

National Park Service
U.S. Department of the Interior

Glacier National Park
Waterton-Glacier International Peace Park
Montana



HEAVENS PEAK FIRE LOOKOUT STABILIZATION PROJECT FINDING OF NO SIGNIFICANT IMPACT

Background

In compliance with the National Environmental Policy Act, the National Park Service (NPS) prepared an environmental assessment (EA) to examine alternatives and environmental impacts for stabilization of the Heavens Peak Fire Lookout.

Heavens Peak Fire Lookout was constructed in 1945 during World War II by conscientious objectors from the "historic peace churches" during their residency at a Civilian Public Service camp hosted by Glacier National Park. The Glacier Civilian Public Service camp housed over 550 men during the four years of its operation. In his book entitled, *Rather than War: The Story of Civilian Public Service Camp #55, Belton, Montana*, Dave Walter described the Civilian Public Service camp as a means for conscientious objectors to perform work of national significance and "contribute to the welfare of the nation without bearing arms against another human being." Glacier Camp #55 was one of about nine Civilian Public Service camps serving national parks nationwide. Shenandoah National Park is the only other identified park where the Civilian Public Service constructed fire lookouts. Neither of the Shenandoah lookouts is still standing, and the Heavens Peak Fire Lookout appears to be one of two remaining buildings known to have been constructed by the Civilian Public Service on NPS lands.

The list of the camp's contributions to the park is long and includes firefighting, trail maintenance, and organizing and cataloging the park's library/archives holdings. But the most enduring legacy of the Civilian Public Service in Glacier National Park is Heavens Peak Fire Lookout. Significant for its association with the Civilian Public Service, the lookout was listed in the National Register of Historic Places in 1986.

Heavens Peak Lookout is located in the park's backcountry zone within recommended wilderness and is a cultural resource that contributes historical value to the unique character of the Heavens Peak wilderness setting. Built on the rugged north shoulder of Heavens Peak, the lookout embodies the NPS rustic design philosophy of buildings that are harmonious with the landscape. Unlike other lookouts in the park, the Heavens Peak Lookout was built into the existing rock. Albert H. Good, editor of the National Park Service's 1938 classic volume entitled *Park and Recreation Structures*, was the architect for the structure. Good's design for Heavens Peak put into practice his suggestion to use native rock for lookouts on prominent points, "especially if, when located on a rocky summit, the structure is blended to it and made to appear to grow out of it."

The lookout was in operation from 1945 through the 1953 fire season when, along with the Mount Reynolds and Bear Mountain lookouts, it was abandoned in favor of aerial detection. No

longer in service, the lookout now stands as testimony to a difficult period in the history of the park and the nation. While the trail to the lookout is no longer maintained and has largely disappeared, a few park visitors, including descendants of some of the original Civilian Public Service crew members, occasionally visit the site.

The Heavens Peak Lookout is in critical need of stabilization if it is to be preserved and remain part of Glacier National Park's wilderness and cultural heritage. The original historic fabric and structural integrity of the lookout is being lost through lack of maintenance and harsh weather conditions; the deteriorating roof, floor, missing shutters, missing window glazing, and lack of paint threaten its long-term survival. Upon implementation, this project will structurally stabilize the Heavens Peak Fire Lookout, thus preserving a historically and architecturally important structure that represents a distinct period in the history of the park.

Selection of the Preferred Alternative

Two alternatives were considered in the EA including Alternative A (no action) and Alternative B (action). Alternative B is the National Park Service's preferred alternative because it best meets project objectives to:

- Preserve a cultural resource that represents the Civilian Public Service's contribution to the park, is an example of NPS rustic architecture, and is listed in the National Register of Historic Places.
- Preserve a cultural resource that imparts historical value to the park's recommended wilderness, contributes to the unique character of the Heavens Peak wilderness setting, and was contained within park lands recommended for wilderness at the time of the wilderness hearings.
- Meet the intent of historic preservation legislation and the Wilderness Act through recognition of the NPS's statutory responsibilities to preserve both wilderness and cultural resources.
- Conduct work in such a way that impacts to recommended wilderness are minimized.

Alternative B will structurally stabilize the lookout and will be limited to repairs necessary to keep the lookout standing. Stabilization will include repairs to the roof and floor; repair or replacement of shutters, doors, and window units; limited repair of masonry; and the repainting of exterior and some interior wood surfaces. Several components, including shutters and flooring materials, will be pre-fabricated off-site at park headquarters in West Glacier. A small gas-powered Honda 2000 generator, small power tools, and battery operated hand tools will be used onsite during the project. Work will be in conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Onsite stabilization is expected to take approximately 39 days and will occur from late July or early August until early or mid-September. Work crews will camp at the original work campsite at the saddle (6000 ft. elevation) north of the lookout between Heavens Peak and Longfellow Peak. Crews will hike to the project area beginning at Packer's Roost, following the Flattop Mountain Trail and the old McDonald Creek Trail before crossing McDonald Creek and taking approximately the same route to the lookout as the original trail.

Up to twelve helicopter flights, with both small and medium sized helicopters, will be used to deliver project equipment and materials to the work site and to remove debris. Flights will occur on at least four and possibly five days over the duration of the project. There will be one flight on day 1, five flights on day 7, one and possibly two flights from days 22 to 26, and four flights on day 39. Flight times are not anticipated to exceed 15 minutes round trip; most round trip flights

will likely take from 10 to 12 minutes. The helicopter will fly 2,000 feet above ground level (AGL) from West Glacier to the staging area along upper McDonald Creek and Going-to-the-Sun Road (GTSR). Equipment and material sling load flights will originate at the staging area and fly northeast along the upper McDonald drainage before turning west to the work site. The helicopter will fly between 500 feet and 2,000 feet AGL during long line operations, except when landing or taking off. No landings at the lookout or campsite are planned or will be required, except in the event of an actual emergency. Logan Pit along upper McDonald Creek and the GTSR will be the preferred location for helicopter staging operations. If Logan Pit is not available due to GTSR rehabilitation activity, the helicopters will stage from Red Rock Point. Emergency helispots will be selected and marked near the lookout and the campsite in case an emergency evacuation is necessary.

The Glacier National Park Fund, a park partner, will fund the stabilization from donations. The project will be one of the Fund's legacy projects in honor of the park's Centennial, and the work will be accomplished with the assistance of volunteers and donated materials.

MITIGATION MEASURES

The following mitigation measures were developed to minimize the degree and/or severity of adverse effects and will be implemented as needed:

Archeological Resources

- An archeological survey will be conducted at the work camp location to ensure prehistoric and/or historic artifacts are not disturbed.

Historic Structures

- The stabilization work will be in conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Recommended Wilderness

- A low-rider toilet kit will be flown to the work campsite and removed at the end of the project. At the lookout site, a self-contained toilet (such as that used on river rafting trips) may be used; the contents would be carried out and deposited into the work camp toilet. Alternatively, a second low-rider toilet kit may be flown to the lookout site and placed within a drum; no digging will occur and the toilet will be removed at the end of the project.
- Several building components, including shutters and flooring materials, will be prefabricated off-site to reduce onsite noise impacts, limit onsite personnel, and minimize project time.
- Non-electric hand tools will be used as much as possible to reduce artificial noise.
- The generator will be kept inside the propane storage annex during use to reduce noise impacts.
- Construction debris and equipment and garbage will be flown out on back-hauls of incoming flights and after project completion.
- Flights will be combined with other projects in order to minimize administrative flights over recommended wilderness as much as possible.
- All flagging and cairns used to mark the access route to the work camp and lookout will be removed or dismantled at the end of the project.

Wildlife, Threatened and Endangered Species, and Species of Concern

- A bear-proof, lockable food storage container will be flown to the campsite.
- Perishable food items will be carried by volunteers.
- A low voltage, solar powered electric fence will be placed around the camp perimeter.
- Volunteers will be trained on appropriate behavior in the presence of wildlife and on proper storage of food, garbage and other attractants.
- The helicopter flight path will skirt the west flank of upper McDonald Creek whenever possible, thus minimizing time spent directly above the creek where harlequin ducks could be resting or foraging.
- Helicopter flights will maintain a distance of 2.0 km (1.2 miles) from mountain goats, if possible.
- Helicopters will follow suggested flight paths away from sensitive areas.
- The helicopters will fly at a minimum of 500 feet AGL except when landing or taking off or when delivering supplies on a long-line.
- Flight paths will be designated so as to avoid open alpine meadows where grizzly bears that are present do not have access to cover. If a low level flight or landing is needed in an alpine area and a bear is seen, the flight may be postponed depending on the judgment of the flight manager. The flight manager will have wildlife expertise or will consult with a park biologist.
- Helicopter flights will take place between 10 a.m. and 12 p.m., if possible, to minimize disruption to wildlife.
- Golden eagle nest searches will be conducted on cliff faces within the helicopter flight path to determine if there are any as yet unidentified active nests in the area.
- Helicopters in the vicinity of an active eagle nest will follow a flight path that allows the aircraft to be visible to nesting eagles, if possible.
- During helicopter flights, natural resources staff will monitor wildlife, including harlequin ducks and nesting golden eagles, for observable signs of disturbance.
- If female harlequin ducks with broods are observed near the helispot, helicopter flights will be temporarily postponed until the ducks have left the immediate vicinity, depending on the judgment of the flight manager. The flight manager have wildlife expertise or will consult with a park biologist.
- Surveys for rare plants will be conducted at the start of the project; if rare plants are discovered within the project area, they will be avoided.

Visitor Use and Experience

- During helicopter staging operations, traffic control crews will be available if necessary, depending on the location of the helispot. Traffic stops will be as brief as possible (5-10 minute stops are anticipated, subject to changing conditions). One lane of traffic will likely be kept open during the operation, with the possible exception of the fueling stop.

Vegetation

- Glacier National Park's Best Management Practices will be implemented to minimize the extent of impacts.
 - Disturbance to vegetation will be avoided as much as possible and contained to as small a footprint as possible while meeting project objectives.
- Vegetated material removed to accommodate the temporary low-rider toilet at the work camp will be stored in a shaded, protected site and watered periodically. Once the toilet

is removed, the vegetation will be replaced and the edges of the disturbance will be seeded with ripe native seed collected onsite.

- A vegetation inventory will be completed at the start of the project. If restoration is necessary following project completion, native species from the site will be utilized for revegetation seeding and planting efforts. Plant species density, abundance, and diversity will be restored as nearly as possible to prior conditions for non-woody species.
- If non-native invasive plants invade an area, an integrated weed management process will be implemented to control the particular species.

Soils

- Glacier National Park's Best Management Practices will be implemented to minimize the extent of impacts.
 - Disturbance to the ground will be avoided as much as possible and contained to as small a footprint as possible while meeting project objectives.
- Soils excavated to accommodate the temporary low-rider toilet at the work camp will be set aside and replaced when the toilet is removed. Salvaged soils will be protected from trampling, and topsoil will be stored separately from subexcavated materials. Once the toilet is dismantled, the hole will be backfilled with the salvaged soil; subexcavated materials will be replaced first, topsoil will be replaced last, and the hole will be overfilled slightly to ensure that it does not settle and form a depression. Vegetation will be replaced and the edges of the disturbance will be seeded with native seed collected onsite.
- Erosion control measures that provide for soil stability and prevent movement of soils into waterways will be implemented.
- Bare soils will be replanted with native vegetation to prevent erosion.

Natural Soundscape

- Several structural components, including shutters and flooring materials, will be pre-cut and assembled off site to minimize noise from onsite cutting and sawing.
- Non-electric hand tools will be used as much as possible to reduce artificial noise.
- The generator will be kept inside the propane storage annex during use to reduce noise impacts.
- Administrative flights will be coordinated with other projects to minimize cumulative helicopter noise. Whenever possible, hauling needs for other projects will be combined with flights for the Heavens Peak lookout project.

ALTERNATIVES CONSIDERED

The EA evaluated two alternatives: No Action and the Preferred. Under the no action alternative, there would be no change to current conditions at Heavens Peak Fire Lookout, and no action would be taken to prevent further deterioration and eventual loss of the building. Alternative B, stabilization of the lookout, is the preferred alternative, as described in the previous section. Four alternatives, including alternative ways to accomplish the project, were considered but dismissed.

Environmentally Preferred Alternative

Alternative B is the environmentally preferred alternative. The environmentally preferred alternative is determined by the six criteria suggested in §101 of the National Environmental Policy Act. 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 generations 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 that 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 B is the environmentally preferred alternative because it best addresses five of the six criteria. Alternative B best addresses criteria 1-5; criterion 6 is not applicable to this project. Alternative B best meets the NPS trustee role as a steward of Glacier National Park's cultural resources and recommended wilderness, and will preserve an important aspect of our national heritage for future generations by maintaining the historical and architectural integrity of a building that contributes to the park's wilderness setting, was contained within park lands originally recommended for wilderness, and is listed in the National Register of Historic Places. Because Alternative B meets the purpose and need for the project, the project objectives, and is the environmentally preferred alternative, Alternative B is recommended as the preferred alternative.

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 action alternative will structurally stabilize the Heavens Peak Fire Lookout and have a moderate beneficial, long-term, and site-specific impact to historic structures. There will be negligible, long-term, site-specific and local adverse impacts to the undeveloped appearance of the wilderness landscape from the continued presence of a structure; minor, beneficial, long-term and site-specific impacts to the immediate wilderness setting from the removal of man-made trash that has accumulated from the building's deterioration; and long-term, beneficial, minor to moderate, site-specific to widespread impacts from the preservation of a cultural resource that contributes historical value to the park's recommended wilderness. There will be short-term, site-specific and local, minor to moderate adverse impacts to recommended wilderness from temporary noise and construction activity during implementation.

Impacts to wildlife as a result of this stabilization project will be negligible to minor, adverse, short-term, site-specific and local due to disturbances from helicopter supply flights and human activity. Short-term, site-specific and possibly local adverse impacts may occur to grizzly bears, Canada lynx, gray wolves, and wolverines from disturbances caused by helicopters and construction activity. Impacts to grizzlies and lynx will be negligible to minor; impacts to wolves and wolverines will be negligible. Under Section 7 of the Endangered Species Act, the determination for grizzly bears and Canada lynx is "may affect, not likely to adversely affect"; the determination for gray wolves is "no effect". Harlequin ducks may be adversely impacted by helicopter staging operations along upper McDonald Creek. Impacts will be short-term, site-specific, local, and possibly long-term and regional if reproductive success is reduced; they will be minor to moderate if the helispot is located at Logan Pit and moderate if the helispot is at Red Rock Point. Minor to moderate adverse, short-term, site-specific and local impacts to natural soundscapes will occur, primarily from helicopter noise.

Degree of effect on public health or safety: Stabilization of the lookout will improve the structural soundness of the building, minimize hazards that might be encountered by visitors, and have negligible to minor benefits to human safety.

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 Heavens Peak Fire Lookout is a historically and architecturally significant cultural resource that is listed in the National Register of Historic Places. The project area is within recommended wilderness in an ecologically important area that contains habitat for federally and state listed species (grizzly bear, Canada lynx, gray wolf, wolverine, and harlequin duck). No wetlands, floodplains, prime farmlands, or wild and scenic rivers will be affected by the project.

Degree to which effects on the quality of the human environment are likely to be highly controversial: While the majority of comments received during public review of the EA were opposed to the project, stabilizing Heavens Peak Lookout is not a major federal action, will not result in significant impacts and does not require an EIS.

A small number of comments disagreed with the level of impact determined in the EA, but these concerns have been addressed in the FONSI. Minor text changes were made but these have not changed the overall decision nor changed the impact determinations as stated in the EA.

The majority of the commenters were opposed to the project based on their opinion that it was incompatible with the Wilderness Act and in some cases NPS policy, and therefore not legally permissible. A couple of commenters, however, argued that since it was recommended wilderness, the Wilderness Act did not apply. The NPS disagrees with the opinion that the Wilderness Act does not permit this project for the reasons stated on page 22 of the EA.

The purpose of an EA is to determine the level of impact. Disagreement with this project is primarily focused on whether the NPS can legally proceed with the project and less so on the level of impact. Therefore, while there are dissenting opinions, it is not sufficient to require an EIS.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks: The environmental process has not identified any effects that are highly uncertain or may involve unique or unknown risks.

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 preferred alternative does not set a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration. The NPS regularly maintains historic structures in remote locations in national park areas. Furthermore, future work, depending on the nature of it, will be subject to new NEPA compliance. It is too speculative at this time to evaluate the impacts of future maintenance.

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 environmental assessment and no significant cumulative impacts were identified.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources: The Heavens Peak Fire Lookout is a significant historical and architectural resource and is listed in the National Register of Historic Places. The action alternative will structurally stabilize the lookout and have a moderate beneficial, long-term, and site-specific impact to historic structures. On November 10, 2010 the Montana State Historic Preservation Office concurred with the park's finding of no adverse effect for the preferred alternative.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat: Short-term, site-specific and possibly local adverse impacts may occur to grizzly bears, Canada lynx, and gray wolves from disturbances caused by helicopters and construction activity. Impacts to grizzlies and lynx will be negligible to minor; impacts to wolves will be negligible. Under Section 7 of the Endangered Species Act, the determination for grizzly bears and Canada lynx is "may affect, not likely to adversely affect"; the determination for gray wolves is "no effect". On May 27, 2010 the USFWS concurred with the park's determination that the project *may affect but is not likely to adversely affect* Canada lynx or grizzly bears.

Whether the action threatens a violation of Federal, state or local environmental protection law: The action will not violate any federal, state, or local laws or environmental protection laws.

IMPAIRMENT

National Park Service's *Management Policies* 2006 require analysis of potential effects to determine whether or not actions would impair park resources (NPS 2006). The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, 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, actions that would adversely affect 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 parks, 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, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of these resources or values. An impact to any park resource or value may, but does not necessarily, constitute impairment, but an impact would be more likely to constitute impairment when there is a major or severe adverse effect upon 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 would 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 findings are not necessary for visitor use and experience, socioeconomic, public health and safety, environmental justice, land use, and park operations, because impairment findings relate back to park resources and values, and these impact areas are not generally considered park resources or values according to the Organic Act, 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 historic structures, recommended wilderness, wildlife, threatened and endangered species and species of concern, and natural soundscapes.

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 would have major (or significant) effects. The following analysis evaluates whether or not the applicable resources carried forward in this document would be impaired by the preferred alternative.

Fundamental resources and values for Glacier National Park are identified in the General Management Plan as derived from the park's enabling legislation. All of the impact topics carried forward in this environmental assessment, including historic structures, recommended wilderness, wildlife, threatened and endangered species and species of concern, and natural soundscapes are considered necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; are key to the natural or cultural integrity of the park; and/or are identified as a goal in the park's General Management Plan.

- **Historic Structures.** Glacier National Park was established to protect natural and cultural resources, and the park's historic structures chronicle the long, diverse, and significant history of human activities. This project involves the stabilization of Heavens Peak Fire Lookout, which is a building listed in the National Register of Historic Places. Using the above criteria, historic structures are necessary to fulfill the purposes for which the park was established; are key to the natural integrity of the park and opportunity for enjoyment of the park; and are identified as being significant in park planning documents. Although historic structures are a significant resource at the park, the preferred alternative will result in moderate, long-term, site-specific, beneficial impacts to historic structures; therefore, there will be no impairment to historic structures.
- **Recommended Wilderness.** Glacier National Park was established to protect natural and cultural resources. The park's areas of recommended wilderness are key repositories of ecological and geological processes; provide essential habitat for the park's native flora and fauna; offer opportunities for solitude and recreation; and contain cultural resources, including archeological sites, historic structures, and ethnographic features, that contribute to the wilderness landscape. This project will result in the continued presence of a historic structure within recommended wilderness and will cause temporary disturbances to the wilderness setting of Heavens Peak due to human activity and noise from helicopters, a generator, power tools, and electronic and battery operated hand tools. Using the above criteria, Glacier National Park's primitive wilderness landscape is necessary to fulfill the purposes for which the park was established; is key to the natural integrity of the park and opportunity for enjoyment of the park; and is identified as being significant in park planning documents. Although recommended wilderness is a significant resource at the park, the preferred alternative will result in negligible to moderate, adverse and beneficial, short and long-term, site-specific to widespread impacts to recommended wilderness; therefore, there will be no impairment to recommended wilderness.
- **Wildlife.** Glacier National Park was established to protect natural and cultural resources and the park's wildlife contribute to GNP's significance as one of the most ecologically intact areas in the temperate regions of the world. This project will cause temporary disturbance to wildlife during helicopter flights and human activity at the lookout and work camp site. Using the above criteria, wildlife are necessary to fulfill the purposes for which the park was established; are key to the natural integrity of the park and to the opportunity for enjoyment of the park; and are identified as being significant in park

planning documents. Although wildlife is a significant resource at the park, the preferred alternative will only result in negligible to minor adverse, short-term, site-specific and local impacts to wildlife; therefore, there will be no impairment to wildlife.

- **Threatened and Endangered and Species of Concern.** Glacier National Park was established to protect natural and cultural resources. The park's threatened and endangered species and species of concern contribute to GNP's significance as one of the most ecologically intact areas in the temperate regions of the world. This project will temporarily disturb threatened and endangered species and species of concern during helicopter flights and human activity at the lookout and work camp site. Using the above criteria, threatened and endangered species and species of concern conservation are key to the natural integrity of the park and the larger region and to the opportunity for enjoyment of the park; and are identified as being significant in park planning documents. Although threatened and endangered species and species of concern are a significant resource at the park, the preferred alternative will only result in negligible to moderate, short-term, site-specific, local, and possibly long-term and regional adverse impacts to threatened and endangered species and species of concern; therefore, there will be no impairment to threatened and endangered species and species of concern.
- **Natural Soundscape.** Glacier National Park was established to protect natural and cultural resources. The park's natural soundscapes have intrinsic value as part of the unique environment of GNP. Artificial noise from this project will cause temporary disturbances to the natural soundscape within the backcountry or wilderness surrounding Heavens Peak, and to the visitor services zone in the GTSR corridor. Using the above criteria, natural soundscapes are necessary to fulfill the purposes for which the park was established; are key to the natural integrity of the park and to the opportunity for enjoyment of the park; and are identified as being significant in park planning documents. Although natural soundscapes are a significant resource at the park, the preferred alternative will only result in minor to moderate adverse, short-term, site-specific and local impacts to natural soundscapes; therefore, there will be no impairment to natural soundscapes.

In addition, mitigation measures for these resources will further lessen the degree of impact to and help promote the protection of these resources. For historic structures, the stabilization work will be in conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. For recommended wilderness and natural soundscapes, several structural components will be pre-cut and assembled off site, non-electric hand tools will be used as much as possible, the generator will be kept inside the propane storage annex during use, and administrative flights will be coordinated with other projects. Additionally for recommended wilderness, self-contained removable toilets will be used at the work camp and lookout, construction debris and equipment and garbage will be flown out on back-hauls of incoming flights, and all flagging and cairns used to mark the access route to the work camp and lookout will be removed or dismantled at the end of the project. For wildlife and threatened and endangered species and species of concern, food and garbage attractants will be securely stored; a solar powered electric fence will be placed around the perimeter of the work camp; the helicopter flight path will skirt the west flank of upper McDonald Creek and avoid mountain goats, grizzly bears, and sensitive areas if possible; helicopters will fly at a minimum of 500 feet AGL except when landing or taking off or when delivering supplies on a long-line; flights will take place between 10 a.m. and 12 p.m. if possible; golden eagle nest searches will be conducted on cliff faces within the helicopter flight path to determine if there are any as yet unidentified

active nests in the area; helicopters in the vicinity of an active eagle nest will follow a flight path that allows the aircraft to be visible to nesting eagles if possible; natural resources staff will monitor wildlife, including harlequin ducks and nesting golden eagles, during helicopter activity; depending on the judgment of the flight manager, helicopter flights will be temporarily postponed if female harlequin ducks with broods are observed near the helispot; surveys for rare plants will be conducted at the start of the project; and any rare plants discovered within the project area will be avoided.

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 preferred alternative.

PUBLIC INVOLVEMENT

The environmental assessment was made available for public review and comment during a 30-day period ending March 21, 2011. The announcement was also posted on the National Park Service's public comment website. Letters were sent to recipients on the park's EA mailing list and various federal, state, and local agencies, including the U.S. Fish and Wildlife Service (USFWS), Montana Fish, Wildlife and Parks, the Montana State Historic Preservation Officer (MTSHPO), the Advisory Council for Historic Preservation (ACHP), the Blackfeet Tribal Business Council, and the Confederated Salish and Kootenai Tribe.

Two hundred and twenty-six comment letters and two phone calls were received on the plan/EA, and nine comments were generated at a public meeting attended by twenty people. Over half of the comment letters expressed support for the no action alternative, primarily based on the belief that stabilization is not in compliance with the Wilderness Act. Some commenters were supportive of stabilization but opposed to the use of helicopters, a generator, power tools, and battery operated hand tools within recommended wilderness. Other commenters were opposed to the project unless it included restoration of the historic trail. Supporters of the project cited the lookout's historical and architectural significance and its association with the Civilian Public Service, appreciation for the contributions the men of Glacier Camp #55 made to Glacier National Park, and recognition of a unique and poignant episode in the nation's history.

These suggestions and concerns are addressed in the Errata Sheets and Response to Substantive Comments attached to this FONSI.

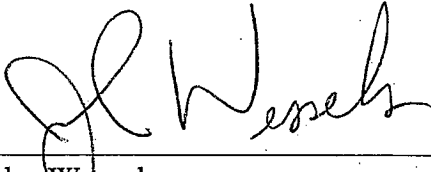
Comments were also received from the US Fish and Wildlife Service; Montana Historical Society; Alberta Tourism, Parks and Recreation; National Trust for Historic Preservation; Montana Preservation Alliance; Swan View Coalition; Wilderness Watch; Back Country Horsemen of the Flathead; and the National Parks Conservation Association; in addition to individual members of the public. Substantive comments and responses are attached. The US Fish and Wildlife Service concurred on May 27, 2010 with the park's Biological Assessment and the "may affect, not likely to adversely affect" determination for grizzly bears and Canada lynx. On November 10, 2010 the Montana State Historic Preservation Office concurred with the park's finding of no adverse effect.

CONCLUSION

As described above, the preferred alternative does not constitute an action meeting the criteria that normally requires preparation of an environmental impact statement (EIS). The preferred alternative will not have a significant effect on the human environment. Environmental impacts that could occur are limited in context and intensity, with adverse and beneficial impacts that range from negligible to moderate, short to long-term, and site-specific to widespread and possibly regional. 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, the National Park Service has determined that an EIS is not required for this project and thus will not be prepared.

Approved:



John Wessels
Regional Director, Intermountain Region

5/18/11

Date

ERRATA SHEETS

HEAVENS PEAK FIRE LOOKOUT STABILIZATION PROJECT

ENVIRONMENTAL ASSESSMENT

GLACIER 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 have resulted in minor 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 required a more thorough response and are addressed in the *Response to Comments* Section.

TEXT CHANGES

Italicized and underlined text indicates the section in the EA that has been corrected or altered. Strikeout is used to show text that has been struck from the EA. Bold text is used to show new text and text that replaces stricken text.

p. ii, Summary. There would be short-term, site-specific and local, minor to moderate adverse impacts to recommended wilderness from temporary noise and construction activity during implementation.; ~~and long-term, negligible to moderate, site-specific and possibly local, adverse impacts from periodic maintenance of the structure.~~ (Note: *this has been stricken from the EA because periodic future maintenance of the structure is beyond the scope of this project and is too speculative at this point in time. Future maintenance will be analyzed when maintenance is proposed, in accordance with NEPA. See also response to Comment 7.*)

p. 5, Purpose and Need, Background. Albert H. Good, editor of the National Park Service's 1938 classic volume entitled *Park Structures and Facilities* ~~Park and Recreation Structures~~ was the architect for the structure.

p. 5, Purpose and Need, Background. The proposed work would be limited to repairs necessary to keep the lookout standing and would include repairs to the roof and floor; ~~reconstruction and repair or rehabilitation~~ of shutters, doors, and window units; limited repair of masonry; and the repainting of exterior and some interior wood surfaces.

p. 10, Impact Topics Dismissed from Further Analysis. **Candidate, Threatened and Endangered Species and Species of Concern.** Meltwater Lednian Stonefly (*Lednia tumana*). The meltwater stonefly was recently listed as a Candidate species with the USFWS and is also a state listed Species of Concern. A specimen was documented in 1962 in the upper reach of a side tributary to upper McDonald Creek, on the east aspect of Heavens Peak. The project area has not been surveyed for meltwater stonefly; while the species could be present at the intermittent stream channel near the work camp, the habitat is not typical. Water for camp purposes would be drawn from stream with buckets or plastic containers, but this would occur from a trail crossing and would not result in any new habitat disturbance. There would be no excavation, stream entry, or other activities that would cause sedimentation of the channel. If the meltwater stonefly is present, any adverse impacts would be negligible. The meltwater stonefly is therefore dismissed from further analysis.

p. 15, Alternatives Considered, Alternative B: Preferred Alternative. On-site stabilization work would occur from late July or early August until early or mid-September and would be

conducted in partnership with volunteers.

p. 16, Alternatives Considered, Alternative B: Preferred Alternative. The project area would include the lookout, the work camp, the remnant trail between the lookout and the work camp, and the access route from Packer's Roost to the work camp.

p. 16, Alternatives Considered, Alternative B: Preferred Alternative. Work crews would hike to the project area, starting from Packer's Roost. The route would follow the Flattop Mountain Trail and the old McDonald Creek Trail before crossing McDonald Creek and following approximately the same route to the lookout as the original trail. No brush or trail clearing would occur.

p. 17, Mitigation Measures, Recommended Wilderness.

- A low-rider toilet kit would be flown to the work campsite and removed at the end of the project. At the lookout site, a self-contained toilet or waste bags such as those used on river rafting trips may be used; the contents would be packed out and deposited into the work camp toilet. Alternatively, a second low-rider toilet kit may be flown to the lookout and placed within a drum; no digging would occur and the toilet would be removed at the end of the project.
- All flagging and cairns used to mark the access route to the work camp and lookout would be removed or dismantled at the end of the project.

p. 17, Mitigation Measures, Wildlife, Threatened and Endangered Species, and Species of Concern.

- Flight paths would be designated so as to avoid open alpine meadows where grizzly bears that are present would not have access to cover. If a low level flight or landing is needed in an alpine area and a bear is seen, the flight may be postponed depending on the judgment of the flight manager. The flight manager would have wildlife expertise or would consult with a park biologist.
- ~~Flights would occur between one hour after sunrise and one hour before sunset to mitigate disturbance to nesting golden eagles.~~
- Helicopter flights would take place between 10 a.m. and 12 p.m., if possible, to minimize disruption to wildlife.
- Golden eagle nest searches would be conducted on cliff faces within the helicopter flight path to determine if there are any as yet unidentified active nests in the area.
- If female harlequin ducks with broods are observed near the helispot, helicopter flights would be temporarily postponed until the ducks have left the immediate vicinity, depending on the judgment of the flight manager. The flight manager would have wildlife expertise or would consult with a park biologist.

p. 17, Mitigation Measures, Visitor Use and Experience.

- ~~Helicopter flights would take place in the morning, if possible, to minimize disruption to peak hour visitor traffic along the GTSR. Traffic control crews would be at the helispot. During helicopter staging operations, traffic control crews would be available if necessary, depending on the location of the helispot. and Traffic stops would be as brief as possible (5-10 minute stops are anticipated, subject to changing conditions). One lane of traffic would likely be kept open during the operation, with the possible exception of the fueling stop.~~

p. 19, Alternatives, Suggestions, and Issues Considered and Dismissed. Section 4(a)(3) of the

Wilderness Act holds that "the designation of any area of any park, monument, or other unit of the national park system as a wilderness area pursuant to this chapter Act shall in no manner lower the standards evolved for the use and preservation of such park...".

p. 20, Alternatives, Suggestions, and Issues Considered and Dismissed. Visitor use and experience would also be impacted by work crews staging at Packer's Roost, hiking the Flattop Mtn. and old McDonald Creek trails, and travelling through the backcountry.

p. 21, Alternatives, Suggestions, and Issues Considered and Dismissed.

Comment: Make the lookout available as a rental or visitor facility, or use it for emergency fire management purposes. **Response:** The Heavens Peak Lookout is located within recommended wilderness, and renting it would be prohibited under the Wilderness Act and NPS management policies. ~~The interior of the lookout is currently open and accessible to visitors, and would continue to be so under the preferred alternative.~~ **The lookout would be locked for the protection and security of the building.** The lookout is not regularly occupied for fire detection purposes, since the Swiftcurrent Lookout provides coverage for most of the area. However, the Heavens Peak Lookout has been and could be used by fire management personnel as an additional vantage point for monitoring a fire in the area. **The lookout may also be used during search and rescue operations or for other administrative purposes.**

Comment: *Provide interpretive exhibits onsite or place exhibits on the Heavens Peak Lookout at other locations, such as visitor centers or the Loop.* **Response:** This was Onsite interpretive exhibits were considered but dismissed because very few visitors would see them, the park does not want to encourage visitors to the site, and because of the remoteness of the site and lack of access. ~~precludes placing a formal interpretive exhibit onsite.~~ Development of interpretive material for visitor centers and or the Loop would be explored ~~considered, but not as part of this stabilization effort.~~ This has and has been forwarded to the ~~Visitor Education and Interpretation Division.~~ **Division of Interpretation and Partnerships.**

p. 25, Table 2: Environmental Impact Summary by Alternative, Recommended Wilderness.

Impact Topic	Alternative A – No Action	Alternative B – Preferred
Recommended Wilderness	Negligible to minor beneficial, long-term and local impacts to the undeveloped appearance of the wilderness landscape could occur because, eventually, the lookout would no longer be a visible from a distance. Minor long-term adverse and site-specific impacts to the immediate wilderness setting would continue with the accumulation of man-made trash from the lookout's deterioration. Long-term, site-specific to widespread, and minor to moderate adverse impacts would occur from the loss of a significant cultural resource that contributes historical value to the park's recommended wilderness.	Negligible long-term, site-specific and local adverse impacts to the undeveloped appearance of the wilderness landscape would occur from the continued presence of a structure. Minor beneficial, long-term and site-specific impacts would occur to the immediate wilderness setting from the removal of man-made trash that has accumulated from the building's deterioration. Long-term beneficial, minor to moderate, site-specific to widespread impacts would occur from the preservation of a cultural resource that contributes historical value to the park's recommended wilderness. Short-term, site-specific and local, minor to moderate adverse impacts would occur from temporary noise and construction activity. long-term, negligible to moderate adverse impacts that are site-specific and possibly local would occur from periodic structural maintenance.

p. 28, Affected Environment and Environmental Consequences, Cumulative Impact Scenario, Past Actions.

- **Going-to-the-Sun Road Rehabilitation Project.** Rehabilitation of the Going-to-the-Sun Road (GTSR) has been underway for several years, with road work occurring primarily along the alpine section west of the Continental Divide since the mid 1990's. The GTSR Rehabilitation Project began along the alpine section west of the Divide in 2006 and along upper McDonald Creek in 2007. Rehabilitation activity has required heavy equipment, hauling trucks, and large work crews and has included periodic night work and staging at Logan Pit. Road work has typically begun in early spring and ended in late fall, depending on weather conditions. Some winter work at several Emergency Repair Federally Owned (ERFO) sites has occurred intermittently at lower elevations in response to flood damage.

p. 28, Affected Environment and Environmental Consequences, Cumulative Impact Scenario, Ongoing Actions.

- **Going-to-the-Sun Road Rehabilitation Project.** Rehabilitation of the Going-to-the-Sun Road will be underway during the summer of 2011, when the lookout stabilization project would occur. Road construction activities will be occurring along alpine sections east and west of the Continental Divide and along upper McDonald Creek. The work will require heavy equipment, hauling trucks, and large work crews and will include night work and staging at Logan Pit. In 2011, road work began in mid-April and is expected to continue until late fall; the duration of the work season will be determined by the onset of winter weather conditions.

p. 29, Affected Environment and Environmental Consequences, Cumulative Impact Scenario, Future Actions.

- **Going-to-the-Sun Road Rehabilitation Project.** Rehabilitation of the Going-to-the-Sun Road is anticipated to be underway until the fall of 2016, depending on available funding. Alpine sections of the road are expected to be completed by spring of 2013. Future work will occur at lower elevations east of the Continental Divide and along Lake McDonald west of the Divide. Periodic night work, heavy equipment, hauling trucks, and large work crews are expected, and Logan Pit will likely be the staging area. Depending on weather conditions, work is expected to begin in the spring and continue until late fall.

p. 38, Affected Environment and Environmental Consequences, Recommended Wilderness, Impact Analysis of Alternative A – No Action, Cumulative Impacts of Alternative A.

An incremental increase in adverse effects to recommended wilderness would be anticipated from administrative flights and possible emergency flights to Granite Park and backcountry sites near the project area, as well as commercial scenic flights on the west side of the divide, when combined with the effects of no action. Wilderness values within recommended wilderness adjacent to the GTSR corridor have likely been adversely affected by noise from road construction during the GTSR rehabilitation project. There would be no additive noise intrusions to recommended wilderness under the no action alternative. Impacts from road construction would not have a cumulative effect on the historical value the lookout gives to the wilderness setting.

p. 38, Affected Environment and Environmental Consequences, Recommended Wilderness, Impact Analysis of Alternative A – No Action, Conclusion.

Cumulatively, impacts to recommended wilderness from Alternative A combined with past,

ongoing, and future administrative and emergency flights over backcountry zones near the project area and commercial scenic flights west of the divide would be negligible to moderate, beneficial and adverse, long term, site specific and local. Cumulatively, the no action alternative combined with temporary noise intrusions from construction activity on the GTSR; past, ongoing, and future administrative and emergency flights over backcountry zones near the project area; and commercial scenic flights west of the divide would have negligible to moderate, short and long-term, site-specific to widespread adverse, and negligible to minor, long-term, local beneficial impacts to recommended wilderness.

p. 40, Affected Environment and Environmental Consequences, Recommended Wilderness, Impact Analysis of Alternative B – Preferred. The wilderness setting in the immediate area surrounding the lookout would benefit from the removal of man-made trash and debris that has accumulated from the building's deterioration. The lookout would likely require minor maintenance approximately every 10 years (i.e. painting, rock and mortar repair) and roof maintenance could be necessary every 15 to 20 years, depending on the severity of impacts from the weather. The proposed stabilization project is expected to maintain the lookout's structural durability for about 20 years. Periodic maintenance would add incremental disturbances to recommended wilderness over time, but would also help maintain the lookout so that full scale stabilization such as proposed is infrequent over the long term. (Note: please see also text change to p. ii, Summary on p. 14 of these errata sheets, and the response to Comment 7.)

p. 40, Affected Environment and Environmental Consequences, Recommended Wilderness, Impact Analysis of Alternative B – Preferred, Cumulative Impacts of Alternative B.

The helicopter flights for this project would be included in the park's 2011 administrative flight restrictions of approximately 50 park-wide flights. Noise and human activity associated with the lookout stabilization project combined with administrative flights and possible emergency flights to Granite Park and backcountry sites near the project area, as well as commercial scenic flights on the west side of the divide, could temporarily and incrementally increase the level of adverse impacts to recommended wilderness. Noise intrusions from construction activity along the GTSR have likely had adverse effects to wilderness values in recommended wilderness areas adjacent to the road. Stabilization of the lookout would temporarily increase the amount of disturbance to recommended wilderness surrounding Heavens Peak.

p. 40, Affected Environment and Environmental Consequences, Recommended Wilderness, Impact Analysis of Alternative B – Preferred, Conclusion.

Adverse impacts to recommended wilderness from periodic maintenance of the lookout would be negligible to moderate, long term, site specific and possibly local.

p. 40, Affected Environment and Environmental Consequences, Recommended Wilderness, Impact Analysis of Alternative B – Preferred, Conclusion.

Cumulatively, impacts to recommended wilderness from Alternative B combined with past, ongoing, and future administrative and emergency flights over backcountry zones near the project area and commercial scenic flights west of the divide would be negligible to moderate, beneficial and adverse, short and long term, site specific and local. Cumulatively, the preferred alternative combined with temporary noise intrusions from construction activity on the GTSR; past, ongoing, and future administrative and emergency flights over backcountry zones near the project area; and commercial scenic flights west of the divide would have negligible to moderate short-term and negligible long-term, site-specific and local adverse, and minor to moderate long-term beneficial impacts to recommended

wilderness.

p. 42, Affected Environment and Environmental Consequences, Wildlife, Impact Analysis of Alternative B - Preferred.

Wildlife are likely accustomed to hikers along Flattop Mountain Trail and the old McDonald Creek Trail, but could periodically be displaced by work crews travelling off-trail from upper McDonald Creek to the work camp site. Noise and human activity at the lookout and work camp would be ongoing for several hours a day for approximately six weeks, possibly causing some animals to avoid these areas for the duration of the project. Increased human activity within the project area could increase the potential for some species to become human habituated. But the small size of the work crews and the short-term nature of the project are not likely to habituate animals for the long-term or to the point where management action would be required. Any habituation that does occur would serve only to minimize the displacement effects of the project.

p. 42, Affected Environment and Environmental Consequences, Wildlife, Impact Analysis of Alternative B - Preferred.

Stabilization could temporarily attract a few more visitors to the project area out of curiosity and renewed interest in the history of the lookout. An increase in visitor use could displace wildlife, increase the potential for animals to become human habituated or food conditioned, and degrade habitat. But measurable increases in visitation are not likely due to the absence of a trail, the remoteness of the site, and difficult access and disturbances to wildlife would be minimal.

p. 42, Affected Environment and Environmental Consequences, Wildlife, Impact Analysis of Alternative B - Preferred, Cumulative Impacts of Alternative B.

Helicopter flights for the lookout stabilization would be included in the park's 2011 administrative flight restrictions of approximately 50 park-wide flights or less. Human activity and noise associated with the proposed stabilization combined with administrative flights and possible emergency flights to Granite Park and backcountry sites near the project area, as well as commercial scenic flights west of the divide, could temporarily and incrementally increase the level of adverse impacts to wildlife. Noise and human activity associated with the GTSR rehabilitation project has likely displaced wildlife and resulted in the loss of some habitat adjacent to the road. Stabilization of the lookout would temporarily increase the number of disturbances to wildlife while road construction is underway.

p. 43, Affected Environment and Environmental Consequences, Wildlife, Impact Analysis of Alternative B - Preferred, Conclusion.

Cumulatively, noise and human activity from the proposed project combined with past, ongoing, and future administrative and emergency flights over backcountry zones near Heavens Peak, as well as commercial scenic flights west of the divide, would have negligible to minor, adverse, short term, site-specific and local impacts to wildlife. Cumulatively, the proposed project combined with the GTSR rehabilitation project; past, ongoing, and future administrative and emergency flights over backcountry zones near Heavens Peak; and commercial scenic flights west of the divide would have negligible to moderate short-term and minor long-term adverse, site-specific and local impacts to wildlife from noise and human activity.

p. 49, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Grizzly Bears.

Stabilization of the lookout could temporarily attract a small increase in visitors to the project area. Higher visitor use could displace grizzlies and raise the risk of bears becoming human habituated or food conditioned. Measurable increases in visitation are not likely, however, due to the difficulty associated with accessing the site, and additional impacts to grizzly bears would be negligible.

p. 49, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Canada Lynx.

A possible, temporary increase in visitation to the lookout could cause disturbances to lynx and their prey. But visitation is not likely to increase much due to the remoteness of the site and difficult access, and there would be few, if any, additional impacts to lynx.

p. 49, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Gray Wolf.

Measurable increases in visitor use of the lookout is not likely given the difficult access to the site, and few if any additional impacts to wolves would occur.

p. 49, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Wolverine.

While visitor use of the lookout may increase temporarily, it is expected to remain low due to the remoteness of the location and the difficult access. Wolverines would not be measurably affected by any temporary increase in visitation to the lookout.

p. 50, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Cumulative Impacts of Alternative B, Grizzly Bears.

Helicopter flights for this project would be included in the park's 2011 administrative flight restrictions of approximately 50 park-wide flights or less. Human activity and construction noise during the lookout's stabilization combined with administrative flights and possible emergency flights to Granite Park and backcountry sites near the project area, as well as commercial scenic flights west of the divide, could incrementally and temporarily increase adverse impacts to grizzly bears in the Camas and upper McDonald drainages. The GTSR rehabilitation project has likely caused some displacement of individual grizzly bears from travel and foraging areas within the road corridor and may have resulted in a minimal loss of some bear habitat. Bears have also been exposed to an increased risk of human habituation, but strict attractant storage practices have been enforced and no bears are known to have become food conditioned as a result of road construction. Stabilization of the lookout would cause a temporary and incremental increase in the risk of displacement, disturbance, and habituation for grizzly bears within the upper McDonald drainage while road construction is underway.

p. 50, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Conclusion, Grizzly Bears.

Cumulatively, human activity from the lookout's stabilization combined with past, ongoing and future administrative and emergency flights over backcountry zones near Heavens Peak, as well as commercial scenic flights west of the divide, would have negligible to minor, adverse, short-term, and local impacts to grizzly bears. Cumulatively, the proposed project combined with the GTSR rehabilitation project; past, ongoing, and future administrative and emergency flights over backcountry zones near Heavens Peak; and commercial scenic flights west of

the divide would have negligible to moderate short-term and minor long-term adverse, site-specific and local impacts to grizzly bears from displacement and habituation.

p. 50, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Cumulative Impacts of Alternative B, Canada Lynx.

Alternative B combined with administrative flights and possible emergency flights to Granite Park and backcountry sites near the project area, as well as commercial scenic flights west of the divide, could incrementally and temporarily increase the level of disturbance to lynx.

Rehabilitation of the GTSR may disturb lynx that are foraging and travelling in the road corridor, and may have resulted in the negligible loss of habitat for lynx prey species. The lookout stabilization project could temporarily increase the number of disturbances to lynx in the upper McDonald drainage.

p. 50, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Conclusion, Canada Lynx.

Cumulatively, human activity from the project combined with past, ongoing and future administrative and emergency flights near the project area, as well as commercial scenic flights west of the divide, would have negligible to minor, adverse, short-term, and local impacts to lynx. Cumulatively, the proposed project combined with the GTSR rehabilitation project; past, ongoing, and future administrative and emergency flights over backcountry zones near Heavens Peak; and commercial scenic flights west of the divide would have negligible to minor short and long-term adverse, site-specific and possibly local impacts to lynx from displacement and disturbance.

p. 50, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Cumulative Impacts of Alternative B, Gray Wolf.

Human activity during the proposed project combined with previous, ongoing, and future fixed-wing and helicopter flights near the project area could incrementally increase temporary disturbances to wolves. Wolves, probably belonging to the McDonald Pack, have been observed in the GTSR corridor by contractors working on the road rehabilitation project. During road construction, wolves may have been displaced from travel routes, developed an increased level of habituation to human activity, and been affected by the minor loss of roadside habitat for ungulates and small mammals. Stabilization of the lookout would cause a temporary and incremental increase in the risk of displacement and habituation.

p. 50, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Conclusion, Gray Wolf.

Cumulatively, human activity from the project combined with past, ongoing and future administrative, emergency, and commercial scenic flights would have negligible, adverse, short-term, and local impacts to wolves. Cumulatively, the proposed project combined with the GTSR rehabilitation project; past, ongoing, and future administrative and emergency flights over backcountry zones near Heavens Peak; and commercial scenic flights west of the divide would have negligible to minor short and long-term adverse, site-specific and possibly local impacts to wolves from displacement and disturbance.

p. 50, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Cumulative Impacts of Alternative B, Wolverine.

Human caused disturbances associated with the lookout stabilization project combined with previous, ongoing, and future fixed-wing and helicopter flights could add an incremental and temporary level of disturbance to wolverines. Road construction activity on the GTSR has possibly displaced wolverines, especially along the alpine section. In 2007, a wolverine was struck and killed by a contractor's truck during icy conditions east of Logan Pass. Stabilization of the lookout could temporarily and incrementally increase the potential for wolverines in the upper McDonald drainage to be displaced by human activity.

p. 50, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Cumulative Impacts of Alternative B, Wolverine.

Cumulatively, human activity associated with the project combined with past, ongoing and future administrative, emergency, and commercial scenic flights would have negligible, adverse, short term, and local impacts to wolverines. Cumulatively, the proposed project combined with the GTSR rehabilitation project; past, ongoing, and future administrative and emergency flights over backcountry zones near Heavens Peak; and commercial scenic flights west of the divide would cause negligible to minor short-term adverse, site-specific and possibly local impacts to wolverines from displacement and disturbance.

p. 51, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Cumulative Impacts of Alternative B, Harlequin Duck.

Helicopter flights for the lookout stabilization would be included in the park's 2011 administrative flight restrictions of approximately 50 park-wide flights or less. Depending on the number of administrative and emergency helicopter flights that are staged from Logan Pit or Red Rock Point, harlequins along upper McDonald Creek could be exposed to an increased level of disturbance. The level of impacts to harlequins would depend on the time of year that the helicopter activity occurs and on the location of the helispot. Flights that occur in September or later and are staged from Logan Pit would have minor adverse impacts to harlequins; flights that occur between May and September or are staged from Red Rock Point would have moderate adverse impacts. Construction activity on the GTSR has likely displaced harlequin ducks from resting and foraging areas on sections of upper McDonald Creek that are adjacent to the road. Road work for 2011 is scheduled for areas upstream from Logan Creek, but could also occur downstream. Disturbances to harlequin ducks will be mitigated by limitations on construction activity near sensitive areas during the pair-bonding, nesting, and brood rearing periods. Helicopter staging at Logan Pit for the lookout stabilization project would increase the number of disturbances to harlequin ducks; females and broods would be especially vulnerable since flights would occur during the brood rearing period. Restricting flights to when female harlequins with broods are not near Logan Pit would minimize the risk of females becoming startled and abandoning their chicks.

p. 51, Affected Environment and Environmental Consequences, Threatened, Endangered and Species of Concern, Impact Analysis of Alternative B - Preferred, Cumulative Impacts of Alternative B, Harlequin Duck.

Cumulatively, impacts to harlequins from the preferred alternative combined with past, ongoing, and future helicopter activity would be adverse, minor to moderate, short and long

term, site-specific, local, and possibly regional from a potential increase in disturbance from staging operations along upper McDonald Creek. Cumulatively, the proposed project combined with the GTSR rehabilitation project; past, ongoing, and future administrative and emergency flights over backcountry zones near Heavens Peak; and commercial scenic flights west of the divide would have minor to moderate short and long-term adverse, site-specific, local, and possibly regional impacts on harlequin ducks due to disturbances from helicopter staging along upper McDonald Creek. The level of cumulative impacts would depend on the time of year that helicopter activity occurs and the location of the helispot. Flights that occur in September or later and are staged from Logan Pit would have minor adverse impacts to harlequins; flights that occur between May and September or are staged from Red Rock Point would have moderate adverse impacts.

p. 55, Affected Environment and Environmental Consequences, Natural Soundscapes, Impact Analysis of Alternative B - Preferred, Cumulative Impacts of Alternative B.

Helicopter flights for this project would be included in the park's 2011 administrative flight restrictions of approximately 50 park-wide flights or less. Noise and human activity associated with the lookout stabilization project combined with other administrative flights and possible emergency flights to Granite Park and backcountry sites near the project area, as well as commercial scenic flights on the west side of the divide, could temporarily and incrementally increase the level of adverse impacts to natural soundscapes. The GTSR is within a visitor service zone, where soundscape management allows for higher levels of artificial noise than in backcountry or rustic management zones. During road rehabilitation, artificial noise from heavy equipment, hauling trucks, and heavy concentrations of human activity have disrupted existing ambient sound levels in the road corridor, as well as in adjacent day use, rustic, and backcountry management zones. Stabilization of the lookout would temporarily and incrementally increase the number of noise intrusions along the road corridor and within the upper McDonald drainage.

p. 55, Affected Environment and Environmental Consequences, Natural Soundscapes, Impact Analysis of Alternative B - Preferred, Conclusion.

Cumulatively, noise from the lookout's stabilization combined with past, ongoing, and future administrative and emergency flights over backcountry zones near the project area, as well as commercial scenic flights west of the divide, would have minor to moderate, adverse, short and long term, site-specific and local impacts to natural soundscapes. Cumulatively, artificial noise from the proposed project combined with GTSR rehabilitation; past, ongoing, and future administrative and emergency flights over backcountry zones near Heavens Peak; and commercial scenic flights west of the divide would have minor to moderate short and long-term, site-specific and local adverse impacts to natural soundscapes.

p. 64, Appendix A - Impairment, Recommended Wilderness.

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 relate 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 historic structures, recommended wilderness, wildlife, threatened and endangered species and species of concern, and natural soundscapes.

p. 64, Appendix A – Impairment, Recommended Wilderness.

Fundamental resources and values for Glacier National Park are identified in the General Management Plan as derived from the park's enabling legislation. All of the impact topics carried forward in this environmental assessment, including historic structures, recommended wilderness, wildlife, threatened and endangered species and species of concern, and natural soundscapes are considered necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; are key to the natural or cultural integrity of the park; and/or are identified as a goal in the park's General Management Plan.

p. 64, Appendix A – Impairment, Recommended Wilderness.

This project would result in the continued presence of a periodically maintained historic structure within recommended wilderness; and would cause temporary disturbances to the wilderness setting of Heavens Peak due to human activity and noise from helicopters, a generator, power tools, and electronic and battery operated hand tools.

p. 64, Appendix A – Impairment, Recommended Wilderness.

Although recommended wilderness is a significant resource at the park, the preferred alternative would result in negligible to moderate, adverse and beneficial, short and long-term, site-specific to widespread impacts to recommended wilderness; therefore, there would be no impairment to recommended wilderness.

p. 70, Appendix, B – Minimum Requirements Decision Guide.

Maintaining Traditional Skills: Some traditional skills such as hiking and backcountry camping would be necessary to complete the project. Hand tools would be used when possible, but traditional skills and tools would not be exclusively relied upon since helicopters and some electric and battery operated tools would be used to minimize the project time frame and thus the overall level of impacts to wilderness. ~~Periodic maintenance of the structure would likely require future use of hand tools and backcountry skills.~~

p. 71, Appendix, B – Minimum Requirements Decision Guide.

More livestock staging at Packer's Roost and additional livestock on the Flatop Mtn. and old McDonald Creek trails would present an increased safety hazard to visitors and hikers.

RESPONSES TO SUBSTANTIVE COMMENTS ON THE EA

Responses are in bold italics. Some of these comments are paraphrased from comment letters stating similar concerns. Others are direct quotes from comment letters and are within quotation marks.

1. **COMMENT:** The EA did not specify what would happen if harlequin ducks along upper McDonald Creek are disturbed by helicopter staging operations.

RESPONSE: *If female harlequin ducks with broods are observed at the helicopter staging area, flights will be temporarily postponed until the ducks have left the immediate vicinity, depending on the judgment of the flight manager. This mitigation measure has been added to the Text Changes section of these errata sheets.*

2. **COMMENT:** "An incomplete treatment of impacts to wildlife also predisposes the outcome of the EA. In the public meeting, you dismissed the park's lack of reliable information on the status and trend of most wildlife populations by stating you could always use more information, but used the best available information in the analysis. This

argument has been used by park managers for decades. Why is this an acceptable attitude for protecting natural resources, but unacceptable for roads, hotels and other infrastructure? Costly assessments were conducted on the GTSR, the Many Glacier Hotel, and other park structures to determine their condition. Yet condition assessments are lacking for all but a few park wildlife species. The park even lacks a functional Resource Management Plan, let alone a wildlife management plan with specific management objectives for protecting wildlife”

RESPONSE: We disagree that the analysis of impacts to wildlife was incomplete. A wildlife management plan is not the purpose of this project and is not required to analyze the impacts of the action. NEPA Section 1502.22 guides the amount and level of data required to assess impacts. The cultural resource assessments you referred to were structural condition assessments conducted for the purpose of rehabilitating the Many Glacier Hotel and Going-to-the-Sun Road. This level of data was required to determine what repairs were necessary and how to go about doing them.

3. **COMMENT:** The number and status of golden eagle nests in the vicinity of Heavens Peak is not well known, and impacts to golden eagles are therefore underestimated.

RESPONSE: Golden eagles were dismissed from further analysis because known golden eagle nests would not be affected. However, we will conduct golden eagle nest searches along the helicopter flight path prior to the project to determine if there are any as yet unidentified active nests. If active nests are located, measures to mitigate disturbances to nesting golden eagles will be followed, as described on p. 17 of the EA, in the Mitigation Measures section of this FONSI, and in the Text Changes section of these errata sheets.

4. **COMMENT:** The analysis of impacts to mountain goats is inadequate. How do we know helicopter flights won't impact mountain goats? The EA should cite Cote's studies that document impacts to goats from helicopters and recommend that flights be at least 1.5 km from goats. It will be impossible to keep flights away from goats as suggested in the EA and it is unknown whether disturbances to goats from helicopters are temporary or permanent.

RESPONSE: Mountain goats were dismissed from further analysis on pp. 11 and 12 of the EA. Current evidence suggests that the proposed project will not have measurable impacts on goats. This evidence is based on current literature, high numbers of goats in the park, anecdotal observation, and lack of evidence of population declines in the park. Goldstein et al (2005) studied goat responses to helicopter disturbance and made recommendations based on actual disturbance experiments across replicate study sites in Alaska. They explain that reactions to helicopters are highly variable and dependent upon numerous factors. This has led to highly variable standards for helicopter operation ranging from 500 to 2,000m. They further described disturbance as a probability function with distance. In their study areas, maintaining a risk of disturbance <25% meant maintaining distances ranging from 500 to 1200 m depending upon the study site. At distances of 500 m, the probability of eliciting a flight response was <10% at all but one study site (which reached 30%). Based on this work, our plan to maintain a 2.0 km distance from goats whenever possible is adequate. If disturbance occurs, the likelihood of eliciting a flight response is probably low. If goats are in close proximity to the flight path, they

may be temporarily displaced. The limited scope and duration of this project warrants our dismissal of mountain goats for further analysis.

5. COMMENT: The EA states that helicopter flights would “take place in the morning, if possible, to minimize disruption to peak-hour visitor traffic along the GTSR”. The EA does not acknowledge that flights in the morning would have greater impacts to wildlife than flights in the afternoon, when most species are typically less active.

RESPONSE: Thank you for pointing this out. We have modified the schedule so that flights will occur between 10 a.m. and 12 p.m., if possible and depending on weather. Warmer temperatures reduce the ability of helicopters to lift weight. If we restricted flights to the afternoon, it would require more flights, which we are not willing to do. Scheduling flights for late morning should minimize disturbances to wildlife without reducing helicopter load capabilities. The mitigation measures in this FONSI include this change; please see also the Text Changes section of these errata sheets.

6. COMMENT: The EA should consider cumulative impacts from construction along the Going-to-the-Sun Road. In assessing impacts to wildlife, especially wide-ranging species, the “environment encompassing those species home ranges” must be considered.

RESPONSE: The Going-to-the-Sun Road Rehabilitation Project has been added to the cumulative impact scenario on pp. 27-29 of the EA and the cumulative impacts analyses. Please see the Text Changes section of these errata sheets. We disagree that the wildlife species evaluated would be affected throughout their entire home range, which in some cases extends beyond the park boundary as well as outside the project area.

7. COMMENT: The EA should include periodic future maintenance in the cumulative impacts analyses. How long before maintenance is required? When will helicopter flights be required again? What are the anticipated costs of future maintenance? Will closed trails be opened?

RESPONSE: Periodic future maintenance of the lookout is not reasonably foreseeable, is beyond the scope of this project, and will be subject to management discretion. If future maintenance is proposed, environmental effects will be analyzed in accordance with NEPA and other existing laws.

8. COMMENT: Statements in the EA that impacts to wildlife would be minimal because of the availability of adjacent suitable habitat are faulty. “If there is suitable habitat nearby, it is already occupied, even for wide-ranging animals. Pushing animals out of preferred sites to less-optimal sites depletes energy reserves and may impact survival. Combined with impacts from existing visitor use and other administrative activities, like construction along the GTSR, and with stressors from climate change, impacts from this project will be more significant than acknowledged.”

RESPONSE: We disagree that impacts from this project will be more significant than acknowledged. We agree that displacement has adverse impacts to wildlife, but displacement will be of such a temporary nature that it will not be significant. GTSR construction has been added to the cumulative impacts analyses (please see the Text Changes section of these errata sheets), and there will not be any significant cumulative effects from road construction combined with the preferred alternative. Potential long-term effects from climate change are unknown and beyond the scope

of the analysis for this project, which is short-term and will not permanently affect resources, including habitat or individual species.

9. COMMENT: The EA suggests that habituation is beneficial to wildlife, but it can result in management actions toward aggressive or nuisance animals and have ecological implications. The EA should not only analyze the impacts to wildlife from displacement, but also from habituation.

RESPONSE: The EA acknowledges the occurrence of habituation among wildlife in areas that are already used by people (p. 42), and addresses the potential for some grizzly bears to become more familiar with humans (p. 49). The potential for other species to become habituated has been added to the impacts analysis for wildlife on p. 42 of the EA; please see the Text Changes section of these errata sheets. The duration and intensity of the project is not such that we expect habituation to progress to the point where management action would be required. Any habituation that does occur would serve only to minimize the displacement effects of the project.

10. COMMENT: Why was climate change dismissed from further analysis? Impacts from climate change in relation to the impacts from this project should be analyzed. If future decisions to not restore the trail will be influenced by concerns about the impacts of climate change on grizzly bear habitat, as was stated at the public meeting, why isn't the same concern restraining park managers from undertaking a project that will impact grizzly bears and other wildlife?

RESPONSE: Climate change was dismissed from further analysis because this project will not have a measurable effect on the global climate. Please see also the response to Comment 8. The project is of short duration and low intensity and will not measurably add to the stressors bears and other wildlife are under from climate change. Restoring the trail to the lookout, however, would permanently degrade bear habitat, have significant adverse impacts on grizzly bears, and contribute to the stressors from climate change for the long-term.

11. COMMENT: The EA does not acknowledge that visitor use of the area will increase as a result of the lookout stabilization project; even if the trail is not restored, visitor use will increase. The EA should assess impacts from an increase in visitor use and describe actions that will be taken if increased use occurs. Park visitation increased during the Centennial, and it is reasonable to assume that visitation to the project area will increase. It is apparent that the NPS has improved the trail to the lookout for the work crews or plans to do so, and this will encourage more visitors to the lookout; more people may try to make the round trip down Camas Creek.

RESPONSE: The EA acknowledges the potential for an increase in visitor use on p. 12, under Impact Topics Dismissed from Further Analysis, Visitor Use and Experience. The effects of an increase have been added to the impacts analyses for wildlife and threatened and endangered species and species of concern (please see the Text Changes section of these errata sheets). But we disagree that there will be a measurable increase in visitor use. As stated in the EA, a few more visitors may be attracted to the lookout, but the remote location and difficult access would preclude much increase in visitor use and any increase is likely to be temporary. There are a very small number of people who hike to the lookout and even if that number were to double, it would still remain very small. Furthermore, we are not reestablishing the old trail from McDonald Creek. The through-hike from Packer's Roost over to the

Camas drainage and out to the West Lakes Trailhead at the head of Lake McDonald is over 24 miles long, and half the distance is a bushwhack with extensive elevation gain. This would not become a popular hike. However, in the event that more people begin visiting the lookout, the park will conduct an education program to inform the public on why this is a sensitive area for grizzly bears and then consider permits. The park could ultimately choose to put an area closure in place.

No brush or trail clearing will occur along the route workers will take to access the project area (see also Text Changes). Brush will only be trimmed around the perimeter of the work camp for the solar-powered electric fence that will be erected to keep bears from entering the camp. As stated on p. 21 of the EA, the access route will be temporarily flagged, no downed logs will be removed, and flagging will be pulled at the end of the project. Removing flagging at the end of the project was inadvertently left out of the mitigation measures in the EA and has been added (see Text Changes). Trips in and out of the project area will result in trampled vegetation, which will have the appearance of a light "social trail". But the NPS will not clear or maintain the route, and the effects of trampling will be temporary. Work crews will not be flown in to the project area, and there will be no additional helicopter flights to ferry the crews.

12. COMMENT: Public interest in the project may lead to more visits over dispersed trail routes in the future. "Dispersed human use is generally not good for either grizzly bears or people."

RESPONSE: We agree that dispersed use would not be good for bears. Regarding an increase in visitor use, please see the response to Comment 11.

13. COMMENT: Improving the trail is dismissed on p. 19, but on p. 20 the EA states that a temporary trail would be required for crews and livestock to safely access the work site. Using livestock is then dismissed. This is confusing and suggests that, because trail improvement has been dismissed, work crews will be using an unsafe trail.

RESPONSE: The discussion on p. 19 dismisses permanent reconstruction of the original trail. The discussion on p. 20 dismisses the use of livestock or work crews instead of helicopters to transport equipment and materials to the project area, in part because this option would require a temporary trail. Using livestock and human transport would require more, larger sized crews. Large crews and livestock packing heavy equipment and building materials would need a cleared, graded, temporary trail in order to safely access the work area. Under the preferred alternative, a small crew of two to six people will not be using livestock or carrying heavy equipment and building materials, and it will not be necessary to build a temporary trail for them to safely access the work site.

14. COMMENT: What will be done along the trail from the work camp in the saddle to the lookout? This section is mostly gone. Rebuilding it would have additional impacts; if it is not rebuilt, allowing work crews to find their way up the steep slope will result in multiple erosion channels.

RESPONSE: The ends of the original switchbacks are still identifiable and will be marked with flagging and cairns, which will be removed or dismantled at the end of the project. Workers will not take their own route; they will be required to stay on the

designated route and hike as a group. Erosion that normally occurs will continue, but we will not create new paths and new channels.

15. COMMENT: The selection of Alternative B is based on “gross underestimates of the project’s negative impacts on Wilderness, soundscapes, and wildlife. Cumulative impacts especially are given short shrift”.

RESPONSE: We disagree. The project’s impacts have not been underestimated. But the cumulative impact scenario on pp. 27-29 of the EA has been revised to include the Going-to-the-Sun Road Rehabilitation Project, and impacts from this action have been included in the cumulative impacts analyses. Please see the Text Changes section of these errata sheets.

16. COMMENT: The EA describes moderate impacts on pages ii, 25, 26, 41, and 65, but “then cavalierly dismisses any concern for impacts on Wilderness”.

RESPONSE: On the referenced pages, the EA acknowledges short-term moderate adverse impacts to wilderness and natural soundscapes during stabilization, and possible long-term minor to moderate adverse impacts to harlequin ducks. Any moderate impacts to recommended wilderness will be temporary, and wilderness values will not be significantly affected.

17. COMMENT: Multiple trips to the site will result in the introduction of non-native invasive plants.

RESPONSE: We will monitor the area and implement the mitigation included on p. 18 of the EA if necessary.

18. COMMENT: On p. 55, the EA states: “...on the days with the most flights (day 7 and 39) helicopters would be audible no more than 10 percent of the time. As a result, adverse impacts to natural soundscapes in the backcountry, rustic, day use, and visitor service zones in the affected area under the preferred alternative would be minor to moderate, adverse, short-term, site-specific, and local.” This is “NPS jargon without logic.”

RESPONSE: As described in the Methodology for this topic on p. 53 of the EA, the duration of artificial noise, or the percent of time that artificial noise will be audible, was examined during the analysis of impacts to natural soundscapes. Helicopter noise that is audible 10% of a 12 hour day will have a minor impact to day use and visitor service zones and a moderate impact to backcountry and rustic zones.

19. COMMENT: In the cumulative impacts analysis for each topic, the EA states that the helicopter flights would be included in the 50 annual flights previously approved for administrative use. But the flights for this project are in different areas of the park and the EA has not considered site-specific impacts.

RESPONSE: The site specific impacts of these flights were addressed in the EA on pages 39, 40, 42, 48, 49, 50, 51, 54, 55 and 56.

20. COMMENT: The use of a generator, power tools, battery operated hand tools, and helicopters are not permitted by the Wilderness Act or by NPS policy on the management of recommended wilderness.

21. RESPONSE: We disagree. As directed by the Wilderness Act, the National Park Service completed a Minimum Requirement Analysis, which was attached to the EA

as Appendix B. National Park Service Management Policies (2006) 6.3.4.3 and 6.3.5 and Director's Order 41, which defines Minimum Requirement on page 80, also guided our analysis and decision process.

22. COMMENT: Volunteers could carry materials to the lookout on foot or NPS wranglers could carry it in by horseback.

RESPONSE: *This was considered and dismissed. The materials being taken in and out by helicopters would not be safe to transport on foot, and horses and stock would require a maintained trail.*

23. COMMENT: Using helicopters significantly increases risks to health and safety.

RESPONSE: *The analysis of the minimum activity for stabilization (Appendix B, pp. 70 and 71) found that there would be less risk to human safety with helicopters. Hand carrying heavy, cumbersome materials over the trail-less, uneven terrain would increase the risk of injury to crew members, and scaffolding required for job safety could not be packed to the job site.*

24. COMMENT: The EA underestimates the number of flights that will be required. The project will require more than twelve flights.

RESPONSE: *The number of flights required for this project has been examined again and the NPS is confident twelve flights will be enough. Furthermore, the project is not permitted to use more than twelve flights, except in the event of an emergency.*

25. COMMENT: "EA page 12 states that the NPS conducts about 50 administrative helicopter flights over the Park in a year, 'with no measurable effect!' I have seen many of these flights and read the justification for most. Few are really essential. None of the authorized research helicopter flights has been essential ..."

RESPONSE: *We disagree. In 1999, a decision was made in the GMP and Record of Decision to ban commercial air tours through a Scenic Air Tour Management Plan. The GMP also discussed the park's use of administrative flights and the review process that ensures those flights are necessary. After completion of the GMP, the park put in place an even more rigorous process to review administrative flights. As a result, some flight requests are denied. Additionally, resource specialists and biologists were consulted as to whether every flight would result in more than a minor impact on wildlife, visitors, threatened and endangered species, etc. and thus require an EA, or if there was a certain number of flights under certain conditions that would have less than a measurable impact and could thus be categorically excluded. This group determined that about 50 administrative flights per year had no measurable effect and could be categorically excluded under NEPA, provided the flights adhered to specific conservation measures. Consultation was conducted with the U.S. Fish and Wildlife Service (USFWS); the USFWS concurred with the Programmatic BA. Programmatic BA's are reviewed and resubmitted every five years. In the event that a greater number of flights are necessary, the park conducts an EA, as was done in 2003.*

26. COMMENT: "...authorizing up to 12 daily helicopter flights to view the area will be destructive, intrusive and completely subvert the purpose of designating an area wilderness.

RESPONSE: There will not be 12 helicopter flights daily. There will be a total of up to 12 helicopter flights over the duration of the project (approximately six weeks). The number of flights for the project is discussed on p. 16 of the EA. The flights are not for viewing purposes, but only to haul materials to and from the work site.

27. COMMENT: The trail to the lookout should be rebuilt, materials should be hauled via horseback and pack string as was done when the lookout was first built, and repair work should be done in the traditional manner with primitive tools.

RESPONSE: This was considered but dismissed on pp. 19-20 of the EA.

28. COMMENT: Why has this project been given higher priority than preservation of the Doody Homestead on the Middle Fork? The homestead was the home of the first Glacier Park ranger and has more historical significance than the lookout.

RESPONSE: This is beyond the scope of this project. Furthermore, until 6 years ago, we believed that the Doody Homestead was on private land. Preservation of the structure is questionable based on its current condition and integrity.

29. COMMENT: "Cumulative impacts are not realistically evaluated in the EA. Taken as a single project, the total duration of disturbance time and % of wilderness impacted may seem to be minor. However, this is only one project among many that use a helicopter. If a manager evaluates the impacts for each helicopter flight – maintenance research, chalet supply, and other administrative flights, one at a time, as has been done here, the impact is far less than what actually exists cumulatively. Add the helicopter use in this project to all of the other administrative flights, and the numerous daily commercial overflights, and one cannot escape the fact that the cumulative impact on wilderness is of very major significance."

RESPONSE: We disagree. Cumulative impacts did include other administrative flights and scenic air tours.

30. COMMENT: This project will cost a "huge amount of taxpayer dollars."

RESPONSE: The project is being funded by the Glacier National Park Fund, a park partner that raises private monies for park projects. The Heavens Peak Lookout Stabilization Project was one of the Fund's centennial projects for the Park. Very little federal money will be spent on this project.

31. COMMENT: "The range of alternatives is too limited. It should be expanded to include more complete restoration and consideration of various uses including overnight visitor use. The use of public scoping with NPS responses is not adequate to eliminate reasonable alternatives from full impact analysis and formal public comment on the EA. The document has the appearance of a pre-decision going through the administrative requirements of NEPA, rather than a need open to public comments on how best to address the need."

RESPONSE: We disagree. Other alternatives considered but rejected included full rehabilitation of the lookout. See EA p. 21 for consideration of overnight visitor use. Regarding the comment about scoping: the purpose of the scoping period is to identify what resources may be affected by a project and to determine the range of alternatives to be considered. The other alternatives were seriously considered but dismissed for the reasons described in the EA on pages 18-23.

32. COMMENT: There would be little adverse effect on visitors if the materials are flown to the site just prior to or after the park closes for the season.

RESPONSE: The park never closes. In order to complete the project before winter weather begins, the flights must occur during the summer season.

33. COMMENT: "The selection of Alternative B as the Environmentally Preferred is flawed. Alternative A is the one that causes the least damage to the biological and physical environment."

RESPONSE: We disagree that selection of Alternative B as the environmentally preferred alternative is flawed. The EA explains how the preferred alternative meets five of the six criteria on pp. 26 and 27.

34. COMMENT: "The lone action alternative in the EA, the agency's preferred alternative (proposal) is inconsistent with Park Service Policy 41 that requires recommended wilderness be managed as designated wilderness."

RESPONSE: We disagree. The preferred alternative is consistent with Director's Order (DO) #41. Section 6.4 of DO #41 requires the documented application of the minimum requirements concept; the Minimum Requirements Decision Guide developed for this project is in Appendix B of the EA.

35. COMMENT: The EA does not properly analyze impacts to the area's wilderness character.

RESPONSE: We disagree. Impacts to wilderness and wilderness character under Alternative B were analyzed on pp. 39 – 40.

36. COMMENT: "The assertion that reconstructing an unnecessary structure is consistent with Section 4 of the Wilderness Act is likewise incorrect. The agency's own policy is clear that things which weaken wilderness protection – in this case, the use of motorized equipment – are not what section 4 of the Wilderness Act is about."

RESPONSE: The action described in the preferred alternative is a stabilization, not a reconstruction. Compliance with NPS policy and Section 4 of the Wilderness Act was addressed on pp. 22-23 of the EA.

37. COMMENT: "The fact that the lookout is a historic structure doesn't affect the agency's obligation to the wilderness. It is important to note that the EA leads one to confuse and conflate sections 4(c) and 4 (b) of the Wilderness Act. It so doing it turns the Wilderness Act on its head."

RESPONSE: We disagree. The Wilderness Act specifically states that "Nothing in this Act shall modify the statutory authority under which units of the national park system are created. Further, the designation of any area of any park, monument, or other unit of the national park system as a wilderness area pursuant to this Act shall in no manner lower the standards evolved for the use and preservation of such park, monument, or other unit of the national park system in accordance with the Act of August 25, 1916, the statutory authority under which the area was created, or any other Act of Congress which might pertain to or affect such area, including, but not limited to, the Act of June 8, 1906 (34 Stat. 225; 16 U.S.C. 432 et seq.); section 3(2) of the Federal Power Act (16 U.S.C. 796. (2); and the Act of August 21, 1935 (49 Stat. 666; 16 U.S.C. 461 et seq.)." [Section 4(a)(3)]

The Organic Act of 1916 and the 1910 legislation establishing Glacier National Park are therefore applicable within recommended wilderness. These laws direct the NPS to preserve and protect natural and cultural resources unimpaired for future generations, and to provide opportunities to experience, understand, appreciate, and enjoy Glacier National Park consistent with the preservation of resources in a state of nature.

38. COMMENT: "As such, the EA is wrong to suggest that the agency can 'Conduct work in such a way that impacts to recommended wilderness are minimized' meaning that helicopters and motorized construction equipment that requires the use of a generator are the minimum necessary. This work does not fall under the rubric of section 4(c) because the structure is not 'necessary to meet minimum requirements for the administration' of the area as wilderness."

RESPONSE: We disagree. The necessity of the action was addressed in the Minimum Requirements Decision Guide (MRDG), Appendix B of the EA.

39. COMMENT: The EA's inclusion of a Minimum Requirement Decision Guide is a "misapplication of the process."

RESPONSE: As NPS policy requires us to manage recommended wilderness as designated wilderness, we complete Minimum Requirement Decision Guides (MRDG) as appropriate. We included it in this EA to provide an opportunity for public review and comment on the MRDG.

40. COMMENT: "More importantly, however, is that historical structures are not the same as the historical value mentioned in section 2 of the Wilderness Act. ... Also, historical structures are not embodied as an integral part of wilderness character in the Wilderness Character Monitoring Protocol. Therefore, it is ludicrous and contrary to the very definition of wilderness to suggest that historic structures are an important part of the wilderness character of the area. If anything, structures detract from the wilderness character of an area. ..."

RESPONSE: We disagree. The EA addressed these issues on pages 2, 5, 6, 22, 38 and 39-40.

41. COMMENT: "It is also equally erroneous to suggest, as the EA does, that historic (or any) structures existing prior to recommendation or designation of an area as wilderness are somehow exempt from the requirements of the Wilderness Act."

RESPONSE: The EA does not state that historic structures are exempt from the Wilderness Act.

42. COMMENT: The lookout serves no purpose for the preservation of wilderness. The EA violates case law, the Wilderness Act, and NPS policy on management of recommended wilderness. Structures do not positively contribute to wilderness character, the structure cannot be maintained as proposed since it is not necessary for the preservation of the area as wilderness, and "historical value" in Section 2(c)(4) of the Wilderness Act refers to natural features and not structures.

RESPONSE: We disagree. These issues were addressed on pages 2, 5, 6, 22, 38 and 39-40 of the EA.

43. COMMENT: "The EA violates NEPA mandates for a range of alternatives." "... the EA didn't analyze a non-motorized alternative when the MRDG did."

RESPONSE: We disagree. The EA evaluated No Action and a preferred alternative, and considered but rejected a number of other alternatives. The EA considered but dismissed the use of livestock and the exclusive use of hand tools (a non-motorized alternative) on page 20.

44. COMMENT: Will consultation with the U.S. Fish and Wildlife Service take place for listed wildlife species?

RESPONSE: Informal consultation occurred with the U.S. Fish and Wildlife Service and was documented on page 57 of the EA.

45. COMMENT: The EA is not adequate under NEPA because analysis of rare plants won't occur until after the Decision Notice.

RESPONSE: Rare plants are not anticipated, but it is standard practice to survey for them in backcountry work areas. If rare plants are found at the work camp or lookout site, they can be marked off and avoided.

46. COMMENT: Why didn't the EA acknowledge that helicopters have much greater impacts to wildlife than fixed-wing aircraft?

RESPONSE: Fixed-wing aircraft are not suitable for this project since they cannot carry, drop off, and pick up sling loads. They would not be used and were therefore not analyzed in the EA.

47. COMMENT: The project sounds like a reconstruction; the word "reconstruction" is used on p. 5 of the EA. Please explain how this project is not a reconstruction.

RESPONSE: The project is not a reconstruction because, while the elements that contribute to its listing as a historic structure will be preserved, the building is not being returned to a usable state. Use of the term "reconstruction" was an inadvertent error and has been corrected in the Text Changes section of these errata sheets.

48. COMMENT: "The EA does not clearly explain the responsibilities under the National Historic Preservation Act. Does preservation mean continual reconstruction of a site into perpetuity? Do all listed sites have to be preserved or can they be allowed to deteriorate or can they be removed once fully documented? If not, please explain the removal and/or documentation of listed sites for road construction or other similar development activities?"

RESPONSE: Among other things, Section 110 of the National Historic Preservation Act states that it shall be the policy of the Federal Government to "administer federally owned, administered, or controlled prehistoric and historic resources in a spirit of stewardship for the inspiration and benefit of present and future generations." The historic preservation review process mandated by Section 106 of the National Historic Preservation Act is outlined in regulations issued by the Advisory Council on Historic Preservation (Protection of Historic Properties, 36 CFR Part 800). The regulations require Federal agencies, whether it be the National Park Service or the Federal Highway Administration, to identify historic properties potentially affected by their actions and to seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

The NPS sets the standards for the nation's historic preservation programs. Furthermore, protection of cultural resources is part of the mission of the NPS.

Therefore, if a property listed in the National Register of Historic Places is proposed for removal, the agency must show that this is the only alternative available and demonstrate why other alternatives that would preserve the property cannot be taken. Removal must be reviewed and concurred with by the State Historic Preservation Officer and in some cases, the Advisory Council on Historic Preservation. Mitigation measures developed during consultation may include documentation prior to removal.

49. COMMENT: "How is the use of motorized tools for a structure originally built with traditional means preserving that Historic structure?"

RESPONSE: The National Park Service uses "The Secretary of the Interior's Standards for the Treatment of Historic Properties" to guide its preservation work. The Standards do not require traditional construction methods nor even in all cases traditional materials. The goal of preservation is to sustain the existing form, integrity and materials of an historic property.

50. COMMENT: "Furthermore, an EIS is needed to analyze impacts of this type of non-conforming use in wilderness (or recommended wilderness)."

RESPONSE: We disagree. This project is not a major federal action having significant impacts, nor is the lookout a non-conforming use.

51. COMMENT: "... the assertion that the NPS Organic Act requires the reconstruction (termed maintenance) of the Heavens Peak lookout is not correct."

RESPONSE: The EA does not assert that protection of the lookout is required but explains that under the NPS Organic Act, the enabling legislation that established Glacier National Park, and the National Historic Preservation Act we have a responsibility to preserve cultural resources.

52. COMMENT: "The purpose and need has been so narrowly constrained, that it violates case law."

RESPONSE: We disagree. The Purpose and Need section of the EA identified the need to stabilize a significant cultural resource. On the basis of this need, two of the goals and objectives addressed the preservation of that cultural resource. The remaining goals and objectives addressed meeting the NPS's responsibilities to both wilderness and cultural resources, and therefore led to the consideration of a range of alternatives, some of which were considered but dismissed.

53. COMMENT: "An EIS should have been prepared. This is a major federal action, by definition. The use of motorized equipment in wilderness, a use that is prohibited, is a major action. The fact that the Forest Service would likely opt to use traditional skills in a similar situation involving a structure like this one also indicates a significant degree of controversy."

RESPONSE: We disagree. This is not a major federal action that will have significant effects to resources. Motorized equipment is not prohibited in recommended wilderness provided that it is found to be the minimum tool necessary. We cannot assume what the Forest Service would do in a similar situation.

54. COMMENT: "At what point does a man-made structure that the EA considers an important wilderness value become trash, as suggested in the analysis of alternative A?"

How does that seemingly miraculous transformation take place? What about cumulative impacts to wilderness from future maintenance?”

RESPONSE: When the lookout deteriorates to the point it is no longer a structure and when pieces of it become scattered across the area, the remnants become trash. Regarding future maintenance of the lookout, please see the response to Comment 7.

55. COMMENT: “We have several questions/concerns with regard to the MRDG that also reflect on the inadequacy of the EA. How can the impacts from using hand tools, hiking, and possibly using stock rather than helicopters be considered long-term when the lookout was presumably constructed without motorized equipment by traditional skills in 1945 and the area today is supposedly wild (and trailless), according to the EA? What is the difference, in terms of the duration, from temporary trails created by workers under the proposal versus temporary trails under a non-motorized option? Why are temporary trails that come about as a result of use for hauling repair supplies and equipment considered incompatible for wilderness in this EA when helicopters other motorized equipment and trails aren’t considered incompatible? Why wasn’t an analysis of the dangers of helicopter travel discussed? What scientific data does the Park Service have that show helicopters and power tools are safer than the use of traditional tools and transportation methods in this specific place? Was the original construction operation unsafe?”

RESPONSE: Completing the project without helicopters and power tools was considered and dismissed. This approach would take two to three seasons, much longer than the preferred alternative. A trail would have to be constructed so that livestock and large crews could get through. A trail that is accommodating stock and large crews for two to three full summer seasons would have a much larger footprint, be more prominent, and become much more permanent than a route followed on foot by small crews for a single season. Also, the longer the trail would be on the ground, the more people would learn about it. While a temporary trail/route could develop from the work crews travelling back and forth over one summer, the imprint will be fainter, less navigable, and less apparent to visitors, so it will not get as much use and is less likely to become a permanent feature. See Appendix B of the EA for safety analyses.

56. COMMENT: “The EA’s claim that alternative B is the environmentally preferred alternative is illogical.”

RESPONSE: We disagree. As stated on pp. 26-27 of the EA, the preferred alternative best meets five of the six criteria from Section 101 of NEPA; criterion 6 is not applicable.

57. COMMENT: Plexiglas should not be used in the windows; only materials as close to the original fabric as possible should be used. How is using Plexiglas consistent with preservation laws?

RESPONSE: The Secretary of the Interior’s Standards for the Treatment of Historic Properties does not require that traditional materials be used in all cases. Plexiglas is being used because it is more lightweight than glass and will not shatter. Glass is heavier than Plexiglas, requires heavy packaging, and would require more flights.

58. COMMENT: The response to Question E in Appendix B only addresses the cultural resource and does not acknowledge that there will be impacts to wilderness.

RESPONSE: Question E is part of the Minimum Requirements Decision Guide (MRDG) and asks if the action is necessary to preserve one or more qualities of wilderness. The action is necessary to preserve "other unique components that reflect the character of this wilderness", specifically those of historical value. Cultural resources are therefore addressed in response to Question E. Impacts to wilderness are addressed elsewhere, on pp. 39-40 of the EA and in step 2 of the MRDG where the minimum activity is determined (pp. 69-70).

59. COMMENT: A trail will eliminate resource damage and reduce encounters with grizzly bears from people bushwhacking to the lookout.

RESPONSE: This was addressed on page 20 of the EA.

60. COMMENT: This project could alleviate the lack of day-hiking opportunities from paved roads on the west side of the park, reduce congestion and parking problems at trailheads at Lake McDonald, Avalanche, the Loop, and Logan Pass, and provide a stunning destination of historical value.

RESPONSE: Increasing day hiking opportunities is not part of the purpose and need for this project. The trail to the lookout will not be rebuilt because of the importance of this area to grizzly bears, as discussed on p. 19 of the EA.

61. COMMENT: Consider providing off-site interpretation of the lookout's construction, history, national significance, and stabilization in an accessible location such as the Loop. The park should also create and maintain a webpage to document the progress of the stabilization project and to share information about the lookout.

RESPONSE: These are good ideas and we will consider how best to interpret and document the lookout and the stabilization project for the public at visitor centers and elsewhere. The exhibit at the Shuttle Stop at the Loop already provides some information about the lookout and includes a photo. We will consider providing more information when the panel requires replacement.

62. COMMENT: Would it be possible to have a webcam at the lookout? A webcam would benefit people who are unable to hike to the lookout and would help protect it from vandalism.

RESPONSE: A webcam cannot be placed at the lookout. Webcams require power, which is not available at the site.

63. COMMENT: Consider placing a register at the lookout for people to document their visits to the lookout.

RESPONSE: This will be done.

64. COMMENT: "Secure the lookout in a manner that allows site visitors to see into the structure in at least one location; establish clear guidelines that limit access into the interior of the structure in a manner commensurate to the structure's cultural and spiritual importance."

RESPONSE: The lookout will be locked, and the purpose of the Plexiglas windows is to permit visitors to see inside. Access will be limited to park staff and or volunteers performing inspections or for possible use during emergencies.

65. COMMENT: Consider checking a key out to visitors so they may access the interior of the lookout.

RESPONSE: For the security and protection of the building, a key will not be available for check-out. Only NPS staff or volunteers performing inspections of the structure will be provided access.

66. COMMENT: The lookout was built before 1945, probably in 1940-41, and was probably built by the W.P.A. and/or the CCC.

RESPONSE: We've reviewed our records and this is incorrect.

67. COMMENT: The Wilderness Act does not apply to the management of recommended wilderness areas. The NPS has discretionarily chosen to manage recommended wilderness as wilderness. Standards from the Wilderness Act apply solely to congressionally designated wilderness areas.

RESPONSE: We agree that the NPS has chosen to manage recommended wilderness as if it is designated. This is in accordance with NPS Management Policies (2006) Section 6.3.1. Since NPS Policy requires we manage as if it is designated, it follows that the Wilderness Act applies.

68. COMMENT: The EA should elaborate on Heaven's Peak's non-historical values, including recreational, scenic, educational, and conservation values.

RESPONSE: These values have already been addressed on pp. 36 and 37 of the EA.

69. COMMENT: A latrine and food lockers are needed at the lookout.

RESPONSE: Food lockers and a latrine are not necessary because the lookout will not be used as a visitor facility. Please see p. 21 of the EA.

70. COMMENT: Consider not installing windows or shutters. Windows will make the lookout too visible due to sun reflections, and shutters will flap in the wind and require maintenance. If the structure is enclosed, "light hikers" will be tempted to use it as an overnight destination.

RESPONSE: We disagree. It is our goal to stabilize the lookout so we don't have to keep going up to the site on a regular basis. Plexiglas and shutters will seal the structure, keeping moisture and wind out to prevent deterioration. The shutters will be fastened closed and the building will be locked to prevent entry.

71. COMMENT: Suggest you address toilet facilities at the lookout on p. 17 of the EA.

RESPONSE: Thank you for pointing this out. Toilet facilities for work crews at the lookout are now addressed in the mitigation measures; please see also the Text Changes section of these errata sheets.

72. COMMENT: The historic trail could be added to Figure 3 to better define the project area if it is not defined elsewhere in the EA.

RESPONSE: We do not find it necessary to add the trail to Figure 3, but a description of the project area has been added to the Text Changes section of these errata sheets.

73. COMMENT: "Page 18, 2nd bullet under vegetation talks about watering materials. I did not see the source of the water that will be used. Will the historic seep at the work camp be used for water or will it be flowed [sic] in? If this isn't discussed, a statement should be made somewhere in the document."

RESPONSE: A nearby spring was the original water source for the work camp. Water from this source will be used to water vegetation. Some drinking water will be flown in.

74. COMMENT: On p. 19, recommend using the term "upper Camas" when referring to the Camas drainage, since there are trails in the Camas drainage. Also, reopening trails should be dismissed as an option, and the trail from the work camp to the lookout should be addressed.

RESPONSE: We will keep the language as is since the entirety of the Camas drainage is important for bears. Reconstructing the original trail to the lookout is addressed and dismissed on p. 19.

75. COMMENT: The EA should state that the historical trail will be followed. Where bushwhacking is addressed, the EA should specify that it will occur where the trail is blocked or not visible.

RESPONSE: On p. 16, under Alternative B: Preferred Alternative, the EA states that crews would be "following approximately the same route to the lookout as the original trail." We do not find it necessary to specify the conditions under which bushwhacking will occur; bushwhacking will be required in several areas because the trail has not been maintained for years.

76. COMMENT: The historic trail from the work camp to the lookout will be heavily used during the work period. Will the trail be left as is after the project is complete?

RESPONSE: The original switchbacks on the talus are detectable and passable by foot. No improvement will be done and we expect the switchbacks will continue to fill in with talus.

77. COMMENT: "I believe the Park needs to incorporate into their management document a plan to not let the lookout get into this neglected situation and deterioration ever again."

RESPONSE: Future work on the lookout (other than very minor maintenance that would not require an EA) is beyond the scope of the project and would be subject to available funding and NEPA analysis. Development of a management plan for the lookout will be considered in the future.

REFERENCES

- Goldstein, M. I., A. J. Poe, E. Cooper, D. Youkey, B. A. Brown, T. L. McDonald. 2005. Mountain goat response to helicopter overflights in Alaska. Wildlife Society Bulletin 33(2): 688-699.