National Park Service
U.S. Department of the Interior

Grand Teton National Park
Wyoming

White Grass Ranch
Rehabilitation and Adaptive Use
Environmental Assessment/Assessment of Effect

September 2004

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Environmental Assessment/Assessment of Effect

White Grass Ranch Rehabilitation and Adaptive Use

Grand Teton National Park

Moose, Wyoming

SUMMARY

The National Park Service (NPS) proposes to rehabilitate and adaptively use one of its historic properties in Grand Teton National Park (GTNP) for a Western Center for Preservation Training and Technology (WCPTT). The center would offer opportunities for GTNP and other NPS employees, volunteers, visiting students, and potentially contractors and other federal agency personnel to learn how to preserve, rehabilitate, and find new uses for historic structures in the NPS Intermountain Region, beginning with those in Grand Teton and Yellowstone national parks. If the preferred alternative is selected, supporting utility systems would also be necessary, along with native plantings consistent with the cultural landscape.

This environmental assessment/assessment of effect (EA/AEF) examines four alternatives: Alternative 1 – No- Action; Alternative 2 –Minimum Basic Functions; Alternative 3 – Phased Development (Preferred Alternative); and Alternative 4 – Complete Build- out.

The NPS preferred alternative, which is also the environmentally preferred alternative, proposes that initially only a few White Grass Ranch structures would be rehabilitated and adaptively used as a Western Center for Preservation Training and Technology. The remaining buildings would initially be stabilized and later rehabilitated through hands- on instruction at the training center. The initial implementation of the preferred alternative would adaptively use a few of the existing thirteen structures at White Grass Ranch for classrooms, offices, housing, and utility systems in a manner that compliments the cultural landscape; restore and maintain species of native vegetation; install electric, water, and sewage lines to all buildings while only installing phone lines to a few structures; construct a small parking area to encourage people to carpool and shuttle to the site; and preserve the cultural landscape. Eventually, all thirteen buildings would be rehabilitated and adaptively used as part of the Western Center for Preservation Training and Technology.

The proposed action would have no impacts on ethnographic resources, museum collections, air quality, land use, natural lightscapes, prime and unique agricultural lands, soils, water quality and hydrology, wetlands and floodplains, wild and scenic rivers, environmental justice, Indian trust resources, or the socioeconomic environment. Impacts to archaeological resources would be negligible, as no archaeological resources have been identified in the proposed project area. Impacts to historic structures and cultural landscapes would be long- term, minor to moderate and beneficial as ten historic structures would be stabilized, three historic structures would be rehabilitated, and contributing cultural landscape features would be stabilized. Impacts to vegetation resources would be minor to moderate, long- term, and adverse due to ground disturbance associated with utilities installation, grading around buildings, and installation of the spur road and hay shed. The disturbance would remove native, non- native, and ornamental vegetation and allow the areas to be exploited by additional non- native plant species.

Wilderness (potential and recommended) impacts would be negligible and adverse in the short- term due to sounds associated with initial construction that could be heard in wilderness. There would also be negligible to minor, long- term, adverse impacts as sounds resulting from day and night use of the area may carry into wilderness areas. General wildlife impacts include short- term, negligible to minor adverse impacts due to increased disturbance to wildlife, their continued avoidance of the area, and loss of effective habitat that would result initially from construction activities and then long- term impacts from higher levels of human activities during facility operation. Operation of the facility and overnight use would result in minor, adverse, long- term impacts due to more human occupation and dispersal which would be disruptive to wildlife. Impacts to species of management concern would be long- term, negligible to minor and adverse due to overnight users and correspondingly greater human occupancy

and associated non- natural sound that could increase the potential for disturbance and displacement of sensitive species, and short- term, negligible to minor impacts due to construction activities that could displace species initially. Threatened and endangered species would be impacted long- term, negligibly to minor, and adversely due to increased human presence that could result in social trails and dispersed human use outside of the footprint of the project area. Short- term, negligible to minor, adverse impacts would result from non- natural sound generated from activities associated with the rehabilitation and stabilization of the buildings potentially causing these species to avoid using adjacent habitat.

Park operations would be impacted with long- term minor to moderate adverse impacts on the facility management division due to the maintenance of Death Canyon Road and the spur road, the water well, leach field, and removal of solid waste. There would be a long- term, minor adverse impact to weed management personnel due to ground disturbance. A long- term, moderate beneficial impact to park operations would occur because the training center would provide the park an increased capacity to preserve the park's historic buildings. The impacts to park visitor use and experience would be minor and adverse in the short- term due to the noise, dust, and visual disturbance from building rehabilitation and stabilization, and visitors valuing the area for other reasons (i.e. wildlife viewing, tranquility) would experience minor, adverse and long- term impacts due to the change in use which they would perceive negatively. Long- term, minor to moderate beneficial impacts would result from improved protection of historic buildings, including the ranch itself, through exposure of personnel to preservation training. Also, a portion of park visitors would value the rehabilitation and adaptive use of White Grass Ranch because it would demonstrate the park's willingness to preserve cultural resources. Impacts to visitor safety would be long- term, minor and beneficial as the hazards associated with the deteriorated buildings would be eliminated.

The undertakings described in this document are subject to Section 106 (hereafter §106) of the National Historic Preservation Act, as amended in 1992 (16 USC §470 *et seq*.). Consultations with the Wyoming State Historic Preservation Office (SHPO) have been ongoing during the planning stages of this project. This environmental assessment/assessment of effect will also be submitted to the SHPO for review and comment to fulfill Grand Teton National Park's obligations under §106 (36 CFR Part 800.8[c], Use of the NEPA Process for Section 106 purposes).

PUBLIC COMMENT

If you wish to comment on the EA/AEF, 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. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations, businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

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PURPOSE AND NEED

BACKGROUND

The National Park Service (NPS) proposes to rehabilitate and adaptively use one of its historic properties in Grand Teton National Park (GTNP) for a Western Center for Preservation Training and Technology (WCPTT). The center would offer opportunities for GTNP and other NPS employees, volunteers, visiting students, contractors, and other federal agency personnel to learn how to preserve, rehabilitate, and find new uses for rustic and vernacular historic structures in the Intermountain Region, beginning with those in Grand Teton and Yellowstone national parks. For the purposes of this environmental assessment/assessment of effect, the Intermountain Region includes Idaho, Montana, Wyoming, Colorado, Utah, Arizona, New Mexico, Texas, and Oklahoma.

The White Grass Ranch property is located in Teton County, Wyoming three miles west of Moose, Wyoming at the foot of Buck Mountain, at an elevation of 6,720 ft. (2,048 m.). The White Grass Dude Ranch Historic District (official name) was listed in the National Register of Historic Places in April 1990. It is considered historically significant under criterion A of the National Register for its association with the dude ranching industry. It is significant because, as a dude ranch, it helped define and set the standards for the Jackson Hole dude ranching industry, and the historic district exemplifies the local development of dude ranches from cattle ranches. It also represents the response of settlers to construct rustic log buildings in a natural environment.

White Grass Ranch is the third oldest dude ranch in the Jackson Hole valley. The ranch got its start raising cattle in 1913, had a heyday as a dude ranch from the 1930s through the 1950s, and remained open as a dude ranch until 1985. The historic district consists of ten guest cabins, a main cabin, the Hammond cabin, and a shower/laundry building (historical use). The buildings are situated in an oval pattern that is oriented north to south on the land. In 1956, all but a few acres of the original 320- acre ranch were sold to the National Park Service for $165,000 and a life estate. The land and buildings transferred to the NPS in 1985 when the owner Frank Galey died, ending the run of the longest operating dude ranch in the valley from 1919 to 1985 (Daugherty 1999).

The White Grass Dude Ranch Historic District boundary, as defined in the National Register nomination, encompasses approximately thirty acres, including the buildings and the area immediately surrounding them. The Death Canyon Road is approximately 500 feet south and southwest of the ranch and the Death Canyon Trailhead is about one mile west. Remnants of the three old White Grass Ranch roads that ran from the ranch entrance up to the buildings and the trail system around the structures are still visible. The White Grass Ranger Station, located at the Death Canyon Trailhead, is approximately one mile west of the ranch and includes a seasonal cabin, public vault toilet, and orientation/safety information.

The vegetation within and around White Grass Ranch consists of lodgepole pine, subalpine fir, quaking aspen, western serviceberry, and forbs and graminoids such as elk sedge, sulfur buckwheat, and low sage. When the dude ranch operated, utilities consisted of telephone service, electricity, a water catchment system, and a rudimentary sewage system. None of these utilities currently operates. A recent study by a NPS hydrogeologist indicated that prospects were poor for constructing a water supply well capable of producing more than one to two gallons per minute anywhere near the ranch (NPS 2004a); however, a test well drilled at White Grass Ranch on May 20, 2004 found a suitable water source at a depth of approximately 90 feet (NPS 2004b). The foothills, meadows, and woodlands, surrounding the White Grass Ranch provide year- round habitat for wildlife, notably for elk that calve and migrate throughout the area. Air quality is

generally excellent throughout the Class I airshed, although occasional periods of haze or smoke of local and interstate origins occur throughout the year.

Access to White Grass Ranch is gained through use of Death Canyon Road, which is off the Moose- Wilson Road that runs between Moose and Teton Village. The White Grass Ranch is located approximately one mile up the Death Canyon Road from its junction with the Moose-Wilson Road. The road is paved for the first 0.7 mile, becoming a rough and narrow single- lane unpaved road for the remaining distance of 1.5 miles to the Death Canyon Trailhead. White Grass Ranch is three miles west of the Moose administrative area, and is thereby isolated from area activity. The Moose- Wilson Road experiences average daily traffic of about 2,000 vehicles per day. Far fewer vehicles travel Death Canyon Road to the trailhead, although exact vehicle counts are unavailable. During the summer, several hundred people per day typically begin a hike from the Death Canyon Trailhead, passing White Grass Ranch enroute. According to surveys conducted by a volunteer, over 15,000 people hiked the trail to Phelps Lake Overlook in 1999. Grand Teton National Park backcountry rangers report over 26,000 people hiked in Death Canyon in 2001. Other visitors travel the Death Canyon Road simply to enjoy the area's scenery.

It is estimated that few people visit White Grass Ranch as a specific destination, since it is not shown on the park brochure and is not well known, particularly in comparison to other key destinations and activities in the park and surrounding area. In the future, the park may install wayside exhibits that would provide interpretation of the history of the site and area. It is likely that most visits to White Grass Ranch are incidental, and occur in conjunction with travel to and from the Death Canyon Trailhead since the buildings are visible from the road. The exact number of visitors to White Grass is unknown, but is estimated to be approximately 1,000 per year. In recent years the meadows on the north and east sides of White Grass Ranch have become popular spots for visitors and groups with the Wildlife Expeditions from the Teton Science Schools to view and hear elk bugling in the fall.

PURPOSE

Grand Teton National Park is dedicated to the preservation and protection of the Teton Range and its surrounding landscapes, ecosystems, cultural, and historic resources. One of the park's mission goals is that natural and cultural resources and associated values at Grand Teton are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.

The purpose of the proposed action is to preserve historic structures in Grand Teton National Park, beginning with the White Grass Ranch, and to provide opportunities for park employees and others to receive training in western historic preservation techniques and technology by adaptively using the White Grass Ranch as a Western Center for Preservation Training and Technology.

NEED

The need for the project includes the resolution of several issues. The National Park Service is mandated to preserve historic structures within its management. Section 110(a)(1) of the National Historic Preservation Act states, "The heads of all Federal agencies shall assume responsibility for the preservation of historic properties which are owned or controlled by such agency. Prior to acquiring, constructing, or leasing buildings for purposes of carrying out agency responsibilities, each Federal agency shall use, to the maximum extent feasible, historic properties available to the agency." Few employees in Grand Teton and Yellowstone national parks are trained in the preservation of historic structures; however, there is a backlog of maintenance to be done on the structures. Many of the GTNP's 318 structures listed in or eligible for listing in the National Register

of Historic Places are on the verge of becoming irretrievable ruins within the next five years, while the more than 1,000 historic structures in Yellowstone national park are in fair to poor condition. An efficient way of preserving these structures, including training park employees and others in the techniques and technology of preserving western rustic and vernacular architecture, is desperately needed.

The White Grass Ranch buildings have seriously deteriorated and are structurally unsafe. Roofs and walls are caving in due to neglect and the four to six feet of heavy snow that accumulates on the roofs each winter. Portions of the buildings, such as roofs and porches, were shored up in recent years to prevent collapse. The windows and doors were boarded up to prevent entry of humans and small mammals, and plastic was placed on roofs to prevent further water damage to the interiors.

The need for NPS employees in GTNP and others in the Intermountain Region to learn historic preservation techniques and technology for rustic and vernacular architecture is immediate. While Yellowstone National Park (YNP) has more than 1,000 historic buildings, there are approximately five park employees trained in some aspects of preservation work. GTNP has only one trained employee and more than 300 historic structures. Additionally, there are 2,044 historic structures within a 200- mile radius of Grand Teton National Park in need of preservation (see Appendix A). The training, technology, and skills necessary to preserve, rehabilitate, and maintain rustic and vernacular structures are not available in today's Western parks and surrounding communities. A center to develop those skills is necessary to address a large backlog of preservation and maintenance needs for rustic and vernacular buildings park- and region- wide starting with historic structures in Grand Teton and Yellowstone national parks.

The NPS Mission Statement affirms that the Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world. Shared stewardship is a Park Service core value that emphasizes a commitment to resource stewardship with global preservation communities. A general agreement was signed between the Department of the Interior and the National Trust for Historic Preservation (NTHP) in October 2003, which outlined a partnership for rehabilitating and adaptively using White Grass Ranch (see Appendix B). After a fundraising agreement is signed by the NPS and the NTHP, the NTHP would fundraise up to $1 million dollars for the preferred alternative.

FIGURE 1: MAIN CABIN, MAY 2003

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FIGURE 2: GRAND TETON NATIONAL PARK MAP

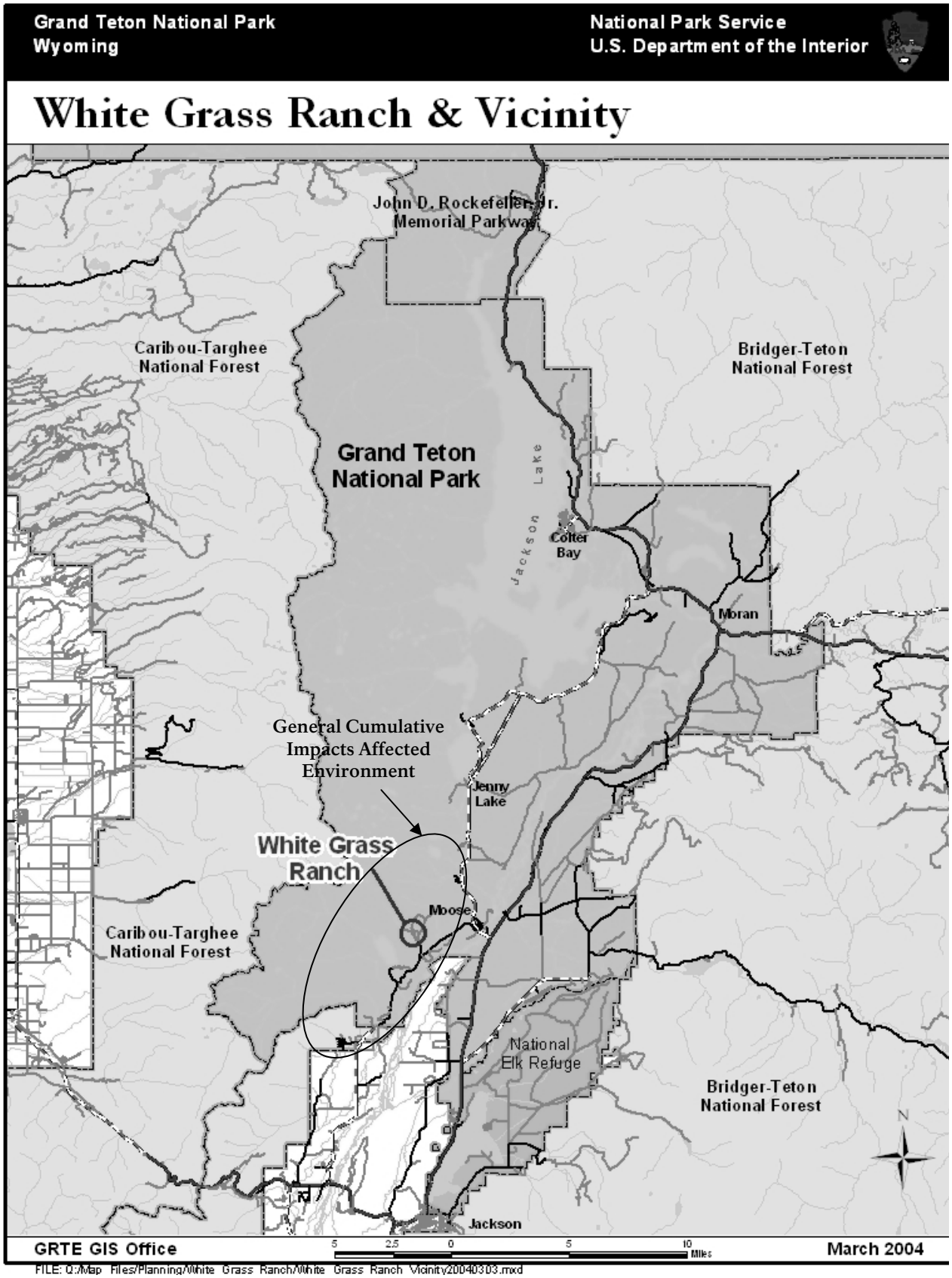
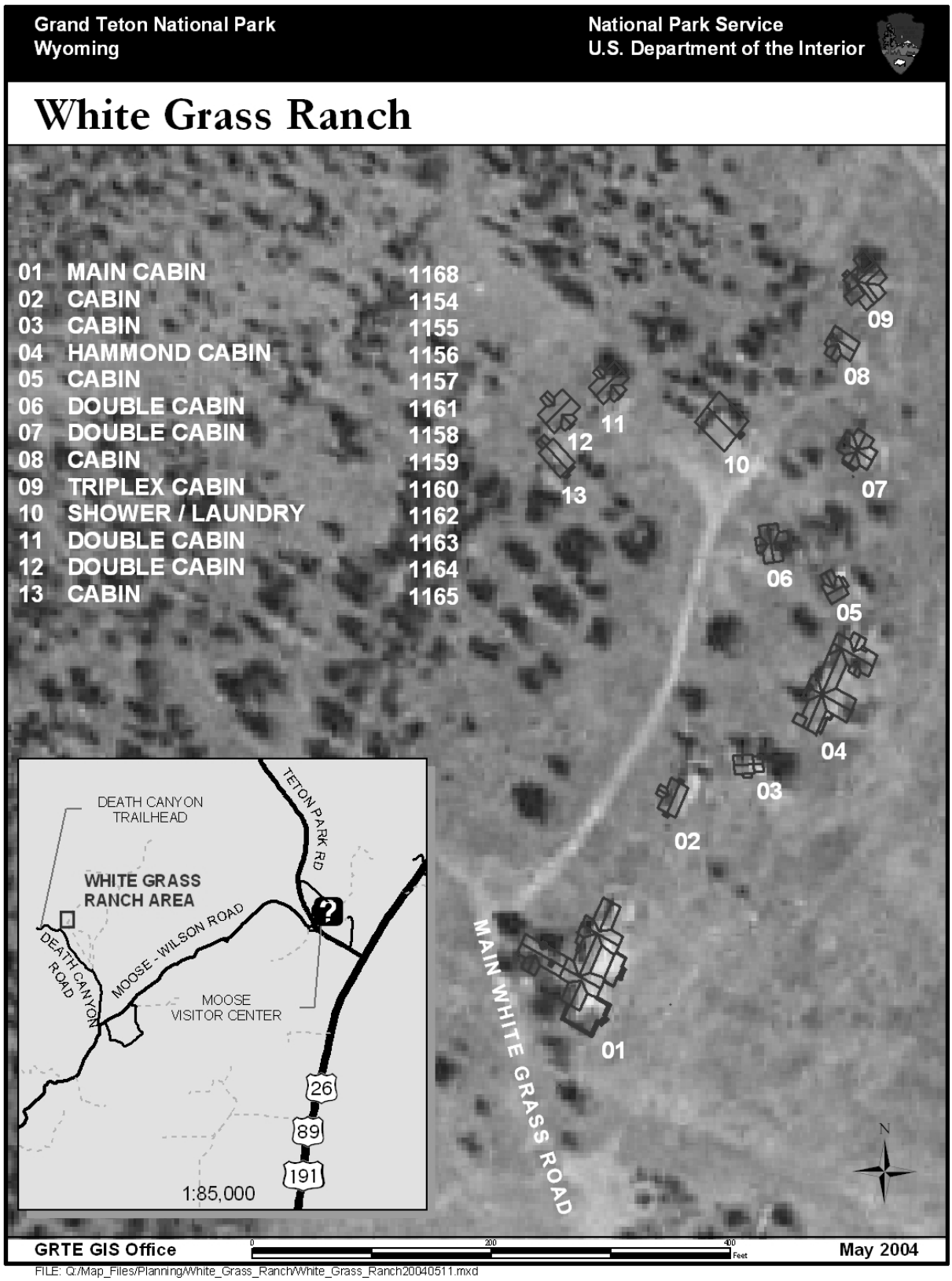


FIGURE 3: WHITE GRASS RANCH SITE MAP



SCOPING

The scoping process identifies issues and concerns relating to a proposed action and provides a basis for defining environmental impacts and developing alternatives. In January of 2004, Grand Teton National Park began the scoping process with a meeting of park interdisciplinary specialists. Disciplines represented included interpretation, planning, law enforcement, natural resource management, cultural resource management, professional services (engineering and landscape architecture), buildings and utilities, and park management. The meeting purpose was to use interdisciplinary staff to define the purpose and need of the project and begin development of preliminary alternatives. Participants also discussed management plans and policies that applied to the project and described issues.

The NPS initiated the public scoping process in February 2004, seeking public comment on issues, alternatives, concerns and other considerations regarding the proposal. Both a news release and a scoping notice describing the proposed action were issued on February 18, 2004 and mailed to approximately 150 parties (see Appendix C for a copy of both). The list of recipients is available from the park. The American Indian tribes traditionally associated with the lands of Grand Teton National Park were apprised by letter of the proposed action on February 18, 2004 (see Appendix D for a copy of the tribal letter). The Wyoming State Historic Preservation Office (SHPO) also received a copy of the scoping brochure along with a letter notifying them of the project and requesting comments (see Appendix E). The U.S. Fish and Wildlife Service (USFWS) was also contacted seeking comments on issues, alternatives, concerns and other considerations regarding the proposal. A letter was sent to the field supervisor of ecological services for the Wyoming Field Office on February 18, 2004 (see Appendix F).

Comments were solicited during external scoping from February 18 through March 21, 2004. Twenty comments were received. These comments are summarized below by topic.

<u>SHPO Consultation</u>:

The SHPO response indicated support for the project provided that Grand Teton National Park follows the procedures established in the Section 106 regulations in the National Historic Preservation Act. Additional comments will be provided when the SHPO reviews the cultural resource documentation required by 36 CFR Part 800. This environmental assessment/assessment of effect (EA/AEF) serves to meet the park's requirements under both the National Environmental Protection Act (NEPA) and the National Historic Preservation Act (NHPA).

<u>Special Status Species</u>:

The Ecological Services Division of the U.S. Fish and Wildlife Service in Wyoming prepared a summary of listed and proposed species that may be present in the project area, along with an outline of consultation procedures. The U.S. Fish and Wildlife Service addressed the following threatened species: bald eagle, Canada lynx, gray wolf, and grizzly bear. The yellow- billed cuckoo, a candidate species, was also identified. No endangered species were identified in Grand Teton National Park that may have the potential to occur on or adjacent to the project area. Additionally, the U.S. Fish and Wildlife Service indicated that the NPS is also obligated to protect migratory birds and recommended that the NPS implement the strategies outlined in Executive Order 13186, where possible. The Service further recommended that measures be

taken to avoid any wetland losses in accordance with the Clean Water Act and executive orders for floodplain and wetland management.

The Wyoming Fish and Game Department commented that historic records indicate that there have been both great gray owl and northern goshawk nesting in the vicinity of the ranch. They recommended that surveys be conducted over a two- year period in forest stands adjacent to the property to identify nesting raptors and that management plans be developed accordingly.

Alternatives:

Most commenters expressed support for the rehabilitation and adaptive use of White Grass Ranch buildings. One stated that the project would, "… be an excellent good faith example that the National Park Service and Grand Teton National Park cares about its history and culture enough to preserve this site." Several other commenters favored no restoration or adaptive use of the White Grass Ranch buildings and would prefer to see the area returned to a natural area. Concerns about maintaining the historic integrity of White Grass Ranch were raised, in terms of materials used, design, and addition of buildings to the site.

Some people also expressed a desire that the project incorporate some aspects to effectively tell the story of dude ranching in the Jackson Hole valley and that it include some degree of public access. Rehabilitating the buildings and returning White Grass Ranch to a working dude ranch was also mentioned.

The Jackson Hole Conservation Alliance (JHCA) expressed a desire to see a broad range of alternatives in the EA/AEF, including restoration without adaptive use, restoration and adaptive use other than a training facility, use as a wildlife monitoring station, or a seasonal interpretive site. Concerns regarding appropriate public input on alternative uses were also expressed. The JHCA expressed concern that the project is inconsistent with the 1976 Master Plan and suggest a re- write of the Master Plan with corresponding EIS. Also addressed was the issue of impacts of a training center on wildlife at White Grass Ranch. They inquired about the impacts on wildlife due to more people, utility upgrades, parking, and traffic. A desire to see cumulative impacts of this project in conjunction with other GTNP projects was also expressed.

The field representative for the Grand Teton Field Office for National Parks Conservation Association (NPCA) commented that the NPS should reconfirm the relevance of the public involvement policies as stated in DO- 75A, and apply the standards to this project. The NPCA requested that the EA/AEF develop a meaningful range of alternatives, including a high-development option, a less intensive day- use option, an option that involves stabilizing and rehabilitating a representative core of the structures, and a no- action alternative involving minimum stabilization. Concerns were also expressed regarding impacts to wildlife and wilderness resources and how the project fits into other Moose- Wilson Road area proposals.

Impact Topics:

Comments also indicated that potential impacts to the park's natural soundscape should be included in the resource considerations section of the EA/AEF.

RELATIONSHIP OF THE PROPOSED ACTION TO PREVIOUS PLANNING EFFORTS

Planning efforts that have connections with this project include the draft 2003 Grand Teton National Park Historic Structures Treatment and Maintenance Plan; The Strategic Plan for

Grand Teton National Park and John D. Rockefeller, Jr., Memorial Parkway October 1, 2001 – September 30, 2005; the 2001 Moose Visitor Center Environmental Assessment, the 2000 Grand Teton National Park Management Plan for Buildings Listed on the National Register of Historic Places; the 1995 Statement for Management; and the 1976 Master Plan for Grand Teton National Park.

2003 Grand Teton National Park Historic Structures Treatment and Maintenance Plan (Draft). Grand Teton National Park has 318 structures listed or eligible for listing in the National Register of Historic Places. Many are on the verge of becoming irretrievable ruins within five years. The White Grass Dude Ranch Historic District was listed in the National Register in 1990. The draft historic structures treatment and maintenance plan includes the park's proposed use for its historic buildings and the treatment needed to bring the buildings into fair or good condition using the *Secretary of the Interior's Standards for the Treatment of Historic Properties* as a guideline. It also estimates the costs for the treatment and maintenance of the buildings. The maintenance plan proposes to rehabilitate White Grass Ranch and adaptively use it as a western preservation center (NPS 2003a).

Strategic Plan for Grand Teton National Park and John D. Rockefeller Jr. Memorial Parkway October 1, 2001—September 30, 2005. The adaptive use of historic structures is consistent with the Mission Statement for Grand Teton National Park that is included in the park's strategic plan. The mission statement is "*Grand Teton National Park is dedicated to the preservation and protection of the Teton Range and its surrounding landscapes, ecosystems, cultural and historic structures. The singular geologic setting makes the area and its features unique on our planet. Human interaction with the landscape and ecosystem has resulted in an area rich in natural, cultural and historic structures that represents the natural processes of the Rocky Mountains and the cultures of the American West.*" The White Grass Ranch is one of the places in Grand Teton National Park that exemplifies this interaction between humans and the landscape and is listed in the National Register for its association with the dude ranching industry (NPS 2000a).

2000 Grand Teton National Park Management Plan for Buildings Listed on the National Register of Historical Places. The plan provides an overview of each historic theme and a discussion sheet on each specific historic district/building. Specific determinations or recommendations for future direction of each site are discussed. The discussion regarding White Grass Ranch indicates that basic stabilization and preservation is required by law although no firm decisions have been made regarding management of the site. It also indicates that there is the potential for adaptive use of structures at White Grass Ranch if an appropriate administrative use can be found (NPS 2000b).

1995 Statement for Management. The significance statements included in the Statement for Management capture the essence of Grand Teton National Park's importance to the natural and cultural heritage. Several statements correlate to this project: 1. Grand Teton's distinct periods of use and development are defined by prehistoric and historic sites and structures; 2. The rustic historic structures, sites, and cultural landscapes of Grand Teton and the Jackson Hole valley represent the ambiance of the symbolic "Old West" and its market value to the community; 3. Grand Teton offers a diversity of educational opportunities to worldwide audiences in geological, biological, and cultural resources. These range from NPS and concessioner interpretive services, Teton Science School programs, and self- study and university courses. The project is tied to the following management objective: The GTNP, SHPO and Jackson Hole Historical Society have evaluated, surveyed and nominated significant cultural properties within the context of the Jackson Hole valley. Management strategies for properties are established.

Options include interpretation, adaptive use, preservation, and removal (NPS 1995a).

1976 Master Plan for Grand Teton National Park. The Master Plan (NPS 1976) employs a land classification system, which categorizes land within the national park in six ways:

Class I: High- Density Recreation (Colter Bay and Jackson Lake Lodge)

Class II: General Outdoor Recreation (roads, campgrounds, low- density lodging, and residential and operation sites)

Class III: Natural Environment (valley lands committed to special uses as defined by legislation such as grazing, stock driveways, and life estates). These lands serve as a buffer or transition zone, with low- density use and collectively, they provide the setting for park's Class IV lands.

Class IV: Outstanding Natural (sections of the Teton Range and the Potholes)

Class V: Primitive (undeveloped lands with no roads that preserve the backcountry experience)

Class VI: Historical (remains of prehistoric settlement and historic utilization, which are significant parts of the park interpretive story).

The White Grass Dude Ranch Historic District is an example of a Class VI land classification, which is surrounded by Class III (Natural Environment) land to the north, east, and south and Class V to the west.

IMPACT TOPICS

Issues and concerns affecting the proposed action were identified by interdisciplinary specialists in the National Park Service and the public. Impact topics are the resources of concern that could be affected by the range of alternatives. Specific impact topics were developed to ensure that alternatives were compared on the basis of the most relevant topics. The following impact topics were identified on the basis of federal laws, regulations, orders, National Park Service *Management Policies 2001* (2001a), *NPS Director's Order #12 and Reference Manual* (2001b), park resource information, and concerns raised during internal and external (public) scoping. A brief rationale for the selection of each impact topic is given below. Table 1 lists all of the impact topics considered, followed by the rationale for dismissing specific topics from further consideration.

TABLE 1: IMPACT TOPICS RETAINED OR DISMISSED FROM FURTHER STUDY

Impact Topic	Retain or Dismiss	Relevant Regulations or Policies
Cultural Resources		
Archaeological Resources	**Retain**	*National Park Service Organic Act; National Historic Preservation Act of 1966, as amended; Executive Order 11593: Protection and Enhancement of the Cultural Environment (1971), Archeological and Historic Preservation Act of 1974, as amended; Archeological Resources Protection Act of 1979, as amended; the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation; Programmatic Memorandum of Agreement (MOA) Among the NPS, Advisory Council on Historic Preservation, and the National Council of*

		State Historic Preservation Officers (1995); Protection of Archeological Resources, 43 CFR 7; Protection of Historic Properties, 36 CFR 800; NPS Management Policies (2001); Cultural Resources Management Guidelines, DO- 28 (1998)
Historic Structures and Cultural Landscapes	**Retain**	*National Park Service Organic Act; National Historic Preservation Act of 1966, as amended; Executive Order 11593: Protection and Enhancement of the Cultural Environment (1971); Archeological and Historic Preservation Act of 1974, as amended; the Secretary of the Interior's Standards for the Treatment of Historic Properties; Programmatic MOA among the NPS, Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers (1995); NPS Management Policies (2001); Protection of Historic Properties, 36 CFR 800; the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes (1996); Cultural Resources Management Guidelines, DO- 28 (1998)*
Ethnographic Resources	Dismiss	*The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation; NPS Management Policies (2001); Protection of Historic Properties, 36 CFR 800; Cultural Resources Management Guidelines, DO- 28 (1998)*
Museum Collections	Dismiss	*National Historic Preservation Act of 1966, as amended; National Environmental Policy Act of 1969, as amended; Museum Properties Management Act of 1955; NPS Management Policies (2001); Protection of Historic Properties, 36 CFR 800; Cultural Resources Management Guidelines, DO- 28 (1998)*
Natural Resources		
Air quality	Dismiss	*NPS Organic Act; Federal Clean Air Act (CAA); CAA Amendments of 1990 (CAAA); NPS Management Policies 2001*
Land Use	Dismiss	*Grand Teton National Park Master Plan 1976*
Natural Lightscapes	Dismiss	*NPS Management Policies 2001*
Natural Soundscape	Dismiss	*NPS Organic Act; NPS Management Policies 2001, Section 4.9 Soundscape Management, Director's Order #47: Soundscape Preservation and Noise Management*
Prime and unique agricultural lands	Dismiss	*Council on Environmental Quality 1980 memorandum on prime and unique farmlands*
Soils	Dismiss	*NPS Management Policies 2001; NPS Natural Resource Management Guidelines for Soil Resources Management*
Vegetation	**Retain**	*NPS Organic Act; NPS Management Policies 2001; DO- 77, Natural Resource Protection; Executive Order 13112, Invasive Species*
Water quality and hydrology	Dismiss	*Clean Water Act; Executive Order 12088; NPS Management Policies 2001*
Wetlands and floodplains	Dismiss	*Executive Order 11988; Executive Order 11990; Clean Water Act; NPS Management Policies 2001*
Wild & Scenic Rivers	Dismiss	*Wild and Scenic Rivers Act*
Wilderness	**Retain**	*Director's Order 41; NPS Management Policies 2001; Wilderness Act*
Wildlife, including Threatened, Endangered and Special Concern Species	**Retain**	*Endangered Species Act; NPS Management Policies 2001; National Environmental Policy Act; Executive Order 13112, Invasive Species* (For GTNP – Bald Eagle, Canada Lynx, Grizzly Bear, Gray Wolf)
Social Resources		

Environmental justice	Dismiss	*Executive Order 12898*
Indian trust resources	Dismiss	*Department of the Interior Secretarial Order No. 3206, Interior Departmental Manual Part 512, Chapter 2*
Park operations and Partnerships	**Retain**	*NPS Management Policies 2001*
Socioeconomic environment	Dismiss	*40 CFR 1500 Regulations for Implementing NEPA*
Visitor use and experience (including public health and safety)	**Retain**	*NPS Organic Act; NPS Management Policies 2001*

ARCHAEOLOGICAL RESOURCES

The National Historic Preservation Act, as amended in 1992 (16 USC 470 *et seq*.), the National Environmental Policy Act of 1969 (42USC 4321 *et seq*.), the *NPS Director's Order #28, Cultural Resource Management Guideline* (NPS 1998), *Management Policies 2001* (NPS 2001a), and *Director's Order #12, Conservation Planning, Environmental Impact Analysis, and Decision Making and Handbook* (NPS 2001b) require the consideration of impacts on archaeological resources listed in or eligible for listing in the National Register of Historic Places. In addition, the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 USC 3001) requires specific actions when Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony are excavated or discovered on federal lands.

An archaeologist has surveyed the White Grass Ranch area and one prehistoric site was identified located outside the proposed project area. Additional sites may exist and may be discovered during ground disturbance for project implementation; therefore, impacts to archaeological resources will be further analyzed in this EA/AEF.

HISTORIC STRUCTURES AND CULTURAL LANDSCAPES

The National Historic Preservation Act, as amended in 1992 (16 USC 470 *et seq*.); the National Environmental Policy Act of 1969 (42 USC 4321 *et seq*.); and the *NPS Director's Order #28, Cultural Resource Management Guideline* (1998), *Management Policies 2001* (2001a), and *Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision Making and Handbook* (NPS 2001b) require the consideration of impacts on historic structures and cultural landscapes listed in or eligible for listing in the National Register of Historic Places.

The National Historic Preservation Act, as amended in 1992 (16 U.S.C. 470 et seq.), and the National Park Service *Cultural Resource Management Guidelines* (NPS 1998) require consideration of impacts on cultural resources listed in or eligible for listing in the National Register of Historic Places.

According to the National Park Service's *Cultural Resource Management Guidelines* (Director's Order #28), a cultural landscape is:

> *"… a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is*

> *defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions." (NPS1998)*

NPS Preservation Brief #36 (1994) further clarifies the definition: A cultural landscape is defined as "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. Cultural landscapes are the result of the long interaction between people and the land, and the influence of human beliefs and actions over time upon the natural landscape. Shaped through time by historical land use and management practices as well as politics, property laws, technology, and economic conditions, cultural landscapes provide a living record of an area's past, a visual chronicle of its history."

The National Park Service defined four overlapping types of cultural landscapes (NPS 2002a):

Historic Designed Landscape- - a landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, or horticulturist according to design principles, or an amateur gardener working in a recognized style or tradition. The landscape may be associated with a significant person(s), trend, or event in landscape architecture; or illustrate an important development in the theory and practice of landscape architecture. Aesthetic values play a significant role in designed landscapes. Examples include parks, campuses, and estates.

Historic Vernacular Landscape- - a landscape that evolved through use by the people whose activities or occupancy shaped that landscape. Through social or cultural attitudes of an individual, family or a community, the landscape reflects the physical, biological, and cultural character of those everyday lives. Function plays a significant role in vernacular landscapes. They can be a single property such as a farm or a collection of properties such as a district of historic farms along a river valley. Examples include rural villages, industrial complexes, and agricultural landscapes.

Historic Site- - a landscape that is significant for its association with a historic event, activity, or person. Examples include battlefields and presidential homes.

Ethnographic Landscape- - a landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Examples are contemporary settlements, religious sacred sites and massive geological structures. Small plant communities, animals, subsistence, and ceremonial grounds are often components.

Because stabilization, rehabilitation, and adaptive use would impact the buildings, historic structures will be addressed as an impact topic in this environmental assessment/assessment of effect. Changes to circulation networks, land use, vegetation related to land use, and patterns of spatial organization would impact potential cultural landscape features; therefore, cultural landscape is addressed as an impact topic.

VEGETATION

The NPS is directed by the Organic Act to conserve the scenery and the natural objects unimpaired for future generations. The NPS *Management Policies 2001* define the general principles for managing biological resources as maintaining all the components and processes of naturally evolving park ecosystems, including the natural abundance, diversity and ecological integrity of plant communities. When NPS management actions cause native vegetation to be

removed, the NPS will seek to ensure that such removals will not cause unacceptable impacts to native resources, natural processes, or other park resources.

Non- native species, also referred to as exotic or invasive, are not a natural component of the ecosystem. Management of populations of exotic plant and animal species, up to and including eradication, will be undertaken wherever such species threaten park resources or public health and when control is prudent and feasible. Executive Order 13122 states that federal agencies are to prevent the introduction of invasive species, provide for their control, provide for restoration of native species and habitat conditions in ecosystems that have been invaded, and minimize the economic, ecological, and human health impacts that invasive species cause.

The spread of non- native invasive species is a tremendous, on- going problem throughout the highly visited and occupied portions of the park. Many of these are designated by the state or county as noxious weeds that thrive in newly or highly disturbed areas. Several exotic species are present at the site. Four of these are on the State of Wyoming noxious weed list, and three of the four have proven very difficult to control or contain in Grand Teton National Park by biological, chemical or mechanical means. Ground disturbance and increases in light availability through overstory removal are factors that increase the probability of invasion of new terrain. Because vegetation may be impacted by activities associated with the four alternatives, it will be discussed further in this EA/AEF.

WILDERNESS

According to *Management Policies 2001* (NPS 2001a), proposals having the potential to impact wilderness values must be evaluated in accordance with National Park Service procedures for implementing the National Environmental Policy Act.

Approximately 123,000 acres of the park (43%) have been identified as recommended wilderness and another 21,000 (7%) have been designated as potential wilderness. However, Congress has not formally designated any land in GTNP as wilderness. NPS policy requires that the recommended and potential wilderness land in GTNP be managed as wilderness until such time as Congress either formally designates the land as wilderness or rejects the designation. White Grass Ranch is approximately 0.8 miles from recommended wilderness and approximately 0.4 miles from potential wilderness. Since human- caused sounds associated with the construction and use at White Grass Ranch would have the potential to be audible within certain portions of the wilderness areas, wilderness is included as an impact topic.

WILDLIFE INCLUDING THREATENED AND ENDANGERED SPECIES

The National Environmental Policy Act of 1969 (42 USC 4321 et seq.) calls for an examination of the impacts on all components of affected ecosystems. National Park Service policy is to maintain all the components and processes of naturally evolving park unit ecosystems, including the natural abundance, diversity, and ecological integrity of plants and animals (NPS 2001a). The White Grass Ranch area is used by a wide variety of wildlife; therefore, impacts to general wildlife resources will be further analyzed in this EA/AEF.

The Endangered Species Act (1973) requires an examination of impacts on all federally- listed threatened or endangered (T&E) species. NPS policy requires examination of the impacts on federal candidate species, as well as state- listed threatened, endangered, candidate, rare, declining, and sensitive species. NPS policy requires examination of the impacts on migratory bird species of management concern in Wyoming. The Migratory Bird Treaty At also requires us to analyze effects to migratory birds. Several listed species may use the White Grass Ranch area,

and, as a result, may be impacted by the project. Therefore, potential threatened and endangered species impacts will be discussed further in the EA/AEF.

PARK OPERATIONS AND PARTNERSHIPS

Park maintenance activities that occur at White Grass Ranch are: sealing buildings to prevent the entry of humans and small mammals; installing plastic on roofs to prevent water damage to the interiors; shoring up roofs, porches, and/or walls when necessary to prevent collapse; and removing snow from roofs when deemed necessary. The proposed action would require routine maintenance affecting park labor resources. Therefore operations were retained for further analysis.

A general agreement was signed between the NPS and the National Trust for Historic Preservation in October 2003 which outlined a partnership for rehabilitating and adaptively using White Grass Ranch (Appendix B). The NPS mission statement affirms that the Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world. Shared stewardship is a Park Service core value that emphasizes a commitment to resource stewardship with global preservation communities. Because the National Trust for Historic Preservation is a formal partner and GTNP is dedicated to the NPS mission and core values, this topic will be discussed further in the EA/AEF.

VISITOR USE AND EXPERIENCE (INCLUDING PUBLIC HEALTH AND SAFETY)

Providing for the safe enjoyment of national park resources is one of the foundations of the NPS Organic Act. Since 1985, White Grass Ranch has been vacant, only drawing approximately 1,000 visitors annually. White Grass Ranch is not highlighted in any park maps or brochures because the area is not interpreted, nor does it provide any services; however, eventually, the park hopes to install wayside exhibits that would provide interpretation of the history of the site. The rehabilitation and adaptive use of White Grass Ranch may change the visitor use and experience of the site due to additional activity, interpretation, and amenities. The quality of the experience of park visitors who visit White Grass Ranch and/or use the trails in the area may be affected by the change in use and soundscape of the site. Therefore, visitor use and experience, including public health and safety, will be further analyzed in this document.

IMPACT TOPICS DISMISSED FROM FURTHER CONSIDERATION

Impact topics may be dismissed from further analysis when the application of stipulations or mitigation measures reduce the intensity of impacts to negligible. Impact topics may also be dismissed if there are no effects or the resource is not present in the analysis area.

Ethnographic resources: Ethnographic resources are defined by the National Park Service 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"* (*Director's Order #28, Cultural Resource Management Guidelines*, 191). While locations of specific ethnographic resources are not known within the project area, it is known that American Indian people utilized the Grand Teton area over thousands of years for hunting and gathering subsistence and occupation. Grand Teton National Park holds many resources important to these tribes including, but not limited to, wildlife, plants, and water. These resources do not always have a defined boundary and may occur within the project area. The

American Indian tribes traditionally associated with the lands of Grand Teton National Park were apprised by letter of the proposed action on February 18, 2004 (see Appendix D for a copy of the tribal letter).

Because many of these resources have not been identified, the NPS will continue to consult with the Crow, Northern Arapaho, Northern Cheyenne, Eastern Shoshone, and Shoshone- Bannock tribes. If these tribes subsequently identify the presence of ethnographic resources, appropriate mitigation measures will be undertaken in consultation with the tribes as well as the State Historic Preservation Office (SHPO). In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Grave Protection and Repatriation Act *(*25 USC 3001) of 1990 will be followed. Because there are no known ethnographic resources in the project area or its immediate vicinity, and the Tribes consulted did not express concern, this topic was dismissed from further analysis.

Museum collections: The National Historic Preservation Act, as amended in 1992 (16 USC 470 et seq.), the National Environmental Policy Act of 1969 (42 USC 4321 et seq.), NPS *Management Policies 2001* and *Director's Order #28, and Cultural Resource Management Guidelines* (1998) require the consideration of impacts on museum collections (archaeology, ethnology, history, biology, paleontology, geology, and archives). No GTNP museum collection items are currently stored or exhibited in the proposed project area, therefore this topic was dismissed from further analysis. However, as generated, historic fabric and other project related documentation will be accessioned and catalogued into the GTNP museum collection.

Air quality: The NPS has a responsibility under the Clean Air Act to protect its natural resources from the adverse effects of air pollution (42 USC 7401 et seq., Section 165). This act also established a national visibility protection goal to eliminate existing and prevent future visibility impairment in Class I areas. Grand Teton National Park is a mandatory Class I airshed. NPS *Management Policies 2001* states that the NPS will seek to perpetuate the best possible air quality in parks because of its critical importance to visitor enjoyment, human health, scenic vistas, and the preservation of natural systems and cultural resources. Air quality and visibility in the project area are excellent, although occasional periods of haze or smoke from local and interstate wildland fires, agricultural burning, and wind storms that may occur throughout the year. The proposed action is not anticipated to have a measurable increase in air quality emissions in the area, whether from vehicle traffic or residential use. Fugitive dust from temporary construction activities is easily mitigated using best management practices such as wetting down soil, equipment type used, etc. Therefore, emissions attributable to the proposed action would have no detectable effect and air quality is dismissed as an impact topic.

Land Use: White Grass Ranch is located within the park boundary in close proximity to the JY Ranch, which was gifted to the NPS for transfer in 2006. The JY Ranch will be opened to the public and interpretive services will be provided in 2007. The White Grass Ranch site, in similar fashion, will remain open to the public with planned interpretative opportunities. Sky Ranch, a private term estate, is located within one mile north of White Grass Ranch. It is scheduled to be turned over to the NPS in 2005. The proposed action at White Grass Ranch would not affect any properties adjacent to it or properties adjacent to the park boundary; therefore it was dismissed from further analysis.

Natural lightscape: The NPS will preserve, to the greatest extent possible, the natural darkness of the park (NPS 2001a). The adaptive use of historic structures would not measurably increase

artificial light sources into the environment beyond historic levels, thus preserving the ability to see the stars, planets, and earth's moon and other natural features that are visible during clear nights around the ranch. While there may be some additional light source due to overnight housing at the site, the impacts would be mitigated by employing lighting techniques such as using reflective shields on outdoor lights that minimize the amount of light directed up at the sky and the use of low- emitting light fixtures and motion- activated sensors. These measures would help preserve the natural lightscape and save energy. The proposed action with mitigation measures would have only negligible effects on natural lightscapes; therefore, this topic was dismissed from further analysis.

Natural Soundscape

An important part of the NPS mission is to preserve and/or restore the natural resources of the parks, including the natural soundscapes associated with units of the national park system. Natural sounds are intrinsic elements of the environment that are often associated with parks and park purposes. In order to allow for visitor enjoyment and operation of national parks, it is expected that higher levels of non- natural or human caused sound will occur in some areas. To accommodate visitor access and enjoyment, NPS Management Policies 2001 - Soundscape Management 4.9 offers the following guidance to park mangers: *"Using appropriate management planning, superintendents will identify what levels of human- caused sound can be accepted within the management purposes of the parks. The frequencies, magnitudes, and duration of human-caused sound considered acceptable will vary throughout the park, being generally greater in developed areas and lesser in undeveloped areas."*

Sounds associated with the seasonal rehabilitation and use at White Grass Ranch would slightly change the levels of human- caused noise on a short- and long- term basis and would not alter the overall current condition of soundscape in the Death Canyon area. Because the proposed action is expected to result in relatively minor impacts to the natural soundscape, it was dismissed from further analysis.

Prime and unique agricultural lands: In August 1980, the Council on Environmental Quality directed that federal agencies must assess the effects of their actions on farmland soils classified as prime or unique by the Natural Resource Conservation Service (NRCS), U.S. Department of Agriculture. Prime or unique farmland is defined as soil that particularly produces general crops such as common foods, forage, fiber, and oil seed. Unique farmland produces specialty crops such as fruits, vegetables, and nuts. According to the NRCS, there are no prime or unique farmlands in the White Grass Ranch area; therefore, prime and unique farmland has been dismissed as an impact topic in this document.

Soils: According to NPS *Management Policies 2001*, the National Park Service will strive to understand and preserve the soil resources of park units and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil, or its contamination of other resources.

Soils may be impacted due to construction activities associated with utilities, parking, grading, and site access. Mitigation measures, designed for the project, will minimize soil excavation, erosion, and off site soil migration during and after construction, reducing any impacts to negligible levels. Effects to soil productivity or fertility would also be negligible. Because impacts to soil resources will be negligible, this topic was dismissed from further analysis.

Water quality and hydrology: NPS *Management Policies 2001* states that the National Park Service will perpetuate surface waters and groundwaters as integral components of park aquatic and terrestrial ecosystems. NPS policies also require protection of water quality consistent with the Clean Water Act. Section 404 of the Clean Water Act authorizes the U.S. Army Corps of Engineers to prohibit or regulate, through a permitting process, discharge of dredged or fill material or excavation within U.S. waters. The project area is not adjacent to U.S. waters that would require such permitting. A septic system is planned as part of the proposed action. All wastewater will be adequately treated so that, on its return to the ground, it meets or exceeds applicable state and federal water quality standards.

A recent study by a NPS hydrogeologist indicated that prospects were poor for constructing a water supply well capable of producing more than one to two gallons per minute anywhere near White Grass Ranch (NPS 2004a); however, a test well drilled at White Grass Ranch on May 20, 2004 found a suitable water source at a depth of approximately 90 feet (NPS 2004b). Only one water well will be needed to support White Grass Ranch, and GTNP will obtain a permit for the well from the State of Wyoming, Department of Environmental Quality. Mitigation measures stipulated in the permit will mitigate any effects to groundwater resources such that changes in water quality or hydrology would not be detectable. Because chemical or physical changes to water quality would not be detectable, this topic was dismissed from further analysis.

Wetlands and floodplains: Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface of the land and is covered by shallow water. Extended saturation or flooding during the growing season are the dominant factors determining the surface of wetlands. Executive Order 11990: Protection of Wetlands (1977a), NPS *Management Policies 2001*, and *Director's Order #77- 1: Wetland Protection and Procedural Manual* (2002b) establish NPS policies, standards, and procedures for protecting and managing wetlands. They require federal agencies to avoid, where possible, adversely impacting wetlands. The project area is not in a wetland.

It is NPS policy to recognize and manage for the preservation of floodplain values, to minimize potentially hazardous conditions associated with flooding, and to comply with the NPS Organic Act and all other federal laws and executive orders related to the management of activities in flood- prone areas. Executive Order 11988 (1977b) and *NPS Director's Order #77- 2: Floodplain Management and Procedural Manual* (2003b) direct the NPS to avoid, if possible, development and other activities in the 100- year base floodplain. The alternatives have been reviewed, and it has been determined that project implementation associated with the adaptive use of White Grass Ranch would not impact the 100- year or 500- year (regulatory) floodplains. Because there are no wetlands or floodplains in the project area, both topics were dismissed as impact topics.

Wild and Scenic Rivers: The project area is not within or adjacent to the identified corridor for any existing or proposed eligible wild, scenic, or recreation river corridor. Therefore, this topic was dismissed from further analysis.

Environmental justice: According to the Environmental Protection Agency, environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Presidential Executive Order 12898: General Actions to Address Environmental Justice in Minority Populations and Low- Income Populations (1994) requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low- income populations and communities. Because the training center would be available for use by students regardless of race or income, and the construction workforces would not be hired based on their race or income, the proposed action would not have disproportionate health or environmental effects on minorities or low- income populations or communities as defined in the Environmental Protection Agency's Environmental Justice Guidance Under the National Environmental Policy Act (August 1997). Therefore, environmental justice was dismissed as an impact topic.

Indian trust resources: Indian trust assets are owned by Native Americans but held in trust by the United States. Requirements are included in the Secretary of the Interior's Secretarial Order No. 3206, "*American Indian Tribal Rites, Federal – Tribal Trust Responsibilities, and the Endangered Species Act* (1997)," and *Interior Departmental Manual Part 512: American Indian and Alaska Native Programs, Chapter 2: Departmental Responsibilities for Indian Trust Resources* (1995). According to NPS personnel, Indian trust assets do not occur in Grand Teton National Park and this topic was not included in the EA/AEF analysis.

Socioeconomic environment: The proposed action would neither change local and regional land use nor measurably impact local businesses or other agencies. Although some work may be contracted out, it would be a relatively small contract and would not result in a measurable affect on the socioeconomic environment; therefore the socioeconomic environment will not be addressed as an impact topic.

ALTERNATIVES CONSIDERED

The following four alternatives were developed to fit the purpose and need for the project as discussed in Chapter 1. All alternatives include mitigation to reduce the project effects on natural, cultural, and social resources (see Mitigation Measures section page 31). Alternative 1 is the No- Action alternative, intended to describe the effects that may occur if the project is not implemented. In this case, "no action" would mean there is no rehabilitation and adaptive use of White Grass Ranch structures.

Several of the alternatives below involve historic structure stabilization and/or rehabilitation. Definitions are as follows:

Stabilization is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features.

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Alternatives 2, 3, and 4 mention the addition of the JY hay shed to White Grass Ranch for use as a storage building. The JY Ranch was gifted to the NPS by the Rockefeller family for transfer to the park in 2006. Prior to the transfer of property to the NPS, the Rockefeller family will remove all buildings from the JY Ranch, and some of them will be gifted to Grand Teton National Park. The hay shed building is part of that gift, and would be moved to White Grass Ranch after all necessary compliance is complete.

ALTERNATIVE 1 – NO- ACTION ALTERNATIVE

The no- action alternative describes the action of continuing the present management operation and condition; it does not imply or direct discontinuing the present action or removing existing facilities. The no- action alternative provides a basis for comparing the management direction and environmental consequences of the proposed action and must always be considered in every EA/AEF. Should the no- action alternative be selected, the NPS would respond to future needs and conditions associated with the White Grass Ranch without major actions or changes in course.

Under the no- action alternative, activities that currently occur at the ranch would continue as follows: sealing buildings to prevent the entry of humans and small mammals; installing plastic on roofs to prevent interior water damage; shoring up roofs, porches, and/or walls when necessary to prevent collapse; and removing snow from roofs when deemed necessary. The duration of the stabilization phase would be intermittent. Access would not be improved and utilities would not be developed. The buildings may still continue to deteriorate and the park may be at risk of irretrievably losing structures listed in the National Register of Historic Places. If visitors do not respect established barriers and closures, they may be at risk of injury from collapsing walls and/or roofs or from diseased rodents when visiting White Grass Ranch. The buildings would be minimally stabilized or preserved, but not adaptively used. In this alternative, the JY Ranch hay shed would not be relocated to White Grass Ranch, and a well house and

parking area would not be constructed.

The Death Canyon Road passes near the project site and is used to access the White Grass Ranch area. Numerous complaints from visitors over the last few years have communicated that this road is in very poor condition beyond where the pavement ends and requires maintenance. As part of previously scheduled routine maintenance, the Death Canyon Road will be grading and gravel will be added to stabilize the road. All work will occur within the existing road prism using heavy equipment to grade the road and stabilize the surface and drainage. The work will require the removal of approximately 35 trees that are over 6" in diameter and several over-hanging limbs immediately adjacent to the road in order to gain access for the heavy equipment required to conduct the road improvements. This work is required, is categorically excluded under NEPA, and will occur whether any action occurs at White Grass Ranch or not.

Improving this entire road to the trailhead may increase visitation beyond the capacity of the trailhead parking lot, therefore only 0.8 mile beyond the pavement will be improved in order to allow traffic to progress to a turn- around point, if they do not desire to travel the remaining distance of road to the trailhead parking lot. Signs will be posted warning visitors that the remaining portion of the road is a 4WD road experience. The entire Death Canyon Road will be addressed in the upcoming General Management Plan (GMP) scoping to address the entire range of management options for this corridor.

No spur road would be built from Death Canyon Road to the ranch for access. The secondary White Grass road and pasture would be minimally stabilized. In this alternative, a Western Center for Preservation Training and Technology would not be established, and the need for GTNP and NPS personnel trained in western historic preservation would continue to be great.

ALTERNATIVE 2 – MINIMUM BASIC FUNCTIONS

In this alternative, a day- use training center would be developed at White Grass Ranch with only the absolute minimum basic functions provided (Figure 4). The main cabin would be rehabilitated and adaptively used as a classroom facility and office space for the training center's employees (four or less people). The main cabin would be handicapped accessible. The other twelve historic buildings would be stabilized, but may be rehabilitated at a later date as a result of the operation of the training center. Rehabilitating the main cabin and stabilizing the remaining buildings would take one to two years to complete. All work would follow the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.

Electricity would be installed in the main cabin, but there would be no water, phone lines, or sewer system at the site. Users would be required to bring water with them and use a cellular phone. A vault toilet would be constructed next to the parking area. Solid waste disposal would require a "pack in, pack out" approach. All ground disturbances would be revegetated. In this alternative, no pole and rail fencing would be installed immediately around the buildings like in Alternatives 3 and 4.

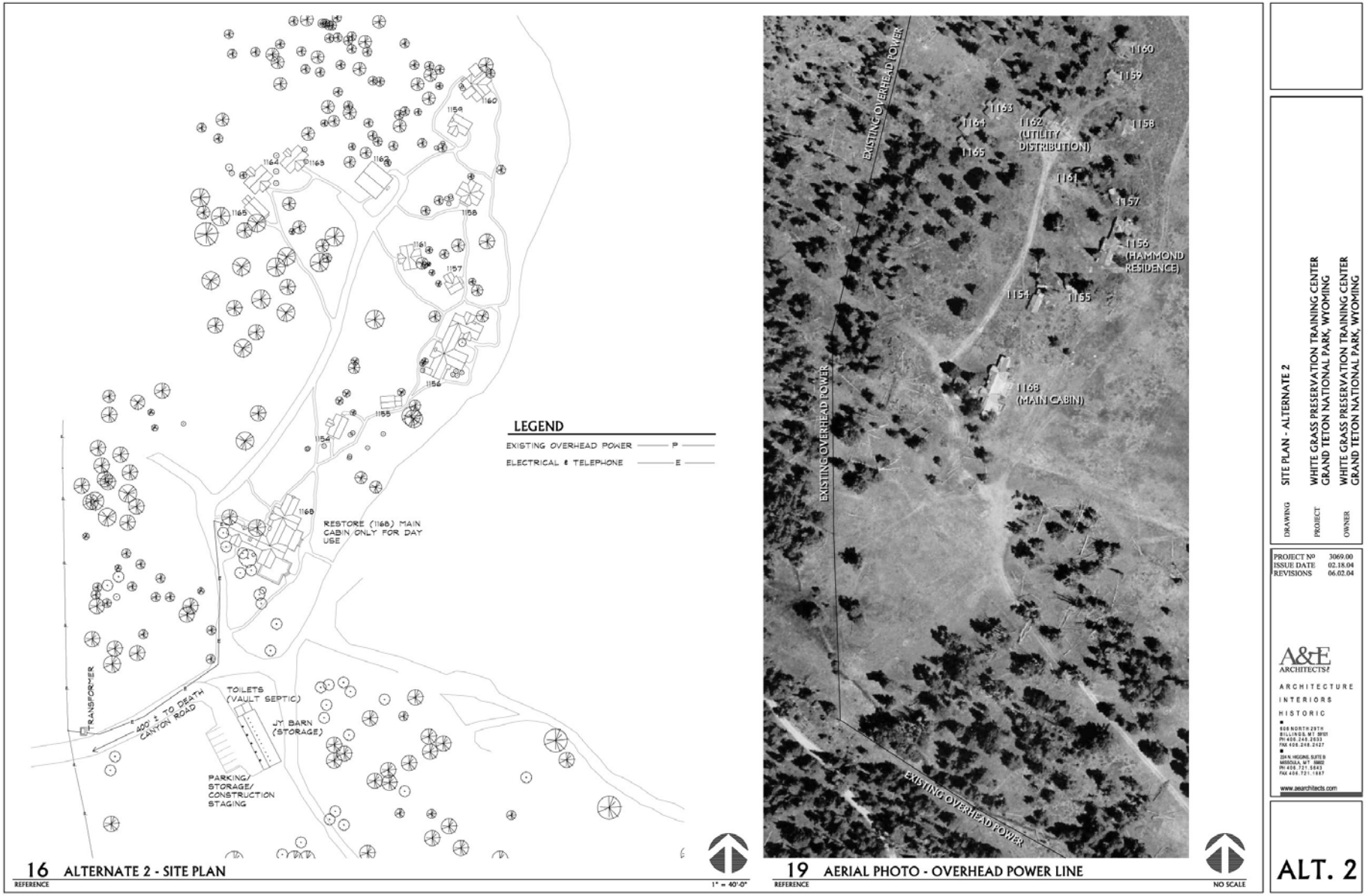
The ground around the main cabin would be graded to provide positive drainage. The secondary White Grass road on the property and the historic pasture would be stabilized but not used (see Affected Environment: Historic Structures and Cultural Landscapes). All ground disturbance activities would be revegetated using native vegetation.

The training center would operate seasonally for a maximum 7- month period with most

activities taking place between late April and September, including opening and shutting down operations. The training center would accommodate fifteen to thirty daytime users. No overnight lodging would be available. The main carpentry/masonry shop for the training center would be located in the Moose maintenance area (park headquarters). The donated JY Ranch hay shed would be moved to White Grass Ranch, placed on the south side of the main cabin next to the parking area, and used for storage.

The Death Canyon Road would be used to access the White Grass Ranch area. As part of previously scheduled routine maintenance as described in the No- Action Alternative, the road will be graded and gravel added to stabilize the road. A small spur road would be constructed from Death Canyon Road to the ranch as access for operational activities. The spur road would begin at the Death Canyon Road roughly where the main cabin is visible from the road. It would run perpendicular to Death Canyon Road for approximately 400 feet, at a width of 15 feet, and it would be made from gravel. At the end of the spur road would be a small gravel parking area that would accommodate six vehicles. The limited parking would be provided for deliveries, instructors, and employees. Carpooling and/or shuttling would be encouraged for trainees and would be staged from the Moose maintenance area. Please see the site plan (Figure 4) for more information. The location of the parking area, vault toilet, JY Ranch hay shed, and part of the spur road is in a previously disturbed area; the White Grass Ranch barn and corrals used to be there. Under this alternative, a Western Center for Preservation Training and Technology would be established, addressing the need to train NPS employees and others in historic preservation.

FIGURE 4: ALTERNATIVE 2 SITE PLAN (A&E ARCHITECTS 2004A)



ALTERNATIVE 3 – PHASED DEVELOPMENT (PREFERRED ALTERNATIVE)

The preferred alternative is the agency (NPS) preferred alternative (and is the proposed undertaking for §106 compliance) and defines the rationale for the action in terms of resource protection and management, visitor and operational use, costs, and other applicable factors. All actions described in the preferred alternative are consistent with approved management plans and related park documents. The description of the preferred alternative is also the description of the proposed action for U.S. Fish and Wildlife threatened and endangered species consultation purposes.

In this alternative, three historic buildings (main cabin, shower/laundry building, and Hammond cabin) would be rehabilitated immediately, while the remaining ten historic structures would be stabilized and eventually rehabilitated using training center instructors, trainees, and volunteers (Figure 5). These ten structures, once rehabilitated, would provide lodging for instructors, trainees, and volunteers and would include bathroom facilities in each cabin. The entire project would take approximately five years to complete. The main cabin would be rehabilitated and adaptively used as a classroom facility and office space for the training center's employees (four or less people). The shower/laundry building (historic use) would be rehabilitated and adaptively used as a utility building to shelter the potable water storage tank. The Hammond cabin would be rehabilitated and adaptively used for a research library/meeting space, community kitchen for trainees (the kitchen would be used once the remaining buildings were rehabilitated and adaptively used for trainees' lodging), and housing for the seasonal, on- site volunteer caretaker. The rehabilitation of these three buildings would provide for a fully functional Western Center for Preservation Training and Technology. Both the main cabin and the Hammond cabin would be handicapped accessible. Once rehabilitated, cabin #1155, located between the main cabin and the Hammond cabin, would be handicapped accessible and used for trainee lodging. All work would follow the *Secretary of the Interior Standards for the Treatment of Historic Properties*.

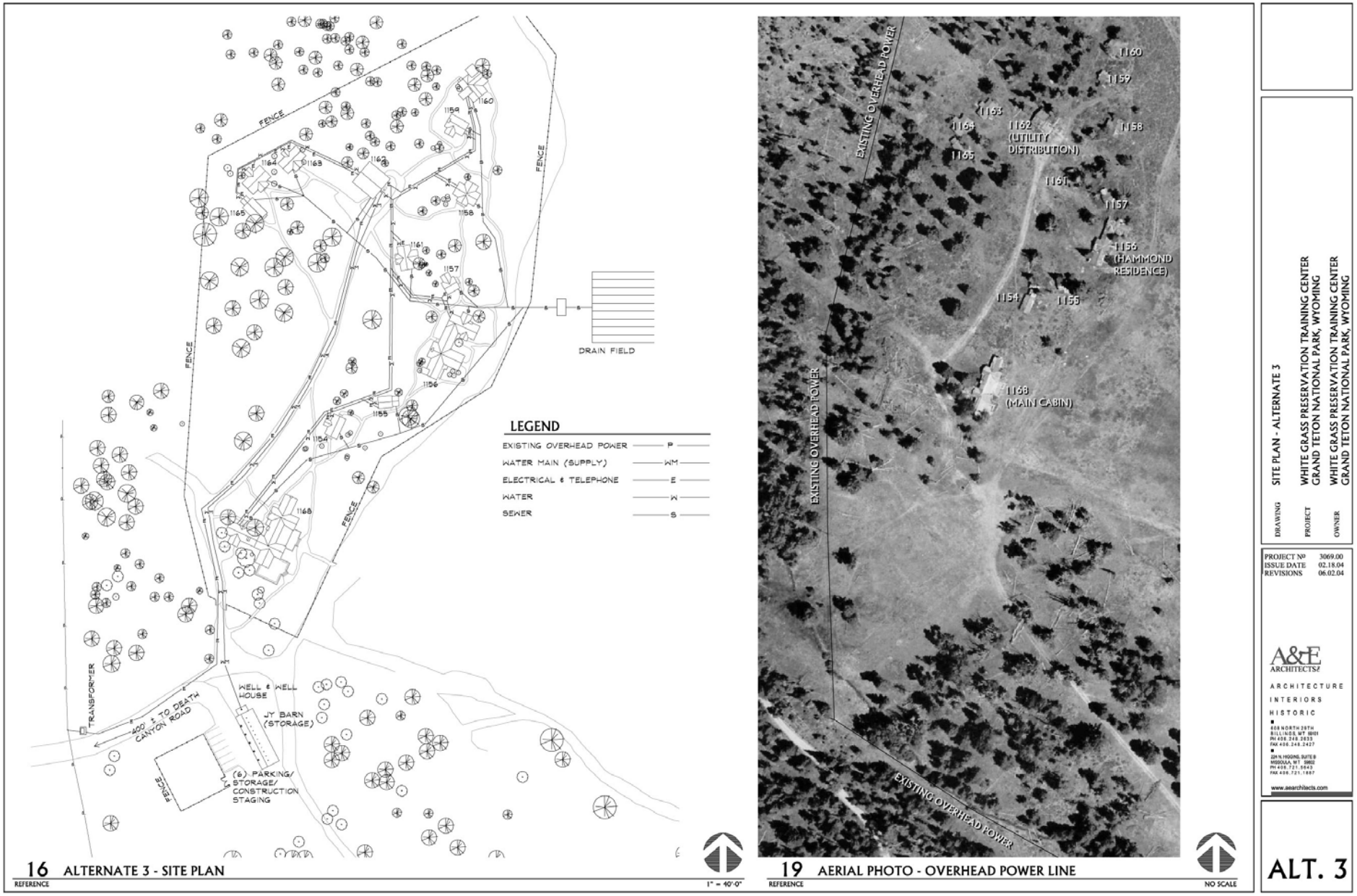
The preferred alternative would provide full utilities (electric, phone, water, and sewer) at the training center. A water well would be developed and used at the ranch. A well house would be constructed next to the parking area and JY Ranch hay shed (south of the main cabin) to shelter the well and its associated equipment. The single- story well house would be approximately twelve feet by eighteen feet. Water lines would be installed from the well house to all thirteen buildings. A septic tank and leach field would handle wastewater, and would be constructed approximately 100 feet east of the Hammond cabin. Electricity would be brought to all thirteen buildings from the existing power line that runs on the south and west sides of the property. Phone lines would be installed to the main cabin, Hammond cabin, and cabin #1155. All utility line instillation would use existing utility corridors to the extent possible.

The ground around all the buildings would be graded to provide positive drainage. The secondary White Grass road on the property and the historic pasture would be stabilized but not used (see Affected Environment: Historic Structures and Cultural Landscapes). All ground disturbance activities would be revegetated using native vegetation. In an attempt to reconstruct some of the cultural landscape that once existed at White Grass Ranch, the pole and rail fence that ran immediately around the buildings would be reconstructed. The fence would be approximately four feet high.

The training center would operate seasonally for a maximum 7- month period with most activities taking place between late April and September, including opening and shutting down operations. The training center would accommodate fifteen to thirty daytime users. Initially, lodging would not be available at White Grass Ranch, but ultimately about twelve to fifteen overnight users, including the volunteer site manager, could be accommodated as additional cabins are rehabilitated by instructors, trainees, and volunteers. Besides the volunteer site manager, no training center/park employees would live at White Grass Ranch. The main carpentry/masonry shop for the training center would be located in the Moose maintenance area (park headquarters). The donated JY Ranch hay shed would be moved to White Grass Ranch, placed on the south side of the main cabin next to the parking area, and used for storage.

The Death Canyon Road would be used to access the White Grass Ranch area. As part of previously scheduled routine maintenance as described in the No- Action Alternative, the road will be graded and gravel added to stabilize the road. A small spur road would be constructed from Death Canyon Road to the ranch as access for operational activities. The spur road would begin at the Death Canyon Road roughly where the main cabin is visible from the road. It would run perpendicular to Death Canyon Road for approximately 400 feet, at a width of 15 feet, and it would be made from gravel. At the end of the spur road would be a small gravel parking area that would accommodate six vehicles. The limited parking would be provided for deliveries, instructors, and employees. Carpooling and/or shuttling would be encouraged for trainees and would be staged from the Moose maintenance area. Next to the parking area would be a small fenced- in area used for construction staging. This fence would be removed upon completion of construction activities. Please see the site plan (Figure 5) for more information. The location of the parking area, well house, JY Ranch hay shed, and part of the spur road is in a previously disturbed area; the White Grass Ranch barn and corrals used to be there. Under this alternative, a Western Center for Preservation Training and Technology would be established, addressing the need to train NPS employees and others in historic preservation.

FIGURE 5: ALTERNATIVE 3 SITE PLAN (A&E ARCHITECTS 2004B)



ALTERNATIVE 4 – COMPLETE BUILD- OUT

Alternative 4 involves rehabilitating all thirteen historic structures immediately for use as a fully functional Western Center for Preservation Training and Technology (Figure 6). The project would take two to three years to complete. The main cabin would be rehabilitated and adaptively used as a classroom facility and office space for the training center's employees (four or less people). The shower/laundry building (historic use) would be rehabilitated and adaptively used as a utility building to shelter the potable water storage tank. The Hammond cabin would be rehabilitated and adaptively used for a research library/meeting space, community kitchen for trainees, and housing for the seasonal, on- site volunteer caretaker. The ten remaining cabins would be rehabilitated, including the existing bathrooms in them, and used to lodge instructors, trainees, and volunteers. The cabins would include single, duplex, and triplex room arrangements. The main cabin, Hammond cabin, and cabin #1155 would be handicapped accessible. All work would follow the *Secretary of the Interior Standards for the Treatment of Historic Properties*. South of the main cabin, next to the well house and parking area, a barn would be constructed and used as a shop. The two- story log barn would be twenty- eight feet by sixty feet.

Alternative 4 would provide full utilities (electric, phone, water, and sewer) at the training center. A water well would be developed and used at the ranch. A well house would be constructed next to the parking area and new barn (south of the main cabin) to shelter the well and its associated equipment. The single- story well house would be approximately twelve feet by eighteen feet. Water lines would be installed from the well house to all thirteen buildings. A septic tank and leach field would handle wastewater, and would be constructed approximately 100 feet east of the Hammond cabin. Electricity would be brought to all thirteen buildings from the existing power line that runs on the south and west sides of the property. Phone lines would be installed to the main cabin, Hammond cabin, and cabin #1155. All utility line instillation would use existing utility corridors to the extent possible.

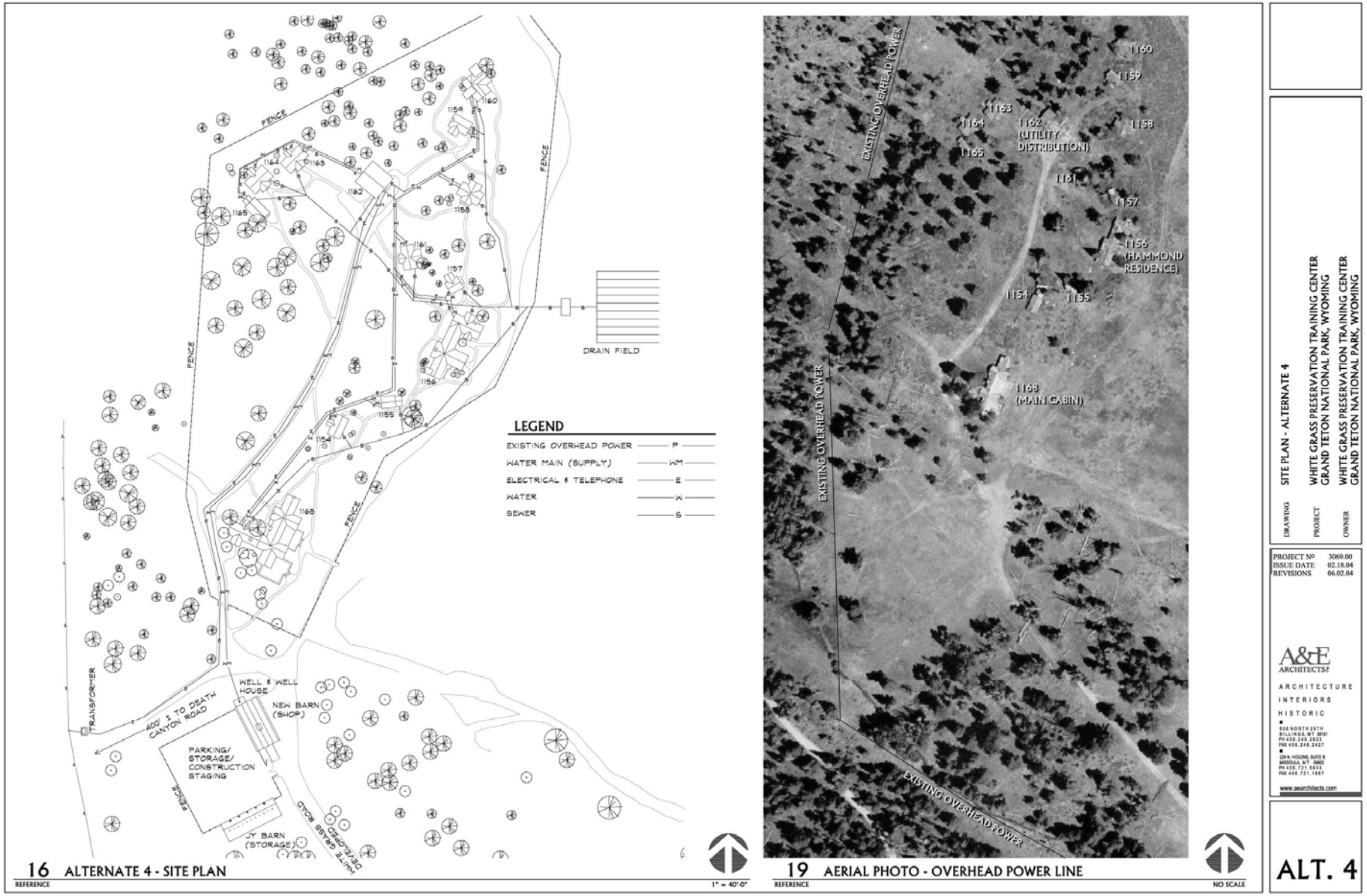
The ground around all the buildings would be graded to provide positive drainage. The secondary White Grass road on the property and the historic pasture would be stabilized but not used (see Affected Environment: Historic Structures and Cultural Landscapes). All ground disturbance activities would be revegetated using native vegetation. In an attempt to reconstruct some of the cultural landscape that once existed at White Grass Ranch, the pole and rail fence that ran immediately around the buildings would be reconstructed. The fence would be approximately four feet high.

The training center would operate seasonally for a maximum 7- month period with most activities taking place between late April and September, including opening and shutting down operations. The training center would accommodate fifteen to thirty daytime users and twelve to fifteen overnight users, including the volunteer site manager. Besides the volunteer site manager, no training center/park employees would live at White Grass Ranch. The main carpentry/masonry shop for the training center would be located in the Moose maintenance area (park headquarters). The donated JY Ranch hay shed would be moved to White Grass Ranch, placed on the south side of the main cabin next to the parking area, and used for storage.

Training center users would use Death Canyon Road and a secondary White Grass Ranch road to access the site. As part of previously scheduled routine maintenance as described in the No- Action Alternative, Death Canyon Road will be graded and gravel added to stabilize the road. The secondary White Grass dirt road is accessible through a gate approximately three- quarters of a mile up the Death Canyon Road. The secondary White Grass road would be rehabilitated to make it suitable for vehicle traffic while remaining a dirt road. At the end of the secondary road would be

a gravel parking area that would accommodate up to twenty vehicles. During the construction phase of the project this area would also be used for construction staging and storage. Please see the site plan (Figure 6) for more information. The location of the parking area, well house, barn, and JY Ranch hay shed is in a previously disturbed area; the White Grass Ranch barn and corrals used to be there.

FIGURE 6: ALTERNATIVE 4 SITE PLAN (A&E ARCHITECTS 2004C)



ALTERNATIVES CONSIDERED BUT DISMISSED

Several alternatives were considered but dismissed for various reasons. Year- round use, on a limited basis, was discussed but dismissed due to incompatibility with winter use and access, and utility and park operation concerns. Rehabilitating the buildings without adaptively using them was also discussed and dismissed as it did not meet the purpose and need for the project. Rehabilitating the buildings and adaptively using them for some other purpose was discussed and dismissed, because it did not meet the need or objectives. Rehabilitating the buildings and returning White Grass Ranch to a working dude ranch was also discussed and dismissed because it did not meet the purpose, need or objectives for the project and it would add considerably more personnel and visitors to the area. The alternative of returning the area to a natural state was also discussed but dismissed, as the National Park Service is mandated to care for its cultural resources according to the National Historic Preservation Act.

The NPS considered establishing a western preservation center in a western park other than GTNP, but decided that this area was the best location because GTNP and Yellowstone National Park (YNP) combined have more than 1,300 historic buildings, a majority of which are in fair to poor condition. Additionally, these two parks combined have only six employees trained to preserve these buildings. Rocky Mountain National Park has approximately 300 historic buildings and a historic preservation crew to maintain them. Glacier National Park was deemed too remote for instructors and trainees to get to.

White Grass Ranch in GTNP was chosen over other historic districts in the park because 1) alternative locations have far fewer historic rustic and vernacular buildings immediately proximate, 2) White Grass Ranch provides facilities of the proper number, scope, and scale for the preservation training center envisioned, 3) there is a need to develop a workforce with the skills required for proper preservation of the thousands of historic rustic and vernacular buildings in close proximity to White Grass Ranch, 4) the town of Jackson, Wyoming and the nearby year- round airport provide the proper accommodations and transportation opportunities needed to support the preservation training center and training facilities, 5) the maintenance facilities at GTNP headquarters in Moose, Wyoming complement the facilities at the White Grass Ranch to extend the benefits and opportunities the preservation training center would provide, and 6) the White Grass Ranch site provides an opportunity to include interpretation and public interaction due to its history as a public day use area and the public access road and trails located nearby.

The possibility of having a preservation training center elsewhere in the park was discussed but dismissed due to the suitability of the White Grass Dude Ranch Historic District for such a center. Other vacant historic districts like Bar BC Dude Ranch, Hunter Hereford Ranch, and Wolff Ranch do not provide facilities of the proper number, scope, and scale for the preservation training center envisioned.

MITIGATION MEASURES

Mitigation measures are designed to prevent or minimize adverse impacts or to contain impacts within acceptable limits during and after project implementation. The following are mitigations that would be incorporated into project implementation. These mitigations and guidelines are specific to the project area and to the wildlife resource issues analyzed in this document.

The following mitigation measures would be implemented to reduce the effects of the proposed project on natural, cultural, and social resources. Mitigation measures apply to all alternatives unless otherwise specified.

NATURAL RESOURCES

- Under the Migratory Bird Treaty Act, no migratory bird, nest, or egg can be disturbed, removed or destroyed without formal consultation. To minimize the potential for "taking" a nest of any protected bird species, park resource managers would survey the site before ground breaking activities commence to mitigate any potential issues in advance of site construction.

- All contractors, employees, and visitors would be trained and required to comply with the park's bear management plan during construction and operation of the complex. All project staff, trainees, and other personnel would be briefed about food storage needs, and bear safety protocols, and advised to carry bear pepper spray when conducting outdoor activities in the project area. The kitchen building would have an indoor garbage storage facility to ensure compliance with food storage requirements. Food, fuel, and other attractants would be stored and handled to minimize potential conflicts (i.e. no food, garbage, drink, trash, or food and drink containers are to be placed outside vehicles, trailers, or bear- resistant containers except during times when they are being used). No bird feeders or vegetable gardens would be permitted.

- No pets would be allowed at the site.

- All trash and recycling facilities associated with the training center would be of bear resistant design and stored indoors.

- Monitoring of grizzly bear populations would continue in accordance with the Interagency Grizzly Bear Management Guidelines and the park's bear management plan.

- GNTP is following the recommendations of the Lynx Conservation Assessment and Strategy. A map identifies the various habitats used by lynx (e.g., diurnal security, denning, and foraging) and their relationship to human activities. GTNP would continue to solicit and support research on lynx ecology.

- Construction activity would be outside of a one mile disturbance- free buffer zone around bald eagle nest sites. Monitoring of eagle populations to identify and protect nests would continue. The park would continue to support the objectives of the Greater Yellowstone Bald Eagle Management Plan.

- Monitoring of wolf populations would continue.

- To minimize adverse affects to any bats present, buildings would be surveyed before they are stabilized and rehabilitated. If bat species are found roosting, permanent sealing would not occur until the fall, when bats have left the buildings for the winter.

- Training and signage would also be utilized, in concert with wildlife- friendly fencing, to minimize social trailing.

- To minimize disturbance to elk and park visitors during the elk rut (September 15 – October 15), noise- producing activities would stop at 5 p.m. Limitations may include activities such as vehicle traffic, construction activities, the use of loud tools, etc.

- Construction zones would be identified and outlined with construction tape, snow fencing, or some similar material prior to any construction activity. Activity would be confined to the minimum area required for construction and laydown materials. No activity, including vehicle or material storage, would be allowed outside the predetermined zone.

- Only one construction trailer would be permitted on site for security purposes during the construction period between May 1 and September 30. No tents or other overnight activities by construction contractors would be permitted.

- Construction activities would be scheduled to occur during daytime hours to the greatest extent possible to limit non- natural sound impacts on nocturnal wildlife in the area.

- Construction work with heavy equipment would occur approximately between May 1 and September 30 to minimize impacts on wildlife during seasonal migration periods and to preserve quiet around White Grass Ranch during the construction period.

- The storage, handling, and disposal of all hazardous material and waste would comply with applicable federal and state regulations. Provisions would be made for storage, containment, and disposal of hazardous materials used on site. Construction equipment would be checked frequently to identify and repair any leaks and would be staged in designed areas suitable to contain leaking materials. Trained personnel would clean- up and dispose of any leakage or spill from construction equipment such as hydraulic fluid, oil, or fuel. Fueling and fuel storage areas would be permitted only at approved locations and comply with park re- fueling guidelines.

- In an effort to avoid introduction of exotic plant species, no hay bales would be used. Hay often contains seed of undesirable or harmful alien plant species. Therefore, on a case- by- case basis the following materials may be used for any erosion control dams that may be necessary: rice straw, straws determined by NPS to be weed- free (e.g., Coors barley straw or Arizona winter wheat straw), cereal grain straw that has been fumigated to kill weed seed, and wood excelsior bales. Standard erosion control measures such as silt fences and/or sand bags would also be used to minimize any potential soil erosion.

- Silt fencing fabric would be inspected weekly or after every major storm. Accumulated sediments would be removed when the fabric is estimated to be approximately 75% full. Silt removal would be accomplished in such a way as to avoid introduction into any wetlands or flowing water bodies.

- Construction activities would be limited to designated areas when soils are excessively wet such that rutting would be caused by wheeled vehicles. Any rutting would be mitigated by grading and reseeding. Construction would take advantage of these previously disturbed areas wherever possible.

- Vegetation impacts and potential compaction and erosion of bare soils would be minimized by conserving topsoil in windrows. The use of conserved topsoil would help preserve micro- organisms and seeds of native plants. The topsoil would be re- spread in as near as original location as possible, and supplemented with scarification, mulching, seeding, and/or planting with species native to the immediate area.

- All disturbed slopes would be revegetated with native species from genetic stocks originating in the park. Revegetation efforts would be to reconstruct the natural spacing, abundance, and diversity of native plant species. All disturbed areas would be restored as nearly as possible to pre- construction conditions shortly after construction activities are completed.
- Erosion of soil side- cast during construction would be minimized by placing silt fencing around the excavated soil. Excavated soil may be used in the construction project; excess soil would be stored in approved areas.
- When construction is ended prior to a winter season, all disturbed areas and soil stockpiles would be protected from snowmelt impacts by using erosion control best management practices and covering dirt piles with impermeable materials.
- Noxious weed control measures would be implemented and a management plan for continual maintenance would be drafted to monitor and mitigate impacts within the first three years of construction.
- The trainees and contractors would control dust during construction by minimizing soil exposure, and watering and use of other dust prevention methods.
- All utilities would be located underground, unless otherwise approved by the park.
- Human- made sounds originating from White Grass Ranch would be mitigated when possible by using power tools inside closed buildings rather than outside, not playing radios or using loudspeakers outside, and providing all personnel with standard noise mitigating procedures with sensitivity training on how non- natural sound affects the soundscape.
- The National Park Service would obtain federal and state environmental permits required for this project. As part of the permitting process, other agencies could require additional mitigating measures.
- Improved maintenance of Death Canyon Road would mitigate effects to water quality by controlling erosion.
- Best Management Practices would be used during construction to mitigate impacts to resources.
- Sustainable design and materials would be considered, as well as alternative energy and green building strategies, to the extent practicable and allowable in a Historic District so as not to conflict with the historic character of White Grass Ranch. Low- flow fixtures, energy star appliances, special lighting, etc. would all be considered during the design and construction phases of the project.

CULTURAL RESOURCES

- All actions that would take place, including mitigation, would only be implemented after sufficient consultation with and clearance by the Wyoming State Historic Preservation Office under §106 of the National Historic Preservation Act. This process ensures that the SHPO is consulted and concurs with any action proposed, before action is taken.

- Should construction unearth previously undiscovered archaeological resources, work would be stopped in the area of any discovery, and the park would consult with the state historic preservation officer/tribal historic preservation officer and the Advisory Council on Historic Preservation, as necessary, according to §36 CFR Part 800.13, Post Review Discoveries. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) would be followed.

- The Park Service would ensure that all contractors and subcontractors are informed of the penalties for illegally collecting artifacts or intentionally damaging archaeological sites or historic properties. Contractors and subcontractors would also be instructed on procedures to follow in case previously unknown archaeological resources are uncovered during construction. Equipment traffic would be minimized in the area of the site. Equipment and materials staging areas would also avoid known archaeological resources.

- The park would ensure that the historic irrigation ditches, if present, are not harmed as a result of

- heavy equipment or material storage on- site.

SOCIAL RESOURCES

- The site would remain clean of construction debris and clean during operations of the training center. The training center would be available for inspection at any time during the construction phase by the park or regulatory authorities.

- Contractors would coordinate with park staff to reduce the potential for disruption of normal park activities. Equipment would not be stored along the roadway overnight without prior approval of park staff. Construction workers and supervisors would be informed about the special sensitivity of park values, regulations, and appropriate housekeeping.

ALTERNATIVE COMPARISON

TABLE 2: METHODS EACH ALTERNATIVE USES TO ENSURE EACH OBJECTIVE IS MET

Objective	Alternative 1: No- Action	Alternative 2: Minimum Basic Functions	Alternative 3: Phased Development	Alternative 4: Complete Build- out
1. White Grass Ranch historic structures (and other structures in GTNP) are rehabilitated and preserved in an efficient manner.	Does not meet objective. Preservation actions that currently occur at the ranch would continue and the buildings would be stabilized, but not rehabilitated or adaptively used. Additional historic structures in GTNP would not be preserved in an efficient manner due to a lack of knowledge and skills that would otherwise be provided by the center.	Minimally meets objective. Only one White Grass Ranch structure would be rehabilitated and used, the other 12 buildings would be stabilized, resulting in limited trainee amenities. Historic structures in GTNP would be preserved and/or rehabilitated, but at a slower pace than in Alternatives 3 and 4.	Meets objective. Initially, three buildings would be rehabilitated and ten stabilized. The ten stabilized buildings would be rehabilitated through the use of training center attendees. The experienced gained at the site would enable more efficient preservation and rehabilitation work at other sites throughout GTNP.	Meets objective. All 13 structures would be rehabilitated. Full training, housing, and other trainee amenities would be immediately available to support full classroom enrollment, enabling a greater trainee workforce to address preservation needs beyond White Grass Ranch quicker.
2. Park employees and others receive knowledge and skills training in western historic preservation technology and techniques.	Does not meet objective. No Western Center for Preservation Technology and Training would be established to train employees in this skill.	Minimally meets objective. Limited training facilities would be available for on-site classroom instruction, thus limiting the number of employees trained at White Grass Ranch.	Meets objective. Initially, complete training facilities would be available for on- site classroom instruction, but with limited housing for trainees. However, the center would eventually function at full capacity as in Alternative 4.	Meets objective. Complete training facilities would be available immediately for on- site classroom instruction, including housing for trainees. Center would operate at full capacity immediately.

TABLE 3: SUMMARY COMPARISON OF IMPACTS

Impact Topic	Alternative 1: No- Action	Alternative 2: Minimum Basic Functions	Alternative 3: Phased Development (Preferred)	Alternative 4: Complete Build- out
Archaeological Resources	As no archaeological resources have been identified in the proposed project area, there would be no effect. For purposes of §106, there would be **no historic properties affected**.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1.
Historic Structures and Cultural Landscapes	Impacts would be short- term, minor, adverse and long- term, moderate, adverse due to the minimal level of preservation on the historic buildings and landscape features. For purposes of §106, there would be an **adverse effect**. The historic structures and landscape features at White Grass Ranch would be minimally stabilized.	Impacts would be long- term, minor to moderate, and beneficial. For purposes of §106, there would be **no adverse effect**. One historic structure at White Grass Ranch would be rehabilitated and the remaining twelve would be stabilized following the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. Eligible landscape features would be stabilized following the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*.	Impacts would be long- term, minor to moderate, and beneficial. For purposes of §106, there would **be no adverse effect.** Three buildings would initially be rehabilitated and ten would be stabilized initially and rehabilitated in the near future following the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. Training center enrollees would rehabilitate the ten buildings as part of their hands- on training. Eligible landscape features would be stabilized following the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*.	Impacts would be long- term, minor to moderate, and beneficial. For purposes of §106, there would be **no adverse effect**. All thirteen historic structures would be rehabilitated following the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. The training center would be functioning at full capacity at the end of construction, including overnight accommodations for trainees and instructors. Eligible landscape features would be stabilized (pasture) or rehabilitated (secondary White Grass road) following the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*.
Vegetation	Impacts would be negligible and adverse.	Impacts, with mitigation measures in place, would be minor, short- term and adverse.	Alternative 3, with appropriate mitigation, would result in minor to moderate, long- term, adverse impacts to vegetation.	Same as Alternative 3.
Wilderness	Impacts would be negligible and adverse.	Impacts would be negligible, adverse, and short- term, as well as negligible, adverse and long- term.	Impacts would be negligible and adverse in the short- term, and negligible to minor and adverse in the long- term.	Same as Alternative 3.
Wildlife (including	General wildlife impacts	General wildlife impacts would be	General wildlife impacts would be	General wildlife impacts would be

Impact Topic	Alternative 1: No- Action	Alternative 2: Minimum Basic Functions	Alternative 3: Phased Development (Preferred)	Alternative 4: Complete Build- out
T & E species) **NE = No Effect** **MANLAA = May Affect, Not Likely To Adversely Affect**	would be short- term, negligible to minor, and adverse. There would be no long- term impacts. Impacts to Species of Mgmt. Concern would be short- term, negligible to minor and adverse. T&E impacts would be negligible to minor, adverse, and short- term. Specifically: Bald eagle: NE Yellow- billed Cuckoo: NE Canada lynx: MANLAA Grizzly bear: MANLAA Gray wolf: MANLAA	negligible to minor, short- term and long- term, and adverse. Impacts to Species of Mgmt. Concern would be short- and long- term, negligible to minor, and adverse. T&E impacts would be negligible to minor, adverse, and short- and long- term. Specifically: Bald eagle: NE Yellow- billed Cuckoo: NE Canada lynx: MANLAA Grizzly bear: MANLAA Gray wolf: MANLAA	negligible to minor, short- and long- term, and adverse. Impacts to Species of Mgmt. Concern would be short- and long- term, negligible to minor, and adverse. T&E impacts would be negligible to minor, adverse, and short- and long- term. Specifically: Bald eagle: NE Yellow- billed Cuckoo: NE Canada lynx: MANLAA Grizzly bear: MANLAA Gray wolf: MANLAA	negligible to minor, short- and long- term, and adverse. Impacts to Species of Mgmt. Concern would be short- and long- term, negligible to minor, and adverse. T&E impacts would be negligible to minor, adverse, and short- and long- term. Specifically: Bald eagle: NE Yellow- billed Cuckoo: NE Canada lynx: MANLAA Grizzly bear: MANLAA Gray wolf: MANLAA
Park Operations and Partnerships	Impacts to park operations would be adverse, negligible and short- term, as well as adverse, minor and long- term. Impacts to partnerships would be short- term, minor to moderate and adverse.	Impacts to park operations would be minor to moderate, adverse and long- term. Impacts to partnerships would be the same as Alternative 1.	Impacts to park operations would be minor to moderate, adverse and long- term, as well as moderate, beneficial, and long- term. Impacts to partnerships would be moderate, beneficial and long- term.	Impacts to park operations would be moderate and adverse in the short- term, and minor to moderate and adverse in the long- term. There would also be moderate, beneficial long- term impacts. Impacts to partnerships would be the same as in Alternative 3.
Visitor Use and Experience	Impacts to visitor safety would be negligible short- term and adverse. In the long- term, visitor experience impacts would be moderate, adverse, and long-	Impacts to visitor safety would be minor, beneficial and long- term. Visitor experience impacts would be minor and adverse in the short- term due to initial preservation work. Impacts would be minor,	Same as Alternative 2.	Same as Alternative 2.

Impact Topic	Alternative 1: No- Action	Alternative 2: Minimum Basic Functions	Alternative 3: Phased Development (Preferred)	Alternative 4: Complete Build- out
	term for visitors who value cultural resource stewardship. Impacts would be minor, beneficial and long- term for visitors valuing the area for other reasons (i.e. wildlife viewing).	beneficial and long- term for visitors who value cultural resource stewardship. Impacts would be minor, adverse and long- term for visitors valuing the area for other reasons (i.e. wildlife viewing).		

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The Council on Environmental Quality defines the environmentally preferred alternative as "…the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act's §101." Section 101 of the National Environmental Policy Act states that "… it is the continuing responsibility of the Federal Government to …

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;

(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."

Alternative 1 (No- Action) would stabilize the buildings and maintain existing conditions at White Grass Ranch, but would not rehabilitate or adaptively use the buildings for a Western Center for Preservation Training and Technology. Alternative 1 does not meet goals 3, 4, or 6 because it fails to adaptively use historic structures. Adaptive use of historic structures provides better protection and preservation than stabilization alone. As the buildings may still pose some health and safety hazards to visitors, it does not meet goal 2, 3, and 5 as there are no provisions for promoting visitor use of the area or providing any interpretation of the site. The No- Action alternative does meet goal 1.

Alternative 2 (Minimum Basic Functions) would stabilize twelve buildings, and rehabilitate and adaptively use one building for a Western Center for Preservation Training and Technology. Alternative 2 minimally meets goals 2 and 4 by preserving buildings and adaptively using one building. However, twelve buildings would still remain unused, thus not meeting goals 5 and 6 to the fullest extent. Goal 3 is minimally met by having staff and trainees on site to interact with area visitors. It meets goal 1 as well.

Alternative 3 (Phased Development) would initially stabilize ten buildings and rehabilitate and adaptively use three buildings as a Western Center for Preservation Training and Technology. Later, through phased development, all thirteen buildings would be rehabilitated and adaptively used for the training center. Alternative 3 is the environmentally preferred alternative and the NPS preferred alternative, as it meets goals 1- 6 to the extent of Alternatives 1, 2, and 4, and would more fully meet goals 1, 3, and 5. Goal 1 is better met in this alternative by managing development in a slower, more controlled build- out allowing the NPS to better address exotic species issues and disturbed land restoration activities. Goals 3 and 5 are more fully met by having staff and trainees on site for the longest period of time to develop a better on- site training program and to interact with visitors who are in the area. By using volunteer labor to construct the full build- out of the center, this alternative indirectly meets all the goals because it

conserves financial resources that otherwise could be used for the protection of other parks' resources in the National Park System.

Alternative 4 (Complete Build- out) would completely rehabilitate and adaptively use all thirteen buildings immediately for a Western Center for Preservation Training and Technology. Alternative 4 strives to and meets goals 1- 6, but not to the extent of Alternative 3 because it does not allow for the use of volunteer labor or provide the additional training opportunity afforded by having buildings on- site to work on over time. Experienced historic preservation trainers emphasize the need to initially have some buildings on- site for training purposes in order to develop a comprehensive training program.

SUMMARIES

A value analysis study was conducted on February 23- 26, 2004. Table 4 shows advantage scores associated with each alternative (NPS 2004c). Please note, Alternative 3 discussed during the value analysis included rehabilitating four historic buildings initially, not three as is discussed in this EA/AEF.

TABLE 4: ADVANTAGE SCORES

Alternative	Advantage Score	Comments
Alternative 1 – No- Action	165	13 buildings minimally stabilized
Alternative 2 – Minimum Basic Functions	273	1 building rehabilitated, 12 stabilized, adaptive seasonal day-use
Alternative 3 – Phased Development	673	4 buildings rehabilitated initially, adaptively used
Alternative 4 – Complete Build- out	525	13 buildings rehabilitated, adaptively used

Based on a Value Analysis Study and a Choosing by Advantages evaluation, study team members considered Alternative 3, Phased Development, with initial construction of all utilities, the recommended alternative. The advantages of Alternative 3 include:

- It allows small, incremental, controlled development at this natural and culturally important site.
- The NPS can manage future development at the site; thereby attaining better compliance with Executive Order 13112 (Invasive Species) and NPS *Management Policies 2001* regarding invasive species and restoration of disturbed lands.
- The initial facilities are attractive to potential volunteers and funding partners due to "pride" opportunities in completing the center by providing an attractive training opportunity to potential trainees by leaving on- site historic structures to be rehabilitated.
- It provides for knowledge building and adjustment of park and center managers as the center evolves and is completed. By allowing a slower more managed build- out of the center, the training program, maintenance program, and operations can develop, build knowledge, and adjust to the needs of the training center as the program evolves.

- Phased development is an appropriate start to the new effort to preserve historic rustic and vernacular buildings in the greater Yellowstone area and beyond.
- This alternative anticipates lodging to be available in the years soon after construction, while costing considerably less than a fully developed turnkey facility (Alternative 4 concept) and still remaining attractive to partnership funding.
- The ratio of importance of advantages to cost was the highest for Alternative 3.