



National Park Service
U.S. Department of the Interior

Glacier National Park
Waterton-Glacier International Peace Park
Montana

Finding of No Significant Impact Hazard Tree Management Plan

Background

In compliance with the National Environmental Policy Act, Glacier National Park prepared a plan and environmental assessment to examine alternatives and environmental impacts associated with implementation of a new Hazard Tree Management Plan (HTMP). Hazard trees are those trees that, due to disease or structural failure are at imminent risk of falling and striking people or property. The purpose of the park's new HTMP is to guide park managers in reducing the risk to people and property while protecting ecosystem integrity. The Park's 1994 Hazard Tree Management Plan did not address hazard tree management in the backcountry thus preventing the park from implementing a program in this area of the park. It also did not provide guidance on monitoring, disposition of downed trees, or mitigation for the loss of trees. The new Plan provides a procedure for identification and assessment of what represents a hazard tree and management actions to select from to reduce the hazard while addressing ecological concerns. The new Plan also addresses hazard tree management in designated campgrounds and around structures in the backcountry. It also provides guidance on how to treat downed trees parkwide and provides for mitigation for the loss of trees.

Selection of the Preferred Alternative

The preferred alternative is described as the Plan. It will be consistent with management zones developed in the 1999 *General Management Plan*; provide guidance for monitoring, a protocol for evaluating trees with obvious defects or damage, decision making tools to determine the fate of identified hazard trees and mitigation for the loss of trees. The preferred alternative also addresses management of hazard trees in established backcountry campgrounds and around backcountry cabins. This new plan will replace the 1994 *Hazard Tree Management Plan*. The preferred alternative best meets the purpose and need as described in the EA as well as the primary objectives.

Assure park-wide consistency and continuity in hazard tree surveys, ratings, documentation, and evaluation of management alternatives.

- Clarify management zones used for setting priorities
- Clarify responsibility of hazard tree management along road corridors
- Clarify locations and responsibilities for cutting trees in the backcountry management zone

Implement a systematic, yet ecologically sound, program that provides regular prioritized surveys, evaluation of potentially hazardous trees, and treatment.

- Clarify the type of hazard tree monitoring to be conducted

Preserve ecosystem dynamics and structure, particularly the age classes and species diversity, while reducing hazards.

- Clarify the procedures for dealing with downed trees
- Implement guidelines for planting young trees as mitigation for tree removal

Mitigation Measures

The following mitigation measures will be implemented to minimize the degree and/or severity of adverse effects of hazard tree management as appropriate.

- Removal of hazard trees with active nests might be delayed until after the nesting season.
- The number of hazard trees recommended for felling will be compared to the number of trees felled in previous years within the area to maintain the natural structure of the stand.
- Chainsaw restrictions will be in place at a few lakes when nests are occupied.
- Any hazard trees identified as “wildlife trees” and requiring removal will not be cut until the fall to avoid potential impacts on breeding species that might be using the tree.
- The park will begin collecting additional information during hazard tree examinations. For trees within 300 feet of a lakeshore, the distance to the shore will be recorded as will the tree’s status as a bald eagle perch tree (after consultation with a Wildlife Biologist).
- Chainsaws will not be used within a ½ mile of a bald eagle nest prior to July 15.
- The park will plant two young trees, of the same species and in the same general vicinity, for each tree removed for hazard tree purposes. The trees will be grown from seeds collected in the park and raised in the park’s native plant nursery. Records will be kept on the species, tree age, and location of all newly planted trees and monitoring will be performed to determine their survival rate.
- Periodically, hazard tree data, including planting records, will be reviewed to re-assess the potential cumulative impacts of the program on perch trees and lakeshore tree recruitment.
- The park plant ecologist will provide a map of rare plant locations to the hazard tree program manager prior to the start of cutting activities each year.

Alternatives Considered

The other alternative considered was no action which would have continued hazard tree management according to the 1994 *Hazard Tree Management Plan* which used management zones that are out of date, it did not allow for hazard tree management in the backcountry, it did not provide guidance on the disposition of downed trees or identify mitigation for removal of trees. Two other alternatives were considered but dismissed from further analysis. One was to cut down all dead or dying trees in developed areas and backcountry campgrounds and around historic structures throughout the park. It was not considered further because it would be in opposition to the park mandate to protect natural resources. The other alternative that was considered but dismissed from further analysis was to not conduct any hazard tree treatment in the park and allow these trees to fall naturally. This was dismissed from further analysis due to unacceptable threats to people, structures and vehicles.

Environmentally Preferred Alternative

The “new Hazard Tree Management Plan” alternative is the environmentally preferred alternative. The environmentally preferred alternative is determined by applying 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 esthetically and culturally pleasing surroundings; 3) attain the widest range of beneficial uses of the environment without degradation, risk of 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 that 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.

The Preferred Alternative is the environmentally preferred alternative because it best addresses these six evaluation factors. Both the no action alternative and the preferred alternative would fulfill criteria 1, 2, 3, and 4 by providing a proactive plan for reducing the risk to personal safety and historic resources caused from hazard trees. Neither alternative specifically addresses criteria 5, though they do not conflict with it. The preferred alternative better fulfills criteria 6 because it provides more options for using trees that have been removed to benefit other park programs when in the past trees were most often burned at the dump.

Why the Preferred Alternative Will Not Have a Significant Effect on the Human Environment

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

Impacts that may be both beneficial and adverse

The preferred alternative will have minor, temporary, localized and adverse impacts on vegetation as some trees from developed and backcountry areas of the park will be felled. Wildlife, including bald eagles, will experience minor, long-term, localized and adverse impacts from implementing the preferred alternative as a hazard tree treatment action has the potential to fell a tree that is inhabited by a wildlife species. The threatened grizzly bear and Canada lynx (see errata sheet) will experience minor, temporary, local and adverse effects from artificial noise and increased human activity from hazard tree management actions. The preferred alternative may have minor, long-term, localized and adverse impacts to ethnographic resources if culturally scarred trees become hazard trees and have to be treated. The preferred alternative will have moderate, long-term, localized and beneficial impacts to public health and safety as hazard tree treatment will fell trees and limbs, alleviating the potential to harm visitors, staff or property. Negligible to minor, long-term, localized and adverse impacts will occur on recommended wilderness values as a result of visible remaining stumps and the potential for temporary unnatural noise.

Degree of effect on public health or safety

The primary impetus for developing a Hazard Tree Management Program was to reduce risks to visitors, employees and structures as directed in the Visitor Safety section of the NPS Management Policies (NPS 2006a). Weather in northwest Montana can often present extremes in rainfall, snowfall, and wind, which can cause trees to fall or slowly weaken trees over time. Fire is also a natural and common cause of weakening trees and insects and disease can also cause trees to become hazard trees. Trees along edges of openings such as lakeshores or parking lots are often the most exposed to the elements and trees in developed areas are also susceptible to soil compaction around their root systems. Since these are the same locations with high concentrations of visitors and staff, vigilance for hazard tree management is essential to reducing the risks to the public while visiting Glacier National Park.

The preferred alternative will have moderate, local, long-term *beneficial* impacts to public health and safety in the visitor service and rustic zones. In the backcountry and day use zones, impacts will also be moderate, local, long-term and beneficial because of regular, proactive surveys and treatment for hazard trees at developed campgrounds and around historic structures in the backcountry zone.

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

There are no prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas affected.

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

Comments received from the public during the review of the EA supported the Plan and did not indicate a high level of controversy.

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

The effects of implementing a hazard tree management Plan program do not pose a high level of uncertainty. While it is unknown exactly which trees may become hazard trees in the future, it is well within an acceptable level. The environmental process has not identified any effects that 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 is not expected to set a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration. No concerns were raised during the environmental process.

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

No major (significant) cumulative effects were identified in the EA.

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

In 2006, the Montana SHPO concurred with the park in the National Register eligibility of 34 culturally scarred tree sites (CST) containing 74 individual trees. The preferred alternative could have minor, long-term, localized and adverse impacts to ethnographic resources if CSTs became hazard trees and have to be treated. In the event a CST becomes a hazard tree, ethnographic resources will experience minor, long-term localized adverse impacts.

The State Historic Preservation Office noted during scoping that CSTs could be inadvertently felled if employees are not trained to identify these resources. The SHPO suggested the NPS include a process for identifying these trees in the proposed action. In a December 2003 meeting with the Confederated Salish and Kootenai Tribal Historic Preservation Department (CSKT) the staff suggested providing training to work crews to identify these trees and that if such a tree does become a hazard, it should be detached above the scar. In a separate December 2003 meeting with the Blackfeet Tribal Business Council Liaison, the tribe said they had no concerns about hazard tree management.

The Hazard Tree Management Plan includes a provision for training employees to recognize culturally scarred trees to address the recommendations of the SHPO and the CSKT. No additional comments were received from the SHPO or the Tribes during public and agency review of the EA. There is little potential for a culturally scarred tree to be

identified as a hazard tree. However, if that should happen, Glacier National Park would complete Section 106 compliance with the SHPO and CSKT.

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

The NPS *had* determined in the EA that the proposed action would have “no effect” on gray wolves and bull trout and Canada lynx but “may affect, not likely to adversely affect” grizzly bears. In accordance with Section 7 of the Endangered Species Act, NPS submitted a biological assessment for review and concurrence with these determinations. On October 2, 2008, the U.S. Fish and Wildlife Service concurred with the determination for grizzly bears, but determined that the Canada Lynx “may be affected, not likely adversely affected” by actions in the Hazard Tree Management Plan. The EA had stated “treatment (of hazard trees) in the backcountry zone during the denning period (May to August) has the potential to disturb lynx at den sites; however the effects are expected to be minimal. . . .” The US Fish and Wildlife Service determined that based on this, the effect determination is “may affect, not likely to adversely affect.” The text in the EA was changed in the attached errata sheet.

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

This action does not violate any federal, state, or local environmental protection laws.

Appropriate Use, Unacceptable Impacts and Impairment

Sections 1.5 and 8.12 of *NPS Management Policies* underscore the fact that not all uses are allowable or appropriate in units of the National Park System. The proposed use was screened to determine consistency with applicable laws, executive orders, regulations, and policies; consistency with existing plans for public use and resource management; actual and potential effects to park resources; total costs to the Park Service; and whether the public interest would be served. The 2006 *NPS Management Policies* guide the Park Service’s public risk management program. While recognizing that competing concerns often restrict the Service’s ability to eliminate hazards, the Service will strive to protect human life and provide for an injury-free visit, doing so within the constraints of the 1916 Organic Act and available resources. *Director’s Order #80: Asset Management* directs the Service to strive to locate, design, build, operate, and maintain facilities so as to minimize natural and man-made hazards. *Director’s Order #50C: Public Risk Management Program* recognizes the park users are expected to understand that there are inherent risks and potential consequences associated with visiting NPS sites. In recognizing this, the park is committed to reducing these risks as appropriate, especially in areas where the park requires utilization, such as designated campgrounds, picnic areas, buildings, etc. The preferred alternative actions described in this document are consistent with the objectives of Glacier National Park’s *General Management Plan* (1999), as well as the 1994 *Hazard Tree Management Plan* the park is currently operating under. Therefore, the Park Service finds that the preferred alternative is an appropriate use. Because the application of mitigating measures is expected to be successful in ensuring that no major adverse impacts will occur due to the treatment of a hazard tree

and that satisfactory revegetation/restoration and wildlife protection; implementation of the preferred alternative will not result in any unacceptable impacts.

In addition to reviewing the definition of “significantly” under the NEPA regulations, the NPS has determined that implementation of the preferred alternative will not constitute an impairment to the integrity of Glacier National Park’s resources or values as described by *NPS Management Policies* (NPS 2006 § 1.4). This conclusion is based on the NPS’s analysis of the environmental impacts of the proposed action as described in the EA, the public comments received, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in 2006 *NPS Management Policies*. The EA identified less than major adverse impacts on vegetation, wildlife, the federally threatened grizzly bear, ethnographic resources, public health and safety, and recommended wilderness. This conclusion is further based on the Superintendent’s professional judgment, as guided and informed by Glacier National Park’s *General Management Plan* and the *1994 Hazard Tree Management Plan*. Although the plan has some negative impacts, in all cases these adverse impacts are the result of actions taken to preserve and restore other park resources and values. Overall, the plan results in benefits to park resources and values, opportunities for their enjoyment, and it does not result in their impairment.

Public Involvement

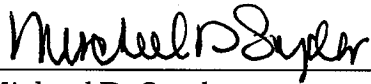
The environmental assessment was made available for public review and comment during a 30-day period ending October 17, 2008. The US Fish and Wildlife Service responded with comments under Section 7 of the Endangered Species Act that has required a change in the EA as noted in the attached errata sheet. A member of the public also responded stating their support for the Preferred Alternative.

Conclusion

As described above, the preferred alternative does not constitute an action meeting the criteria that normally require 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 generally adverse impacts that range from localized to widespread, short- to long-term, and negligible to moderate. There are no unmitigated adverse effects on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

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

Approved:



Michael D. Snyder
Director, Intermountain Region, National Park Service



Date

ERRATA SHEETS

HAZARD TREE MANAGEMENT PLAN

ENVIRONMENTAL ASSESSMENT

GLACIER NATIONAL PARK

Substantive Comments

During informal consultation with the US Fish and Wildlife Service, after review of the Biological Assessment (BA), they concurred with the park's determination of "may affect, not likely to adversely affect" for grizzly bear. However they also determined "may affect, not likely to adversely affect" for Canada lynx based on information provided in the BA. This was different than what Glacier National Park had concluded for Canada lynx. The EA documented the determination to be "no effect" but also stated "treatment in the backcountry zone during the denning period (May to August) has the potential to disturb lynx at den site; however, the effects are expected to be minimal..." This errata sheet modifies the EA in the areas noted below.

TEXT CHANGES Page 4, Impact Topics – Topics Selected

BOLD TEXT INSERTED, STRIKETHROUGH TEXT IS DELETED

Threatened and Endangered Species and Species of Concern

The Endangered Species Act (ESA) of 1973 requires examination of impacts on all federally-listed threatened, endangered, and candidate species. Section 7 of the ESA requires all federal agencies to consult with the U.S. Fish and Wildlife Service (or designated representative) to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of listed species or critical habitats. In addition, the 2006 *NPS Management Policies* and NPS 77: *Natural Resources Management Guidelines, Chapter 2* require the National Park Service to examine the impacts on federal candidate species, as well as state-listed threatened, endangered, candidate, rare, declining, and sensitive species (NPS 2006a).

There are three federally threatened wildlife species, the bull trout, Canada lynx, and grizzly bear inhabiting GNP and one federally endangered species, the gray wolf. Grizzly bears (*Ursus arctos horribilis*) could be temporarily displaced by human activity and noise caused by chainsaws and explosives during tree removal. Hazard tree management in the backcountry zone during the denning period (May to August) has the potential to disturb Canada lynx (*Lynx canadensis*) as at den site; however the effects are expect to be minimal. Therefore, under Section 7 of the ESA, threatened and endangered species are included as an impact topic. Since bull trout and gray wolf ~~Canada lynx~~ would not be affected, they are dismissed from further consideration.

Page 5, Impact Topics Dismissed from Further Consideration

Under “Threatened and Endangered Species and Species of Concern”

“There are no known locations of federally listed plant species in Glacier National Park. The federally threatened bull trout (*Salvelinus confluentus*) would not be affected by the proposed plan because no work would be conducted within waterways or have an effect on water resources. ~~The federally threatened Canada lynx (*Lynx Canadensis*) would not be affected by the proposed plan because work would not alter habitats or human use patterns in or near areas that could potentially serve as den sites.~~ The federally endangered.....”

Page 64, Summary of Impacts on each Alternative on Selected Resources (see bold text)

Impact Topic	No-Action Alternative	Preferred Alternative
TES – Grizzly bear and Canada lynx	Minor, temporary, local and adverse effects from artificial noise and increased human activity	Minor, temporary, local and adverse effects from artificial noise and increased human activity

Page 82, Threatened Species (Affected Environment/Environmental Consequences)

Add the following bold text to the affected environment description pertaining to Canada lynx.

Canada lynx (Threatened)

Numerous records of Canada lynx (*Lynx canadensis*), or signs of them, exist for many areas of the park; although very little is known about the demographics and status of GNP’s lynx population. **Lynx habitat is generally described as Rocky Mountain Conifer Forest with a dense undercover of thickets and windfalls. Lynx generally forage in young conifer forests especially where their primary prey, snowshoe hare (*Lepus americanus*), is abundant. Younger trees do not frequently become hazard trees because they lack the structure and weight that can topple a tree and they have relatively small target areas. The common component of lynx den sites observed in other regions appears to be large amounts of woody debris and minimal human disturbance (Ruediger et al. 2000).**

Actions that could adversely affect lynx include elevated levels of human access into lynx habitat, human activity or noise near den sites, modification of forested habitat, expansion of the range of competitors and/or predators, or reduction of prey species populations. Hazard tree treatment in the backcountry zone during

the denning period (May to August) has the potential to disturb lynx at den sites; however, these effects are expected to be minimal due to the location of the activity near human-use areas (designated campgrounds and around historic structures) and the short-term nature of the activity. The proposed actions would not alter habitats or human-use patterns in or near areas that could potentially serve as den sites.

Page 84, Impact Analysis – Threatened and Endangered Species

Add (in bold) description of associated impacts and cumulative impacts for the No Action Alternative and the Preferred Alternative for Canada lynx.

Impact Analysis – Threatened and Endangered Species

No Action Alternative

Actions under this alternative would continue minor, adverse, short (temporary) and long-term and localized impacts on grizzly bears and Canada lynx. The noise could continue to temporarily displace grizzly bears and Canada lynx from an area. Listed species Grizzly bears are most likely to be present in an area during the early spring or late fall when there are few visitors in the park. Due to the infrequent nature of hazard tree treatment actions during these times as well, incidental disturbance of the grizzly bear and Canada lynx would be rare and infrequent but may occur. Actions under this alternative may continue to disturb food sources temporarily but would not have an impact on prey population numbers or frequency. Habitat for these species would not be substantially impacted.

Cumulative Effects. Actions proposed in this alternative, combined with other projects that result in tree removal in the park (such as fuel reduction and removal of trees for new structures), are minor and localized in scope. However, many of these activities would occur in the same areas as hazard tree program actions, primarily developed areas. Planting new trees after removing hazard trees would reduce the overall loss of trees, and cumulative impacts of hazard tree management and other projects within the park would be **minor, localized, long-term, and adverse**. Actions such as logging that may occur on adjacent lands outside of the park would be conducted at a larger scale than hazard tree management. This could cause dispersal of grizzly bears and Canada lynx on National Forest land into the park, increasing populations and competition for resources. The cumulative effects with projects outside of the park, and regionally, would be minor.

Preferred Alternative

Impacts of the Preferred Alternative would be similar to those described for the No Action Alternative. Overall, the Preferred Alternative would result in **minor, localized, short (temporary) and long-term, and adverse** impacts to federally listed species.

Cumulative Effects. Actions proposed in the Preferred Alternative combined with other

projects that result in tree removal in the park (such as fuel reduction and removal of trees for new structures) would be identical as listed for the No Action Alternative: **minor and localized.**

Conclusion for Both Alternatives.

Impacts from the Preferred Alternative would be minor, adverse, short (temporary) and long-term and localized for the grizzly bear and **Canada lynx**. Cumulative impacts in conjunction with the Preferred Alternative would be minor, localized, short (temporary), long-term and adverse as a result of incidental disturbance and possible temporary displacement. Under Section 7 of the Endangered Species Act, park biologists have determined that this project may affect but is not likely to adversely affect the grizzly bear and **Canada lynx**. A Biological Assessment (BA) has been prepared and submitted to the US Fish and Wildlife Service.

Because there would be no major, adverse impacts to **Canada lynx or grizzly bear** resources whose conservation is 1) necessary to fulfill specific purposes identified in the establishing legislation and proclamation of Glacier National Park; 2) key to the natural or cultural integrity of the park; or 3) identified as a goal in the park's General Management Plan or other relevant National Park Service planning documents, there would be no impairment of the park's resources or values.

Page 90, Summary of Compliance with Federal and State Regulations

The Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) – Section 7 of the Endangered Species Act is designed to ensure that any action authorized, funded, or carried out by a federal agency likely would not jeopardize the continued existence of any endangered or threatened plant or animal species. If a federal action may affect threatened or endangered species, then a biological assessment must be prepared and submitted to the U.S. Fish and Wildlife Service (USFWS). Glacier National Park biologists have determined that this project would result in no effect on the bull trout, gray wolf or federally listed plant species. Informal consultations would be sought with the USFWS for the grizzly bears and **Canada lynx** as actions associated with the alternatives “may affect, not likely to adversely affect” these species on an incidental, short-term basis. A biological assessment will be submitted along with the environmental assessment for their review and concurrence.