



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

Finding of No Significant Impact

Campus Improvements to the University of Wyoming – National Park Service Research Center

Background

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS) prepared an Environmental Assessment (EA) to examine various alternatives and environmental impacts associated with the proposal to implement several improvements at the University of Wyoming–National Park Service (UW-NPS) Research Center in Grand Teton National Park.

The purpose of the project is to address essential campus improvements and maintenance of facilities at the research center, whose mission is to promote and provide opportunities to conduct both management-oriented and basic research in all fields of science (including cultural, natural, and social science) on the Greater Yellowstone Ecosystem, especially Grand Teton National Park and the John D. Rockefeller, Jr. Memorial Parkway. The project includes addressing water and wastewater systems, fire suppression capabilities, lakeshore erosion controls, housing conditions for researchers, and structural and aesthetic protection of buildings and facilities in the AMK Ranch Historic District.

The project is needed because many campus improvements have been deferred to the point where they will eventually hinder the ability of the research center to fulfill its mission. Existing water and wastewater systems have exceeded their design life and/or are too small to meet demand of the research center operations. Research housing is frequently filled to capacity during the height of the summer field season. Arranging separate facilities for male and female researchers is often a scheduling challenge, and over-crowding exists in some rooms, causing concern for safe egress in case of fire or other emergencies. In several cases, the proximity of residential rooms to working or storage spaces provides less than optimal conditions for either primary function.

Selected Action

Alternative C: Water and Wastewater System, Dormitory and Associated Parking Area, Fire Suppression, Retaining Wall, and Other Identified Improvements is the preferred alternative and NPS's selected action because it best meets the purpose and need for the project as well as the project objectives to (1) preserve the AMK Ranch Historic District in accordance with applicable Secretary of the Interior's standards and other NPS policies, guidelines, and standards; (2) improve the existing water system to meet the needs of the UW-NPS Research Center; (3) improve the existing wastewater system to meet the needs of the research center; (4) improve fire suppression capabilities to ensure the research center and historic district receive an appropriate level of fire protection; (5) provide access for people with disabilities within the research center and historic district in accordance with the Architectural Barriers Act (ABA) and

Americans with Disabilities Act (ADA); and (6) increase sustainability of facilities within the research center and historic district.

Under alternative C, the UW-NPS Research Center will continue to operate under the general agreement between the National Park Service and the University of Wyoming.

The maximum overnight capacity of the research center will increase from a total of 65 individuals (58 researchers plus 7 individuals associated with the university) to up to 73 individuals (66 researchers plus 7 individuals associated with the university). This will enable the research center to increase overnight researcher capacity for up to 8 individuals.

Alternative C also includes the following improvements to the research center campus and AMK Ranch Historic District. Additional details about the improvements are located in chapter 2 of the EA.

Water System

The University of Wyoming will replace most of the existing water system. All water system improvements will be designed and constructed to conserve potable water resources.

Two existing water wells, located at the Berol Lodge and chicken house, will be retained and rehabilitated. Well rehabilitation will entail a plumbing and electrical retrofit, including removing the existing pumping equipment and controls and installing new systems in the water tank pump house. Pressure tanks associated with the existing wells will be removed and properly disposed off site. The third existing well and pump, in the power house near the Johnson Lodge, will be disconnected from the potable water system but retained for uses such as filling cisterns and irrigation. Two new water wells will also be installed using a drilling rig.

The existing, galvanized potable water pipelines will be replaced throughout the research center campus with new, buried water pipelines (approximately 2,000 linear feet). The new piping configuration will improve disinfection throughout the distribution system, provide the capacity to deliver firefighting flows to select buildings, and reduce water consumption due to line leakage.

A new above-ground water storage tank (approximately 12 feet diameter by 20 feet length and capable of storing about 15,000 gallons) will be installed northeast of the barn as described in the Fire Suppression section below. A new centralized water pump station will also be constructed. The pump house (approximately 20 feet by 25 feet in size and no greater than 15 feet in height to top of roofline) will contain water system controls, water treatment equipment, electrical controls, pumping equipment, and the backup diesel generator. The back-up generator will be used to support fire suppression activities and provide smoke and fire detection during a power outage.

Wastewater System

The University of Wyoming will replace the existing wastewater system. The improved wastewater system will comprise a single gravity-fed sanitary sewer collection network that will tie in to all occupied research center buildings. This will include new sanitary sewer lines with sewer manholes, septic tanks, and a single leach field to treat and dispose of onsite wastewater. The leach field will be located approximately 200 feet east of the Lawrence house within an area of small conifers. The leach field itself will be approximately 12,500 square feet and placed at a shallow depth of two to three feet below grade in order to maintain necessary aerobic conditions. Improvements to the wastewater system will also include three new

monitoring wells, to be installed around the new leach field. Installation of these monitoring wells will require a drilling rig.

Aboveground components of the existing wastewater system will be disconnected and removed. All leach fields will be abandoned in place and lines to existing septic tanks will be cut and abandoned in place. The caps and lids of the existing seven septic tanks will be removed and the tanks will be filled with material excavated from water and wastewater systems construction activities. Topsoil and native reseeding will be placed at each of the seven septic tank areas.

Fire Suppression

The University of Wyoming will improve fire suppression capabilities at the research center. This will be achieved partially through the installation of new, higher flow water pipelines. The Berol and Johnson lodges may be retrofitted with automatic sprinkler systems.

In addition, the new aboveground water tank will provide a larger, immediately available water reserve for firefighting efforts. This will be augmented by construction of two new, 10,000-gallon, concrete vault, underground cisterns.

The cisterns will be filled manually via a yard hydrant connected to the water system or a nearby well at the beginning of each summer season, making this water immediately available for firefighting efforts. The cisterns will be drained at the end of the operating season. The Johnson well may remain in service, but disconnected from the water system, to fill cisterns and to provide an additional non-potable source of water for campus fire suppression.

New Dormitory Facility and Parking

Once the utility systems are repaired, the University of Wyoming could construct a new dormitory. The new dormitory will be located northeast of the non-historic Boise-Cascade cabin, within the space allocated to the research center but visually removed from the AMK Ranch structures in the historic district. The dormitory building will incorporate sustainable design and energy conservation features to meet Leadership in Energy & Environmental Design (LEED) standards, when applicable and feasible. A fire suppression sprinkler system will be installed in the new dormitory.

The dormitory will be no greater than 5,800 square feet (approximately 100 feet by 58 feet and no greater than 18 feet in height), on a single floor, with capacity to house up to 25 individuals. The building will comprise up to 12 sleeping rooms, arranged in separate male and female suites, each consisting of two, double-occupancy rooms separated by a common entryway and bathroom. The dorm will include a dining room commons and a laundry facility adjacent to a communal kitchen area. An area of approximately 2,000 square feet, adjacent to the barn will be cleared of all vegetation, except trees, to provide non-paved parking for approximately seven vehicles associated with dorm residents. The upgrades to the water and wastewater systems will be designed to also accommodate the needs of this dormitory.

An additional single ABA/ADA-compliant sleeping room, with appropriate bathroom facilities, will be included in the new dormitory. Additionally, an ABA/ADA-accessible work station, approximately 15 square feet, will be included in the dormitory.

Approximately 17 research residents currently assigned living spaces in the existing buildings will be relocated to the dormitory. These 17 research residents in addition to up to 8 new beds will accommodate up to 25 individuals within the new dormitory. The existing campus buildings will accommodate up to 41 researchers plus 7 individuals associated with the university (48 total

individuals within the existing buildings). Parking will be limited to approximately 56 vehicles at various locations within the research campus.

Grand Teton National Park will consult with Wyoming State Historic Preservation Office when a design for a dormitory building is available, as stipulated in the October 7, 2015 National Historic Preservation Act section 106 consultation response letter.

Lakeshore Erosion Controls

The existing concrete breakwater retaining wall (approximately 100 feet in length and seven feet in height) north of the boathouse/boat ramp will be reinforced or replaced. The existing breakwater structures to the south of the boathouse (approximately 200 feet in length and seven feet in height) will be replaced and extended, where necessary, to prevent erosion and enhance shoreline protection south of the boat dock. These modifications will prevent or restrict the movement of soil and further erosion of the shoreline in this area, as well as improve the appearance of the boathouse from the lake.

Existing concrete retaining walls will either remain in place, reinforced with stone backfill; or be replaced with new log walls. New or replacement retaining walls will be constructed of 12- to 15-inch diameter logs backfilled with rip-rap, concrete, and/or cobble. Stone-filled gabion baskets may be placed as additional backfill reinforcement.

Surface Water Control at Berol Lodge

Drainage issues that are adversely affecting the foundation of the Berol Lodge will be addressed by construction of two earthen stormwater control channels, one draining through a new culvert that will be installed under the existing road to the east of Berol Lodge. These features, which consist of galvanized steel or concrete pipe culverts and native vegetation surface channels, will direct surface water drainage away from the lodge foundation.

Facility Access Improvements

Visitors attending seminars, conferences, and workshops at the research center will be accommodated by renovating one of the two existing restrooms in the Berol Lodge to be compliant with ABA/ADA, if feasible, as determined by structural engineer and historic architect consultation. ABA/ADA-accessible researcher living space will be accomplished by modifying the existing Johnson Lodge kitchen apartment. Further consultation with the Wyoming State Historic Preservation Office will occur once designs are completed for the kitchen and bathroom renovations.

Boise-Cascade Cabin Exterior Cladding or Re-facing

The visual discontinuity to the AMK Ranch Historic District presented by the current appearance of the Boise-Cascade Cabin will be addressed by installation of a new exterior cladding to the existing building. This building dates from outside the period of significance and is considered "non-contributing" to the historic district.

Implementation

The University of Wyoming will be responsible for improvements to the water, wastewater, and fire suppression systems and the construction and maintenance of a new dormitory and parking area. The National Park Service and University of Wyoming will collaborate on implementing the other campus improvements described in alternative C when funding becomes available.

The construction period for all actions will occur between late spring and late fall and will depend on snowfall and frozen ground conditions. No campus closures are planned during construction periods. Construction workforce will overnight outside of the research center campus area either within available public facilities within Grand Teton National Park and/or John D. Rockefeller, Jr. Memorial Parkway or in one or more local communities outside of these park units. Construction debris and excess material will be removed and transported to an approved solid waste facility outside of Grand Teton National Park. Trees and other vegetation will either be removed from the park or reused for other projects within the park units.

Construction activities will utilize heavy equipment, including, but not limited to, excavators, loaders, drilling rigs, well service rigs, haul trucks, dump trucks, lifts, bucket trucks, cranes, and concrete trucks. Staging and stockpiling areas will be located in previously disturbed sites, away from researcher and visitor use areas to the extent possible, to minimize the area of ground and vegetation disturbance. All staging and stockpile areas will be returned to pre-construction conditions and/or revegetated following completion of campus improvement activities. Parking areas for construction vehicles will be limited to existing roads, parking areas, and other previously disturbed areas.

Maintenance of New and Upgraded Infrastructure

Maintenance activities required for the new and upgraded infrastructure will be considered part of the campus improvements under alternative C. The University of Wyoming will be responsible for maintaining the improvements in accordance with the general agreement.

Other Alternatives Considered

Two other alternatives were considered and analyzed in detail, including the no action alternative and one action alternative. Under both of these alternatives, the UW-NPS Research Center will continue to operate under the general agreement between the National Park Service and the University of Wyoming.

Under alternative A (no action), current management of the research center facilities will continue, with routine maintenance of existing water and wastewater systems. Critical repairs to campus facilities will be performed as needed. Overnight accommodations at the research center will continue to be limited to 58 researchers and seven individuals associated with the university (e.g. campus director and maintenance staff) for a total of 65 individuals. Overnight parking will continue to be limited to about 50 spaces scattered throughout the research campus. Reasonable efforts will continue to be made to provide all individuals with access to any of the programs and seminars at the research center.

Under alternative B, all of the actions previously described in the selected action above will be implemented with the exception of the construction of a new dormitory and associated parking area. Researchers will continue to seasonally reside in the existing buildings as described in alternative A.

Mitigation Measures for the Selected Action

Under the selected action, the following mitigation measures will be implemented to reduce the potential for adverse impacts on park resources.

Wildlife (Specific Measures as Provided in USFWS Threatened & Endangered Species Consultation Response Letter)

- **Grizzly Bear:** The park will train all contractors and their employees regarding the park bear management plan, safety protocols, and food storage regulations. The park will require that all project crews meet standards for storage and handling of food, sanitation, fuel, and other attractants to minimize potential conflicts. Additionally, the park has stipulations that require reporting of human-bear conflicts and bear sightings in a timely way. This allows park staff to implement trail or area closures as necessary around carcasses to help prevent surprise encounters or to remove carcasses altogether. In addition, if park staff has information about a grizzly bear in the area, they will pass this on to the individuals using the project area, so they can be even more vigilant concerning human-bear conflicts.
- **Gray Wolf:** All project activities will comply with the Superintendent's Compendium (2014 and as updated) closures implemented around wolf den/rendezvous sites. If a den or rendezvous site not previously known is found within one mile of the project area, a season area closure will be implemented between April 15 and August 15.

Wildlife (General Measures as Described in the EA)

- Areas of vegetation removal will be surveyed for nesting birds by park biologists if construction is between May 10 and August 1. These surveys will be conducted one to two weeks before commencing construction activities. If nests are found, NPS staff will coordinate with construction contractors to modify the location or alter the timing of the construction plan to prevent nesting disturbance. Ideally, works should be conducted after August 1 to avoid any conflicts. Construction workers and supervisors will be informed that under the Migratory Bird Treaty Act, no migratory bird, nest, or egg can be disturbed, removed, or destroyed. Park staff will be notified immediately if the potential for disturbance is discovered.
- Bald eagle nests will be protected from human disturbance between February 1 and August 15.
- Construction activities will not occur within 100 yards of any osprey, trumpeter swan, peregrine falcon, or great blue heron nests from April 1 to September 1.
- Construction activities will not take place before 8 a.m. or after 6 p.m. to protect animals whose movements and activities correspond with crepuscular hours. Contractors and their employees will be trained regarding the park bear management plan, safety protocols, and food storage regulations. The proper storage and handling of food, fuel, and other attractants will be required to minimize potential conflicts. Construction crews will meet standards for sanitation, attractant storage, and access.
- NPS biologists will be contacted to schedule a survey of any property scheduled for project work that could affect bats within the structures. 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, the NPS will coordinate with the University of Wyoming to develop a mitigation plan.

Cultural Resources (General Measures as Described in the EA and Specific Stipulations Provided in the Wyoming SHPO Consultation Response Letter)

- All activities will be conducted in compliance with Section 106 (36 CFR 800) of the National Historic Preservation Act (NHPA) and conform to *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, and Director's Order 28 (DO-28): Cultural Resources Management.
- An appropriate mitigation strategy will be developed in consultation with the Wyoming State Historic Preservation Office (SHPO) prior to construction of a new dormitory. Mitigation agreed upon will be outlined in a Memorandum of Agreement (MOA) negotiated among the NPS and SHPO. This MOA may also involve the Advisory Council on Historic Preservation and consulting parties, if necessary.
- Renovations to the Johnson Lodge kitchen and Berol Lodge bathroom will be subject to further Section 106 review and consultation with the Wyoming State Historic Preservation Office prior to implementation.
- If any cultural materials are discovered during construction, work in the area shall halt immediately, the National Park Service and Wyoming SHPO staff will be contacted, and the materials be evaluated by an archaeologist or historian meeting the Secretary of the Interior's Professional Qualification Standards.

Environmental Permits

- UW and NPS will obtain any federal and state environmental permits required for this project and conduct all actions in compliance with those permits. This permitting process could result in additional mitigation measures to be implemented, as required by the relevant agencies.

Soils

- Staging and stockpiling areas will be located in previously disturbed sites, away from researcher and visitor use areas, to the extent possible, to minimize the area of ground and vegetation disturbance. All staging and stockpile areas will be returned to pre-construction conditions and/or revegetated following completion of campus improvement activities. Parking areas for construction vehicles will be limited to these staging areas, existing roads and parking areas, and other previously disturbed areas.
- Topsoil will be stockpiled away from excavations and future work and topsoil will be protected from mixing with subsoil. Soil stockpiles will be graded and shaped to allow unimpeded drainage of surface water. If topsoil is stored for more than a short time, the soil will be seeded with a fast-growing native species to provide a protective cover and prevent the introduction of exotic invasive plants.
- Construction activities will be scheduled during dry periods and when surface and ground water levels are low to minimize soil compaction, to the extent possible. Care will be taken to avoid any rutting caused by vehicles or equipment.
- Best management practices will be implemented to minimize soil erosion. Examples include silt fences, sediment traps, erosion check screens and filters, and hydro mulch. Materials

such as straw bales, fabric barriers, and sandbags will be used to prevent soil from entering waterways.

- Construction zones will be identified and demarcated with construction tape, temporary fencing, or some similar material prior to any construction activity. The fencing will define the construction zone and confine activity to the minimum area required for construction. All protection measures will be clearly stated in the construction plans, and specifications and workers will be instructed to avoid conducting activities, including materials staging and storage, outside the demarcated construction zone.
- Construction debris will be placed in refuse containers at least daily, and refuse will be disposed of at least weekly. No burning or burying of refuse will be allowed inside the park.
- New water pipelines and sanitary sewer pipelines will be sited within existing roadway rights-of-way when feasible, cost effective, and not in conflict with Wyoming Department of Environmental Quality regulations.
- Water and sanitary sewer pipelines will be installed using trenching technology. Restoration activities will be performed quickly, when and where possible. Sod will be rolled so that topsoil and vegetation will be placed back on top of the filled trench where plants can reestablish and limit the opportunity for exotic invasive species.
- Dust control methods such as watering, covering haul loads, and controlling vehicle speeds will be implemented to the extent possible. Where backfilling is required, such as in a water main trench, the backfill will not extend above the original ground surface contour level after compaction and settling.
- Fill materials will be obtained from a source approved by the park's branch of vegetation management.
- If construction activities cannot be completed by winter, soil piles will be covered with an impermeable material.
- In areas of potential soil disturbance, existing topsoil will be salvaged and stored for reuse to facilitate revegetation in accordance with NPS policies and guidance. Topsoil will be stored for as short a time as possible to prevent loss of seed and root viability, loss of organic matter, and degradation of the soil microbial community.

Vegetation

- A project revegetation plan will be developed prior to beginning construction and ground-disturbing activities. This plan will include:
 - Plans and methods to salvage, temporarily store, and re-plant existing plant material, especially shrubs and turf patches.
 - Use of plant species native to the immediate area. This will include natural spacing, abundance, and diversity of native plant species.
 - Obtaining native plant material from a local NPS source and use in accordance with NPS policies and guidance.
 - Design for no supplemental irrigation beyond seedling and plant establishment.
 - Use of certified weed-free mulch, erosion control materials, and seeds, and plan to check materials certification before application.

- Managing exotic invasive species. This will include pre and post-construction treatment of weed species in the project area and weed control measures.
- Maintenance to monitor and mitigate impacts for at least three years after construction. Additional measures may be stipulated if recovery of a weed-free cover of native species could not be documented at the end of this period.
- Methods to minimize impacts on vegetation by avoiding shrubs and trees, including their root systems, when establishing construction zone boundaries, will be implemented where possible. Damage or removal of vegetation outside authorized construction zones without prior approval will be prohibited.
- Contractors will be required to pressure-wash construction equipment before it enters the park to ensure that it is free of mud or seed-bearing material.
- Construction best management practices will be followed for soil preparation and revegetation activities. After site work is completed, compacted soil will be de-compacted to a depth of 12 inches, and scarified to reestablish original contours. Topsoil will be spread in as near to its original location as possible to help preserve microorganisms and seeds of native plants.

Water Resources

- All construction activities will be consistent with state water quality standards and Clean Water Act Section 401 certification requirements.
- A stormwater pollution prevention plan (SWPPP) will be prepared for the project. It will include site-specific measures to reduce and control erosion, sedimentation, and compaction that can degrade water quality. It will include vegetation buffers between areas of soil disturbance and waterways. Soil erosion best management practices will be utilized to prevent the entry of sediment into waterways (refer to specific soil mitigation measures described above).
- The storage, handling, and disposal of all hazardous materials and waste will comply with applicable federal and state regulations. Provisions will be made for storage, containment, and disposal of hazardous materials used onsite. To minimize possible petrochemical leaks from construction equipment, all equipment will be monitored frequently to identify and repair any leaks. Equipment will be staged in designated areas suitable to contain leaking materials (e.g. bermed and lined areas). Trained personnel will clean up and dispose of any leakage or spill from construction equipment such as hydraulic fluid, oil, or fuel. Spills will be contained and materials, including soils, will be safely disposed outside of the park. Fueling and fuel storage areas will be permitted only at approved locations and comply with park refueling guidelines. Onsite fueling and maintenance will be kept to a minimum.

Visual Resources

- The aboveground water tank will be sited to maximize visual screening through design and placement, taking advantage of existing vegetation and topography.

Visitor Use and Experience

If construction activities occur when the research center is operational and is open to the public:

- The University of Wyoming will develop and enforce an NPS-approved traffic and pedestrian control plan for use during construction. The plan will minimize disruption to visitors and park/university operations while ensuring safety of the public, employees, and residents.
- Contractors will be required to coordinate with NPS and university staff to minimize disruption of normal research center campus activities. Construction workers and supervisors will be informed about the special sensitivity of park values, regulations, and appropriate housekeeping.

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

As defined in 40 CFR §1508.27, significance is determined by examining both context and intensity for 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 some adverse impacts; however, the overall benefit of the project, particularly to the operations of the UW-NPS Research Center campus, outweighs these negative effects. The adverse effects are summarized as follows.

Construction activities will temporarily affect the integrity of setting of the AMK Ranch Historic District and its contributing resources. The presence of the new dormitory may have an adverse effect on the historic district (see below). Improvements to the research center campus will permanently remove about 0.5 acre and temporarily disturb about 8.1 acres of vegetation and wildlife habitat within the AMK Ranch Historic District. Although construction activities will likely have short-term impacts on the operations of the campus, the majority of construction activities will occur before or after the campus is operational during the summer seasons.

The overall benefit of implementing the selected action is that university and park operations will be improved because water, wastewater, fire suppression systems, and housing accommodations will be upgraded at the research center campus.

The degree to which the action affects public health or safety

The selected action will have a beneficial effect on public health and safety, particularly for the researchers and university staff that regularly use the campus facilities. Improvements to the water and wastewater systems will largely eliminate possible water contamination and uneven water chlorination. Improvements to water storage capacity and line pressure will increase fire suppression capacity within the campus. The new dormitory building will provide better housing conditions for researchers. Lakeshore erosion control measures will reduce the rate of bank erosion and improve safety for researchers, staff, and others who visit the lakeshore area of the campus.

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 selected action will occur within the AMK Ranch Historic District. Construction activities will temporarily affect the integrity of setting of the historic district and its contributing resources. The presence of the new dormitory may have an adverse effect on the historic district. This effect will

be reduced through the implementation of specific mitigation measures to ensure the dormitory is compatible with the historic district in terms of mass, scale, proportion, height, shadows, color, and contrast.

The selected action will occur within critical habitat for Canada lynx. The potential effects to this habitat will be insignificant relative to the abundance of remaining critical habitat surrounding the project area.

The park's wetland specialists have determined there are no regulatory wetlands in the project area at the research center, except for the near-shore lacustrine wetlands where the historic boathouse, dock, and man-made shoreline barriers already exist and are to be repaired/rehabilitated. The National Wetlands Inventory designation for this shoreline area is a lacustrine wetland with unconsolidated shoreline along a man-made diked or impounded area (Jackson Lake). The NPS will only be repairing the existing historic structures and there will be no further disturbance or effects on wetlands in the project area.

The park's floodplain management specialist has determined that the project area extends into the 100-year floodplain only at the existing boathouse and dock, and the two retaining walls adjacent to these structures. Since these were all constructed prior to 1980, and since the present structures will be repaired/rehabilitated with no new structures added, there is no need for a floodplain statement of findings for floodplains.

The project area does not contain prime farmlands or designated wild and scenic rivers.

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

None of the impacts from the selected action have the potential to be highly controversial. At the conclusion of the public review and comment period on February 26, 2015, the National Park Service received correspondence from eleven individuals. Given the substance of these comments, there is no evidence that the effect to the quality of the human environment will be highly controversial. Comments received related to the impacts of the alternatives were primarily focused on preserving the historic character of the AMK Ranch, better utilization of existing housing facilities, accessibility improvements, and funding and construction responsibilities (National Park Service versus the University of Wyoming). These concerns have been addressed through clarifications in the response to comments section of the Errata Sheets (see below).

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

The selected action is fairly straightforward and does not pose uncertainties. The environmental process has not identified any effects that may involve 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 consideration.

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.

On July 27, 2015, Grand Teton National Park (GRTE) sent a letter to the Wyoming SHPO outlining the proposed undertaking, area of potential effect, and a description of the proposed action's effects on historic properties. The letter clearly described those actions having no adverse effect on historic properties and those actions with the potential to have an adverse impact on historic properties.

On September 3, the Wyoming SHPO responded to Grand Teton's letter and only addressed the proposed dormitory construction but did not address the other proposed actions. The letter from the SHPO stated that "Grand Teton National Park should consult with SHPO and complete Section 106 review when a design for the new building [dormitory and parking] is proposed." The letter concluded with the statement that the SHPO could not, "comment on the effect of the proposed building to the historic district until there is a better understanding of the design of the building."

Upon receipt of the September 3 letter, the GRTE cultural resource branch chief called the historic preservation specialist on September 25 to request comment on the other actions outlined in the EA and GRTE's initial consultation letter. The historic preservation specialist was happy to provide an additional letter clarifying the Wyoming SHPO's position on the proposed actions.

On October 7, the Wyoming SHPO furnished a second letter to Grand Teton National Park concurring on a finding of "no adverse impact" for actions other than the dormitory. That letter concluded with the statement that the SHPO agreed that, "the activities proposed in the preferred alternative, except construction of the proposed dormitory building, will not...adversely affect the historic district. Grand Teton National Park will still need to consult with SHPO when a design for the proposed dormitory building is available."

Actions having no adverse effect (concurred by SHPO):

- The proposal to upgrade the water, wastewater, and fire suppression systems throughout the campus will have no adverse impact to cultural resources. Upgrading the water and wastewater systems will require ground disturbance within a previously surveyed area, and revegetation will limit the impact of any required trenching to the historic landscape. Ground disturbing activities will have no impact on archaeological sites. Upgrading the water and wastewater systems will require the installation of new utilities and may require the widening of openings to accommodate new piping in the historic buildings. When this occurs, work will be completed in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (Standards) and will not impact the overall integrity or eligibility of the resources. The new well house and aboveground cistern will be located in

areas where they will be hidden from view from the contributing historic resources within the district, and therefore they will not impact the character defining features of the district.

- Extension of the concrete retaining wall and improving the drainage at the Berol Lodge will be accomplished in compliance with the Standards and will not have an adverse effect on the district.
- Alterations to the non-historic Boise-Cascade Cabin exterior will result in a more compatible design for the exterior of this building. While it will alter the appearance of the cabin, the building is considered a non-contributing structure in the historic district. The proposed residing will be consistent with the Standards and will not impact the integrity or eligibility of the district.

Actions with the potential to have an adverse effect (requiring further SHPO consultation):

- Renovations to the Johnson Lodge kitchen and to one of two Berol Lodge bathrooms to provide ABA/ADA access have the potential to adversely impact the contributing historic interiors; however, this will be determined in the design stage. Sensitive design in keeping with the Secretary of the Interior's Standards for the Treatment of Historic Properties will minimize the possibility of an adverse effect to the buildings.
- The addition of a new dormitory and parking lot within the historic district has the potential to have an adverse effect on the district. Applying the criteria defined in 36 CFR Part 800.5a(2), the park has determined that such an undertaking could visually affect several contributing historic buildings within the central building cluster, diminishing the integrity of the property's setting, feeling, and association. Efforts will be made during the design process to mitigate or eliminate the adverse effects of the new construction by closely adhering to the Secretary of the Interior's Standards, particularly those that apply to new additions.

In summary, the SHPO has concurred with the finding of "no adverse impact" for actions that fall within that category, and has requested further consultation on actions with the potential to cause an adverse effect. Per the SHPO's request, GRTE will continue consultation once a design for the new dormitory, parking area, and ADA/ABA bathroom and kitchen renovations are available. If an adverse effect is unavoidable, GRTE will work with the Wyoming SHPO and consulting parties to complete an MOA.

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

The NPS sent a consultation letter to the U.S. Fish and Wildlife Service (USFWS) on March 27, 2015. A USFWS response letter dated April 28, 2015 and a subsequent response on October 28 via email related specifically to gray wolf concurred with the following NPS determinations:

Canada Lynx: The USFWS concurs with the NPS "may affect, not likely adversely affect" determination for Canada lynx and Critical Lynx Habitat.

Grizzly Bear: The USFWS concurs that project activities are not likely to adversely affect grizzly bears.

Gray Wolf: The USFWS agrees that the proposed construction "may affect, not likely to adversely affect" gray wolves.

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

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

Public Involvement and Native American Consultation

The EA was made available for public review and comment during a 30-day period ending February 26, 2015. To notify the public of this review period, a postcard was mailed to stakeholders, interested parties, and newspapers. The document was posted on the NPS PEPC website at <http://parkplanning.nps.gov/uw-nps>. Eleven correspondences were received during this review period. One of these correspondences was received from the Teton County Historic Preservation Board, who requested to be included as a consulting party in the NHPA Section 106 compliance process. Substantive comments centered on four topics: preserving the historic character of the AMK Ranch Historic District, better utilization of existing housing facilities, accessibility and safety improvements, and funding and construction responsibilities (National Park Service versus the University of Wyoming). These comments are addressed in the Errata Sheets attached to this FONSI.

Native American consultation invitation letters were mailed on February 19, 2015. No written or telephone responses were received requesting consultation on the action.

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. Environmental impacts that could occur are limited in context and intensity, with generally adverse impacts that range from localized to widespread, short- to long-term, and negligible to moderate. There are no unmitigated adverse effects on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

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

Approved:


Sue E. Masica
Regional Director, Intermountain Region, National Park Service


Date

Errata Sheets

Campus Improvements to the University of Wyoming – National Park Service Research Center EA Grand Teton National Park

According to NPS policy, substantive comments are those that 1) question the accuracy of the information in the EA, 2) question the adequacy of the environmental analysis, 3) present reasonable alternatives that were not presented in the EA, or 4) cause changes or revisions in the proposal.

Some substantive comments may result in changes to the text of the EA, in which case, they are addressed in the *Text Changes* section of the Errata Sheets. Other substantive comments may require a more thorough explanatory response and are addressed in the *Response to Comments* section. NPS responds to all substantive comments in either or both of these sections.

Of the eleven correspondences that were received during public review of the EA, five of them contained substantive comments. Substantive comments for this EA centered on four topics: preserving the historic character of the AMK Ranch, better utilization of existing housing facilities, accessibility improvements, and funding and construction responsibilities (National Park Service versus the University of Wyoming). Although these concerns did not result in any changes to the text of the EA, they have been explained more thoroughly in the *Response to Comments* section.

Text Changes: none

Response to Comments

Historic Character of the AMK Ranch

Comment – Additional buildings, a barracks, will diminish the historic character of the National Register District.

Response – The potential impact to the setting of the AMK Ranch Historic District will be mitigated by closely adhering to the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, specifically those that address the rehabilitation approach for new additions. Scale and mass will be in keeping with other buildings within the district. The new construction will be designed in a way that is compatible with the historic district in terms of proportion, height, shadows, materials, relationship of solids to voids, color, and contrast. The design may be contemporary or reference rustic style design motifs; however, the dormitory will be designed in a manner that it is clearly differentiated from the historic buildings of the district.

The NPS sent a letter to Wyoming State Historic Preservation Office (SHPO) on February 19, 2015 requesting consultation on the proposed actions of the preferred alternative. In a letter dated September 3, 2015, Wyoming SHPO stated that Grand Teton National Park should consult with SHPO when a design is available for the new dormitory at AMK Ranch. A second letter from Wyoming SHPO dated October 7, 2015 concurred with the NPS

determination that activities proposed in the preferred alternative, except construction of the dormitory building, will not adversely affect the AMK Ranch Historic District. The NPS will consult with Wyoming SHPO when a design for the dormitory building is available.

Utilization of Existing Housing Facilities at the Research Center

Comments – Is expansion really necessary? Why not decrease the existing dormitory space?

Response – As discussed in the EA, the research center provides a rare opportunity for the park to fulfill its science and research support mission as the park has limited capacity to conduct its own scientific research. Research housing is frequently filled to capacity during the height of the summer field season. Arranging separate facilities for male and female researchers is often a scheduling challenge, and over-crowding exists in some rooms, causing concern for safe egress in case of fire or other emergencies. In several cases, the proximity of residential rooms to working or storage spaces provides less than optimal conditions for either primary function and causes added stress on the historic structures. The University of Wyoming and the NPS has determined that expanding the overnight capacity of the campus from a total of 65 to 73 individuals will best achieve the mission of the research center and the objectives outlined in the EA. Decreasing overnight accommodations at the campus will affect the mission of the research center and will not meet the objectives of the EA.

Accessibility Improvements

Comment – I will be in favor of continued improvement for wheel chair access.

Response – As discussed in the EA, visitors attending seminars, conferences, and workshops at the research center will be accommodated by renovating one of the two existing restrooms in the Berol Lodge to be compliant with the Architectural Barriers Act (ABA) and Americans with Disabilities Act (ADA), if feasible, as determined by structural engineer and historic architect consultation. ABA/ADA-accessible researcher living space will be accomplished by modifying the existing Johnson Lodge kitchen apartment. These improvements and other accessibility improvements to historic structures will conform to *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* and NPS Director's Order #28. An additional single ABA/ADA -compliant sleeping room, with appropriate bathroom facilities, and a work station area will be included in the new dormitory. In addition to the improvements specifically mentioned in the EA, UW and NPS will continue to address other accessibility challenges within the research center campus.

Construction Responsibilities

Comment – Why should the NPS pay to construct the dormitory?

Response – The University of Wyoming, not the NPS, will pay for improvements to the water, wastewater, and fire suppression systems and the construction and maintenance of a new dormitory and parking area. The National Park Service and University of Wyoming will collaborate on implementing the other campus improvements described in the EA when funding becomes available.

Appendix – Non-Impairment Finding

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

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

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

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

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

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

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

Impairment findings are not necessary for visitor use and experience, socioeconomics, public health and safety, environmental justice, land use, and park operations, because impairment findings relates back to park resources and values, and these impact areas are not generally considered park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values. After dismissing the above topics, topics remaining to be evaluated for impairment include paleontological resources and historic structures.

Fundamental resources and values for Grand Teton National Park are identified in the park's *Foundation for Planning and Management*. The Foundation document describes four specific fundamental resources and values that directly or indirectly relate to the selected action and impacts topics analyzed in the EA: scenery, ecological communities, natural soundscapes, and visitor experiences in an outstanding natural environment. These fundamental resources and values warrant primary consideration during planning and management because they contribute to significance and are critical to achieving the park's purpose. It is worth noting that the UW-NPS Research Center at AMK Ranch is not considered a fundamental resource and value for the park. Instead, this facility is listed as an "other important resource and value" under existing park assets.

- **Scenery** (visual quality EA impact topic) – One of the primary purposes of Grand Teton National Park is to "preserve and protect the spectacular scenery of the Teton Range and the valley of Jackson Hole." This is partly accomplished by ensuring the park has a "relative lack of development." The AMK Ranch is listed as a historic district in the National Register of Historic Places and is an important cultural landscape comprising human settlement on Jackson Lake from 1890 to the modern era, with buildings and cultural landscape features that tell the story of the development and use of the peninsula. Part of this important history includes the use of AMK Ranch as a research center by the University of Wyoming. Although visual impacts to the historic district could occur because of the new dormitory and parking area, these impacts will be negligible. The dormitory will be designed and located so that it will not adversely impact the historic district's primary or contributing viewsheds. Impacts to scenery will also be negligible outside of the historic district. The NPS will consult with the Wyoming State Historic Preservation Office when a design for the dormitory is available. Due to these negligible effects, there will be no impairment to the park's scenery.
- **Ecological Communities** (soils and vegetation and wildlife EA impact topics) – The area surrounding the research center campus, particularly the peninsula with which the campus is located provides suitable habitat for a diverse array of plants and animals. Construction activities associated with the selected action will occur within the existing developed area perimeter and will likely have a short-term effect on several species and their habitats. These activities may affect, not likely to adversely affect Canada lynx and grizzly bear, have no or insignificant effect on Canada lynx critical habitat, and may affect, not likely to adversely affect gray wolf. Implementation of the selected action will result in 0.50 acre of permanent impacts and 8.12 acres of temporary impacts to soils and vegetation within the research center campus area. These effects cumulatively will have no impairment to the park's ecological communities.

- **Natural Soundscapes** (cultural resources impact topic) – The selected action will result in a temporary increase in ambient noise within the AMK Ranch Historic District from construction-related activities, including noise from excavation equipment, trucks, and construction worker traffic. This noise will be temporary and seasonal, lasting only as long as the construction activity continued. Due to these temporary and seasonal effects, there will be no impairment to the park's natural soundscapes.
- **Visitor Experiences in an Outstanding Natural Environment** (visitor use and experience impact topic) – Research center campus improvements under the selected action will have a beneficial effect on visitor use and experience within the park. The selected action will have no impairment to the park's visitor experiences in an outstanding natural environment.

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 there will be no impairment of park resources and values from implementation of the selected action.