

**National Park Service
U.S. Department of the Interior**



**Grand Teton National Park
Wyoming**

November 2004

**Teton Science School
Rehabilitation and Improvement of Infrastructure**

Finding of No Significant Impact (FONSI)

FINDING OF NO SIGNIFICANT IMPACT

Teton Science School Rehabilitation and Improvement of Infrastructure Grand Teton National Park

In compliance with the National Environmental Policy Act, the National Park Service (NPS) prepared an environmental assessment to examine various alternatives and environmental impacts associated with the proposal to rehabilitate and improve the infrastructure at the Teton Science School (TSS) Kelly Campus, located within Grand Teton National Park (GTNP). The TSS, a nonprofit organization in partnership with GTNP, has been in operation since 1967 helping the Park carry out its mission of providing environmental education within the Greater Yellowstone Ecosystem to people of all ages. With the high cost of living in the Jackson Hole area, Grand Teton National Park and its partners have had a difficult time hiring and retaining personnel without providing housing. The current condition of the Kelly Campus infrastructure and lack of necessary affordable housing impedes the Teton Science School's ability to carry out their mission of environmental education and other valuable services they provide to the NPS and their visiting public.

The TSS needs an additional building or square footage to provide adequate housing and office/administrative space for both staff and students on campus. Redevelopment of the water system at the Kelly Campus is required to provide a more sustainable utility system that conserves water and provides more water storage for fire suppression capability. A modified water supply and delivery system is needed to provide sufficient water to operate fire sprinkler systems and fire hydrants and larger storage tanks are required to allow the water sufficient contact time for the chlorine to be fully effective to treat the surface water. Some of the trails on the TSS Kelly Campus need to be modified so that they are handicap accessible in order to provide a more quality field experience for some staff and students. The National Park Service believes that the rehabilitation and improvement of infrastructure at the Kelly Campus is a cost-effective way to gain additional housing necessary for TSS employees and students, storage and office space for administrative support, a handicap accessible trail, while improving the water system.

SELECTION OF PREFERRED ALTERNATIVE (Alternative 4 in the EA)

The environmental assessment (EA), released on June 29, 2004, was prepared to examine four alternatives: Alternative 1 – *No Action*, Alternative 2 – *Water System Improvements Only*, Alternative 3 – *Relocation of the Hunter Hereford Barn*, and Alternative 4 – *TSS Builds a Facility on the Kelly Campus*. The primary difference between Alternative 3 and 4 is the method of achieving or acquiring additional square footage to meet the purpose and need at the TSS Kelly Campus. Alternative 3 would create additional housing, office space and storage by relocating the Hunter Hereford Barn to the Kelly Campus and adaptively using it. In Alternative 4, the TSS will gain additional space by building a facility for these purposes on the Kelly Campus. The NPS did not identify a preferred alternative for the project in the EA primarily for three reasons: 1) public sentiment during scoping was split on moving and re-using the barn and building a new facility, 2) the intensity or level of adverse effect was still undetermined through consultation with the Wyoming State Historic Preservation Office (SHPO), and 3) adaptive use options and opportunities for the Hunter Hereford Ranch Historic District had not been explored to date.

After careful analysis of impacts on cultural and natural resources, consideration of public comment, and further consultation with the SHPO, Alternative 4 is the National Park Service's preferred alternative because it best meets the purpose and need for the project without having an adverse effect on a cultural resource - the Hunter Hereford Ranch Historic District. Moving the barn out of the district, as proposed in Alternative 3, would cause the district to lose its integrity and eligibility for listing in the National

Register of Historic Places. Furthermore, Alternative 4 meets all the project's objectives to: 1) Upgrade Existing Water System, 2) Provide Student and Employee Housing, 3) Provide Adequate Meeting, Office and Storage Space for Teton Science School, and 4) Strengthen NPS Partnerships.

Alternative 4 consists of allowing the Teton Science School to construct a new facility on the Kelly Campus for an outfitting center, equipment storage, office and special event space, and housing for five full-time and five seasonal residents. In addition to the construction of a new facility, modification of several others, upgrade to the water system and the development of an accessible trail system, routine and preventive maintenance of other structures at the TSS will be provided. All disturbed ground will be rehabilitated to help return land to previous conditions and landscaping will be incorporated to control weeds.

Construction of a New Facility: The TSS will build an architecturally compatible facility on the Kelly Campus located adjacent to the Two Oceans building and south of Ditch Creek for office space, equipment storage, special functions and housing of five full-time and five seasonal residents. The building footprint will disturb approximately 3,250 square feet and include approximately 5,500 square feet of usable above-ground space, plus a 3,250 square foot concrete basement under the new building. The new building, approximately 8,750 total square feet, will be constructed of materials consistent with existing surrounding structures and will not exceed two stories in height. The basement will be used for housing, laundry, and equipment storage. The ground floor will be used for housing and office and lab space for the research department. The top floor will be used for meetings and special events. Full utilities (water, septic, and electric) will be provided to the facility. This action will require additional consultation with the Wyoming SHPO to discuss any view shed issues from the National Register listed Main Lodge. The approximate cost to build a new facility is estimated to be between \$1.9 and \$2.4 million, depending on the building materials for a log or frame building.

Modification of Seven TSS Buildings: The interiors of the Dining Lodge and the Main Lodge at the TSS will be preserved or rehabilitated. A second floor addition will be built on Eagles Rest and Porcupine, the two student dormitories. The Static House will be replaced with a new duplex unit. Blacktail Butte and Coyote Rock cabins, which are located in a depression that is occasionally wet, will be relocated on foundations on nearby higher ground. Full utilities (water, septic, and electric) will also be provided to these two facilities. Specific plans for these actions will be subject first to approval by the NPS, and then will not proceed until consultation with the SHPO is completed. Modifications to the seven TSS buildings will increase the overnight capacity by six beds. Overall, this alternative provides the ability to house eleven additional full-time staff and five seasonal residents.

Development of an Accessible Trail System: Portions of the existing trail will be upgraded to make it an accessible trail system. No new trail construction is required for this project, but portions of the existing trails require widening and filling to create the proper width and grade for accessibility. The original trail concept, which was presented to the public, included the placement of a bridge over Ditch Creek to facilitate water sampling procedures for persons with mobility impairments; however, due to adverse natural resource impacts associated with the bridge encouraging additional human access to this relatively undisturbed area, it was removed from this alternative.

Upgrade of the Public Water System: Under this alternative, the NPS will rehabilitate the existing water system to provide a more sustainable and compliant water supply for human use and structural fire protection. The updated system will meet all federal and state drinking water standards. Rehabilitation of the water system will include the testing of the existing well for adequacy in meeting newer fire suppression demands. In addition, a 25,000-gallon underground water storage tank and fire pump (and pumphouse) will be installed to provide additional fire protection by providing water to hydrants and

indoor sprinklers. New pipes will be laid so that they will not affect the wetland and in a location that is as close as possible to the pumphouse to prevent freezing.

Mitigation measures required as part of this alternative: The Park employs a myriad of standard mitigation measures for construction activities that address pollution prevention using best management practices and technology. In addition to these standard mitigation measures for construction activities, the following specific mitigation measures will be required:

- ❑ Construction and rehabilitation zones will be identified and fenced with construction tape, snow fencing, or similar material prior to any activity. The fencing will define the activity zone and confine activity to the minimum area required. All protection measures will be clearly stated in the construction specifications and workers will be instructed to avoid conducting activities beyond the activity zone. Contractors will coordinate with park staff to reduce disruption in normal park activities. Construction workers and supervisors will be informed about the special sensitivity of park values, regulations, and appropriate housekeeping and wildlife management practices.
- ❑ In many areas, soils and vegetation are already impacted to a degree by various human and natural activities. Construction will take advantage of these previously disturbed areas whenever possible. Vegetation impacts and potential compaction and erosion of bare soils will be minimized by conserving topsoil in windrows. The use of conserved topsoil will help preserve micro-organisms and seeds of native plants. The topsoil will be re-spread in as near to original location as possible and supplemented with scarification, mulching, seeding, and/or planting with species native to the immediate area. This will reduce construction scars and erosion.
- ❑ As part of the rerouting of water pipes around the wetland, it will be necessary for engineers to determine how best to avoid affecting the propane tank, a generator building, and a mature Colorado blue spruce tree.
- ❑ Should construction unearth previously undiscovered archaeological resources, work will be stopped in the area and the park will consult with the SHPO/Tribal Historic Preservation Officer and the Advisory Council on Historic Preservation, as necessary, according to §36 CFR 800.13, Post Review Discoveries. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) will be followed. The NPS will ensure that all contractors and subcontractors are informed of the penalties for illegally collecting artifacts or intentionally damaging archaeological sites or historic properties. Contractors and subcontractors will also be instructed on procedures to follow in case previously unknown archaeological resources are uncovered during construction.
- ❑ The construction contract will include mitigation for the potential delivery of pollutants to surface waters, not only during the construction phase, but also for the life of the system.
- ❑ To reduce the potential for bear-human conflicts, all construction workers will receive training in appropriate precautions and safety measures to use around grizzlies and other bears. No pets will be allowed at the site. Food, fuel, and other attractants will be stored and handled to minimize potential conflicts (i.e., no food, garbage, drink, trash, or food and drink containers are to be placed outside vehicles, trailers, or bear-resistant containers except during times when they are being used).
- ❑ Weed control, as well as re-vegetation with native species will take place on all disturbed sites. Re-vegetation efforts will focus on reconstructing the natural spacing, abundance, and diversity of native plant species, preferably from genetic stocks originating in the park. All

disturbed areas will be restored as nearly as possible to pre-construction conditions and/or documented historic conditions shortly after construction activities are completed. TSS staff and students will accomplish revegetation with plans approved by park specialists. Park staff will supervise weed control with assistance from TSS staff and students.

- TSS staff will limit the effects of dispersed human use from hiking and wandering on the Ditch Creek corridor through education of visitors and residents and the use of established pathways. These efforts are designed to prevent social trail development along Ditch Creek, which could put stress on wildlife and displace them from preferred habitat.

OTHER ALTERNATIVES CONSIDERED

A total of five alternatives were considered for this project, including four that are analyzed in the EA and one that was dismissed prior to analyzing it in the EA. The four alternatives that are analyzed in the EA include Alternative 1 – *No Action*, Alternative 2 – *Water System Improvements Only*, Alternative 3 – *Relocation of the Hunter Hereford Barn*, and Alternative 4 – *TSS Builds a Facility on the Kelly Campus*.

Alternative 1 – No Action: This alternative was considered in the EA and described the action of continuing the present management operation and condition. The Teton Science School would not acquire additional housing and this would result in the continuation of crowded and deficient housing conditions for residents, as well as a lack of office space, storage and equipment space, and indoor space to hold special functions and community events at the TSS. Modifications and improvements to seven facilities at the TSS Kelly Campus would not proceed. The TSS would have no handicap accessible trails. The redevelopment of the water system, which is necessary for health and safety concerns of the TSS, would not occur. Although the NPS must prepare the no action alternative in order to provide a basis on which to compare the other alternatives, selection of the No-Action alternative would result in the park failing to comply with Wyoming DEQ standards.

Alternative 2 – Water System Improvements Only: This alternative was considered in the EA to rehabilitate the existing water system to provide a more sustainable and compliant water supply for human use and structural fire protection. The updated system would meet all federal and state drinking water standards. Rehabilitation of the water system would include the testing of the existing well for adequacy in meeting newer fire suppression demands. In addition, a 25,000-gallon underground water storage tank and fire pump (and pumphouse) would be installed to provide additional fire protection by providing water to hydrants and indoor sprinklers. New pipes would be laid so that they would not affect the wetland and in a location that is as close as possible to the pumphouse that would prevent freezing.

Alternative 3 – Relocation of the Hunter Hereford Barn: This alternative was considered in the EA and proposed the relocation and adaptive use of the Hunter Hereford Barn to address the need for housing and other programmatic space for the TSS by adaptively using a historic building. This alternative involved the relocation of the Hunter Hereford Barn to the TSS, the rehabilitation of seven existing buildings at the TSS, the development of a handicap accessible trail system, and the rehabilitation of the TSS water system. Alternative 3 would result in an adverse effect to the National Register listed Hunter Hereford Ranch Historic District.

Alternatives Considered, But Rejected for Consideration in the EA: In addition to the four alternatives analyzed in the EA, the NPS also considered one other alternative (scenario) in which the TSS would adaptively use the Hunter Hereford Barn on location in the Hunter Hereford Ranch Historic District for housing, office space, equipment storage, and special functions. A footpath approximately 1.5 miles long would cross Ditch Creek and the Kelly hayfields to connect the Kelly Campus with the historic district. A footpath between the TSS and the Hunter Hereford Ranch Historic District would cross the riparian

corridor of Ditch Creek and the open meadows of the Kelly hayfields. These are important wildlife areas with large bison herds living there year-round. People walking through may disturb bison during calving and could displace animals causing them to move to less preferable habitat. This may also pertain to pronghorn and elk. Increased human presence in these areas could increase the risk of human-wildlife confrontations. Alternative road access would be approximately five miles. The distance involved would have necessitated numerous daily trips between the Hunter Hereford Barn and the Kelly Campus, which is not operationally practical, and would result in additional human use of the corridor between them. In addition, natural resource impacts such as the development of social trails, habitat fragmentation, and vegetation damage, and human safety considerations were identified that also contributed to the dismissal of this alternative.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is determined by applying the six criteria suggested in §101 of the National Environmental Policy Act of 1969 (NEPA), which is guided by the Council on Environmental Quality. According to these criteria, the environmentally preferred alternative should 1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; 2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; 3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; 4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain wherever possible, an environment which supports diversity, and variety of individual choice; 5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and 6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Alternative 1, No-Action, is the least effective in meeting the six §101 criteria. By maintaining the status quo, it fails to adequately address needed health and safety improvements at the TSS. In addition, it does not address the Teton Science School's need for adequate student and employee affordable housing or meeting or office space. By ignoring these needs, the NPS would not fulfill its role as a Partner nor would this action strengthen this partnership. Alternative 2 addresses the six criteria better than Alternative 1, but not as well as Alternatives 3 and 4, because it does not rehabilitate and improve infrastructure for housing, office space, and storage. By upgrading the existing water system at the TSS, Alternative 2 only addresses criteria 1, 2, and 6 through improvements to water quality safety and storage.

Alternative 3 would relocate the Hunter Hereford Barn to the TSS, upgrade the water system, and make other infrastructure improvements to buildings and trails at the TSS. Although relocation of the barn would help ensure its preservation over the long-term through adaptive use, it would also result in the historic district losing its integrity and eligibility for listing on the National Register, and would thus be considered an adverse effect on a cultural resource. By addressing the infrastructure needs at the TSS and adaptively using the barn, Alternative 3 meets criteria 1, 2, 5, and 6. Although it meets criteria 6 better than all the other alternatives due to its maximum attainable recycling of depletable resources, it does not meet goals 3 and 4 because it has an unintended consequence of delisting a historic district from the National Register of Historic Places and precludes future, adaptive use of the barn in its historic setting.

Alternative 4 meets all of the six §101 goals and it best meets criteria 3, 4, and 5, therefore it is the environmentally preferred alternative. Alternative 4 rehabilitates and improves the infrastructure at the TSS Kelly Campus, while preserving the option of a future adaptive use for the Hunter Hereford Barn at its historic location; hence, it attains the widest range of beneficial uses of the environment without

degradation, risk to health or safety, or other undesirable and unintended consequences (goals 3 and 4). In doing so, it meets the six §101 goals to the greatest extent of any of the alternatives.

WHY THE PREFERRED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

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

Impacts that may be both beneficial and adverse

The preferred alternative, Alternative 4, will not measurably impact ethnographic resources, museum collections, air quality, floodplains, natural lightscapes, natural soundscape, prime and unique farmlands, wetlands, wild and scenic rivers, wilderness, environmental justice, Indian trust resources, or the socioeconomic environment. Furthermore, no known, adverse effects will occur to archaeological resources.

The preferred alternative will allow the TSS to build an architecturally compatible facility on the Kelly Campus located in an open site between Ditch Creek and the Two Ocean cabin. Consultation with the SHPO will occur prior to construction of the building and the new building will have negligible impact on the view shed and no adverse effect to the National Register Main Lodge. However, rehabilitation work performed on the Main Lodge, using *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, will have long-term moderate beneficial impacts, or no adverse effect under §106 of the National Historic Preservation Act. The preferred alternative is expected to have negligible impacts or no adverse effect on cultural resources.

Impacts resulting from construction work on utilities, buildings, and trails will be mitigated through revegetation and rehabilitation, resulting in short-term, minor adverse impacts to vegetation, water quality, wildlife, park operations, and visitor use and experience due to disturbances during construction activities. The construction of the new facility and the modification of several other structures on the campus will have both beneficial and adverse impacts on visual quality in the long-term, minor-to-moderate level, depending on the people's individual perception of the activities taking place. Long-term, minor beneficial impacts are anticipated due to natives salvaging and aggressive treatment of non-natives on campus.

Alternative 4 will have "no effect" on the federally listed bald eagle and Canada lynx and "may affect, but is not likely to adversely affect" the grizzly bear and gray wolf. Impacts to migratory birds will be short-term, negligible and adverse due to construction activities. Wildlife will experience short- and long-term, minor adverse impacts on a site-specific level due to the effects of dispersed human use on wildlife, causing displacement, which can lead to animals spending more time in less preferable habitat.

The preferred alternative will upgrade the water system resulting in long-term, minor beneficial impacts to ground water and negligible impacts to surface water due to water system improvements. There will be long-term, minor beneficial impacts to park operations from water system improvements, resulting in lower, daily maintenance requirements and a more sustainable operation. Visitor use and experience will benefit over the long-term at the minor-to-moderate level through the water system upgrade, creation of handicap accessible trails, and restoration of buildings at the TSS.

Degree of effect on public health or safety

The preferred alternative will have an overall beneficial effect on public health and safety for residents, employees and visitors at the TSS Kelly Campus. Alternative 4 will rehabilitate the existing TSS water system to meet all federal and state drinking water standards and will provide a more sustainable and compliant water supply for human use and structural fire protection. Proposed modifications to the water piping system will allow for additional fire protection by providing water to hydrants and indoor sprinklers, thus reducing risks to firefighters and residents. The preferred alternative will also create handicap accessible trails that will improve hiking conditions for people who cannot negotiate the existing trails with steeper grades and a narrower tread.

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 preferred alternative will not impact prime farmlands, wetlands, floodplains, wild and scenic rivers, wilderness or ecologically critical areas. The TSS Kelly Campus is approximately eleven acres and has dominant vegetation types of spruce-fir forest and sagebrush-steppe. The Ditch Creek floodplain forms the northern boundary of the TSS and contains mature stands of narrowleaf cottonwood and various species of willow, rush, and sedge. Bison, moose, and elk live in close proximity to the Kelly Campus and are often seen in the meadows and along Ditch Creek.

The TSS Kelly Campus consists of the historic Ramshorn Dude Ranch Lodge (48TE1165), over fifteen non-historic residences and small cabins (the majority of them moved to the site), an ice house, the Ramshorn barn, and the Hunter Hereford Residence. The Wyoming SHPO concurred in 1989 that the property retained insufficient integrity in setting and association for listing in the National Register as a historic district yet requested reevaluation of the Ramshorn Dude Ranch lodge and barn. Upon reevaluation, the park determined that only the lodge was eligible for listing in the National Register since the barn had been significantly altered on the exterior, diminishing its integrity. The Ramshorn Dude Ranch Lodge retains remarkable integrity of design, workmanship, and materials, contributes to our understanding of the characteristics of dude ranch rustic architecture, and is eligible to the National Register under Criterion C. The Ramshorn Dude Ranch Lodge was listed in the National Register in August 1998.

Implementing Alternative 4, the rehabilitation of the Main Lodge has long-term, moderate beneficial impacts, or no adverse effect under §106. The rehabilitation work performed on the Main Lodge will be done in accordance with *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. The construction of a new facility at the proposed location on the TSS Kelly Campus will have negligible impact on the view shed and no adverse effect on the National Register listed Main Lodge.

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

Throughout the environmental process, the proposal to rehabilitate and improve infrastructure at the Teton Science School Kelly Campus was not highly controversial, nor are the effects expected to generate future controversy. The NPS mailed approximately 150 copies of the scoping brochure and 170 copies of the environmental assessment to agencies, organizations and interested parties. In addition, the same information was made available on the park's website, the Teton County Library, and the Moose Visitor Center. The park received a total of 19 comments on the scoping brochure and 47 comments on the environmental assessment, almost all of which were from the local area. The U.S. Fish and Wildlife Service concurred with the park's determinations of effects on threatened and endangered species. The SHPO concurred with the NPS determinations of effect on cultural resources discussed for each

alternative. Based on the mitigation measures included in the EA and the comments received from agencies and the public, there are no highly controversial effects on the quality of the human environment associated with the preferred alternative.

Degree to which the possible effects on the human environment are highly uncertain or involved unique or unknown risks

The effects of the preferred alternative are fairly straight forward and do not pose many uncertainties. The environmental process has not identified any effects that may involve highly uncertain, unique or unknown risks.

Degree to which the action may establish a precedent for future actions with significant effects or represent a decision in principle about future consideration

The Preferred Alternative (Alternative 4) is not expected to set a precedent for future actions with significant effects, nor does it represent a decision in principal about any future consideration elsewhere in the National Park System.

Whether the action is related to other actions with individually insignificant scientific but cumulatively significant impacts

As described in the EA, the selected alternative may affect historic structures and the cultural landscape, vegetation, visual quality, water quality, wildlife and habitat, park operations, and visitor use and experience. Ongoing projects with potential impacts to the east Antelope Flats area include the Fire Management Plan/EA, the Elk and Bison Management Plan/EIS, limited use of the McCollister Residential Complex for employee residential use, and limited activities in the town of Kelly. The impacts of Alternative 4, in conjunction with beneficial and adverse impacts of other recently completed or reasonably foreseeable future actions will result in both beneficial and adverse cumulative impacts, ranging in intensity from negligible to moderate, on historic structures and the cultural landscape, vegetation, visual quality, water quality, wildlife and habitat, park operations, and visitor use and experience. No individually insignificant but cumulatively significant impacts will occur to any resources as a result of this action in combination with all other actions past, present or planned.

Degree to which an action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historic resources

The analysis in the EA determined that the effects of Alternative 4 on cultural resources eligible for or listed on the National Register, or other significant scientific, cultural, or historic resources will range from long-term, negligible to moderate beneficial effects to historic structures and the potential cultural landscape. No effects will result to archaeological resources. The Wyoming SHPO concurred on August 13, 2004 with the NPS determination of "no adverse effect" under Section 106 of the National Historic Preservation Act. The NPS and SHPO have formally agreed that consultation will take place prior to construction of the new facility and rehabilitation of the Main Lodge to ensure no adverse effects to cultural resources. All rehabilitation work on the Main Lodge will be done in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat

In a letter dated August 2, 2004, the USFWS concurred with the NPS on its determination of “no effect” for the bald eagle and Canada lynx. Similarly the USFWS concurred with the determination of “may affect, but is not likely to adversely affect” for the grizzly bear and gray wolf. Mitigation measures listed in the EA on pages 13-14 are part of the consultation and will be followed to protect these species.

Whether the action threatens a violation of Federal, State or local environmental protection law

This action violates no federal, state, or local environmental protection laws.

IMPAIRMENT

In addition to reviewing the list of significance criteria, the National Park Service has determined that implementation of Alternative 4 will not constitute an impairment to Grand Teton National Park’s resources and values. This conclusion is based on an analysis of the environmental impacts described in the Teton Science School Rehabilitation and Improvement of Infrastructure EA, the public and agency comments received, and the professional judgment of the decision-makers guided by National Park Service *Management Policies 2001*. Although the project has some negative impacts, in all cases these adverse impacts are the result of actions taken to preserve and restore other park resources and values. Overall, the project results in benefits to park resources and values, opportunities for their enjoyment, and it does not result in their impairment.

PUBLIC INVOLVMENT

The public scoping process for the Teton Science School Rehabilitation and Improvement of Infrastructure EA began in April 2003, with the NPS seeking public comment on issues, alternatives, concerns and other considerations regarding the proposal. Both a news release and a scoping notice describing the proposed action were issued on April 24, 2003 and mailed to approximately 150 parties. The American Indian tribes traditionally associated with the lands of Grand Teton National Park were apprised of the proposed action on May 1, 2003. The *Jackson Hole Daily* published articles on the proposal on April 30 and May 7, 2003. Comments were accepted through May 27, 2003, and a total of 19 comments were received. During the scoping period, several local and state agencies and members of the public expressed concern about the adverse effect of relocating the Hunter Hereford Barn. The NPS decided that more time was needed to adequately address public comment and consider the adverse effect of relocating the Hunter Hereford Barn through further consultation with the SHPO.

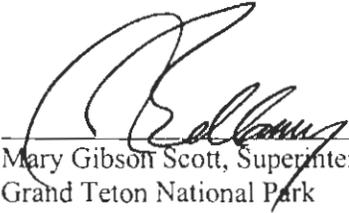
The environmental assessment was made available for public review and comment during a 30-day period ending on August 2, 2004. Approximately 170 copies of the EA were mailed to government agencies, private organizations, and individuals identified during the scoping and planning processes. The *Jackson Hole News & Guide* published an article about the project on July 17, 2004. The document was also posted on the Internet at the government Web site (www.nps.gov/grte/plans/planning.htm), and copies were available in the Moose Visitor Center and the Teton County Library. A press release was issued to local media. The park received a total of 47 responses from government agencies, private organizations and individuals. This total includes 3 letters from agencies (USFWS, SHPO, WGFD), 7 letters from organizations, and 37 from individuals.

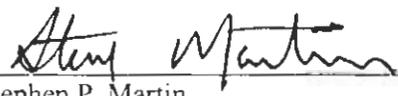
Substantive comments to the EA centered primarily on the future of the Hunter Hereford Ranch Historic District, including the barn, in relation to each alternative, including historic status and adaptive use of the barn; parameters on Teton Science School campus expansion and housing their employees; wildlife impacts; and cumulative impacts. Although these comments did not require a change in the text of the EA, there is one change required to the text of the environmental assessment, which is addressed in the errata sheets attached to this FONSI along with responses to comments. The FONSI and errata sheets will be sent to all commentors.

CONCLUSION

The preferred alternative does not constitute an action that normally requires preparation of an environmental impact statement (EIS). The preferred alternative will not have a significant effect on the human environment. Negative environmental impacts that could occur are negligible to minor in intensity. There are no significant impacts on public health or safety, threatened or endangered species, sites or districts listed on or eligible for listing on the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

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

Recommended:  _____ 11/15/04
~~for~~ Mary Gibson Scott, Superintendent Date
Grand Teton National Park

Approved:  _____ 11/17/04
Stephen P. Martin Date
Director, Intermountain Region
National Park Service

Errata Sheets
Teton Science School Rehabilitation and Improvement of Infrastructure EA
Grand Teton National Park

Substantive comments on the Teton Science School Rehabilitation and Improvement of Infrastructure Environmental Assessment (EA) focused on the following topics: the future of the Hunter Hereford Ranch Historic District, including the barn, in relation to each alternative, including historic status and adaptive use of the barn; parameters on Teton Science School campus expansion and housing their employees; wildlife impacts; and cumulative impacts. Although there were relatively few substantive comments identified, the **Response to Comments** section addresses comments received that warranted clarification or explanation. Although these comments did not require a change in the text of the EA, there is one change listed in the **Changes in the Environmental Assessment Text** section below. The combination of the EA and the errata sheets form the complete and final record on which the FONSI is based.

CHANGES IN THE ENVIRONMENTAL ASSESSMENT TEXT

1. Page 20, second paragraph, end of second sentence: Replace "*Alternative 4*" with "*Alternative 3.*"

RESPONSE TO COMMENTS

Nearly every comment either supported or was silent about the rehabilitation and improvement of the existing water system at the Teton Science School. Of the 22 comments that supported Alternative 3, the Relocation of the Hunter Hereford Barn, 75% stated it was due to future deterioration of the buildings at the Hunter Hereford Ranch and/or the National Park Service (NPS) budget constraints and the National Park Service's inability to maintain/restore the barn in its current location. The relocation of the Hunter Hereford Barn to the Kelly Campus would most likely have an unmitigatable, adverse effect on the Hunter Hereford Ranch Historic District leading to the loss of its historic status. Grand Teton National Park management feels this action is not appropriate when other options are available. Park management will continue to explore adaptive use opportunities and pursue additional repair/rehabilitation funding to achieve stabilization goals. Meanwhile, the NPS will continue to pursue volunteers to do stabilization work on the buildings in the historic district.

The future of the Hunter Hereford Ranch Historic District, including the barn, in relation to each alternative

Comment 1: The Environmental Assessment should include alternative uses for the Hunter Hereford Ranch and Barn.

Response 1: Clarification of this is very important, as the topic of this Environmental Assessment (EA) is the rehabilitation and infrastructure improvement at the Teton Science School Kelly Campus, which includes additional housing and office space. The Hunter Hereford Ranch is only a topic of this EA if Alternative 3, the Relocation of the Hunter Hereford Barn to the Kelly Campus, was chosen. Any other activity at the Hunter Hereford Ranch unrelated to the Teton Science School will be addressed in future NEPA analysis and Section 106 compliance.

Comment 2: With the 1991 relocation of two Hunter Hereford Ranch cabins and the relocation of the Hunter Hereford Residence to the Kelly Campus, it was the Teton Science School's belief that GTNP was allowing the Hunter Hereford Ranch to return to a more natural state.

Response 2: These buildings were relocated within the park under previous management. Subsequently, in 1998, the Hunter Hereford Ranch was listed on the National Register of Historic Places as a historic district. This precludes further action at the Hunter Hereford Ranch without National Historic Preservation Act (NHPA) and NEPA compliance. Now that this area is a listed historic district, it would not fulfill the goals or Congressional intent of the NHPA to allow the area to return to a “natural state.”

Comment 3: Relocation of the Hunter Hereford Barn would be in violation of the National Park Service Organic Act, National Historic Preservation Act of 1966, and Grand Teton’s *Management Plan for Buildings on the National Register of Historic Places* (2000).

Response 3: Although the alternative including the relocation of the Hunter Hereford Barn was not selected, it is important to the NPS that clarification is provided so that the public understands NPS policy and federal law as it applies to Grand Teton National Park’s historic properties.

National Park Service Organic Act

The National Park Service Organic Act of 1916 directs the National Park Service to preserve cultural and natural resources, but does not provide guidance on how preservation of these properties shall take place. Other laws and policy give NPS management discretion to allow impacts to park resources and values when necessary and appropriate, to fulfill the purposes of a park. Section 1.4 (5) (6) of *NPS Management Policies 2001* further defines the mission/policy of the NPS and provides some general guidance on preservation. It requires analysis of potential effects of the actions to determine whether or not the actions would impair park resources. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would prevent the enjoyment of those resources or values. An impact would be more likely to constitute impairment if 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 as a goal in the park’s general management plan or other relevant NPS planning documents.

However, as stated in *NPS Management Policies 2001*, NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts on park resources and values.

National Historic Preservation Act

Recognizing the need for preservation of historic structures, in 1966 Congress signed the National Historic Preservation Act (NHPA). In NHPA §2(3), Congress appointed the Secretary of the Interior to manage historic properties on federal lands in partnership with state and local governments, Indian tribes, and private organizations and individuals.

Delegation is further defined in § 101(b)(3)(E): “It shall be the responsibility of the State Historic Preservation Officer to administer the State Historic Preservation Program and to advise and assist, as appropriate, federal and state agencies and local governments in carrying out their historic preservation responsibilities.”

Therefore, moving the Hunter Hereford Barn from the Hunter Hereford Ranch Historic District would not be a violation of the NHPA provided there is consultation with the Wyoming State Historic Preservation Office (SHPO), and the SHPO and NPS enter into a Memorandum of Agreement (MOA) to mitigate the adverse effect to the cultural resource. If the NPS and SHPO are unable to agree on the terms of the

MOA, the project then goes to the Advisory Council on Historic Preservation for review. This would most likely necessitate the preparation of an Environmental Impact Statement (EIS) prior to making the decision whether to relocate the barn.

Management Plan for Buildings on the National Register of Historic Places

This document was created in 2000 resulting from a GTNP inventory of historic structures located within the park and consultation with the public. Each structure is assigned a “historic theme” and ranked to assist management in the decision-making process on how best to preserve and protect historic structures in the park. It states on page 5, “it is important to stress that the ranked lists were used only as guidance and not as a mathematical tool to preserve or eliminate historic sites.” Current management takes preservation of historic structures seriously regardless of their historic themes and ranking and will address this topic further in the General Management Plan Process beginning FY2006.

Comment 4: Removal of the barn from its original setting may constitute an adverse effect to the historical properties under NHPA. Nonetheless, reuniting the barn with the main lodge on TSS property mitigates this impact.

Response 4: It is true that removal of the barn from its original setting is an adverse effect to the historical properties (the barn) under the NHPA which could be mitigated through an MOA with SHPO. This MOA would have been difficult to draft due to the modifications of the barn away from its intended purpose. However, removal of the barn from the Hunter Hereford Ranch Historic District would result in an adverse effect to the historic district that would *not* be mitigatable and the historic district’s NHPA status would be lost.

Comment 5: Relocation of the Hunter Hereford Barn contradicts the National Park Service’s mission statement: *The National Park Service preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education and inspiration of this and future generations.*

Response 5: The mission statement continues: *The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout the country.* The NPS has the difficult job of balancing the management of natural and cultural resources. Often the NPS cooperates with partners to help fulfill this mission. It is in the best interest of GTNP to assist the Teton Science School as they are fulfilling an important role of providing environmental education regarding the park and the Greater Yellowstone Ecosystem.

Comment 6: Why was the adaptive reuse of the Hunter Hereford Barn by the Teton Science School in its current location dismissed?

Response 6: Adaptive use of the Hunter Hereford Barn by the Teton Science School *in situ* was dismissed because it was not operationally feasible due to the distance of the barn from the main campus. Furthermore, as discussed on page 23 of the EA, this alternative would result in an unacceptable level of human use of the corridor between sites leading to natural resource impacts such as the development of social trails, habitat fragmentation, and vegetation damage.

Comment 7: It is not cost effective to move the Hunter Hereford Barn for adaptive use, versus constructing a new building on the Teton Science School Kelly Campus.

Response 7: As stated in the Environmental Assessment, the Teton Science School estimates the cost of moving the Hunter Hereford Barn to the Kelly Campus to be approximately \$1.6 million (p. 15) and \$1.9 – 2.4 million to build a new structure on the campus (p. 20). Although all costs would be incurred by the

Teton Science School, as partners the park is obligated to take cost into consideration during the decision-making process.

Comment 8: Relocate the Hunter Hereford Barn to White Grass Ranch.

Response 8: Relocation and adaptive use of the Hunter Hereford Barn by the National Park Service or another park partner at White Grass Ranch would not meet the purpose and need of this EA. Because the analysis of Alternative 3 found that moving the barn would likely pose an unmitigatable adverse effect to the Hunter Hereford Ranch Historic District, this action would likely not be considered in the future.

Comment 9: Locate the Hunter Hereford Barn at the entrance of Teton Science School in the impacted area adjacent to the parking lot of Kelly Campus.

Response 9: Early internal scoping dismissed the impacted area adjacent to the parking lot because of traffic flow issues, as well as view shed concerns from the National Register listed Main Lodge. Locating the barn adjacent to the parking lot would have an adverse effect on the view shed from the Main Lodge because currently there are no buildings on the west side of the Main Lodge. The Dining Hall's view shed would also be affected.

Parameters on Teton Science School campus expansion

Comment 10: Are there parameters on Teton Science School campus expansion and if necessary, can Teton Science School house their employees outside the park?

Response 10: The overall scope and size of operations as the TSS Kelly Campus, including future decisions regarding potential expansion, is outside the scope of this EA and FONSI. However, there is a Cooperative Agreement between the National Park Service and Teton Science School in draft which will address the long-term vision for the Teton Science School's Kelly campus.

In response to TSS staff being housed outside the park, approximately 25% of their staff live in Jackson, Kelly, or Wilson and commute daily to the Kelly Campus. Because the cost of obtaining adequate housing outside the park can be prohibitive for many people, the ability of the TSS to attract and retain high quality staff is improved by being able to provide housing at the Kelly Campus. Nonetheless, the housing provided in the preferred alternative will offer lodging to only a small portion of the faculty or staff; it will primarily house children (specifically fifth graders) who spend four nights at the Kelly Campus as part of their science class.

Wildlife

Comment 11: What scientific studies led to the determination that "Wildlife would experience short- and long-term, minor adverse impacts on site specific level due to the effects of dispersed human use on wildlife causing displacement, which can lead to animals spending more time in less preferable habitat."

Response 11: Grand Teton National Park's wildlife biologists compiled data and observations from the project area that was included in the EA. Their professional judgment, as well as the concurrence from the Wyoming Game and Fish Department (WGFD) and the U.S. Fish and Wildlife Service (USFWS) found minor impacts to wildlife. As stated in the EA, minor impacts to wildlife are described as "detectable, although the effects would be localized, and would be small and of little consequence to the species' population. Mitigation measures, if needed to offset adverse effects, would be simple and successful." The reference section of the EA lists additional scientific documents regarding wildlife.

Comment 12: The EA did not address ungulates. Please address effects on moose, mule deer, and elk.

Response 12: The wildlife section in the EA does address ungulates on several occasions, including a primary reason why the adaptive use of the Hunter Hereford Barn *in situ* was dismissed (p. 23). Additionally, in the conclusion of the Wildlife, Including Threatened and Endangered Species section (p. 50) the EA states, "None of the alternatives pose significant, adverse, direct or indirect impacts to threatened and endangered species, migratory bird species of management concern in Wyoming, or other general species of wildlife." Wyoming Game and Fish Department and the U.S. Fish and Wildlife Service concur with these findings.

Cumulative Effects

Comment 13: The EA narrowly focuses on the Hunter Hereford Barn and ignores the structures in the Hunter Hereford Ranch Historic District, as well as other historic structures in the East Antelope Flats area, ignoring comprehensive planning and cumulative impacts.

Response 13: In the cumulative effects section of Historic Structures and Cultural Landscape of this EA, it states, "The structures at the Hunter Hereford Ranch Historic District would eventually receive stabilization work, but not as part of this EA. Because stabilization work will occur in the future, these impacts affect the cumulative effects analysis. Stabilization work would include installing a waterproof membrane on the roofs, boarding up the windows, and securing the exterior doors. This work would slow down the deterioration of historic materials on the buildings. The historic hay field would also be preserved in consultation with the park's vegetation specialists."

As stated in Response 1, the Hunter Hereford Ranch Historic District would only be a topic of this EA if Alternative 3, the Relocation of the Hunter Hereford Barn to the Kelly Campus, was chosen. Any other activity at the Hunter Hereford Ranch Historic District unrelated to the Teton Science School will be addressed in future NEPA analysis and Section 106 compliance.

Comment 14: GRTE should consider the cumulative effects of these existing and potential projects and others within the park, such as Lucas/Fabian, White Grass Ranch, and Spring Gulch, on wildlife and other natural resources in the park. Another comment suggested the Smith-Talbot/Aspen Ridge Ranch, a neighboring hobby ranch, should have been covered in the EA's Cumulative Effects analysis.

Response 14: The cumulative effects of the Lucas/Fabian, White Grass Ranch, and Spring Gulch projects were not addressed because they are not within the project area or the environmental cumulative effects range; therefore, they are not within the scope of this EA. There are currently no plans, other than stabilization work, for the Smith-Talbot/Aspen Ridge Ranch, therefore it was not considered in the analysis.