

BRIEFING PAPER

Title: Alaska Fuel Breaks to Reduce Risk Division of Forestry (DOF)

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Issue: Wildland fire is a regular occurrence in the boreal forests of Alaska. About eighty percent of the population resides in communities at risk from wildland fire. The threat to these communities is increasing due to expanding suburban construction in or near forested areas, the spruce beetle outbreaks that have caused over a million acres of spruce tree mortality in the Susitna and Kenai regions, and fire seasons that are starting earlier and ending later than historic norms. Fire activity has increased significantly over the past several decades with the top three years of area burned occurring since 2004. Additional measures are needed to help reduce the risks to residents, communities, infrastructure, and other values at risk, including regional and local economic impacts during long duration incidents.

Background: The utilization of fuel breaks on forestlands in and near communities is an effective technique to adapt to the changing fire regime and provide for public safety and cost savings in terms of values lost in wildfire events. Many of Alaska's fuel breaks were initiated in the late 1990's. Most were funded through federal competitive Wildland Urban Interface (WUI) grants from the U.S. Forest Service (USFS). Planning for projects begins with a Community Wildfire Protection Plan (CWPP) developed in conjunction with local governments. An important component of the process is the identification and mapping of land ownership, vegetation, and infrastructure to identify areas of high risk. This information is utilized to develop specific actions for residents and public land managers to implement. This approach builds wildfire adapted and resilient communities where residents and community leaders are part of the process and solution.

Individual actions utilize Firewise concepts to educate homeowners on risk reducing measures they can implement on their property. When these actions are completed by the homeowner, they can be reimbursed for up to fifty percent of the treatments via DOF administered cost-share programs.

At the landscape level, fuel breaks have been successfully used to provide a safe and strategic location for firefighters to defend communities from wildfire. With proper funding, planning, and maintenance, fuel breaks can continue to play a critical role in the protection of Alaskan communities.

Recommended Solutions:

Current Fuel Breaks Maintenance- Fuel breaks established during the late 1990's and early 2000's will require additional clearing to maintain effectiveness. Maintenance requirements vary depending on fuel types, with the most common treatment utilizing a roller chopper, which mulches 15 to 20-year-old regrown vegetation. In shaded fuel breaks, hand crews clear and burn dead and down trees. Maintenance of this type is estimated to cost between \$1.5 to \$2.0 million.

New Fuel Breaks and Firewise Projects- As identified by CWPPs and DOF fire staff, these communities have projects in need of design and funding: Delta Junction, Glennallen, Upper Tanana Valley, Fairbanks, Healy, Caswell, Meadow Lakes, Houston, Kenai, Homer, Sterling, and villages throughout western Alaska. The cost estimate is \$18 million.

Benefits- The use of fuel breaks during actual incidents has occurred several times over the past decade and in 2019 alone resulted in the protection of structures and land valued at \$846.2 million. Investment in these projects will also create opportunities for contractors, extend the seasonal employment of our fire fighters, which will improve retention in the workforce, and create opportunities for woody biomass use in communities.

Funding Mechanisms- Funding for fuel breaks and Firewise projects has been based on a competitive grant process via the USFS. Projects have a three to five-year window to utilize the funds and the competitive aspect makes year-to-year planning difficult due to uncertainty of receiving a grant. Projects are developed by individuals with special skills and experience, so treatments are tactically sound and cost efficient. To complete projects currently identified, approximately \$20.0 million would be required. An alternative to a one-time capital funding approach could be an annual multi-year operating or capital appropriation of \$2.0 million. Either approach would provide the consistency to implement fuel treatments in a methodical and coordinated process to help protect Alaskan communities from catastrophic wildfire.