FINDING OF NO SIGNIFICANT IMPACT

For a Hazardous Vegetative Fuel Treatment Plan
Denali National Park and Preserve

The National Park Service (NPS) has prepared an environmental assessment (EA) that evaluates a Hazardous Vegetative Fuel Treatment Plan (Fuel Plan) to guide protection of the built environment in Denali National Park and Preserve (Denali) from wildland fires. The Fuel Plan details protocols for the removal of vegetation that could carry a wildland fire toward structures and a maintenance plan for retaining competent fire breaks around the facilities.

Denali needs a Fuel Plan in order to protect the built environment (including historic structures) as well as the lives of visitors, employees, and firefighters in the event of a wildland fire. Many of the buildings in Denali have been built within the forest or the forest has since expanded to the proximity of the structures. Due to the remoteness and difficulty of access, it takes a significant amount of time, effort, and resources to protect cabins and structures during a fire.

By implementing the prescription in the plan, a defensible space will be created and maintained around the park structures. This space will allow radiant heat from a wildfire to dissipate, keeping the building from igniting. It will also prevent structural fires from igniting the forest or other structures, and it will provide a safe area for suppression crews to work.

In **Alternative 2**, **FireWise Landscaping** (Preferred alternative), the National Park Service will apply the Fire Wise Community Action Program and remove hazardous vegetative fuel that surrounds structures in the developed and backcountry areas within Denali. The proposed treatment area incorporates about 86 acres in the Park Development Zone and also includes isolated historic and cultural sites located throughout the park, an area of about 21 acres. A maintenance program involving periodic repeated removal of vegetation is also part of the plan. Similar treatments will also be applied to new structures.

The area around each structure will be divided into three fuel treatment zones:

- In Zone 1, a one-foot radius immediately adjacent to a structure, will be free of all vegetation (including grass) around the foundation of the structure. This zone will apply only to frontcountry structures.
- In Zone 2, combustible vegetation will be removed to create a 30-foot buffer around the structure. This area could be manicured lawns, gardens, flowerbeds, or naturally occurring groundcovers (herbaceous plants, low shrubs, and/or leaf litter).
- In Zone 3, extending a minimum of 70 feet from Zone 2, the fuel will be thinned out and limbed up to 6 feet. Crown spacing will be no less than 20 feet. (Crown spacing is measured from the furthest branch of one tree to the nearest branch on the next tree.) Depending on the availability of natural barriers, the extent of Zone 3 may have to be expanded on slopes to accommodate the increased intensity in fire behavior on slopes.

Areas around each structure will be individually evaluated to design defensible spaces within the context of that structure's use, location, and cultural significance, including the proximity of green lawns, driveways, roads or natural fuel breaks. Limited numbers of trees could remain in Zone

2 as long as they are not leaning toward the structure or do not have branches that extend over the roof.

Alternatives

In **Alternative 1**, the **No-Action alternative,** no coordinated program for clearing or thinning vegetation around structures would occur. Vegetation would continue to grow and accumulate around structures. The park's wildland fire management staff and structural fire brigade would respond to fires in accordance with the Interagency Fire Management Plan. Trees that present a physical hazard to personnel, structures, or equipment would be removed on a case by case basis.

Alternative 3 (**FireWise Landscaping with Holding Lines**) would include all the aspects of Alternative 2 and additional clearing to create fuel-free holding lines up to 16-feet wide around the developed areas at Headquarters, C-Camp, and Toklat. The lines would be located to capitalize on natural (rock outcroppings, streams) and manmade (roads, trails, utility corridors) fuel breaks. They would also be located close enough to structures that a wildfire that crossed the line would not become unmanageably intense before it reached Zone 2 of the FireWise landscaping.

Holding lines are designed as a first line of defense to stop a wildfire from entering the developed area. Intentional burnout operations between a holding line and the wildfire could be used.

Environmentally Preferred Alternative

Alternative 1 (No Action) is identified as the Environmentally Preferred Alternative because it affects wildlife and vegetation the least. The No Action alternative, however, would neither provide a defensible space for protection of park structures from a wildfire nor provide clearings around buildings so that a structural fire does not spread into the forest.

Public Involvement

A 36-day public review of the EA was conducted from November 18, 2002 to December 23, 2002, with an extension for comments granted through January 3, 2003. The press release announcing the EA was mailed to local media and the EA was posted on the park's web site and was mailed to 20 agencies, organizations, and individuals. Four comment letters were received on the EA. Three commenters fully supported the preferred alternative and one supported a more limited effort.

One commenter was concerned about the potential for root sucker growth when cutting off trees and shrubs at ground level, and also that vehicles assisting in the removal of trees may have to leave the roadways. We agree that stumps should be removed in lawn-type areas and around driveways and structures. Stumps more distant from structures will be removed on a case-by-case basis. Plywood and rubber mats for the purpose of minimal ground disturbance will be placed on off-road areas for vehicle use where at all practical.

While supporting the project, another commenter had numerous concerns: 1) that the Fuel Plan did not fully complement the draft Cultural Landscape Rehabilitation Plan prepared for the Headquarters Historic District. This has also been a concern of the NPS since the Fuel Plan was

first proposed. The Cultural Landscape Plan is currently not a completed plan, but we are convinced that the Fuel Plan, including mitigation measures, conforms with the Cultural Landscape Plan goals. 2) The NPS agrees with concerns expressed about oversight of contractors, using "treatment zones" as guidelines, and limiting the use of mechanized tools during work in designated wilderness, and has addressed these concerns in the mitigation section. 3) that the initial removal process take place during periods of low visitation. The NPS agrees that there should be an effort for minimal disruption to the visitor experience; however, crews for this type of work are often only available during the summer and inclement/cold weather would diminish project efficiency during the non-visitor season.

A commenter proposing a more limited plan requested that noise mitigation would be observed at all sites, not just in wilderness. The NPS agrees. He also questioned the selection of 1926-1941 as the "period of significance" for the Headquarters Historic District. These dates are the years when the majority of the community of administrative buildings were constructed at park headquarters. The dates were used in the 1987 nomination for eligibility for the National Historic Register. His main comment was that the preferred alternative was far too severe a treatment in the Headquarters area. The NPS agrees that a strict adherence to the Zone prescriptions would not conform with the landscape seen in photographs of the headquarters area during the historic period of significance. The execution of the plan will balance the severity of the Zone prescriptions with the mitigating cumulative protections of roads, lawns, graveled areas, and other areas with limited or thinned vegetation.

Mitigation and Monitoring

Mitigation to be taken in conjunction with implementing the NPS preferred alternative includes:

1. The Park Superintendent will retain the authority to override decisions where hazard fuel removal conflicts with overall landscaping intentions.
2. Treatment work will start with structural resources designated or eligible for inclusion on the National Register of Historic Places and year-round residences.
3. Treatment work will not be performed on abandoned structures that are not eligible for inclusion on the National Register of Historic Places and structures without roofs.
4. Representatives from Cultural Resources and Fire Management will review all actions in the field and agree on the designations made for each area or building perimeter.
5. The number of trees removed will vary at each location depending on the type and characteristics of the vegetation, slope and aspect, and degree of significance of the structure.
6. NPS staff will devise a site protection plan for each backcountry structure.
7. Locations for treatment crew staging, stockpiling of equipment, parking, landing, and administrative functions will be identified.
8. Prior to the mobilization of removal equipment and workers, including contractors, a meeting will be held on site to review procedures.
9. Plywood and rubber mats for the purpose of minimal ground disturbance will be placed on off-road areas for vehicle use where at all practical.
10. Helicopter access will not be permitted for the long term maintenance program for any sites within the existing Denali Wilderness.
11. Motorized tools such as chainsaws and "weed eaters" will be permitted for the initial fuel reduction at both designated and suitable wilderness sites.

12. Mechanized equipment used for treatment work will use best available technology for noise abatement.
13. Where feasible, subsistence permit holders will be encouraged to maintain the defensible space around the cabins they use.
14. The removal of trees will be accomplished in a manner that minimizes disturbance of administrative and public activities.
15. Root pruning with fertilization should be done a season before the treatment trees and stumps are removed.
16. To plan for successional change, selected seedlings and saplings will not be removed from Zones 2 and 3.
17. Limbing of trees between 30 and 100 feet away from a building will be evaluated on an individual basis, but a rule of thumb will be the closer to the building, the higher the limbing.
18. Some snags will remain on the outer edges of Zone 3. Snags will not remain in Zone 2
19. Where feasible, shrubs and branches will be chipped rather than burned.
20. Re-treatment will be necessary the first year after initial removal and roughly every two to five years thereafter.
21. Reduction in the height and density of herbaceous plants, grasses, and small shrubs will be done annually via mowing in developed areas.
22. The area around new structures will be treated using the guidelines of this plan.
23. If concealed cultural resources are encountered during the project, work will not proceed until the Superintendent has been notified, the resources are properly evaluated, and protected as appropriate.

Environmental Consequences of the NPS Preferred Alternative

The NPS has determined that the preferred alternative can be implemented with no significant adverse effect to the natural or cultural resources as documented by the EA and briefly summarized below.

Vegetation

Impacts to vegetation would be localized and would constitute removal of trees, tree limbs, and shrubs, including some loss of trees damaged during removal of the target trees. White spruce community types are common on the sites selected for constructing structures and this limited permanent vegetation removal would not affect the functioning of these types. There would be changes in the light and moisture conditions at the ground surface due to tree canopy removal. This may result in eventual change in species composition of herbaceous plants and short shrubs and a potential increase in habitat for exotic plant species. The area involved is small, however, and exotic species have been a limited problem at Denali.

Wetlands

This action would likely involve vegetation removal and ground trampling which would have only localized minor impacts on wetland communities.

Wildlife

This alternative would have negligible impacts on wildlife. Approximately 50 acres of small mammal habitat would be altered, but these particular species (voles, lemmings, and hares) are

capable of abandoning the area and would probably do so once activity begins. Losses of individuals are expected to be minimal.

Air Quality
Debris in the form of trees, shrubs, and tree limbs would be burned resulting in smoke generation. Because effects on air quality would be short-term and occur only in localized areas, impacts under this alternative would be negligible.

Cultural Resources
Reducing hazardous vegetative fuel to protect cultural sites from fire would have moderate positive impacts on cultural resources because these actions would protect sites from fire.

Wilderness
The use of motorized equipment such as helicopters and power tools to remove hazardous vegetative fuel would generate noise at treatment sites; however, the total acreage of impact is small and the sites are closely associated with pre-existing impacts in the form of structures and older partial clearings of vegetation. Because impacts to wilderness would be short-term and local, impacts would be minor.

Visitor Experience
Visitors in wilderness areas would be annoyed by the noise and visual intrusions from the use of motorized equipment such as helicopters and power tools to remove hazardous vegetative fuel. Visitors in Frontcountry areas would experience temporary road closures and noise in otherwise fairly quiet areas. These disturbances may degrade the visitor experience; however, there is already some expectation of low levels of noise in frontcountry areas. Actions under this alternative would cause disturbances that would have short-term, minor negative impacts on the visitor experience

FireWise landscaping itself may present an ideal interpretive theme that would be useful to visitors who reside in wildland/urban interfaces.

Visual Resources
Many park structures that are currently hidden from view would become more visible and screening between residences would be reduced. Some people would perceive this in a positive light because of enhanced awareness of the park's history. Others would perceive this negatively, as they may prefer screening between residences and may not care to see structures in the backcountry. Impacts to visual resources would be minor because a marked change in the visibility of structures would occur only in a few locations.

Park Management
Initial clearing and subsequent maintenance of areas around the structures would periodically disrupt local activities. The majority of work would occur during one season and the impacts would be temporary.

Decision

The National Park Service's decision is to select the NPS preferred alternative. The decision includes mitigation measures on hazardous fuel evaluation, hazardous fuel removal, and maintenance activities as identified in the FONSI.

Rationale for the Decision

The NPS preferred alternative is chosen because it best meets the objective of protecting the built environment of the park. By implementing the prescription in the plan, a defensible space will be created and maintained around the park structures. This space will allow radiant heat from a wildfire to dissipate, keeping the building from igniting. It will also prevent structural fires from igniting the forest or other structures, and it will provide a safe area for suppression crews to work. Creation of this space will reduce the risk of property damage in the event of a wildland fire, improve security for visitors and residents, and reduce the risks for firefighters. The additional holding lines proposed in Alternative 3 will not be necessary given the protections instituted under the preferred alternative and the mitigating cumulative protections of roads, lawns, graveled areas, and other areas with limited or thinned vegetation.

It is important to note that it is the historic buildings that constitute and give meaning and significance to the Historic District. Without them the District would not exist. Protecting these structures from fire critical, and the preferred alternative is the least disruptive action that provides an acceptable level of protection.

This preferred alternative is consistent with the 1986 Park General Management Plan, the 1997 Entrance Area and Road Corridor Development Concept Plan/EIS, and National Park Service Management Policies.

Adverse impacts such as temporary use of mechanized equipment in designated wilderness, removal of trees and shrubs from the perimeters of structures, including those in the headquarters historic district, and temporary local disruption to visitors and staff during the clearing operations will be either temporary and/or minor in effect. These impacts will not result in an impairment of park natural resources fulfilling specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park and will not violate the NPS Organic Act.

The preferred alternative complies with the Endangered Species Act and the National Historic Preservation Act. There will be no significant restriction of subsistence activities as documented by the Alaska National Interest Lands Conservation Act, Title VIII, Section 810(a) Summary Evaluation and Findings.

I find that the proposed action does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, in accordance with the National Environmental Policy Act of 1969 and the regulations of the Council on Environmental Quality (40 CFR 1508.9), an environmental impact statement will not be prepared.

Recommended:_____

Superintendent, Denali National Park and Preserve Date

Approved:_____

Regional Director, Alaska Region Date