

APPENDIX C.1
DRAFT ENVIRONMENTAL ASSESSMENT
FIRE MANAGEMENT PLAN
FOR
WRANGELL ST. ELIAS NATIONAL PARK and PRESERVE

PREPARED BY
NATIONAL PARK SERVICE
WRANGELL-ST. ELIAS NATIONAL PARK and PRESERVE
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DRAFT ENVIRONMENTAL ASSESSMENT

Fire Management Plan for Wrangell-St. Elias National Park and Preserve

I. Introduction

A. PURPOSE AND NEED

The National Park Service proposes implementing National Park Service Director's Order 18 (1998) by establishing a fire management plan for Wrangell-St. Elias National Park and Preserve. This fire management plan is a comprehensive document and outlines Wrangell-St. Elias National Park and Preserve's fire management goals and describes the policies and actions by which these goals will be realized. The plan will formalize the fire management decision-making process and the procedures that have been in place for over 15 years, redefine fire management strategies, establish the park's fire management organization and responsibilities, and relate resource management goals to fire management strategies. With the implementation of the proposed action, fire management within Wrangell-St. Elias National Park and Preserve will remain status quo and the on-the-ground application of the fire management strategies will continue as in the past.

This plan is necessary for the management of wildland fire at Wrangell-St. Elias National Park and Preserve which is potentially complex. Fire poses a potential threat to life and property as well as cultural and historic resources in and around the Park/Preserve. At the same time, however, fire has long been an integral component of the area's ecosystems and is critical for the maintenance of virtually all native conditions, from plant and animal populations to soil and permafrost layers. Accordingly, the scope of the preferred alternative and other considered alternatives entails the planning and implementation of policies and practices flexible enough to allow the simultaneous pursuit of protection and resource management goals.

This environmental assessment (EA) has been prepared in accordance with the National Environmental Policy Act of 1969 and the regulations of the Council of Environmental Quality (40 CFR 1508.9). It evaluates the potential impacts to cultural and natural resource values which could result from implementing the Wrangell-St. Elias National Park and Preserve Fire Management Plan. The environmental assessment is intended to facilitate decision-making based on an understanding of the environmental consequences of the proposal and determine whether preparation of an environmental impact statement is required.

B. BACKGROUND

The NPS Organic Act and the General Authorities Act prohibit impairment of park resources and values. The NPS Management Policies and Director's Order 12 use the terms "resources and values" to mean the full spectrum and intangible attributes for which the park is established and are managed, including the Organic Act's fundamental purpose and any additional purposes as stated in the park's establishing legislation. The impairment of park resources and values may not be allowed unless directly and specifically provided by statute. The primary responsibility of

the National Park Service is to ensure that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

The evaluation of whether impacts of a proposed action would lead to an impairment of park resources and values is included in this environmental assessment. Impairment is more likely when there are potential impacts to a resource or value whose conservation is:

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

Section 201(9) of the Alaska National Interest Lands Conservation Act states that Wrangell-St. Elias National Park and Preserve will be managed for the following purposes, among others: "To maintain unimpaired the scenic beauty and quality of high mountain peaks, foothills, glacial systems, lakes and streams, valleys, and coastal landscapes in their natural state; to protect habitat for, and populations of, fish and wildlife including but not limited to caribou, brown/grizzly bears, Dall sheep, moose, wolves, trumpeter swans and other waterfowl, and marine mammals; to provide continued opportunities, including reasonable access for mountain climbing, mountaineering, and other wilderness recreational activities. Subsistence uses by local residents shall be permitted in the park, where such uses are traditional, in accordance with the provisions of title VIII"

In 1980 the National Park Service entered into cooperation with the Bureau of Land Management, the Alaska Department of Natural Resources, the Alaska Department of Fish and Game, the US Forest Service, the US Fish and Wildlife Service, the Bureau of Indian Affairs, and Native Regional and Village Corporations to begin producing a state-wide series of area-specific, interagency fire management plans (FMP). Three of the resulting plans—the Alaska Interagency Fire Management Plan for the Fortymile Planning Area (1983), the Copper Basin Planning Area (1983), and the Southeast Planning Area (1988)—provided direction for fire management at Wrangell-St. Elias until 1998, when a variety of documents, including 13 local planning area FMPs, were consolidated and approved as the **Alaska Interagency Wildland Fire Management Plan** (AIWFMP). Under the AIWFMP, fire protection needs are determined through annual land owner/manager reviews and lands are then placed under **critical**, **full**, **modified** or **limited** protection categories, with categorization based on presence and/or proximity of values to be protected as well as the resource management objectives of the pertinent land-management agency (see Figure 1 for description of categories). Each reported wildland fire is managed in accordance with the categorization of the sub-unit in which it occurs, with responses ranging from rapid and aggressive attack by all available forces in the case of fires detected in critical protection areas to periodic surveillance for certain fires detected in limited protection areas (see Figure 2 for map of Park/Preserve units).

Figure 1: AIWFMP Management Options

Protection Category	Policy	Intent
Critical	<ul style="list-style-type: none"> • Aggressive suppression of fires within or threatening designated areas. • Highest priority for available resources. 	<ul style="list-style-type: none"> • Prioritization of suppression actions for wildland fires threatening human life, inhabited property, and/or other designated structures. • Complete protection of designated sites
Full	<ul style="list-style-type: none"> • Aggressive suppression of fires within or threatening designated areas, depending upon availability of resources. 	<ul style="list-style-type: none"> • Protection of uninhabited cultural and historical sites, private property, and high-value natural resources.
Modified	<ul style="list-style-type: none"> • Fires in designated areas receive initial attack depending on availability of resources, unless land manager chooses otherwise and documents with WFSA. • After designated conversion date, operational response to Modified protection zones is identical to that of Limited zones. 	<ul style="list-style-type: none"> • Greater flexibility in selection of suppression strategies when chance of spread is high (e.g., indirect attack). • Reduced commitment of resources when risk is low. • Balancing of acres burned with suppression costs and with accomplishment of resource management objectives.
Limited	<ul style="list-style-type: none"> • Wildland fires allowed to burn within predetermined areas. • Continued protection of human life and site-specific values. • Surveillance. 	<ul style="list-style-type: none"> • Reduction of long-term costs and risks through reduced frequency of large fires. • Reduction of immediate suppression costs. • Facilitation of bio-diversity and ecological health

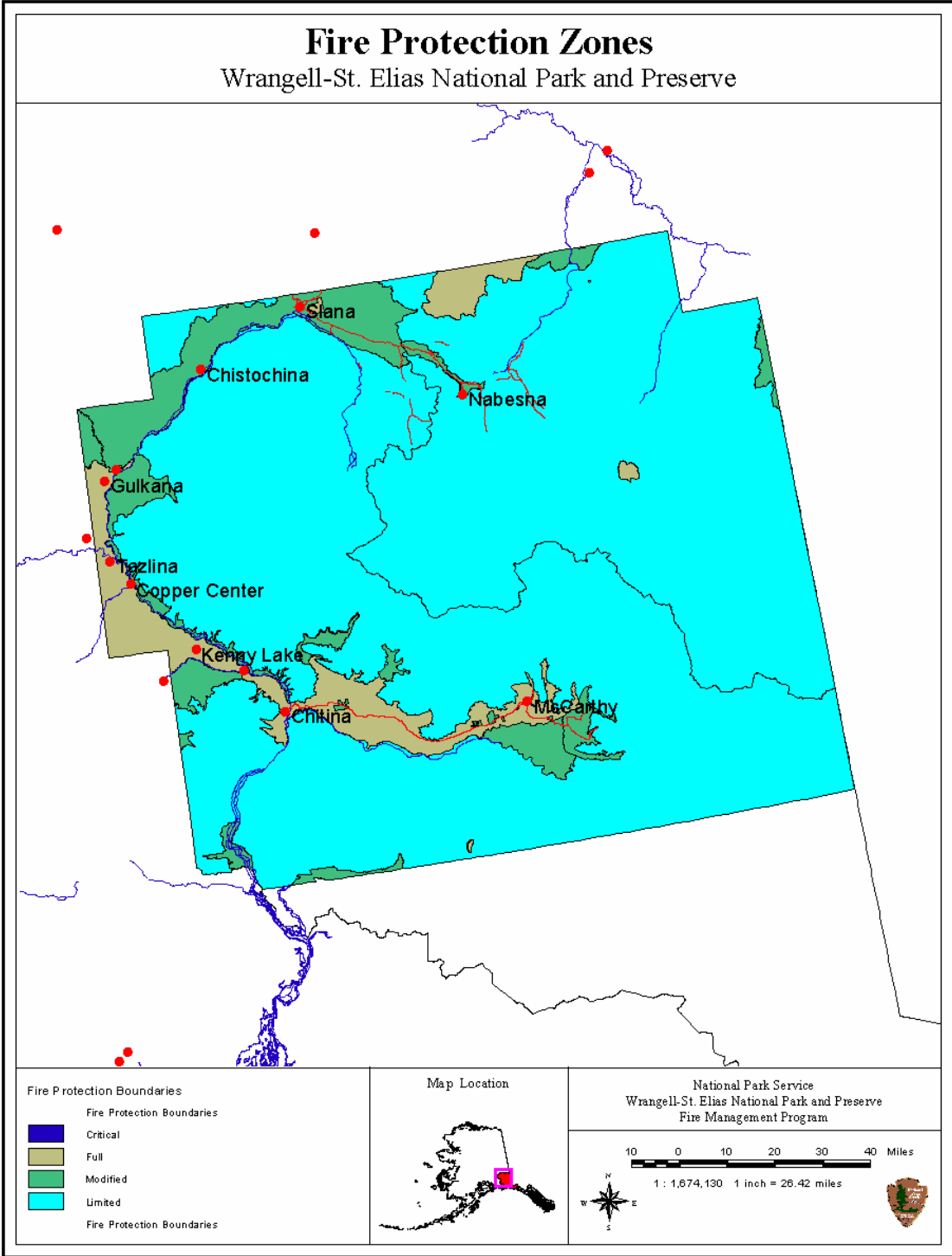


Figure 2: Fire Protection Boundaries

All of the alternatives discussed here, including the preferred alternative described throughout the proposed Wrangell-St. Elias National Park and Preserve fire management plan, would entail continued compliance with the Alaska Interagency Wildland Fire Management Plan (AIWFMP) while at the same time bringing the Park/Preserve's fire management program into compliance with recently developed National Park Service directives. **NPS Director's Order 18** (1998) mandates a distinction between **prescribed fire**, defined as any fire planned and implemented by management, and **wildland fire**, defined as any unplanned ignition, whether human-caused or natural. Wildland fire incidents, in turn, fall into two categories: **Wildland fire use** entails the management of certain unplanned ignitions for the achievement of management goals, including the reduction of dangerous and unnatural accumulations of burnable vegetation and the preservation of fire in its natural role. And **wildland fire suppression** entails a broad spectrum of actions aimed at protecting life, property, and sensitive resources while also ensuring firefighter safety, cost effectiveness, and minimal disturbance from suppression activities.

Each of the alternatives presented in this Environmental Assessment comprises a particular combination of the various management strategies permitted under NPS Director's Order 18; these alternatives have been evaluated for their ability to contribute to the accomplishment of the resource management objectives described above.

C. Impact Topics Addressed and Analyzed

Impact topics were identified to focus the analysis of alternatives on the most relevant subject matter and resources of concern. A brief rationale for each impact topic follows, as well as the reasons for dismissing specific topics from further analysis.

Vegetation and Bio-diversity. The National Environmental Policy Act (1969) requires analysis of impacts on all affected components of the ecosystem, including biotic communities of plants and animals. NPS Management Policies (2001) requires maintenance of these communities, including their natural abundance, diversity and ecological integrity. Fire plays an important role in changes to vegetative cover, which in turn affects habitat and overall ecological health; therefore, effects on vegetation and bio-diversity are analyzed as an impact topic.

Cultural Resources. The National Historic Preservation Act, as amended in 1992 (16 USC 470 *et seq.*); the National Environmental Policy Act; and the NPS Cultural Resource Management Guideline (1994), and Management Policies (2001) require the consideration of impacts on cultural resources listed on or eligible for listing on the National Register of Historic Places. The undertakings described in this document are also subject to section 106 of the National Historic Preservation Act, under the terms of the 1995 Programmatic Agreement among the NPS, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers. Impacts to cultural resources (archeological, historic, and paleontological) are therefore analyzed in this environmental assessment.

Aesthetics and Recreation. The mission of the NPS, as described by its Organic Act of 1916, defines the purpose of all parks is to "...conserve the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same...". Wrangell-St. Elias National Park and Preserve was established to "To preserve unrivaled scenic and geological values associated with

natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems; to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, to provide continued opportunities, including reasonable access for mountain climbing, mountaineering, and other wilderness recreational activities ...; and to maintain opportunities for scientific research and undisturbed ecosystems”. Scenic visual values, recreational activities, and general visitation within and around fire-treated areas may be temporarily impacted, thus visitor use will be considered as an impact topic.

Local Economy. The National Environmental Policy Act (NEPA) considers “impacts to the human environment” to include any effects of federal actions on the social and economic well being of communities and individuals. Impacts to the local economy are therefore analyzed in this environmental assessment.

Wetlands and Floodplains. NPS guidelines and policies require consideration of impacts on floodplains and wetlands (Executive Orders 11988 and 11990). Impacts to wetlands and floodplains are therefore analyzed in this environmental assessment.

Subsistence Use and Wildlife Habitat. Title VIII, Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA) states “In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands...the head of the federal agency...over such lands...shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs...”. Subsistence use may be temporarily impacted, thus subsistence use will be considered as an impact topic.

Air Quality. The 1963 federal Clean Air Act (42 U.S.C. 7401 *et seq.* as amended), stipulates that federal land managers have an affirmative responsibility to protect a park’s air quality related values (including visibility, plants, animals, soils, water quality, cultural resources, and visitor health) from adverse air pollution impacts. The Park/Preserve is designated as a federal “Class II” airshed. Air quality would be affected in the short-term during any type of ignition event; therefore, it is analyzed as a relevant impact topic.

Water Quality and Fisheries. National Park Service policies require protection of water resources consistent with the Clean Water Act. Increased erosion following a fire may affect water quality and is therefore considered a relevant impact topic.

D. Impact Topics Considered and Dismissed

Threatened and/or Endangered Species. The Endangered Species Act (1973) requires disclosure of impacts on all federally threatened or endangered species. NPS policy also requires analysis of effects on federal species, as well as state-listed threatened, endangered, candidate, rare, declining and sensitive species. There are two plant species included on the US Fish and Wildlife Service species of concern list: *Cryptantha shackletteana* (Shacklett’s Catseye) and *Taraxacum carneocoloratum* (flesh colored dandelion family). These species grow on talus

slopes and are therefore unlikely to be affected by wildland fire or fire management activities. In addition, the Park/Preserve is home to 72 species included on the Alaska Natural Heritage Program rare plants list.

Environmental Justice. Executive Order 12898, “Environmental Justice.” Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, requires all federal agencies identify and address disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. This project would not be expected to result in significant changes in the socioeconomic environment of the project area, and, therefore, would not be expected to have any direct or indirect impacts to minority or low-income populations or communities.

II. RANGE OF ALTERNATIVES

A. Introduction.

Each alternative consists of a different combination of the fire management strategies as mandated by NPS Director’s Order 18 (DO-18), with each alternative representing a different application of fire as a management tool. The considered alternatives differ in their respective approaches to the management of naturally caused ignitions and in their allowance or preclusion of prescribed fire.

B. Actions Common to all Alternatives.

Under each alternative, mechanical fuel reduction may be used to mitigate hazard fuel buildup or recreate historical landscape/conditions in areas where prescribed fire or wildland fire would pose an unreasonable threat to property or resources.

All fire management actions at Wrangell-St. Elias National Park and Preserve will be conducted in full compliance with local, state, and interstate air pollution control regulations as required by the Clean Air Act, 42 U.S.C. 7418. No local or interstate air pollution control regulations exist in Alaska.

The Park/Preserve will employ three primary strategies in order to protect archeological, cultural, and historic sites from damage by fire or fire suppression activities: First, culturally significant structures will be assigned Critical or Full Protection status, as dictated by the Recommended Criteria for Fire Protection of Structural Resources Within WRST. Second, personnel conducting detection and/or reconnaissance flights within the Park/Preserve will be directed to remain alert for the presence of any undiscovered cultural sites or structures and to report their presence to the Park FMO. And third, designated Incident Commanders will consult with resource appropriate resource advisors regarding the identification and sensitivity of previously unknown sites and will cooperate with the Agency Advisor to mitigate any damage to such sites when possible.

Certain fire suppression activities could pose a threat to fragile soil layers and to other ecosystem components. This type of risk will be mitigated through the use of minimum impact suppression tactics, as specified by NPS policy.

C. Alternatives.

Alternative 1: Combination of Wildland Fire Use and Wildland Fire Suppression:

Natural ignitions occurring in certain areas and under predetermined conditions would be managed for the accomplishment of resource management goals, including the preservation of fire in its natural role and the reduction of burnable vegetation. Any fire posing a threat to life or property would be aggressively suppressed. Prescribed fires would not be implemented.

Alternative 2: Combination of Prescribed Fire Use, Wildland Fire Use, and Wildland Fire Suppression (NPS Preferred Alternative):

All three of the major management actions described under DO-18 would be allowed, as determined by a combination of pre-established and incident-specific decision-making criteria. Naturally occurring wildland fires which do not pose a threat to life, property, or significant resources would be managed for the accomplishment of resource management goals, including the preservation of fire in its natural role and the reduction of burnable vegetation. Prescribed fire would be implemented, in certain cases, under the direction of National Park Service personnel for the purpose of reducing hazardous fuel loads or restoring historic landscapes and/or conditions. Suppression would continue in or near developed areas, near Park/Preserve boundaries with administrative units having different fire management objectives, in areas known to contain sensitive cultural and/or archeological resources, or whenever insufficient resources are available to ensure the effective, long-term management of wildland fire to meet resource management objectives. This action would be a continuation of the fire management strategies as seen in the Park/Preserve for the past 15 years.

D. Alternatives Considered but Rejected.

Full Wildland Fire Suppression:

All ignitions, including those of natural origin, would be suppressed and no prescribed fire would be implemented. Reduction of flammable vegetation would be accomplished strictly by mechanical means (e.g. through the use of chain saws or other tools). Mechanical reduction would be limited primarily to the protection of historic and/or archeological sites and Park/Preserve boundary areas. In some cases, however, mechanical reduction could be used to restore selected landscapes to historic conditions.

This alternative is rejected for the following reasons: 1) the increased risk of catastrophic wildland fire which would result from the exclusion of the area's natural burn cycle; 2) the prohibitively high cost of large-scale mechanical fuel reduction; 3) non-conformance with the existing interagency management scheme and a potential to cause an impairment of park resources and values.

Full Wildland Fire Suppression and Prescribed Fire:

All ignitions, including those of natural origin, would be suppressed. The effects of natural wildland fire would be simulated through the use of planned ignitions conducted by park

personnel in defined zones. Such fires would be ignited under predetermined fuel and weather conditions; control problems would thereby be minimal.

This alternative is rejected for the following reasons: 1) the inability to maintain a natural burn cycle through only prescribed burns; 2) the increased risk of catastrophic wildland fire which would result from the exclusion of the area's natural burn cycle; 3) the prohibitively high cost of large-scale mechanical fuel reduction and prescribed burns; 4) non-conformance with the existing interagency management scheme and a potential to cause an impairment of park resources and values.

III. Affected Environment

A. Introduction

The area set aside by Congress as Wrangell-St. Elias National Park and Preserve encompasses 13.2 million acres, the National Park System's largest unit. In conjunction with Canada's Kluane National Park, Glacier Bay National Park, and Tatsheshini Provincial Park, the Park/Preserve comprises the largest parkland in North America and is recognized as a World Heritage Site. Less than 200 miles east of Anchorage, the Park/Preserve is bordered by two of Alaska's major highways on the west and north, by the Yukon Territory and the Province of British Columbia on the east, and by the Gulf of Alaska and the Alaskan panhandle to the south and southeast.

B. Natural Environment

The Park/Preserve contains vast areas of rugged high mountain terrain, including substantial portions of the Wrangell, St. Elias, Chugach, Mentasta, and Nutzotin ranges. Wrangell-St. Elias contains nine of the 16 highest peaks in the United States. The area's vertical relief is staggering; Mt. St. Elias, for instance, the second tallest peak in the United States at 18,008 feet, sits just 15 miles north of tidewater, and much of the Park/Preserve is covered with perpetual ice and snow or barren rock. Alpine tundra is found at elevations between 3,000 and 5,000 feet. White spruce grow commonly in river bottoms at lower elevations, with the flat and/or rolling terrain surrounding the Wrangells supporting vast expanses of open black spruce forest and shrub thicket, as well as occasional stands of birch.

The Park/Preserve is home to caribou, moose, brown and black bears, Dall sheep, wolves, lynx, trumpeter swans, Peregrine falcons, marine mammals, several species of fish, and numerous additional bird and small mammal species. Sensitive animal habitat is described in the GMP's accompanying Affected Environment report.

C. Cultural Environment

Wrangell-St. Elias Park and Preserve contains one of the most important groupings of Athabaskan pre-historic and historic archeological sites in Alaska. The Park/Preserve's sites include numerous Athabaskan villages, camps, and hunting sites, as well as the remains of other cultural groups, including the Tlingit and Eyak Indians and the Chugach Eskimo. In addition to aboriginal sites, the Park/Preserve also contains ruins and structures representing Euro-American exploration, transportation, and mining activity; these resources constitute important historic and archeological resources. (See the General Management Plan's accompanying Affected Environment report for further descriptions of the Park/Preserve's cultural features).

D. Historical Role of Fire

Fire has been an inextricable component of the ecosystems of the Wrangell-St. Elias area for thousands of years, with periodic fires having served throughout the centuries to select plants and animals that are adapted to fire-caused change. Black spruce is at least partially dependent upon stand-replacement fire, in that its seeds become ready for germination at the peak of the Alaskan interior fire season and are released when its semi-serotinous cones are opened by canopy fire. Even more fundamentally, fire plays a key role in the regulation of the permafrost table throughout all the ecosystems of the Alaskan interior. Without fire, organic matter accumulates, the permafrost table rises, and ecosystem productivity declines. Vegetation communities become much less diverse, and wildlife habitat decreases. Fire rejuvenates these systems. It removes some of the insulating organic matter and elicits a warming of the soil. Nutrients are added both as a result of combustion and by increased decomposition rates.

The impact of aggressive suppression on the Alaskan interior at large and the Wrangell-St. Elias area in particular is difficult to assess. Organized suppression has occurred on a large scale in Alaska since 1939, the effects of this activity, however, are not yet clear. Alaskan fire management personnel feel that the fire ecology of the roadless portions of the Wrangell-St. Elias area may be relatively unchanged from its condition prior to the arrival of whites and the subsequent development of organized suppression efforts.

E. Wildland Fire Management Situation

The seasonal fire cycle in the Alaskan interior consists of four “micro” seasons or phases, each varying with the changing weather patterns and the stages of vegetation development for the growing season.

The first begins in late April or early May with the loss of snow cover, and ends in late May or early June when greenup begins. During the transition from 100% winter-cured fuels to greenup, human-caused fires occur frequently; these fires are usually relatively easy to suppress. Spring fires that are not suppressed, however, often grow later in the season as fuels become dryer.

The second and third fire-cycle phases are primarily lightning driven. Suppression of such fires is harder. Fires occurring in June, the second period, usually do not develop the intensity of later summer fires; during hot, dry, and windy conditions, however, June wildland ignitions can result in extreme fire behavior.

The third period of fire activity begins in mid-July and runs through the first part of August. This is the period of maximum fire activity.

The final micro-season runs from late August into early September. These fires are generally easy to control except during particularly dry autumn weather.

IV. ENVIRONMENTAL CONSEQUENCES

In addition to evaluating the impact of the alternatives on specific impact topics this environmental assessment also evaluates the potential for impairment of park resources and

values per NPS policies derived from the Organic Act (See Background section) and each alternative is evaluated for potential impairment following the alternative resource analyses.

A. Impacts of Alternatives

Alternative 1. Wildland Fire Use and Wildland Fire Suppression

Vegetation and Bio-diversity:

Certain wildland fires would be managed for the accomplishment of resource management goals, including the preservation of fire in its natural role and the reduction of burnable vegetation therefore maintaining a naturally functioning ecosystem. However, in the Critical and Full Protection Units the exclusion of prescribed fire may result in an unacceptable increase in vegetation thereby increasing the threat to the resources found within these units.

A purpose of the park is "To maintain unimpaired the scenic beauty and quality of high mountain peaks, foothills, glacial systems, lakes and streams, valleys, and coastal landscapes in their natural state." Fire is an inextricable component of the fire dependent ecosystem of this area and is known to maintain a balanced, naturally functioning ecosystem. This alternative would manage ignitions within established resource objectives to maintain the natural function of the ecosystem in the Park/Preserve.

Conclusion: Minimal impacts are expected with the use of this alternative due to an increase in vegetation resulting from no prescribed fire. The level of impacts to vegetation and biodiversity anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Cultural Resources: The prohibition of prescribed fire could hamper both the protection of historic and/or archeological resources and the restoration and/or protection of historic landscapes and conditions. Mechanical techniques employed in place of prescribed fire would tend to be more expensive and in some cases might not sufficiently mimic the effects of fire. However, certain wildland fires would be managed for the accomplishment of resource management goals including the reduction of burnable vegetation thereby better protecting the cultural resources from catastrophic fire.

Cultural resources are not specifically stated as a purpose of the park/preserve.

Conclusion: Minimal impact would occur due to an increase in vegetation resulting from no prescribed fire. The level of impacts to cultural resources anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Aesthetics and Recreation: The only impact would be the occasional closure of specific areas due to fire activity for the safety of visitors resulting in an inconvenience for the visitors or cause them to alter their plans.

A purpose of the Park/Preserve is “to provide continued opportunities, including reasonable access for mountain climbing, mountaineering, and other wilderness recreational activities.” Selection of Alternative 1 would not result in a change in vegetative composition and it would support a naturally functioning ecosystem. Sight lines and access would be maintained.

Conclusion: This may result in a minimal impact by closing certain areas and more vegetation may be burned decreasing aesthetics. The level of impacts to aesthetics and recreation anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Local Economy: There would be a slight influx of revenue for businesses in communities near the incident from occasional suppression operations..

Conclusion: The increase in revenue would result in a minimal beneficial impact. The level of impacts to the local economy would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Wetlands and Floodplains: There would be a minimal risk of disruption to these communities due to fire suppression operations. There may be impacts due to erosion after fire has burned through the wetlands or floodplain. Once vegetation in these areas re-establishes erosion is expected to diminish.

A purpose of the Park/Preserve is "To maintain unimpaired the scenic beauty and quality of high mountain peaks, foothills, glacial systems, lakes and streams, valleys, and coastal landscapes in their natural state." Fire is an inextricable component of the fire dependent ecosystem of this area and is known to maintain a balanced, naturally functioning ecosystem. Managing ignitions within established resource objectives would encourage the natural function of the ecosystem in the Park/Preserve.

Conclusion: There would be temporary minimal impacts due to a loss of vegetation. The level of impacts to wetlands and floodplains anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Subsistence Use and Wildlife Habitat: There would be a short-term impact on game species and plants in specific areas due to the decrease of vegetation within the burned areas. However, this alternative would more adequately facilitate the long-term preservation of the area's natural processes by allowing fire to play its natural role in the ecosystem.

A purpose of the park is “to protect habitat for, and populations of, fish and wildlife including but not limited to caribou, brown/grizzly bears, Dall sheep, moose, wolves, trumpeter swans and other waterfowl, and marine mammals” and “Subsistence uses by local residents shall be permitted in the park, where such uses are traditional, in accordance with the provisions of title

VIII". Fire is an inextricable component of the fire dependent ecosystem of this area and is known to maintain a balanced, naturally functioning ecosystem.

Conclusion: This would not disrupt the natural function of the ecosystem in the Park/Preserve, therefore maintaining wildlife habitat and subsistence use within the Park/Preserve. There would be a negligible short-term impact resulting from a displacement of wildlife in the burned area. This, however, would replicate a naturally functioning ecosystem and subsistence regime. The level of impacts to subsistence and wildlife habitat anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Air Quality: Under this alternative, smoke would be monitored for trajectory, mixing height, and impact to overall air quality. Certain wildland fires would be managed for the accomplishment of resource management goals, including the preservation of fire in its natural role and the reduction of burnable vegetation. This would reduce the possibility of catastrophic fire thereby reducing long-term, intense reduction of air quality.

Air quality is not specifically stated as a purpose of the park/preserve, though a degradation of air quality by fire could affect visitor use and recreation purposes. Fire naturally occurs in the Park/Preserve ecosystem and degradation in air quality at the levels expected would also be similar to a natural occurrence.

Conclusion: No long term impacts to air quality are expected. The level of impacts to air quality anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Water Quality and Fisheries: Certain wildland fires would be managed for the accomplishment of resource management goals including the preservation of fire in its natural role and the reduction of burnable vegetation. This would allow more low-intensity wildland fires that would reduce the erosion along streams.

A purpose of the park is "to protect habitat for, and populations of, fish and wildlife including but not limited to caribou, brown/grizzly bears, Dall sheep, moose, wolves, trumpeter swans and other waterfowl, and marine mammals". Fire is an inextricable component of the fire dependent ecosystem of this area and is known to maintain a balanced, naturally functioning ecosystem. Selection of this alternative is would not disrupt the natural function of the ecosystem in the Park/Preserve. A fire is a common occurrence in this ecosystem and does result in some erosion, affecting water quality and fisheries habitat. The erosion is expected to continue at the same natural levels.

Conclusion: Long term impacts to water quality and fisheries are not expected. Short-term negligible impacts of increased sedimentation may occur initially after the fire and prior to reestablishment of vegetation. The level of impacts to water quality and fisheries anticipated from this alternative would not result in an impairment of park resources that fulfill specific

purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Alternative 1, Cumulative Impacts: The on-going and future activity that would have a cumulative effect on resources of concern within and outside of the Park and Preserve's boundaries analyzed in this Environmental Assessment is the adjacent landowners' fire management plans. All public land management agencies in Alaska are signatories of the Alaska Interagency Fire Management Plan, which allows for fire to burn on the landscape in limited suppression units. Much of the public lands surrounding the Park and Preserve is in a limited suppression unit and may result in multiple large fires, especially with an increase in vegetation due to no prescribed burns. The results of these multiple fires may be greater than fires managed just within the Park and Preserve boundary.

Alternative 2. Prescribed Fire Use, Wildland Fire Use, and Wildland Fire Suppression (NPS Preferred Alternative)

Vegetation and Bio-diversity: This alternative would have the least impact with the maximum potential for diversity through the careful implementation of prescribed fire in areas ill-suited to wildland fire use. Wildland fire posing a potential threat to life, property, or sensitive resources would be suppressed, while continued implementation of wildland fire use in remote portions of the Park/Preserve would ensure the cost-effective preservation of the area's natural fire ecology as well as the reduction of potentially dangerous fuel loads.

A purpose of the park is "To maintain unimpaired the scenic beauty and quality of high mountain peaks, foothills, glacial systems, lakes and streams, valleys, and coastal landscapes in their natural state." Fire is an inextricable component of the fire dependent ecosystem of this area and is known to maintain a balanced, naturally functioning ecosystem. Selection of this alternative to use prescribed fire; wildland fire use within established resource objectives and wildland fire suppression would maintain the natural function of the ecosystem in the Park/Preserve.

Conclusion: A balanced and naturally functioning ecosystem would be maintained with the use of this alternative. The level of impacts to vegetation and biodiversity anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Cultural Resources: There would be improved long-term protection of registered and unregistered cultural resources with the use of fire near and surrounding cultural resources. The occasional use of prescribed fire would allow a relatively cost-effective means of reducing fuel loads and preserving historic landscapes and conditions where the presence of values to be protected prohibits the implementation of wildland fire use.

Cultural resources are not specifically stated as a purpose of the Park/Preserve.

Conclusion: Long-term protection of registered and unregistered cultural resources would result from this alternative. This is anticipated to not result in an impairment of park resources fulfilling

specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Aesthetics and Recreation: The impacts would be similar to Alternative 1 with the addition of the occasional use of prescribed fire that would allow a relatively cost-effective means of reducing fuel loads where the presence of values to be protected prohibits the implementation of wildland fire use.

A purpose of the Park/Preserve is “to provide continued opportunities, including reasonable access for mountain climbing, mountaineering, and other wilderness recreational activities.” Selection of Alternative Two would not result in a change in vegetative composition and it would support a naturally functioning ecosystem. Sight lines and access would be maintained.

Conclusion: This may result in a minimal impact by closing certain areas and some vegetation may be burned decreasing aesthetics in limited areas. The level of impacts to aesthetics and recreation anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Local Economy: The impacts would be similar to Alternative 1 with the addition of the occasional use of prescribed fire that would allow a relatively cost-effective means of reducing fuel loads where the presence of values to be protected prohibits the implementation of wildland fire use.

Conclusion: The increase in revenue would result in a minimal beneficial impact. The level of impacts to the local economy would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Wetlands and Floodplains: The impacts would be similar to Alternative 1 with the addition of the occasional use of prescribed fire that would allow a relatively cost-effective means of reducing fuel loads where the presence of values to be protected prohibits the implementation of wildland fire use. Once vegetation in these areas re-establishes erosion is expected to diminish.

A purpose of the Park/Preserve is "To maintain unimpaired the scenic beauty and quality of high mountain peaks, foothills, glacial systems, lakes and streams, valleys, and coastal landscapes in their natural state." Fire is an inextricable component of the fire dependent ecosystem of this area and is known to maintain a balanced, naturally functioning ecosystem. This alternative would provide for a natural ecosystem in the Park/Preserve and not result in the impairment of this park purpose or any resources or values.

Conclusion: There would be temporary minimal impacts due to a loss of vegetation. The level of impacts to wetlands and floodplains anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Subsistence Use and Wildlife Habitat: The impacts would be similar to Alternative 1 with the addition of the occasional use of prescribed fire that would allow a relatively cost-effective means of reducing fuel loads where the presence of values to be protected prohibits the implementation of wildland fire use.

A purpose of the Park/Preserve is “to protect habitat for, and populations of, fish and wildlife including but not limited to caribou, brown/grizzly bears, Dall sheep, moose, wolves, trumpeter swans and other waterfowl, and marine mammals” and “Subsistence uses by local residents shall be permitted in the park, where such uses are traditional, in accordance with the provisions of title VIII”. Fire is an inextricable component of the fire dependent ecosystem of this area and is known to maintain a balanced, naturally functioning ecosystem. Selection of this alternative would not disrupt the natural function of the ecosystem in the Park/Preserve, therefore maintaining wildlife habitat and subsistence use within the Park/Preserve.

Conclusion: The natural function of the ecosystem in the Park/Preserve would not be disturbed, therefore maintaining wildlife habitat and subsistence use within the Park/Preserve. There would be a negligible short-term impact resulting from a displacement of wildlife in the burned area. This, however, would replicate a naturally functioning ecosystem and subsistence regime. The level of impacts to subsistence and wildlife habitat anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Air Quality: The impacts would be similar to Alternative 1 with the addition of the occasional use of prescribed fire that would allow a relatively cost-effective means of reducing fuel loads where the presence of values to be protected prohibits the implementation of wildland fire use.

Air quality is not specifically stated as a purpose of the Park/Preserve, though a degradation of air quality by fire could affect visitor use and recreation purposes. Fire is naturally occurring event in the Park/Preserve ecosystem. Degradation in air quality at the levels expected would be similar to a natural occurrence.

Conclusion: No long term impacts to air quality are expected. The level of impacts to air quality anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Water Quality and Fisheries: The impacts would be similar to Alternative 1 with the addition of the occasional use of prescribed fire that would allow a relatively cost-effective means of reducing fuel loads where the presence of values to be protected prohibits the implementation of wildland fire use.

A purpose of the Park/Preserve is “to protect habitat for, and populations of, fish and wildlife including but not limited to caribou, brown/grizzly bears, Dall sheep, moose, wolves, trumpeter swans and other waterfowl, and marine mammals”. Fire is an inextricable component of the fire dependent ecosystem of this area and is known to maintain a balanced, naturally functioning ecosystem. Selection of this alternative would not disrupt the natural function of the ecosystem in the Park/Preserve. Fire is a common occurrence in this ecosystem and does result in some

erosion, affecting water quality and fisheries habitat. The erosion is expected to continue at the same natural levels.

Conclusion: Long term impacts to water quality and fisheries are not expected. Short-term negligible impacts of increased sedimentation may occur initially after the fire and prior to reestablishment of vegetation. The level of impacts to water quality and fisheries anticipated from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in the establishing legislation or are key to the natural or cultural integrity of the park.

Alternative 2 Cumulative Impacts: The on-going and future activity that would have a cumulative effect on resources of concern within and outside of the Park and Preserve's boundaries analyzed in this Environmental Assessment is the adjacent landowners' fire management plans. All public land management agencies in Alaska are signatories of the Alaska Interagency Fire Management Plan, which allows for fire to burn on the landscape in limited suppression units. Much of the public lands surrounding the Park and Preserve is in a limited suppression unit and may result in multiple large fires. The results of these multiple fires may be greater than fires managed just within the Park and Preserve boundary.

B. Cumulative Impact Mitigation

Potential cumulative impacts can be mitigated by the convening of a Multi-Agency Coordinating (MAC) group. As directed in the Alaska Interagency Fire Management Plan, "A statewide Multi-Agency Coordinating (MAC) group may be convened to implement a temporary change from the selected management options for a specific geographic area(s) during periods of unusual fire conditions (e.g., numerous fires, predicted drying trends, smoke problems, unusually wet conditions or suppression resource shortages)."

C. IMPACTS OF ALTERNATIVES SUMMARY

	Alternative 1: Wildland Fire Use and Wildland Fire Suppression	Alternative 2 (Preferred): Prescribed Fire Use, Wildland Fire Use, and Wildland Fire Suppression
Vegetation and Bio- diversity	Minimal impact: continued potential for minimal loss of diversity through fire exclusion in or near Critical and Full Protection Units and sites.	Least impact: maximum potential for diversity through careful implementation of prescribed fire in areas ill-suited to wildland fire use.
Cultural Resources	Minimal impact: Increased potential for uncontrolled fire due to increased fuels through fire exclusion in or near Critical and Full Protection Units and sites.	Improved long-term protection of registered and unregistered historic and/or archeological sites; improved maintenance of historical landscapes and conditions.
Aesthetics and Recreation	Minimal impact: occasional closures of specific areas; vegetation burned may decrease aesthetics.	Minimal impact: occasional closures of specific areas; vegetation burned may decrease aesthetics.
Local Economy	Minimal impact	Minimal impact
Wetlands and Floodplains	Minimal impact: may be some erosion until vegetation returns.	Minimal impact; may be some erosion until vegetation returns.
Subsistence Use and Wildlife Habitat	No long-term impact; some potential for short-term displacement of game from specific areas.	No long-term impact; some potential for short-term displacement of game from specific areas.
Water Quality and Fisheries	No long-term impact; some short-term erosion.	No long-term impact; some short-term erosion.
Air Quality	Minimal impact.	Minimal impact.

V. COORDINATION AND CONSULTATION

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APPENDIX C.2

ANILCA Title VIII Section 810 (a) Summary Evaluation and Findings

I. INTRODUCTION

This section was prepared to comply with Title VIII, Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA). It summarizes the evaluations of potential restrictions to subsistence activities which could result from the implementation of the proposed fire management plan and the actions described therein.

II. EVALUATION PROCESS

Section 810(a) of ANILCA states:

“In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands...the head of the federal agency...over such lands...shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency—

- (1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 805;
- (2) gives notice of, and holds, a hearing in the vicinity of the area involved;
and
- (3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.”

ANILCA created new units and additions to existing units of the national park system in Alaska. Wrangell-St. Elias National Park and Preserve was created through the passage of ANILCA Section 201(a) in order to “maintain unimpaired the scenic beauty and quality of high mountain peaks, foothills, glacial systems, lakes and streams, valleys, and coastal landscapes in their natural state; [and] to protect habitat for, and populations of, fish and wildlife including but not limited to caribou, brown/grizzly bears, Dall sheep, moose, wolves, trumpeter swans and other waterfowl, and marine mammals....” Sections 101 (a), (b), and (c) of ANILCA charges all national park units in Alaska with the preservation of historic and archeological sites.

The potential for significant restriction must be evaluated for the proposed action's effect upon "...subsistence uses and needs, the availability of other lands for the purposes sought to be achieved and other alternatives which would reduce or eliminate the use."

III. PROPOSED ACTION ON FEDERAL LANDS

The National Park Service specifies that every administrative unit with burnable vegetation develop a fire management plan—a unit-specific document outlining fire management goals and describing the policies and actions by which these goals will be realized (Director's Order 18). Since 1983, the Park/Preserve's fire management program has operated under the auspices of various interagency agreements, including most recently the **Alaska Interagency Wildland Fire Management Plan**, or **AIWFMP** (1998). Under the AIWFMP, fire protection needs at Wrangell-St. Elias are determined by NPS and State of Alaska Department of Forestry managers; lands within the Park/Preserve are then placed within **critical, full, modified, or limited** protection categories, depending on the proximity of values to be protected and on overall resource management objectives.

The proposed action entails the establishment of a Fire Management Plan for Wrangell-St. Elias National Park and Preserve. Both the preferred alternative and the other considered alternatives allow for continued adherence to the AIWFMP while at the same time bringing the Park/Preserve's fire management program into compliance with recently developed National Park Service directives. Specifically, NPS Director's Order 18 mandates a distinction between **prescribed fire** (planned and implemented by management) and **wildland fire** (unplanned, whether naturally ignited or human-caused), with wildland fire incidents further categorized, in turn, as either wildland **fire use** or wildland fire **suppression**. Each of the considered alternatives mandates a specific configuration of DO-18 management options and relates these options to the policies and procedures outlined in the AIWFMP.

The preferred alternative calls for the continued management of wildland fire at Wrangell-St. Elias National Park and Preserve through a combination of wildland fire suppression, wildland fire use, and prescribed fire. This statement of Summary Evaluations and Findings addresses the impact of these fire management policies and actions on subsistence activities within the Park/Preserve.

(See the Fire Management Plan and the accompanying Environmental Assessment for further discussion of fire management policies and proposed actions.)

IV. AFFECTED ENVIRONMENT

As mandated by ANILCA section 101(c), the entirety of Wrangell-St. Elias National Park and Preserve will be managed so as to allow for subsistence trapping, hunting, and fishing under applicable state and federal regulations.

Subsistence use is common among residents of the greater Wrangell-St. Elias area, though for the most part such activities are supplemented by cash income though some residents depend

greatly on fish, game, vegetable foods, and wood taken from public lands. During ice-free periods, the Copper River makes park/preserve access more difficult for people living along the main highways. An estimated 100 to 150 people, however, maintain primary residences within the Park/Preserve. This group uses subsistence resources; their subsistence-use activities are concentrated along the McCarthy Road, Nabesna Road, at Chisana, and at the May Creek/Dan Creek/Spruce Point area. The Malispina forelands also receives some subsistence use, though access to this area is by boat or airplane from Yakutat.

Subsistence research conducted during the 1970s by Reckord and McNeary drew a generalized picture of subsistence activities in and around what is now the Wrangell-St. Elias National Park and Preserve. Resources used for subsistence include the following, listed here in order of relative importance: salmon, furbearers, moose, caribou, Dall sheep, mountain goats, waterfowl, hare and bear. Residents within the Park/Preserve also rely on timber for firewood and building materials. Other resources including berries, ptarmigan, spruce grouse, trout, etc. are taken from Park/Preserve lands in relatively small quantities.

Much of the subsistence use currently occurring at Wrangell-St. Elias takes place within the Park/Preserve's Limited Protection fire management unit, with most of the remaining subsistence use occurring in the Park/Preserve's Modified Protection fire management unit. Under the proposed action, certain natural ignitions occurring within these areas would be managed for the accomplishment of resource management goals, including the preservation of fire within its natural role and the perpetuation, in turn, of healthy and biologically diverse plant communities and fish and game habitat. The proposed action would also allow managers to implement prescribed fire in these areas, under appropriate conditions and upon consideration of the impact of such activity upon subsistence use.

V. SUBSISTENCE USES AND NEEDS EVALUATION

To determine the potential impact on existing subsistence activities, three evaluation criteria were analyzed relative to existing subsistence resources that could be impacted.

The evaluation criteria are:

- the potential to reduce important subsistence fish and wildlife populations by (a) reductions in numbers; (b) redistribution of subsistence resources; or (c) habitat losses;
- what effect the action might have on subsistence fisherman or hunter access;
- the potential for the action to increase fisherman or hunter competition for subsistence resources.

1) The potential to reduce populations:

The National Park Service has generally found populations of plants and animals important to subsistence activities to be healthy. Because site-specific information on population, distribution, and harvest is lacking for many of these species, is lacking, however, recognition of declining populations has been difficult.

The actions, which would be implemented under the preferred alternative, would be aimed directly at the safe and cost-effective preservation of the area's indigenous fire ecology. As such, the Park/Preserve's enactment of the preferred alternative would have a beneficial effect on the long-term viability of plant and animal populations pertinent to subsistence use within the Park/Preserve, through the preservation of the area's bio-diversity, the replenishment of key soil nutrients, and the maintenance of suitable habitat. The occasional short-term displacement of plant and animal populations from specific locales by wildland fire is a natural and inevitable occurrence within the fire-dependent ecosystems of the Wrangell-St. Elias area. Under the proposed action, however, potential losses to subsistence users (including the displacement of important game species or the restriction of access to subsistence-use sites) could be mitigated through consideration of hunting and trapping activities by land managers in the planning and implementation of wildland fire use and prescribed fire incidents. There are a few users who have permits for use of public structures within the Park/Preserve. These structures are protected under Full Suppression as noted in Section XI, Protection of Sensitive Resources. In the event of loss or damage of this structure, the Superintendent of the Park may permit reconstruction of this structure. The long-term benefits of fire to the wildlife habitats of the Wrangell-St. Elias area outweigh any short-term losses by subsistence users and therefore will not be the sole reason for suppressing a wildland fire. However, subsistence use is an important factor in the determination of prescribed fire within the Park/Preserve.

2) Restriction of Access:

Occasional restriction of access to local areas by subsistence users because of wildland fire is inevitable in the Wrangell-St. Elias area, regardless of the Park/Preserve's fire management policy. Fire is an irreducible component of the Wrangell-St. Elias ecosystem. Aggressive suppression can temporarily lesson the frequency of extended wildland fire incidents, but in time the resulting build-up of burnable vegetation will simply engender increasingly catastrophic and uncontrollable fire behavior. Even more pertinent to the question of access are the after-effects of wildland fire activity. Wildland fire in boreal spruce often results in substantial amounts of blowdown; this occurrence, in turn, can act as a formidable obstacle to the accessing of subsistence-use areas.

No form of wildland fire management can eliminate these potential impacts. However, the proposed action—the enactment of a unit-specific fire management plan allowing for the continued management of the Wrangell-St. Elias fire environment through a combination of Wildland Fire Suppression, Wildland Fire Use, and Prescribed Fire—offers the best chance at striking an effective balance between the long-term maintenance of healthy game habitat and the short-term maintenance of user access. Under the proposed plan, the long-term preservation of the area's natural systems would be accomplished in part through the implementation of wildland fire use and prescribed fire incidents, giving managers a greater opportunity to mitigate the short-term impacts of fire and/or fire management actions upon subsistence activity.

3) Increase in Competition:

The enactment of the preferred alternative would not significantly increase competition for the use of subsistence resources. Displacement of plant and animal populations from specific sites

would be short-term, and in fact in most cases the long-term viability of the populations in question depends directly on the natural processes which the proposed plan would be intended to safely perpetuate.

IV. AVAILABILITY OF OTHER LANDS

As stated earlier, wildland fire is an indigenous component of the plant and animal communities of the Wrangell-St. Elias area. Consequently, the availability of other lands is not a pertinent consideration in this particular case.

With respect to the question of subsistence use, the scope and intensity of wildland fire incidents managed for resource benefit (i.e., fire use incidents) will generally be of small significance when considered within the context of overall available acreage. Prescribed fires will be planned and managed so as to avoid any significant hardship to subsistence users.

VII. ALTERNATIVES CONSIDERED

This section discusses the considered alternatives with respect to their respective reduction or elimination of the need to use public lands necessary for subsistence purposes.

Alternative one (combination of **prescribed fire** and **wildland fire suppression**) would perhaps result in the least short-term disruption of subsistence activities, with suppression responses preventing the spread of most wildland fire ignitions. The long-term impacts of this alternative, however, would be negative, with the exclusion of wildland fire leading to the gradual decline of bio-diversity and viable habitat throughout all areas within the Park/Preserve utilized by subsistence hunters and trappers.

Alternative two (combination of **wildland fire use** and **wildland fire suppression**) would not significantly differ from the preferred alternative with respect to the reduction or elimination of the need to use public lands for the accomplishment of fire management goals; long-term effects would be favorable and short-term disruptions to subsistence activities would be minimal.

The **preferred alternative** (combination of **wildland fire use, wildland fire suppression, and prescribed fire**) would yield the same favorable long-term effects on lands used for subsistence activities as alternative two. Enactment of the preferred alternative, however, would allow more effective restoration and/or protection of significant fire-sensitive sites and/or landscapes, including long-used trails and access routes pertinent to subsistence use.

VIII. FINDINGS

This analysis concludes that the preferred alternative—the enactment of a fire management plan for Wrangell-St. Elias National Park and Preserve which would allow for the continued management of the Park/Preserve’s fire environment through a combination of Wildland Fire Use, Wildland Fire Suppression, and Prescribed Fire—will not result in a significant restriction of subsistence uses.

