Alternatives 2-3) or minor (Alternative 4) cumulative incremental impacts.

**Conclusion:** Alternative 1 would have no additional impacts on soils or soil properties. Alternative 2 would result in negligible, short-term adverse impacts from construction and negligible, localized, long-term beneficial impacts from restoration of the upper parking area on soils and soil properties. Alternative 3 would have the same impacts as Alternative 2 at the battlefield plus additional negligible adverse impacts on soils and soil properties in Chinook. Alternative 4 would result in minor to moderate short-term impacts on soils and soil properties as a result of facility and infrastructure construction. Alternative 4 would also have negligible to minor, localized, long-term beneficial impacts, from restoration of the upper and lower parking areas.

<b>Land Use</b>	There would be no additional impacts to land use of NPS or surrounding lands .	Rearrangement of facilities and the addition of a visitor contact station would result in a localized, negligible adverse impact on land use. The upper parking area (approximately 1.25 acres) would be restored using native species, a negligible to minor beneficial impact. This Alternative would have no additional impact to use of lands surrounding the battlefield site or within the city of Chinook.	Impacts at the battlefield and on lands surrounding the battlefield would be the same as in Alternative 2. In Chinook, constructing the proposed visitor information station/administrative headquarters would have a negligible, short-term adverse impact on land use. A Long-term, beneficial minor impact would result from the establishment of the centralized NPS information station/administrative headquarters within Chinook.	Construction of the full-service visitor center/administrative headquarters and support infrastructure in Historic zone where no structures currently exist, would result in a moderate, long-term adverse impact to land use at the battlefield. Restoration of the upper and lower parking area would also result in a long-term, minor beneficial impact. In addition to the impacts on NPS lands, short-term, negligible adverse impacts to uses of surrounding lands would result from construction of the visitor facility and infrastructure under this Alternative.
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**Cumulative Effects:** When added to the impacts of the changes that have occurred in the vicinity of the battlefield site, Alternatives 1, 2 and 3 would add no or negligible cumulative impacts to land use. Alternative 4 would add moderate cumulative impacts through the planned addition of a comparatively larger building and associated infrastructure where none previously existed, and a needed change in the long-term GMP zoning from Historic to Developed for the area encompassing the visitor center/administrative complex.

**Conclusion:** Alternative 1 would have no additional impacts on land use on either NPS lands or surrounding properties. Alternative 2 or 3 would have negligible adverse and negligible to minor beneficial impacts on land use at Bear Paw Battlefield and no impact on continued use of lands surrounding the battlefield. The impacts in Alternative 3 would also be combined with additional long-term, negligible adverse and minor beneficial impacts on land use in Chinook depending upon the location and/or structure chosen for the visitor information station/administrative headquarters site. Alternative 4 would result in long-term, moderate adverse impacts and minor, long-term beneficial impacts on land use at Bear Paw Battlefield and the surrounding lands.

<b>Park Operations</b>	<p>There would be no impacts on park operations.</p>	<p>Taken as a whole, Alternative 2 would result in long-term, negligible adverse impacts from continuing to maintain two bases of operations, contrasted with long-term, minor beneficial impacts from the addition of staff shelter and enhancement of visitor facilities at the battlefield.</p>	<p>With the continuing responsibility for maintaining two slightly larger NPS bases of operation, there would be a long-term, negligible to minor adverse impact on park operations under this Alternative. These impacts would be contrasted with a long-term, minor to moderate beneficial impact from consolidating all NPS administrative and maintenance functions in Chinook and from the addition of shelter and enhancement of visitor facilities at the battlefield.</p>	<p>With all visitor, administrative and maintenance storage facilities concentrated in one building under this Alternative, there would be a long-term, minor to moderate beneficial impact on park operations. The staffing required to operate and maintain this facility would result in a long-term, moderate to major adverse impact on park operations.</p>
<p><b>Cumulative Effects:</b> Alternatives 1, 2 and 3 would result in no additional cumulative impacts on park operations. Implementation of Alternative 4 would require increased funding to support the hiring and retention of an additional 1.5 to 2 FTE over the current 1.5 FTE stationed at Bear Paw Battlefield. This impact would be felt park-wide and could result in other vital park functions not being met on a timely basis at many of the other 37 Nez Perce National Historical Park units resulting in a long-term, adverse indirect impact to park operations.</p> <p><b>Conclusion:</b> There would be no new impacts under Alternative 1. Alternative 2 would result in long-term, minor beneficial impacts on park operations from the addition of shelter and enhancement of visitor information at the battlefield. With the continuing responsibility for maintaining two NPS bases of operation proposed under Alternative 2 and 3, there would be a long-term, negligible to minor adverse impact on park operations. Under Alternative 3, these adverse impacts would be contrasted with a long-term, minor to moderate beneficial impact from consolidating all NPS administrative and maintenance functions in Chinook and from the addition of shelter and enhancement of visitor facilities at the battlefield. With visitor, administrative and maintenance storage facilities concentrated in Alternative 4, there would be a long-term, minor to moderate benefit to park operations. However, because these operations would require additional staffing and funding, they would also result in long-term, moderate to major adverse impacts on operations across Nez Perce National Historical Park.</p>				
<b>Rare, Threatened and Endangered Species</b>	<p>There would be no impacts to rare, threatened and endangered species under Alternative 1.</p>	<p>Adverse impacts to rare, threatened and endangered species under this Alternative would be localized, negligible and short-term having no lasting impacts beyond the revegetation period. Revegetation of the upper parking area and a small portion of the lower parking area would result in a long-term, negligible, localized beneficial impact in increasing native plant cover and therefore potential habitat for the SOC at the Bear Paw site.</p>	<p>Impacts at the battlefield under Alternative 3 would be the same as described under Alternative 2. No additional impacts are associated with facilities in Chinook.</p>	<p>Development of the facilities called for under this Alternative would result in long-term, direct, minor to moderate adverse impacts to three SOC bird species known to be present at the Bear Paw site. Revegetation of the upper and lower parking areas and removal of all visitor access to these locations would result in a long-term, direct, negligible to minor, localized beneficial impact in increasing native plant cover and therefore potential habitat for rare, threatened and endangered species.</p>

**Cumulative Effects:** In general, the park continues to appear primarily as a natural landscape modified only by the past historic events that occurred there. Over most of the park habitat for the three SOC birds remain similar to historic conditions. All action alternatives would result in impacts to diminishing rare, threatened and endangered species via potential habitat modifications and reorganization of the park infrastructure and the resulting human presence. However, these impacts under Alternative 2 or 3, when analyzed in conjunction with their respective revegetation proposals, would cumulatively contribute no to negligible impacts on rare, threatened and endangered species. The potential for cumulative impact increases with Alternative 4 as development of new facilities in a previously undeveloped area and placing a paved site access road across half of the southern NPS boundary would contribute minor to moderate impacts on potential habitat.

**Conclusion:** Alternative 1 would have no new impacts on rare, threatened and endangered species. Alternative 2 or 3 would have localized, short- and long-term, direct, negligible adverse impacts on the three state sensitive species known to exist at the battlefield site. Both Alternative 2 and 3 would also have localized, direct, long-term, negligible beneficial impacts associated with revegetation activities. Alternative 4 would result in localized, direct, short-term, negligible to minor adverse impacts from construction related disturbances. It would also result in direct, localized, long-term, minor to moderate adverse impacts due to habitat loss and the potential for territorial restrictions on SOC. The long-term adverse impacts would be offset by localized, direct, negligible to minor beneficial impacts associated with the revegetation efforts.

<b>Socioeconomic Environment</b>	There would be no change to the socioeconomic environment as a result of implementation of Alternative 1.	There would be a minor, short-term beneficial economic impact through construction related expenditures and the provision of updated facilities at the battlefield.	The implementation of Alternative 3 would result in moderate, short-term localized socioeconomic benefits from construction related expenditures. Minor, long-term beneficial impacts would be associated with new NPS facilities at the battlefield and in Chinook.	As with Alternative 3, there would also be moderate short-term economic benefit to the local economy from construction related expenditures associated with Alternative 4. It is also likely that this Alternative would result in a long-term minor to moderate socioeconomic benefit from increased visitation. However, the lack of NPS presence in Chinook and the sales area in the visitor center proposed under this Alternative would result in a potential localized, negligible to minor adverse impact on the Blaine County Museum and Chinook.
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**Cumulative Effects:** Further development of visitor facilities at the site is likely to result in varying degrees of beneficial impact to the socioeconomic environment in surrounding communities in general as more visitors arrive and potentially stay longer to experience the new facilities. Increasing the quality of the visitor experience at the battlefield will likely result in visitors having a more positive experience resulting in a better feeling about area facilities and opportunities for recreation. These experiences may encourage them to spend more time in the area or create opportunities for repeat visitation. Improvements in other visitor facilities in Chinook, or the region over time, such as the Blaine County Wildlife Museum or the establishment of the Upper Missouri River Breaks National Monument visitor center at Fort Benton, would also cumulatively contribute long-term beneficial socioeconomic impacts to the regional economy.

**Conclusion:** There would be no impacts from the implementation of Alternative 1. Alternative 2 would result in minor short- term beneficial impacts and negligible long-term beneficial impacts on socioeconomic resources. Implementation of Alternative 3 would result in moderate, short-term, localized socioeconomic benefits from construction related expenditures and minor long-term, localized beneficial impacts from the new NPS battlefield and Chinook facilities. The implementation of Alternative 4 would result in moderate, short-term benefits from construction related expenditures and minor to moderate, long-term beneficial impacts from the new battlefield visitor center/administrative complex. There would also be potential for negligible to minor adverse economic impacts to Chinook and the Blaine County Museum through potential loss of book sales and rental income under Alternative 4.

<b>Topography</b>	There would be no new impacts to topography.	There would be negligible impacts on topography from modifying the location of site facilities.	Same as Alternative 2 at Bear Paw Battlefield, plus no impacts to topography in Chinook.	Minor to moderate, localized long-term impacts to topography from construction of new visitor center on at the battlefield.
<p><b>Cumulative Effects:</b> Because the proposed actions under any of the alternatives in this EA are on a comparatively small scale, there would be negligible cumulative impacts on topography.</p> <p><b>Conclusion:</b> There would be no additional impacts to topography from Alternative 1. There would be negligible, localized long-term impacts to topography from the placement of the vault toilet and visitor contact station in Alternative 2. Alternative 3 would have the same impacts at the battlefield as Alternative 2 and no impacts on topography in Chinook. Alternative 4 would result in minor to moderate, localized long-term impacts to topography as the access road, visitor center, septic system, and other utilities, including the well and water treatment system, were constructed on the battlefield.</p>				
<b>Vegetation</b>	There would be no additional impacts on vegetation.	There would be negligible to minor, localized, short-term adverse impacts from the removal of vegetation during construction. Restoration efforts at the battlefield under Alternative 2 would include revegetation of approximately 1.25 acres of land resulting in long-term, minor to moderate beneficial impacts to vegetation.	Impacts would be the same as Alternative 2 at the battlefield. In Chinook, depending on the site selected, it is likely that primarily weedy or landscaping species would be removed by the construction or remodeling of a building for the visitor information station and associated outdoor exhibit space, a negligible impact.	Vegetation removal under this Alternative equates to an estimated 61,500 sq. feet or approximately 1.5 acres, a localized, minor to moderate adverse impact. These would be off-set by restoration of approx. 1.75 acres of land that would constitute a long-term, localized, minor to moderate beneficial impact on vegetation.
<p><b>Cumulative Effects:</b> Compared to the impacts on this region that have occurred as a result of agricultural and development use over the past, there would be no or negligible additional cumulative impacts from Alternatives 1 through 3 and minor cumulative impacts from Alternative 4.</p> <p><b>Conclusion:</b> There would be no additional impacts from Alternative 1. Alternative 2 or 3 would have negligible to minor, localized, short-term adverse impacts associated with construction of facilities and long-term, minor to moderate beneficial impacts associated with restoration at the site. Alternative 3 would also have negligible adverse impacts in Chinook. Alternative 4 would have both adverse, minor to moderate, short-term localized impacts and long-term, minor to moderate beneficial impacts at Bear Paw Battlefield.</p>				

<b>Visitor Experience</b>	<p>There would be no major improvements in onsite visitor safety, visitor contact or interpretation.</p>	<p>Adverse construction related impacts under this Alternative would be short-term, localized and negligible. Taken as a whole, the improvements to onsite facilities and restoration proposed through this Alternative would result in long-term, moderate beneficial impacts on visitor experiences at the park.</p>	<p>Impacts at the battlefield would be the same as Alternative 2. The combined developments providing additional opportunities for improved visitor understanding of battle events, both onsite and in Chinook, would result in long-term, localized, moderate to major beneficial impacts on the visitor experience.</p>	<p>Construction related impacts would be similar to Alternatives 2 and 3. However, it would be concentrated at the battlefield under this Alternative. The creation of combined visitor facilities in Chinook would result in long-term, localized, major beneficial impacts on the visitor experience. However, the presence of the visitor center/administrative complex and its associated infrastructure in one of the site's primary character defining viewsheds to the south would have a localized, long-term minor to moderate adverse impact on the viewshed which is a key component of the visitor experience at the battlefield.</p>
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**Cumulative Effects:** Over the long-term, any of the action alternatives presented in this EA, when combined with other regional actions, would cumulatively contribute widespread, negligible to minor beneficial impacts on visitor experiences across the region.

**Conclusion:** There would be no additional impacts on the visitor experience as a result of implementing Alternative 1. Alternatives 2, 3, and 4 would all result in short-term, negligible adverse impacts during construction. Alternative 2 would result in a localized, long-term, moderate beneficial impact on visitor experience. Beneficial impacts under Alternative 3 would be moderate to major, long-term and localized. Taken as a whole, the major beneficial impacts anticipated with Alternative 4 would be tempered with minor to moderate viewshed impacts (an important component of the visitor experience) resulting in Alternative 4 having an overall long-term, localized minor benefit impact on the visitor experience.

<b>Water Resources</b>	<p>No new impacts would occur as a result of Alternative 1.</p>	<p>There would be no impacts to water quantity anticipated from the implementation of Alternative 2 and potential adverse impacts to water quality and wetlands would be negligible, short-term and localized. Restoration efforts would have long-term, localized, negligible to minor beneficial impacts on wetlands.</p>	<p>Impacts would be the same as Alternative 2 at the battlefield, with locally negligible impacts on water quantity in Chinook from visitor the information station/administrative facility.</p>	<p>Short-term impacts to water quality and wetlands through project construction would be localized and negligible. Additional NPS water use under this Alternative would constitute a long-term, localized, negligible to minor adverse impact on water quantity. Restoration planned under Alternative 4 would result in long-term, localized, minor beneficial impacts.</p>
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**Cumulative Effects:** When juxtaposed against the long-term withdrawal of water for ranching and agriculture in the vicinity and the natural, year-round inputs to area water quality, the actions proposed under the alternatives in this EA would have negligible impacts on water quality and wetlands (Alternatives 2-4), and either no (Alternatives 1-3) or negligible to minor (Alternative 4) cumulative impacts on water quantity.

**Conclusion:** Alternative 1 would have no additional impacts on water quality, water quantity or wetlands. Alternative 2 or 3 would have no or negligible additional impacts on water quantity. They would also have short-term, localized, negligible impacts on water quality and wetlands. These impacts would be coupled with negligible to minor, long-term beneficial impacts to wetlands through restoration. Alternative 4 would have minor, beneficial, long-term impacts to wetlands, coupled with long-term, localized, negligible to minor adverse impacts on water quantity. Alternative 4 would also result in long-term, localized, minor beneficial impacts through restoration.

<b>Wildlife</b>	There would be no additional impacts to wildlife.	Adverse impacts to wildlife would be localized, negligible and short-term having no lasting impacts beyond the revegetation period. Restoration of the upper parking area and a small portion of the lower parking area would result in a long-term, negligible to minor, localized beneficial impact in increasing plant cover and therefore habitat for some species of wildlife.	Impacts would be the same as Alternative 2 at the battlefield. In Chinook, there would be no or negligible impacts to wildlife	Habitat modification would preclude a return to the former level of use in the entire 6 acres affected under this Alternative by some species of wildlife, a long-term, minor, localized adverse impact. Restoration of the upper and lower parking areas and removal of all visitor access to these locations would result in a long-term, minor or moderate, localized beneficial impact in increasing plant cover and therefore habitat for some species of wildlife.
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**Cumulative Effects:** There have been few impacts to native wildlife related to park establishment. Visitor use at the site, however, has resulted in a slight increase in human activity that varies by season and time of day. Over most of the park these impacts are not noticeable (negligible) and opportunities to see wildlife remain similar to when the park was established (most evident at night and during the cooler hours of the day). All action alternatives would result in similar contributions to diminishing wildlife presence from habitat modifications and human presence. However, these actions, when analyzed in conjunction with their respective restoration proposals, would cumulatively contribute only negligible impacts on wildlife.

**Conclusion:** Alternative 1 would have no new impacts on wildlife. Alternative 2 or 3 would have localized, short-term negligible impacts on wildlife at the battlefield. Alternative 3 would have no or negligible impacts in Chinook. Both Alternative 2 or 3 would have long-term, negligible to minor beneficial impacts associated with restoration activities. Alternative 4 would result in short-term, negligible to minor impacts (from construction related disturbances) and long-term, minor to moderate impacts (habitat loss) on wildlife. The long term impacts would be offset by minor to moderate beneficial impacts associated with the restoration efforts.

## **SECTION 5. CONSULTATION, COORDINATION AND EA RECEIPIENTS**

The following people, agencies and organizations were consulted during the preparation of this Environmental Assessment:

### **I. Planning Team Contributors and Consultants**

#### *A. National Park Service, Nez Perce National Historical Park*

##### Administration

Doug Eury, former Superintendent

Chris Stein, former Acting Superintendent

Gary Somers, former Superintendent

Tami DeGrosky, Superintendent

Sue Richardson, Chief of Administration

Tim Nitz, Nez Perce National Historical Park, Oregon/Washington Unit Manager

Scott Eckberg, Park Ranger, Idaho Unit Manager

##### Interpretation

Marie Marek, former Chief of Interpretation and Education

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Mark Blackburn, Park Ranger (Interpretive Specialist)

##### Maintenance

Dennis Groseclose, Chief of Maintenance, Nez Perce National Historical Park

##### Resources Management

Jason Lyon, Integrated Resource Manager

#### *B. National Park Service, Nez Perce National Historical Park, Bear Paw Battlefield*

Robert West, former Park Ranger/Bear Paw Battlefield Site Manager

#### *C. National Park Service, Big Hole National Battlefield*

Tami DeGrosky, former Superintendent and Nez Perce National Historical Park Montana Unit Manager

Steve Black, Superintendent and Nez Perce National Historical Park Montana Unit Manager

Wayne Challoner, former Chief of Maintenance, Big Hole National Battlefield

Jim Stone, Chief of Maintenance, Big Hole National Battlefield

#### *D. National Park Service, Pacific West Regional Office (Seattle)*

Keith Dunbar, Chief Planning and Environmental Compliance

Rose Rumball-Petre, Environmental Protection Specialist

### *E. Native American Tribes*

Nez Perce Tribe  
Confederated Tribes of the Colville Reservation  
Confederated Tribes of the Umatilla Indian Reservation

## **II. Agencies, Tribes, and Organizations Contacted**

A scoping letter was sent to 71 individuals, organizations, agencies and groups in July 2005, soliciting comments on the issues concerns, and alternatives to be addressed in the EA. Nine comment letters (2 from individuals, 2 from organizations, 2 from agencies, and 3 from the associated tribes) were received. See the Scoping section of this document for a summary of these comments.

Chinook Chamber of Commerce  
Havre Chamber of Commerce  
Chinook Lions Club  
Travel Montana  
Friends of Canyon Creek  
Blaine County Museum  
Montana Historical Society (Montana SHPO)  
Bureau of Land Management (Missouri River Breaks National Monument)  
US Fish and Wildlife Service  
Montana Fish, Wildlife and Parks  
National Park Conservation Association  
Nez Perce National Historical Trail  
Nez Perce Tribe  
The Confederated Tribes of the Colville Reservation  
The Confederated Tribes of the Umatilla Indian Reservation  
Assiniboine and Gros Ventre Tribes, Fort Belknap Reservation  
The Chippewa-Cree Tribe of the Rocky Boy Reservation

## **III. Environmental Assessment Recipients**

### *A. Federal Agencies*

U.S. Department of Agriculture, Nez Perce National Historical Trail  
U.S. Department of Agriculture, U.S. Forest Service Rocky Mountain Region  
U.S. Department of the Interior, Bureau of Land Management, Lewistown Field Office  
U.S. Department of the Interior, Bureau of Land Management, Montana State Office

### *B. State, Local and Tribal Agencies and Organizations*

Blaine County Library  
Blaine County Museum  
Chinook Chamber of Commerce  
The Confederated Tribes of the Colville Reservation, THPO  
The Confederated Tribes of the Umatilla Indian Reservation, THPO  
Friends of Bear Paw, Big Hole and Canyon Creek Battlefields

Havre-Hill County Library  
Montana Fish, Wildlife and Parks  
Montana Historical Society (SHPO)  
Montana Preservation Alliance  
Nez Perce Tribe, THPO

*C. Native American Tribal Governments*

Assiniboine and Gros Ventre Tribes, Fort Belknap Reservation  
The Chippewa-Cree Tribe of the Rocky Boy Reservation  
The Confederated Tribes of the Colville Reservation  
The Confederated Tribes of the Umatilla Indian Reservation  
Nez Perce Tribe

## SECTION 6. TERMS AND REFERENCES

### I. Terms

ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
APE	Area of Potential Effect
BEAR	Bureau of Economic Analysis Regional FACTS
BLM	Bureau of Land Management
CCT	Confederated Tribes of the Colville Reservation
CEQ	Council on Environmental Quality
CTUIR	Confederate Tribes of the Umatilla Indian Reservation
DAR	Daughters of the American Revolution
DM	Departmental Manual, Department of Interior
DNRC	Montana Department of Natural Resources and Conservation
DOI	Department of Interior
EA	Environmental Assessment
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FTE	Full Time Equivalent
GMP	General Management Plan
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
LOSA	Line of Sight Analysis
LRIP	Long Range Interpretive Plan
MGM	Money Generation Model
MNHP	Montana Natural Heritage Program
MOA	Memorandum of Agreement
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NPS	National Park Service
NPT	Nez Perce Tribe
SHPO	State Historic Preservation Office
T&E	Threatened and Endangered
THPO	Tribal Historic Preservation Officer
TTCA	Triangle Telephone Cooperative Association
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compounds

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U.S. Fish and Wildlife Service. 2012. Letter written in response to informal consultation by the National Park Service, Nez Perce National Historical Park under Section 7 of the Endangered Species Act for a Proposed Visitor Services Facility Associated with Bear Paw Battlefield. U.S. Fish and Wildlife Service, Ecological Services, Montana Field Office, Helena, Montana.

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## Appendix A.

### VISUAL IMPACT ANALYSIS FOR BEAR PAW BATTLEFIELD

#### 1. Introduction

Two visual impact studies were recently conducted in response to the potential updating of visitor contact facilities at the Bear Paw Battlefield site. These updated Bear Paw facilities were proposed in a 2009 draft Environmental Assessment. One of the concerns of the NPS, partners, and stakeholders resulting from that initial draft EA was a need to better articulate impacts of the proposed new facilities on significant views from the battlefield out across the landscape. In order to quantify the potential for impacts, two types of studies were undertaken and are reported together here. The first was a line of sight analysis and the second a photographic visual observation study.

The Line of Sight Analysis (LOSA) was performed with ESRI's Geographic Information System (GIS) based ArcMap software package. This analysis focused on utilizing the LOSA function in ArcMap to calculate the visibility of potential visitor contact facility locations across the battlefield from key observer points along the site interpretive trail.

The LOSA analysis was conducted in two phases. The initial phase looked at six potential building site locations across the southern portion of the battlefield. This preliminary work was tasked with determining if other locations existed across the southern part of the battlefield (on NPS or adjacent private lands to the south) that were better suited to site a facility than what was identified through alternative 4 in the 2009 draft EA. The results of the LOSA were mostly inconclusive. However, we were able to determine that impacts on battlefield views from any of the six different southern locations were going to be similar regardless of where the structure was placed.

This preliminary LOSA study resulted in a confirmation that there doesn't seem to be a location on the battlefield, or adjacent lands to the south, more suited to development than that already identified in alternative 4 of the EA. Therefore, when conducting the second phase of the LOSA study reported here, it was determined that only the original building site for facilities proposed in alternative 4 of the EA, and those facilities proposed in alternatives 2 & 3, would be subjected to detailed study.

The photographic visual observation assessment was conducted to help refine the results of the LOSA study, and provide tangible visual evidence to better understand the scale and nature of impacts on battlefield viewsheds from potential future facilities. This involved placing a temporary structure at each of the building sites where facilities were proposed for construction. Photographs were then taken from the same LOSA observation points toward the temporary structure. The results of that analysis are discussed below.

#### **Overview of Alternatives**

The March 2009 draft EA, *Improve Visitor Services at Bear Paw Battlefield* included four alternatives (no action plus three action alternatives). All of the action alternatives include potential facilities to be developed on-site at the battlefield. This EA was never finalized and the NPS is now in the process of revising the EA and reanalyzing impacts on the environment from these potential alternatives. As a part of this revision, the action alternatives have been refined some since the 2009 draft EA was first released, and there have been a few minor reductions in scale of the facilities called for in the alternatives. Brief overviews of the on-site facilities

proposed for the battlefield through the four alternatives are provided below (please see Appendix 1 for a detailed description of the four alternatives):

- Alternative #1: This is the no action alternative and will result in no change to the existing facilities at the site.
- Alternative #2: This alternative proposes to remove all existing facilities in the upper and lower parking areas at the battlefield and consolidate those facilities to the extreme northwestern edge of the lower parking area. This includes removal of the existing vault toilet and picnic shelter. In their place, a new 100 square foot vault toilet and 200 square foot visitor contact structure would be placed on the lower terrace against the bluff to the north. All existing trailhead facilities would be relocated to this location and parking consolidated on the existing lower loop road. The parking and loop road on the existing upper terrace would be vegetated.
- Alternative #3 (Preferred Alternative): This alternative calls for the exact same facilities on-site as alternative 2. The difference between alternative 2 and 3 is what is proposed in the community of Chinook, Montana. Therefore, for the purposes of this analysis, impacts on the battlefield under alternatives 2 and 3 are the same and will be evaluated together.
- Alternative #4: This alternative calls for development of a stand-alone, full service NPS visitor center located on the southern edge of the NPS property. This facility would be operated year-around and would require an approximately 3,100 square foot visitor center, 11,000 square foot parking lot, 1/4 mile access road, and other associated infrastructural development.

The locations potentially proposed for development under these alternatives can be seen in Figure #1 below. The area described in alternative 4 is depicted as building site #1 on the map. The location depicted as building site #2 and #3 is representative of the two on-site structures called for under alternatives 2 & 3. The facility depicted on the map as building site #2 is the proposed location for the new vault toilet and the facility depicted as building site #3 would be the 200 square foot visitor contact structure. Due to the similar size and close proximity of these structures to each other, a central point located immediately between the two structures labeled building site #2-3 was used for both the LOSA and visual observation study calculations because it was found to be representative of the two locations. Table 1 below presents the detailed locations for the building sites analyzed in the LOSA and visual observation study.

*Table 1: UTM Zone 12 NAD83 coordinates for building site points*

<b>Alternative in EA</b>	<b>Point</b>	<b>Easting</b>	<b>Northing</b>
Alternative 4	Building Site #1 East Corner	632621	5359378
	Building Site #1 North Corner	632611	5359393
	Building Site #1 West Corner	632585	5359378
Alternatives 2 & 3	Building Site #2 Central Point	632303	5359737
	Building Site #3 Central Point	632298	5359729
	Building Site #2-3 Central Point	632300	5359733

**Existing Site Viewshed**

The Bear Paw Battlefield still looks much the same as it did in 1877, 136 years after the battle. The impacts of the battle can be understood from the property’s spatial organization, historic features (rifle pits and entrenchments), landscape patterns (draws, ridges, and depressions), natural systems and features as well as from its vegetation.

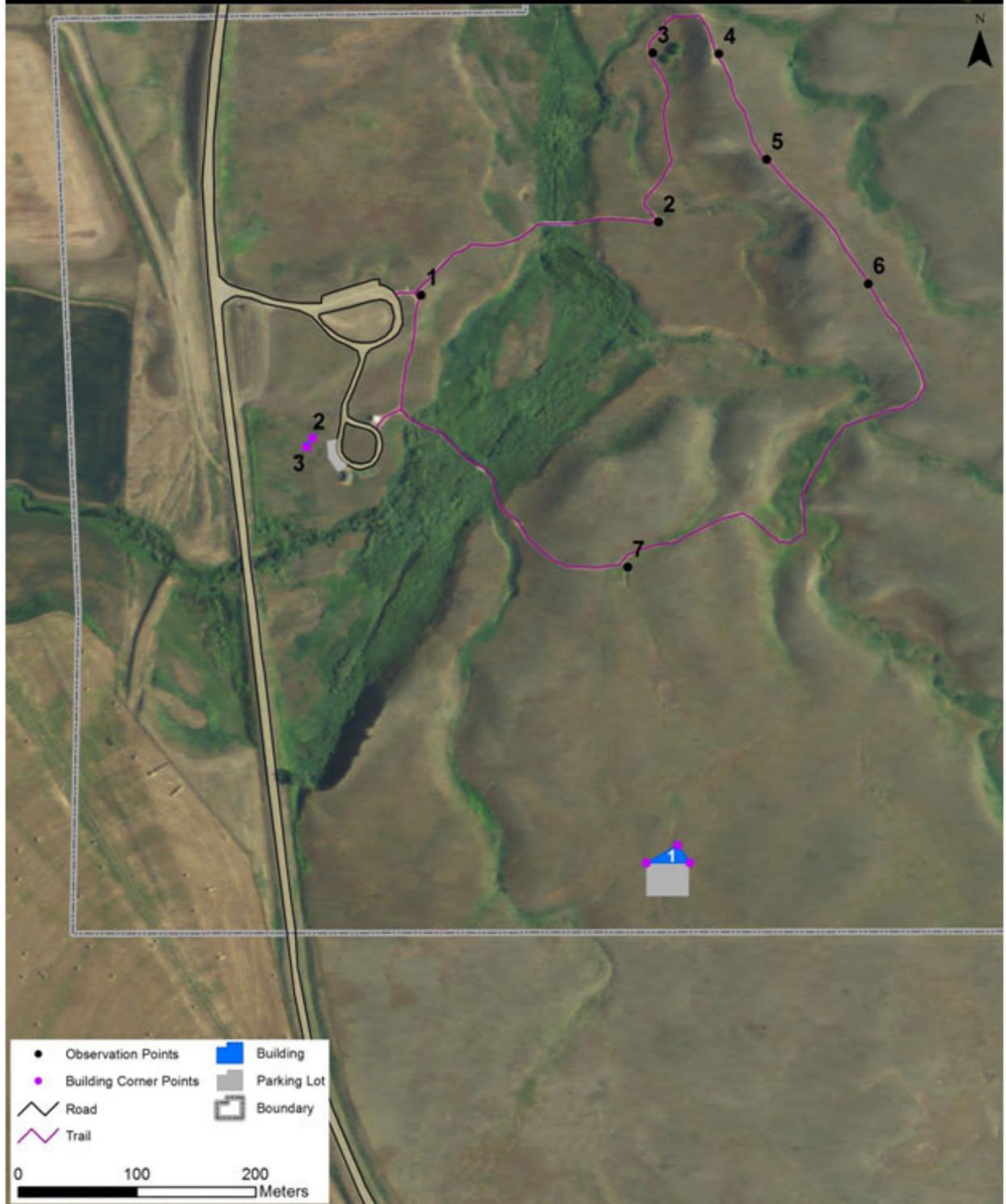


Figure 1. Map of observer locations and building points

This landscape, coupled with historic documentation of the site from the late 1920s by surviving battle participants, identifies characteristics, locations and features that are keys to preservation of the battlefield and the visitor experience.

The NPS ownership at Bear Paw includes 190 acres and represents the primary area where battle events occurred. Lands surrounding the battlefield on all sides are privately owned. These lands support cattle grazing operations, ranch and home buildings, some irrigated and dry land farming, and limited gas/oil production. For the most part, intrusions on the views from the battlefield looking out are few. Lands located to the immediate north, south, and east of the NPS property are currently utilized for livestock grazing, and with the exceptions of a few fence lines and utility lines/poles, there are basically no impacts on views from the battlefield looking out in these directions.

To the immediate west of the battlefield are Montana Secondary Highway 240 and additional fences and power lines. West and southwest of the highway right-of-way, and directly in the backdrop of views from the battlefield looking west/southwest, are several ranch buildings, irrigated fields, and livestock corrals. All of these agricultural facilities result in impacts on the existing viewshed to the southwest. These impacts are not major, but they are noticeable and do influence the historic setting and visitor experience at the battlefield.

Due to the positioning of potential new facilities on the battlefield the views of primary importance, and those most likely to be impacted through implementation of one of the action alternatives, are those to the south, southwest, and west. Views to the north and east from each of the observation points utilized in both the LOSA study and visual observation study are also significant, but will not be impacted via any of the facilities proposed through the alternatives under review. Therefore, discussions regarding impacts to views resulting from facilities under consideration will be assessed from the observation points across and out from the battlefield to the south, southwest, and west.

## **2. Line of Sight Analysis**

### **Introduction**

The LOSA was conducted to help provide a quantifiable measure to the potential visibility of facilities under consideration for the Bear Paw site from various key observation points across the landscape. There are some limitations to the LOSA methodology in that it doesn't easily allow for a determination of "how much" of a given point is visible, just whether it is visible or not. However, it was determined that utilization of this method would be an appropriate first step to help refine the alternatives, and guide other more detailed visual studies for the Bear Paw site.

### **LOSA Methods**

The first aspect of performing the LOSA was to identify observer points across the battlefield. These are the locations from which impacts on views will be analyzed from. Selection of these points primarily focused on identification of locations from which key aspects of the battle story or interpretive message are tied to the views looking out from the battlefield across the landscape. Seven such sites were identified, and utilized to conduct the analysis presented here.

- Observation point #1 – located immediately east of the current trailhead approximately ¼ of the way to the bridge across Snake Creek.
- Observation point #2 – located immediately east of the bridge across Snake Creek near several prominent historic Nez Perce teepee locations and a sharp bend in the trail.

- Observation point #3 – located near the center of the Nez Perce encampment area near the two large trees on site.
- Observation point #4 – this point is located on a narrow ridge overlooking the Nez Perce encampment area near the existing McWhorter monument and prominent battle related features.
- Observation point #5 – this point is located along the interpretive trail south of point 4 where excellent views in all directions, especially the south and southwest, are present.
- Observation point #6 – this point is located near where the initial cavalry charge was met by the Nez Perce during the opening moments of the battle and excellent views in all directions are had from this elevated position.
- Observation point #7 – this point is located to the immediate northeast of the soldier’s grave.

Once the general locations for the seven observation points were identified, a detailed review of the topographic relief of the property through a GIS based Digital Elevation Model (DEM) was conducted. With this information, an on the ground visual reconnaissance was conducted to pinpoint and GPS mark each location (observation points and building sites). These locations can be seen on Figure 1 and their locations are listed in Tables 1 and 2.

*Table 2: UTM Zone 12 NAD83 coordinates for observation points.*

<b>Point</b>	<b>Easting (X)</b>	<b>Northing (Y)</b>
Observation point 1	632395	5359857
Observation point 2	632595	5359919
Observation point 3	632590	5360062
Observation point 4	632646	5360061
Observation point 5	632686	5359972
Observation point 6	632772	5359867
Observation point 7	632569	5359628

As discussed above, the seven observation points are located along the battlefield interpretive trail. There are three proposed building sites, one located to the south of the observation points, and two are located to the west of the trail. The building polygon placed on the alternative 4 building site to the south was created with one of the corners of the triangular shaped building pointing north, east and west and labeled building site #1. The two building polygons to the west were created with only one point centrally located between the two due to the small size of the buildings footprints and labeled building site #2-3. Heights for all observation points were set at 1.83m (6 ft.). The southern building corner points were set at 4.5m (15 ft.) while the central point representing the two buildings to the west of the trail were set at 3.6m (12 ft.). These heights were based on the preliminary designs for those structures as detailed in EA the alternatives.

**Analysis**

Using the Line of Sight tool available in ESRI’s ArcMap GIS software package, graphic lines were drawn between the observation points noted above and the potential building site points in GIS. The Line of Sight tool calculates the inter-visibility of any two points placed on a three dimensional DEM. In ArcMap, this allows us to determine if lines graphically drawn from the observation points were able to connect unobstructed to any of the building site corners. If this line is able to connect from the observation point to the building site, then we should be able to say that representative building corner is “visible” from that particular observation point. If the

line was not able to connect, we can then determine where along the line an obstruction occurred, and by extension say the “view” was obscured.

### Results

Overall results demonstrated that from observation points #4 - #7, all of the building sites discussed here were visible (building site #1 and building site #2-3), whereas from observation point #2 only the potential facility at building site #2-3 was visible. Results from observation points #1 and #3 were mixed. Table #3 displays the results of the LOSA for the various potential building locations.

*Table 3: Line of Sight Results*

<b>Observer 1</b>	<b>Center point</b>	<b>North Corner</b>	<b>East Corner</b>	<b>West Corner</b>
Building 1	NA	Visible	Visible	Visible
Building 2-3	Visible	NA	NA	NA

<b>Observer 2</b>	<b>Center point</b>	<b>North Corner</b>	<b>East Corner</b>	<b>West Corner</b>
Building 1	NA	Not Visible	Not Visible	Not Visible
Building 2-3	Visible	NA	NA	NA

<b>Observer 3</b>	<b>Center point</b>	<b>North Corner</b>	<b>East Corner</b>	<b>West Corner</b>
Building 1	NA	Visible	Visible	Visible
Building 2-3	Visible	NA	NA	NA

<b>Observer 4</b>	<b>Center point</b>	<b>North Corner</b>	<b>East Corner</b>	<b>West Corner</b>
Building 1	NA	Visible	Visible	Visible
Building 2-3	Visible	NA	NA	NA

<b>Observer 5</b>	<b>Center point</b>	<b>North Corner</b>	<b>East Corner</b>	<b>West Corner</b>
Building 1	NA	Visible	Visible	Visible
Building 2-3	Visible	NA	NA	NA

<b>Observer 6</b>	<b>Center point</b>	<b>North Corner</b>	<b>East Corner</b>	<b>West Corner</b>
Building 1	NA	Visible	Visible	Visible
Building 2-3	Visible	NA	NA	NA

<b>Observer 7</b>	<b>Center point</b>	<b>North Corner</b>	<b>East Corner</b>	<b>West Corner</b>
Building 1	NA	Visible	Visible	Visible
Building 2-3	Visible	NA	NA	NA

### **Discussion and Conclusions for the LOSA**

Accuracy of the LOSA is dependent on the resolution and accuracy of the DEM used and the size and location of the items being modeled. The currently available DEM for the Bear Paw Battlefield has a 10 meter resolution. While this resolution is adequate for some planning purposes, in topography such as that found at the battlefield, a resolution of 10 meters is not ideal. The LOSA graphic line drawn via GIS is based on the DEM grid itself, so the resolution and location of the DEM cells determines the resolution and location of the line of sight. No matter where the line crosses within a cell the value for that entire cell will be the same. So, with a resolution of ten meters you are assuming that there are no elevation changes in 100 square meters on the actual ground surface. To say it another way the “pixel” size is 10 x 10 x 10 meters (approx 33 x 33 x 33 feet) resulting in a footprint on the ground of 100 square meters or 1,076 square feet and a “cube” shaped “pixel” of 1,000 cubic meters. Each of the “pixels” is assigned an averaged elevation and the computer assumes everything within that 10 x 10 x 10 meter square is the same height. With the subtle variability in topography common to the Bear Paw site, this level of resolution is simply too coarse and not accurate enough to allow for a detailed analysis of the facilities proposed for the building sites presented here.

This is especially the case with the two small structures identified in alternatives 2 and 3 labeled building sites #2 & #3 on Figure 1. These structures, as detailed in Appendix 1, are relatively small (building site #2 corresponds to the vault toilet and is 100 sq. ft. and building site #3 corresponds to the 200 sq. ft. visitor contact station). Basically, the entire development proposed at building site #2-3 could be concealed within one of the 10 x 10 x 10 meter pixels from the DEM.

As noted above in Table 3, according to the LOSA analysis nearly all potential building locations can be seen from a majority of the observation points on the battlefield. The study indicates that facilities proposed for building sites #2 and #3 are visible from all seven observation points, while that proposed for building site #1 is visible from all observation points but #2. However, as discussed above, these results need to be heavily tempered with the fact that the resolution and accuracy of the existing DEM is not capable of providing the detailed analysis we hoped to have produced for this landform.

This study also doesn't take into account the shape, color, and style of the structures represented by the building sites. For example, the facility proposed for building site #2 under alternatives 2 & 3 is a standard vault toilet. The vault toilet roof is approximately ten feet tall at the peak, but the stack extends another two feet above the roof line to allow for proper ventilation. This stack is around a foot in diameter, colored flat black and not highly visible. However, in the study presented here, building site #2 was analyzed as a 12 foot structure of 100 sq. ft. in size. To the computer based system, it assumes the structure is a 12 foot high cube. The same can be said for all the other facilities proposed for the remaining building sites analyzed through this study. Therefore, the results of this study are only as accurate as the horizontal and vertical accuracy and resolution of the DEM, and in this case the DEM is not accurate enough for the detailed level of analysis required. So, the results of the LOSA should be viewed as inconclusive.

### **3. Visual Observation Study**

#### **Introduction**

To augment the inconclusive findings of the LOSA discussed above, a visual observation study was undertaken for the Bear Paw site. Much like the LOSA discussed above, the first aspect of performing this analysis was to identify the observer points across the battlefield. These are the

locations from which the views will be analyzed. Since the function of this visual observation study is to augment the inconclusive findings of the LOSA, the same observation points were used. These points represent locations from which key aspects of the battle story or interpretive message are tied to the views looking out from the battlefield across the landscape. Seven such sites were identified, and utilized to conduct the analysis presented here (Figure 1 and Table 2).

To remain consistent, the two potential building sites identified in the LOSA above were selected for detailed analysis under the visual observation study as well. These two sites are those represented in Appendix 1 as alternatives 2 & 3 and alternative 4. These are noted as building site #1 and building site #2-3 in the LOSA (Figure 1 and Table 1) and the same terminology will be utilized in the visual observation study reported here.

## **Methods**

The goal of the visual observation study was to determine if there was sufficient topographic relief to conceal or reduce potential visual impacts from the facilities proposed through the action alternatives detailed in Appendix 1. As noted in the appendix, the scale, size, and scope of facilities, and their associated infrastructure, called for in the alternatives are not the same. However, it was decided to conduct this analysis using a temporary structure that was representative of the smallest facility proposed under any of the action alternatives. In this case, it is the 10x10 foot vault toilet proposed for the alternatives 2 & 3 location. The roofline of the vault toilet measures approximately 10 feet in height with the stack approximately two feet beyond that. It was decided that if this structure (the smallest called for at the site in any of the action alternatives) was visible from either of the proposed building site locations across the battlefield, the larger structures it would be representing would be at least as visible, and likely much more visible than the temporary structure used here.

The temporary structure was a 10x10 foot portable dining canopy. The dining canopy is eight feet tall at the peak and six feet tall on the exterior edges. Temporary wooden extension legs were added to the canopy to extend it to eleven feet high on the edges and 13 feet high at the peak. The original plan was to install the blue canopy at the top of the skeletal structure to make it more visible in the photographs. However, high winds present while we were at the battlefield were not conducive to installation of the canopy. Therefore, just the skeletal frame was used. The structure is also taller than the vault toilet proposed for the building site #2-3 location and a little shorter than the facilities proposed for the building site #1 location. These height discrepancies were found to have minimal impacts on the results of the study and will be explained in more detail below.

The canopy was first installed in the building site #1 location as depicted in Figure 1. As noted above, the visitor center facility described in alternative 4 is much larger (3,100 sq. feet) whereas the dining canopy is only 100 sq. feet. In addition, the alternative 4 structure is likely to be at least 15 feet high, where the dining canopy is only 13 at the peak. Once the skeletal canopy was installed, at least two photographs were taken from each of the observation points depicted in Figure 1 toward the building site #1 location. The first photo was a standard focal length photo, and the second a zoomed in photo at 14-power magnification from the same location. Each photograph was taken looking toward the building site, with the temporary structure in the center of the photo.

The same exact procedure was used for the building site #2-3 facilities. For this building site, the temporary structure was centered, via GPS, on the location identified in Table 1 as the building site #2-3 center point. This is the same location used for the LOSA and is a point centrally located between the two proposed facility locations. The same skeletal dining canopy was used here as

well. At least two photos were taken from each observation point looking toward the building site #2-3 location.

Upon completion of the fieldwork, each photograph was reviewed to determine the level of visibility of the temporary structure from each of the observation points. This process was guided by the following questions:

1. Is a potential facility proposed in the action alternatives reviewed here (as represented by the temporary structure) visible from the specific observation points on the battlefield?
2. If visible, to what extent or how much of the facility will be visible (as represented by the temporary structure)?
3. If it is not visible, why is the facility not visible?

The initial plan for this study was to use only standard focal length photographs to allow for standardization across the different observation points and building sites. It was quickly realized in the field while taking photos that from most of the observation points the dining canopy structure was not showing up in the photographs. This was repeatedly found to be the case even when the temporary structure was clearly visible with the naked eye from the same location. This phenomenon is primarily believed to be the result of the light tan color of the dining canopy structural elements, combined with the distance of the observation points from the building site, the abundance of browns found in the background vegetation, and sensitivity of the digital sensor used in the camera. The issue was most pronounced with building site #1 when photographed from observation points 3, 4, 5, & 6 (see Figure 1 and Table 4). To compensate for this, photographs were also taken from each observation point with the maximum optical zoom (14-power magnification) of the camera, as an addition to the standard focal length photo. To allow for standardization across all observation points and building site locations, zoomed photographs were taken at all observation points for both building sites.

The next step in the study involved developing a standardized process for quantifying the level of facility visibility from each of the observation points. After some consideration, it was decided that a determination of percentage of visibility for the temporary structure from each observation point would be the most effective way to allow for comparison between observation points. This was accomplished through scaling the photographs in GIS and then measuring the height of the structure visible above the perceived ground surface in each photo with the assistance of the GIS software. This observed height above ground level was then divided by the known height of the temporary structure (or the height of the current on site vault toilet for observations related to the existing facilities) and expressed in the form of an estimated percent visible. These percentages were then grouped into visibility categories. Four visibility categories were identified based on an initial screening and sorting of the resulting visibility percentages. These categories are detailed enough to allow for discussion and interpretation of the impacts of the proposed facilities on the viewshed of the battlefield, but inclusive enough to account for potential variations in the scaling and measuring process between photographs. Detailed descriptions of the visibility categories developed for this study are as follows:

- Not Visible: This category is used when the temporary structure is clearly and completely not visible from the observation point.
- Barely Visible: This category includes those locations where visibility of the temporary structure, as expressed in percent visible using the process described above, ranged between 1% and 20%. Findings in this category include observations where just a small

portion of the top of the temporary structure is visible from the observation point. It is assumed that observations that fall within this category can likely be mitigated during final facility design through modifications to the proposed structures (using natural colors/textures or through making adjustments to roofline and/or roof style) and/or via adjustments to the finish elevation of the facility.

- **Partially Visible:** Observations that fall into this category are those that show from 21% to 50% of the temporary structure from a given observation point. Generally speaking, it is assumed that facilities with this level of visibility are not easily mitigated through changes in elevation or adjustments in color, texture, or design of the facility. It can be generally assumed that facilities within this visibility category will begin to have impacts on battlefield viewsheds.
- **Visible:** This category is used to describe those instances where 51% or more of the temporary structure was plainly visible from a given observation point. Observations that fall within this category cannot be fully mitigated for and will represent an impact on battlefield viewsheds.

## Results

A summation of the results of the visual observation study is presented in Table 4 below. Results are depicted by the observed percentage of the temporary structure visible above ground surface and also by visibility category as described above. In addition to information from the two potential building sites studied through this project, an analysis of the visibility of the existing site facilities were also conducted and is presented below as well.

*Table 4. Visual Observation Study*

<b>Observation Point</b>	<b>Percent Visible Building Site #1</b>	<b>Visibility Category Building Site #1</b>	<b>Percent Visible Building Site #2-3</b>	<b>Visibility Category Building Site #2-3</b>	<b>Percent Visible Existing Facilities</b>	<b>Visibility Category Existing Facilities</b>
Observation Point 1	0%	Not Visible	0%	Not Visible	0%	Not Visible
Observation Point 2	0%	Not Visible	15%	Barely Visible	30%	Partially Visible
Observation Point 3	0%	Not Visible	0	Not visible	20%	Barely Visible
Observation Point 4	75%	Visible	0	Not Visible	60%	Visible
Observation Point 5	60%	Visible	50%	Partially Visible	60%	Visible
Observation Point 6	100%	Visible	100%	Visible	100%	Visible
Observation Point 7	100%	Visible	0%	Not Visible	0%	Not Visible

### Findings for Building Site #1

This study indicates that facilities placed at building site #1 will be visible from four of the seven observation points across the battlefield. These observations points include #4 through #7, as depicted on Figure 1 and detailed in Table 4. A detailed description of the visual analyses for each of the observation points, as they relate to building site #1, are presented below.

- Observation Point #1: From this point the temporary structure was not visible. The terrain and topography of the battlefield, coupled with the elevation of the observation point, effectively mask the temporary structure from the viewshed. Even though the temporary structure is smaller and shorter than the facilities proposed under alternative 4 for this location, it is believed none of the facilities proposed would be visible from this location either.
- Observation Point #2: From this point the temporary structure was not visible. This observation point is located near the southern edge of the Nez Perce encampment, where the trail turns north (Figure 1). The low elevation of the site, coupled with the topographic relief to the south, will effectively screen any facilities proposed for building site #1 from this location.
- Observation Point #3: As with the findings from observation point #1 & #2 above, the temporary structure was not visible from this location. However, when the observer moves several meters to the east along the interpretive trail, the temporary structure began to come into view. So, findings from this observation point still technically fall within the “not visible” category, but it seems likely at least a portion of the larger facility called for in alternative 4 would be at least “barely visible” from this observation point. However, it is possible that these facilities could be moved a few meters west to regain the masking advantages of the natural topography when looking south from this point. This would likely effectively conceal the facilities behind the natural topographic features of the landform and mask them from this observation point. This siting adjustment shouldn’t have any impact on the findings from the other six observation points.
- Observation Point #4: The upper 75% (approximately 10 feet) of the temporary structure was visible from this location. This falls within the “visible” category as described above. The temporary structure, and by extension any facilities proposed in alternative 4 for building site #1, would be clearly visible from this location.
- Observation Point #5: The upper 60% (approximately 8 feet) of the temporary structure was visible from this location. This falls within the “visible” category as described above. The temporary structure, and by extension any facilities proposed in alternative 4 for building site #1, would be clearly visible from this location.
- Observation Point #6: The temporary structure was found to be 100% visible from this location. Any facilities proposed for the building site #1 location would be completely visible from this location.
- Observation Point #7: The temporary structure was found to be 100% visible from this location. Any facilities proposed for the building site #1 location would be completely visible from this location.

The first three observation points used in this study are located in the general vicinity of the Nez Perce encampment and existing trailhead, primarily on the lower terrace. From these locations the observer is low enough in elevation that most views to the south are blocked by the topography of the site, effectively masking any views of the temporary structure – and by extension facilities proposed under alternative 4. This is definitely the case with observation points #1 & #2 and potentially so for observation point #3 (with some final siting adjustments). The remaining observation points (#4 through #7) are located along the eastern ridgeline running from the McWhorter monument south along the interpretive trail, ending at the soldier’s grave location. These points are all at a relatively consistent elevation and command excellent views of the surrounding landscape in most directions.

### Findings for Building Site #2-3

Building site #2-3 can be seen from three of the seven locations used in this study. It was barely visible from observation point #2, partially visible from observation point #5, and fully visible from observation point #6. A detailed description of the visual analyses for each of the observation points as they relate to building site #2-3 are presented below.

- Observation Point #1: From this point the temporary structure at building site #2-3 was not visible. The terrain and topography of the battlefield, coupled with the elevation of the observation point, effectively mask the potential building site from the viewshed. It is believed the facilities proposed in alternatives 2 & 3 for this building site would not be visible from this location.
- Observation Point #2: From this point the temporary structure was determined to be barely visible. Approximately 15% (top 2 feet or so) of the temporary structure was noticeable from this location. This observation point is located near the southern edge of the Nez Perce encampment, where the trail turns north (Figure 1). Though the temporary structure used in the study is visible from this location, it is believed that through careful incorporation of mitigation measures for the facilities proposed through alternatives 2 & 3 for this site, the potential impact can be mitigated and eliminated. In addition, the temporary structure used here is 13 feet high, were the vault toilet proposed for installation here is only 12 feet tall (and the upper two feet of that is represented only by the flat black vent stack). So, with that in mind only the upper half of the one-foot diameter flat black stack would potentially be visible from this observation point.
- Observation Point #3: From this point the temporary structure was not visible. The terrain and topography of the battlefield, coupled with the lower elevation of the observation point, effectively mask the temporary structure placed at building site #2-3 from the viewshed. It is believed none of the facilities proposed in alternatives 2 & 3 for this building site would be visible from this location.
- Observation Point #4: From this point the temporary structure was not visible. The terrain and topography of the battlefield effectively mask the temporary structure from the viewshed. It is believed none of the facilities proposed in alternatives 2 & 3 for this building site would be visible from this location.
- Observation Point #5: The upper 50% (approximately 6.5 feet) of the temporary structure was visible from this location. This falls on the extreme end of the “partially visible” category as described above. The temporary structure, and by extension any facilities proposed in alternatives 2 & 3 for building site #2-3, would be visible from this location.
- Observation Point #6: The temporary structure was found to be 100% visible from this location. Any facilities proposed for the building site #2-3 location would be completely visible from this location.
- Observation Point #7: From this point the temporary structure at building site #2-3 was not visible. The terrain and topography of the battlefield effectively mask the potential building site from the viewshed. It is believed none of the facilities proposed in alternatives 2 & 3 for this building site would be visible from this location.

The visual observation analysis conducted for building site #2-3 resulted in some mixed observations. Study findings for observation point #2 were found to be somewhat surprising. It was assumed that the temporary structure would be fully masked by the natural topography of the site and not visible from this location. However, with careful consideration of these findings this potential impact can be mitigated and eliminated through final design as the temporary structure was taller than the actual proposed vault toilet. The findings for observation point #5 and #6 were not a surprise as they are located due east of building site #2-3 along the interpretive trail. The

lack of topographic relief west of these observation points and the fact they are significantly elevated over the building site, makes the visibility findings understandable.

#### Findings for Existing Facilities

The visibility of the existing facilities (vault toilet) was also reviewed from each of the seven observation points. The existing facilities are visible to some extent from five of the seven observation points (Table 4). Detailed descriptions for each of the observation points follow:

- Observation Point #1: From this point the existing facilities are not visible. The terrain and topography of the battlefield, coupled with the elevation of the observation point, effectively mask the facilities from the viewshed.
- Observation Point #2: From this point the existing facilities are partially visible. Approximately 30% (top 3.5 feet or so) of the 12 foot tall vault was noticeable from this location.
- Observation Point #3: From this point the existing facilities were only barely visible. The terrain and topography of the battlefield, coupled with the lower elevation of the observation point, effectively mask a majority of the existing facilities and only the top 2.5 feet or so (20%) of the vault toilet is visible.
- Observation Point #4: The upper 60% (approximately 7 feet) of the vault toilet was visible from this location. This falls within the partially visible category as described above.
- Observation Point #5: The upper 60% (approximately 7 feet or so) of the vault toilet was visible from this location. This falls within the partially visible category as described above.
- Observation Point #6: The existing facilities are 100% visible from this location.
- Observation Point #7: From this point the existing facilities are not visible due to the general topography of the site.

The existing site facilities are located near proposed building site #2-3 so we were generally able to assess the visibility of both locations from the same set of photographs. The only places the existing facilities are not currently visible from is the soldier's grave (observation point #7) and the existing trailhead location (observation point #1). For the five locations where the existing facilities are visible, one is noted as barely visible, one as partially visible, and three as fully visible.

#### **Conclusions**

The results of the visual observation study allow us to refine the results of the GIS based LOSA. This helps confirm the belief that the GIS based analysis was not at a scale fine enough to accurately or truly provide the kind of information needed to understand the potential visibility of a given structure on the landscape at the Bear Paw site. However, what the LOSA did provide was an adequate starting point from which to refine and organize the visual observation study. The results of the visual observation study can provide valuable insight into the potential impacts of new or reconfigured visitor contact facilities on the battlefield.

To some extent, the visual observation study results tell us that facilities at the building site #1 location represent an all or nothing kind of scenario as far as visibility from the battlefield is concerned. When the temporary structure was visible (four out of seven times), the observer could see at least 60% of the structure. Basically, when facilities are visible at building site #1, the observer would see nearly the entire building and associated infrastructure. There is no topographic relief or effective form of mitigation available to conceal the proposed facilities and

their associated impacts on views from the battlefield toward the south. In addition, views from the battlefield south toward the Bear Paw Mountains are highly significant and are currently among some of the most pristine and unimpaired on the battlefield. The only existing intrusions on these viewsheds are those associated with the NPS boundary fence and a few utility lines in the distance. The visual observation study has indicated that even the diminutive 100 square foot skeletal dining canopy, when placed in the building site #1 location, was visible from over ½ the observation points on the battlefield.

This is in contrast to the results for building site #2-3 which was 100% visible from only one location, 50% visible from another, and only 15% visible from the third. It seems highly likely that with careful development and utilization of mitigation measures during building and site design, the location's "barely visible" finding can be mitigated and eliminated. This would reduce the locations from where the facilities proposed for building site #2-3 are visible to just two sites (observation points #5 and #6). These points lie to the northeast of the building site #2-3 location. It is important to note the highest degrees of existing impact on views from the battlefield are already present to the west/southwest of the NPS site on private lands. This viewshed corridor (to the west/southwest from the battlefield and specifically from observation points #5 and #6) includes existing visual impacts from Montana Secondary Highway 240, privately owned ranch buildings, irrigated farm ground, utility lines/poles, fences, and cattle operations. Though these impacts are dispersed across the private lands to the west and southwest of the battlefield and somewhat low key, they are virtually all visible from these two observation points and impact the background views from the battlefield to an extent not present in views to the south, east, or north.

The results of the visual observation study also indicate the facilities proposed under alternatives 2 & 3 would be significantly less visible than the existing facilities they would replace. The existing facilities are visible to some extent from five of the seven observation points. With the exception of the soldier's grave location and the trailhead near the upper parking lot, the existing facilities can be seen from all the other points along the current interpretive trail. Facilities proposed for alternatives 2 & 3 would result in a significant reduction in impacts on views from the battlefield over those currently present, even though they would still be in the foreground of the agricultural developments to the southwest.

It is within the context of these existing disturbed views to the southwest that the facilities proposed for the building site #2-3 location would be set. So, while the proposed facilities will clearly be visible from two observation points, they will be back dropped by the existing privately owned agricultural landscape. This will effectively minimize any new impacts these facilities present on viewsheds from the battlefield, as these viewsheds are already impacted to some extent and not totally reflective of the historic scene at the time of the battle.

This is in contrast to the views from these same observation points south toward the building site #1 location. Any facilities proposed in this location would be plainly visible and would have an impact on the currently uninterrupted character defining views from the battlefield looking south from both these observation points.

Of course development of the facilities proposed for building site #1 under alternative 4 would result in the removal of the existing facilities. As noted above these facilities are to some extent visible from five of the seven observation points on the battlefield. Removing these facilities would provide a modest benefit to site views to the southwest from most all the observation points. However, the views to the southwest are already impacted by agricultural developments outside of the NPS control on private lands. Therefore, while this would provide some benefit, it

would only effectively move these impacts from an already compromised viewshed (to the west/southwest) to one with very little to no intrusions (to the south). In addition, the new impacts created under alternative 4 would be of a larger and greater scale due to the increased size of the facilities proposed for development.