

Bureau of Land Management (BLM) Alaska Fire Management Plan May 1, 2018

Applies to all Bureau of Land Management managed lands in the State of Alaska

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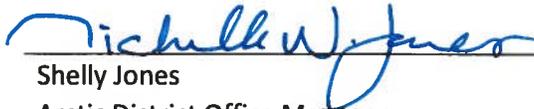
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1. INTRODUCTION, POLICY, AND LAND MANAGEMENT PLANNING

1.1. INTRODUCTION

1.1.1. PURPOSE

The 2001 Review and Update of the 1995 Federal Wildland Fire Management Policy and subsequent 2009 Guidance for Implementation of Wildland Fire Management Policy require that all Federal lands with burnable vegetation must have an approved fire management plan, a strategic plan that defines a program to manage wildland fires based on the area's approved land management plan. Fire management plans must provide for firefighter and public safety; include fire management strategies, tactics, and alternatives; address values to be protected and public health issues; and be consistent with resource management objectives, activities of the area, and environmental laws and regulations.

The purpose of this Fire Management Plan (FMP) is to describe how fire management strategies and tactics will protect values and provide tools to protect values and meet resource goals and objectives for Bureau of Land Management (BLM) managed lands in the State of Alaska. This FMP tiers to decisions made in BLM Alaska Land Use Plans (LUPs), and subsequent National Environmental Protection Agency (NEPA) decisions listed in Section 1.4.

1.1.2. FMP READER INSTRUCTIONS

Throughout the document, where [manuals](#) and [handbooks](#) have been referenced please remember to confirm whether additional direction has been issued since the most recent manual or handbook release in the form of [Instruction Memorandums](#).

Map products for this FMP are available through a web map application at <http://arcg.is/1aX9yS>. Text boxes direct the reader to the map application where spatial data are available.

1.1.3. BLM ALASKA LAND MANAGEMENT

Alaska is the largest of the United States, accounting for 16 percent of the country's total area. Alaska's nearly 590,000 square miles consists of approximately 572,000 square miles of land and 17,000 square miles of inland waters. Alaska's 2016 population was estimated at nearly 740,000 with approximately 50% located in Anchorage, Fairbanks, and Juneau. The remaining population is scattered throughout the state in small, often isolated communities. Many communities lack road access.

The Bureau of Land Management's mission is to sustain the health, diversity, and productivity of America's public lands for the multiple use and enjoyment of present and future generations.

BLM Alaska manages approximately 72 million acres of public lands, including the National Petroleum Reserve-Alaska, the White Mountains National Recreation Area, and National Conservation Lands including the Steese National Conservation Area, the Iditarod National Historic Trail, six Wild and Scenic Rivers, and the Central Arctic Management Area Wilderness Study Area. In addition, BLM manages some of the lands selected under the Native Allotment Act of 1906, the Alaska Statehood Act, and the Alaska Native Claims Settlement Act (ANCSA) that have not been conveyed. BLM also has residual fire prevention and suppression responsibility for non-military caused fires on certain lands withdrawn by public law 106-65 for military use (specifically the Yukon and Donnelly Training Areas). In some cases, agreements specify BLM responsibilities for the management of wildland fire on other lands.

Management responsibility for BLM lands is shared among three BLM District Offices subdivided into four Field Offices.

For BLM Alaska managed lands including Field and District Office boundaries see web map application at <http://arcg.is/1aX9yS>.

1.1.4. ALASKA FIRE REGIMES

The bulk of the forest fire activity in Alaska is concentrated in the interior between the Brooks and Alaska Ranges (Fryer 2014). Although this area only occupies 30 percent of the state, 96 percent of the fires for the period 1960-99 occurred here (Kasischke et al. 2002). Expansive areas of lowland black spruce forests are unique in the prevalence of fine live fuels (e.g., feathermosses and surface and arboreal lichens) and a permafrost table that recedes as the season advances (Fryer 2014). Spruce trees support vertically continuous foliage to catch low sunlight angles, a fuel structure that easily conducts fire into the canopy. This forest type is continuous across the landscape with few topographic barriers, thus setting the potential for large fires (Burton et al. 2008, Parisien et al. 2006).

Fire potential is highest during early summer when days are long, temperature and windspeeds are high, humidity is seasonally low, the duff is shallowly thawed, and high pressure blocks the approach of moisture-laden weather systems (Cronan et al. n.d., Kasischke and Johnstone 2005, NOAA climate data). Poor nighttime recovery of relative humidity causes widespread drying of fine surface fuels. Precipitation peaks later in the summer. Lightning is also frequent at this time (Dissing and Verbyla 2003, Reap 1991). Episodic large fire seasons occur during periods of extended dryness associated with synoptic weather patterns such as the Pacific Decadal Oscillation (Duffy et al. 2005) and moderate to strong positive phases of El Niño (Hess et al. 2001, Larsen 1996, Fauria and Johnson 2006, 2008).

Tundra fires are generally smaller and less intense than forest fires. Overall, the median tundra fire size in Alaska is 16 acres although burns >250,000 acres have occurred (Jones et al. 2009, French et al. 2015). Tundra fire frequency and reburn frequency are greatest on the Seward Peninsula and in the Noatak Drainage, followed by Southwest Alaska and the Arctic Slope (Rocha 2012).

For Alaska Fire History see web map application at <http://arcg.is/1aX9yS>.

1.1.5. POLICY

In Alaska, a set of interagency fire management plans was completed with the oversight of the Alaska Interagency Fire Management Council between 1980 and 1988. These plans provided a coordinated, cost effective, landscape scale approach to fire management for State and Federal agencies. Each plan contained a description of the local environmental and socioeconomic conditions, natural and cultural resources, fire history and behavior, and local subsistence activities. The plans also provided a consistent interagency approach to operational procedures and the identification and prioritization of values- to-be-protected. The *Alaska Interagency Wildland Fire Management Plan (AIWFMP 1998)* consolidated the common operational elements of those plans and provided the land managers and fire suppression organizations unified guidance and direction in a single document. The *AIWFMP* was revised in 2010 and again in 2016, and is reviewed annually. It continues to provide statewide interagency initial response direction and provides a mechanism for BLM to communicate initial response strategies that complement direction from the LUPs (Figure 1).

Federal Interagency and BLM Policy and Direction

- Cohesive Strategy
- Review and Update of the 1995 Federal Wildland Fire Management Policy (January 2001)
- Guidance for the Implementation of Federal Wildland Fire Management Policy (February 2009)
- Red Book
- BLM IMs
- Etc.

- BLM RMPs approved prior to July 20, 2005 as amended by the Alaska Land Use Plan Amendment for Wildland Fire and Fuels Management (NEPA)
- BLM Resource Management Plans (RMPs) approved after July 20, 2005 (NEPA)

These plans define fire management program goals, objectives, and management actions.

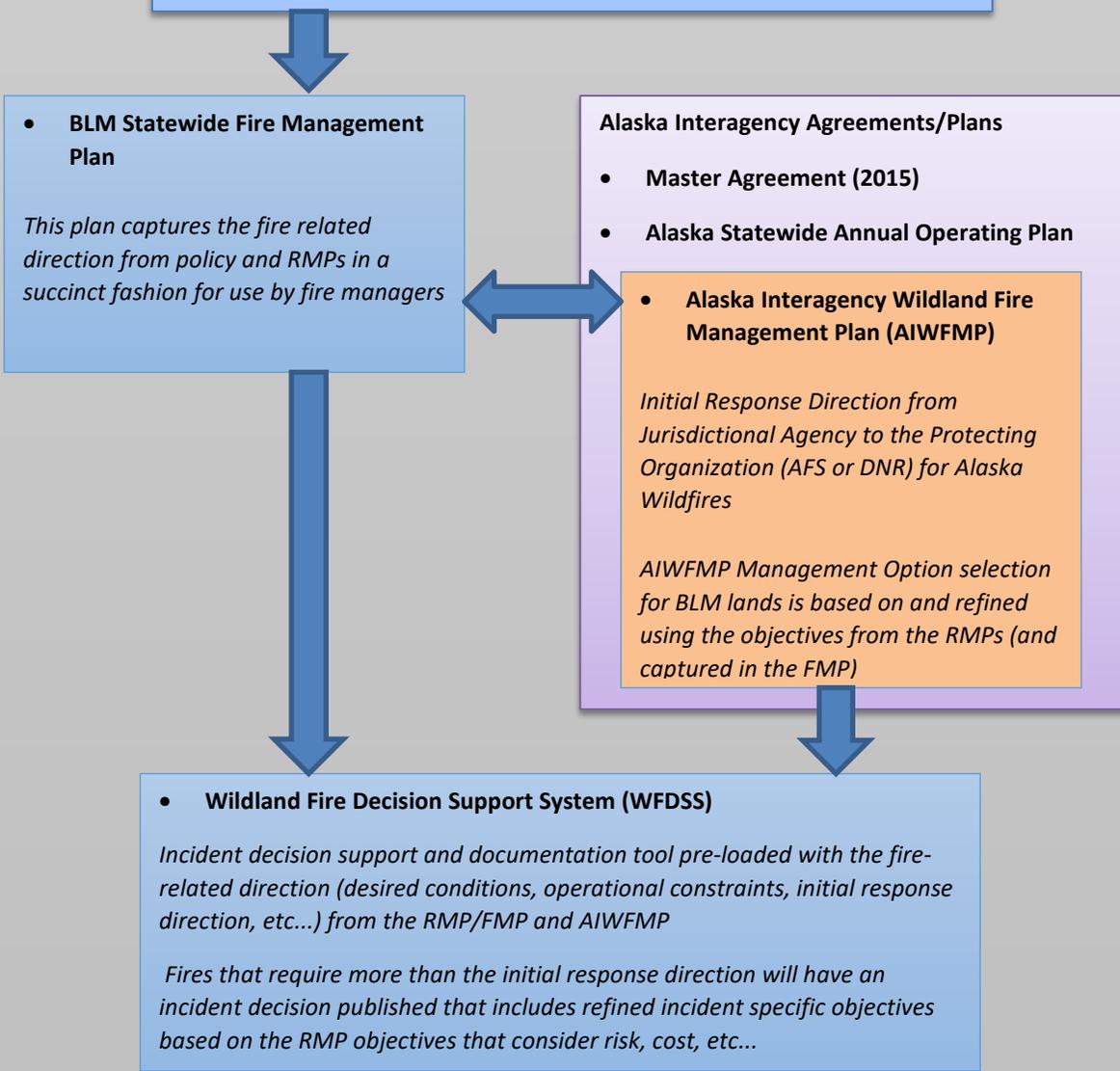


Figure 1: Fire Planning and Policy in Alaska

However, the *AIWFMP* does not meet all of the federal requirements for a fire management plan. In order to meet federal fire planning requirements, the Bureau of Land Management, the National Park Service, and the U.S. Fish and Wildlife Service have developed additional administrative unit fire management plans that tier from their land use plan (LUP) goals and objectives. The *AIWFMP* continues to provide interagency initial response direction for these agencies. In 2005 the BLM consolidated fire management direction from all existing land use plans within the State into the 2005 Wildland Fire and Fuels Management Land Use Plan Amendment. The Amendment allowed the 2005 BLM Alaska FMP to tier from a single source for LUP fire management direction.

Since 2005, several BLM has completed several new land use plans that include updated fire management direction that was not considered in the 2005 FMP. In addition, there have been some changes to federal wildland fire policy. A review of the 2005 BLM FMP was conducted in 2015 and it was determined that a revision was necessary. This FMP incorporates direction from the 2005 Wildland Fire and Fuels Management Land Use Plan Amendment as well as from each of the Alaska LUPs that have taken effect since 2005.

1.2. PROGRAM ORGANIZATION

Alaska's vast land-base, active fire regimes, scattered population centers, and limited transportation networks pose many challenges to wildland fire managers. Interagency cooperation is essential for effective, efficient management of wildland fire in Alaska's unique environment.

In 1939, Congress authorized and established the Alaskan Fire Control Service (AFCS) under the direction of the General Land Office. The AFCS's mission was to detect and suppress wildland fires on public within the Territory of Alaska. The BLM was then established in 1946 and a little over a decade later Alaska became the 49th state on January 3rd, 1959 with the signing of the Statehood Act. The Statehood Act authorized the government of the State of Alaska to select title to 103 million acres of lands managed by the BLM. The BLM continued to provide fire suppression on all public lands in Alaska.

In 1971, Congress enacted the Alaska Native Claims Settlement Act (ANCSA) granting 44 million acres of land to Alaska Natives to be divided up among regional, urban, and village tribal corporations. In addition, ANCSA (7 (d) (2)) directed the Secretary of the Interior to withdraw up to 80 million acres from development for conservation purposes. These lands were referred to as "d-2" lands available for Wildlife Refuges, National Parks, National Forests or Wild and Scenic rivers if designated by congress. Due to conflicts within those acres identified, a sequence of events and legislative proposals led to the passing of the Alaska National Interest Lands Conservation Act (ANILCA) in 1980 to settle the disputes. Passage of ANILCA revised sections in the ANCSA and the Statehood Act of 1959 designating 104.1 million acres of land for National Parks and Preserves, National Forests, National Fish and Wildlife Refuges. The bulk of land conveyances to the State of Alaska and ANCSA Native Corporations have been completed. However, the conveyance effort is ongoing.

The Department of the Interior (DOI) authorizes BLM to maintain and operate the DOI wildland fire suppression organization in Alaska with the primary intention of providing cost-effective suppression services and minimizing unnecessary duplication of suppression systems for DOI bureaus/offices (BLM, NPS, USFWS, BIA) (*Departmental Manual 620 DM 5*). The BLM Alaska Fire Service was formed to fill this role. The Alaska Department of Natural Resources, Division of Forestry is responsible for managing fires on State, municipal, and private lands and the US Forest Service protects Forest Service lands.

In order to minimize duplication of resources and effort, the BLM Alaska Fire Service, the Alaska Division of Forestry, and the US Forest Service have negotiated protection areas through the *Alaska Master*
BLM Alaska

Cooperative Wildland Fire Management and Stafford Act Response Agreement (AWFCG 2015) and associated *Alaska Statewide Annual Operating Plan*. The agreement specifies that fire protection services are provided by the Protecting Agency for an area regardless of ownership or jurisdiction. Additionally, a memorandum of agreement and annual operating plan between BLM Alaska and the U.S. Army Garrison Fort Wainwright specify joint BLM/Army responsibilities for fire management on several military training ranges in the state.

**For Alaska Protection Areas see web map application
at <http://arcg.is/1aX9yS>.**

For fire management purposes, BLM Alaska’s organization is branched into a jurisdictional arm and a protecting arm under the State Director. See **Table 1**.

1.2.1. BLM JURISDICTIONAL AUTHORITIES (BLM DISTRICT AND FIELD OFFICES)

Management responsibility for BLM lands in Alaska is shared among three BLM District Offices subdivided into four Field Offices.

**For BLM Alaska managed lands including Field and
District Office boundaries see web map application
at <http://arcg.is/1aX9yS>.**

Agency Administrator authority for wildfires has been delegated to Field Office Managers in Alaska (the Arctic District Office Manager retains Agency Administrator authority for wildfires within the District as there are no Field Offices within the District). Two Fire Management Specialists provide jurisdictional fire management support to the Field and District Offices. One, duty-stationed in Fairbanks, reports to the Fairbanks District Office Manager and provides support for the Fairbanks and Arctic Districts and associated field offices. The other, duty-stationed in Anchorage, reports to the Alaska Fire Service Manager and provides support for the Anchorage District Office and associated Field Offices. This South Zone Fire Management Specialist also serves a jurisdictional liaison between the Alaska Fire Service and ANCSA Native Corporations in the Mat-Su, Copper River, and Southwest Areas under State of Alaska protection and the Haines, Chugach, and Tongass Areas under US Forest Service Protection. The Military Zone Protecting FMO serves as jurisdictional liaison between the Alaska Fire Service and ANCSA Native Corporations in the Tok, Delta, and Fairbanks Areas under State of Alaska protection.



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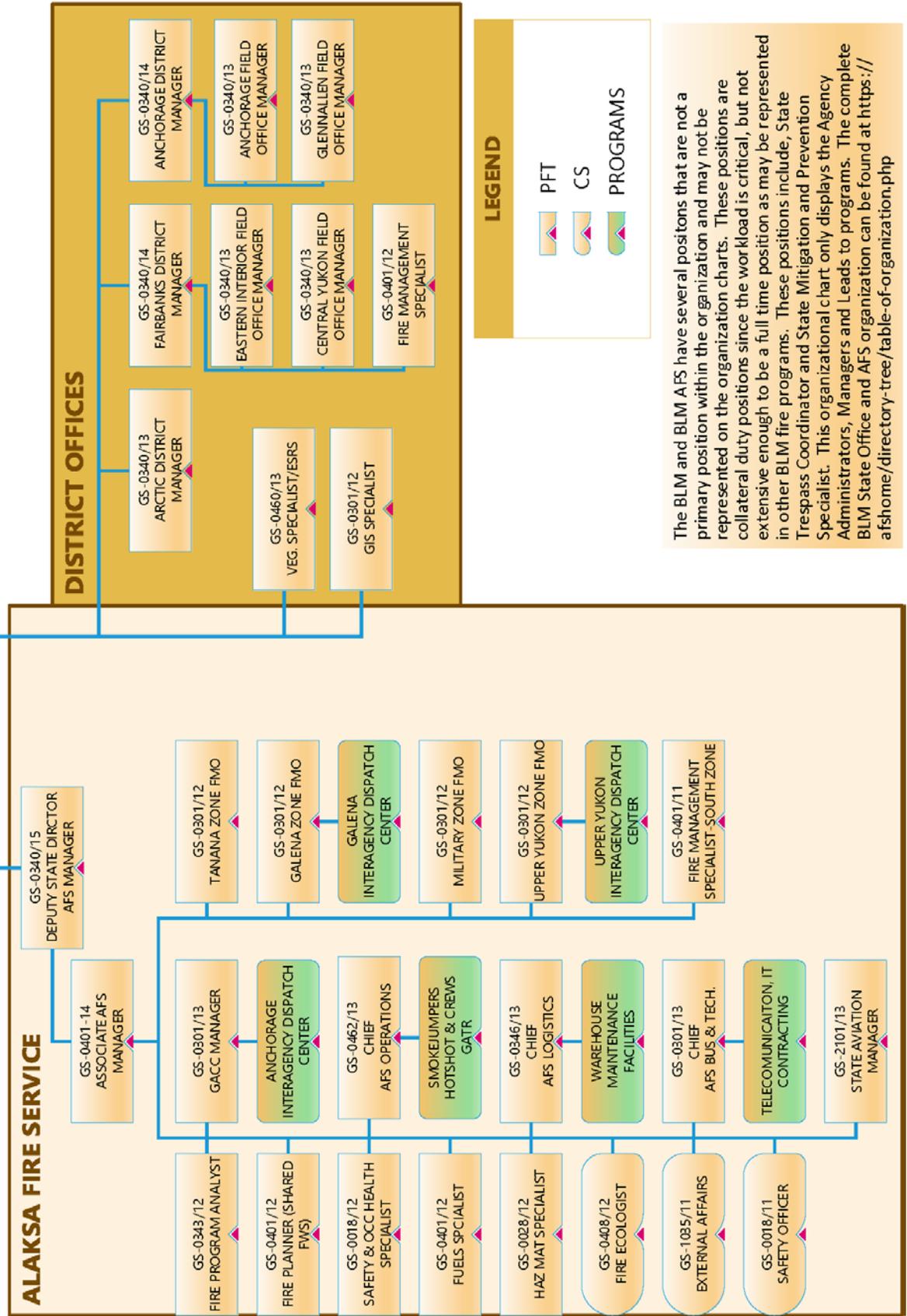


Table 1: BLM Alaska Fire Management Table of Organization

1.2.2. FIRE PROTECTION SERVICES (BLM ALASKA FIRE SERVICE)

Per Departmental Manual 620, the Alaska Fire Service (AFS) provides wildland protection services for BLM-managed lands as well as for other Department of the Interior agencies and Alaska Native Corporation lands. In addition, the AFS provides protection for State, private, and US Army Garrison Fort Wainwright lands through interagency agreements. The Alaska Deputy State Director for Fire and Aviation AFS has the overall program responsibility of the AFS program including:

- Associate Manager and Manager's Office staff
- Alaska Geographic Area Interagency Coordination Center (AICC)
 - Anchorage Interagency Dispatch Center (AIDC) serves as the dispatch center for resource aviation operations and does not function as a fire dispatch
- Four Protection Zones (provide fire management services for all the DOI agencies and ANCSA Corporation lands within their zone):
 - Upper Yukon Zone (UYD)
 - Upper Tanana/Yukon Interagency Dispatch Center (UYDC)
 - Tanana Zone (TAD)
 - Military Zone (MID)
 - Galena Zone (GAD)
 - Galena Interagency Dispatch Center (GADC)
- South Zone – serves as a jurisdictional zone for BLM and ANCSA interests in the Anchorage District and has no protection responsibilities.
- Logistics Branch including the following facilities in Fairbanks:
 - National Type 1 Fire Cache
 - Barracks
 - Dining hall
 - Maintenance facility
 - Transportation facilities
 - Communication shop
- Business and Technology Branch (including National Operation Center staff)
- Fire Operations Branch including:
 - Two Interagency Hotshot Crews
 - One Type 2 training crew
 - One BLM National Smokejumper program (one of two in the nation)
 - Fire Specialist program
 - Training center
- Aviation Branch responsible for BLM Alaska's statewide Fire and Aviation program including:
 - Fairbanks Tanker Base
 - Fairbanks Helibase

**For Alaska Protection Areas see web map application
at <http://arcg.is/1aX9yS>.**

1.3. ENVIRONMENTAL COMPLIANCE

1.3.1. NATIONAL ENVIRONMENTAL POLICY ACT

The strategies outlined in this FMP are consistent with the decisions and direction in the following BLM land use and activity plans. This FMP does not require additional NEPA analysis because BLM complied with NEPA and sufficiently analyzed the relevant decisions in the following plans with either an Environmental Impact Statement (EIS) or Environmental Analysis (EA). Relevant plans and NEPA documents include:

- Eastern Interior Proposed Resource Management Plan and Final EIS (5/23/2016) resulted in four land use plans:
 - Draanjik Record of Decision and Approved Resource Management Plan (12/16/2016)
 - Fortymile Record of Decision and Approved Resource Management Plan (12/16/2016)
 - Steese Record of Decision and Approved Resource Management Plan (12/16/2016)
 - White Mountains Record of Decision and Approved Resource Management Plan (12/16/2016)
- NPR-A Record of Decision and Final Integrated Activity Plan (IAP) (2/21/2013) and EIS (10/23/2012)
- Bay Record of Decision and Approved Resource Management Plan (11/14/2008) and Final EIS (11/9/2007)
- Kobuk-Seward Peninsula Record of Decision and Approved Resource Management Plan (9/4/2008) and Final EIS (9/4/2007)
- Ring of Fire Record of Decision and Approved Management Plan (3/21/2008) and Final EIS (6/9/2006)
- East Alaska Record of Decision and Approved Resource Management Plan (9/7/2007) and Final EIS (4/18/2006)
 - Delta River Special Recreation Management Area (SRMA) Plan and EA (3/29/2013)
 - Gulkana River Record of Decision, Final EA & Revised Resource Management Plan (7/21/2006)
- Utility Corridor Record of Decision and Approved Resource Management Plan (1/11/1991) and Final EIS (9/27/1989) as amended by the Wildfire and Fuels Management Land Use Plan Amendment for Alaska (7/20/2005)
- Central Yukon Record of Decision and Approved Resource Management Plan (9/26/1986) and Final EIS (4/15/1986) as amended by the Wildfire and Fuels Management Land Use Plan Amendment for Alaska (7/20/2005)
- Southwest Management Framework Plan (11/25/1981) and Unit Resource Analysis (8/1/1981) as amended by the Wildfire and Fuels Management Land Use Plan Amendment for Alaska (7/20/2005)
- Fort Wainwright Integrated Natural Resource Management Plan (6/4/2013)
- Fort Wainwright Yukon Maneuver Area Resource Management Plan and EIS (6/1/1995)
- Fort Greely Resource Management Plan and EIS (6/1/1995)
- Wildfire and Fuels Management Land Use Plan Amendment for Alaska (7/20/2005) and AK-313-04-EA-001 (7/6/2004)
- Alaska Programmatic Emergency Stabilization and Rehabilitation Plan EA (11/2/2006)
- Programmatic Fuel Reduction for Fairbanks District Office EA (7/27/2015)

As BLM Alaska amends or revises resource management plans, their decisions and direction will be incorporated into Chapter 2 of this Plan and into the Wildland Fire Decision Support System (WFDSS) Strategic Objectives and Management Requirements. BLM Strategic Objectives and Management Requirements in WFDSS are spatially enabled and will auto-populate incident decisions when BLM-managed lands are within the WFDSS Planning Area. Individual prescribed fire and fuels treatment projects will require additional site-specific analysis, reviews, and approvals as they are developed.

1.3.2. ENDANGERED SPECIES ACT (ESA)

BLM Manual 6840 provides policy and direction for the conservation of special status species (SSS) of plants and animals, and the ecosystems upon which they depend. Categories of SSS include: Species listed under the Endangered Species Act (ESA) as threatened and endangered species (T&E species), proposed, and candidate species; as well as state listed species and BLM sensitive species. Listed and proposed species may also have ESA designated or proposed critical habitat. Links in the table below provide additional species information from the US Fish and Wildlife Service Environmental Conservation Online System.

Species	Status	Notes
Polar bear (<i>Ursus maritimus</i>)	Threatened	Approximately 187,000 square miles within Alaska and adjacent Territorial and U.S. waters have been designated as critical habitat for polar bears. Essential habitat elements include sea ice, terrestrial denning habitat, and barrier island habitat. Wildfire occurrence is rare in this habitat hence no adverse effects to this species should occur as a result of wildfire management actions; however, the USFWS Endangered Species Office will be consulted for all fire management actions occurring north of 70° latitude.
Wood bison (<i>Bison bison athabasca</i>)	Threatened	The Alaska Department of Fish and Game reintroduced a wood bison population back to Alaska in 2015 near the village of Shageluk. Prior to reintroduction, the U.S. Fish and Wildlife Service published a final rule to allow this nonessential experimental population (NEP) of wood bison to be established in Alaska under section 10(j) of the Endangered Species Act (ESA). Under section 4(d) of the ESA, this final rule also determines those measures and prohibitions that are necessary and advisable for the conservation of the wood bison in Alaska. This final rule allows for the reintroduction of a NEP of wood bison in Alaska and establishes provisions under which wood bison in Alaska will be managed. It allows for legal incidental taking of wood bison within the defined NEP area. (take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity, such as recreation, livestock grazing, oil and gas or mineral exploration and development, timber harvesting, transportation, and other activities that are in accordance with Federal, Tribal, State, and local laws and regulations)
Northern sea otter (<i>Enhydra lutris kenyoni</i>)	Threatened	A marine mammal, the northern sea otter does not occupy habitats in which wildland fires occur, hence no adverse effects to this species should occur as a result of wildfire management actions.
Steller's eider (<i>Polysticta stelleri</i>)	Threatened	Although these sea ducks migrate through, and nest on, lands under BLM jurisdiction, the Service does not anticipate any adverse effects on these species resulting from wildfire management. These birds predominantly nest on tundra on Alaska's North Slope, and appear to favor areas close to ponds and small lakes. Wildfire occurrence is uncommon in this habitat; however, the USFWS Endangered Species Office will be consulted for all fire management actions occurring north of 70° latitude.
Spectacled eider (<i>Somateria fischeri</i>)	Threatened	Although these sea ducks migrate through, and nest on, lands under BLM jurisdiction, the Service does not anticipate any adverse effects on these species resulting from wildfire management. These birds predominantly nest on tundra on Alaska's North Slope, and appear to favor areas close to ponds and small lakes. Wildfire occurrence is uncommon in this habitat; however, the USFWS Endangered Species Office will be consulted for all fire management actions occurring north of 70° latitude.
Short-tailed albatross (<i>Phoebastria albatrus</i>)	Endangered	This endangered seabird does not use any terrestrial habitat in Alaska and hence no adverse effects to this species should occur as a result of wildfire management actions.

Species	Status	Notes
Eskimo curlew (<i>Numenius borealis</i>)	Endangered	The Eskimo curlew formerly nested in arctic tundra areas in Alaska and northwestern Canada; however, the species is considered likely extinct with the last documented sighting in 1962 and the last confirmed sighting in 1987. No critical habitat has been designated for the bird. Wildfire occurrence is uncommon in this habitat hence no adverse effects to this species should occur as a result of wildfire management actions.
Aleutian shield fern (<i>Polystichum aleuticum</i>)	Endangered	This endangered plant is endemic to Adak Island. There are no BLM lands on this island and hence no adverse effects are anticipated as a result of wildfire management actions

Table 2: Threatened and Endangered Species in Alaska

1.3.3. ALASKA NATIONAL INTEREST LANDS CONSERVATION ACT (ANILCA) SECTION 810

Section 810(a) of ANILCA requires that an evaluation of subsistence uses and needs be completed for any Federal determination to "withdraw, reserve, lease, or otherwise permit the use, occupancy or disposition of public lands." Appendix 2 of BLM *IM AK-2011-008* asserts that a decision in a planning document to suppress or not to suppress natural fire, or the implementation of that decision, is not a decision to withdraw, reserve, or lease public lands. Furthermore, no permits are issued, and natural fire is not, of itself, a use of land, but is an act of nature. A decision of whether or not to suppress a natural fire does not affect the legal permission to use the land. Therefore, interagency planning for natural fire and fire suppression does not meet the threshold requirement to initiate a Section 810 Evaluation.

Prescribed fire and other fuels management projects are subject to Section 810 review. A finding that the proposed action may significantly restrict subsistence uses imposes additional requirements including:

- Provisions for notices to the State, appropriate regional subsistence advisory councils, and local subsistence committees
- A hearing near the area involved
- Additional determinations as required by Section 810(a)(3)

1.3.4. NATIONAL HISTORIC PRESERVATION ACT (NHPA)

BLM-managed lands contain a wide variety of known cultural and related resources, encompassing both prehistoric and historic archeological sites and paleontological resources. Cultural resources include those related to both Native Alaskan groups, and Euro-American settlers, explorers, and other visitors. A few examples of the more commonly encountered cultural sites in the Alaskan interior include log cabins and cabin ruins, prehistoric lithic or stone artifact scatters, cemeteries and gravesites, former community and roadhouse sites, and various travel routes including Native Alaskan trails, dogsled trails, and sled and wagon roads.

Although some surveys have been done and others are ongoing, only a relatively small portion of BLM-managed lands has been intensively investigated for cultural resources. BLM manages cultural resources under its internal manual procedures ([BLM Manual Series 8100, Foundations for Managing Cultural Resources](#) and [BLM Manual Series 8140, Protecting Cultural Resources](#)), the *2012 National Programmatic Agreement for Section 106 Compliance*. In Alaska, the *Programmatic Agreement* is implemented with the Alaska State Historic Preservation Officer through the *2014 Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Alaska*. BLM

[IM 2013-103](#) makes narrowly focused interim changes to selected pages of the *BLM 8100 and 8140 Manual* sections to meet the requirements of the February 9, 2012, revision to the national Programmatic Agreement (PA) which the BLM maintains with the Advisory Council on Historic Preservation (ACHP) and the National Conference of State Historic Preservation Officers (NCSHPO) regarding the manner in which the BLM will meet its responsibilities under the National Historic Preservation Act (NHPA).

A Federal undertaking is a project, activity, or program that is funded, permitted, licensed, or approved by a Federal Agency. Undertakings may take place either on or off federally controlled property and include new and continuing projects, activities, or programs and any of their elements not previously considered under *Section 106* of the *National Historic Preservation Act*.

Impacts to cultural resources by naturally ignited fires without human intervention are not considered undertakings; however, BLM wildland fire management actions including wildfire suppression, prescribed fire and mechanical fuels reduction do constitute Undertakings. Potential impacts to significant cultural resources from both emergency and planned fire-related actions taken by BLM will be avoided or minimized to the maximum extent possible through application of the Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Alaska. Specifically in this regard, a qualified cultural resource specialist needs to review emergency and planned actions to assess potential impacts to cultural resources.

1.3.5. TRIBAL CONSULTATION

Alaska has 229 federally recognized tribes that are sovereign, self-governing entities. The BLM is required to consult with tribal governments per the Department of the Interior Policy on Consultation with Indian Tribes (DOI Order 3317, December 1, 2011) and Executive Order 13175 Consultation and Coordination with Indian Tribal Governments (July 20, 2010). BLM Tribal Consultation guidance is available in [H-1780-1 Improving and Sustaining Tribal Relations](#) (12/15/2016) and [BLM Manual 1780 Tribal Relations](#) (12/15/2016). In addition, BLM is required to consult with the 13 Regional Corporations and 173 Village Corporations established by ANCSA.

This consultation occurs during the Land Use Planning process; additional consultation related to the fire program includes:

- Individual ANCSA Corporations are considered the Jurisdictional Agency for surface lands that have been conveyed to them, and are annually given the opportunity to validate or change the AIWFMP Fire Management Options for those lands.
- BLM- Alaska Fire Service (AFS) provides fire management liaisons (Zone FMOs) to the ANCSA Corporations to ensure they are informed about fires occurring on or threatening their lands and are represented in fire management decisions.
- During ongoing wildfire incidents Zone FMOs will engage with ANCSA Corporations, Tribes, and Tribal Consortiums to identify cultural resources requiring protection, including identifying those that do not appear in BLM's Known Sites inventory.

1.4. RESOURCE MANAGEMENT PLANNING

**For BLM Alaska Land Use Planning Area maps see
web map application at <http://arcg.is/1aX9yS>.**

1.4.1. COMPLETED LAND USE PLANS (LUPS)

Fire management direction for BLM lands covered by LUPs approved prior to 2005 or not covered by an approved LUP is provided by the *Wildfire and Fuels Management LUP Amendment for Alaska (7/20/2005)*.

Fire management direction for the following planning areas with LUPs approved after 2005 supersedes direction in the *Wildfire and Fuels Management LUP Amendment for Alaska*:

- [Eastern Interior, Draanjik ROD/RMP \(1/6/2017\)](#)
- [Eastern Interior, Fortymile ROD/RMP \(1/6/2017\)](#)
- [Eastern Interior, Steese ROD/RMP \(1/6/2017\)](#)
- [Eastern Interior, White Mountains ROD/RMP \(1/6/2017\)](#)
- [NPR-A ROD/IAP/EIS \(2/21/2013\)](#)
- [Bay ROD/RMP \(11/14/2008\)](#)
- [Kobuk-Seward Peninsula ROD/RMP \(9/4/2008\)](#)
- [Ring of Fire ROD and Approved Management Plan \(3/21/2008\)](#)
- [East Alaska Record of Decision and Approved Resource Management Plan \(9/7/2007\)](#)
 - [Delta River SRMA Plan \(4/11/2013\)](#)
 - [Gulkana River ROD Final EA & Revised RMP \(8/1/2006\)](#)
- [Utility Corridor ROD/RMP \(1/11/1991\)](#) as amended by the [Wildfire and Fuels Management Land Use Plan Amendment for Alaska \(7/20/2005\)](#)
- [Central Yukon ROD/RMP \(9/26/1986\)](#) as amended by the [Wildfire and Fuels Management Land Use Plan Amendment for Alaska \(7/20/2005\)](#)
- [Southwest Management Framework Plan \(11/25/1981\)](#) as amended by the [Wildfire and Fuels Management Land Use Plan Amendment for Alaska \(7/20/2005\)](#)
- [Fort Wainwright Integrated Natural Resource Management Plan \(6/4/2013\)](#)
- [Fort Wainwright Yukon Maneuver Area Resource Management Plan and EIS \(6/1/1995\)](#)
- [Fort Greely Resource Management Plan and EIS \(6/1/1995\)](#)

1.4.2. LAND USE PLANS UNDER DEVELOPMENT

The following BLM LUPs are currently under development:

- [Bering Sea-Western Interior RMP and EIS](#)
 - This RMP is currently in draft. Once completed, it will replace the Southwest Management Framework Plan.
- [Central Yukon RMP and EIS](#)
 - Alternatives are currently being developed for this RMP. Once completed, it will replace both the 1986 Central Yukon RMP and the Utility Corridor RMP.

1.5. SCIENCE

One of the National Cohesive Strategy's guiding principles is to ensure "fire management decisions are based on the best available science, knowledge and experience, and used to evaluate risk versus gain." Parties to the Alaska Master Agreement recognize the important role of science and research in understanding Alaska's fire-adapted ecosystems and guiding an effective fire management program that meets the goals of each of the agencies as well as the public.

BLM policy lays out Federal Wildland Fire Management Policy elements, one of which is that *"Fire management plans and programs will be based on a foundation of sound science. Research will support ongoing efforts to increase our scientific knowledge of biological, physical, and sociological factors. Information needed to support fire management will be developed through an integrated interagency fire science program. Scientific results must be made available to managers in a timely manner and must be used in the development of land management plans, fire management plans, and implementation/operational plans"* ([H-9211-1](#), Fire Planning Handbook).

Manual 9211 emphasizes *"Understanding and utilizing fire effects information is a necessary part of fire planning. As part of science-based planning, field units must utilize fire effects information in project design and developing management objectives."*

Chapter 1 (620 DM) directs Fire Management Plans be *"based on the best available science; incorporate public health and environmental quality considerations; and support Bureau land, natural and cultural resource management goals and objectives."*

"The intricacy of natural and cultural systems, combined with public expectations and legal dictates, make it essential for the BLM to continue to be "science-informed," supporting its current culture in which mission oriented science enables managers and staff to apply science in decision making and adaptive management, at every level and in every program" (Kitchell et al. 2015).

BLM participates in AWFCG-chartered committees to ensure that current scientific information is made available to decision-makers, and that critical information gaps are identified in order to help guide future scientific inquiries:

BLM participates in the **Fire Research Development and Applications Committee (FRDAC)**. The purposes for this committee include identification and prioritization of research needs in Alaska and facilitating the development and exchange of fire effects, fire behavior, and fire danger information and applications to meet the needs of the member agencies of the Alaska Wildland Fire Coordinating Group (AWFCG). One of the primary tasks of the FRDAC is to maintain a prioritized list of research needs that is reviewed at 2-3 year intervals. Other activities include development of fire effects monitoring and fuel moisture-sampling protocols along with contributions to statewide products including an interactive map of fire research plots, and a bibliographic reference collection on fuels and fire effects. FRDAC products are available at https://fire.ak.blm.gov/administration/awfcg_committees.php.

BLM is represented on the Advisory Board for the **Alaska Fire Science Consortium (AFSC)**. The AFSC is one of fifteen regional consortia supported by the Joint Fire Science Program and is part of a national fire science exchange network. Their primary purpose is to strengthen the link between fire science research and on-the-ground application by promoting communication between managers and scientists, providing an organized fire science delivery platform, and facilitating collaborative scientist-manager research development.

1.6. CLIMATE CHANGE

Climate change is particularly important to consider for management of fire in Alaska's boreal and arctic ecosystems, both in terms of the meteorological drivers of fire activity but also the consequences of increased burn severity and extent. Annual average near-surface air temperatures across Alaska and the Arctic have increased over the last 50 years at a rate more than twice as fast as the global average temperature (ACIA 2005, IPCC 2014, Taylor 2017). "Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia" (IPCC 2014).

Alaska fire records indicate that large fire seasons are becoming more frequent. The three largest fire seasons on record have all occurred in the last fourteen years (2004-2017). A trend of increasing fire size north of the Brooks Range suggests that climatic drivers are changing the fire regime in places where fires have historically been small and infrequent (Rocha 2012, French et al. 2015). Drivers of increasing fire activity vary by region but may include one or more factors: shortening snow cover season (Richter-Menge 2016), higher temperatures, a lengthening fire season (Flannigan et al 2009), declining sea-ice extent and its effects on synoptic weather systems (Duffy et al. 2005, Bhatt et al 2010), and increased lightning (Veraverbeke 2017). Modelling results suggest that the average area burned per decade in Alaska and Canada will double by 2050 (Balshi et al 2009). At the same time as fire is becoming more frequent and severe it is increasingly clear that fire in boreal and arctic ecosystems have feedbacks into the mechanisms driving climate change that are outsized due to the sheer mass of carbon in their soil layers. Cold, anaerobic soil conditions have sequestered vast amounts of carbon over long time periods (Tarnocai et al. 2009, Schuur et al. 2009). Increased temperature and precipitation, particularly at high latitudes, drive up soil decomposition, which leads to increased emissions of carbon dioxide and methane [greenhouse gases] (Wuebbles et al. 2017). Overall, tundra is presently releasing net carbon into the atmosphere (Richter-Menge, J. et al. 2016). Increased fire activity would begin to deplete these stores, releasing them to the atmosphere to serve as an additional source of greenhouse gases. Additionally, increased fire activity in Alaska may enhance the degradation of permafrost by blackening the ground, reducing surface albedo, and removing insulative vegetation (Wehner 2017).

Climate change may be of concern to land and fire managers for other reasons. Increases in particulate matter and other components of smoke are associated with respiratory illness (Reisen 2015). Melting permafrost and associated hydrology changes will influence vegetation comprising fuel beds (Nossov et al 2013). Changes in the extent and seasonality of sea ice will influence regional weather patterns (Jones et al. 2009, Bhatt 2010). Climate change may lead to novel outbreaks of insects and pathogens that that adversely alter surface fuel loading (Gauthier et al 2015). Increased burning is already shifting forests from dominance by conifers to hardwoods (Mann et al. 2012) impacting fire regimes, fuelbeds, carbon storage, hydrology, cryology, and other ecosystem attributes and processes. Many of these impacts indirectly affect local communities who rely on ecosystem services and resources for their livelihood (Chapin et al. 2008). Research and modeling efforts provide insight on potential future conditions, but specific guidance on addressing these changes is currently limited (Trammel et al. 2014).

1.7. COLLABORATIVE PLANNING

Development of this Fire Management Plan was a collaborative effort between the Alaska Fire Service and the Anchorage, Fairbanks, and Arctic District Offices.

2. FIRE MANAGEMENT GOALS AND OBJECTIVES

Fire management direction for BLM-managed lands in Alaska is provided through approved Land Use planning documents and is specific to the planning areas associated with these documents. As BLM approves new Land Use Plans, their direction supersedes any previous LUP direction for lands within the Planning Area. BLM continues to convey land to the State of Alaska and ANCSA Native corporations. BLM LUP direction no longer applies to these lands after conveyance. The following sub-sections describe BLM fire management direction for BLM-managed lands within each of the current planning areas.

2.1. EASTERN INTERIOR PLANNING AREAS INCLUDING DRAANJIK, FORTY MILE, STEESE, AND WHITE MOUNTAINS

For BLM Alaska Planning Areas see web map application at <http://arcg.is/1aX9yS>.

Land Status (estimates based on the best available data from BLM Alaska State Office servers as of 02/05/2018 and are subject to change)	Draanjik Acres	Fortymile Acres	Steese Acres	White Mountains Acres
BLM unencumbered lands	2,248,761	420,209	1,199,845	999,562
State-selected lands	87,234	724,420	54,551	13,171
ANCSA Native-selected lands	2,666	268,977	640	0
Dual-selected lands	15,092	471,463	8,480	0
Total BLM surface estate	2,353,753	1,885,069	1,263,516	1,012,733

Table 3: BLM-managed lands within the Eastern Interior Planning Areas

Fire management direction is identical for each of the four Eastern Interior planning areas:

Draanjik

The Draanjik Planning Area is bounded on the north by the Porcupine River, on the east by the U.S.-Canadian border, on the south an arbitrary line through the Yukon-Charley Rivers National Preserve, and on the west by the Yukon River. Within the planning area, BLM-managed lands consist of a large block of land bounded by the Yukon Flats and Arctic National Wildlife Refuges (NWRs), Yukon-Charley Rivers National Preserve, State lands, and Native corporation (private) lands. BLM lands are relatively contiguous except around the village of Circle, where land ownership is scattered. There are no BLM special designations within the planning area and no federal mining claims on BLM-managed lands. The villages of Fort Yukon and Chalkyitsik are located within the planning area, but are within the Yukon Flats NWR. Other than roads within the villages, the planning area is roadless.

Fortymile

The Fortymile Planning Area is bounded on the north by the Draanjik Planning Area, on the east by the U.S.-Canadian border, on the south by BLM Glennallen Field Office boundary and the Alaska (Richardson) Highway, and on the west by the Alaska and Elliott highways. Within the planning area, BLM-managed lands consist of the Fortymile Wild and Scenic River (WSR), relatively large blocks of BLM-managed land within the Fortymile watershed, and scattered parcels along the Alaska Highway. Other federally managed lands within the planning area include the Yukon-Charley Rivers National Preserve and Tetlin NWR. Much of the planning area is State of Alaska lands. Private lands are located around several communities including Fairbanks, Fox, Delta Junction, Dot Lake, Tanacross, Tok, Tetlin, Northway, Chicken, and Eagle. Doyon, Limited, a regional Native corporation, also owns large blocks of land within the planning area. The Alaska, Taylor, and Top of the World highways cross the planning area. Other than some sections of the Fortymile River, there is little BLM-managed land near the highways.

Steese

The Steese Planning Area is bounded on the north and east by the Yukon River, on the south by the Yukon-Charley Rivers National Preserve and the Fairbanks North Star Borough, and on the west by the Fairbanks North Star Borough, the White Mountains National Recreation Area (NRA), and Beaver Creek. Within the planning area, BLM-managed lands consist of the Steese National Conservation Area, Birch Creek WSR, federal mining claims along the Steese Highway, and scattered townships around the Village of Circle. The Pinnell Mountain National Recreation Trail is within the planning area. Other federal lands include part of the Yukon Flats NWR. A large block of State land is located along the Steese Highway, between the north and south units of the Steese National Conservation Area. Private lands are found around Central, Circle, Beaver, and Birch Creek, the four communities within the planning area. Roads are limited to the Steese Highway, Circle Hot Springs Road, local village roads, and several mining roads.

White Mountains

The White Mountains Planning Area is bounded on the north by the Yukon River, on the east by Beaver Creek and the Steese National Conservation Area, on the south by the Chatanika River, and on the west by the Elliott and Dalton highways. Within the planning area, BLM-managed lands consist of the one-million-acre White Mountains NRA and associated lands (Wickersham Dome and three recreation withdrawals), Beaver Creek WSR, and federal mining claims around Livengood. The remainder of the planning area consists of part of the Yukon Flats NWR, large blocks of State land, and small parcels of private land. The Steese Highway crosses the southern part of the planning area and the Elliott and Dalton highways bound the planning area. Other roads include the Livengood, U.S. Creek, and Nome Creek roads. The communities of Livengood and Stevens Village are within or immediately adjacent to the planning area.

2.1.1. GOALS

Section	Eastern Interior Goal
Fire	Protection of human life is the single overriding priority. Other priorities are based on the values to be protected, human health and safety, and the costs of protection.
Fire	Respond to all wildfires, with an emphasis on firefighter and public safety, and ensure that costs are commensurate with the values to be protected.
Fire	Use wildland fire, and other treatments to maintain or restore ecological systems and to meet land use and resource management objectives.
Fire:	Prevent human caused wildfires.
Fire:	Reduce risk and costs of wildfire by managing wild fires to meet resource objectives and implementation of fuels management projects.
Fire:	Reduce adverse effects of wildland fire management activities.
Veg:	Ensure that watersheds (including their upland, riparian, wetland, and aquatic areas) are making significant progress toward or are in proper functioning condition.
Veg:	Ensure that water and nutrient cycling, and energy flow support healthy, productive, and diverse natural communities.
Veg:	Ensure that habitats support healthy, productive, and diverse populations and communities of native plants and animals.
Veg:	In disturbed areas, rapidly re-establish native plant communities, with locally adapted plants. (Recognizing that temporary establishment of non-native plants may occasionally be necessary to stabilize sites, control erosion, or facilitate eventual establishment of native plants).
Air:	Protect and maintain air quality of BLM-administered lands consistent with federal and State attainment, nonattainment, or maintenance classification status for atmospheric emissions and pollutants, including noise, smoke management, and visibility.
Subsistence:	Maintain sufficient quality and quantity of habitat to support healthy populations of important subsistence species, including moose and caribou.

Table 4: Eastern Interior Goals

2.1.2. DECISIONS

Section	Eastern Interior Decision
Fire-1	Cooperate and collaborate with other federal, state, and Native land managers, and with other suppression organizations to address issues and concerns related to wildland fire management in Alaska and to implement operational decisions.
Fire-2	<p>Allow fire on the landscape. Apply four wildland fire management options for initial response: Critical, Full, Modified, and Limited. Ensure that assigned wildland fire management options are ecologically and fiscally sound, operationally feasible, and sufficiently flexible to respond to changes in fire conditions, land use patterns, resource information, new technologies, and new scientific findings. Throughout the planning area, fire may be managed for multiple objectives. These wildland fire management options will be revisited by the Field Office annually and changed as needed to ensure the most effective initial response from the protection agency. Option changes will be documented on the official map atlases maintained by the Alaska Interagency Coordination Center and the respective Protection Zone/Area. Common indicators for changing fire management options include:</p> <ul style="list-style-type: none"> • A value to protect appears on the landscape (i.e. new neighborhood, structures is determined to have historic value, critical caribou habitat mapping); a value to protect disappears from the landscape. • A non-standard response was required for a wildfire the year previous and justifies the need for a change in that area. • A fire or other disturbance changes the fuel structure. • Another agency proposes an inter-agency change involving the BLM for the previously described reasons. <p>The designation of a management option pre-selects initial response strategies to accomplish established land use and resource objectives. Initial fire response for each fire management option is listed in Table 5.</p>
Fire-3	Implement the Standard Operating Procedures below during wildland fire management activities.
Fire-4	In addition to these wildland fire management options, some actions will be taken to protect specific sites that have been identified for special fire management protection. Site-specific actions may be taken to protect structures, cultural and paleontological sites, small areas of high resource value, and threatened and endangered species habitat to give suppression agencies more specific guidance for small sites.
Fire-5	Monitor vegetative communities for cumulative effects of wildland fire, suppression activities, and effects of excluding fire.
Fire-6	<p>The desired future condition for BLM-managed lands is to be in Fire Regime Condition Class 1, which represents landscapes still within the natural historical range of variation in fire regime.</p> <p>In response to shifting fire regimes resulting from climate change, fire management may be implemented to achieve wildlife habitat objectives (e.g., meeting habitat needs for subsistence species) or to facilitate ecosystem adaptation to climate change (e.g., addressing spread of invasive plants).</p>

Section	Eastern Interior Decision
Fire-7	<p>Fuels management activities assist in achieving resource objectives. Prescribed burning, mechanical, chemical, and manual treatments may also be used. Projects may be implemented in support of scientific research and in cooperation with BLM cooperators and partners. Fuels treatments are prioritized to:</p> <ol style="list-style-type: none"> 1. Reduce the risk to human life and inhabited property. Highest priority for fuel treatments would be those communities surrounded by hazardous fuels. 2. Reduce the risk and cost of wildland fire suppression in areas of hazardous fuels buildup. 3. Achieve other resource objectives such as habitat needs. 4. Achieve desired future condition of Fire Regime Condition Class 1.
Veg-1	<p>Maintain the current nature of the vegetation in the planning area, which has a natural diversity of species, communities, and seral stages largely undisturbed, except by natural forces.</p>
Veg-2	<p>Manage wildland fire to achieve natural fire regimes and ecosystem processes dependent upon fire. Use prescribed fire in select areas to improve wildlife habitat.</p>
Veg-3	<p>In response to shifting fire regimes resulting from climate change, fire management may be implemented to achieve wildlife habitat objectives (e.g., meeting habitat needs for subsistence species) or to facilitate ecosystem adaptation to climate change (e.g., addressing spread of invasive plants).</p>
Veg-4	<p>All firelines will be repaired and closed to OHV use to facilitate revegetation. Repair firelines by spreading original soil and vegetation on the disturbed ground, except in specific circumstances where seeding or planting may be necessary. Protect vegetation from damage caused by summer OHV use. In specific circumstances where firelines are routed and constructed so that they meet pre-determined travel management needs and maintain resource values, the Authorized Officer (AO) may determine that an exception is appropriate and retain suitable firelines as OHV or snowmobile routes. Fire lines built on existing roads or OHV trails will be returned to conditions suitable for original use.</p>
Veg-5	<p>Manage lichen-rich plant communities as high value habitats due to the slow growth potential of lichen and its great importance to caribou.</p>
Veg-13	<p>In addition to mapping of fire perimeters, map unburned inclusions within fire perimeters and fire severity on fires 1,000 acres or greater using Monitoring Trends in Burn Severity standards established by U.S. Geological Service and U.S. Forest Service, or similar interagency standards.</p>
Air-1	<p>Implement interagency wildland fire smoke effects mitigation measures adopted by the Alaska Wildland Fire Coordinating Group. Consider smoke effects on human health, communities, recreation, and tourism in all wildland and prescribed fire management activities.</p>
HazMat-2	<p>The standard operating procedures and fluid mineral leasing stipulations would apply to BLM-authorized activities to minimize the probability of contamination on public lands when hazardous materials are utilized.</p>
Travel-2	<p>The following are exempt from OHV decisions: any fire, military, emergency, or law enforcement vehicle used for emergency purposes; and any vehicle whose use is expressly authorized by the Authorized Officer, or otherwise officially approved (43 CFR 8340.0–5).</p>

Table 5: Eastern Interior Decisions

2.1.3. STANDARD OPERATING PROCEDURES

Section	Eastern Interior Standard Operating Procedure
FM-1	The BLM will not be held responsible for protection of permittees' structures or their personal property from wildland fire. It is the responsibility of permittees and lessees to mitigate and minimize risk to their personal property and structures from wildland fire, following the conditions in their permit.
FM-2	Gas-powered equipment must be equipped with manufacturer approved and functional spark arrestors.
FM-3	To avoid the potential impacts to aquatic life, the application of fire chemicals including retardant will be avoided within 300 feet of waterbodies. Deviations are acceptable when life or property is threatened and fire chemicals reasonably expected to alleviate the threat. The AO may approve a deviation if potential damage to natural resources outweighs the impact to aquatic resources.
FM-4	To the extent practicable, select the location for incident bases, camps, helibases, and so on to avoid riparian areas.
C-1	Mitigation measures will be considered for all actions that may potentially affect cultural resources. If the AO determines mitigation measures are necessary to protect and conserve known cultural resources, a mitigation plan will be approved by SHPO and implemented by the AO. Mitigation plans will be reviewed as part of Section 106 consultation for National Register of Historic Places eligible or listed properties. The extent and nature of recommended mitigation will be commensurate with the significance of the cultural resource involved and the anticipated extent of the damage. Costs for mitigation will be borne by the land use applicant.
Water-8	Rivers and streams will be crossed by vehicles in locations that minimize impacts to stream channels, stream banks, and riparian vegetation.
Water-9	When a stream must be crossed, the crossing will be as close to possible to a ninety-degree angle to the stream. Stream crossings will be made at stable sections in the stream channel, which have low sensitivities to disturbance and low streambank erosion potential.
Wetland-8	Avoid overland heavy equipment moves through wetlands in spring and summer. Stipulations and mitigating measures are provided on a case-by-case basis to ensure wetland conservation and practical management.
NIS-3	Fire management actions, including prescribed fire operations, wildland fire suppression, and fire rehabilitation efforts, will protect burned and adjacent areas from the introduction and spread of non-native invasive plants. Protection may include the use of washing stations with a containment system.
Wild-3	Whenever possible, operations that require vegetation removal will avoid the migratory bird-nesting period of May 1 to July 15 (USFWS Advisory: Land Clearing Timing Guidance for Alaska Plan Ahead to Protect Nesting Birds. July 2009). If NEPA analysis reveals that this would unacceptably compromise project objectives or logistical feasibility, potential impacts must be identified, and mitigation applied that are appropriate to the magnitude and duration of expected effects. Assessments would focus on species of concern, priority habitats, and key risk factors. Permittees/project proponents will be reminded that it is their responsibility to comply with provisions of the Migratory Bird Treaty Act.

Section	Eastern Interior Standard Operating Procedure
Wild-12	To minimize disturbance to nesting priority raptors, aircraft authorized by the BLM are required to maintain an altitude of at least 1,500 feet above ground level when within one-half mile of priority raptor nesting sites during nesting season. This protection is not intended to restrict flights necessary to conduct wildlife surveys satisfying wildlife data collection requirements.
Wild-13	To reduce disturbance to nesting priority raptors, campsites authorized by the BLM, including short- and long-term camps and agency work camps, must be located at least 500 meters from any known priority raptor nest site during the nesting season.
Soils-5	When access is required in snow-free months, routes that utilize naturally hardened sites will be selected to avoid trail braiding and wetlands will be avoided. The permittee will employ vehicle types and methods that minimize vegetation and soil disturbance, such as use of air or water craft, utilizing existing roads or trails, or use of low ground pressure vehicles.
Soils-12	Where practicable and feasible, avoid disturbance of the vegetative mat and permafrost soil areas.
Soils-13	Natural revegetation of disturbed sites is the generally preferred method for restoration/stabilization of disturbed soils. Where erosion is problematic or rapid establishment of plant cover is desired, utilize a combination of seeding, planting, and transplanting of adult plants or vegetation mats, and/or fertilizing as necessary to mitigate soil erosion.
Hazmat-3	All hazardous materials and petroleum, oil, and lubricants (POLs) will be stored in containers that are compatible to the material being stored. Containers will be labeled with the responsible party's name, contents of the container, the date the product was purchased, and the date the container was filled.
Hazmat-4	Storage of POLs at any site will require secondary containment. The containment area must be constructed to hold at least 110 percent of the largest container, lined with an impermeable liner that is free of cracks or gaps, compatible with the contents stored, and sufficiently impervious to contain leaks, or spills. The containment area must be covered to eliminate the collection of rainwater within the containment area. The AO may also require a Spill Prevention and Contingency Plan.
Hazmat-5	If refueling cannot be avoided within the riparian zone or within 100 feet of a water body, a catch basin and POL-type absorbent pads will be utilized to collect any overflow.
Hazmat-6	Leaking equipment must have a drip basin placed under the leak area and the basin must be protected from the collection of rain water to ensure no release to the surrounding environment. When maintenance to equipment has the potential to release fluids, an impermeable liner must be utilized to ensure that spills are contained.
Hazmat-7	All spills will be contained and cleaned up upon discovery. Spills that are reportable to ADEC will also be reported to the AO in the same time frame.

Table 6: Eastern Interior Standard Operating Procedures

2.2. NATIONAL PETROLEUM RESERVE-ALASKA (NPR-A) AREA

For BLM Alaska Planning Areas see web map application at <http://arcg.is/1aX9yS>.

Land Status (estimates based on the best available data from BLM Alaska State Office servers as of 02/05/2018 and are subject to change)	NPR-A Acres
BLM unencumbered lands	20,781,686
State-selected lands	4,862
ANCSA Native-selected lands	11,598
Dual-selected lands	15,092
Total BLM surface estate	20,813,238

Table 7: BLM-managed lands within the NPR-A Planning Area

The planning area is entirely contained within the North Slope Borough; however, the relevant economic area must be understood at multiple levels. Four communities, Nuiqsut, Barrow, Wainwright, and Atqasuk, lie within the planning area. Within the external boundary of the NPR-A and on BLM-administered lands, there are limited gravel roads at Umiat and community gravel roads at the four villages of Atqasuk, Barrow, Nuiqsut, and Wainwright. There are few airstrips, and no developed marine facilities along the coastline. Construction and operation of oil and gas infrastructure has recently begun in the NPR-A, and permitting for further development is currently underway.

The NPR-A can be divided into three physiographic provinces occurring roughly as latitudinal bands (Wahrhaftig 1965). From north to south, they are the Arctic Coastal Plain, the Arctic Foothills, and the Arctic Mountains (Brooks Range) provinces (see “Physiography,” section 3.2.4, and Map 3.2.4-1). Most of the described species occur in all three provinces, so the relative frequency of occurrence of each species is a better distinction among provinces (USDOI BLM 2002). Such frequency differences are due primarily to differences in moisture levels. Many lakes and very poorly drained soils dominate the Arctic Coastal Plain, whereas the Brooks Range has few lakes and some well-drained soils. The Arctic Foothills is intermediate in these characteristics (USDOI BLM 2002).

The NPR-A is the only planning area in Alaska that is not covered under the Federal Land Policy and Management Act of 1976 (FLPMA). It was established by the Naval Petroleum Reserves Production Act of 1976 which precludes the consideration of resource management objectives. Therefore, no Goals or Objectives relevant to Wildfire are addressed in this Plan.

Prescribed fires have not been used as a management tool within the planning area for vegetation management purposes. The LUP directs that smoke from wildland fires will be managed using the procedures laid out in AWFCG’s 2007 Smoke Effects Mitigation and Public Health Protection Procedures.

2.3. BAY PLANNING AREA

For BLM Alaska Planning Areas see web map application at <http://arcg.is/1aX9yS>.

Land Status (estimates based on the best available data from BLM Alaska State Office servers as of 02/05/2018 and are subject to change)	Bay Acres
BLM unencumbered lands	1,139,272
State-selected lands	243,520
ANCSA Native-selected lands	18,110
Dual-selected lands	70,294
Total BLM surface estate	1,471,196

Table 8: BLM-managed lands within the Bay Planning Area

The Bay planning area includes lands adjacent to Bristol, Goodnews, and Jacksmith bays, and extends northerly to the Kanektok River. It includes the headwaters of the Togiak, Tikchik, King Salmon, Nushagak, Mulchatna, Kvichak-Alagnak, and Naknek river drainages. It also includes the east side of Iliamna Lake and Kakhonak Lake, the western portion of the Alaska Range and the Aleutian Range, and the upper portions of the Alaska Peninsula north of Becharof Lake and Egegik Bay (Map E-1). This region consists primarily of broad, level to rolling upland tundra-covered river basins. Residents of the Bay planning area are located in 25 villages. There are two State organized boroughs within the planning area, Bristol Bay and Lake and Peninsula Boroughs, and three ANCSA Regional Corporations have real estate holdings within the planning area; Calista, Incorporated, Ltd., Bristol Bay Native Corporation, and Cook Inlet Region, Incorporated.

People residing within the Bay planning area are heavily engaged in a subsistence economy. Besides the subsistence economy, commercial fishing, commercial guiding, and sports hunting and fishing are the primary pursuits in the planning area.

Transportation is predominantly by air or water. The planning area contains approximately 92 miles of secondary roads, none of which are located on unencumbered BLM lands. Access to public lands is by boat, airplane, or off-highway vehicle (OHV), though a few areas are accessible by automobile.

2.3.1. GOALS

Section	Bay Goal
Fire	Provide appropriate management response on all wildland fires, with an emphasis on firefighter and public safety.
Fire	Management of wildland fires and fuels will focus on maintaining intact and functioning key ecosystem components.
Fire	Reduce adverse effects of fire management activities.
Fire	Base fire and fuels management activities on land use and resource objectives.
Fire	Continue interagency collaboration and cooperation.
Forest and Forest Products	Manage forests and woodlands to sustain their health, productivity, and biological diversity.

Section	Bay Goal
Air Quality	The BLM will protect and enhance the quality of air resources associated with BLM-managed lands in the planning area as well as consider, if practicable, minimizing the impacts of smoke to human health, communities, recreation and tourism from wildfire and prescribed burns. Smoke and its public health impacts are a parameter in fire suppression decisions.

Table 9: Bay Planning Area Goals

2.3.2. MANAGEMENT ACTIONS

Section	Bay Management Action
Fire	Manage vegetation adjacent to populated areas to reduce risk of wildfires.
Fire	Use wildland fire and fuel treatments as management tools to meet land use and resource objectives.
Fire	Reduce risk and cost of uncontrolled wildland fire through wildland fire use, prescribed fire, manual or mechanical treatment.
Fire	Reduce adverse effects of fire management activities.
Fire	Prescribed burn plans will contain ROPs to prevent the introduction and spread of invasive non-native plants and noxious weeds.
Fire	Continue interagency collaboration and cooperation.
Forest and Forest Products	Assess the feasibility of fuel reductions, prescribed fire, or salvage logging in localized areas of insect and disease killed trees.
Air Quality	The BLM will stipulate that all direct or authorized emission-generating activities occurring on BLM-managed lands within the planning area comply with the Federal and State air quality laws and regulations.
Air Quality	The BLM will also implement interagency wildland fire smoke mitigation measures adopted by the Alaska Wildland Fire Coordinating Group and consider public health and safety in all fire management activities.

Table 10: Bay Planning Area Management Actions

2.3.3. MONITORING

Section	Bay Monitoring
Fire	Monitor the number and size of wildland fires for cumulative impacts on wildlife habitat, particularly caribou winter range.
Fire	Monitor vegetative communities for cumulative effects of wildland fire and suppression actions.
Fire	Monitor cultural resources for effects of wildland fire and suppression actions.
Fire	Vegetative communities would be monitored for cumulative effects of wildland fire and suppression activities as funding permits.
Cultural and Paleontological Resources	Monitor cultural and paleontological resource sites in danger of alteration or destruction from natural or human-made causes, including wildland fires and the effects of fire suppression

Table 11: Bay Planning Area Monitoring

2.3.4. OBJECTIVES

Section	Bay Objective
Air Quality	All actions that may impact air quality will comply with local, State, and Federal requirements.

Table 12: Bay Planning Area Objectives

2.3.5. REQUIRED OPERATING PROCEDURES

Section	Bay Required Operating Procedure
<p>Fire Management - 1 Reduce impacts to water quality, riparian habitat, vegetation, soils, and fish habitat from fire suppression activities.</p>	<p>ROP FM-1a Permittees and casual users will be held financially responsible for any actions or activity that results in a wildland fire. Costs associated with wildland fires include but are not limited to damage to natural or cultural resources and costs associated with any suppression action taken on the fire.</p>
	<p>ROP FM-1b The Federal government shall not be held responsible for protection of permittees structures or their personal property. It is the responsibility of permittees and lessees to mitigate and minimize risk to their personal property and structures from wildland fire, if allowed by their permit.</p>
	<p>ROP FM-1c Gas powered equipment shall be equipped with manufacturer approved and functional spark arrestors.</p>
	<p>ROP FM-1d To avoid the potential impacts to aquatic life the use of fire retardant is prohibited except when necessary to protect:</p> <ul style="list-style-type: none"> • Human life, • Permanent year-around residences, • National Historic land marks, • Structures on or eligible for the National Register of Historic Places • Government Facilities, and • Other designated sites or structures or if necessary to protect high value resources on adjacent lands under other than BLM administration or ownership. <p>Even if one of the above listed resources is being threatened, water should be used instead of fire retardant whenever possible or appropriate. The use of fire suppressant foams is prohibited.</p>
	<p>ROP FM-1e Use of tracked or off-road vehicles in fire suppression or management activities will be conducted in a manner that does not cause erosion, damage to riparian areas, degradation of water quality or fish habitat, or contribution to stream channel sedimentation.</p>
	<p>ROP FM-1f Use of heavy equipment and other motorized vehicles off road requires approval of Authorized Officer or designee</p>
	<p>ROP FM-1g Rehabilitate fires as needed, guided by the fire specific rehabilitation plan provided by the resource area to the suppression agency.</p>
	<p>ROP FM-1h Helicopters used for any activity during snow free conditions, which requires landing in wildland fuels, should have the exhaust/cooling system located high on the fuselage. Helicopters, which have exhaust/cooling systems that are located low on the fuselage and expels the exhaust straight back or downward, should only be landed in areas with no fuel such as areas of bare soil, gravel bars, or other areas of low combustibility.</p>

Section	Bay Required Operating Procedure
<p>Veg-1 Treatments and alterations of the vegetative composition of a site, such as prescribed burning, seeding, or planting, will be designed to meet objectives based on the ecological potential of the site and will: retain or promote infiltration, permeability, and soil moisture storage; contribute to nutrient cycling and energy flow; protect water quality; help prevent the introduction and spread of invasive non-native plants and noxious weeds; contribute to the diversity of plant communities and plant community composition and structure; and where appropriate support the conservation of threatened and endangered species, other special status species, and species of local importance.</p>	<p>Veg-1a Vegetation treatments will be designed to achieve desired conditions expressed as cover types or seral stages within cover types in individual burn, project, or activity plans.</p> <p>Veg-1b Vegetation treatments will be designed to prevent the introduction of invasive non-native plants or noxious weeds. Project, burn, or activity plans will contain a discussion of the known occurrence of invasive non-native plants or noxious weeds within a planned treatment area and a strategy for post-project, burn or activity monitoring or treatment.</p>
<p>Water-1 Maintain the quality of surface and ground water to support beneficial uses.</p>	<p>Water-1j Fuel and other petroleum products and hazardous materials will be stored in containers designed to hold that product. All fuel containers, including barrels, propane tanks, and hazardous material containers shall be marked with the responsible party's name and contact information, product type, and the year filled and purchased.</p> <p>Water-1k Fueling operations and storage of fuel, chemicals or hazardous materials on the public lands require secondary containment made from a material that is impervious to the chemical stored. Secondary containment must have sufficient free space to contain 150% of the volume of the largest single container stored within the secondary containment.</p> <p>Water-1m With the exception of watercraft or aircraft, fueling operations for motorized apparatus will not occur in riparian zones (from the ordinary high water mark to the outer edge of riparian vegetation) or 100 feet of a water body whichever is greater nor within 500 feet of the active floodplain of any fish-bearing water body.</p>

Section	Bay Required Operating Procedure
	Water-1o With the exception of watercraft or aircraft, no vehicles or motorized equipment shall be left unattended within the floodplain or below the ordinary high water mark of any river, lake or stream.
<p>Wildlife-2 Maintain and protect fish and wildlife habitat and provide for the habitat needs of fish and wildlife resources necessary to maintain or enhance such populations.</p>	<p>FW-2a The following provisions apply to river or stream fording:</p> <ol style="list-style-type: none"> 1. In general, fords should only be considered on small streams for low and infrequent use. A reasonable measure of infrequent use is a level of use that does not cause a noticeable increase in turbidity (i.e. noticeable with the eye) that persists downstream of the crossing. 2. Personnel and equipment (including all-terrain vehicles or off highway vehicles) crossings shall be made from bank to bank in a direction substantially perpendicular to the direction of stream flow. 3. Personnel and equipment (including all-terrain vehicles or off highway vehicles) crossings shall be made only at locations with gradually sloping banks. There shall be no crossings at locations with sheer or cut banks. Banks shall not be altered or disturbed in any way to facilitate crossings. If stream banks are inadvertently disturbed, they shall be immediately stabilized to prevent erosion. 4. No fill material shall be placed in anadromous streams. 5. Preference shall be given to crossing anadromous streams at existing, historical crossings. <p>FW-2e All water intakes will be screened and designed to prevent fish intake.</p>
<p>Hazardous Materials and Waste-2 Minimize impacts on the environment from non-hazardous waste generation.</p>	<p>Hazmat-2a Precautions shall be taken to avoid attracting wildlife to food and garbage.</p> <p>Hazmat-2b Burial of garbage is prohibited. All putrescible waste shall be incinerated, backhauled, or composted in a manner approved by the Authorized Officer. All unburnable solid waste shall be disposed of in an approved waste-disposal facility in accordance with U.S. Environmental Protection Agency (EPA) and Alaska Department of Environmental Conservation (ADEC) regulations and procedures.</p>

Table 13: Bay Planning Area Required Operating Procedures

2.4. KOBUK-SEWARD PENINSULA PLANNING AREA

For BLM Alaska Planning Areas see web map application at <http://arcg.is/1aX9yS>.

Land Status (estimates based on the best available data from BLM Alaska State Office servers as of 02/05/2018 and are subject to change)	Kobuk-Seward Acres
BLM unencumbered lands	7,398,542
State-selected lands	2,113,077
ANCSA Native-selected lands	110,865
Dual-selected lands	211,748
Total BLM surface estate	9,834,232

Table 14: BLM-managed lands within the Kobuk-Seward Peninsula Planning Area

The Kobuk-Seward Peninsula Planning Area generally encompasses the area included in the Northwest Arctic Borough, the northern portion of the Bering Straits Region, and the western edge of the North Slope Borough. The planning area is bounded on the west and south by the Chukchi and Bering seas and on the east by the National Petroleum Reserve-Alaska (NPR-A), Noatak National Preserve, Kobuk-Valley National Park and Preserve, and the Yukon River watershed. The area is remote with no road access to interior Alaska. The only roads in the planning area are those associated with communities, the Red Dog Mine road, and about 200 miles of road out of Nome. The two larger communities of Nome (population 3,505) and Kotzebue (population 3,082) serve as hubs for the area. There are 21 small villages with a combined population that ranges from 400 to 800 residents, and a few seasonal communities with no year-round residents.

2.4.1. GOALS

Section	Kobuk-Seward Peninsula Goal
Fire	Provide appropriate management response on all wildland fires, with an emphasis on firefighter and public safety, and ensure that costs are commensurate with the values to be protected.
Fire	Use wildland fire, prescribed fire, and other treatments to maintain or restore ecological systems and to meet land use and resource management objectives.
Fire	Prevent human-caused fires.
Fire	Reduce risk and costs of uncontrolled wildland fire through wildland fire use, prescribed fire, manual or mechanical treatments.
Fire	Reduce adverse effects of fire management activities.
Fire	Continue interagency collaboration and cooperation.
Vegetation	Maintain the current, largely pristine nature of the Kobuk-Seward Peninsula landscape. Plant communities within the plan area generally exist in a natural mix of seral stages and species diversity, undisturbed except by natural forces generated by climate, weather, terrain, and wildlife.
Air Quality, Soil, and Water Resources	Air quality should meet or exceed local, State and Federal requirements.
Air Quality, Soil, and Water Resources	Minimize negative impacts to soils and vegetation and prevent soil erosion.

Section	Kobuk-Seward Peninsula Goal
Noxious & Invasive Weeds	Prevent the introduction and spread of noxious and invasive plants on BLM-managed land.
Paleontological Resources	Preserve and protect significant paleontological resources and ensure that they are available for appropriate uses by present and future generations.
Subsistence	Maintain sufficient quality and quantity of habitat to support healthy populations of important subsistence species of fish and wildlife.
Grazing	Maintain and improve the quality of the range conditions.

Table 15: Kobuk-Seward Peninsula Planning Area Goals

2.4.2. MANAGEMENT ACTIONS

Section	Kobuk-Seward Peninsula Management Action
Fire	BLM will continue to cooperate and collaborate with other Federal, State, and Native land managers, and with other suppression organizations to address issues and concerns related to wildland fire management in Alaska and to implement operational decisions. Fire Management programs will emphasize the protection of human life and site-specific values while recognizing fire as an essential ecological process and natural agent of change to ecosystems.
Fire	Use the appropriate mix of Fire Management Options and update as needed.
Fire	Identify sensitive areas where special restrictions may be needed for fire monitoring and suppression activities.
Fire	Identify and prioritize values at risk.
Fire	Flight patterns and suppression activities will be prohibited around areas such as important calving grounds, nesting sites, areas containing Threatened and Endangered species or BLM sensitive species. Such sites will be noted as avoidance areas on BLM's Fire Map Atlas.
Fire	Track the number of human-caused fires and determine if there is a need to establish and implement an appropriate prevention program which addresses identified problems.
Fire	Use wildland fire and fuels treatments to meet desired future conditions.
Fire	The Required Operating Procedures below will be implemented during fire management activities.
Fire	Implement the current BLM policy for Structure Protection.
Fire	Allow wildland fire use.
Fire	Develop fuels management and prevention programs as warranted.
Fish	Incorporate the mitigation measures outlined in Required Operating Procedures for avoiding potential impacts to aquatic life from use of fire retardant and fire suppression foams.
Vegetation	On a landscape scale, and in cooperation with other State, Federal, Native and private land managers, use wildland fire to protect, maintain, and enhance vegetative resources, and as nearly as possible, allow fire to function in its natural ecological role.
Vegetation	Use wildland fire, prescribed fire, and mechanical treatment as appropriate to manage for a natural fire regime to support a diverse mix of habitats.
Vegetation	As needed, consider managing fire to protect old growth lichen stands in caribou winter range on the Seward Peninsula and Nulato Hills through the appropriate fire management option.

Section	Kobuk-Seward Peninsula Management Action
Vegetation	Manage for multi-aged lichen stands, which provide diversity and ecological stability, while recognizing that caribou make substantial use of old growth lichen range.
Vegetation	Protect vegetation on lands underlain by continuous or discontinuous permafrost from physical damage and thermokarst erosion from uncontrolled OHV use.
Wildlife	Use wildland fire and prescribed fire to improve moose wintering habitat, but not to the detriment of caribou winter range.
Wildlife	Due to their value as wildlife habitat, protect riparian and tall shrub habitats through avoidance, rehabilitation of disturbed areas, or other measures.
Wildlife	Minimize, to the extent possible, the displacement of wildlife resources from traditional subsistence harvest areas.
Paleontological Resources	Comply with Federal regulations for the protection of significant paleontological remains by avoiding impacts through project redesign, project abandonment, and/or mitigation of adverse impacts through scientific recovery and analysis.
Grazing	Develop allotment management plans for open and actively used allotments that include grazing systems and fire management.

Table 16: Kobuk-Seward Peninsula Planning Area Management Actions

2.4.3. MONITORING

Section	Kobuk-Seward Peninsula Monitoring
Fire	Monitor the number and size of wildland fires for cumulative impacts on wildlife habitat, particularly caribou winter range.
Fire	Monitor vegetative communities for cumulative effects of wildland fire, suppression actions, and as funding permits, the effects of excluding fire from the landscape to evaluate best management practices.

Table 17: Kobuk-Seward Peninsula Planning Area Monitoring

2.4.4. OBJECTIVES

Section	Kobuk-Seward Peninsula Objective
Fire Management-1	Reduce impacts to water quality, riparian habitat, vegetation, soils, and fish habitat from fire suppression activities.
Vegetation-1	Treatments to alter the vegetative composition of a site, such as prescribed burning, seeding, or planting will be based on the potential of the site and will: retain or promote infiltration, permeability, and soil moisture storage; contribute to nutrient cycling and energy flow; protect water quality; help prevent the introduction and spread of noxious weeds; contribute to the diversity of plant communities, and plant community composition and structure; and support the conservation of threatened and endangered species, other special status species, and species of local importance.
Fish and Wildlife-2	Maintain and protect fish and wildlife habitat on public lands and provide for the habitat needs of fish and wildlife resources necessary to maintain or enhance such populations.
Fish and Wildlife-3	Avoid heavy concentration of activities in sensitive fish, wildlife, and plant habitats.

Table 18: Kobuk-Seward Peninsula Planning Area Objectives

2.4.5. REQUIRED OPERATING PROCEDURES

Section	Kobuk-Seward Peninsula Required Operating Procedure
ROP FM-1a	Permittees and casual users will be held financially responsible for any actions or activity that results in a wildland fire. Costs associated with wildland fires include but are not limited to damage to natural or cultural resources and costs associated with any suppression action taken on the fire.
ROP FM-1b	The Federal government will not be held responsible for protection of permittees' structures or their personal property. It is the responsibility of permittees and leases to mitigate and minimize risk to their personal property and structures from wildland fire, if allowed by their permit.
ROP FM-1c	Gas powered equipment will be equipped with manufacturer approved and functional spark arrestors.
ROP FM-1d	<p>To avoid the potential impacts to aquatic life the use of fire retardant is prohibited except when necessary to protect:</p> <ul style="list-style-type: none"> • Human life • Permanent year-around residences National Historic Landmarks • Structures on or eligible for the National Register of Historic Places • Government Facilities, and Other designated sites or structures • High value resources on adjacent lands under other than BLM administration or ownership <p>Even if one of the above listed resources is being threatened, water will be used instead of fire retardant whenever possible or appropriate. The use of fire suppressant foams is prohibited.</p>
ROP FM-1e	Use of tracked or off-road vehicles in fire suppression or management activities will be conducted in a manner that does not cause erosion, damage to riparian areas, degradation of water quality or fish habitat, or contribution to stream channel sedimentation.
ROP FM-1f	Use of heavy equipment and other motorized vehicles off road requires approval of AO or designee.
ROP FM-1g	Rehabilitate areas burned by fires as needed, guided by the fire specific rehabilitation plan provided by the Field Office to the suppression agency.
ROP FM-1h	Helicopters used for any activity during snow free conditions, which requires landing in wildland fuels, should have the exhaust/cooling system located high on the fuselage. Helicopters, which have exhaust/cooling systems that are located low on the fuselage and expels the exhaust straight back or downward, should only be landed in areas with no fuel such as areas of bare soil, gravel bars, or other areas of low combustability.
ROP Veg-1a	Vegetation treatments will be designed to achieve desired conditions clearly described in individual burn, project, or activity plans. Desired conditions will be based on the ecological capability of a given site and will be expressed as cover types or seral stages within cover types, based on management objectives.
ROP Veg-1b	Vegetation treatments will be designed to prevent introduction of noxious and invasive weeds. Project, burn, or activity plans will contain a segment on known occurrence of noxious weeds within planned treatment area and strategy for post-burn monitoring or treatment.

Section	Kobuk-Seward Peninsula Required Operating Procedure
ROP Veg-1c	Seeding and planting non-native vegetation may be used in those cases where native species are not available in sufficient quantities; where native species are incapable of maintaining or achieving the objective; or where non-native species are essential to the functional integrity of the site, with specific approval from the AO.
ROP Veg-1d	In order to eliminate, minimize, or limit the spread of noxious and invasive weeds, only certified feed and mulch (hay cubes, hay pellets, straw, etc.) will be permitted on BLM lands.
ROP Veg-1e	Operators must prevent and control noxious and invasive weed infestations. Noxious weeds in Alaska are listed under Alaska Statute 11 AAC 34.020 or other statewide lists that may be developed in the future.
ROP FW-2a	No road crossings will be permitted in crucial spawning habitat, unless no feasible alternative exists and it can be demonstrated that no adverse effects will occur. State designated stream crossings will be used whenever possible.
ROP FW-2b	Vehicular travel up and down streambeds, except by boat, is prohibited during the open water season (May-September).
ROP FW-2c	Rivers and streams will be crossed at shallow riffles from point bar to point bar whenever possible.
ROP FW-2d	Avoid stream crossings. When a stream must be crossed, the crossing will be as close to possible to a 90-degree angle to the stream. Stream crossings will be made at stable sections in the stream channel.
ROP FW-2e	Stream and marsh crossings will be designed and constructed to ensure free passage of fish, maintain natural drainage, and minimal adverse effects to natural stream flow. Note: Bridges, rather than culverts, are the preferred method for crossing rivers. When necessary, culverts can be constructed on smaller streams, if they are large enough to avoid restricting fish passage or adversely affecting natural stream flow.
ROP FW-2f	All water intakes will be screened and designed to prevent fish intake.
ROP FW-3b	Whenever possible, operations that require vegetation removal will avoid the migratory bird-nesting period of May 1 to July 15 (Area specific dates: May 20-July 20 for Seward Pen; June 1-July 31 for Northern region; and May 1-July 15 for interior). If no feasible alternatives exist, assessment will be conducted to determine bird species present, significance of potential impacts, and possible mitigation measures (FWS Advisory: Recommended Time Periods for Avoiding Vegetation Clearing in Alaska to Protect Migratory Birds. September 2005).

Table 19: Kobuk-Seward Peninsula Planning Area Required Operating Procedures

2.5. RING OF FIRE PLANNING AREA

For BLM Alaska Planning Areas see web map application at <http://arcg.is/1aX9yS>.

Land Status (estimates based on the best available data from BLM Alaska State Office servers as of 02/05/2018 and are subject to change)	Ring of Fire Acres
BLM unencumbered lands	438,403
State-selected lands	428,838
ANCSA Native-selected lands	3,269
Dual-selected lands	92,837
Total BLM surface estate	963,347

Table 20: BLM-managed lands within the Ring of Fire Planning Area

The Ring of Fire Planning Area includes public land and federal mineral estate managed by the AFO from just above the Dixon Entrance in southeast Alaska to Attu Island at the end of the Aleutian Chain. This planning area spans a linear distance of some 2,500 miles, longer than the distance from Seattle to Washington, D.C. The exterior boundaries of the planning area encompass 61.4 million acres, or twice the size of the State of New York. Within this vast area, the Ring of Fire RMP/EIS prescribes the surface management of approximately 1.3 million acres currently managed by BLM, approximately two percent of the lands within the exterior boundaries of the planning area. Approximately 60,000 of the 1.3 million acres included in the plan are withdrawn for military purposes for Fort Richardson Army Base (FRAB) and Elmendorf Air Force Base (EAFB); BLM's management of these lands is circumscribed by the withdrawals. Of the remaining acres analyzed by the plan, nearly 486,000 acres are unselected BLM-managed lands and approximately 798,000 acres are selected by, but not conveyed by BLM, to the State of Alaska or Native corporations under the guidance provided in the Alaska Native Claims Settlement Act of 1971 (ANCSA) and the Alaska Statehood Act of 1959. Because of over-selection, BLM will ultimately retain management of some of the selected lands.

Alaska Peninsula/Aleutian Chain Region

The Alaska Peninsula/Aleutian Chain region holds little BLM surface estate. The USFWS has responsibility for managing nearly all surface lands on the chain and on the eastern side of the Alaska Peninsula, though some of that land has, or is in the process of being conveyed to Native corporations. Most of the lands on the west side of the Alaska Peninsula have been conveyed to the State. BLM-managed lands in this area are limited to scattered parcels of Native- and State-selected lands on the western side of the peninsula, small inholdings excluded from the NWRs and State and Native corporation conveyances, and federal subsurface estate.

Kodiak Region

This region includes both Kodiak and nearby islands. The USFWS is the primary land manager in this region, though some lands have been conveyed to Native corporations and private individuals. Most BLM-managed lands on Kodiak and its surrounding islands are composed of Native-selected lands near the city of Kodiak. In addition, the planning area includes small surface inholdings for which BLM has management responsibility within lands managed by the USFWS, and BLM's subsurface estate under private, federal refuges, and forest surface estate.

Southcentral Region

The Southcentral region includes the Kenai Peninsula, parts of the Matanuska and Susitna basins, and other lands that drain into Cook Inlet. It includes Anchorage and other heavily populated areas. Major land holdings include those of the USFWS, USFS, National Park Service (NPS), State, and Native corporations. The region contains some of the planning area's largest unselected blocks of BLM-managed lands in the Neacola Mountains near Chakachamna Lake. BLM holds subsurface estate under private lands in the Matanuska and Susitna basins. The Knik Block also occurs in this region, and is Native-selected.

Southeast Region

The USFS is the major land manager in this part of the planning area. Native corporations have smaller, but substantial holdings. By far the largest blocks of BLM-managed lands in the area are State-selected lands near Haines. Other lands that BLM manages are small, including mining claims, power site withdrawals, and subsurface estate.

2.5.1. GOALS

Section	Ring of Fire Goal
W-1	Prioritize and protect human life and property. Retain key ecological components intact and functioning within their historic range. Provide appropriate levels of fire protection with available firefighting resources. Use wildland fire and fuel treatments to meet land use and resource needs.
A-1	Protect and enhance the quality of air resources within the planning area. The BLM will also consider, and if practical, minimize the effects of smoke from wildfire and prescribed burns to human health, communities, recreation, and tourism.
B-1	Preserve key cultural properties listed on the National Register of Historic Places.
G-1	Ensure that all activities occurring on BLM-managed lands within the planning area comply with Federal and State hazardous materials standards and that all Federal and State mandates, laws, regulations, Executive Orders and policies are met.

Table 21: Ring of Fire Planning Area Goals

2.5.2. OBJECTIVES

Section	Ring of Fire Objective
WF-1	Protect human life and prioritize firefighter and public safety.
WF-2	Provide appropriate levels of protection with available firefighting resources.
WF-3	Use wildland fire and fuel treatments to meet land use and resource objectives
WF-4	Reduce risk and cost of uncontrolled wildland fire through wildland fire use, prescribed fire, manual, or mechanical treatment.
WF-5	Reduce adverse effects of fire management activities.
WF-6	Continue interagency collaboration and cooperation.

Table 22: Ring of Fire Planning Area Objectives

2.5.3. MANAGEMENT ACTIONS

Section	Ring of Fire Management Action
W-2a	Apply the management prescriptions found in the 2005 BLM-Alaska Land Use Plan Amendment for Wildfire and Fuels Management.
A-2	The BLM will implement interagency wildland fire smoke mitigation measures adopted by the Wildland Fire Coordinating Group and consider public health and safety in all fire management activities.
B-2	Manage actions which may impact cultural resources in compliance with the National Historic Preservation Act (NHPA) Sections 106 and 110.

Table 23: Ring of Fire Planning Area Management Actions

2.5.4. REQUIRED OPERATING PROCEDURES

Section	Ring of Fire Goal
Soils 12	Operators will prevent and control noxious weed infestations. Noxious weeds in Alaska are listed under Alaska Statute 11 Alaska Administrative Code 34.020.
FWH 3	Avoid stream crossings. When a stream must be crossed, make the crossing as close as possible to a 90 degree angle to the stream. Make stream crossings at stable sections in the stream channel.
FWH 11	Prescribed burn ignition patterns will allow for stream buffers. Lighting at stream edge will be avoided.
FWH 14	When possible, operations that require vegetation removal will avoid the migratory bird nesting period of April 15 to July 15. If no feasible alternatives exist, an assessment will be conducted to determine bird species present, significance of potential impacts, and possible mitigation measures.
Veg 1	Vegetation treatments will be designed to achieve desired conditions clearly described in individual burn plans or timber sales. Desired conditions will be based on the ecological capability of a given site and will be expressed as cover types or seral stages within cover types, based on management objectives.
Veg2	Vegetation treatments will be designed to prevent introduction of noxious weeds. Prescribed burn plans will contain a segment on known occurrence of noxious weeds within planned burning areas and strategies for post-burn monitoring or treatment.
Veg 4	Burn plans for large burns will prescribe conditions that result in a mosaic of burned or unburned areas within the burn unit. Smaller burns may not require a mosaic, dependent on objectives.
Veg 12	Use of tracked or OHV in fire suppression or management activities will be conducted in a manner that does not cause erosion, damage to riparian areas, degradation of water quality or fish habitat, or contribution to stream channel sedimentation.
Veg 14	Rehabilitate [repair] firelines and bulldozer lines by spreading original soil and vegetation on the disturbed ground. In extreme cases where seeding or plugging may be necessary, use native vegetation and seeds. A rehabilitation [repair] plan should be developed by suppression forces working with Anchorage Field Office wildlife biologists and botanists.
Water 16	Use of aerial fire retardant near lakes, wetlands, streams, rivers, sources of human water consumption, and areas adjacent to water sources will be avoided to protect fish habitat and water quality. If feasible, use of water rather than retardant is preferred in these areas.
Wetlands 3	In snow-free months, if wetlands cannot be avoided, low ground pressure vehicles will be used wherever possible.

Table 24: Ring of Fire Planning Area Required Operating Procedures

2.6. EAST ALASKA PLANNING AREA

For BLM Alaska Planning Areas see web map application at <http://arcg.is/1aX9yS>.

Land Status (estimates based on the best available data from BLM Alaska State Office servers as of 02/05/2018 and are subject to change)	East Alaska Acres
BLM unencumbered lands	1,595,865
State-selected lands	1,960,736
ANCSA Native-selected lands	38,561
Dual-selected lands	335,626
Total BLM surface estate	3,930,788

Table 25: BLM-managed lands within the East Alaska Planning Area

The East Alaska planning area extends from the southern slopes of the Alaska Range to the Chugach Mountains, from the Talkeetna Mountains to the Wrangell Mountains, and includes an extensive area of coastline in Prince William Sound. The area is bisected by the Glenn, Richardson and Denali Highways, and is accessible by Alaska standards. The area is also bisected by the Trans-Alaska Pipeline, which runs north to south and roughly parallels the Richardson Highway.

Located at the core of the planning area, the Copper River Basin is rural in nature, with small communities and villages scattered throughout the area. The 2000 Census reported a population of 3,120 in the Copper River Basin. The larger communities of Cordova and Valdez are within the planning area on Prince William Sound. Cordova is located near the mouth of the Copper River. Residents of the cities of Anchorage, Palmer, Wasilla, and Fairbanks utilize the area heavily for recreation as well as for sport and subsistence hunting and fishing.

The Approved Plan recognizes the role of fire in maintaining a diversity of community types and in maintaining desired conditions for wildlife habitat. It identifies 1.5 million acres of moose winter range for application of prescribed fire or wildland fire in order to rejuvenate late-seral stands of black spruce and encourage sprouting and younger age classes of willows and other browse.

2.6.1. GOALS

East Alaska Goal
Protect human life and property.
Use wildland fire and fuel treatments to meet land use and resource objectives.
Reduce risk and cost of uncontrolled wildland fire through wildland fire use, prescribed fire, manual or mechanical treatment.
Reduce adverse effects of fire management activities.
Continue interagency collaboration and cooperation.

Table 26: East Alaska Planning Area Goals

2.6.2. OBJECTIVES/DESIRED CONDITIONS

Section	East Alaska Objective/Desired Condition
Moose habitat	Use wildland fire or prescribed burning to achieve the following desired condition A mosaic pattern of upland spruce woodland cover types interspersed with a lower seral expression dominated by alder and willow. Upland woodland cover types are mixed with stream terraces and flood plains dominated by sedge and mixed age classes of alder and willow.
Caribou habitat	Within portions of the Nelchina caribou summer range, utilize wildland and prescribed fire to create a mosaic of burned and unburned areas. Desired condition for caribou summer range is similar to the description for moose habitat. For caribou winter range, desired condition is upland spruce woodland cover type where lichen and various herbs dominate the ground layer.
Bison habitat (Delta River floodplain)	Utilize prescribed fire to improve Delta bison calving range to increase forage productivity and maintain grass dominated vegetation communities. Desired condition is grass-dominated plant communities interspersed with scattered pockets of cottonwood, white spruce, and balsam poplar.
Dall sheep	Where tree or shrub encroachment is occurring, utilize prescribed fire to maintain open high elevation grass and forb-dominated plant communities.

Table 27: East Alaska Planning Area Objectives/Desired Conditions

2.6.3. MANAGEMENT ACTIONS

East Alaska Management Action
Initial attack and suppression strategies will be based on procedures described in the Alaska Interagency Fire Management Plan (AIWFMP).
Changes to the suppression management classes described can be initiated by the land manager. These changes can be based on changing conditions (such as increased development, remote facility development, or new sites discovered) or on resource objectives or desired conditions, such as those described in the following section (under Prescribed Fire). Changes should be suggested between September 30 and March 1 to be incorporated for the next fire season.
Fire Suppression Constraints are described in the AIWFMP. Additional constraints on the use of suppression tools are at the discretion of the land manager and are documented in an approved decision support document - currently a Wildland Fire Decision Support (WFDSS) Decision.
Use wildland fire to achieve desired conditions for caribou and moose habitat as described below. On Nelchina caribou winter range manage for less than 10 percent of range to be burned every decade, to maintain mixed age classes of lichen. If large wildfires occur where this standard is exceeded, consider changing suppression management classes to full or modified for the following season.
Wildland fire rehabilitation, if needed, will be conducted consistent with the BLM-Alaska Programmatic Emergency Stabilization and Rehabilitation Plan EA, October, 2006; and with ROP-Veg-b-7.
Utilize wildland or prescribed fire to achieve desired conditions for moose habitat on moose winter range. Priority for treatment will be as follows: <ol style="list-style-type: none"> 1. Completion of Alphabet Hills prescribed burn 2. Winter range on unencumbered BLM land 3. Projects on State or Native-selected land where the selecting entity is a partner and contributor (resources or money)
Utilize prescribed fire to achieve desired conditions for caribou only if it is not being achieved through wildland fire or by prescribed burning to improve moose habitat as described under #1. This is second priority to moose habitat improvement listed above.

East Alaska Management Action	
	Utilize prescribed burning to improve Delta bison calving range and achieve desired conditions listed above over 15,000 acres in the area.
	Utilize prescribed burning to improve Dall sheep habitat. This would be based on on-going inventory and delineation of these ranges and encroachment of shrubs.
	Prescribed burn plans will apply the following Required Operating Procedures, as applicable: ROP-Veg-a-4, ROP-Veg-a-2, ROP-Veg-a-1, and ROP-F&W-a-10.
	The prescribed burn plans will address air quality and smoke management. Appropriate contacts and written approval will be obtained from ADEC.
	Fuels reduction projects will be considered in areas of urban interface, such as Slana or Native or State-selected lands adjacent to villages. First priority will go to areas where fuels reduction can be achieved while meeting other objectives, such as habitat improvement or providing for personal use firewood.
	Prescribed burn plans within the Gulkana National Wild River corridor will address visual resource concerns consistent with management under a Visual Resource Management Class I. In order to protect visual resources and water quality, a vegetation buffer will be provided along the river. This will be accomplished by not lighting directly along the river and by burning within a prescription that allows for a mosaic of burned/unburned vegetation within the river corridor.
	Fires within the Gulkana National Wild River corridor will be prohibited during periods of extreme fire danger. Prohibitions will be coordinated with State Division of Forestry area-wide open-burning bans.

Table 28: East Alaska Planning Area Management Actions

2.6.4. GULKANA WILD RIVER CORRIDOR ACTIONS

Section	Gulkana Wild River Corridor Action
2.1	Aircraft operations in the river corridor for traditional float plane use on lakes, for fire and rescue operations, and on traditional tundra landing areas is allowed except for use of the water surface on any part of the Gulkana River channel within the designated corridor.
10.1	Fire suppression activities within the corridor are carried out under interagency agreement. The main stem of the Gulkana is currently classified as a modified suppression class, which provides flexibility in the selection of suppression strategies. When risks are high, the response is analogous to a Full suppression class; when risks are low, the appropriate response is analogous to Limited. The goal of a modified suppression class is to balance acres burned with suppression costs and, when appropriate, to use wildland fire to accomplish land and resource objectives.
10.2	Prescribed burn plans within the Gulkana National Wild River corridor will address visual resource concerns consistent with management under a Visual Resource Management Class I. In order to protect visual resources and water quality, a vegetation buffer will be provided along the river. This will be accomplished by not lighting directly along the river and by burning within a prescription that allows for a mosaic of burned/unburned vegetation within the river corridor.
10.3	Prohibit open fires within the river corridor during periods of extreme fire danger. Prohibitions will be coordinated with State Division of Forestry area-wide open-burning bans.
13.1	Prescribed fires will be conducted under a prescription that results in a mosaic burn pattern and provides a buffer along the river's edge.

Table 29: Gulkana Wild River Corridor Actions

2.6.5. MONITORING

East Alaska Monitoring
Monitoring will determine whether fire management strategies, practices, and activities are meeting resource management objectives and concerns. Fire management plans and policies will be updated as needed to keep current with national and state fire management direction. Scheduled program reviews (post season fire review) will be conducted to evaluate fire management effectiveness in meeting goals and to re-assess program direction.
For prescribed fires, pre-fire condition and post fire effects will be determined by monitoring vegetation response to treatments and progress towards meeting objectives. Monitoring methods may include fuels and vegetation transects, photo points, density, cover and frequency plots, and ocular estimates. When available, applicable remote sensing data will also be incorporated into ecological condition monitoring.

Table 30: East Alaska Planning Area Monitoring

2.6.6. REQUIRED OPERATING PROCEDURES

Section	East Alaska Required Operating Procedure
ROP-Water-c-7	Use of aerial fire retardant near lakes, wetlands, streams, rivers, sources of human water consumption, and areas adjacent to water sources will be avoided to protect fish habitat and water quality. If feasible, use of water rather than retardant is preferred in these areas.
ROP-Veg-a-1	Vegetation treatments will be designed to achieve desired conditions clearly described in individual burn plans or timber sales. Desired conditions will be based on the ecological capability of a given site and will be expressed as cover types or seral stages within cover types, based on management objectives.
ROP-Veg-a-2	Vegetation treatments will be designed to prevent introduction of noxious weeds. Prescribed burn plans will contain a segment on known occurrence of noxious weeds within planned burning areas and strategies for post-burn monitoring or treatment.
ROP-Veg-a-4	Burn plans for large burns will prescribe conditions that result in a mosaic of burned or unburned areas within the burn unit. Smaller burns may not require a mosaic, dependent on objectives.
ROP-Veg-b-5	Use of tracked or off-highway vehicles in fire suppression or management activities will be conducted in a manner that does not cause erosion, damage to riparian areas, degradation of water quality or fish habitat, or contribution to stream channel sedimentation.
ROP-Veg-b-7	Rehabilitate [repair] firelines and bulldozer lines by spreading original soil and vegetation on the disturbed ground. In extreme cases where seeding or plugging may be necessary, use native vegetation and seeds. A rehabilitation [suppression repair] plan should be developed by the suppression forces working with Field Office wildlife biologists and botanists.
ROP-F&W-a-10	Prescribed burn ignition patterns will allow for stream buffers. Lighting at stream's edge will be avoided.

Table 31: East Alaska Planning Area Required Operating Procedures

2.7. 2005 LAND USE PLAN AMENDMENT FOR WILDLAND FIRE AND FUELS MANAGEMENT FOR ALASKA

For BLM Alaska Planning Areas see web map application at <http://arcg.is/1aX9yS>.

Land Status (estimates based on the best available data from BLM Alaska State Office servers as of 02/05/2018 and are subject to change)	Southwest MFP Acres	Central Yukon Acres	Utility Corridor Acres	Acres Outside of BLM Planning Areas
BLM unencumbered lands	7,499,743	7,522,197	900,041	53,381
State-selected lands	3,195,373	3,958,542	2,664,630	114,342
ANCSA Native-selected lands	50,626	43,083	8	0
Dual-selected lands	243,451	252,776	118,177	50,500
Total BLM surface estate	10,989,193	11,776,598	3,682,856	218,223

Table 32: BLM-managed lands within planning areas covered by the 2005 Land Use Plan Amendment

The 2005 Land Use Plan Amendment for Wildland Fire and Fuels Management for Alaska applies to all BLM managed lands not covered by a land use plan approved after 2005. As of 2018, the amendment still applies to BLM lands in the Southwest MFP, Central Yukon, and Utility Corridor planning areas, as well as to BLM lands that have never been covered by a land use plan. As additional land use plans are completed and implemented, the lands affected by this direction will decrease. The Central Yukon RMP (currently being drafted) will replace both the 1986 Central Yukon RMP and the Utility Corridor RMP. Once completed, the Bering Sea-Western Interior RMP will replace the Southwest Management Framework Plan.

2.7.1. GOALS AND SUPPORTING OBJECTIVES

2005 LUP Amendment Goals and Supporting Objectives
<p>Protect human life and property. The supporting objectives include:</p> <ul style="list-style-type: none"> • Provide for firefighter and public safety as highest priority in every fire management activity. • Provide appropriate protection to BLM physical developments, facilities, and administrative sites while balancing costs with value-at-risk. • Preserve cultural and paleontological sites. • Manage vegetation adjacent to populated areas to reduce risk of wildfires.

2005 LUP Amendment Goals and Supporting Objectives
<p>Use wildland fire and fuel treatments to meet resource objectives. The supporting objectives include:</p> <ul style="list-style-type: none"> • Manage vegetation to the appropriate seral stages to maintain watershed condition, ecosystem health, and habitat conditions for fish and wildlife. • Sustain the natural range of variation in plant composition and structure. • Sustain the proper functioning condition of riparian areas. • Maintain species diversity while decreasing the probability of wildland fires in areas where the land use or resource objective necessitates wildland fire be excluded or minimized. • Maintain and protect subsistence uses and needs. • Sustain high value natural resources. • Maintain visual diversity. • Preserve cultural and paleontological sites. • Maintain or enhance commercial resource values. • Manage for requirements of threatened and endangered (T&E) species' critical habitat, other special status species habitats, and migratory birds. • Meet State air and water quality standards.
<p>Reduce risk and cost of uncontrolled wildland fire through wildland fire use, prescribed fire, manual, or mechanical treatment. The supporting objectives include:</p> <ul style="list-style-type: none"> • Reduce risk to life and property. • Minimize effects of wildland fire in areas where the natural role of fire conflicts with current land use. • Balance acres burned and values at risk against suppression costs.
<p>Reduce adverse effects of fire management activities. The supporting objectives include:</p> <ul style="list-style-type: none"> • Prevent damage to cultural resources. • Minimize effects of suppression actions. • Prevent the introduction or spread of noxious or invasive plants. • Safeguard essential fish habitat, T&E species, and all other plant and wildlife habitats.
<p>Continue interagency collaboration and cooperation. The supporting objectives include:</p> <ul style="list-style-type: none"> • Continue the use of the wildland fire suppression criteria and operational direction in the AIWFMP. • Continue membership in the AWFCG. • Authorize suppression actions or fuel treatments on BLM-managed land to hinder wildland fire from occurring or spreading to higher management option designation on BLM-managed lands, inholdings or those of adjacent landowners. • Apply current fire management option classifications. • Use the change protocol issued by AWFCG to modify fire management options designations or boundaries. • Support scientific research. • Work cooperatively on landscape scale multi-jurisdictional projects.

Table 33: 2005 Wildland Fire Land Use Plan Amendment Goals and Supporting Objectives

2.7.2. STANDARD OPERATING PROCEDURES

Standard Operating Procedures are followed to exercise the following best management practices:

- Provide a safe working environment,
- Implement standard procedures and practices,
- Reduce the adverse effects of suppression actions or other fire management activities on plant, fish and wildlife habitats,
- Promote ecosystem health.

2005 LUP Amendment Standard Operating Procedures
Use of tracked or off-road vehicles (for example, bulldozers or all-terrain vehicles) requires written authorization by the Field Office Authorized Officer and will be approved on a case-by-case basis prior to use. Stipulations in the authorization will address use of equipment to avoid line construction near streams where it may cause erosion, damage to riparian areas, harm cultural or paleontological resources, degrade water quality or fish habitat, or contribute to stream channel sedimentation.
Use of aerial fire retardant near lakes, wetlands, streams, rivers, sources of human water consumption, and areas adjacent to water sources should be avoided to protect fish habitat and water quality. If feasible in these areas, the use of water rather than retardant is preferred. When the use of retardant is necessary, avoid aerial or ground application of retardant or foam within 300 feet of a waterway; application beyond 500 feet is preferred. Examples of when use of retardant is authorized are for the protection of : <ul style="list-style-type: none"> • Human life. • Permanent year-around residences. • National Historic Landmarks. • Structures on or eligible for the National Register of Historic Places. • Government Facilities. • Sites or structures designated by Field Office resource specialists to be protected. • High value resources on BLM-managed lands and those of adjacent landowners. • Threatened, endangered, and sensitive species habitats as identified by resource specialist.
Avoid the introduction of invasive plants or non-native plants by pursuing the use of seed-free equipment and supplies, and maintaining clean personal gear.
Establish Riparian Buffer Zones appropriate to the site characteristics to sustain the proper functioning conditions of the area by protecting stream banks, minimizing compaction of soil, preventing stream sedimentation, and protecting water quality.
Rehabilitate fire and dozer lines by spreading original soil and vegetation on the disturbed ground. In extreme cases where seeding or plugging may be necessary, use native vegetation and seeds. A rehabilitation plan should be developed by the suppression forces working with BLM Field Office wildlife biologists and botanists.

Table 34: 2005 LUP Amendment Standard Operating Procedures

2.8. US ARMY GARRISON FORT WAINWRIGHT (USAG FWA) YUKON & DONNELLY TRAINING AREAS

For BLM Alaska Planning Areas see web map application at <http://arcg.is/1aX9yS>.

Land Status	Yukon Training Area Acres	Donnelly Training Area Acres
BLM/USAG FWA co-managed lands	258,461	631,281

Table 35: BLM/USAG FWA co-managed lands within the Yukon and Donnelly Training Areas

Pursuant to Public Law 99-606, which withdrew portions of Fort Wainwright and Donnelly Training Area lands from 1986 to 2001, the BLM prepared Resource Management Plans for Yukon Maneuver Area (currently named Fort Wainwright Yukon Training Area) (BLM 1995b) and Fort Greely Maneuver Area and Air Drop Zone (currently named Donnelly Training Area) (BLM 1995a). In 1999, Congress passed Public Law 106-65, which extended the withdrawals 25 years to 2026. Again, the BLM was required to manage the withdrawals in conjunction with the military through Resource Management Plans. The BLM evaluated the existing Resource Management Plans and determined that the plans were still valid and that new Resource Management Plans were not needed to meet the requirements of Public Law 106-65. An amendment, completed in 2002, was necessary to address the 25-year extension of the withdrawal. The 2013 USAG FWA Integrated Natural Resource Management Plan (INRMP) does not conflict with and is consistent with the actions listed in the current BLM Resource Management Plans for Yukon Maneuver (Training) Area and Fort Greely (Donnelly Training Area). BLM Alaska and USAG FWA completed a Memorandum of Understanding (MOU) in 2016 to meet the requirement of Public Law 106-65 to define authorities, roles, and responsibilities of the two agencies to efficiently and effectively manage these withdrawn lands. The following excerpt from the MOU describes wildland fire management authorities, responsibilities, and agreements:

F. Wildland Fire Management

1. Authority

a. PL 106-65.

2. Responsibility

a. The Army is responsible for preventing and suppressing brush and range fires occurring within and outside these withdrawn lands as a result of military activities.

b. The BLM shall provide assistance in the suppression of fires occurring within and outside these withdrawn lands as a result of military activities upon the request of the Army. The specific details concerning the type and process for obtaining BLM assistance, including reimbursement for BLM costs, shall be established through a separate agreement between the BLM AFS and the Army.

c. The BLM is responsible for preventing and suppressing brush and range fires occurring within and outside these withdrawn lands as a result of non-military activities, including fires ignited by natural causes and human causes not related to military activities.

3. Agreements and Understanding

a. Wildland fire management actions will be conducted in accordance with the RMPs and the Interagency Wildland Fire Management Plan.

- b. The Army may seek assistance from the BLM in the suppression of brush and range fires resulting from military activities.*
- c. The Army may seek assistance from the BLM in completing Emergency Stabilization (ES) and Burned Area Rehabilitation (BAR) once the fire is declared contained.*
- d. The Army is required to provide for a transfer of funds from the Army to BLM as compensation for any assistance provided in the suppression (including ES and BAR activities) of brush and range fires resulting from military activities. The specific details concerning when and how funds are transferred between the BLM and the Army are to be established through a separate agreement between the BLM AFS and the Army.*

The values to be protected on Army training lands from wildfires include personnel safety, built-up improvements (structures, electronic weaponry, and targets) some third party permitted equipment and cultural resources. Unauthorized structures will be allowed to burn during wildfires. Alaska Fire Service is notified by the Army of the locations of all known illegal structures. Since fire is a natural component of the ecosystem in Alaska, there are no natural resources that require protection.

The Air Force is a major user of Fort Wainwright and Donnelly Training Areas for routine training and major flying exercises. The Air Force uses areas such as Fort Wainwright's Stuart Creek Impact Area and Donnelly Training Area's Oklahoma and Delta Creek Impact Areas as tactical air-to-air and air-to-ground weapons ranges, for low and high altitude operations. Due to the dangers of unexploded munitions, impact areas are closed to all public access and use.

In 2004, as a part of the overall transformation of the armed forces, the U.S. Army split off installation management functions from USARAK and created USAG FWA. USAG FWA's mission is to provide equitable, effective, and efficient management of Army installations in Alaska to support mission readiness and execution, enable the well-being of soldiers, civilians, and family members, improve infrastructure and preserve the environment. Environmental and natural resources management now falls under USAG FWA.

In 2001, Space and Missile Defense Command took command of Fort Greely. Fort Greely was reduced to approximately 7,000 acres comprising the Fort Greely cantonment area. The remainder of the 660,000 acres formerly known as Fort Greely was transferred to Fort Wainwright and is now known as Donnelly Training Area.

Yukon Training Area

The Yukon Training Area is 16 miles east-southeast of Fairbanks, adjacent to Eielson Air Force Base. The Yukon Training Area stretches 28 miles east-to-west and 17.5 miles north-to-south. Yukon Training Area encompasses much of the land between the Chena and Salcha Rivers, northeast of the Richardson Highway (BLM 1994b) almost 260,000 acres. The Chena River State Recreation Area lies adjacent to Yukon Training Area's northern boundary and is managed for public recreation. Eielson Air Force Base adjoins the western boundary of the Yukon Training Area. The Tanana Valley State Forest lies north of Fort Wainwright with private and Fairbanks North Star Borough-owned land parcels to the south. Parcels of native-owned land also border Yukon Training Area.

Donnelly Training Area

Donnelly Training Area is located 107 road miles southeast of Fairbanks and six road miles south of the junction of the Alaska and Richardson Highways. The training area lies within the central valley and hill area, bordered by the Yukon Tanana Uplands to the north and the Alaska Range to the south (USARAK 1995). The entire region lies within the Tanana River Valley. Donnelly Training Area consists of two large training areas, Donnelly Training Area West (approximately 531,000 acres) and Donnelly Training Area East (approximately 93,000 acres). The Donnelly Training Area West lies roughly between the east bank of the Delta River and east bank of the Little Delta River. South of the confluence of Buchanan Creek the boundary follows the creek.

Northern and southern boundaries are two northwest-southeast diagonal lines varying from a little over twenty miles apart in the east to about thirty-five miles apart in the west. The Delta River flows northward along the eastern boundary of the Donnelly Training Area West. The Donnelly Training Area East is located from the eastern bank of the Delta River to Granite Creek on the west. The northern boundary roughly parallels the Alaska Highway, and the southern boundary is in the foothills of the Alaska Range, on a line between Granite Mountain and Donnelly Dome.

The Donnelly Training Area is immediately south of the community of Delta Junction, the largest community in the area, with 958 residents in 2010 (compared to 703 in 1970) (U.S. Census Bureau 2010). Other developed areas include Big Delta to the north and the Clearwater farming and ranching area to the east. The area surrounding Delta Junction, known as Deltana, showed a population of 2,251 in 2010. The Alaska and Richardson Highways and the Trans-Alaska Pipeline cross Fort Greely and Donnelly Training Area. The pipeline generally parallels the Richardson Highway, with above and below ground sections located within the Donnelly Training Area East. Neighboring Alaska Native federally recognized tribes include the Healy Lake Village, Village of Dot Lake, and Native Village of Tanacross.

2.8.1. GOALS AND OBJECTIVES

US Army Garrison Fort Wainwright Yukon & Donnelly Training Areas Goals and Objectives
<p>Military Readiness</p> <p>Goal: Provide quality natural resources, as they are critical training assets for accomplishing the military mission of United States Army Alaska (USARAK).</p> <p>Objectives:</p> <ul style="list-style-type: none">• Ensure no net loss in the capability of Fort Wainwright lands to support existing and projected military missions.• Maintain quality training lands through damage minimization, mitigation, and restoration.
<p>Stewardship</p> <p>Goal: Manage natural resources at Fort Wainwright to ensure good stewardship of public lands that are entrusted to the Army's care.</p> <p>Objectives:</p> <ul style="list-style-type: none">• Use ecosystem management philosophies to protect, conserve, and restore native fauna and flora with an emphasis on biodiversity enhancement.• Monitor and manage soils, water, vegetation, and wildlife on Fort Wainwright lands with a consideration for all biological communities and human values associated with these resources.• Provide economic and other human-valued products of renewable natural resources when such products can be produced in a sustainable fashion without significant negative impacts on the military training mission.• Provide professional enforcement of natural resource laws.• Involve the surrounding community in USAG FWA's natural resources program.• Ensure the USAG FWA's natural resources program is coordinated with other agencies and conservation organizations with similar interests.

Table 36: US Army Garrison Fort Wainwright Yukon & Donnelly Training Areas Goals and Objectives (INRMP 2013)

3. WILDLAND FIRE OPERATIONAL GUIDANCE

3.1. PREPAREDNESS

Suppression services for BLM-managed lands are provided by the responsible protecting agency for the location. Each Field Office is served by multiple Zones or Areas; most are served by multiple protecting agencies. Protecting FMOs are responsible for providing wildfire management services for BLM and other lands within their Zone or Area.

Jurisdictional Fire Management Specialists are responsible for interfacing with Field and District Office Managers and Protecting FMOs in order to ensure resource management plans are appropriately implemented and fires are safely and effectively managed.

Protecting Units		BLM Jurisdictions				
		Anchorage District Office		Fairbanks District Office		Arctic District Office
		Anchorage Field Office	Glennallen Field Office	Central Yukon Field Office	Eastern Interior Field Office	
BLM-AFS	Galena Zone	X		X		X
	Tanana Zone	X		X		X
	Upper Yukon Zone			X	X	X
	Military Zone		X		X	
Alaska DNR	Copper River Area		X			
	Delta Area		X		X	
	Fairbanks Area		X	X	X	
	Kenai/Kodiak Area	X				
	MatSu Area	X				
	Southwest Area	X		X		
	Tok Area		X		X	
USFS	Chugach Area					
	Tongass Area		X			

X indicates jurisdictional unit served by protecting unit.

Table 37: BLM Alaska Jurisdictions and Protecting Units

For Alaska Protection Areas see web map application at <http://arcg.is/1aX9yS>.

3.1.1 OPERATIONAL PLANS

3.1.1.1. ALASKA MASTER COOPERATIVE WILDLAND FIRE MANAGEMENT AND STAFFORD ACT RESPONSE AGREEMENT (ALASKA MASTER AGREEMENT) & ALASKA STATEWIDE ANNUAL OPERATING PLAN (ALASKA AOP)

The Alaska Agreement documents the commitment of the Parties to this Agreement to improve efficiency by facilitating the coordination and exchange of personnel, equipment, supplies, services, and funds among the Parties in sustaining wildland fire management activities, such as prevention, preparedness, communication and education, fuels treatment and hazard mitigation, fire planning, response strategies, tactics and alternatives, suppression and post-fire rehabilitation and restoration. It is also the basis from which Department of the Interior agencies implement DOI Manual 620 (620 DM) and the US Forest Service (USFS) implements Forest Service Manual 5100.

The Agreement does not supersede individual agency policies and requirements. The BLM Alaska Fire Management Plan must be used in conjunction with this agreement and its associated annual operating plan. In addition to improving efficiency in addressing wildland fire management activities, the Master Agreement facilitates improved coordination regarding non-fire incidents.

The National Response Framework (NRF) applies to all Federal departments and agencies that may be requested to provide assistance or conduct operations during all-hazard events. However, the Alaska Master Agreement only covers all-hazard events that are, or may become, declared as emergencies or major disasters that occur under the auspices of a Presidential Declaration of Emergency or Major Disaster under the Stafford Act, which may include wildland fire management and non-wildland emergencies or major disasters. These events also require a coordinated response by an appropriate combination of State and Tribal entities, along with the Federal Agencies.

The Alaska Master Agreement documents the commitment of the Parties to provide cooperation, resources, and support to the Secretary of Homeland Security and Administrator of the Federal Emergency Management Agency (FEMA) in the implementation of the NRF, as appropriate and consistent with their own authorities and responsibilities.

The Alaska AOP is prepared pursuant to the Alaska Master Agreement and is applicable to all signatory parties within the State of Alaska. It addresses issues affecting cooperation, interagency working relationships and protocols, financial arrangements, and joint activities. The Alaska Interagency Mobilization Guide (AIMG) and the Alaska Interagency Wildland Fire Management Plan (AIWFMP) are incorporated into this AOP by reference.

3.1.1.2. ALASKA INTERAGENCY WILDLAND FIRE MANAGEMENT PLAN (AIWFMP)

The AIWFMP provides operational detail for the *Alaska Master Agreement* and the *Alaska AOP* into which it has been incorporated by reference. Its purpose is to promote a cooperative, consistent, cost-effective, interagency approach to wildland fire management; and it is the interagency reference for wildland fire operational information in Alaska. Firefighter and public safety is emphasized throughout the AIWFMP as the single, overriding priority in all fire management activities for all agencies.

The *AIWFMP* does not supersede BLM policies and requirements. Although some agencies and units rely solely on it for fire direction, the AIWFMP must be used in conjunction with this BLM Alaska Fire

Management Plan in order to ensure that fire management decisions are based on land/resource management plan objectives and constraints and are compliant with BLM policy.

In addition to providing initial response direction, the Plan briefly summarizes direction from the following sections of the Alaska Master Agreement and Alaska AOP:

- Fuels Treatments
- Post-fire Response (BAER/ES/BAR/FEMA Hazard Mitigation Grant Program)
- Prevention
- Origin and Cause Determination
- Fire Investigation
- Air Quality and Smoke Management

3.1.1.3. ALASKA INTERAGENCY MOBILIZATION GUIDE (AIMG) & ALASKA PREPAREDNESS PLAN

The *AIMG* identifies policy and agreements that establish the standard procedures that guide the operations of multi-agency/jurisdictional logistical support activities in the Alaska Geographic Area. The guide is an extension of Agency Manuals, Handbooks, Directives, and Instructional Memorandums relating to logistical support. It is intended to promote uniformity of logistical support communications, to facilitate interagency dispatch coordination, and to ensure that timely and cost effective support services are provided. The Alaska Preparedness Plan is incorporated into Chapter 10 of the *AIMG*.

3.1.1.1. UNITED STATES ARMY GARRISON FORT WAINWRIGHT/ US ARMY ALASKA/ ALASKA FIRE SERVICE ANNUAL OPERATING PLAN FOR WILDLAND FIRE MANAGEMENT SERVICES

Through this Annual Operating Plan the U.S. Army Garrison Fort Wainwright and BLM Alaska outline details of implementing the 2015 Memorandum of Agreement between US Army Installation Management Command Pacific Region/U. S. Army Garrison-Fort Wainwright and the Bureau of Land Management, Alaska Fire Service for Wildland Fire Suppression and Fuels Management Services. Details in the plan include dealing with land co-managed By the BLM Field Offices and USAG FWA (lands withdrawn by Public Law 106-65).

3.1.1.2. ALASKA FIRE AND FUELS (AKFF) WEBSITE

The Alaska Fire and Fuels website (<https://akff.mesowest.org/>) provides real-time fire weather and fuels information for Alaska. In addition, it provides seasonal trend analysis tools for each protection zone (<https://fire.ak.blm.gov/predsvcs/fuelfire.php>). The tools provide, through a graphical interpretation of historical fire indices, a seasonal trend analysis to help firefighters understand the fire potential for a given local area during any day of the fire season. The tool meets the fire danger pocket card/seasonal trend analysis requirement in Chapter 10 of the *Interagency Standards for Fire and Fire Aviation Operations NFES 2724 (Red Book)*.

3.2. MANAGEMENT OF WILDFIRES

3.2.1. INITIAL RESPONSE

BLM recognizes the differences in missions among local, state, tribal and federal agencies and collaborates to develop wildfire management options that consider a full spectrum of responses to

wildfire: from suppression actions intended to contain and control fire growth, to periodic surveillance of fires that are allowed to spread naturally across the landscape.

The AIWFMP describes Fire Management Options that define initial responses to a wildfire ranging from aggressive suppression to surveillance/point protection. BLM and other Jurisdictional agencies have worked collaboratively to apply these Options at a landscape scale across agency boundaries, based on resource management goals and objectives, and the likely consequences of a fire on firefighter and public safety. The Options offer a pre-determined initial response that generally provides an opportunity for agencies to achieve both protection and natural resource management goals and objectives. The standard responses identified for each option address normal fire conditions and a high percentage of wildfire situations that occur in Alaska. In some cases, non-standard responses are prudent and justifiable. WFDSS is used to document decisions beyond the initial response on a fire-by-fire basis.

Options are selected based upon legal mandates, policies, regulations, resource management objectives, and local conditions, including but not limited to population density, fire occurrence, environmental factors, and identified values. Management options are assigned at a landscape scale and apply across jurisdictional boundaries. Ideally, boundaries are readily identifiable from both the air and ground, are based on fuel types, access, topographic features, natural barriers and fire regimes, and can be feasibly defended. Management option designations are intended to be flexible to respond to changes in objectives, fire conditions, land-use patterns, resource information, and technologies. Jurisdictional agencies are responsible for updating and reviewing management option and site designations annually. Management options may only be changed with the approval of all affected jurisdictional agencies.

Wildfire management options are employed statewide by federal and state agencies, and Alaska Native groups in order to:

- Prioritize areas for protection actions and the allocation of available firefighting resources to achieve protection objectives.
- Optimize the ability to achieve land use and resource management objectives and integrate fire management, mission objectives, land use, and natural resource goals.
- Reinforce the premise that the cost of suppression efforts should be commensurate with the values identified for protection.

Initial response to a wildfire will be based on various factors including:

- Firefighter and public safety (considerations include but are not limited to site condition, location, surrounding vegetation, and presence of hazardous materials).
- Fire Management Option at point of origin.
- Probability of success.
- Availability and prioritization of firefighting resources.
- Analysis of the overall statewide situation.

For Alaska Fire Management Options see web map application at <http://arcg.is/1aX9yS>.

The AIWFMP predesignates detection and initial resource allocation priorities, default initial actions, and initial action priorities for wildfire ignitions in each management option. **There is no guarantee of**

protection from wildfire in any management option. Permittees, leasees, allottees, private landowners, and jurisdictional agencies should take action to mitigate and minimize risk to their property before it becomes threatened by a wildfire in order to increase success of protection efforts.

The operational guidelines for each management option will be appropriate for a high percentage of wildfire situations that occur in Alaska given normal fire conditions. However, situations arise where non-standard responses are prudent and justifiable. The level of initial response to a fire may be increased or decreased regardless of the management option in order to mitigate risk, accommodate safety concerns, higher management priorities, and/or resource availability. Actions based on adjusted conversion dates for Modified lands do not constitute non-standard responses.

3.2.2. EXTENDED ATTACK AND LARGE FIRE OPERATIONS

Management decisions beyond initial response should be assessed situationally by the BLM Field/District Offices in coordination with the protecting agency and other affected jurisdictional agencies. If the pre-designated response is not appropriate or has a low probability of success, a decision support process (currently WFSS) -including situational assessment and risk analysis - will be used to develop incident-specific objectives, requirements, and courses of action, and document the rationale behind them.

Non-standard initial responses, escaped prescribed fires that are converted to wildfires, and fires likely to require complex and/or expensive suppression efforts should be well documented per the requirements of affected agencies. BLM decision-support documentation requirements are documented in Chapter 11 of the *Interagency Standards for Fire and Fire Aviation Operations NFES 2724 (Red Book)*. Additional Alaska-specific direction is available in the *Alaska Statewide Annual Operating Plan*.

3.2.3. REMOTE STRUCTURE PROTECTION

The BLM policy for remote structure protection in Alaska is identified in IM AK-2017-007.

3.2.4. RESOURCE ADVISORS

Field Offices should proactively assign Resource Advisor(s) to incidents as complexity and risk to resources warrants or when requested by fire protection resources.

3.2.5. INVASIVE SPECIES CONTROL

The BLM will participate on the AWFCG Invasive Species Task Group (ISTG) organized to develop strategies for preventing the introduction and spread of invasive species during fire operations. Strategies will be developed to prevent invasive species spread within the State, as well as to prevent their introduction from outside the state by crews and resources arriving from the Lower 48 or elsewhere (including Alaska crews and resources returning from outside fire assignments).

Educational materials to support these strategies will be developed to ensure that firefighters understand the problems associated with invasive species in Alaska and reinforce the tactics necessary to prevent their spread including:

- Appropriate methods for cleaning clothing, boots, line-gear, and tools.
- Appropriate methods for washing equipment including trucks, engines, UTVs, pumps, hoses, and other water-handling equipment.
- Appropriate methods for disposal of plant/seed material after cleaning. These materials may be shared through a variety of means including:

- IMT in-briefings
- The Alaska Handy-Dandy
- Alaska orientation videos
- Agency websites
- Instructions attached to resource orders

In order to minimize the potential transmission of aquatic invasive species, water drafting or scooping aircraft and helicopter buckets will be washed either immediately prior to, or upon arrival at an established base (Fort Wainwright, Palmer, Tanacross, Delta, Kenai, McGrath, Galena) from the Lower 48 or Canada. Equipment washing guidance can be found in the *NWCG Guide to Preventing Aquatic Invasive Species Transport by Wildland Fire Operations (PMS 444)* available at <https://www.nwcg.gov/publications/444> State and AFS Aviation Offices will maintain a log that documents the cleaning date and location. Sites known to contain invasive species should be avoided. If avoidance not possible then application of water drawn from contaminated sites should be limited to areas having no potential for runoff to adjacent surface waters. If possible, avoid transferring water between drainages or between unconnected waters within the same drainage.

Water delivery equipment should be rinsed between missions if sites containing known water-borne invasive species such as Elodea have been used as water sources. Additional information about Elodea in Alaska including maps of known infestations is available at <http://plants.alaska.gov/invasives/elodea.htm>.

Additional information regarding invasive species in Alaska is available at <http://accs.uaa.alaska.edu/invasive-species/non-native-plants/> and at <http://plants.alaska.gov/invasives/index.htm>.

3.2.6. USE OF HEAVY EQUIPMENT

Planning Area(s)	RMP Direction
Eastern Interior Planning Areas	<p>When a stream must be crossed, the crossing will be as close to possible to a ninety-degree angle to the stream. Stream crossings will be made at stable sections in the stream channel, which have low sensitivities to disturbance and low streambank erosion potential.</p> <p>Avoid overland heavy equipment moves through wetlands in spring and summer. Stipulations and mitigating measures are provided on a case-by-case basis to ensure wetland conservation and practical management.</p>
Bay & Kobuk-Seward Peninsula Planning Areas	<p>Use of heavy equipment and other motorized vehicles off road requires approval of Authorized Officer or designee.</p> <p>Use of tracked or off-road vehicles in fire suppression or management activities will be conducted in a manner that does not cause erosion, damage to riparian areas, degradation of water quality or fish habitat, or contribution to stream channel sedimentation.</p>
Ring of Fire Planning Area	<p>Use of tracked or OHV in fire suppression or management activities will be conducted in a manner that does not cause erosion, damage to riparian areas, degradation of water quality or fish habitat, or contribution to stream channel sedimentation.</p> <p>In snow-free months, if wetlands cannot be avoided, low ground pressure vehicles will be used wherever possible.</p>
East Alaska Planning Area	<p>Use of tracked or OHV in fire suppression or management activities will be conducted in a manner that does not cause erosion, damage to riparian areas, degradation of water quality or fish habitat, or contribution to stream channel sedimentation.</p>
2005 Land Use Plan Amendment	<p>Use of tracked or off-road vehicles (for example, bulldozers or all-terrain vehicles) requires written authorization by the Field Office Authorized Officer and will be approved on a case-by-case basis prior to use. Stipulations in the authorization will address use of equipment to avoid line construction near streams where it may cause erosion, damage to riparian areas, harm cultural or paleontological resources, degrade water quality or fish habitat, or contribute to stream channel sedimentation.</p> <p>Establish Riparian Buffer Zones appropriate to the site characteristics to sustain the proper functioning conditions of the area by protecting stream banks, minimizing compaction of soil, preventing stream sedimentation, and protecting water quality.</p>

Table 38: Summary of BLM Alaska Heavy Equipment Use Direction

3.2.7. USE OF SUPPRESSION CHEMICALS (RETARDANT)

Planning Area(s)	RMP Direction
Eastern Interior Planning Areas	To avoid the potential impacts to aquatic life, the application of fire chemicals including retardant will be avoided within 300 feet of waterbodies. Deviations are acceptable when life or property is threatened and fire chemicals reasonably expected to alleviate the threat. The AO may approve a deviation if potential damage to natural resources outweighs the impact to aquatic resources.
Bay & Kobuk-Seward Peninsula Planning Areas	To avoid the potential impacts to aquatic life the use of fire retardant is prohibited except when necessary to protect: <ul style="list-style-type: none"> • Human life, • Permanent year-around residences, • National Historic land marks, • Structures on or eligible for the National Register of Historic Places • Government Facilities, and • Other designated sites or structures or • If necessary to protect high value resources on adjacent lands under other than BLM administration or ownership. Even if one of the above listed resources is being threatened, water should be used instead of fire retardant whenever possible or appropriate. The use of fire suppressant foams is prohibited.
Ring of Fire & East Alaska Planning Areas	Use of aerial fire retardant near lakes, wetlands, streams, rivers, sources of human water consumption, and areas adjacent to water sources will be avoided to protect fish habitat and water quality. If feasible, use of water rather than retardant is preferred in these areas.
2005 Land Use Plan Amendment	Use of aerial fire retardant near lakes, wetlands, streams, rivers, sources of human water consumption, and areas adjacent to water sources should be avoided to protect fish habitat and water quality. If feasible in these areas, the use of water rather than retardant is preferred. When the use of retardant is necessary, avoid aerial or ground application of retardant or foam within 300 feet of a waterway; application beyond 500 feet is preferred. Examples of when use of retardant is authorized are for the protection of : <ul style="list-style-type: none"> • Human life. • Permanent year-around residences. • National Historic land marks. • Structures on or eligible for the • National Register of Historic Places. • Government Facilities. • Sites or structures designated by Field Office resource specialists to be protected. • High value resources on BLM-managed lands and those of adjacent land owners. • Threatened, endangered and sensitive species habitats as identified by resource specialist.

Table 39: Summary of BLM Alaska Retardant Use Direction

3.2.8. SUPPRESSION ACTIVITY DAMAGE AND SUPPRESSION REPAIR

Suppression Repair targets damage to resources, lands, and facilities resulting from wildfire suppression actions. This is in contrast to Rehabilitation and Emergency Stabilization, which targets damages resulting from the wildfire itself. Suppression repair is funded through the incident charge code. Protecting Agencies are responsible for completing suppression repair on BLM lands per written direction from the Field Office or District Office Manager. This generally comes in the form of an incident specific Agency Administrator approved Suppression Repair Plan.

3.3. FUELS TREATMENTS

Fuels management activities assist in accomplishing land use and resource management goals and objectives. Fuels treatments may be necessary in areas where the objective is to exclude or restrict wildfires to improve the effectiveness of fire management programs, the efficiency of wildfire suppression efforts, or to achieve desired resource and land management conditions. Projects may also be developed and implemented in support of scientific research. Each project is approved and funded on a case-by-case basis and available funding varies annually.

Fuels projects, funding, and planning requirements are developed based on agency-specific policies and guidelines; however, some aspects of fuels management are addressed at an interagency level. Ideally, large projects are implemented and coordinated between agencies to minimize impacts to the public and maximize the efficient use of available resources. Fuels treatment projects, including prescribed fires, require agency-specific reviews and approvals.

The Fairbanks District Office has analyzed and implemented programmatic fuels reduction for small, low-complexity pile burns not to exceed 40 acres annually (*DOI-BLM-AK-F000-2014-0001-EA*)

3.3.1. HAZARDOUS MATERIALS

In addition to direction provided in Chapter 2, hazardous materials guidance relevant to fire management can be found in the following guides, manuals, and handbooks:

- [BLM Alaska Fuel Site Operations Handbook \(H-9400-1\)](#) Revised May 2006
- [Interagency Aviation Transport of Hazardous Materials Handbook](#) (NFES 1068)
- [NWCG Interagency Aerial Ignition Guide](#) (PMS 501)
- [NWCG Interagency Ground Ignition Guide](#) (PMS 443)
- [NWCG Interagency Transportation Guide for Gasoline, Mixed Gas, Drip-Torch Fuel, and Diesel](#) (PMS 442)
- [BLM Hazard Management and Resource Restoration Manual](#) (MS-1703)

3.3.2. PRESCRIBED FIRE

Prescribed fires are planned ignitions to achieve land use and resource objectives. Prescribed fires are implemented only with the Agency Administrator's approval of a formal prescribed fire plan. For federal agencies or on projects on which federal dollars are expended, NEPA analysis may be required; an ANICLA 810 statement regarding project effects on subsistence, and/or concurrence from the State Historic Preservation Office that there are no adverse effects on historic properties may be appropriate. Air quality criteria are included in the prescribed fire plan.

When conducting prescribed burning, agencies follow the ADEC *2015 Enhanced Smoke Management Plan (ESMP)* available at <http://dec.alaska.gov/air/anpms/rh/rhdoc2/Appendix%20III.K.8.pdf>. The ESMP
BLM Alaska

is an agreement and program plan developed and agreed upon by the AWFCG. The purposes of the ESMP is to mitigate health and safety hazards to smoke sensitive features; to prevent deterioration of air quality and Alaskan Ambient Air Quality Standard violations; and to reduce visibility impacts in mandatory Class I Federal Areas in accordance with Regional Haze Rules. Prescribed burning requires an ADEC permit (<http://dec.alaska.gov/air/ap/OpenBurn.htm>) before starting the burn if the intent is to burn 40 acres or more or clear and burn the debris from 40 acres or more during a year. The ADEC regulations are available at <http://dec.alaska.gov/commish/regulations/index.htm>. Depending on the location of the project area, additional permits may be required from local government entities such as municipal fire departments or borough air-quality offices. The *Interagency Prescribed Fire Planning and Implementation Procedures Guide* is available at <https://www.nwcg.gov/sites/default/files/products/pms484.pdf> and may be supplemented by agency or administrative unit guidance. Interagency sharing of expertise, resources, and personnel for prescribed fire is encouraged.

3.3.3. MECHANICAL AND MANUAL TREATMENTS

Mechanical and manual treatments are implemented based on funding availability and under approved project plans. Projects on federal land or expending federal dollars may require site-specific analyses, including the appropriate NEPA documentation, an ANILCA 810 statement regarding project effects on subsistence, and/or concurrence from the State Historic Preservation Office that there are no adverse effects on historic properties.

3.3.4. PUBLIC AND COMMUNITY PROJECTS

One of the goals of the *National Cohesive Wildland Fire Management Strategy* is that, “Human populations and infrastructure can withstand a wildfire without loss of life and property.” Proactive measures by individuals and communities can assist in reducing the risks of wildfire to homes, other structures and private property.

3.3.4.1. COMMUNITY WILDFIRE PROTECTION PLANS (CWPP)

CWPPs are developed by local community members to address issues such as wildfire response, hazard mitigation, community preparedness, or structure protection. The process of developing a CWPP can help a community clarify and refine its priorities for the protection of life, property, and critical infrastructure in the wildland–urban interface. It can also lead community members through valuable discussions regarding management options and implications for the surrounding watershed. Federal and state agencies may assist, but are not responsible for development of CWPPs. For additional information and templates see <https://www.forestsandrangelands.gov/communities/cwpp.shtml>. A modified CWPP template for Alaska is posted at <https://fire.ak.blm.gov/administration/awfcg.php>; completed Alaska plans are posted at <http://forestry.alaska.gov/fire/cwpp/>.

3.3.4.2. FIREWISE AND FIREWISE COMMUNITIES

Firewise is an educational program aimed at homeowners, land developers, zoning officials, and other groups with the goal of developing homes, subdivisions, and communities with the threat of wildfire taken into consideration. The goal is to have homes, subdivisions, and communities built that will survive wildfires in the future. A Firewise-Alaska brochure and other prevention materials are available at <https://fire.ak.blm.gov/administration/awfcg.php>

Firewise Communities is a unique opportunity available to fire prone communities. Its goal is to encourage and acknowledge action that minimizes home loss due to wildfire. Reference <http://forestry.alaska.gov/fire/firewise.htm> for information on becoming a recognized Firewise Community in Alaska.

3.4. POST FIRE RESPONSE – EMERGENCY STABILIZATION (ES)/BURNED AREA REHABILITATION (BAR)

The BLM is required to initiate Emergency Stabilization (ES) and Burned Area Rehabilitation (BAR) actions after a wildfire occurs if deemed necessary by agency personnel, and planned actions are within BLM ES and BAR policy. For a thorough description of BLM ES and BAR policy, please see Departmental Manual 620 DM 3 and BLM ESR Handbook H-1742-1.

For the BLM, three types of plans exist currently to plan these actions:

- Programmatic ESR Plans (PESRP) (formerly Normal Year Fire Rehabilitation Plans)
- ES Plans
- BAR Plans

The ES and BAR plans are completed in response to fires that occur within a given fire season and are usually combined into a single document.

The Programmatic Emergency Stabilization and Burned Area Rehabilitation Plan (PESRP) is a programmatic ESR plan, with an associated Environmental Assessment (EA) or Environmental Impact Statement (EIS), which is developed at the landscape level prior to wildfire occurrence. The PESRP contains a description of ESR treatments that would be implemented under normal conditions in the event of a wildfire and documentation of the potential treatment impacts. A PESRP should be prepared on a landscape basis at the District or Field Office level by an interdisciplinary team with public input. By addressing techniques and species that may be used, the process of developing the site-specific plans will be made considerably easier. Because the PESRP is analyzed through the NEPA process, procedures for public review and comment will apply, thus ensuring ample opportunity has been given to those that are interested to be involved in the process of developing the plan. The decision to prepare a PESRP is based on the size and diversity of the ecosystems involved, fire history (wildfire occurrence and size), resource values, and values-at-risk. State Directors may require that PESRPs be prepared for all or part of the public lands within their jurisdiction and have approval authority for PESRPs that cannot be re-delegated.

A 2006 PESRP applies to all BLM managed lands in Alaska. The PESRP recognizes that fire occurs naturally as a part of the Alaskan landscape, with many ecosystems capable of recovering from fire effects on their own. From an ecological perspective, fires are the result of vital disturbance processes in forests (Beschta et al., 2004). After a fire event, qualified resource advisors assess the area for threats to life, property, or cultural or natural resources, in accordance with ES&R program objectives, priorities, and procedures (USDI/BLM, 2006). Depending on the needs of the post-fire environment, a variety of ES&R treatments may be recommended. The ecological costs and benefits to physical processes, biological diversity, and ecosystem functions would be considered before treatments are initiated. Field examination, vegetation inventory data, project files, monitoring data, standard and required operating procedures, and professional knowledge would be used to determine needed treatments. All ES&R treatments will be designed to be overall improvements to an already burned landscape. ES&R treatments analyzed in the PESRP are organized under the following categories:

- 1) Erosion control
- 2) Invasive non-native plants
- 3) Travel corridors

Many treatments can be implemented under both ES and BAR plans, depending on the intent and scope. Treatment types are often combined to provide the most effective set of stabilizing factors. Individual treatments have design features that are automatically implemented in order to avoid or reduce potential for environmental harm. ES&R treatments are subject to the standard and required operating procedures of the Land Use Plans (LUP)

Funding for ES and BAR is based on the date of ignition of the fire. For ES funds, the preliminary plan is supposed to be submitted (Form 1310-20) within 7 days of ignition and then the full plan must be entered into the ESRS and NFPORS programs for approval and funding. There is a total of 21 days from ignition for approvals at the state and National levels for the full plan. ES Funding should plan to be expended with 12 to 18 months of ignition. BAR funds may be requested even if ES funds are not requested. Again it starts with an initial plan on the Form 1320-20 followed by the full plan in ESRS and NFPORS. BAR funding is competitive at the national level with all DOI agencies on an annual basis. Once approved, funds are distributed on a quarterly basis and can be requested for up to five (5) years from the date of ignition. They should be expended within the five-year period as well.

3.5. AIR QUALITY/SMOKE MANAGEMENT

While wildland fire smoke in Alaska is inevitable, BLM will protect and enhance the quality of air resources associated with BLM-managed lands as well as consider, if practicable, minimizing the impacts of smoke from wildfire and prescribed burns to human health, communities, recreation and tourism. Smoke and its public health impacts are a parameter in fire suppression decisions. All actions that may affect air quality will comply with local, State, and Federal requirements. Public outreach efforts are essential to keep the public informed and provide opportunities for individuals to take action based on individual health factors. Land managers, the Alaska Department of Environmental Conservation (ADEC), and suppression providers share the task of providing pro-active and adequate public information on wildfire smoke before, during, and after wildland fires occur.

The Alaska Department of Environmental Conservation (ADEC) is the regulatory agency responsible for air quality and smoke management. During the fire season, ADEC routinely issues air quality advisories addressing air quality levels and may recommend actions that individuals can take to protect their health. ADEC is represented on the AWFCG. The need for air resource advisors is increasing and additional technical expertise for addressing air quality and health related issues may be available through the DEC.

The *Alaska Enhanced Smoke Management Plan for Planned Fire (ESMP)* was developed by DEC in coordination with the AWFCG Air Quality Committee. The *ESMP* and its appendices are located at https://fire.ak.blm.gov/administration/awfcg_committees.php. The *ESMP* outlines the process and identifies issues that need to be addressed by DEC and federal and state agencies or private landowners/corporations to help ensure that prescribed fire activities minimize smoke and air quality problems. The *ESMP* Appendices provide additional assistance for interagency sharing of information, the applicability and availability of current smoke management techniques, monitoring protocol, public education strategies, and emission reduction techniques.

The AWFCG-approved *Smoke Effects Mitigation and Public Health Protection Protocols* are available at <https://fire.ak.blm.gov/administration/awfcg.php>. For current smoke information and forecast, regulations, advisories, and educational materials, refer to the DEC website <http://www.dec.state.ak.us/air/anpms/index.htm>.

When convened, the Alaska Multi-Agency Coordinating Group (AMAC) addresses air quality and smoke management issues. During periods of extensive fire activity, the AMAC group in conjunction with ADEC may determine that new fire starts will be suppressed due to smoke and air quality concerns regardless of fire management options.

Refer to [BLM Manual 7300](#) and Handbooks [9211-1](#) and 9214-1 for additional BLM-wide guidance on Clean Air Act compliance.

3.6. DATA SOURCES, REPORTS AND SYSTEMS

3.6.1. ALASKA FIRE MANAGEMENT DIGITAL ATLAS

The official interagency Digital Atlas for Alaska fire management geospatial data is maintained and distributed by Alaska Fire Service GIS Staff. The core data comprising the Digital Atlas are:

- Alaska Jurisdictions
- Fire Heat Detection (VIIRS and MODIS)
- Fire Management Option Boundaries
- Fire Protection Area Boundaries
- Fire Perimeters
- Fire Locations (a.k.a Origins)
- Known Sites
- Lightning Detections

Digital Atlas datasets are updated regularly, and are available for view and download at <https://fire.ak.blm.gov/predsvcs/maps.php>.

3.6.2. FIRE REPORTING

BLM is required to submit an Individual Fire Report (DI-1202) through the Wildland Fire Management Information (WFMI) system for all fires involving DOI or ANCSA ownership, for all fires within BLM protection, and for fires in State and Forest Service protection where BLM is involved in suppression actions.

Protecting Zones are required to complete their own reporting and maintain official incident documentation records. However, in order to ensure that all Jurisdictional and Supporting Agencies receive the information necessary to complete their reporting and satisfy their documentation needs, Protecting Zones are responsible to submit a final fire report package to AICC within 10 days after a fire is called out for all fires regardless of jurisdiction. AICC is responsible to generate an Individual Fire Report for all DOI/ANCSA Ownership or BLM fires within State and Forest Service protection. In addition, AICC will produce a final fire report package for every fire.

Within 15 days of a fire being called out AICC will provide affected Jurisdictional Agencies (including BLM District and Field Offices) with an electronic copy of the final fire report package. If the Protecting Agency and/or AICC are unable to meet the 15-day deadline, an acceptable date will be negotiated with the Jurisdictional Agency.

National guidance for BLM fire reporting is available at:

- BLM [MS-9218](#) Reports and Statistics Manual, provides BLM policy on completing the Individual Fire Report for unplanned ignitions.
- [FA-IM-2016-036](#) issued the [Fire Reporting User Guide](#), which provides detailed guidance for completing Individual Fire Reports.

Reporting of Wildfire Outcomes

Reporting accomplishments of resource objectives from the management of wildfires will focus on post-fire outcomes that result in movement towards Land Use Plan (LUP) Objectives. Detailed instructions on how to complete this are available in *FA-IM-2017-034*.

3.6.3. WILDFIRE DECISION DOCUMENTATION

BLM requires documentation of wildfire decisions. Systems and/or methods for this documentation are outlined in the *Interagency Standards for Fire and Fire Aviation Operations NFES 2724 (Red Book)*. For BLM fires in Alaska, Field Office Managers approve decisions as the Jurisdictional and Fiscal Agency Administrator. Protecting FMOs are also responsible to approve decisions.

3.6.4. RECORDS MANAGEMENT

BLM [Manual 1220](#), Records and Information Management, Appendix 2 GRS/BLM Combined Records Schedule contains requirements for documentation in the fire program (e.g., fire reports and wildfire decisions). The Combined Records Schedule also indicates whether a record may be stored only in electronic format or if a hardcopy record is required.

3.6.5. BLM GIS DATA STANDARDS

BLM has established GIS Data Standards for the Fire Management Planning Areas, wildfire perimeters, and for fuels/vegetation treatments. Information about these standards can be found at the [BLM National Data Standards Home](#) under Established Data Standards and Datasets.

3.6.6. FUELS MANAGEMENT REPORTING

[BLM H-9214-1](#), Fuels Management and Community Assistance Handbook, provides BLM policy for annual and out-year planning of treatments and activities as well as accomplishment tracking.

See **Section 3.6.2** for direction regarding reporting accomplishments of resource objectives from the management of wildfires.

3.6.7. ES/BAR PROJECT REPORTING

Direction for BLM ES/BAR project planning, budgeting, and accomplishment reporting is provided in the BLM Annual Work Plan (AWP) for the Wildland Fire Program. All Projects funded by ESR or BAR funding are required to report (quarterly) on project progress and monitoring results. This may be extended for periods where there are no activities as long as the next report covers the entire period. For BLM this requires entries in ESRS and NFORS and includes spatial data. There are recommended formats and content in both programs for monitoring reports. Monitoring reports should be sent to the BLM state lead for approval.

4. MONITORING AND EVALUATION

4.1. MONITORING THE FIRE MANAGEMENT PLAN

Review, maintenance, and update (when necessary) of the FMP will occur annually. The annual FMP review, maintenance, and update are separate processes. The FMP annual review is completed to determine if the FMP needs maintenance or a full update. The FMP maintenance may be completed and documented as part of the annual review process and records kept on file at AFS. Any substantial update requirements found during the review will require a full update to the FMP – which requires transition to the most recent template and obtaining new signatures on the front page of the FMP. The front page of the FMP should only be updated with new signatures and a new approval date when a full FMP update is completed; FMP maintenance does not require new signatures on the front page.

Appendices

APPENDIX A.	REFERENCES.....	A-1
APPENDIX B.	FIRE MANAGEMENT PLAN ANNUAL REVIEW CHECKLIST	B-1

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Appendix A. References

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Bureau of Land Management Manuals, Handbooks, and Instruction Memorandums cited in this Plan can be accessed at the following websites:

- BLM Manual Sections (<http://web.blm.gov/internal/wo-500/directives/dir-manu/manu-dir.html>)
- BLM Handbook Sections (<http://web.blm.gov/internal/wo-500/directives/dir-hdbk/hdbk-dir.html>)
- Instruction Memorandums:
 - BLM Fire and Aviation Instruction Memorandums (<http://web.blm.gov/internal/fire/Directives/im2017.html>)
 - BLM Washington Office IMs (<http://web.blm.gov/internal/wo-500/directives/dir-18/wo-im-18.html>)
 - BLM Alaska IMs (<http://teamspace/sites-ak/akfoia/default.aspx>)

Appendix B. Fire Management Plan Annual Review Checklist

(Review Date)

BLM Alaska Fire Management Plan

FMP Approval Date: *Date from front page of FMP*

Criteria	Yes	No	
1. Did landscape characteristics (including Threatened and Endangered Species Habitat) change in any area to the degree that decisions guiding fire management from the LUP or subsequent NEPA would no longer be valid?			
2. Did changes in policies or values at risk alter fire management objectives, priorities, or mitigation measures to the degree that decisions guiding fire management from the LUP or subsequent NEPA would no longer be valid?			
3. Did Land Use Plan (LUP) guidance (such as through LUP revisions) change in a way that would alter FMP strategies or priorities?			

If all items above have been checked as “no”, describe maintenance completed since last review:

For Example:

- *Updated Operations Mapsheet to reflect the addition of a new RFPA*
- *Updated Partnership/Agreement area boundaries*
- *Replaced the reference to the Fire Danger Operations Plan with the updated plan*

If any items above have been checked “yes” a full plan update and publication of a new FMP is required.

Describe actions planned to update the FMP:

For Example:

- *Due to recent loss of old growth lichen habitat that is critical caribou winter feed, we have scheduled a LUP amendment to update fire management direction and priorities.*
- *Due to recent national policy changes that conflict with existing local fire management objectives, we have scheduled the initiation of an environmental assessment to evaluate the effects of different fire management alternatives that would be consistent with the new policy.*
- *Due to a recent LUP amendment/revision previous FMP strategies and priorities have changed and we will update the FMP by [insert date] to incorporate new direction.*

Fire Management Plan Annual Review Checklist Signatures

(Review Date)

_____ Fairbanks & Arctic District Fire Management Specialist	_____ Date
_____ AFS South Zone Fire Management Specialist	_____ Date
_____ Anchorage District Manager	_____ Date
_____ Fairbanks District Manager	_____ Date
_____ Arctic District Manager	_____ Date
_____ Alaska Fire Service Manager	_____ Date