



National Park Service
U.S. Department of the Interior
Grand Teton National Park
Wyoming

Finding of No Significant Impact
Historic Properties Management Plan

Recommended:



SEP 29 2017

David Vela
Superintendent
Grand Teton National Park
John D. Rockefeller, Jr. Memorial Parkway

Date

Approved:

 Acting for

OCT 30, 2017

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Date

INTRODUCTION

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS) prepared an Environmental Assessment (EA) to examine alternatives and environmental impacts associated with implementing a proposed historic properties management plan in Grand Teton National Park and John D. Rockefeller, Jr. Memorial Parkway (GRTE/JODR, park and parkway, respectively).

The park and parkway currently contain 732 resources that are listed, or eligible for listing, in the National Register of Historic Places. Individual resources may be historic sites, buildings, structures, or objects. These resources are found in 44 locations, where there may be one resource or multiple resources with the same context and historical significance in what is commonly called a historic district. In the plan, these resources were considered by their locations and, with rare exception, referred to as whole entities. One resource, Beaver Creek #10, was evaluated separately from its historic district, Old Administrative Area/Beaver Creek, because of its individual significance, current lack of use, and need for preservation treatment.

A plan was needed to improve the care of these cultural resources. Although more than half of the park historic properties were in good condition and three-quarters had an assigned use or purpose and were actively used, many properties were not being optimally cared for or used, and extensive maintenance needs and financial constraints, including a deferred maintenance backlog of \$24 million, existed. The park believed that developing a comprehensive evaluation of existing management, including preservation treatments and uses of all 44 properties, would be a valuable effort that would inform decisions about future management, particularly for those less cared for and underused.

The statements and conclusions reached in this finding of no significant impact (FONSI) are based on documentation and analysis provided in the EA and associated decision file. To the extent necessary, relevant sections of the EA are incorporated by reference below.

SELECTED ACTION AND RATIONALE FOR THE DECISION

Three alternatives, including a no-action alternative and two action alternatives, were evaluated in the Historic Properties Management Plan/EA (HPMP EA).

Alternative A (No Action): Retain All Properties and Maintain on an As-Needed Basis

Alternative B: Retain and Improve Maintenance at Most Properties, Maximize Use of High Priority Properties, and Remove Several Low Priority Properties (NPS-Preferred)

Alternative C: Retain All Properties through Proactive Stabilization and Maintenance

Based on public comment and consultation discussions the National Park Service selected the preferred alternative, Alternative B, but modified it to retain and stabilize three properties proposed for removal (Aspen Ridge Ranch, McCollister Residential Complex, and Sky Ranch), and to limit adaptive reuse as seasonal park housing at Mormon Row to the Thomas Perry/Roy Chambers Homestead at the southern end of the historic district. The plan provided and will implement a

number of resource protection measures to minimize the degree and/or severity of adverse effects on cultural resources, soils and vegetation, water resources, wildlife and species of concern, visitor use and experience; natural soundscapes; and public health, safety, and the operations of the National Park Service and partners.

All work on park historic properties will be performed in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR 68, 1995) and the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*.

For the purposes of cultural resource management, historic structures and cultural landscapes are not treated as resources independent of each other because Grand Teton National Park has no independent cultural landscapes. All were components of a larger “historic district.” The term “cultural landscape” refers to the reflections 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 (Director’s Order-28: *Cultural Resource Management Guideline*).

During development of the EA, the interdisciplinary team reviewed a range of preservation treatments and did not limit their options to those defined by the Secretary of the Interior’s standards. The final treatments for historic preservation considered in this document for historic structures and cultural landscapes are defined as:

Rehabilitation – Proactive work applying measures such as installing fire suppression systems or upgrading utilities to allow new or renewed use. As defined in the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, rehabilitation is “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.”

Preservation maintenance (“maintain”) – Proactive work ranging from replacing deteriorated features in-kind to completing occasional, larger preservation projects. It also means maintaining facilities, utilities, and grounds at historic properties with these features. Per the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, preservation is “the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work ... generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. . .” Preservation maintenance and repair activities are described in detail in the *Programmatic Agreement among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act* (pp. 11-20, NPS 2008).

Stabilization – Proactive work to weatherproof building envelopes to prevent further deterioration (also called “mothballing” or “mothball stabilization”). The *Secretary of the Interior's Standards for the Treatment of Historic Properties* define stabilization as “Includes structural reinforcement, weatherization, correcting unsafe conditions. Temporary stabilization ... carried out in such a manner as to detract as little as possible from the historic building’s appearance ...” Mothballing guidelines are described in detail in the online NPS Technical Preservation Services *Preservation Briefs 31: Mothballing Historic Buildings* (NPS 1993).

The actions that will be implemented under the selected action are:

- Retain current management of 32 “in use” historic properties with active and productive uses and preservation treatment. These properties, preservation treatments, and uses are:

HISTORIC PROPERTY	PRESERVATION TREATMENT	ACTIVE USE
AMK Ranch	Maintain	Scientific research station
Brinkerhoff	Maintain	Administrative
Cascade Canyon Patrol Cabin	Maintain	Park backcountry patrol use
Colter Bay Village	Maintain	Visitor lodging and services
Cunningham Cabin	Maintain	Interpretive historic district
Death Canyon Barn and Patrol Cabin	Maintain	Park backcountry patrol use
Double Diamond Dude Ranch Lodge Dining Hall	Maintain	Visitor lodging
Elk Ranch	Maintain	Park resource management
The Highlands	Maintain	Park housing
Jackson Lake Lodge	Maintain	Visitor lodging
Jackson Lake Ranger Station	Maintain	Park housing
Jenny Lake Boat Concession Facilities	Maintain	Concessions facility
Jenny Lake Campground	Maintain	Visitor campground
Jenny Lake CCC Camp #NP 4	Maintain	Concessions facility
Jenny Lake Lodge	Maintain	Visitor lodging
Jenny Lake Ranger Station	Maintain	Visitor services
Kimmel Kabins/Lupine Meadows	Maintain	Park housing
Leigh Lake Patrol Cabin	Maintain	Park backcountry patrol use
Lower Berry Patrol Cabin	Maintain	Park backcountry patrol use
Menor's Ferry/Maud Noble Cabins	Maintain	Interpretive historic district
Moose Entrance Kiosk	Maintain	Interpretive services for visitors
Moose-Wilson Road	Maintain	Park road

HISTORIC PROPERTY	PRESERVATION TREATMENT	ACTIVE USE
Murie Ranch	Maintain	Conservation education center
Old Administrative Area/Beaver Creek*	Maintain	Park housing and storage
Ramshorn Dude Ranch Lodge	Maintain	Educational facility
Reimer Residence	Maintain	Park housing
Snake River Bridge #2	Maintain	Park road
String Lake Comfort Station	Maintain	Visitor services
Triangle X Dude Ranch Barn	Maintain	Barn
Upper Granite Canyon Patrol Cabin	Maintain	Park backcountry patrol use
Valley Trail System	Maintain	Backcountry trails
White Grass Ranger Station	Maintain	Park backcountry patrol use

*except one structure, Beaver Creek #10, see below.

- Implement previously approved plans for two properties, Mormon Row and White Grass Dude Ranch, which were underway at the time of the HPMP EA public release, with slight modifications. The earlier planning documents were the *Mormon Row Historic District Management Alternatives and Environmental Assessment* (NPS 1999), *Mormon Row Historic District Management Finding of No Significant Impact* (NPS 2000), *White Grass Ranch Rehabilitation and Adaptive Use Environmental Assessment/ Assessment of Effect* (NPS 2004), and *White Grass Ranch Rehabilitation and Adaptive Use Finding of No Significant Impact* (NPS 2005). These properties were analyzed in the EA and presented separately from the “in-use” properties and the eleven underused, “focus” properties. The small modifications to parking and circulation compared to earlier planning decisions did not have significant environmental effects and did not change previous conclusions. In addition to the slight plan changes, a proposal to rehabilitate up to four of the historic buildings at Mormon Row for seasonal park housing was analyzed. The change from the preferred alternative in the selected action is to limit adaptive reuse as seasonal park housing to the Thomas Perry/Roy Chambers Homestead at the southern end of the historic district. The other three homesteads will not be used for housing but could have an administrative or interpretive use in the future. This change is also noted in italics in the table below.

HISTORIC PROPERTY	PRESERVATION TREATMENT	ACTIVE USE
Mormon Row	Continue to stabilize structures and maintain infrastructure, including an extended interpretive trail to connect the north and south parts of the historic district. Potentially rehabilitate buildings at up to four Mormon Row homesteads	Interpretive historic district; <i>Use the Thomas Perry/Roy Chambers homestead as seasonal park housing. Potentially reuse other homesteads for other administrative or interpretive purposes.</i>

HISTORIC PROPERTY	PRESERVATION TREATMENT	ACTIVE USE
White Grass Dude Ranch	Slight change from previously approved rehabilitation work (NPS 2004, 2005), including: not constructing a spur road from Death Canyon Road; adding accessible parking/ drop off/ turn around areas (2 spaces at main parking area; beyond the gate, accessible parking for 2 vehicles, or drop off & turn around at two cabins (Hammond & the laundry/ maintenance cabin), only used if needed; and slightly increase use limits (day use by up to 15 people, 40 total allowed (from 25); overnight occupancy (up to 11 people; 15 current maximum allowed, new maximum 26.)	Historic preservation training center

- The following preservation treatments and future uses will be implemented at the eleven underused properties (the “focus properties”) analyzed in detail in the EA. Changes to the preferred alternative in the selected action, retaining and stabilizing rather than removing Aspen Ridge Ranch, McCollister Residential Complex, and Sky Ranch, are noted in italics in the table below.

HISTORIC PROPERTY	PRESERVATION TREATMENT	ACTIVE USE
4 Lazy F Dude Ranch	Rehabilitate	Park housing
Aspen Ridge Ranch	<i>Stabilize</i>	<i>No use</i>
Bar BC Dude Ranch	Stabilize 25 of the 32 contributing buildings at various levels according to a preservation plan, and allow 7 of the 32 to naturally deteriorate unless third party funding is made available.	Outdoor laboratory for historic preservation and interpretive site
Beaver Creek #10, a building within Old Administrative Area / Beaver Creek	Rehabilitate	Administrative use, such as park housing, office space, or park storage
Hunter Hereford Ranch	Maintain	Park storage
Lucas Homestead/Fabian Place	Maintain	Interpretive site

HISTORIC PROPERTY	PRESERVATION TREATMENT	ACTIVE USE
Luther Taylor Cabins	Maintain by continuing subtle stabilization and reactive hazard mitigation	Interpretive site
Manges Cabin	Maintain	Park storage
McCollister Residential Complex	<i>Stabilize</i>	<i>No use</i>
Sky Ranch	<i>Stabilize</i>	<i>No use</i>
Snake River Land Company Office and Residence	Rehabilitate	Ranger station

REASONS BEHIND THE CHANGES TO THE PREFERRED ALTERNATIVE, and WHETHER and HOW THE CHANGES ALTER THE ANALYZED IMPACTS IN THE EA.

The changes to the preferred alternative, Alternative B, in the EA were to retain the three properties proposed for removal and to rehabilitate only one of the up to four homesteads in the Mormon Row historic district for seasonal housing. Based on agency and public comment, the National Park Service re-evaluated the preferred alternative proposal to remove Aspen Ridge Ranch, McCollister Residential Complex, and Sky Ranch, and decided to retain them to avoid adverse effects to these cultural resources. The properties will be stabilized and unoccupied. Mothball stabilization of these properties was analyzed in Alternative C in the EA. Stabilization, often referred to as “mothball stabilization,” is proactive work to weatherproof buildings to prevent further deterioration, and includes reversible efforts such as putting tarps over roofs and installing interior bracing, that may not be in-kind preservation, and which may have visual impacts to the integrity of historic districts while in place. It is regarded as a short-term solution to protect these cultural resources until future planning can be completed. Interpretation and viewing by visitors are exterior uses that will continue. “Mothballing” is defined in NPS Preservation Brief 31.

The short-term noise and disturbance to soils, vegetation, and wildlife that would have been caused by the removal process will not occur. The long-term benefit of restoring the sites with native plant species and providing additional natural habitat for wildlife also will not occur. Visitors will continue to be able to see the properties in situ. Retaining these properties and performing mothball stabilization will result in no adverse effect to cultural resources although doing so will slightly decrease funds for preservation maintenance at other historic properties. Estimated impacts to resources will be the same as those analyzed in Alternative C in the EA.

The other change to the preferred alternative modifies the idea to potentially rehabilitate up to four buildings on Mormon Row for future use as seasonal park housing. Some degree of rehabilitation could occur but the park will no longer consider overnight use for three of the four, adapting only the Thomas Perry/Roy Chambers Homestead for park seasonal housing. Because it is at the southern periphery of the historic district and separated from the main interpretive site area by the Ditch Creek Bridge, potential conflicts with visitors in the interpretive area will be reduced or avoided. The potential long-term impacts from occupying the homestead analyzed in the EA will only occur at this one part of Mormon Row away from the areas most accessed by visitors. Preservation maintenance at Mormon Row will continue, and one or more of the other Mormon Row buildings could receive some degree of rehabilitation or restoration for interpretive purposes and day use.

The plan clarifies the park direction for managing its historic properties into the future. Consultation with the SHPO on all 44 properties will continue pursuant to *The Programmatic Agreement Among the National Park Service (U.S. Department of the Interior), The Advisory Council on Historic Preservation, and The National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act* (hereafter referred to as the “nationwide PA”) and the MOA for the Bar BC Dude Ranch.

Rationale

The selected action, which was a modified Alternative B, meets the project purpose to define management direction for the park and parkway’s historic properties. It also meets plan objectives to:

1. Create a comprehensive analysis of Grand Teton National Park historic properties and identify needed management actions for the near future.
2. Provide strategic direction in a programmatic way for park historic preservation work and funding.
3. Identify and retain significant historic properties for adaptive uses such as visitor use and enjoyment and/or other purposes consistent with the park mission.

The selected action was chosen over the original alternatives (A, B, and C) because it will allow rehabilitation and a more active, adaptive reuse at four of the 11 focus properties, a more preferred level of cultural resource stewardship, compared to alternatives A and C. It will also retain three properties proposed for removal, stabilizing them in place for future evaluation and planning. Like Alternative B, it will greatly improve preservation by rehabilitating some properties and initiating appropriate, more active uses that support park operations at these locations. It will also better protect human health and safety by addressing structural deficiencies and pest infestations, which is limited under both A and C; improve visitor enjoyment and access compared to Alternative A although similar to Alternative C; and emphasize proactive rather than reactive stewardship such as the hazard mitigation under Alternative A. All of the 11 focus properties will receive better maintenance under the selected action. And, although Alternative C would be proactive and improve preservation levels from current levels at all focus properties, none of the properties would be substantially improved compared to Alternative B or the selected action.

MITIGATION MEASURES

The selected action incorporates the mitigation measures listed in Appendix B of this document.

PUBLIC INVOLVEMENT/AGENCY CONSULTATION

Scoping:

The public was involved early in plan development. They were invited to learn more about the potential plan and provide their concerns and ideas through a public meeting (February 8, 2011) and a public scoping period (February 4–March 11, 2011; 36 days total). During this period, the park received 30 correspondences. Correspondences, which were from eight states, came from 23 members of the general public, with the remaining seven from four organizations.

Public Review:

The plan/EA was made available for public review and comment from January 5–February 17, 2016, a 44-day comment period. A press release was distributed to several media outlets to notify the public that the plan/EA was available electronically at the NPS planning website, Planning, Environment, and Public Comment (PEPC). During the public comment period, the park received a total of 53 correspondences, with one agency (WY SHPO), nine organizations, a park concessioner, and several historic preservation businesses represented. The number of total signatures was 282 due to a web page set up by an organization for their members to sign and provide comments on some aspects of the plan, as well as several correspondences with more than one signature.

Comments that were substantive are addressed in the Errata sheets (Appendix C). Substantive comments focused on topics including alternatives to removing three historic properties, NPS methodology and assumptions for plan proposals, and whether NPS proposals met legal requirements to protect cultural and natural resources. The FONSI, including appendices, will be made available to the public on the NPS public planning website, Planning, Environment, and Public Comment (PEPC; <https://parkplanning.nps.gov>).

Tribal Consultations:

In March 2011, the park sent letters and public scoping notices to the following traditionally associated tribes: Apache, Arapaho, Assiniboine and Sioux, Blackfeet, Northern Cheyenne, Coeur d'Alene, Colville Group, Comanche, Crow, Gros Ventre, Kiowa, Nez Perce, Northern Paiute, Salish-Kootenai Group, Eastern Shoshone, Shoshone-Bannock, Teton (Oglala) Sioux, Umatilla Group, and Yakama Group. None of these associated tribes expressed interest in consultation or responded with comments about the historic properties identified for consideration in the EA, which did not include ethnographic or archeological resources. The Tribal Historic Preservation Officer (THPO) of the Northern Cheyenne sent confirmation of no interest, documenting that there are no properties of religious and cultural significance to the tribe in the proposed construction area. Due to lack of interest from tribes and the absence of cultural affiliation to the historic properties analyzed in the plan, no additional consultation was conducted.

Agency Consultations:

The Historic Properties Management Plan Environmental Assessment EA underwent Endangered Species Act (ESA) Section 7 and National Historic Preservation Act (NHPA) Section 106 consultation.

ESA Section 7 Consultation with the USFWS:

The NPS provided the EA and a biological assessment to the USFWS in January 2016 upon public release of the EA. In a memorandum dated December 9, 2016, the USFWS concurred with the NPS (see the section below for potential effects to threatened or endangered species and concurrence details). Because of the changes to the preferred alternative in the selected action, and to clarify elements of the biological assessment and opinion, the park reinitiated consultation on July 18, 2017, to amend the biological assessment. The amendment added an impact analysis and effects determination for the North American wolverine, corrected occupancy and/or management status of select focal historic properties, and clarified and described the breadth of preservation maintenance activities that are likely to occur at historic properties throughout the course of the selected action. Differences in the analyzed effects were not expected to alter USFWS concurrence or the biological opinion regarding potential effects to grizzly bears. The biological opinion and the delisting of this species in the Greater Yellowstone Ecosystem (GYE) are discussed below. Following the re-initiation of consultation, on September 8, 2017, the USFWS concurred with the NPS determinations of “may affect, not likely to adversely affect” Canada lynx and North American wolverine.

NHPA Section 106 Consultation with the State Historic Preservation Office (SHPO):

Formal consultation with the Wyoming SHPO and the Advisory Council for Historic Preservation, with the participation of National Trust for Historic Preservation, and Alliance for Historic Wyoming, and the Teton County Historic Preservation Board, was conducted to avoid or minimize adverse effects on historic resources. Further Section 106 compliance regarding preservation maintenance at all of the historic properties will be completed pursuant to the nationwide PA as specific designs are formulated and details are available. The MOA, executed in September 2017, was prepared to mitigate adverse effects to the Bar BC Dude Ranch. See Appendix F.

FINDING OF NO SIGNIFICANT IMPACT

Why the Selected Action Will Not Have a Significant Effect on the Human Environment

As defined in 40 CFR Section 1508.27, significance of impacts is determined by examining both context and intensity using the following criteria:

Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect will be beneficial.

Implementation of the selected action will result in both beneficial and adverse impacts. However, no potential for significant adverse impacts on resource topics analyzed in detail (cultural resources; natural resources: vegetation and wildlife; park operations; and visitor use and experience) was identified. Other topics, dismissed from further analysis (HPMP EA pp. 22 – 31) because there were no potentially significant issues or impacts, the topics were not central to the proposal, and they would not play a key role in making a decision or cause contention, were: air quality; archeological resources; climate change and sustainability; environmental justice; ethnographic resources; floodplains; Indian trust resources; lightscape management; museum collections; paleontological resources; prime and unique farmlands; socioeconomic; soundscape management; topography, geology, and soils; water resources; wetlands; Wild and Scenic Rivers; and wilderness.

Cultural Resources – The selected action will provide better, more proactive care and improved interpretation for cultural resources in the park and parkway. Continuing current management of proactively maintaining and using the 32 in-use historic properties with their active, beneficial uses will be beneficial to these properties at current levels (as under all alternatives in the EA). The selected action will also improve preservation maintenance and structural condition at almost all of the other 13 properties. It will implement proactive stabilization rather than reactive hazard mitigation under the no-action alternative (Alternative A) and improve maintenance of others that were currently maintained. The exceptions are the three properties (Aspen Ridge Ranch, McCollister Residential Complex, and Sky Ranch) that will be stabilized to prevent further deterioration and allow for future evaluation and planning; their condition will not change. The condition of the rehabilitated properties (4 Lazy F Dude Ranch, Beaver Creek #10, Snake River Land Company Office and Residence, and Mormon Row) will greatly improve, and being adaptively reused will ensure that levels of preservation maintenance remain high and require less intervention in the future. Other elements of the selected action that benefit cultural resources are increasing interpretation, formalizing circulation patterns, restoring ground and vegetation damaged by informal use, and removing elements not part of cultural landscapes (non-historic vegetation, for example). Increasing interpretation will likely decrease the potential for vandalism at some properties.

Actions taken in the future to rehabilitate properties, such as interior changes to meet code requirements for occupancy and the addition of small water treatment (well houses, transformer boxes, propane tanks, and seasonal occupancy), will undergo additional compliance and further consultation with the WY SHPO. Also, traffic and noise increases may be noticeable at Menor's Ferry/Maud Noble Cabin during 4 Lazy F Dude Ranch rehabilitation construction and to a lesser extent afterwards, but will not diminish the qualities that make this property eligible for the National Register of Historic Places. Allowing seven Bar BC Dude Ranch cabins, those with the lowest significance, integrity and condition, to naturally deteriorate if third party funds do not become available to preserve them will cause an adverse effect to the property. This effect is mitigated through a memorandum of agreement among the NPS and NHPA section 106 consulting parties (Appendix F) and the Bar BC Dude Ranch will retain its integrity and its listed status.

Natural Resources: Vegetation and Wildlife – Beneficial impacts stem from formalizing circulation patterns (preventing social trail development and future damage from informal parking), restoring ground and vegetation damaged by informal use, and not constructing the spur road previously approved as part of the earlier White Grass plan (NPS 2005). Approximately 5.5 acres of disturbed

ground and vegetation from construction, maintenance activities, and long-term informal use, will be restored and revegetated with native plant species (see Appendix G). Mitigations to protect wildlife including sensitive, threatened, or endangered species are in place (see Appendix B). Native vegetation will continue to benefit from exotic vegetation management.

Adverse impacts include short-term ground, vegetation, and noise disturbance from exterior (outdoor) maintenance and construction, which includes utility upgrades at some properties. These impacts are localized at the historic properties, temporary, and will occur mainly in previously disturbed areas close to structures. At most properties the presence of people and human alteration of the areas immediately next to the structures is ongoing, and habitat value will continue to be lower than undeveloped parts of the park or parkway. The extent of disturbance will range from within 10 feet of structures where there are no utilities (at backcountry patrol cabins, for example) to larger areas at historic properties with established uses and maintenance such as Jackson Lake Lodge or Old Administrative Area/Beaver Creek, which are historic districts with multiple buildings, parking areas, and utilities. The disturbed ground and vegetation will be restored and revegetated with native species after the work.

The duration of these effects will vary from several hours to weeks at properties undergoing occasional, cyclic maintenance to up to 24 months (approximately two summer/fall seasons and possibly interior work during the winter) for properties undergoing rehabilitation. Revegetation could occur during the year following the end of construction.

The historic properties are the result of human settlement or development in the park and parkway, and vegetation near individual structures and within historic districts has been altered, some during decades of human use. Habitat effectiveness near the historic properties is not as great as areas without any human developments. The impacts of higher human use at some properties, as well noise and increased traffic, will likely disturb some wildlife but, because impacts are limited to the properties and immediate surrounding area, other undisturbed habitat will continue to be available.

Impacts to wildlife at the 32 in-use properties will remain the same as current levels. The potential for disturbance to wildlife from higher traffic and noise levels at several currently underused focus properties will increase in the short term during work periods (see above) and in the long term because more people could be present due to increased interpretation and visitor use, or because properties will be adaptively reused and occupied. Estimates of ground and vegetation disturbance at the other 13 properties (the 11 focus properties, Mormon Row, and White Grass Dude Ranch - where changes in management were analyzed) are provided in Appendix G. The estimated increase in the area permanently disturbed at these properties after restoration work is small (~0.8 acre up to a maximum of ~1.5 acres). Fire management efforts (mowing grass fuels, trimming tree limbs, and removing woody fuel accumulations) to create defensible space around properties will continue to be done as needed, affecting vegetation within 30 – 90 feet of structures depending on fuel loading and fire risk conditions. See also the section below on the potential to affect threatened or endangered species or their habitat.

Park Operations – The selected action will benefit park operations in the long term by using park historic properties more effectively, improving health and safety conditions, and ensuring better long-term maintenance of properties. Proactive planning and implementation of preservation treatments and establishing active uses at some properties also improves park operations compared to management under the no-action alternative (Alternative A). In addition, the decision to not construct and maintain a spur road to White Grass Dude Ranch will eliminate the work needed to

manage the road construction, or perform the work, and the future maintenance that would be needed. Although there will be more work as improved maintenance at properties is implemented, park operations will improve in the long term by having properties in better condition, better maintenance planning, and better provision of visitor opportunities and access.

The selected action will adversely affect park operations by increasing work loads, especially in the short term. There will be more work due to increases in maintenance, visitor protection, and resource management responsibilities, including work to finalize project plans for maintenance, rehabilitations, and removals; perform the work or hire contractors, and monitor construction or deconstruction activities. After rehabilitations are completed, normal workloads and patterns should return at most of the historic properties although there will be a slight increase in work due to the need to service additional vault toilets and occasionally maintain elements of the rehabilitated buildings. Construction noise and dust may also adversely affect park employees, but these effects will be temporary, lasting only as long as construction. Park operations associated with continuing current management of the 32 in-use properties will be the same as under the no-action alternative (Alternative A). Maintenance in the long term will be higher at some of the focus properties where little or no work was being performed under the no-action.

Visitor Use and Experience – The selected action will result in beneficial impacts to visitor use and experience because it will expand historic property interpretation through various media, and increase accessible access, both of which will increase the number and type of visitor opportunities to experience and better appreciate the historic properties. Several properties, including Lucas Homestead/Fabian Place, Luther Taylor Cabins, and Mormon Row, will be enhanced specifically for interpretive purposes. Snake River Land Company and Residence, after rehabilitation, will have an accessible, enclosed porch for interpretive information, and visitors may have contact with rangers who are in the office at the time. The improved levels of preservation maintenance at the underused focus properties, by increasing the overall condition of the buildings and landscape, will enhance their ability to communicate significance and historic integrity.

At all historic properties that visitors are able to access, preservation treatments or other occasionally needed maintenance will sometimes cause construction-related disturbances (increased traffic, noise, dust, limited areas) that will adversely impact their experience. Visitors will be encouraged to visit other park areas and historic properties accessible at the time, and off-site interpretation will also be available. In the long term, enhanced interpretation and access will improve visitor use and experience.

The degree to which the proposed action affects public health or safety.

The selected action will protect human health and safety by ensuring that historic properties with established uses and human access meet current health and safety standards and structural requirements. Preservation maintenance at almost all properties will be improved. Rehabilitating and maintaining, and using most of the historic properties, will especially improve conditions, and correct and prevent existing, identified unsafe conditions such as the presence of bats and mice and their guano and droppings, and allow access to currently closed buildings. Stabilizing buildings at some properties will prevent structural deterioration and unsafe conditions. A floodplain statement of findings completed for the plan/EA (Appendix E) states that evacuation procedures will be in place to ensure human safety at occupied properties in floodplains.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

The plan was developed to evaluate management, including preservation treatments and uses, at historic properties in the park and parkway; hence, the modified selected action will occur at locations with historic resources. See the section below for a discussion of the degree of effects to cultural resources.

Seven historic properties are located within the 100-year floodplain. Along the Snake River, these properties are 4 Lazy F Dude Ranch, Bar BC Dude Ranch, and Menors Ferry/ Maud Noble Cabins in the park; and Snake River Bridge #2 in the JODR parkway. Kimmel Kabins/Lupine Meadows is in the Cottonwood Creek floodplain, and Reimer Residence and T. A. Moulton barn in Mormon Row are in the Ditch Creek floodplain. The park completed a floodplain statement of findings (see Appendix D) and will continue to follow mitigations to limit the potential for adverse effects and to ensure the safety of people and resources. Moving the structures to non-flood-prone sites was not considered because it would result in an adverse effect to the integrity of those properties. The floodplain will not be affected by the replacement or upgrading of utilities to support adaptive reuse. Where possible, support infrastructure will be installed as far as practicable from the water body. No fuels or other hazardous materials will be stored at historic properties within floodplains. Any risk to humans will be small as there will be ample warning time to implement evacuation plans or to remove objects from flood risk.

Seven historic properties (Snake River Bridge #2, 4 Lazy F Dude Ranch, Bar BC Dude Ranch, Elk Ranch, Menors Ferry, Murie Ranch, and the Snake River Land Company Office and Residence) are located within the Snake River Headwaters Wild and Scenic River corridor. Management of these historic properties will not affect the designated river or the outstandingly remarkable values for which it was designated. These values are: scenic, recreational, cultural, ecological/wildlife, fish, and geologic. Although visual or sound impacts from construction or rehabilitation activities will occur, these will be temporary, occurring during the period of work and localized to the property itself. Work duration will vary depending on the type of work, which ranges from stabilization at Bar BC Dude Ranch (several summer-fall seasons – July through October); continued maintenance (cyclic, occasional, hours to weeks of work) at Elk Ranch, Menors Ferry, Murie Ranch, and Snake River Bridge #2; and rehabilitation at 4 Lazy F Dude Ranch and Snake River Land Company Office and Residence (up to 24 months, primarily summer-fall, some interior winter work). Scenic and cultural values will not be affected in the long term because all work on park historic properties will be performed in accordance with established standards (see above) to preserve historic features, qualities such as integrity and visual character, and materials, the scenic quality of these properties. Ecological/wildlife values will not be affected because all work will comply with mitigation measures (Appendix B) to promote best management practices for construction and to protect park resources including water quality, fish, soils, vegetation, and wildlife. Recreational values, which include boating, fishing, and access. There will be no measurable long-term effects to those resources for which the river was designated. The park will continue to encourage appropriate human behavior toward wildlife, such as food storage/bear attractant requirements and has established mitigation measures to protect wildlife (see Appendix B: Mitigation Measures).

The park and parkway do not contain prime or unique farmlands.

The park used USFWS National Wetlands Inventory information to identify wetland areas in the park and parkway. While there are wetlands within the boundaries of some historic districts, none occur near structures or will be disturbed by preservation work. For properties where ground disturbance will occur away from the structures (for example, due to utility installation or upgrades at the properties planned for rehabilitation), additional surveys to determine more detail about the presence or absence of wetlands will be conducted to ensure that these areas are protected. Wetlands will be avoided through project design and no impacts will occur. This topic was dismissed from detailed analysis in the EA.

See the section below on the degree to which the action may affect endangered or threatened species or their critical habitat.

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

There is no controversy in terms of the nature of the nature of the environmental consequences analyzed in the EA.

The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The selected action is straightforward and does not pose uncertainties. The environmental process did not identify any effects with highly unique or unknown risks.

The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The selected action is not expected to set a precedent for future actions with significant effects nor does it represent a decision in principle about a future decision.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

Cumulative effects were analyzed in the EA and no significant cumulative impacts were identified.

The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

The plan was developed to evaluate management, including preservation treatments and uses, at historic properties in the park and parkway; hence, the selected action will occur at locations with “proximity to historic or cultural resources.” Consultation with the WY SHPO will continue to occur pursuant to the nationwide PA. Care will be taken to ensure that all work on park historic properties is performed in accordance with the *Secretary of the Interior’s Standards for the Treatment of Historic Properties* (36 CFR 68, 1995) and the *Secretary of the Interior’s Standards for the Treatment of Historic*

Properties with Guidelines for the Treatment of Cultural Landscapes
(<http://www.nps.gov/tps/standards.htm>, USDO I 2001).

Based on the criteria of effect established in 36 CFR 800, the park determined that the selected action will have no effect on the 32 properties where no management changes are proposed, including two National Historic Landmarks, Jackson Lake Lodge and Murie Ranch. The park consulted with the Wyoming State Historic Preservation Office pursuant to Section 106 of the NHPA, and the WY SHPO concurred on the finding of no effect to these properties. Current uses and levels of preservation will continue to keep properties in good conditions and prevent any resource loss or destruction. Continued Section 106 consultation will occur as specific projects are proposed prior to implementation.

The selected action will have no adverse effect on 12 properties (consisting of 10 of the 11 focus properties, as well as Mormon Row and White Grass Dude Ranch) where preservation maintenance or rehabilitation is proposed. Additional NHPA Section 106 consultation with the WY SHPO will be completed pursuant to the *Programmatic Agreement among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act* as detailed rehabilitation designs are proposed, and to ensure appropriate and sensitive adaptive reuse.

At Bar BC Dude Ranch, seven structures with the lowest significance, integrity, and condition, will be allowed to naturally deteriorate. This comprises an adverse effect to the historic district. An MOA to mitigate these effects was executed to fulfill National Historic Preservation Act (NHPA) Section 106 consultation. The action is based on a conservation management plan that analyzed the significance and condition of each structure within the district, and that recommended differing levels of treatment, including natural deterioration, to achieve a balance between intervention and preservation of the district as a whole. Although this comprises an adverse effect under the implementing regulations of Section 106 of the NHPA, the effects are mitigated through consultation under Section 106 and are not considered significant under NEPA because the majority of the historic district will be preserved and it will remain on the National Register of Historic Places.

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

The NPS based its ESA section 7 determinations (described for individual species below) on the following impacts. Management and use of historic properties in the park and parkway has the potential for disturbing endangered or threatened species due to human presence, vehicle use creating noise and potential for striking wildlife, and noise above background levels from heavy machinery and power tools during maintenance or construction. Noise produced during some outdoor activities (e.g., roof, building, and road repair/replacement) could alter movements and use patterns, and temporarily displace individual animals that are travelling or using habitat near project areas. At the properties where rehabilitation will occur and the structures are re-occupied, there will also be increased traffic, and noise in the long term because people will be present compared to current conditions. Mitigations to protect these species and habitat and to reduce the potential for human/wildlife conflicts are in place (see Appendix B). An example of this type of mitigation is restricting work to daylight hours to remove possible nighttime and light-related disturbances. Project activities occur within small areas of the park at any one time, with large areas of habitat remaining available for use.

Consultation with USFWS on potential effects to endangered or threatened species or related habitat occurred in two phases. The National Park Service sent a request for formal Section 7 consultation letter (dated January 11, 2016), the environmental assessment, and the associated biological assessment to the U.S. Fish and Wildlife Service (USFWS) on January 11, 2016. Later, because of the changes to the preferred alternative in the selected action, and to clarify elements of the biological assessment and opinion, the park reinitiated consultation on July 18, 2017, to amend the biological assessment. The amendment added an impact analysis and effects determination for the North American wolverine, which was not proposed as threatened during the initial consultation; corrected occupancy and/or management status of select focal historic properties; and clarified and described the breadth of preservation maintenance activities that are likely to occur at historic properties throughout the course of the selected action.

The USFWS response letter, dated December 9, 2016, included the following:

Canada Lynx, Gray Wolf: The USFWS concurred with the NPS “may affect, not likely to adversely affect” determination for Canada lynx and gray wolf. The gray wolf in Wyoming has since been removed from the endangered species list, with the final rule published and effective May 1, 2017. The USFWS concurred with the NPS “no effect” determination for designated Critical Canada Lynx Habitat. Although some historic properties are located within areas of designated critical habitat for Canada lynx, the National Park Service determined that the proposed historic property management will have no effect on this habitat.

Whitebark Pine, Bonytail, Colorado Pikeminnow, Humpback Chub, Razorback Sucker, Kendall Warm Springs Dace: In the biological opinion USFWS supported the NPS conclusion that there will be “no effect” to these species, which the NPS dismissed from further analysis in the biological assessment because they were not known or had no potential to occur in the analysis area.

Greater Sage-grouse: Though this species was determined not warranted for listing under the ESA in 2015, the USFWS noted that formal conservation commitments by federal, state, and private landowners to protect the greater sage-grouse and its habitat were important in the Service’s finding to not list this species. Because the park is adopting conservation measures and adhering to the State of Wyoming Executive Order (EO) 2015-4, the USFWS stated that they had no reason to expect that the proposed action (Alternative B, the NPS preferred alternative in the HPMP EA) will cause negative impacts on the greater sage-grouse population.

Grizzly Bear: Because the Historic Properties Management Plan Environmental Assessment was a comprehensive evaluation of a 20-year plan for historic property management, and because the USFWS definition of adverse effects to grizzly bears included immobilization and relocation of individual bears to resolve human/wildlife conflicts in or near developed or occupied areas of the park, the NPS determination for grizzly bear was “may affect, likely to adversely affect.” The USFWS concurred and wrote a biological opinion, dated December 9, 2016, issuing “incidental take” for grizzly bears of four relocations and three mortalities over the 20-year life of the plan. “Take” is defined in the Endangered Species Act as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species. Despite mitigations and stipulations in place to reduce the potential for human/bear conflicts, the possibility that conflicts could occur and management actions would be

needed, could not be eliminated. The proposed action/preferred alternative in the plan included construction, maintenance, and removal activities, and addressed human-bear conflicts from ongoing visitor use of the historic properties and, if approved, park staff taking up residence in historic properties.

In the biological opinion, the USFWS noted that the potential impacts (“adverse effects”) will occur in only a small portion of grizzly bear range in the Greater Yellowstone Area (GYA) and, considering the large amount of grizzly bear habitat, resource management within such habitat, and the status of the grizzly bear, they did not expect the expected level of adverse effects to appreciably diminish grizzly bear numbers, distribution, or reproduction; appreciably reduce the survival and recovery of grizzly bears; or jeopardize the continued existence of the species. They anticipated that some level of take of grizzly bears could occur because of human occupation of 4 Lazy F Dude Ranch, and at White Grass Dude Ranch (where grizzly bears were not present at the latter during earlier compliance efforts) because of the potential that individual bears could enter these properties and primarily due to the potential need to relocate and remove bears habituated to anthropogenic (“human”) food or causing property damage during the 20-year timeframe of the plan. They also noted that “Mortality is expected to remain within the constraints of recovery criteria. . .relatively minor impact on the overall GYA population of this species, which. . .has increased significantly in distribution and abundance.” Hence, the potential level of adverse effects to grizzly bears is not significant.

Since receipt of the biological opinion, the status of the Greater Yellowstone Ecosystem population of grizzly bears has changed. On June 22, 2017, the Secretary of the Interior announced that this population has met recovery criteria. The ruling removing this population from the federal list of endangered and threatened wildlife was published in the Federal Register on June 30, 2017, and became effective July 31, 2017. Park mitigations and stipulations to prevent bear/human conflicts and adverse impacts from management actions will continue to be followed.

Following the re-initiation of consultation, which provided several corrections to the biological assessment, clarified maintenance actions, and added an impact analysis for the North American wolverine, the USFWS response, dated September 8, 2017, included:

Canada Lynx, North American Wolverine: The USFWS concurred with the NPS determinations of “may affect, not likely to adversely affect” for these species.

There were two changes to the preferred alternative in the selected action: 1) not removing three properties and 2) allowing seasonal park housing as an adaptive reuse of one of the houses at Mormon Row. Changes to the impacts to wildlife that were analyzed for the preferred alternative are:

- 1) The NPS decided not to remove Aspen Ridge Ranch, McCollister Residential Complex, and Sky Ranch, from the landscape. The adverse impacts from removal activities (short-term noise and disturbance to soils, vegetation, and wildlife) will not occur. The long-term benefit to wildlife from restoring the sites with native plant species and providing additional natural habitat for wildlife also will not occur. Amounts of restored habitat was estimated as approximately 1.7 acres total. These properties will be mothballed (limited stabilization to prevent deterioration) and remain on the landscape, unused, which will have little effect on

wildlife. Habitat adjacent to the properties will continue to be available and there will be little potential for disturbance as people rarely visit these areas. Mothballing the properties will involve limited work (securing doors, installing structural supports, placing tarps over roofs) with little potential for disturbance to wildlife.

- 2) Limiting adaptive reuse as seasonal park housing to the Thomas Perry/Roy Chambers Homestead at the southern end of the historic district will decrease the noise, ground disturbance, and vegetation disturbance from adding utilities at the other three homesteads as well as the potential for nighttime disturbance to wildlife that may be using nearby habitat. The other three homesteads will not be used for housing but could have an administrative or interpretive use in the future.

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

The selected action will not violate any federal, state, or local laws, or environmental protection laws.

CONCLUSION

As described above, the selected action does not constitute an action meeting the criteria that normally require preparation of an environmental impact statement (EIS). The selected action will not have a significant effect on the human environment in accordance with Section 102(2)(c) of NEPA.

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

REFERENCES

National Park Service (NPS)

- 1993 *Preservation Briefs 31: Mothballing Historic Buildings*. Technical Preservation Services. Sharon C. Park, AIA. Available online at <<https://nps.gov/nps/how-to-preserve/briefs/31-mothballing.htm>>
- 1999 *Mormon Row Historic District Management Alternatives and Environmental Assessment*. On file at Grand Teton National Park headquarters, Moose, WY.
- 2000 *Mormon Row Historic District Management Finding of No Significant Impact*. On file at park headquarters, Moose, WY.
- 2004 *White Grass Ranch Rehabilitation and Adaptive Use Environmental Assessment/Assessment of Effect*. On file at park headquarters, Moose, WY.
- 2005 *White Grass Ranch Rehabilitation and Adaptive Use Finding of No Significant Impact*. On file at park headquarters, Moose, WY.
- 2008 *Programmatic Agreement among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act*. On file at park headquarters, Moose, WY.
- 2017 *Memorandum of Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the Wyoming State Historic Preservation Officer regarding Resolution of Adverse Effects to the Bar BC Dude Ranch, Grand Teton National Park, Teton County, WY*.

U.S. Department of the Interior (USDOI)

- 2001 *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. This document is available online at <<http://www.nps.gov/tps/treatment-standards-2017.pdf>>.

APPENDIX A: NON-IMPAIRMENT DETERMINATION

By enacting the NPS Organic Act of 1916 (Organic Act), Congress directed the U.S. Department of the Interior and the National Park Service (NPS) to manage units "to conserve the scenery, natural and historic objects, and wild life in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations" (54 U.S.C. 100101). NPS *Management Policies 2006*, Section 1.4.4, explains the prohibition on impairment of park resources and values:

"While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the National Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them."

An action constitutes impairment when its impacts "harm the integrity of park resources or values, including the opportunities that otherwise will be present for the enjoyment of those resources or values" (NPS 2006, Section 1.4.5). To determine impairment, the NPS must evaluate the "particular resources and values that will be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts. An impact on any park resource or value may constitute impairment, but an impact will be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance (NPS 2006, Section 1.4.5).

Fundamental resources and values for the park and parkway are identified in the enabling legislation and the 2017 *Foundation for Planning and Management, Grand Teton National Park and John D. Rockefeller, Jr. Memorial Parkway*. Based on a review of these documents, the fundamental resources and values for Grand Teton National Park come from its aquatic resources, cultural history and resources, ecological communities, natural soundscapes, scenery, and visitor experiences in an outstanding natural environment. Resources that were carried forward for detailed analysis in the EA and are considered necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; are key to the natural or cultural integrity of the park; and/or are identified as a goal in relevant NPS planning documents include: cultural resources, and natural resources: vegetation and wildlife. Accordingly, a non-impairment determination is made for each of these resources. Non-impairment determinations are not necessary for human health and safety or visitor use and experience because impairment findings relate back to park resources and values, and

these impact areas are not generally considered park resources or values according to the Organic Act.

This non-impairment determination has been prepared for the selected action, as described in the Finding of No Significant Impact for the Historic Properties Management Plan EA.

- Cultural Resources

The EA analyzed current and potential future management, including preservation treatments and uses) for historic properties listed in or eligible for listing in the National Register of Historic Places. These properties are found at 44 locations, 43 in the park and one in the parkway. The analysis included historic structures and cultural landscapes, but did not include archeological resources. Historic significance levels include local, state, and national levels. There are five nationally significant historic properties, including two National Historic Landmarks. Significant historical contexts are the history of homesteading, environmental conservation, and dude ranching and tourism (significant to the establishment of Jackson Hole National Monument).

Under the selected action, the overall character, condition, and use of most of the historic properties will be preserved without substantial modification. Structural condition will improve at the four properties that will be rehabilitated and adaptively reused, as well as at underused properties where stabilization will be improved or implemented instead of hazard mitigation only. Proactive maintenance activities ranging from replacement-in-kind to occasional, larger projects to ensure the buildings remain in use, will cause short-term increases in noise, dust, and visual intrusions during the work. At the properties where rehabilitation will occur and the structures are occupied, there will also be increased traffic, and noise in the long term because people will be present compared to current conditions. Measures will be implemented to avoid or minimize adverse effects on historic properties and character-defining features of cultural landscapes. There will also be long-term benefits to cultural resources at some properties due to improved ability to fight structural fires that could cause loss or destruction of cultural resources.

Because seven structures at Bar BC Dude Ranch will be allowed to naturally deteriorate under the selected action and will experience adverse effects if third party funds are not available for their preservation, a memorandum of agreement (MOA) among the NPS, Advisory Council for Historic Preservation, and Wyoming State Historic Preservation Officer was completed (Appendix F). The Bar BC Dude Ranch historic district as a whole will benefit from focused preservation on representative structures and guest cabins. The action is based on a conservation management plan that analyzed the significance and condition of each structure within the district, and that recommended differing levels of treatment, including natural deterioration, to achieve a balance between intervention and preservation of the district as a whole. Because the adverse effect has been mitigated through the Section 106 process and the district as a whole will remain on the National Register of Historic Places, it does not constitute a significant impact under NEPA.

Except for these impacts at Bar BC Dude Ranch, no adverse effects on historic structures and cultural landscapes are foreseen from project actions, and historic properties will retain their resource integrity and eligibility for the National Register of Historic Places. Mitigation measures will be implemented pursuant to the *Memorandum of Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the Wyoming State Historic*

Preservation Officer regarding Resolution of Adverse Effects to the Bar BC Dude Ranch, Grand Teton National Park, Teton County, WY. Where changes to historic structures and cultural landscapes are proposed, the park will consult with the Wyoming SHPO on detailed designs to ensure they meet the Secretary of the Interior's Standards. Design will avoid impacting character defining features that contribute to significance such as historic circulation patterns, agrarian-type vegetation, vernacular design, and visual character. Consequently, implementation of the selected action will not result in an impairment of historic structures or cultural landscapes in the park and parkway.

- Natural Resources: Vegetation and Wildlife including Special Status Species

The National Park Service strives to maintain all components and processes of park unit ecosystems, including the natural abundance, diversity, and ecological integrity of animals (NPS *Management Policies* 2006).

Many species occur near the historic properties due to the diverse types of habitat around them. The park's properties are mainly located on the valley floor, in or near developed areas or primary roads. This is also true of the one property in John D. Rockefeller, Jr. Memorial Parkway, Snake River Bridge #2. The exceptions are a few backcountry cabins in the Teton Range or its foothills. However, because many of the park's historic properties are situated in or near park developed areas, the presence of humans, human-related activities, and facilities reduces the ability or inclination of some wildlife species to use the native habitat in the immediate area.

These are human-built structures that have been in place for decades, most for more than 50 years. Habitat in close proximity to structures is typically of poorer quality because human use has damaged or removed nearby vegetation, and may not provide important habitat components such as food, cover shelter, or areas for breeding and reproduction, or for movement/connectivity to other areas as well as unmodified, natural habitat farther from the historic properties will. Some more sensitive wildlife will avoid historic properties and people, while others will continue to use adjacent habitat and the immediate property area.

Under the selected action, existing management and uses continue without change at most of the historic properties, modest preservation improvements will occur at nine properties, and rehabilitations/utility upgrades at four properties. The work will occur within existing developed area perimeters (the disturbed area around the structures due to a property's presence on the landscape, maintenance, and use, including visitor use). Minor stabilization to routine maintenance and repair work, as well as larger activities associated with rehabilitations, will cause localized, short-term disturbance to soils and vegetation, and increase the sounds of people and equipment. Parking areas, access roads, and pedestrian access trails will also be maintained, with occasional edge disturbance. In many cases, where there are no utilities, disturbance will occur within 10 feet of building foundations. Utilities present at some properties will need occasional repairs and replacement.

The duration of these effects will vary from several hours to weeks at properties undergoing occasional, cyclic maintenance to up to 24 months (approximately two summer/fall seasons and possibly interior work during the winter) for properties undergoing rehabilitation. Revegetation could occur during the year following the end of construction.

Soil and vegetation disturbance was evaluated in detail for the 13 historic properties analyzed in the plan for changes in management, improved preservation, and/or new work. These properties are the 11 underused “focus” properties, Mormon Row, and White Grass Dude Ranch.

Permanent ground disturbance was estimated to be approximately 0.8 – 1.5 acres, after taking into account revegetation of areas that previously disturbed by informal visitor use, as well as revegetation of areas disturbed by implementing the selected action. The latter, more immediate disturbance was often within a larger existing previously disturbed area. Approximately 5.5 acres of areas temporarily disturbed by the proposed work or already disturbed by informal visitor use and not needed to support formalized use and/or access, will be restored and revegetated.

Implementation of the selected action could displace some wildlife from areas near historic properties while work is occurring at a particular location, but it will not affect wildlife or habitat to a significant degree because the work is localized in a small area of the park and there are large areas of remaining habitat available for wildlife to use. Consultation with the USFWS was completed in two phases, with initial consultation ending with the USFWS December 9, 2016 response. The USFWS responded again on September 8, 2017, after the park re-initiated consultation on July 18, 2017, to amend the biological assessment with an added impact analysis and effects determination for the North American wolverine, which was not proposed as threatened during the initial consultation; corrections to occupancy and/or management status of select focal historic properties; and clarifications to the breadth of preservation maintenance activities that are likely to occur at historic properties throughout the course of the selected action. Overall, the USFWS concurred with the NPS determination that these activities “may affect, but are not likely to adversely affect” the Canada lynx, gray wolf, or North American wolverine, and will have “no effect” on Canada lynx critical habitat, which exists near some properties. Since their initial concurrence, the Wyoming gray wolf was removed from the list of endangered species (effective May 1, 2017).

During the initial consultation period, the USFWS provided a biological opinion on potential effects to the grizzly bear, with a slight increase in “incidental take” for the park due to the long 20-year life of the plan and the potential for some conflicts with individual grizzly bears and associated management actions, particularly at properties where human use increases or people occupy properties that were unoccupied in recent years. In this opinion, they noted that, because the potential effects would occur in only a small portion of grizzly bear range in the Greater Yellowstone Area (GYA), affect a small number of individual bears, and that mortality would remain within recovery criteria, they assessed the effect as a “relatively minor impact on the overall GYA population of this species which . . . has increased significantly in distribution and abundance.” However, since that concurrence and issuance of the USFWS biological opinion, the status of the Yellowstone grizzly bear has changed. On June 22, 2017, the Secretary of the Interior announced the recovery of the Greater Yellowstone Ecosystem population of grizzly bear to established recovery criteria. The final rule removing this species from the Federal List of Endangered and Threatened Wildlife was published June 30, 2017 and took effect July 31, 2017. Protections for grizzly bears, including food storage regulations and bear safety briefings, in the park and parkway remain in place and conservation recommendations will continue to be followed.

To summarize, a variety of mitigations and stipulations are in place to prevent or reduce impacts to vegetation and wildlife. Implementation, and the minor effects described above, will occur at historic properties, and other habitat is available for wildlife to use. The presence of a full complement of native wildlife, and natural processes such as finding food and shelter in natural

areas, predator-prey interactions, breeding, reproduction, natural movement patterns, and connectivity to other ecological communities, will continue. Implementing the selected action will have no effect on other natural processes, which include natural disturbances such as fire and landslides, in the park and parkway. The disturbance effects of implementation are relatively small because they occur in discrete, human-modified areas, and will not result in impairment to the park's vegetation and wildlife.

In conclusion, as guided by this analysis, good science and scholarship, advice from subject matter experts and others who have relevant knowledge and experience, and the results of public involvement activities, it is the superintendent's professional judgment that implementation of the selected action will not constitute impairment of the resources and values of Grand Teton National Park and John D. Rockefeller, Jr. Memorial Parkway. This conclusion is based on consideration of the park's purpose and significance, a thorough analysis of the environmental impacts described in the EA, comments provided by the public and others, and the professional judgment of the decision maker guided by the direction of NPS *Management Policies 2006*.

APPENDIX B: MITIGATION MEASURES

Under the selected action, the following measures will be implemented to reduce the potential for adverse impacts on park resources. These mitigation measures have been updated to reflect current contact and resource information.

Assessment of Effect

- If previously unknown archeological (human-modified) and/or paleontological (fossils) resources and/or human remains are discovered during construction, all work in the immediate vicinity (600 feet) of the discovery shall be halted until the resources are identified and documented and an appropriate mitigation strategy developed. Contact the park archaeologist (307-739-3643).
- Ensure implementation of the stipulations and the monitoring, reporting, and meeting requirements in the *Memorandum of Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the Wyoming Historic preservation officer regarding resolution of adverse effects to the Bar BC Dude Ranch, Grand Teton National Park, Teton County, WY* (Appendix F).

Assessment of Effect – Cultural Landscapes

- All vegetation modification, including tree removal, at National Register of Historic Places -listed or -eligible properties shall be reviewed and approved by the Section 106 specialists (as well as by wildlife and vegetation specialists).
- All work on or near historic buildings, structures, sites, and landscapes shall be conducted in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties in consultation with park cultural resources specialists (307-739-3671). Any deviation from the approved specifications must be submitted for further review.

Assessment of Effect – Historic Structures

- All work on or near historic buildings, structures, sites, and landscapes shall be conducted in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties in consultation with park cultural resources specialists (307-739-3671). Any deviation from the approved specifications must be submitted for further review.
- Consult with NPS cultural resource specialists or archaeologists in advance (generally 60 days) of any ground disturbing activities and work on or near buildings, structures, sites and landscapes eligible for or determined eligible for listing in the National Register of Historic Places.
- Inform all contractors and subcontractors of the penalties for illegally collecting artifacts or intentionally damaging archeological sites or historic properties.

Night Sky

- Project shall comply with NPS lighting guidelines to reduce impacts to the night sky and wildlife. This will include, but is not limited to, low-level lighting, minimized glare, downward focused light fixtures, and energy efficient light sources.

Park Operations & Management – Construction General

- Hours of work may be determined by the park to avoid construction disturbance to visitors, park residents, or wildlife.
- The location of all potential utility lines in work areas shall be field located and marked prior to work to avoid disturbance conflict.

- Maintain a safe construction zone. Fence around open holes when personnel are not present and provide for a slope out of the hole such that wildlife trapped in the excavation may be able to escape.
- Control dust during construction by minimizing soil exposure, watering, and using other dust prevention methods.
- Dispose of construction and/or demolition debris (e.g., old water lines, appurtenances, water tanks, valves, packaging materials, trash) at appropriate areas designated by the park. When possible, debris will be disposed of at a materials recycling facility.
- All project zones will be kept trash free at all times.
- To minimize the amount of ground disturbance, staging and stockpiling areas will be located in previously disturbed sites, away from visitor use areas to the extent possible. All staging and stockpiling areas shall be returned to pre-construction conditions following project completion. Parking of construction vehicles will be limited to these staging areas, existing roads, and previously disturbed areas.
- Identify and define construction zones with construction tape, snow fencing, or other material prior to any construction activity. Use the zone to confine activity to the minimum area required for construction. Construction activities, including material staging and storage, cannot occur beyond the construction zone fencing.
- A traffic control plan for use during construction as approved by the park will be developed and enforced to minimize disruption to visitors and park operations and to ensure safety of the public, park employees, and residents.

Park Operations & Management - Communications

- Inform contractors (construction workers and supervisors) about the special sensitivity of park values, regulations, and appropriate housekeeping.
- Contractors will coordinate with park staff to minimize disruption of normal park activities.

Park Operations & Management - Utilities

- Notify park Facilities Management utility systems staff (307-739-3366) prior to a contractor connecting to or repairing a water or sewer line in the park. Any repairs to potable water lines must be coordinated with the park, and any potable water line that loses pressure during construction will be required to be placed into Boil Order status until a sample can be collected and tested.
- Following construction, furnish the GRTE GIS Office (307-739-3493) with utility location information, including a shapefile using coordinates NAD83 UTM 12N, company name, and type and number of lines.

Soils, Topography, Geology – Construction

- Avoid rutting or excessive soil compaction caused by vehicles or equipment. Construction activities shall be restricted during saturated soil conditions or severe weather conditions to avoid damage to soils and vegetation. In the event of adverse weather conditions, the project leader will consult with the park resource management representative (307-739-3678) to ensure that ground conditions are acceptable for project activities.

Soils, Topography, Geology – Disturbance

- To minimize the amount of ground disturbance, locate staging and stockpiling areas in previously disturbed sites to the extent possible. Return all staging and stockpiling areas to pre-construction conditions following construction.

Soils, Topography, Geology – Erosion Control

- To minimize soil loss/erosion at the project site, erosion control best management practices (BMPs) including protection measures such as sediment traps, silt fences, erosion check screens/filters, jute mesh, will be used if necessary, to prevent the loss of soil.

Soils, Topography, Geology – Topsoil

- Topsoil should be salvaged at the beginning of all ground disturbance activities by scraping the topsoil to the side prior to deeper digging. Topsoil refers to the uppermost layers of soil and includes fine particles, small roots, rocks, and cobbles. It is usually darker in color, and is the layer in which the majority of roots grow and beneficial microorganisms exist. It is usually the top 2-6 inches. Conserving topsoil will minimize impacts to vegetation and help preserve valuable micro-organisms and the native seed bank.
- Store salvaged topsoil separately from other materials. Limit the height of topsoil stockpiles to 36 inches. Do not stockpile topsoil or subsoil within drip line of remaining trees. Excess soil will be stored only at approved locations.
- Replace topsoil and other excavated soils and rock in the proper order, cobble lowest, then subsoil, then topsoil. Use a trench box if one is needed to reduce disturbance. Spread topsoil as near to the original location as possible.
- During the final stages of project implementation, scarify and loosen compacted subsoils to a minimum depth of 12 inches prior to replacing the salvaged topsoil. Soil decompaction will be done with equipment that has ripping teeth, placed a maximum of 12 inches apart.
- Do not drive or operate equipment on newly replaced topsoil. Do not re-enter the project site once revegetation/restoration work has been initiated and/or completed.

Soundscapes – Idling

- To reduce noise and pollution emissions, construction equipment and all motor vehicles will not idle any longer than is necessary.

Soundscapes – Mufflers

- Ensure that motorized vehicles and equipment have properly functioning mufflers.

Vegetation

- Coordinate all project work with park vegetation specialists regarding invasive, non-native plant (weed) treatments, revegetation requirements, costs, and scheduling. Contact the SRM Vegetation Branch (307-739-3678).
- Limit ground disturbance to the smallest area possible to reduce disturbance to soil and native plants and reduce the potential for the introduction and/or spread of non-native, invasive plant species.
- Plant survey for rare and/or sensitive species are required prior to ground disturbing activities and must be conducted during growing seasons when these species could be identified.

Vegetation – Exotic Plants

- Seed mixes used for revegetation will be composed of local native species and approved by SRM Vegetation Branch staff.
- Prior to project implementation, SRM Vegetation staff will conduct invasive, nonnative plant surveys in the project area. Invasive weed control measures will be implemented to monitor and mitigate impacts within the first 3 years (minimum) of construction.
- To reduce the threat of nonnative, invasive vegetation being introduced to the park, all imported material (i.e., sand, gravel, rock, rip-rap, etc.) must be obtained from a park approved or county weed district approved source. Teton County Weed and Pest has currently approved as weed-free the various Evans Construction pits in Teton

County. If a new material source is requested, park vegetation staff will seek county-approved material source pits and/or perform a nonnative, invasive plant inspection.

- Material sources, including sand, gravel, rock, rip-rap, mulch, etc. that is (are) not attained from a county or park approved weed-free material sources must be precooked (300 degrees) or washed to prevent spread of invasive weeds in the park.

Vegetation – Miscellaneous

- Vegetation beyond the estimated scope of disturbance shall not be damaged or removed without prior approval via the project documents or by park vegetation management staff.
- To facilitate revegetation and non-native, invasive plant management, provide the SRM Vegetation Branch (307-739-3678) via project documents, with an estimate of potential ground disturbance at least 4 weeks prior to work and with the dimensions of the disturbed area after the work is complete.
- Consider minimizing ground and vegetation disturbance by boring or other alternatives to trenching activities.
- Use wooden mats for vehicle and equipment access to the site to limit damage to existing vegetation.
- Avoid destruction of individuals or populations of sensitive plant species or alteration of their habitat when conducting ground disturbing activities. SRM vegetation staff will notify project managers of rare or sensitive plant species for project documents prior to initiation of activities.

Vegetation - Trees

- Preserve existing trees to the extent possible, and during trenching operations, avoid damaging the roots of nearby trees.
- Tree/ Slash Removal - When trees are felled as part of project right of way clearing, remove all tree parts greater than 3” in diameter from the site except those pieces (“slash”) needed for revegetation or reclamation of the disturbance. The limbs, tops, and miscellaneous residue left by forest thinning and pruning activities are commonly called slash.
- Tree/ Slash Removal - Tree parts (slash) under 3” in diameter (not chips) may be “lopped and scattered” into adjacent forested vegetation so that it is 6 inches or less in depth measured immediately after treatment. If the <3” slash is chipped, broadcast the chips so that chip depth is less than 2 inches measured immediately after treatment. Chips may also be removed from the park for other uses.
- Stumps resulting from tree removal shall be flush cut level with the ground and no higher than 2” as measured from the uphill side.

Vegetation – Weed/Seed Free

- If a material source does not have an approval for weed-free, or if a material source fails an inspection, then the material must be clean of weed seed materials and dirt debris before entering the park. That typically entails cooking material such as sand and gravel to 300 degrees F. For larger rock and rip-rap, the rock can be separated from smaller dirt materials, and washed prior to entering the park.
- All vehicles and equipment shall arrive at the job site in a condition free of mud, dirt, and plant material. A method such as pressure washing prior to transport will be needed to comply with this requirement. Prior to offloading of any equipment, inspection and verbal approval must be obtained from the park resource management representative or delegated representative. The spread of non-native, invasive plant species in the park is a serious concern, and no equipment will be allowed to offload or remain within the park if dirt or other contaminants with the potential to harbor seeds or other plant material is apparent.

Wildlife (Fish and Wildlife)

- Work that includes influence or direct disturbance to a wetland or stream should not be conducted during fish spawning periods. Spawning phenology by species is dependent on location of waterway, so please contact the SRM Fisheries Biologist (307-739-3666) for specifics.
- Consult with SRM Fisheries Biologist (307-739-3666) regarding culvert design to allow for fish and wildlife passage where applicable.
- To prevent introduction of terrestrial or aquatic invasive species, all equipment, including rubber-tired land and tracked land vehicles, construction and facility equipment, watercraft, and personal use equipment such as diving gear, must be thoroughly cleaned, and inspected by park personnel before being operated or launched in the park.
- Unless otherwise noted (i.e., elk rutting and near sage grouse leks), limit routine construction activities to 30 minutes after sunrise to 30 minutes prior to sunset to avoid disturbance to wildlife.
- To protect special status species:
 - Inform staff about the potential for special status species in or near the area of the proposed activity. Work will cease if a special status species is discovered in the project area, until park staff re-evaluates the project. Protective measures, including potential modification of the work or the work schedule, could be determined necessary.
 - Ensure that all mitigations/conservation measures determined through Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) are followed.
 - In circumstances when it is deemed necessary to conduct activities near sites known to support threatened or endangered species, such work will be performed in a way (specified by the park biologist) to minimize impacts to the listed species (e.g., working quietly on-site, and minimizing time in or near habitats en route to their work sites).
- All project activities must comply with GRTE's Superintendent's Compendium (2016 and as updated) regulations related to food storage and park recommended best management practices for living and working in bear country. Bear "attractants" include food, drinks, garbage, cooking utensils, dirty / soiled pots/pans/plates, stoves, grills (charcoal or gas), empty or full coolers, storage containers with food or previously holding food (except approved bear resistant canisters), beverage containers, pet food/bowls, and any odorous item that may attract a bear such as toiletries.
 - At all times in all locations, including the backcountry, all staff (NPS, Volunteers-in-Parks (VIPs), contractors, etc.) must ensure that all bear attractants are attended at all times. All unattended attractants must be stored securely inside a building, a bear resistant food storage locker (if available), in a hard sided vehicle with doors locked and windows closed, or in an Interagency Grizzly Bear Committee (IGBC) approved portable bear resistant food storage canisters; or disposed of properly in a bear-resistant garbage receptacle. Backpacks and/or daypacks containing unsecured attractants (i.e. not in a canister) must not be left unattended.
 - All personnel must attend a briefing on proper food/attractant storage and bear safety presented by a qualified member of the park's bear management team or their designee. Please contact the park's Bear Management Office (307-739-3673) at least two weeks prior to the desired start date to schedule a briefing.
 - All human-bear conflicts must be reported to Teton Interagency Dispatch Center immediately (307-739-3301). All bear sightings must be reported to the park's Bear Management Office (307-739-3673) within 24 hours.
 - Provide for proper storage and disposal of materials that may be toxic to bears. All potentially toxic attractants, including petroleum products, must be stored or disposed of in such a way that they are not available to bears.

- o Construction debris must be separated from human food garbage and disposed of in dumpsters that can be closed at night. No open dumpsters are allowed. A request for an exception to the open dumpster stipulation, however, can be made to the project manager who will consult with the park's Bear Management Office to determine if such use will be authorized. The use of open dumpsters will only be considered if the following conditions can be met: the open dumpster must be stored behind a locked fence out of view and inaccessible to the public, will be labeled construction debris only, and be inspected daily to ensure that no human food garbage is in the dumpster.
- Coordinate with the Bear Management Office (307-739-3673) to ensure that all project activities within the Grizzly Bear Primary Conservation Area (PCA) comply with habitat standards in the Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area (USFWS 2016, <http://igbconline.org/yellowstone-subcommittee/>), and to the extent practicable, that projects occurring in occupied grizzly bear habitat outside of the PCA adhere to the spirit of standards in the Final Conservation Strategy (USFWS 2016).
- Conservation recommendations (CR) provided in the USFWS 2016 biological opinion on the Historic Properties Management Plan to protect minimize or avoid effects to grizzly bear:
 - o CR1. Minimize human interaction and potential grizzly bear mortality by continuing the park's hazing strategies to prevent grizzly bears from becoming habituated to human residences.
 - o CR2. Grizzly bears concentrate in certain areas during specific time periods to take advantage of concentrated food sources or because the area provides a high seasonal food value due to diversity in vegetation and plant phenology (e.g., important spring or fall range). Where grizzly bear use is known or likely to occur and where practicable, delay disturbing activities during the spring in spring habitats to minimize displacement of grizzly bears.
 - o CR3 Manage building construction/removal and other activities in a manner that will minimize noise and visual disturbances and facilitate safe movement through habitat by grizzly bears.
 - o CR4. Control speed, traffic, and parking to minimize negative impacts to grizzly bear activity, including active enforcement of speed limits.
- All project activities will adhere to all relevant conservation measures outlined in the Lynx Conservation Assessment and Strategy (USFWS revised 2013). In particular, harvest of trees on site for the proposed activities within Lynx Analysis Units and/or in critical lynx habitat will not be authorized without further review and analysis in consultation with USFWS.
- All project activities will comply with GRTE's Superintendent's Compendium (2016 and as updated) closures implemented around wolf den/rendezvous sites. Should a den or rendezvous site not previously known be found within 1 mile of the proposed activity a seasonal area closure would be implemented as needed, typically between April 15 and August 15, annually.
- Prohibit construction activities before 8 a.m. and after 6 p.m. during the elk rutting and migration period (typically from September 1 to December 1, or as recommended by the park biologists).
- Avoid construction, maintenance, or other disturbing activities in crucial ungulate winter ranges (December 15—April 15) and in identified ungulate parturition ranges (May 15—June 30. See mitigation reference maps.
- Fencing (including temporary fencing for construction projects and permanent fencing) used in projects will comply with wildlife friendly fencing standards. Consult with the SRM Ungulate Biologist (307-739-3488) for assistance with specifications and appropriate design.
- For all herbicide applications, to the extent possible please conform to best management practices for wildlife. This includes following MSDS label instructions and avoiding sensitive times/areas for wildlife (e.g. bird nesting, fawning, den sites, bloom periods for pollinators).

- All wildlife-vehicle collisions must be reported to Teton Interagency Dispatch as soon as possible.
- A bat mitigation plan must be developed prior to initiating preservation, maintenance, or other activities in park structures that could negatively affect bats, their roosts, or hibernacula and/or if bat sign (bat vocalizations, smell of a bat roost, bat droppings on floors or walls, bat carcasses or skeletons, oily marks (from fur) around possible access points and roost areas, lack of cobwebs along beams, feeding remains such as moth wings or other insect parts, or other sign) is observed at any site. Buildings with any of the following characteristics (largely undisturbed; large roof void; large dimension roof timbers with cracks, joints and holes; uneven roof covering with gaps; hanging tiles or wood cladding; setting close to woodland and/or water; early 20th century or older construction; or roof warmed by the sun) may have a high probability of being used by bats. For buildings inhabited by bats and people, minimizing human-bat contact is a priority and interior spaces will be managed accordingly.
 - The park project lead should notify park biologists prior to proposed work activities, and to schedule surveys with enough lead time to minimize possible project implementation delays. If roosting bats, especially maternal colonies, are found in buildings, work on those structures could be delayed until after the bats have been effectively excluded (as for non-maternal roosts), and/or the roosting period is over (as for maternal colonies). Qualified personnel must perform a survey within the appropriate timeframe (i.e., spring surveys for maternity roosts, summer surveys for summer roosts, winter surveys for hibernacula) prior to initiating work and, if bats are found, develop a mitigation plan.

Wildlife – Amphibians

- Care will be taken not to disturb any wildlife species (amphibians, reptiles, migratory birds, mammals, raptors, or bats) found nesting, hibernating, estivating (in an inactive dormant state during hot, dry periods), or otherwise living in, or immediately nearby, worksites.
- Prior to work in or near wetlands or waterways the area will be assessed for its importance to amphibian species and prohibitions and limitations shall be set in order to protect these species.

Wildlife – Birds

- All project activities must comply with the Migratory Bird Treaty Act of 1918 (MBTA; 16 U.S.C. 703) and Executive Order 13186. Under the MBTA, it is illegal to "take" migratory birds, their eggs, feathers or nests. "Take" is defined (50 CFR 10.12) to include "pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting." The MBTA does not distinguish between "intentional" and "unintentional" take. Migratory birds include songbirds, waterfowl, shorebirds, and raptors. All project activities must also comply with GRTE's Superintendent's Compendium (2016 and as updated) seasonal closure regulations for raptors, trumpeter swans, great blue herons, and other sensitive bird species.
 - In general, park biologists recommend that to prevent impacts to nesting migratory birds and to avoid project delays, schedule work involving vegetation clearing, tree felling, fill placement, excavation, or other construction activities for outside of the nesting season. The breeding season is generally as follows for migratory songbirds (May 1 to August 1), or as dictated by nesting chronology.
 - Before commencement of any activities that involve removal or manipulation of vegetation including large trees, grasses, and shrubs during the breeding season (see above) contact park biologists to schedule a survey for nesting birds. Surveys must be conducted by qualified personnel before tree removal and/or ground disturbing activities begin. To the extent possible, schedule surveys prior to March 1 the year of the proposed work.
 - Inspect hazard trees for potential nest sites. Fell hazard trees that may contain nests outside the breeding season, if possible, unless there is an imminent threat to human health and safety.
 - Work must be completed within two weeks of the nesting bird survey. If this is not possible, another survey must be scheduled with park biologists.

- o Active bird nests located during surveys will be protected until nestlings fledge or the nest fails. Park biologists will monitor nests, determine mitigations, and provide updates to the project leader on nesting status.
 - o It is the responsibility of staff to report any nesting bird activity in the vicinity of proposed activity to park biologists in a timely way so that they may assess whether additional mitigation measures are needed to comply with the MBTA.
- Eagles are specifically protected under the Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668-668c) and the MBTA. Project activities must not lead to the take of bald or golden eagles. The Bald and Golden Eagle Protection Act defines “take” to include disturbing birds.
 - o Implement seasonal closures (typically February 1 to August 15) of ½ mile (GYBEMP 1989, USFWS 2007) around occupied bald eagle nests and prohibit work on or occupancy of area within the closures while they are in effect.
 - o It is the responsibility of the staff to report any eagle activity in the vicinity of proposed activity to park biologists in a timely way so that they may assess whether additional mitigation measures are needed to comply with the BGEPA and MBTA.
- All project activities must comply with GRTE’s Superintendent’s Compendium (2016 and as updated) closure regulations for sage-grouse leks and to the extent practicable all project activities occurring within occupied sage-grouse habitat within the core sage-grouse area will apply the management direction and conservation measures outlined in the Wyoming Governor's Executive Order 2015-4 and the Upper Snake River Basin Sage-Grouse Conservation Plan (2014).
 - o Continue to implement a seasonal closure (generally March 15 – June 1) around the Moulton sage-grouse lek.
 - o Prohibit removal of shrub-steppe habitat within 4 miles of an occupied sage-grouse lek to protect breeding, nesting, and brood rearing habitat for sage-grouse in the park (generally between March 15 and June 30, or as recommended by park biologists monitoring sage-grouse). Exceptions may be made on a limited and case-by-case basis.
 - o Limit new permanent facilities (including, but not limited to roads, buildings, well pads, pipelines, leach fields, and vegetation treatments) within 0.6 miles of active sage-grouse lek areas.
 - o Restrict maintenance and rehabilitation activities between the hours of 6:00 p.m. and 8 a.m. at proposed activities within 4 miles of active leks/nesting complexes (generally from March 1–June 30, or as recommended by park biologists).
 - o Limit noise to less than 10 decibels above ambient measures from 6:00 p.m. to 8:00 a.m. at the perimeter of leks (generally from March 1–May 15, or as recommended by park biologists).
 - o Efforts will be made to minimize disturbance to mature sagebrush cover in identified winter concentration areas.
 - o Power or other utility lines should be buried when possible. If such lines cannot be buried, lines should be raptor proofed and located at least 0.6 miles from the perimeter of occupied sage-grouse leks. New transmission lines should be authorized or conducted only when it can be demonstrated that the activity will not cause declines in sage-grouse populations. If authorized, construction of new transmission lines should occur July 1—March 14. Power lines should be placed along or adjacent to existing long-term linear disturbance features whenever possible.

- o Park biologists will use the Wyoming Density and Disturbance Calculation Tool (DDCT) to assess activities that involve vegetation or ground disturbance within the sage-grouse core area that correspond with recommended mitigations for sage-grouse and their habitat.

APPENDIX C: ERRATA SHEETS

Corrections and revisions to the *Historic Properties Management Plan Environmental Assessment* (HPMP EA) are described in this errata sheet. Revisions were made in response to substantive comments from public and agency reviews of the HPMP EA. Substantive comments, as defined in the NPS *NEPA Handbook* (section 4.6), are those that:

- question, with a reasonable basis, the accuracy of the information in the NEPA document;
- question, with a reasonable basis, the adequacy of the environmental analysis;
- present reasonable alternatives other than those presented in the environmental analysis;
- cause changes or revisions in the proposal.

As further stated in the handbook, substantive comments “raise, debate, or question a point of fact or analysis. Comments in favor of or against the proposed action, alternatives, or comments that only agree or disagree with NPS analysis are not considered substantive.” The following comment summaries were developed to combine similar comments focusing on a common topic.

Revisions that were made to the HPMP EA in response to public and agency comments have resulted in modification of the NPS-preferred alternative in the EA. It has been determined that the revisions do not require additional environmental analysis.

The page numbers referenced below and summarized at the end of this errata sheet are from the HPMP EA.

NPS Responses to Comments

A total of 53 correspondences, including a web-based petition, were received during the 1/5/2016 – 2/17/2016 public review of the HPMP EA. Two correspondences were duplicates. There were 282 signatures total, 181 of which were petition participants. Six comments were determined to be substantive according to the above criteria.

Removal of Aspen Ridge Ranch, McCollister Residential Complex, and Sky Ranch

Comment Summary 1. Many commenters objected to the proposal to remove (by sale or demolition) Aspen Ridge Ranch, McCollister Residential Complex, and Sky Ranch (in particular) and restore and revegetate the sites. They protested that important cultural history would be lost and advocated for retaining the properties. Some said that if the properties are eligible or listed on the National Register of Historic Places, the National Park Service is obligated to maintain them. Commenters offered a wide range of ideas for physically maintaining the properties, using them in the future for housing or other purposes, and obtaining needed funds by involving partners or concessioners, leasing to former owners/ leaseholders, and renting for profit. Some advocated for not rushing to a decision and stabilizing these properties for later consideration.

NPS Response. The National Park Service re-evaluated the idea of removing Aspen Ridge Ranch, McCollister Residential Complex, and Sky Ranch, and decided to retain them to avoid the adverse effects to these cultural resources. This decision has been made to protect these cultural resources until more specific planning can be completed in the future. The many suggestions for retaining and

using these properties in the future have been provided to park cultural resource specialists to review and consider.

Rehabilitation of 4 Lazy F Dude Ranch and Adaptive Reuse as Seasonal Park Housing

Comment Summary 2. Many commenters objected to the proposal to rehabilitate 4 Lazy F Dude Ranch and adaptively reuse it for seasonal park housing. Objections were based on the wildlife-rich location and potential impacts on wildlife if human use increased. Several commenters argued that the plan EA overstated previous human use at the ranch and cultural significance, and understated the current wildlife use and impact potential.

NPS Response. The 4 Lazy F Dude Ranch is located north of Moose headquarters and is connected to Moose by an existing access road. It was considered for adaptive reuse as housing because of this location and closeness to a primary park development, its traditional and recent use as seasonal lodging for ranch guests, and because rehabilitation and adaptive reuse would preserve and ensure better care of this cultural resource in the long term. This decision was part of management direction to concentrate housing in or near park developed areas. Although the habitat is rich and used by a variety of species, the National Park Service determined that allowing seasonal use such as occurred throughout the property's private ownership would not have a significant effect on wildlife using the nearby area. This determination was supported by the USFWS, who noted in their biological opinion on potential effects to grizzly bears that although there would likely be some wildlife/human conflicts during the 20-year life of the plan, the effect was minor and not significant in terms of the Greater Yellowstone Ecosystem population. Residents will be advised of, and required to strictly follow, bear attractant and food storage requirements, among other stipulations for reducing the potential for conflicts and impacts to wildlife.

Comment Summary 3. A commenter objected to rehabilitation of 4 Lazy F Dude Ranch due to potential impacts to the cultural resource characteristics such as historic integrity.

NPS Response. The NPS intent is to preserve the historic character and use of the ranch similar to the way it was used for much of its history. All work done on historic properties would be done according to *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. NHPA Section 106 consultation would be completed with the Wyoming State Historic Planning Office to ensure the cultural resource is appropriately protected. Care will be taken to not detract from any cultural significance characteristics, including the setting.

Potential Rehabilitation of Houses at Mormon Row for Adaptive Reuse as Seasonal Park Housing

Comment Summary 4. Commenters, including two organizations, objected to this proposal to rehabilitate buildings at Mormon Row and use them for seasonal park employee housing. Objections included the small size, poor structural quality, and current condition of the houses making them poor choices in terms of cost efficiency; the conflicts between upgrading to contemporary housing standards and furthering the interpretive goals for the historic district; potential impacts to visitor experience of the district's "ghost town quality" and photogenic setting; and the potential for increased traffic, speeding residents, and increased safety concerns in an already very busy

interpretive historic setting. Several commenters said the NPS should stick to the earlier plan to use the property as a historic interpretive site.

NPS Response. The National Park Service considered where properties are located in terms of closeness to visitor or administrative development nodes, and difficulty of access in terms of the ability to open properties in the spring for seasonal use or maintaining long access roads. The NPS focus was on consolidating housing in areas that were in or closer to these park developments. As stated in the plan, adaptive reuse of existing structures is a widely supported approach to preserving historic properties. The National Park Service has decided to adaptively reuse only one homestead at Mormon Row for seasonal housing, the Thomas Perry/ Roy Chambers homestead, which is at the southern end of the district and outside of the primary interpretive area. This use is in keeping with the traditional use on Mormon Row, which continues today at one property and occurred in other properties into the 1980s. Mormon Row is relatively close to the park headquarters and visitor center at Moose in an area with existing utilities and seasonal road access, minimizing the cost to adapt one or more buildings for park administrative use.

Relocate Historic Structures in Sensitive Wildlife Habitat to Park Developed Areas

Comment Summary 5. Some commenters suggested that the National Park Service should relocate one or more historic properties (4 Lazy F Dude Ranch, McCollister Residential Complex) to established park developed areas such as Moose, Beaver Creek, Kelly, Moran, etc., and rehabilitate the structures for seasonal housing in their new location. The National Park Service should move the historic properties located in sensitive wildlife habitat to park developed areas for use as housing or administrative purposes.

NPS Response. Relocating historic structures listed in or eligible for listing in the National Register of Historic Places would have an adverse effect on those properties by diminishing their integrity of setting, and is not considered best practice. Such an adverse effect would render those properties no longer eligible for the National Register of Historic Places.

Comment Summary 6. One organization wanted to know why Moose Entrance Kiosk was being moved.

NPS Response. The Moose Entrance Kiosk was originally in the Jenny Lake area and was previously moved to Moose, and the building therefore is not in its original location. The kiosk was listed in the National Register of Historic Places in 1990, and the park consulted with the SHPO in 2000 on a proposal to move it to Jenny Lake. Because the plan had not been executed, the proposed action was included in the 2014 Jenny Lake Renewal EA analysis. This action is beneficial to the resource as it will locate the kiosk in a context that more closely resembles the original context (in contact with visitors). In its current location, it is not viewed explicitly as a historic resource or visited by the public, just seen while driving past. The National Park Service believes that returning it to the Jenny Lake area, and using it there, will enhance visitor appreciation of the kiosk and reconnect it more closely to its origins.

Text Changes

- The total number of cultural resources that make up the historic properties evaluated in the plan and environmental assessment is currently 732, higher than the 695 cited in the plan, which was accurate at the time of the plan's public release in January 2016.
- Alternative B proposed removal of Aspen Ridge Ranch, McCollister Residential Complex, and Sky Ranch by sale or demolition. As described in the HPMP FONSI, the NPS decision is to retain these properties, preserving them through stabilization, until other future planning occurs regarding potential management. They will remain unoccupied and with no use. Stabilizing these three historic properties and using them for park storage was analyzed under Alternative C of the HPMP EA. See the pertinent Alternative C environmental consequences sections for more detail.
- The removal-related revegetation of disturbed areas noted in Table 9, pp. 136 - 137, and in Appendix G, the detailed alternative B ground disturbance table, pp. 265 - 269, will not occur. The overall ground disturbance calculations for the selected action is 22,207 square feet (0.5 acre) of area disturbed in the long term, and 240,673 square feet (5.53 acres) of areas that were previously disturbed by informal use or disturbed because of work in the short term but revegetated.
- The condition ranking for Aspen Ridge Ranch was incorrect on pp. 52 and 108. Its condition is categorized as poor. The National Park Service referred to the List of Classified Structures (LCS), a digital inventory of all historic and prehistoric structures in the national parks, for the condition determination, and the LCS condition definitions (HPMP EA pp. 33-34) were used to determine the condition of properties that had not yet been entered into LCS.
- On pp. 53, 113- 114, 186, 197, and p. 63 of the BA (~352 of the EA), the text incorrectly stated that Bar BC Dude Ranch has 34 contributing buildings. There are 34 contributing structures, which include 32 contributing buildings and 2 contributing structures, a bridge and a corral. Of the 32 buildings, 25 will be stabilized and seven will be allowed to naturally deteriorate unless third party funding is made available to preserve them.
- The condition ranking for McCollister Residential Complex was incorrect on p. 62. Its condition is poor. See pp. 33-34 of the HPMP EA for more detail on the characteristics of this ranking.
- A commenter pointed out that the HPMP EA had discrepancies in how 4 Lazy F Dude Ranch was ranked for cultural significance, noting "high cultural significance" on p. 49 and a "low" cultural significance ranking on p.272 (Appendix H: Historic Property Evaluation Tool (HPET) Criteria and Weighting, pp. 270-273). The discrepancy is because 4 Lazy F has "Local significance with strong community support," which puts it in the low cultural significance rank, as defined for the HPET evaluation. 4 Lazy F Dude Ranch is described in this context as low compared to other historic properties, but not compared to non-historic properties.
- The HPMP EA described the 4 Lazy F Dude Ranch as being vacant or as having no use. This description was in error. Although most of the structures were unused, the caretaker's cabin was sporadically occupied during the summer seasons of 2015 and 2016 by short-term volunteer historic preservation workers. Until 2006, it was continuously occupied by the lessee caretaker.

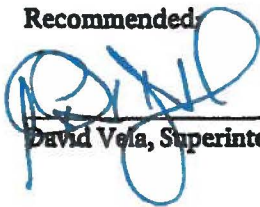
APPENDIX D: Signed Floodplain Statement of Findings

STATEMENT OF FINDINGS FOR FLOODPLAINS

Grand Teton National Park and John D. Rockefeller, Jr. Memorial Parkway

Historic Properties Management Plan / Environmental Assessment

Recommended:


David Vela, Superintendent

9/18/17
Date

Certified for Technical Adequacy and Servicewide Consistency:


Chief, Water Resources Division

9/21/17
Date

Approved:


Sue E. Masica, Intermountain Regional Director

10/30/2017
Date

INTRODUCTION

Executive Order 11988, Floodplain Management, requires the National Park Service (NPS) and other federal agencies to evaluate the likely impacts of actions in floodplains. The objective of Executive Order 11988 is to avoid, to the extent possible, the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. NPS DO-77-2: Floodplain Management and Procedural Manual 77-2 provide NPS policies and procedures for complying with Executive Order 11988. This director's order explicitly states that Director's Order 77-2: *Floodplain Management* does not apply to historic or archaeological structures, sites, or artifacts whose location is integral to their significance.

This Statement of Findings (SOF) documents compliance with these NPS floodplain management procedures. Its purpose is to review the actions associated with the Historic Properties Management Plan in sufficient detail to:

- Provide an accurate and complete description of the flood hazard assumed by implementation of the Selected Action (without mitigation).
- Provide an analysis of the comparative flood risk among alternative sites.
- Describe the effects on floodplain values associated with the Selected Action.
- Provide a thorough description and evaluation of mitigation measures developed to achieve compliance with Executive Order 11988 *Floodplain Management*, NPS Director's Order 77-2: *Floodplain Management*, and NPS Procedural Manual 77-2: *Floodplain Management*.

PROPOSED ACTION

The NPS has prepared a Historic Properties Management Plan Environmental Assessment (EA) for historic properties in Grand Teton National Park and John D. Rockefeller, Jr. Memorial Parkway. The plan includes: continued use and preservation maintenance of 32 historic properties that are in good condition and have a current, approved use; descriptions of slight modifications to previously planned rehabilitation or infrastructure improvements at two properties; and detailed alternative management options for 11 underused properties.

In terms of floodplain management, the historic properties fall into groups and a corresponding floodplain action class depending on their use. These groups, and the relevant properties, are:

Group 1: Historic structures within the floodplain that are only used for interpretive purposes.

Bar BC Dude Ranch is within the Snake River 100-year floodplain, the T.A. Moulton Barn at Mormon Row is within the Ditch Creek 100-year floodplain, and Snake River Bridge #2 crosses over

the Snake River near Flagg Ranch in the John D. Rockefeller Jr., Memorial Parkway. These structures are exempt from further compliance.

Group 2: Structures within the floodplain that are used, or proposed for use, as seasonal housing. Class I Action: The Base Floodplain (100-year flood) is the regulatory floodplain.

The plan proposes to rehabilitate 4 Lazy F Dude Ranch for use as seasonal housing from approximately May to October annually. Actions will include formalizing existing parking spaces near the barn, the caretaker's house, and at the main lodge. Parking will be limited to these three areas, and will not be allowed at the individual sleeping cabins. Two rooms in the main lodge will be outfitted to comply with the Architectural Barriers Act accessibility standards (ABAAS). Fire detection and suppression systems will be considered and reviewed and could be provided. Utilities, including power, communications, sewer, and water, will be updated and maintained. The water distribution lines will be connected to a new centralized distribution system in Moose. For safety, pullouts will be constructed along the narrow access road to allow vehicles coming from the opposite direction to pass.

One of the 32 in-use properties, the Reimer Residence, is within the Ditch Creek 100-year floodplain. It was historically a residence, is currently used as seasonal park housing and will continue to be routinely maintained and occupied seasonally. In addition, as part of the preferred alternative, the park proposes to rehabilitate a historic property, 4 Lazy F Dude Ranch, for adaptive reuse as seasonal housing. This property lies within the Snake River 100-year floodplain.

Group 3: Structures used to house artifacts such as curatorial items. Class II, or critical action: The 500-year floodplain is the regulatory floodplain.

An aspect of current historic property management that will continue under all alternatives in this plan is the storage and interpretation of some historic objects within the 500-year floodplain. A historic stagecoach is stored in the 4 Lazy F Dude Ranch barn and other historic objects are kept in several Menors Ferry/ Maud Noble Historic District structures and interpreted to the public.

Kimmel Kabins at the Lupine Meadows housing area is outside the Cottonwood Creek 100-year floodplain but some historic furniture is in the structures, which may be within the 500-year floodplain.

No fuels or other hazardous materials will be stored at historic properties within floodplains.

SITE DESCRIPTION

SNAKE RIVER FLOODPLAIN

The area is characterized by alluvial soils. The Snake River bisects the valley and riparian communities associated with the river and its tributaries support blue spruce (*Picea pungens*), narrowleaf cottonwood (*Populus angustifolia*), silver buffaloberry (*Shepherdia argentea*), various willow species, and sedges. Jackson Lake Dam is about 24 miles north of Moose and controls some river flow.

COTTONWOOD CREEK FLOODPLAIN

Cottonwood Creek is a perennial tributary of the Snake River, whose source is Jenny Lake, a morainal lake at the base of the Teton Range. The free-flowing creek is characterized by alluvial soils. Riparian vegetation consists of cottonwoods, willows, and other shrubs, and is surrounded by large areas of shrub-steppe upland vegetation. Cottonwood Creek has a number of inactive (historic) and a few active diversions, but none that presently affects flow or other characteristics of the creek. Flooding along the creek is mitigated by the Jenny Lake moraine, which functions as a natural control during spring melt and other high water events.

DITCH CREEK FLOODPLAIN

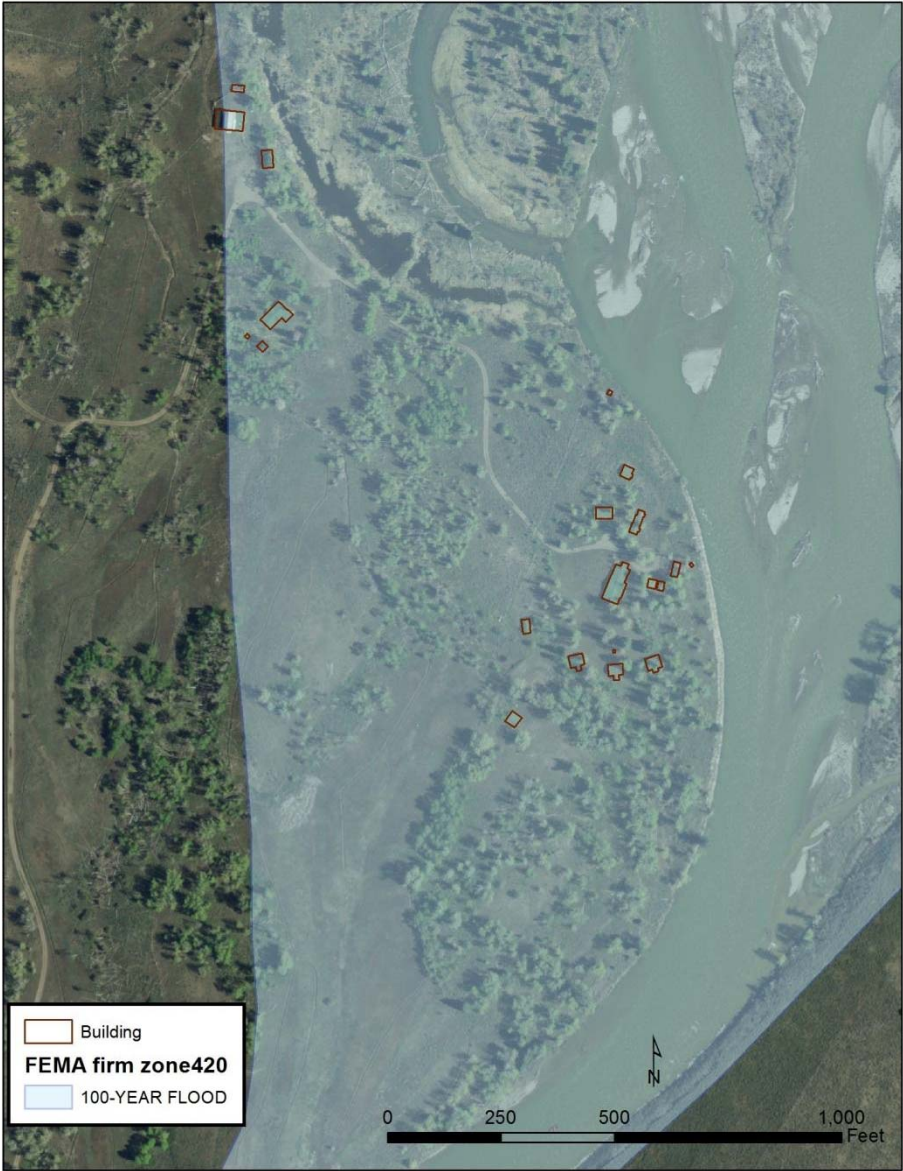
Ditch Creek is a perennial tributary of the Snake River and drains a 62 square mile watershed to the west in the property in the Gros Ventre Mountain Range. Anecdotal information suggests that this section of Ditch Creek may not have flow during dry years when upstream irrigation diversion demands exceed stream flow. The area is also characterized by alluvial soils. Riparian vegetation is minimal at streams of this type due to high vertical banks that extend beyond the rooting depths of riparian plants. Existing riparian vegetation is minimal and consists of a few willows, and a moderate number of mature cottonwoods. Upland vegetation is also present.

Floodplain Extent

The best available data were used to determine the extent of existing floodplain boundaries and water surface characteristics of the Snake River. Floodplain maps produced by the Federal Emergency Management Agency (FEMA DFirm data) were used. A FEMA map depicted a portion of the Moose area, including the former Visitor Center and maintenance area, as within the 100-year floodplain. However, a subsequent floodplain analysis of the Moose area conducted by NPS Water Resources Division (WRD), concluded the 100-year floodplain should be considered to be almost completely contained by the Snake River channel. The 500-year floodplain exceeds the channel capacity by roughly one to three feet, vertically.

Below are three maps illustrating the historic properties and floodplain extents, 4 Lazy F Dude Ranch (Groups 2 and 3) and Reimer Residence (Group 2), where proposed or continued seasonal overnight occupancy is proposed, respectively, and Menors Ferry/ Maud Noble Cabins (Group 3).

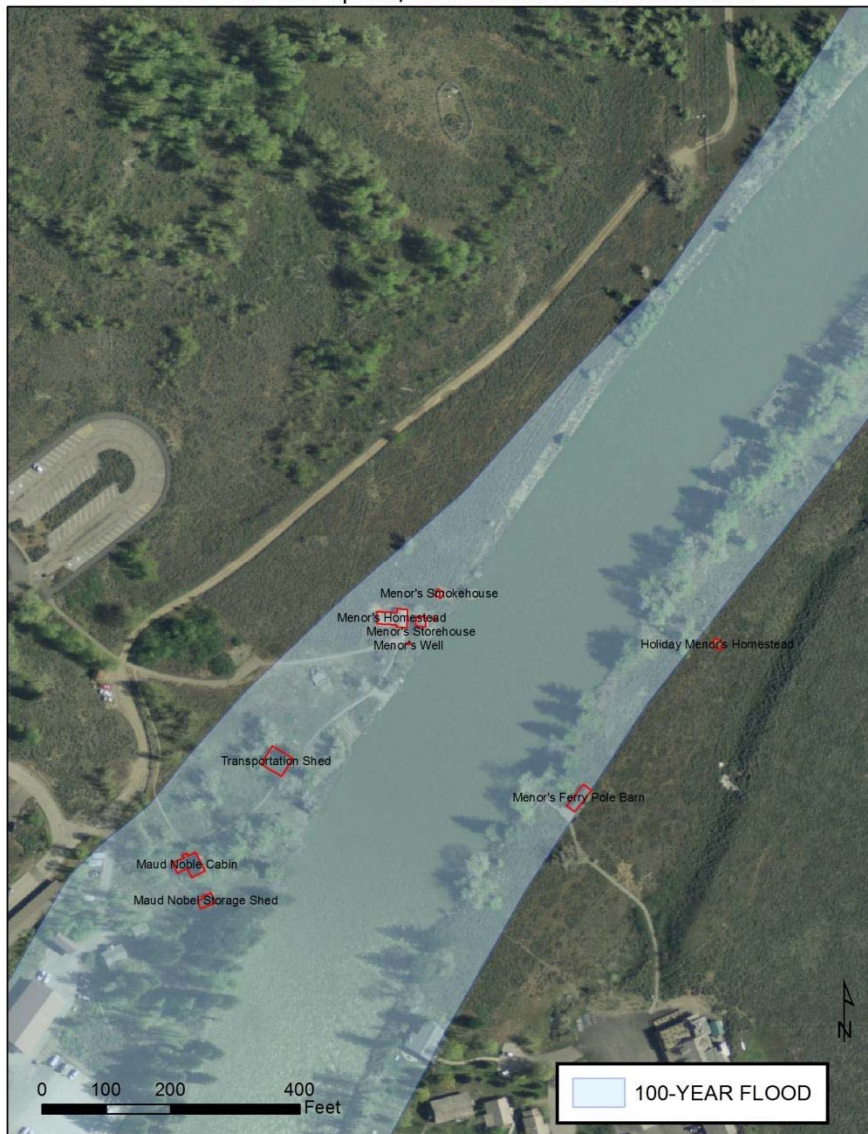
100 Year Floodplain, 4 Lazy F Ranch



100 Year Floodplain, Reimer Residence



100 Year Floodplain, Menors/Noble Historic District



Justification for Use of the Floodplain

The buildings in the floodplain that are under discussion are historic properties. Their use in the floodplain is acceptable because they were historically located in the floodplain and relocating them to another area would adversely affect their historic character and their cultural integrity. These properties are exempt from the requirements for new development in regulatory floodplains and there is an accepted level of flood risk to the buildings. No alternative sites were investigated.

Description of Site-Specific Flood Risk

None of the locations are high hazard areas. There is minimal potential for flash flooding in the area. All of the structures of 4 Lazy F Dude Ranch are entirely within the 100-year floodplain, as it was determined by FEMA. The structures of Menors Ferry/ Maud Noble Cabin were determined by

WRD floodplain analysis in 2001 to be outside the 100-year floodplain and within the 500-year floodplain.

The presence of Jackson Lake Dam to the north reduces flood risk to the Moose area where these properties are located. The Reimer Residence house is located within the 100-year Ditch Creek floodplain.

Flood Frequency and Hydraulic Analyses

High magnitude floods in the area of Moose may occur due to tributary floods, large releases from the dam, and a combination of both, or, in the worst-case scenario, a sudden dam failure. Flood frequency in the Moose area is difficult to predict, as the gages which measure tributary input as well as dam release, have not been in place very long. The U.S. Army Corps of Engineers developed four models and concluded (WRD 2001):

- I. The 100-year flood upstream of the Gros Ventre River confluence (where Moose and the nearby historic properties are located) will be affected by dam operations and will likely be in the range of 22,900 cfs. It is estimated that the flood will be mostly contained in the river channel.
- II. The 500-year flood will not likely be affected by the dam operation and, therefore, will be substantially greater estimated to be at 35,470 cfs. Modeling predicts it will subject the maintenance area to flood depths of one foot or less.
- III. The probable maximum flood is estimated to discharge at 39,500 cfs. Modeling predicts probable maximum flood will subject the maintenance area to flood depths of two feet. It also predicts overtopping the Teton Park Road west as far as the entrance station and a portion of the Moose-Wilson Road. It could also threaten the Snake River Bridge.
- IV. It is estimated a dam break will result in 87,000 cfs and will take approximately 5 hours to reach Moose. This will come in a flood wave that will inundate the entire Moose area with 3-6 feet of water and with 3-4 feet per second velocities. It is predicted to overtop the Snake River Bridge, isolating everything on the inside road.

FLOOD CONDITIONS

Peak discharges are usually produced by snowmelt in the spring with possible summer pulses resulting from thunderstorms. Flash flooding is unlikely; however, a springtime rain on snow event could produce a large and rapid rise in the river, as it did on June 11, 1997. Moderate flood conditions in the Moose area occurred due to spring snowmelt within the tributaries and similar conditions occurred again in spring 2011. The Jackson Lake Dam stores most of the incoming runoff from the upper watershed at that time of year. Flood conditions during both occasions will have been much worse if the release at from the dam were necessary at the same time.

The 1997 peak flow (25,300 cfs, with a stage of 15.25 feet) resulted in bank full conditions in the upstream reach of the Moose area and slight over bank flooding in the area of the boat launches and just downstream of Menors Ferry. There was substantial bank loss on the west bank upstream from the bridge. The river stayed almost all contained within the channel and did not result in any

hazardous or costly flooding in the Moose area. The bank loss in on the west side was the largest risk (WRD 2001).

In 2005, the park installed stone barbs north of the bridge to redirect flow from the bank during large flow events. The barbs have been successful in trapping finer sediments during flow events and in stabilizing the bank.

There is no gauge or monitoring site to record flood conditions at Ditch Creek although the creek does overflow its banks occasionally during spring melt conditions.

FLOODPLAIN MITIGATION

In April 2011 Grand Teton National Park completed an action plan for monitoring the potential for high water events that could affect park resources and to serve as a communications plan for the park as well as for agencies and stakeholders downstream (NPS 2011). This plan identified pre-established parameters that will trigger increased monitoring, and notes pre-established water stages identified by the National Oceanic and Atmospheric Administration (NOAA) when banks are full and the plan will be implemented, as well as the flood stage when minor low land flooding will be expected. The stated park policy is to evaluate high water potential each spring to assess the threat that is presented to the park and to implement the plan if monitoring indicates trigger points are met.

Seasonal closures of flood prone areas and warning/evacuation procedures will protect human life and property. Evacuation procedures will be in place and the park will inform potential residents about these procedures prior to moving in to seasonally occupy the ranch or the Reimer Residence. Establishing positive drainage around the historic structures where possible will also reduce the potential for damage from flood waters. The use of sandbags and other water barrier methods will be used where appropriate. Action is required for extreme or dam-break flood events. However, preparation for such disasters should be considered due to the risk of human life. To guard against these potential floods, an agreement of prompt notification has been established between the Bureau of Reclamation and the park.

Irreplaceable artifacts stored in the historic structures north of Moose within the 500-year floodplain will be either moved away from the river or protected in place with sandbags or other types of water barriers.

CONCLUSION

Moving the structures to non-flood-prone sites was not considered because the properties under consideration are historic. The floodplain will not be affected by the replacement or upgrading of the utilities to support adaptive reuse of these historic structures. Where possible, support infrastructure will be installed as far practicable from the water body. No fuels or other hazardous materials will be stored at historic properties within floodplains.

Because strategies to protect both property and people will be in place, no long-term adverse impacts will result from the alternatives analyzed, including the preferred alternative. Park engineers believe that if flooding occurred in the future, the velocity of the overflow will not be high enough to damage

of the underground utilities that were upgraded and the financial investment in the upgrade is justified. The risk to humans will be small as there will be ample warning time to implement evacuation plans or to remove objects from flood risk. Any irreplaceable historic objects will be protected from flood waters or removed from their locations.

Mitigation and compliance with regulations and policies to prevent impacts to water quality, floodplain values, and loss of property or human life will be strictly adhered to. Individual permits with other federal and cooperating state and local agencies will be obtained prior to construction activities. Any wetlands will be avoided and there will be no impacts to wetlands.

Therefore, the NPS finds the Historic Properties Management Plan and Environmental Assessment, to be acceptable under Executive Order 11988 for the protection of floodplains.

REFERENCES

Executive Order 11988. "*Floodplain Management*", May 24, 1977.

Water Resources Division

2001 *Floodplain Analysis for the Snake River in the Area of Moose*, conducted by NPS Water Resources Division, Michael Martin, Hydrologist, April 5, 2001. Denver, CO.

National Park Service (NPS)

2003 Director's Order 77-2: *Floodplain Management*. Washington, DC.

2003 NPS Procedural Manual 77-2: *Floodplain Management*. Washington, DC.

2011 *High Water Incident Action Plan. Grand Teton National Park*, April 12, 2011. Moose, WY.

APPENDIX E: Summary of National Historic Preservation Act (NHPA) Section 106 Effects

Property Name	Smithsonian Number	Effect under NHPA Section 106
4 Lazy F Dude Ranch	48TE1142	No Adverse Effect
AMK Ranch	48TE0968	No Effect
Aspen Ridge Ranch Residence and Barn	48TE1162	No Adverse Effect
Bar BC Dude Ranch	48TE915	Adverse Effect
Beaver Creek #10 (located in Beaver Creek Administrative Area Historic District)	48TE1137	No Adverse Effect
Beaver Creek Administrative Area Historic District (except Beaver Creek #10)	48TE1137	No Effect
Cascade Canyon Barn/Patrol Cabin	48TE1191	No Effect
Colter Bay Village	48TE1151	No Effect
Cunningham Cabin	48TE0902	No Effect
Death Canyon Barn/Patrol Cabin	48TE1193	No Effect
Double Diamond Dude Ranch Lodge	48TE1024	No Effect
Elk Ranch	48TE1180	No Effect
Geraldine Lucas Homestead/Harold Fabian Place	48TE1146	No Adverse Effect
Highlands	48TE1144	No Effect
Hunter Hereford Ranch	48TE1158	No Adverse Effect
Jackson Lake Lodge	48TE1140	No Effect
Jackson Lake Ranger Station	48TE1150	No Effect
Jenny Lake Boat Concession	48TE1149	No Effect
Jenny Lake Campground	48TE1885	No Effect
Jenny Lake CCC Camp NP-4	48TE1149	No Effect
Jenny Lake Lodge	48TE1177	No Effect
Jenny Lake Ranger Station	48TE1139	No Effect
Kimmel Kabins/Lupine Meadows	48TE1141	No Effect
Leigh Lake Patrol Cabin	48TE1188	No Effect
Lower Berry Creek Patrol Cabin	48TE1190	No Effect

Property Name	Smithsonian Number	Effect under NHPA Section 106
Luther Taylor Cabins	48TE1160	No Adverse Effect
Manges Cabin	48TE921	No Adverse Effect
McCollister Residential Complex	48TE1169	No Adverse Effect
Menor's Ferry/Maud Noble Cabins	48TE0901	No Effect
Moose Entrance Kiosk	48TE0984	No Effect
Moose-Wilson Road	48TE1205	No Effect
Mormon Row Historic District	48TE1444	No Adverse Effect
Murie Ranch Historic District/Murie Residence	48TE1143	No Effect
Ramshorn Dude Ranch Lodge	48TE1165	No Effect
Reimer Residence	48TE1183	No Effect
Sky Ranch	48TE1172	No Adverse Effect
Snake River Bridge #2	48TE1735	No Effect
Snake River Land Co. Office and Residence	48TE1155	No Adverse Effect
String Lake Comfort Station	48TE1187	No Effect
The Brinkerhoff Lodge	48TE1184	No Effect
Triangle X Barn	48TE0967	No Effect
Upper Granite Canyon Patrol Cabin	48TE1436	No Effect
Valley Trail System	48TE1173	No Effect
White Grass Dude Ranch	48TE1004	No Adverse Effect
White Grass Ranger Station	48TE1138	No Effect

APPENDIX F: Memorandum of Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the Wyoming State Historic Preservation Officer Regarding Resolution of Adverse Effects to the Bar BC Dude Ranch, Grand Teton National Park, Teton County, WY

MEMORANDUM OF AGREEMENT
AMONG THE NATIONAL PARK SERVICE,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
AND THE WYOMING STATE HISTORIC PRESERVATION OFFICER
REGARDING
RESOLUTION OF ADVERSE EFFECTS TO THE BAR BC DUDE RANCH,
GRAND TETON NATIONAL PARK, TETON COUNTY, WY

WHEREAS, the National Park Service (NPS) has undertaken a planning effort for the management of historic properties at Grand Teton National Park (GTNP) through a Historic Properties Management Plan Environmental Assessment, which constitutes an undertaking subject to Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800; and

WHEREAS, the NPS has determined that the undertaking will have no effect on 32 historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) (48TE968, 48TE1137, 48TE1184, 48TE1191, 48TE1151, 48TE902, 48TE1193, 48TE1024, 48TE1180, 48TE1144, 48TE1140, 48TE1150, 48TE1149, 48TE1885, 48TE1149, 48TE1177, 48TE1139, 48TE1141, 48TE1188, 48TE1190, 48TE901, 48TE984, 48TE1205, 48TE1143, 48TE1165, 48TE1183, 48TE1735, 48TE1187, 48TE967, 48TE1436, 48TE1173, and 48TE1138); and

WHEREAS, the NPS has determined that the undertaking will have no adverse effect on 12 historic properties listed in or eligible for listing in the NRHP (48TE1146, 48TE1185, 48TE1160, 48TE921, 48TE1004, 48TE1142, 48TE1137, 48TE1155, 48TE1444), including three properties that will be mothballed following NPS Technical Preservation Brief 31, "Mothballing Historic Buildings" (Aspen Ridge Residence and Barn 48TE1162, McCollister Residential Complex 48TE1169, and Sky Ranch 48TE1172); and

WHEREAS, the NPS has determined that the undertaking will have an adverse effect on the Bar BC Dude Ranch (48TE915), which is listed in the NRHP; and

WHEREAS, the NPS has consulted with the Wyoming State Historic Preservation Officer (WYSHPO) pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108), and the WYSHPO has concurred on these assessments of effect; and

WHEREAS, the undertaking carries out preservation treatments based on a combination of significance, integrity, and condition at the Bar BC Dude Ranch, and allows stabilization and preservation of 25 of the 32 contributing structures, and natural deterioration of 7 of the 32 contributing structures within the historic district, including the Corse Cabin (see map in Appendix A); and

WHEREAS, the NPS has defined the area of potential effects (APE) for the adverse effect, as defined in 36 CFR Part 800.16(d), as the Bar BC Dude Ranch Historic District, as amended in 2007, consisting of the 763-acre historic ranch boundary; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), the Advisory Council on Historic Preservation (ACHP) has chosen to participate in consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

WHEREAS, the NPS has invited the National Trust for Historic Preservation (NTHP), the Teton County Historic Preservation Board (TCHPB), and the Alliance for Historic Wyoming (AHW) to participate in the consultation, and they have agreed to participate; and

WHEREAS, the NPS has invited the Jackson Hole Historic Society and Museum to participate in the consultation, and they have declined to participate;

NOW, THEREFORE, the parties agree that the undertaking shall be implemented in accordance with the following stipulations in order to resolve the adverse effect of the undertaking to the Bar BC Dude Ranch.

The NPS will ensure that the following are implemented:

I. STIPULATIONS

- a. Grand Teton National Park will update the existing National Register of Historic Places Nomination to reflect additional information from the 2007 Cultural Landscape Inventory that expanded the district boundary, increased the number of contributing structures, and updated the level of significance from local to national. The updated nomination will be submitted to the SHPO for review and comment prior to submitting it to the Keeper of the NRHP. Grand Teton will submit the updated nomination to the SHPO within one calendar year of receiving funding to complete the document. Grand Teton has requested this funding for fiscal year 2019.
- b. Grand Teton National Park will add media that interprets the Bar BC Dude Ranch to the park's existing mobile app within one year of executing this MOA.
- c. Grand Teton National Park will provide training to concession guides on the history and management of the Bar BC Dude Ranch as part of the spring 2018 "Guide's Day" training workshop.

II. MONITORING, REPORTING, AND MEETINGS

Each year following the execution of this MOA until it expires or is terminated, the NPS shall provide the WYSHPO a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received during the NPS efforts to carry out the terms of this MOA. Reporting on the execution of this MOA will be undertaken in conjunction with the *Programmatic Agreement Among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act*.

Any signatory to this MOA may request a meeting of the consulting parties to discuss the manner in which the terms of this MOA are implemented.

III. DISPUTE RESOLUTION

Should any signatory to this MOA object at any time to the manner in which the terms of this MOA are implemented, the NPS shall consult with such party to resolve the objection. If the NPS determines that such objection cannot be resolved, the NPS will:

a. If there is an objection by any signatory to the manner in which the terms of this MOA are implemented, the objecting signatory will notify GTNP in writing of the objection. GTNP will notify all other signatories of the objection. All signatories will consult to resolve the objection.

b. Resolution of the objection will be documented in a written amendment to this MOA to be signed by all signatories. If a signatory fails to respond within 30 days of receipt of the written amendment, concurrence with the amendment will be assumed by other signatories and the amendment will go into effect. If resolution of the objection does not require amendment to the MOA, this decision will be documented in writing and provided to all signatories.

c. GTNP shall consider non-signatory objections to the manner in which the terms of the MOA are implemented. If the objection cannot be resolved to the satisfaction of the NPS and the objecting party, GTNP shall request the signatories to provide their opinion on the matter. Prior to making a final decision on the matter, the GTNP shall take into account all the signatory opinions received within 15 days of the request.

A. If the dispute cannot be resolved through III (a., b., or c.), GTNP will forward all documentation relevant to the dispute, including the NPS's proposed resolution, to the ACHP. The ACHP shall provide the NPS with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the NPS shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide the ACHP with a copy of this written response. The NPS will then proceed according to its final decision.

B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, the NPS may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the NPS shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

C. The NPS's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remains unchanged.

d. Nothing in this Section shall be construed or interpreted as a waiver of any judicial remedy that would be available to any signatory to this MOA.

IV. APPENDICES

The following appendices will become effective when the MOA is ratified. New appendices may be added and existing appendices may be modified as needed upon written

concurrence of the Signatories. Suggested new appendices and changes to existing appendices will be sent to the consulting parties for a 30 day review. The current list of Appendices are as follows:

- a. Appendix A: Map of the Bar B C Dude Ranch, which is attached to and incorporated into this MOA by this reference.

V. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy is signed by all of the signatories.

VI. TERMINATION

Any signatory to this MOA may initiate termination by providing written notice to the other signatories of their intent. After notification by the initiating signatory, the remaining signatories shall have 90 days to consult to seek agreement on amendments or any other actions with all signatories and concurring parties that would address the issues and avoid termination. In the event of termination, the NPS shall refer to 36 CFR Part 800 to address any remaining adverse effects.

VII. SUNSET TERMS

This MOA will expire if its terms are not carried out within 10 years from the date of its execution. Prior to such time, the NPS may consult with the consulting parties to reconsider the terms of the MOA and amend or extend it in accordance with item V above.

General Provisions

- a. Entirety of Agreement. This MOA, consisting of eleven (11) pages, and Appendix A, consisting of two (2) pages, represents the entire and integrated agreement between the parties and supersede all prior negotiations, representations and agreements, whether written or oral, regarding compliance with Section 106 of the National Historic Preservation Act for those aspects of (Project Name) throughout the visual APE that will have adverse effects on the settings of historic properties
- b. Prior Approval. This MOA shall not be binding upon any party unless this MOA has been reduced to writing before performance begins as described under the terms of this MOA, and unless the PA is approved as to form by the Attorney General or his representative.
- c. Severability. Should any portion of this MOA be judicially determined to be illegal or unenforceable, the remainder of the MOA shall continue in full force and effect, and any party may renegotiate the terms affected by the severance.
- d. SOVEREIGN IMMUNITY. The State of Wyoming and the WYSHPO expressly reserve sovereign immunity by entering into this MOA and each fully retains all immunities and defenses provided by law with respect to any action based on or occurring as a result of the MOA.

- e. Each signatory to this MOA shall assume the risk of any liability arising from its own conduct. Each Signatory agrees they are not obligated to insure, defend, or indemnify the other Signatories to this MOA.


Execution of this MOA and implementation of its terms evidence that GTNP has taken into account the effects of the undertaking on historic properties.

Signatures. In witness whereof, the parties to this MOA through their duly authorized representatives have executed this MOA on the dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOA as set forth herein.

The effective date of this MOA is the date of the last signatory signature affixed to these pages.

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National Park Service



David Vela, Superintendent, Grand Teton National Park
and John D. Rockefeller, Jr. Memorial Parkway

8-28-17

Date

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Wyoming State Historic Preservation Officer

Mary Hopkins 9/20/17
Mary Hopkins, Wyoming State Historic Preservation Officer Date

Approval as to Form:
Wyoming Attorney General's Office

Tyler M. Renner #171701 9/18/17
Tyler M. Renner, Assistant Attorney General Date

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Advisory Council on Historic Preservation



for

John Fowler, Executive Director, ACHP

9/27/17
Date

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Concurring Parties:

National Trust for Historic Preservation

Barbara Pahl, Senior Vice-President for Field Services
National Trust for Historic Preservation

Date

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Teton County Historic Preservation Board

Sherry Smith

Date

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Alliance for Historic Wyoming

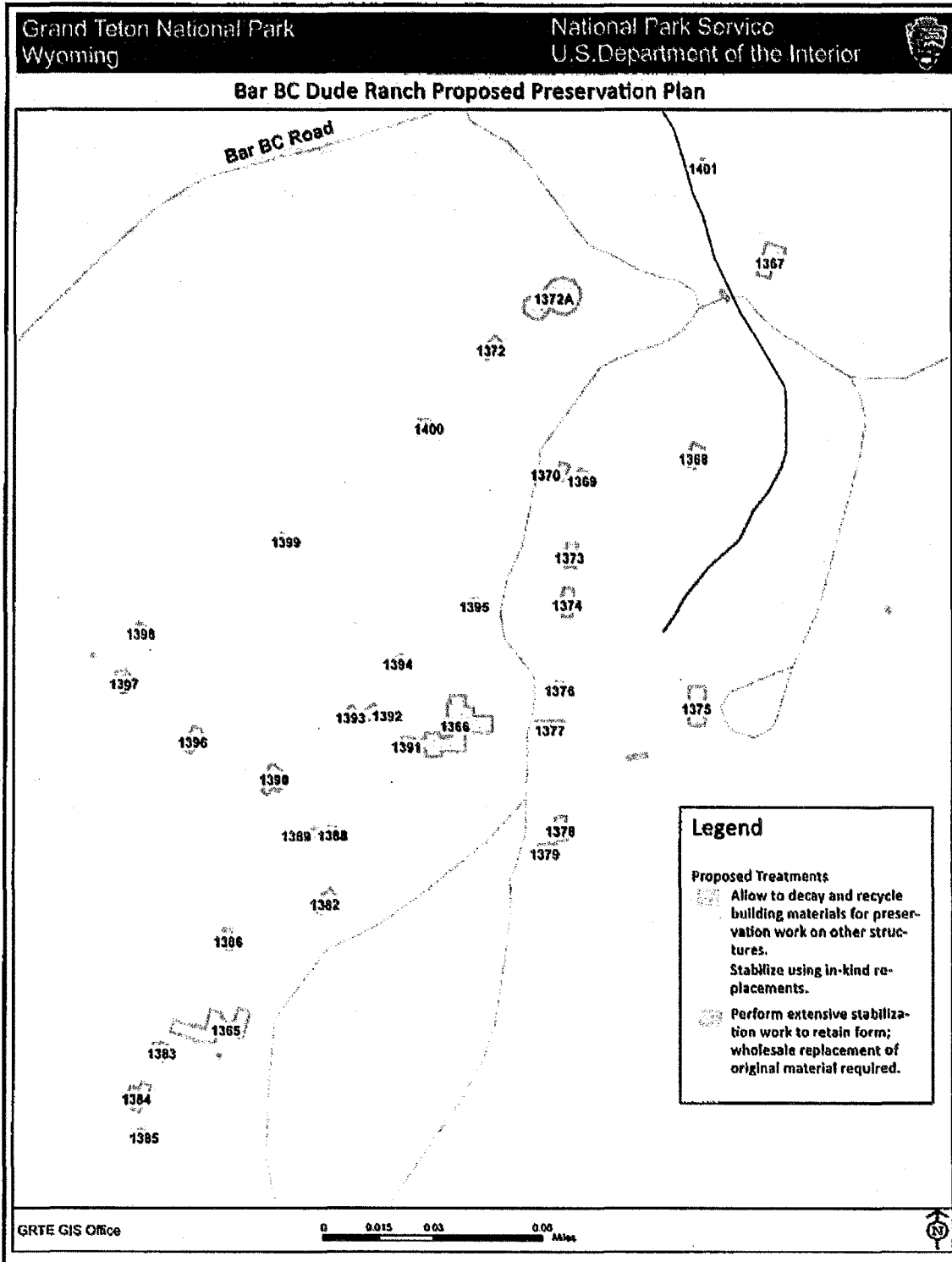
**Carly-Ann Carruthers, Executive Director,
Alliance for Historic Wyoming**

Date .

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**APPENDIX A: MAP OF THE BAR BC DUDE RANCH WITH
CONSERVATION MANAGEMENT TREATMENT OVERLAY**

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APPENDIX A: MAP OF THE BAR BC DUDE RANCH WITH CONSERVATION MANAGEMENT TREATMENT OVERLAY
MEMORANDUM OF AGREEMENT AMONG THE NATIONAL PARK SERVICE, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, AND THE
WYOMING STATE HISTORIC PRESERVATION OFFICER REGARDING RESOLUTION OF ADVERSE EFFECTS TO THE BAR BC DUDE RANCH, GRAND
TETON NATIONAL PARK, TETON COUNTY, WY