

2018

Kenai Peninsula
All Lands All Hands
ACTION PLAN



Photo credit: KNWR

ALASKA

The Interagency All Lands / All Hands Action Plan for Fire Prevention & Protection, Hazardous Fuel Reduction, Forest Health & Ecosystem Restoration and Community Assistance in Alaska's Kenai Peninsula Borough was originally published in September 5, 2004 and updated in December of 2011.

This document intends to exist as a supplement to the original plans and provides updated goals for the 5-year period extending from 2018. For a complete background on the development of the All Lands / All Hands Action Plan, please refer to the 2004 document.

October 2018



Photo credit: KNWR

PREFACE

The original interagency “All Lands/All Hands Action Plan” was a wildfire hazard mitigation plan intended to reduce community and individual vulnerability to wildfire hazards before they occur. The plan was designed to be a working document that would implement the National Fire Plan (NFP) 10-Year Comprehensive Strategy and Healthy Forest Restoration Act (HFRA) within Alaska's 10.25 million-acre Kenai Peninsula Borough (KPB).



The plan presented a 5-year implementation schedule for all participating landowners for fiscal years 2005 through 2009. Recognizing that full implementation of the plan was contingent on available funding; the 5-year schedule provided a basis for identifying what landowners in the KPB could accomplish individually and/or cumulatively on an annual basis over a 5-year period under each NFP/HFRA goal at full funding.

The 2004 plan recommended updates as the 20 Community Wildfire Protection Plans (CWPPs) were completed in 2005 and 2006 as new information became available, and as planned tasks and projects were accomplished by participating agencies and landowners. A memorandum of understanding was signed by all parties extending this plan in 2010. The 2011 revision represented a five-year update of the 2004 plan. This document (2018) represents a five-year update of the 2011 plan.

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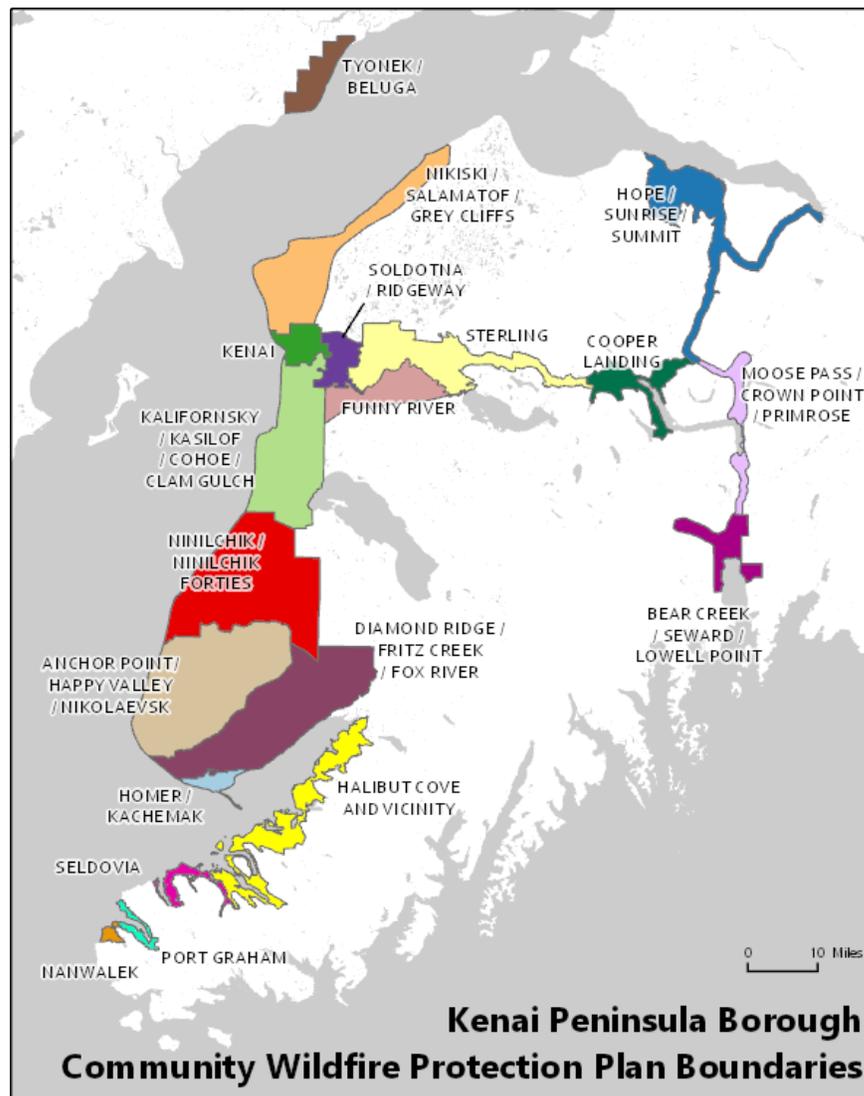
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INTRODUCTION

Background

Alaska’s 10.25 million-acre Kenai Peninsula Borough (KPB) has a long history of spruce bark-beetle (SBB) infestations. Damage from the SBB on the Peninsula reached its peak in 1999 with over 1.2 million acres affected, and about 4 million acres total across southcentral Alaska. While much of the recent infestation occurring in 2014-2016 affected the Susitna River valley and neighboring drainages, the Kenai Peninsula experienced over 21,000 acres of new infestation in the northwestern corner and along the western edge of the Chugach Mountains. (FHP 2017) Forest fuels resulting from SBB mortality is only part of the picture however; boreal forest vegetation types do carry fire and are a component to this region’s dynamic fire regime. Communities and infrastructure that have grown within this ecosystem are vulnerable to its periodic natural perturbations and its human-caused ignitions, as well. Living with fire has not been a tolerated exercise, and fire management policies have tried to protect human settlement from wildland fire.



The risk of catastrophic wildfire remains at a historic high on the Kenai Peninsula (KP). The western half of the KP has experienced many large wildfires over the past century, including the 1947 Skilak Lake Fire (310,000 acres), 1969 Swanson River Fire (79,000 acres), 1991 Pothole Lake Fire (7,900 acres), 1996 Crooked Creek Fire (17,500 acres), 1996 Hidden Creek Fire (5,200 acres), 2004 Glacier Creek Fire (8,600 acres), 2005 Fox Creek Fire (25,500 acres), 2005 Tracy Avenue Fire (5,400 acres), 2005 King County Creek Fire (10,000 acres), 2007 Caribou Hills Fire (55,000 acres), 2009 Shanta Creek Fire (13,000 acres), 2014 Funny River Fire (196,000 acres), 2015 Card Street Fire (8,900 acres), and the 2017 East Fork Fire (1,000 acres). Fires of interest have also recently occurred on the Chugach National Forest including the 2015 Juneau Lake (570 acres) and Stetson Creek (130 acres) Fires.

Recognizing the susceptibility of the KP's forest fuels to produce one or more significant stand replacement fires, an interagency policy committee of Federal, State, local and Native land managers, called the "Kenai Forest, Wildland Fire and Fuels Management Coordinating Committee" was established in 2003. In November 2003, the Coordinating Committee chartered the development of a collaborative, interagency, action plan to identify and prioritize fire prevention and protection, hazardous fuels, forest health and ecosystem restoration, and community assistance projects on the KP. Funding to implement these projects was requested through the National Fire Plan (NFP) and the Healthy Forests Restoration Act of 2003 (HFRA). A variety of Federal, State, KP, and private funding sources also contributed to this effort.



A cow moose and her calf seen after the 2014 Funny River Fire.
Photo credit: KNWR

This original plan in 2004, called the "All Lands/All Hands Action Plan" put forth a collaborative interagency strategy of on-the-ground actions that emphasized treatments in Community Wildfire Protection Plan (CWPP) areas and Wildland Urban Interface (WUI) areas that lie outside CWPP area boundaries. The focus of the plan was to employ a "from the back porch out" philosophy of fuel reduction and restoration in the defensible space zone around structures, and work outward from there. The NFP and associated HFRA shaped the framework for both the 2004 and 2011 Action plans.

Purpose of the “All Lands/All Hands” Action Plan

Considering these past versions of the action plan and their respective bases, this document reflects new approaches based on current guidance at the federal level that applies to local planning and implementation. It considers the lessons learned from the past and provides a framework to implement activities through leveraging resources, expertise, capacity, and integration of existing programs to support residential self-reliance and adaptability of agencies to operate more efficiently through collaboration.

The All Lands/All Hands Action Plan is still a collaboratively developed, interagency multi-year action plan designed to augment the implementation of mitigation tasks and/or projects now in alignment with the 2014 National Cohesive Wildland Fire Management Strategy and the National Action Plan (2014 Cohesive Strategy) on the Kenai Peninsula. The vision of the 2014 Cohesive Strategy is “To safely and effectively extinguish fire when needed; use fire where allowable; manage our natural resources; and, as a Nation, live with wildland fire.”

The 2014 Cohesive Strategy outlines four broad challenges to be addressed: 1) managing vegetation and fuels; 2) protecting values at risk from wildfire impacts; 3) managing human-caused ignitions; and 4) responding to wildfire in a safe, effective, and efficient way. More specific challenges that require management consideration within the KPB include continued expansion of the WUI, the effects of a changing climate on wildfire extent and seasonality, and vegetation that has been adversely affected by insect infestations. Coordinated engagement and action on the part of all stakeholders will provide the best opportunity to address these challenges in order to mitigate community and individual vulnerability to wildfire hazards before they occur, as well as, restore and maintain forest health and ecosystems within the KPB.

This action plan focuses on the use of science-based data analysis to support implementation, planning, and decision making, along with performance measures as a mechanism to illustrate meaningful reductions in wildfire risk both in the short and long-term. It furthermore incorporates monitoring and evaluation of these efforts to assess progress towards the desired outcomes. Three goals along with strategic actions and implementation tasks are identified in this proactive and collaborative approach:

1. **Restore and Maintain Landscapes** - ensure resilience to fire-related disturbances
2. **Fire Adapted Communities** - populations and infrastructure can withstand a wildfire
3. **Wildfire Response** – make and implement collaborative risk-based management decisions



Wildfire risk can be defined as the likelihood of a fire occurring, the associated fire behavior, and the impacts of the fire. The primary factors determining fire behavior and intensity are fuel availability, fuel conditions, topography, weather conditions and the presence or availability of firefighting resources. Any discussion of risk should include hazard identification, because without hazard there cannot be risk. A hazard is defined as a condition or situation that exists within the environment capable of causing physical harm, injury or damage. Mitigation of wildfire risk or the identified hazard can be accomplished when the likelihood of occurrence, fire behavior or potential impacts are reduced. Risk is an inescapable component of living with wildfire. Whether risk is considered “something bad may happen” or a more precise definition of an expected loss from uncertain future events, the basic components of uncertainty or loss are present.

By itself, the wildfire is simply an event. It can be described by its location, intensity, duration, extent, or other characteristics, but it has no defined value, it is neither good nor bad. However, the consequences, both negative and positive, have lasting effects. Wildfire is considered to be 'bad' or in most cases catastrophic, whenever homes and other structures are involved; timber values are lost; critical wildlife habitat is degraded; or other values are lost depending on the location, extent, and intensity of the wildfire. Wildfire can also be 'good' and have positive effects, mainly environmental, such as creating an environment for fire-dependent or fire-tolerant plant species to flourish, enhancing wildlife habitat by diversifying vegetation species and age classes, or removing surface fuels and other downed woody debris to limit the intensity of future wildfires.

There needs to be a willingness to accept the use of wildland fire to achieve management objectives. Using fire as a tool carries inherent risks that must be considered in the short-term to achieve the longer-term benefits that promote resilient landscapes and fire adapted communities.

Photo credit: KNWR



All stakeholders, from individual property owners to the Federal, state, tribal, and local governments, must share the costs and level of effort necessary to redeem responsibilities for reducing risks posed by wildfire.

These concepts shape the framework of this action plan.

Collaboration

Collaborating participants involved in development of the “All Lands/All Hands” plan include the following land management agencies and/or land owners:

1. DOI, Fish & Wildlife Service, Kenai Wildlife Refuge
2. DOI, National Park Service, Kenai Fjords National Park
3. DOI, Bureau of Land Management (BLM)
4. DOI, Bureau of Indian Affairs (BIA)
5. USDA, Forest Service, State & Private Forestry
6. USDA, Forest Service, Chugach National Forest
7. State of Alaska, Division of Forestry
8. State of Alaska, Department of Fish & Game
9. State of Alaska, Division of State Parks, Kenai Area
10. State of Alaska, Alaska Mental Health Trust Authority
11. Kenai Peninsula Borough, Land Management Division
12. Chugachmiut

Relationship to Other Plans

The original [“All Lands/All Hands” plan \(2004\)](#) built upon the implementation successes of the June 30, 1998 KPB SBB task force action plan titled, "An Action Plan for Rehabilitation in response to Alaska’s Spruce Bark Beetle Infestation," and the USDA-Forest Service Chugach National Forest Kenai Peninsula SBB Management Strategies & Five Year Action Plan (1999-2004). The “All Lands/All Hands” plan tiered to the USDA-Forest Service Chugach National Forest Land Management Plan (2002), and the Kenai National Wildlife Refuge Comprehensive Conservation Plan (2010).

The 2011 Interagency All Lands/All Hands 5-yr Action Plan was a supplemental update to the 2004 plan and incorporated the NFP as well as the HFRA within Alaska's KBP. Other relevant documents include the Alaska Master Cooperative Wildland Fire Management and Stafford Response Agreement and associated Annual Operating Plans as well as the Alaska Interagency Wildland Fire Management Plan. These plans improve efficiencies through facilitating the coordination of resources and funds in a variety of wildland fire management activities throughout the entire State.

2018 Revision

This 2018 revision was designed to be a working document that also considers the FEMA¹-approved KPB Hazard Mitigation Plan (2019 update) and 2018 Comprehensive Plan, 2009 FLAME² Act, and incorporates the 2014 Cohesive Strategy. It also considers the CWPPs that were developed for 19 local areas in the KPB.³



A cabin survived the 2007 Caribou Hills Fire.
Photo credit: KNWR

¹ Federal Emergency Management Agency

² Federal Land Assistance, Management, and Enhancement Act

³ For Community Wildfire Protection Plan purposes, the Borough's 41 communities have been consolidated into 19 local areas based on the 2010 U.S. Census Area boundaries. This was based on national direction contained in the June 27, 2003, National Association of State Foresters, Field Guidance for Identifying and Prioritizing Communities at Risk.

ACTION PLAN GOALS, DESIRED OUTCOMES, STRATEGIC ACTIONS, IMPLEMENTATION TASKS AND PERFORMANCE MEASURES: 2018-2022

Goal 1 – Restore and Maintain Landscapes

Desired Outcome:

Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives. Forest management programs are strengthened to accomplish risk reduction.

In Scheffer (2009), forest resilience is defined as ‘the ability of a forest to absorb disturbances and reorganize under change to maintain similar functioning and structure.’ Research specific to the Kenai Peninsula and across the northern boreal landscape of Alaska and Canada has revealed much information about fire return intervals for the various forest types. How these patterns of disturbance are related to forest ecosystem function and the people who live there affect our definition of a healthy landscape. From past research and our own observations, we can reasonably conclude that a mosaic of forest stands with respect to variation in age classes and successional stages provides for diversity in wildlife species and their respective population density. (Rowe and Scotter, 1973) We also know through research and past fire events, that the safety of our neighborhoods and communities is dependent on maintaining certain species and forest stand structure within and around developed areas to slow fire’s spread. The strategic actions and implementation tasks described below address ways that we may meaningfully influence forest and land management activities consistent with living in a fire environment.

Foresters and biologists on the Kenai Peninsula have been studying changes to the local landscapes for decades. Management plans and research publications discuss the use of fire in mitigating catastrophic wildfire events that put people and infrastructure at risk. The work of the KPB Spruce Beetle office in partnership with other agencies and organizations did much to advance forest management for reducing hazardous fuels and promoting forest health. That work is continued with agencies and landowners collaborating on fuel breaks and forest stewardship projects.

The former SBB task force and original version of this action plan were focused on managing the hazards associated with trees affected by Spruce Bark Beetles. Where forest health is addressed in this version, forest pests such as the spruce bark beetle are included. This approach expands the view of forest health and fire for current conditions and changes we expect in the coming years.

Strategic Actions:

1. Develop methods to assist and inform private landowners with managing fuels.
2. Promote prescribed fire certification and training to provide safe use of fire.
3. Promote landscape scale fuels management activities, such as prescribed fire and wildland fire, that address the creation and maintenance of resilient landscapes.

4. Include fuels reduction and fire risk management activities into existing and future land management programs.
5. Promote cost-effective, active forest management.

Implementation Tasks:

1. Develop a collaborative, interagency action plan that addresses the goals and priorities established through the 2014 Cohesive Strategy and determine a schedule for revision.
Collaboration Level: All
Lead Collaborator: USFWS, ADF&G, KPB
Implementation Timeframe: Review every 5 years from completion.
2. Implement a process for Federal, State, Borough, Tribal, and local governments to collaborate on the selection of fuel treatment projects within their respective jurisdictions.
Collaboration Level: All
Lead Collaborator: Varies
Implementation Timeframe: Fall and Spring All Lands All Hands meetings
3. Provide for stakeholder participation in the planning of landscape scale fuels management.
Collaboration Level: All
Lead Collaborator: DOF, USFWS, KPB, USFS, ADF&G
Implementation Timeframe: Fall 2018
4. Allow fire as a natural process where possible and expand the use of prescribed fire in order to maintain a mosaic of forest cover types that commonly distribute the occurrence and intensity of fire and reduce the potential for high-intensity wildfire impacts to values.
Collaboration Level: All
Lead Collaborator: USFWS, USFS
Implementation Timeframe: Ongoing
5. Collaborate across ownership boundaries on forest management activities. Address forest health with consideration for forest products, ecosystem services (hydrology, habitat, etc.), and land uses for public benefit (recreation, development, etc.). Consider state and federal programs that can serve multiple objectives, especially where private land ownerships meet large tracts of public lands.
Collaboration Level: All
Lead Collaborator: KPB
Implementation Timeframe: Fall 2018
6. Apply the concept of urban forestry to connect forest management principles across ownerships at the urban and small parcel scale. Engage outlets such as UAF Cooperative Extension Service and the Kenai Peninsula Wildland Fire Education Cooperative to develop and distribute informational material.
Collaboration Level: All
Lead Collaborator: KPB, DOF
Implementation Timeframe: Fall 2018

7. The ability to put prescribed fire on the ground under planned circumstances and weather conditions can greatly outweigh the risks associated with responding to unexpected wildfire emergencies and can minimize overall smoke impacts. With this in mind, develop and maintain prescribed fire qualifications among all wildland fire resources to ensure that local capacity is prepared to use fire as a tool when needed.

Collaboration Level: USFWS, USFS, DOF, ADF&G

Lead Collaborator: USFWS, USFS

Implementation Timeframe: Ongoing

8. Prioritize any hazard tree removal associated with SBB and other forest stressors in high human use areas to minimize public safety hazards and protect critical infrastructure.

Collaboration Level: All

Lead Collaborator: USFWS, DOF, KPB

Implementation Timeframe: 5 years

9. Continue to collect high resolution (SfM, LiDAR, photogrammetry, etc.) remote sensing data for the entire Peninsula to be used as baseline data for landscape evaluation.

Collaboration Level: All

Lead Collaborator: USFWS, USFS

Implementation Timeframe: 5 years

Performance Measures:

1. Plan revision is completed by November 2018 and provides the framework for stakeholders' actions in achieving the three goals for the next 5 years. Measuring progress toward these goals is found under the Monitoring and Evaluation sections of this document.
2. A summary of fuel treatment projects that are collaboratively developed using prioritization and risk assessment criteria is produced annually.
3. A forum is established for stakeholders to participate in landscape level fuels treatment planning. Consider the framework of Fire Adaptive Communities (FAC) to extend outreach, education, and participation.
4. The relative risk of fire impacts to high priority areas (habitat, watersheds) is reduced. Fire modeling programs such as Interagency Fuel Treatment Decision Support System (IFTDSS) or FlamMap are used to demonstrate the change in risk before and after treatment. This information is used to demonstrate the role that wildfire and prescribed fire plays as an ecological benefit and in the overall reduction of future catastrophic fire events and associated long-term smoke impacts. This understanding allows the residents of the KP to more readily co-exist with fire.

5. Forest management activities are integrated across ownership boundaries. Current collaboration across ownership boundaries could include forest management activities that would maintain forest health and meet hazardous fuels reduction objectives. Forest health management would consider ecosystem services, forest products, and land uses for the public benefit. Where private land ownerships meet large tracts of public lands, federal and state forest management activities that serve multiple objectives would be considered.
6. Reference guides are available to private and public land owners for application of urban forestry principles that connect the social, environmental, and economic values within a community, such as aesthetics, wildlife habitat, energy conservation, privacy, and safety.
7. Prescribed fire training and experience are considered high priorities by each of the participating agencies when developing their local capacity.
8. Agencies have screened public facilities and developed recreational areas for hazard trees. Implementation plans for addressing problem areas are developed and acted upon in a timely manner to mitigate risk to agency staff and the public.

Remote sensing data (such as high-resolution imagery) is collected whenever feasible both before and after disturbance to track changes to the landscape. These changes are considered during future project planning and implementation.



After the 1996 spruce beetle outbreak, forests unraveled leaving a juxtaposition of trees across the Kenai Peninsula. These jack-strawed trees were difficult to walk through on a good day; firefighters are very challenged by downed trees while their safety is also compromised.

Photo credit: Wade Wahrenbrock

Goal 2 – Fire Adapted Communities

Desired Outcome:

Communities become Fire Adapted Communities (FAC)⁴. Becoming a fire-adapted community acknowledges that minimizing wildfire risk is a shared responsibility among all landowners from the individual homeowner to large landmass holdings managed by governing policies.

The National Wildfire Coordinating Group defines a FAC as “A human community consisting of informed and prepared citizens collaboratively planning and taking action to safely coexist with wildland fire. FACs are knowledgeable, engaged communities where actions of residents and agencies in relation to infrastructure, buildings, landscaping and the surrounding ecosystem lessen the need for extensive protection actions and enable the communities to safely accept fire as part of the surrounding landscape” <https://fireadaptednetwork.org/>. Therefore, reduced loss of life and property is the desired outcome realized by all FACs through a culmination of actions:



⁴ Fire Adapted Community Networks and Resources: <https://fireadaptednetwork.org/>
FAC Self Assessment Tool and Facilitator’s Guide: <https://fireadaptednetwork.org/resource/fire-adapted-communities-self-assessment-tool-user-and-facilitators-guide/>

Strategic Actions:

1. Inform and support communities that want to participate as a FAC that shares the responsibility for wildland fire mitigation practices.
2. Collaboratively update and implement CWPPs.
3. Promote fire resilient structures and defensible space practices advocated through nationally recognized programs.
4. Support local response agencies with the capability to help communities prepare for and respond to wildland fires, including but not limited to establishing and promoting evacuation procedures and routes.
5. Ensure that cooperative agreements among response agencies are current.
6. Influence governing codes or ordinances that guide development within the WUI.
7. Include as many stakeholders as possible in the design and implementation of fuel breaks to ensure a community-wide approach to fuels reduction projects.

Implementation Tasks:

1. Update the 19 local CWPPs with the assistance of core teams consisting of residents, local responders and advisory planning members that represent individual communities.
Collaboration Level: All agencies and residents
Lead Collaborator: KPB
Implementation Timeframe: Fall 2018 - Spring 2021
2. Core teams' transition from CWPP planning members into FAC coalitions, implementing nationally recognized programs specific to their individual community needs. Programs may include Firewise USA, Smokey Bear Wildfire Prevention Campaign, Living with Fire, 'Ready-Set-Go!', Institute for Business & Home Safety, etc.
Collaboration Level: All agencies and residents
Lead Collaborator: KPB
Implementation Timeframe: Fall 2021 - ongoing
3. Encourage neighboring landowners, including residential and nongovernment parcels, to participate in adjacent fuel reductions projects that are planned to be completed by collaborating agencies.
Collaboration Level: All agencies and residents
Lead Collaborator: DOF, USFWS, KPB, USFS
Implementation Timeframe: ongoing
4. Present the Ready, Set, Go! Program and evacuation procedures at existing venues. Such outreach will promote the important role that individuals have in personal preparedness and early evacuation in the event of an areawide emergency.
Collaboration Level: All agencies
Lead Collaborator: USFS, KPB, Local fire service areas
Implementation Timeframe: Spring 2018 - ongoing
5. Explore opportunities to develop incentive-based programs that encourage landowners to complete fuel reduction projects on private property.
Collaboration Level: All agencies

Lead Collaborator: KPB, DOF, USFS
Implementation Timeframe: Winter 2018 - ongoing

Performance Measures:

1. Number of FAC coalitions created.
2. Number of CWPP mitigation projects completed as a result of FAC implementation.
3. Number of landowners that benefit through the development of fuel reduction projects on private property.
4. Number of individuals that register onto the Borough's emergency notification system @kpbalerts and register onto the multi-agency blog at www.kpboem.com as a result of outreach campaign strategies.
5. Opportunities and incentives are created that directly benefit landowners.

Goal 3 – Wildfire Response

Desired Outcome:

All jurisdictions participate in making and implementing safe, effective, efficient, and risk-based wildfire management decisions. Each agency's role and responsibilities contribute to the success of interagency wildland fire management, which includes *a way for people to understand the connections: what principles guide fire management decisions, suppression response priorities, and how local communities play a role in wildfire response and preparedness.*

All Alaska fire management protection agencies recognize the differences in missions among local, state, tribal and federal agencies and have collaborated with jurisdictional agencies to develop wildfire management options that consider a full range of responses to wildfires; from direct suppression strategies designed to minimize fire size and control fire spread, to intermittent surveillance of fires that are allowed to spread naturally across the landscape. The initial strategy for all incidents is based on protection of the following priorities: life, property, and resource. There are numerous factors that are considered when developing fire management strategies including: firefighter safety, pre-designated fire management option⁵ at the point of origin, probability of success, availability and prioritization of firefighting resources and consideration of the overall statewide fire situation. Further, the fire management community provides immediate response to wildfires threatening communities. Maintaining this diligence and expanding our toolbox is critical to upholding the values of residents and visitors to live, work and recreate on the Kenai Peninsula.

Strategic Actions:

1. Develop and implement standards and protocols that strengthen national mobilization capabilities.

⁵ For a thorough definition of fire management options, reference the Alaska Interagency Wildland Fire Management Plan <https://fire.ak.blm.gov/administration/asma.php>.

2. Invest in the wildland firefighting workforce at all levels (federal, state, tribal, territorial, and local) to meet the increasing complexities and demands of firefighting in the wildland urban interface.
3. Manage wildfires to both protect values and accomplish resource management objectives.

Implementation Tasks:

1. Manage lightning-caused wildfires as natural ecological processes that are allowed to occur upon the landscape to the extent feasible with due consideration for life, safety, and potential impacts to values at risk.

Collaboration Level: All

Lead Collaborator: DOF, USFS

Implementation Timeframe: Ongoing

2. Initiate planning session(s) involving potentially affected stakeholders for wildfires that extend beyond initial attack to set the strategic direction in restoring and maintaining landscapes as well as creating fire adapted communities. Employ flexibility in tactics to reduce overall costs, lessen firefighter exposure, and enhance ecological benefits.

Collaboration Level: Those with protection and jurisdictional responsibilities

Lead Collaborator: Varies

Implementation Timeline: ongoing

3. Promote fire management strategies that enhance the transparency of fire management planning and decision making, in addition to describing the role of wildland fire.

Collaboration Level: All

Lead Collaborator: KPB, DOF, KNWR

Implementation Timeline: ongoing

4. Promote resource protection during firefighting operations. Apply Minimum Impact Suppression Tactics (MIST) during wildland fire suppression whenever possible. Minimize invasive species into disturbed areas by employing best practices for backcountry use and equipment washing where needed.

Collaboration Level: DOF, USFS, USFWS

Lead Collaborator: USFWS

Implementation Timeline: ongoing

5. Improve relationships with volunteer fire associations through joint training or modified agreements.

Collaboration Level: USFS, DOF

Lead Collaborator: USFS, DOF

Implementation Timeline: ongoing

6. Enhance wildfire response capacity through multi-agency collaboration.

Collaboration Level: All
Lead Collaborator: USFS, DOF
Implementation Timeline: ongoing



Performance Measures:

1. Track the number of lightning-caused fires managed to enhance landscape resilience. These fires serve their natural role, especially in areas designated as Limited fire management option under the AIWFMP.
2. After Action Reviews are conducted after wildfires that are managed beyond the initial attack phase and include affected stakeholders. Reviews generally find that, to the degree feasible, the strategic objectives and management requirements for each were effectively addressed during management of the wildland fire. These reviews allow for valuable dialogue to occur between stakeholders to improve fire management response and strategic development for future incidents.
3. The public understands the role of fire in the Kenai Peninsula forests and how wildland fire is managed. Public support for hazardous fuel reduction and fuel breaks helps agencies conduct

projects to protect values at risk. Communicating this support to senators and legislators' influences borough and state budgets.

4. Resource advisors are used during wildfire management activities to ensure MIST and invasive species best management practices are adhered to. Coordinate with state or local entities to maintain a seed bank of native plants, grasses and trees that can be used by partnering landowners and land managers.
5. Number of joint trainings and agreements with VFDs increases beyond that of 2018.
6. A framework is created that enhances wildfire response capacity through multi-agency workforce development opportunities, identifies position-specific redundancy, expands cross training between wildland and structural fire response, promotes continuity of operations, etc.

MONITORING AND EVALUATION

A formal review process will be established to monitor and evaluate performance and effectiveness, suggest revisions, and make necessary adaptations to the strategy at all levels on a regular basis. Revisions will also integrate new information obtained from scientific research as well as third party review and analysis of findings.

Implementation Tasks

1. Strengthen capabilities to collect, analyze, interpret and integrate all types of data and information, including recognized data gaps, to provide for sound decision-making.
 - a. Build relationships and developing future projects based upon the adopted framework that is detailed in the plan's goals.
 - b. Reference annual Forest Service forest health protection reports to monitor forest health conditions.
 - c. Support access to data and imagery collected for use by others through Alaska-based systems and networks.
 - d. The agencies that collect remotely sensed data will to the extent possible share collected data across jurisdictions.
2. Utilize performance measure and monitoring information to assess effectiveness and accountability.
 - a. Monitor selected ALL LANDS/ALL HANDS projects and activities to assess progress and effectiveness of planning and implementation.
 - b. Monitor variability in stand age and species diversity. Integrate information gained from LANDFIRE re-map and other mapping efforts, such as the Kenai Peninsula 2018 vegetation map update.

- c. Document the number of successful outreach partnerships formed and information gathered through public engagement venues that result from a strategic communications plan that addresses fire behavior as it relates to forest health and risk.
 - d. Correlate available fish and wildlife information with vegetation and cover type information, relative to fire and forest management as applicable.
- 3. Develop capabilities and support training and utilization of support tools to better inform decision-making and trade-off analyses at all levels of fire and land management.
 - a. Burn severity maps are generated for fires over 1,000 acres through the interagency program Monitoring Trends in Burn Severity (MTBS). Consider conducting post-fire Burned Area Assessments to measure changes in forest structure as associated with watersheds and habitats on wildfires over 5,000 acres. Use completed photogrammetry as a baseline for measurements.
 - b. The USFS Quantitative Wildfire Risk Assessment will include all jurisdictions on the Kenai Peninsula and can be used as a basis for evaluating the progress and prioritization of treatments.
 - c. The relative risk of fire impacts to high priority areas (structures, infrastructure, watersheds) is demonstrated through the use of fire analysis models such as short-term fire behavior, near-term fire behavior, and FS Pro.
 - d. *Evaluating the Effectiveness of Fuel Treatments in Alaska* Final report (Little 2018) is referenced during the planning phase of projects to incorporate methods common to demonstrated successes.
- 4. Document successes and determine common themes of successful projects. Maintain knowledge and information resources that are easily accessible to stakeholders.
 - a. Meet at least twice annually to discuss ALL LANDS/ALL HANDS progress and effectiveness and recommend changes as needed.
 - b. Maintain an annual summary of agency accomplishments in a common database and report.
 - c. Fuels Treatment Effectiveness Monitoring is used in conjunction with wildland fire management actions to evaluate the effectiveness of different types of treatments.
 - d. Reference *Evaluating the Effectiveness of Fuel Treatments in Alaska* Final report JFSP Project when evaluating the success of projects.

Data Management and Reporting

From inception to 2017, the KPB-SBB Office has been the collaborating agency responsible for the creation, distribution, storage and maintenance of All Lands All Hands interagency geospatial and land management data and for Plan reporting and documentation. Collaborating agencies support migration of this data to a statewide repository.

CONCLUSION

Reducing the risk of wildland fire on the Kenai Peninsula has been, and always will be, a community-based responsibility. We face the threat of fire's impacts knowing that we live in a wild and beautiful place that is dependent on fire's role for the forests, wildlife, and great expanses of wildlands that we know as our backyard. While government agencies can guide the path forward by providing tools, information, and facilitation to attain a safer status from wildland fire, it is up to each resident to work with their neighbor and manage their private property in a way that is respectful toward the safety of others. This is the essence of a truly fire-adapted community that has learned to co-exist with fire.



Sizing up the 2014 Funny River Fire shortly after ignition.
Photo credit: KNWR

INDEX OF AGENCY ACRONYMS

AWFCG	Alaska Wildland Fire Coordinating Group
ADF&G	Alaska Department of Fish & Game
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
DOF	State Division of Forestry
JFSP	Joint Fire Sciences Program
KPB	Kenai Peninsula Borough
NPS	National Park Service
NWCG*	National Wildfire Coordinating Group
SRD	USFS Seward Ranger District, based in Moose Pass
USDA	United States Department of Agriculture
USDI	United States Department of Interior
USFWS	United States Fish & Wildlife Service
USFS	United States Forest Service

**NWCG provides national leadership to develop, maintain, and communicate interagency standards, guidelines, qualifications, training, and other capabilities that enable interoperable operations among federal and non-federal entities. NWCG will facilitate implementation of approved standards, guidelines, qualifications and training. Functions: • Develops and proposes standards, guidelines, training, and certification for interagency wildland fire operations. • Maintains approved standards, guidelines, training, and certification for interagency wildland fire operations. • Participates in the development of operational standards and procedures for non-fire incident and emergency management to ensure consistency and interoperability.*

Other Acronyms

AIWFMP	Alaska Interagency Wildland Fire Management Plan
CWPP	Community Wildfire Protection Plan
HFRA	Healthy Forest Restoration Act
IFTDSS	Interagency Fuel Treatment Decision Support System
KP	Kenai Peninsula
NFP	National Fire Plan
SBB	Spruce Bark Beetle
WUI	Wildland Urban Interface

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Fighting fire with fire.
Photo credit: KNWR