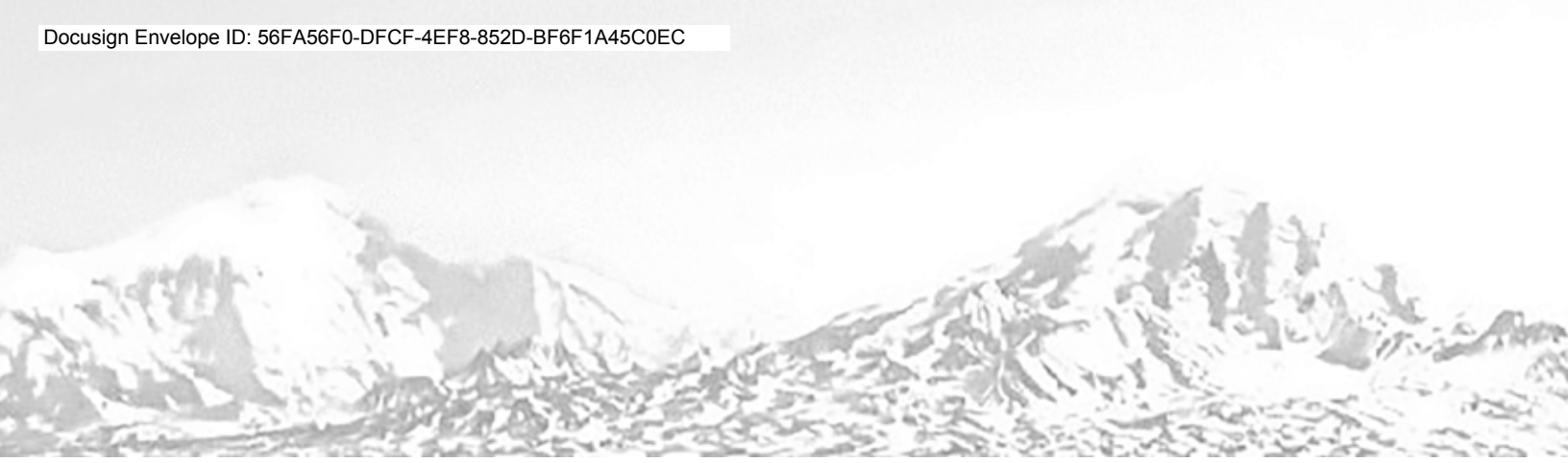
COMMUNITY WILDFIRE PROTECTION PLAN

Slana — Nabesna

VALDEZ - COPPER RIVER
DIVISION OF FORESTRY & FIRE PROTECTION

ALASKA DIVISION OF FORESTRY & FIRE PROTECTION



A Cooperative Agreement Grant provided funding through BLM, Glennallen Field Office to SOA, Valdez-Copper River Area Forestry & Fire Protection. We appreciate the opportunity this grant gave our office to create, develop and execute writing ten (10) Community Wildfire Protection Plans for the Copper River Basin. Partnerships like this help agencies plan, collaborate, and take action to make our communities safer and better prepared in the event of large-scale wildland fire.

The Valdez-Copper River Area Community Wildfire Protection Plans have been created and written by Emily Hjortstorp, CWPP Project Coordinator, and Jenny Moser, Wildland Fire Prevention Lead, along with help and input from the local community and 3rd party resources. Guidelines suggested in “Preparing a Community Wildfire Protection Plan — A Handbook for Wildland-Urban Interface Communities” that is posted on the State of Alaska Website were followed during the development of this plan. An interactive website and a local Valdez-Copper River Area Forestry & Fire Protection logo were also created through this grant funded project.

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Executive Summary

Wildland fire is a natural event in the boreal forest, which extends throughout much of Alaska, including the Copper River Basin. Being a fire-prone ecosystem, the effects of fire are needed to regenerate old forests, introduce nutrients to the soil, and create a mosaic pattern on the landscape of new-growth vegetation, which provides diversity and valuable animal habitat. While fires in the wildlands of Alaska can be beneficial, they are extremely destructive to our communities, infrastructure, areas of cultural significance and resource values. These areas must be protected from the threat of wildland fire. Thunderstorms and associated lightning strikes are a frequent cause for wildland fire concern during the summer. An even greater threat of wildland fire is posed by human-caused fires, often started in or around our communities which cause more damage with less acres burned, than a lightning caused wildland fire in a remote area.

Proper planning and preparation can reduce the destructive effects of wildland fire. This Community Wildfire Protection Plan (CWPP) analyzes the risk of wildland fire to the Slana / Nabesna community planning area and mitigation efforts to reduce future wildland fire hazards.

The community risk/hazardous fuels assessment confirms that the fuel accumulation and threat of danger from wildland fire to Slana / Nabesna is high. This rating is due to vegetative fuel types and configuration in and outside the community. Hazards that reside in the Slana / Nabesna planning area consist of expanses of dry grass during pre-season green up, consistent strong and erratic winds from the mountains and rivers, as well as long response times for emergency resources with limited radio communications. Many homes do not have adequate defensible space and are surrounded by hazardous debris including inoperable vehicles, uninhabitable trailers, and buildings.

Additionally, in the 1990s, the Kenai Peninsula and Copper River Basin experienced a spruce beetle *(Dendroctonus rufipennis)* outbreak that affected nearly 2.3 million acres by its peak in 1996, killing most large diameter spruce trees in many parts of these regions *(Werner et al. 2006)*. The Copper River Basin saw large scale infestation from Alaska spruce beetle for many years during this outbreak, resulting in heavy fuel loading of standing and fallen beetle-killed spruce. The result of over a decade of this epidemic is heavy fuel loading of standing and fallen beetle killed spruce. Spruce beetle is a natural forest disturbance much like wildland fire, which can cause an increase in fuel loading and resistance to suppression efforts. These conditions set the stage for a catastrophic wildland fire event if efforts are not taken to reduce the risk.

Based on community input from the 2021/2022 survey results, top hazards Slana / Nabesna residents identified include lack of clear road signage, remote location leading to long emergency response times, unsafe burning practices by both residents and nonresidents to include tourists, needs for equipment and training for the Volunteer Fire Department, no subsurface water source, there is only surface water sources available to fill emergency equipment and the need to have homes and businesses firewised as well as a large fuel loading of beetle killed trees.

The community risk and wildland fire hazard ratings are used to create an action plan to reduce the risk of catastrophic wildland fire. The plan evaluates various risk elements, encompassing vegetation types prone to fueling fires, such as black and white spruce, mixed hardwood forests and grass and shrub lands. These fuels pose high flammability and can contribute to fires of intense magnitude. Additionally, within the community, there are added hazards like tall dry grass during pre-green up, debris, abandoned inoperable vehicles near residences, and challenges to emergency responders increasing the risk and hazards of wildland fire potential and emergency response. Beyond the community periphery, corresponding vegetative fuels extend wildland fire risk.

Though natural barriers like the Copper River and elevated terrain with sparse vegetation offer some defense, notable vulnerabilities persist, particularly to the north and south of the community to include high concentration and continuous fuels which pose a threat to the wildland-urban interface.

Background

The Slana / Nabesna Community Wildfire Protection Plan (CWPP) is a collaborative effort created in response to the 2003 Healthy Forest Restoration Act (HFRA) which directs communities at risk for wildland fire to develop a risk assessment and mitigation plan. The Community Wildfire Protection Plan (CWPP) process assists communities in developing an appropriate and desired wildland fire protection plan to guide future mitigation efforts. Completion of this CWPP involved the following steps:

- Identify stakeholders, land management agencies and interested parties.
- Establish a community planning area.
- Develop a community risk assessment.
- Ongoing opportunities for community input through surveys, public meetings, and creation of a dedicated website.
- Address priorities through stake holder meetings and opportunity for public input.
- Development of an action plan and task matrix.
- Finalization of the plan with a total of three public community meetings throughout the process.

This Community Wildfire Protection Plan will be the first for Slana / Nabesna. Creating a cost share program that can be implemented in the following years to assist homeowners with costs that they encounter to create defensible space around their homes is a goal outlined in the Action Plan. This type of program was developed for the Glennallen and McCarthy communities in 2009 and 2011. This was a highly successful program that resulted in many homeowners clearing trees and creating adequate defensible space around their residences. The natural conditions surrounding Slana / Nabesna remain equally concerning, with areas of beetle killed trees and fuel loading of dead and down trees, that pose a threat to the wildland urban interface.

Refer to Appendix A for guidance on Alaska statewide interagency wildland fire management response and planning.

Collaboration

The Alaska Division of Forestry and Fire Protection (DOF)/ Valdez-Copper River Area office partnered with members to help with the identification, assessment and prioritization areas of greatest risk and vulnerability in the event of a wildland fire.

- **Ahtna Inc.**
- **Bureau of Land Management (BLM)**
- **Bureau of Indian Affairs (BIA)**
- **Fjørdland Fire Solutions LLC.**
- **Local landowners, business owners, and community**
- **Slana / Nabesna Volunteer Fire Department a sub VFD directly connected to Gakona VFD**
- **Valdez-Copper River Area Division of Forestry & Fire Protection (DNR)**
- **Wrangell - St. Elias National Park and Preserve (NPS)**

COMMUNITY PROCESS

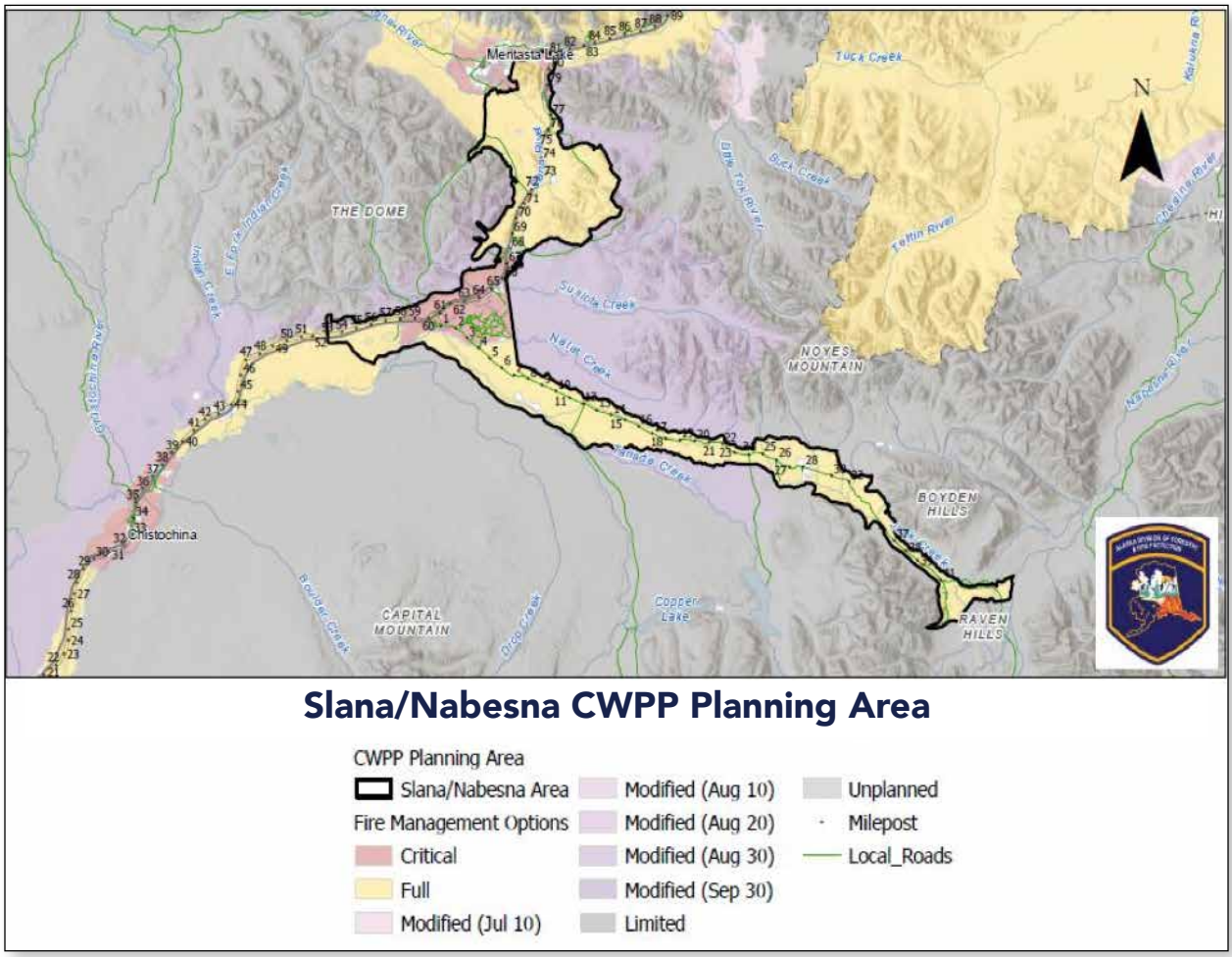
Community input was solicited by in-person visits to Slana / Nabesna including both formal and informal meetings, presence at public events, online and mail delivered surveys, social media, and a collaborative website displaying the latest information. All ideas were collected and analyzed to determine the priority needs and actions included in this plan.

CWPP PLANNING AREA

A Wildland Urban Interface (WUI) Boundary is the line where human development meets and intermingles with undeveloped wildland and vegetative fuels. The Slana / Nabesna (WUI) Boundary is designated to incorporate the surrounding Critical and Full-Fire-Management option, which includes all residents and infrastructure of the area as well as the surrounding lands that would cause a threat in the event of a wildland fire. A fire management option is a classification assigned by the jurisdictional agency that provides fire protection and determines the initial response to a wildland fire. The goal is to mitigate the potential of catastrophic wildland fire within this boundary by recognizing the hazards, prioritizing, and developing an action plan with clear goals and objectives.

Critical-Fire-Management option is defined by the State of Alaska and Alaska Fire Service as “The highest priority for suppression actions. Lands in wildland urban interface and other densely populated areas where there is an immediate threat to human life, primary residences, inhabited property, community-dependent infrastructure, and structural resources designated as National Historic Landmarks should be considered for the Critical Management Option. This classification is applicable to an entire village or town as well as a single inhabited structure."

Full-Fire-Management option is defined by the State of Alaska and Alaska Fire Service as “High priority but below Critical. Provides for protection of moderately populated areas, cultural and archeological sites, developed recreational facilities, physical developments, administrative sites and cabins, structures, high-value natural resources, and other high-value areas.”



The Slana / Nabesna Community Wildfire Protection Planning Area covers from mile 53 to 81 on the Tok Cut Off Highway and extends to the east to include the entire 40-mile Nabesna Road. This planning area includes the Winter Trail that follows the north and eastern Raven Hills, zig-zagging including parts of Jack Creek to the Nabesna River expanding to the foothills of the eastern side of Mt. Sandford.

Community Profile

Slana is located along the Nabesna Road, which runs southeast of the Tok Cut Off, about 75 miles from Glennallen. The Slana community developed rapidly in the 1980s when homesteads were offered for settlement by the federal government.

Nabesna is located at the end of the Nabesna Road 43 miles from Slana. In 1930 Nabesna first appeared on the U.S. Census as an unincorporated mining village. It appeared again in 1940's and 1950's however, did not appear again until 2010, when it was made a census-designated place.

In 1923, the Nabesna Mine opened, at its height the mine employed 60 people. Over thirty different minerals were extracted from this site, although gold was the primary source of profit. It operated sporadically through the late 1940's.

Slana is an Alaska Native village name, derived from the name of the Slana River. Slana developed rapidly in the 1980's when homesteads were offered for settlement by the federal government. Slana grew around the Slana Roadhouse, which is listed in the U.S. National Register of Historic Places.

Both, Slana and Nabesna, are inhabited by yearlong residents with an influx of tourists during the Spring, Summer, and Fall months. These communities are remote with extensive response times. Spruce trees line these communities with dense fuel loading. This is a continuously forested land of spruce and mixed hardwood, areas impacted by beetle kill from an outbreak in the 1990's, various fire scars from the Drop Creek, Nabesna River, Cobb Lakes, Ahtell Creek, Carlson Lake, Indian, Cutoff and many more dating back to the 1940's to present are evident of Wildland fire within this planning area. Today, according to the 2020 census data, there are 116 people living in Slana while only 2 people are register as full-time residents of Nabesna. During the summer outdoor recreational bring large number Alaskans and tourists to the Slana / Nabesna area. Gardening, berry picking, herb gathering, and hunting are popular pursuits among locals. Winter activities include trapping, snow machining, and ice fishing.

The natural resource values in Slana / Nabesna consist of subsistence fishing, hunting, forest foraging, berry picking and personal use firewood timber harvesting.

LOCATION

The Community of Slana is in the Copper River Basin in South Central Alaska. Their general geographic location is approximately 62.712° north by -143.989° west longitude, Township 11 north, Range 8 east, Section 29, in the Copper River Meridian.

The Community of Nabesna is in the Copper River Basin in South Central Alaska. Their general geographic location is approximately 62.482° north latitude by -143.148° west longitude, Township 11 north, Range 13 east, Section 21, in the Copper River Meridian.

POPULATION

According to the 2020 census data there are 116 people living in Slana while only 2 people are register as full-time residents of Nabesna.

CRITICAL FACILITIES (INFRASTRUCTURE)

There are a total number of 209 homes in Slana / Nabesna, 70 are occupied and 139 vacant, recreational cabins or uninhabitable homes.

Other community buildings and businesses include 2 local lodge that provide housing, a National Park Ranger Station, a local DOT road maintenance building, Slana public K-12 School, churches, Local VFD building that is also used a community gathering place and Bed & Breakfasts establishments, campgrounds as well as public use cabins.

Slana / Nabesna have limited infrastructure. All roads in Slana / Nabesna, aside from the first fifteen (15) miles of the Nabesna Road, are gravel or dirt. The Nabesna Road is maintained by DOT. Industry sources for the Slana / Nabesna planning area include farming, tourism, fishing, jobs supplied by local lodges and guiding businesses, Slana School and the Wrangell - St. Elias National Park and Preserve (NPS). There is not a local dump; The closest dump is in Glennallen about 75 to 120-miles from the community, this privately owned dump facility serves the entire Copper River Basin.

SEASONAL FACTORS

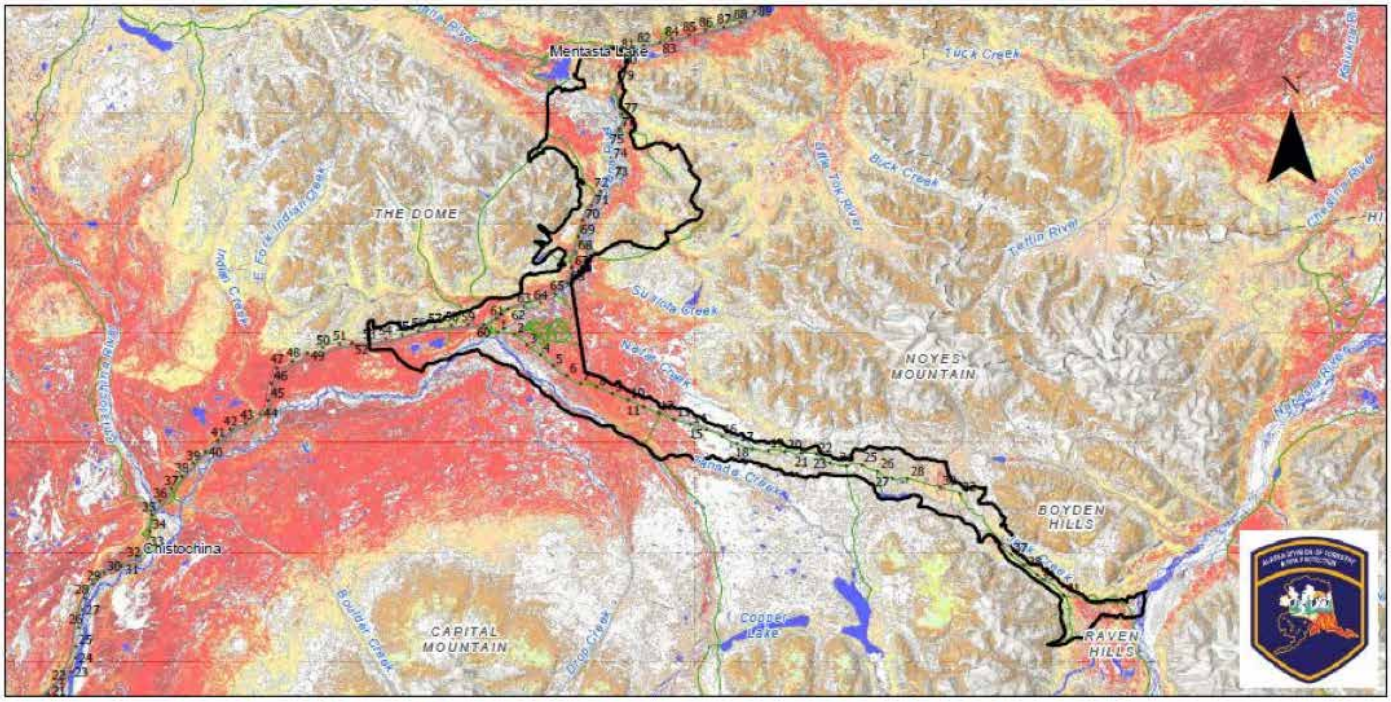
Spring pre-green up grass poses wildland fire threat, commonly found around structures and previously cleared areas. Summer thunderstorms bring frequent lightning from mid-June to mid-August bringing the potential of lightning caused fires. During the summer, exploring the Wrangell - St. Ellias National Park and Preserve in the Copper River Basin brings many Alaskans from all over the state as well as other tourists to the Slana / Nabesna area increasing the risk of wildland fire within the WUI.

WILDLAND FIRE HISTORY

Large fire history in the surrounding area:

- 2012 Drop Creek Fire burned over 22 acres within the Slana / Nabesna planning area.
- 1967 Ahtell Creek Fire burned over 2,257 acres within the Slana / Nabesna planning area mile 61 to mile 64 of the Tok Cut Off Road.
- 1958 Bone Creek Fire burned over 2,017 acres southwest of the Slana / Nabesna planning area.
- 1953 Carlson Lake Fire burned over 1,043 acres within the Slana / Nabesna planning area.
- 1948 12 Mile Slana River Fire burned over 2,115 acres within the Slana / Nabesna planning area near mile 72.5 to 75.5 of the Tok Cut Off Road.
- 1948 Nabesna River Fire burned over 6,224 acres within the Slana / Nabesna planning area extending to the north of the planning area.
- 1942 Cobb Lakes Fire burned over 685 acres near mile 55.5 to 57.5 Tok Cut Off Road of the Slana / Nabesna planning area.
- From 1940 To the present, numerous human caused fires can be found in the Alaska Fire History Location database within Slana / Nabesna CWPP Planning area. These, wildland urban interface (WUI), fires were smaller in size; however, if they were not contained while small, they could have led to a catastrophic outcome.

Community Risk Assessment



Slana/Nabesna Vegetation Type Risk Map

CWPP Planning Area

- Slana/Nabesna Area
- Milepost
- Local_Roads

LANDFIRE EVT 2016

- Alaskan Pacific Wet Low Shrubland & Floodplain Wetland
- Alaskan Pacific-Aleutian Alder-Salmonberry-Copperbush Shrubland
- North American Arctic-Subarctic Tussock Tundra
- Western North American Boreal Alpine Dwarf-shrubland
- Western North American Boreal Alpine Mesic Herbaceous Meadow
- Western North American Boreal Black Spruce Bog and Dwarf-Tree Peatland
- Western North American Boreal Black Spruce-Tamarack Fen
- Western North American Boreal Dry Aspen-Steppe Bluff
- Western North American Boreal Dry Grassland
- Western North American Boreal Freshwater Emergent Marsh
- Western North American Boreal Mesic Birch-Aspen Forest
- Western North American Boreal Mesic White Spruce Forest
- Western North American Boreal Mesic-Wet Black Spruce Forest and Woodland
- Western North American Boreal Riparian Stringer Conifer Forest
- Western North American Boreal Shrub Swamp
- Western North American Boreal Spruce-Lichen Woodland
- Western North American Boreal Treeline White Spruce Woodland
- Western North American Boreal Wet Black Spruce-Tussock Woodland
- Western North American Boreal Wet Meadow
- Western North American Boreal Treeline Hardwood-White Spruce Woodland
- Western North American Boreal Treeline White Spruce-Hardwood Woodland
- Western North American Boreal Mesic Hardwood-White Spruce Forest
- Western North American Boreal Mesic White Spruce-Hardwood Forest
- Alaska Sub-boreal White-Lutz Spruce-Hardwood Forest and Woodland
- Western North American Boreal Mesic-Wet Black Spruce-Hardwood Forest and Woodland
- Western North American Boreal Lowland Large River Floodplain Shrubland (Conifer Forest)
- Western North American Boreal Herbaceous Floodplain
- Recently Burned-Tree Cover
- Open Water
- Developed-Open Space
- Agriculture-Cultivated Crops and Irrigated Agriculture

LandFire (EVT) 2016
symbology edited to reflect fire danger

RISK/HAZARD ANALYSIS, AVAILABLE FUELS

The Copper River Basin is classified as Fire Regime Group IV, which means a Stand-Replacement-Severity fire is expected every 35-100+ years.

The image above shows vegetative fuels with the color corresponding to their flammability or fire danger in prime fire weather conditions. Fuels shown in shades of red constitute coniferous needle-bearing trees, primarily black or white spruce, which are highly flammable in high fire danger conditions. Orange tone vegetative fuels consist of a more mosaic mix of spruce and hardwoods or more open canopy structure. While still highly flammable, these vegetative fuel types constitute less of a threat than a continuous closed canopy forest. Yellow tone vegetative fuels display hardwood, willow, and alder type shrubs and grassland areas, while the green and blue tones show the subalpine brush component found near and above the tree line at higher elevations. In the right conditions, these areas can still burn and show resistance to control; however, they are less of a threat than the spruce component of the boreal forest in the Slana / Nabesna planning area.

Other areas of concern include spring pre-green up conditions, where tall and matted dry grass is abundant in Slana / Nabesna around homes and the community to include farms.

COMMUNITY RISK ASSESSMENT

Rating Elements

1. **RISK/HAZARD ANALYSIS** of available fuels **inside** community (inside community to 1 mile)
2. **RISK/HAZARD ANALYSIS** of available fuels **outside** community (1–10 miles)
3. **BARRIERS,** natural and man-made
4. **FIRE PROTECTION RESOURCE AVAILABILITY**
5. **COMMUNITY FIREWISE RATING**
6. **OVERALL COMMUNITY RATING**

1. INSIDE COMMUNITY:

The rating area includes lands within one mile of the community in all directions. The rating is based on history/likelihood of fire in the community and the availability of hazard fuels.

Rating: High

Based on potential ignition sources and surrounding fuel types, the risk of fire spreading from within the community is high. Fires that start within the community are primarily human-caused and could be extinguished by community members if they have the necessary equipment and training. The times of highest concern are spring when pre-green up conditions exist, and tall, thick, and often matted grass is prevalent around many structures. Additionally, debris, trash, and inoperable vehicles are prevalent within the community boundary, creating a hazard. Many residents and businesses use burn barrels to dispose of organic waste. This area sees a large influx of recreational users in the spring, summer, and fall (tourists traveling to the Wrangell - St. Elias National Park and Preserve, salmon fishermen, rafters, and hunters). Camping in non-designated spots is very common, and these users pose a very high risk of leaving campfires unattended or not fully extinguishing their fire. Additionally, vehicles utilizing non designated camping sites or traveling on off road trails could ignite fires in dry grass or vegetative fuels. Wildland fuels within one mile of Slana / Nabesna consist primarily of spruce and spruce-mixed hardwood forest with pockets of beetle killed trees.

2. OUTSIDE COMMUNITY:

The rating area is from 1–10 miles outside the community and is based on the history/likelihood of fire in the area and the availability of hazard fuels.

Rating: High

The potential for large fires to impact Slana / Nabesna is high. The prevalence and high concentrations of spruce (black spruce, white spruce, spruce/hardwood mix), insect (beetle-kill), and disease in mixed boreal forest and grass (seasonal cured tall standing or matted), are very receptive to wildland fire in high fire danger conditions. In addition to the influx of recreational users in the spring, summer, and fall, thunderstorms and associated lightning strikes are a frequent cause for wildland fire concern during the summer.

3. BARRIERS:

This includes water, natural and human-made features

Rating: High

Slana/Nabesna has a waterway, the Copper River, spanning the southern/western side of its CWPP boundary. Due to the concentrations of spruce between the waterway and the community, Slana/Nabesna is determined to be in the risk/hazard analysis category is high.

4. FIRE PROTECTION RESOURCE AVAILABILITY:

Includes local and agency resources

Rating: High

A rating of high for resource availability criteria states that adequate initial attack resources are more than 75 minutes away and adequate extended attack resources are more than 12 hours away. The Division of Forestry & Fire Protection (DOF) has statutory authority to protect forested lands from wildfire on state, private and borough lands and has a contractual agreement with the BLM Fire Service to provide protection of federal jurisdiction and Native lands.

Valdez-Copper River Area (DOF) response times are 60+ minutes by road and approximately 30 minutes by helicopter. Other air resources are 1 hour+ out, and extended attack resources could be as long as 12 hours away. During the peak fire season, a helitack crew and helicopter capable of bucket drops are available locally from May 10th to August 31st. The Slana Volunteer Fire Department (VFD) is a new formed substation of Gakona VFD the Gakona VFD response area is from mile 1–72 of the Tok Cut off Highway, mile 0-24 of the Nabesna Road, and mile 120 to 183 of the Richardson Highway, to include the Denali Highway turnoff. Slana VFD is currently not registered with the Fire Marshall's Office and does not receive notification from Matcom 911 dispatch however, the Gakona VFD which oversees the Slana VFD, does receive Matcom dispatch notifications and is registered with the Fire Marshall's Office. Gakona Volunteer Fire Department assists the Slana / Nabesna area in the event of a fire; however, they have longer response times. Equipment and training are needs of the Slana and Gakona VFD. Due to the terrain, radio communication is non-existent in many parts of the Slana / Nabesna planning area.

5. COMMUNITY FIREWISE RATING:

Includes landscaping, construction, water supply and access

Rating: High

LANDSCAPING: Less than 35% of homes and community buildings have a clearing of flammable vegetation at least 30 feet around the structure or have lawns that are mowed and watered regularly. Ladder fuels can be found throughout the community and in-between structures with pockets of trees lacking crown spacing. Tall and matted uncut grass can be found along road corridors and around structures, along with unoccupied and uninhabitable structures with debris, trash, and inoperable vehicles surrounding them.

CONSTRUCTION: Less than 35% of homes are made of fire-resistant or non-combustible construction materials. Roofing materials range from metal to wood shake roofs. Many structures do not have skirting around the bottom or other general Firewise and Home Hardening recommendations, such as covering vents and openings with wire mesh, cleaning organic debris off roofs and other surfaces that trap leaves and needles to prevent ember entrapment and ignition.

WATER SUPPLY: Between 35%–65% of homes do not have a reliable water source or the means to protect their property with a water source in the event of a wildland fire.

ACCESS: The only road access route that is at least 2 lanes wide and clearly marked is the Nabesna Road leading to the Tok Cut Off Road. Ample turnaround space for vehicles/fire equipment exists in less than 35% of homes and community buildings. Due to persistent landslides within the Copper Basin all roads that exist along bluffs and rivers are susceptible to sluffing. If there is not ongoing construction and road closures, there exists more than one escape route and multiple safety zones.

Escape Routes:

1. Nabesna Road east and west
2. Tok Cut Off Highway north and south

Safety Zones:

1. Slana K-12 School — located at mile 4 Nabesna Road
2. Slana Ranger Station — located at .2 mile Nabesna Road
3. Devil's Mountain Lodge Airport — located at the end of Nabesna Road
4. Slana Community Building — located at 4 Mile Rd. off Nabesna Road

6. OVERALL COMMUNITY RATING:

OVERALL RATING CHART SUMMARY

1. **INSIDE COMMUNITY RISK/HAZARD ANALYSIS** of available fuels inside community to 1 mi	HIGH
2. **OUTSIDE COMMUNITY RISK/HAZARD ANALYSIS** (available fuels outside community 1–10 mi)	HIGH
3. **BARRIERS**	HIGH
4. **FIRE PROTECTION RESOURCE AVAILABILITY**	HIGH
5. **COMMUNITY FIREWISE RATING**	HIGH

The overall assessment shows the threat of danger from wildland fire to the communities of Slana / Nabesna as high in all categories. Due to the remoteness and extended response time of resources with minimal communication, and continuous spruce, these communities overall risk rating is elevated to very high.

Wildland fire risk to the Slana/Nabesna community using Wildfirerisk.org is high. Slana/Nabesna is higher than 87% of communities in the United States. Risk is determined by the Risk to Homes national percentile rank of the selected community, county, tribal area or state. Low is less than 40th percentile; medium is 40th–70th percentile; high is 70th –90th percentile; very high is equal to or greater than 90th percentile. More information regarding this rating can be found www.wildfirerisk.org.

Action Plan

The Slana / Nabesna Community Wildfire Protection Plan (CWPP) aims to address the wildland fire risks in the Slana / Nabesna area, located in the Copper River Basin in Southcentral Alaska. This region is prone to wildland fires due to its boreal forest ecosystem, which requires fire to regenerate and maintain ecological balance. However, wildland fires pose significant threats to the communities, its infrastructure, and areas of cultural significance. Frequent lightning strikes and human activities are the major causes of wildland fires in the area.

The plan assesses various risk factors including the types of vegetation that can fuel fires, such as black and white spruce, mixed hardwood forests, and grass and shrublands. These fuels are highly flammable and can lead to high-intensity fires. Within the community, there are additional hazards like tall, dry grass, debris, and inoperable vehicles near homes, and inadequate road signage. Outside the community, similar vegetative fuels extend the risk zone up to 10 miles away.

Natural barriers like the Copper River and high elevation terrain provide some protection, but there are significant gaps. The local volunteer fire department (VFD) faces challenges due to limited resources and radio communication, inadequate training and equipment. Incoming emergency resources experience long response times.

By addressing these concerns and implementing appropriate measures, the plan aims to reduce the wildland fire risk to Slana / Nabesna, making it safer for residents and preserving its natural and cultural resources.

PRIORITIZED ASSESSMENT FINDINGS

1. Dry grasses especially around structures
2. Community roads do not have clear road signs
3. Firewise homes and community buildings
4. Driveways inaccessible to emergency vehicles
5. VFD needs more training and adequate equipment
6. Unsafe burning practices
7. Public wildland fire education
8. Lack of adequate radio communications
9. Long response times for first responders / firefighters
10. Identify other fuel reduction projects
11. Remote wildland urban interface helispots and cash sites
12. Create an evacuation plan
13. Protection of Native heritage sites
14. Lack of subsurface water source
15. Fire safety signage at public use areas
16. Community woody mass disposal site

TASKS AND MATRIX OF MITIGATION MEASURES

The following table is a task matrix and identifies solutions for each prioritized assessment finding listed in the previous section. Ensuring proper risk mitigation and potential entities that may address these tasks.

ASSESSMENT FINDING	ASSOCIATED TASK	RESPONSIBLE ENTITIES
Dry grasses especially around structures during pre-green up (Implementation)	1. Educate home and business owners on dangers of pre-green up dry grass and removal actions. 2. Implement mitigation program through grant funding.	Homeowners State of Alaska Division of Forestry & Fire Protection
Community roads do not have clear road signs (Implementation)	1. Update maps. 2. Clear brush around existing road signs. 3. Work with DOT to install new road signs.	Local Emergency Planning Committee Slana Community Corporation State of Alaska Department of Transportation State of Alaska Division of Forestry & Fire Protection
Homes and businesses need to be Firewised (Implementation)	1. Educate homeowners on Firewise and home hardening principles. 2. VFD participation on home/structure assessments and creation of defensible space. 3. Apply for a Firewise grant program that will establish a cost share program for homeowners. 4. Identify/designate an area or equipment for the community members to dispose of woody mass byproduct. 5. Apply for grant program and funding for a community cleanup project for removal of hazardous materials such as but not limited to inoperable vehicles, tires, and other hazards. 6. Complete a hazardous materials cleanup project on homes/structures within the planning area. 7. Adopt State of Alaska Stewardship Program model for Firewise home assessments.	Bureau of Indian Affairs Gakona Volunteer Fire Department Homeowners State of Alaska Department of Environmental Conservation State of Alaska Division of Forestry & Fire Protection
Driveways inaccessible to emergency vehicles/address ingress and egress concerns (Implementation)	1. Initiate contact with AK DOT and Native entities to have an assessment done and recommendations to widen main roads. 2. Apply for grants to assist homeowners in widening existing roads and driveways to support large firefighting apparatus to include brush clearing and/or widening roads.	Bureau of Indian Affairs State of Alaska Division of Forestry & Fire Protection
VFD training and equipment needs (Implementation)	1. Continue wildland fire response program with training, equipment, and coordination with the State of Alaska Copper River DOF office. 2. Strengthen local prevention programs in coordination with State of Alaska Copper River DOF office.	Gakona Volunteer Fire Department State of Alaska Division of Forestry & Fire Protection

ASSESSMENT FINDING	ASSOCIATED TASK	RESPONSIBLE ENTITIES
Unsafe burning practices (Implementation)	1. Implement wildland fire and debris burning safety programs into the community. 2. Hold community fire safety events and education opportunities. 3. Post signage and information around community, campgrounds and fishwheel sites.	State of Alaska Division of Forestry & Fire Protection
Public wildland fire education (Implementation)	1. Promote teaching general wildland fire knowledge to the community with emphasis on safe burning practices and creating defensible space through Firewise and Home Hardening programs. 2. Continue wildland fire education outreach in schools.	Bureau of Indian Affairs Gakona Volunteer Fire Department State of Alaska Division of Forestry & Fire Protection
Lack of adequate communications (Implementation)	1. Work with DOF to set up a permanent or seasonal repeater in Slana / Nabesna. 2. Coordinate use with multiple agencies including EMS and VFD. 3. Update VFD radios.	State of Alaska Division of Forestry & Fire Protection Wrangell - St. Elias National Park and Preserve
Long response times for first responders/firefighters (Implementation)	1. Advertise for recruitment of new VFD members. 2. Support VFD training needs. 3. Update equipment.	Gakona Volunteer Fire Department State of Alaska Division of Forestry & Fire Protection
Identity other fuel reduction projects and re-treatment of existing projects (Planning)	1. Determine areas where spring pre-green up grasses pose a threat. 2. Determine areas of beetle-kill and other dead-standing timber. 3. Identify other infrastructure to be protected, plan fuel reduction / fuels removal project to protect them. 4. Address work through mitigation plans.	Ahtna Inc. Bureau of Indian Affairs Bureau of Land Management State of Alaska Division of Forestry & Fire Protection Wrangell - St. Elias National Park and Preserve
Remote wildland urban interface helispots and cashe sites (Planning) (Implementation)	1. Identify and construct strategic helispots throughout Kennicott / McCarthy. 2. Helispots should correspond with a written structure protection plan and could include pre-established agency gear cashes. 3. Construct helispots at points that are dual purpose. i.e. fuel break/safety zone.	Bureau of Indian Affairs Bureau of Land Management State of Alaska Division of Forestry & Fire Protection Wrangell - St. Elias National Park and Preserve
Create an evacuation plan (Planning)	1. Have agencies work with each other to create a community emergency plan. 2. Include a centralized community contact list. 3. Include maps with road signage and house identifiers (in conjunction with community Firewise mapping). 4. Adopt Alaska Ready, Set, Go standards. 5. Work with State of Alaska Emergency Coordination Center and Copper Valley Telephone to set up an emergency alert system.	Cooper Valley Telephone Local Emergency Planning Committee Slana Community Corporation State of Alaska Division of Homeland Security and Emergency Management State of Alaska Division of Forestry & Fire Protection

ASSESSMENT FINDING	ASSOCIATED TASK	RESPONSIBLE ENTITIES
Protection of Native heritage sites (Implementation)	1. Native entities internally identify heritage sites to be protected. 2. Implement appropriate measures and desired fire suppression tactics for protecting these areas. 3. Insure they are denoted as "other land" contact land manager on Know Sites Database.	Ahtna Inc. Bureau of Indian Affairs State of Alaska Division of Forestry & Fire Protection Wrangell - St. Elias National Park and Preserve
Lack of subsurface water source (Implementation)	1. Identify area for community well to be drilled. 2. Apply for a grant to fund the project.	Copper River Development Association
Fire safety signage at public use areas (Implementation) (Planning)	1. Identify locations of high public use. 2. Obtain signage pertaining to fire safety and other responsible use of natural resources.	State of Alaska Division of Forestry & Fire Protection
Community woody mass disposal site (Implementation)	1. Identify/designate an area for the community members to dispose of woody mass byproduct.	Slana Community Corporation State of Alaska Division of Forestry & Fire Protection Wrangell - St. Elias National Park and Preserve

Summary, Review, and Updating Process

The community of Slana / Nabesna has a high risk of wildland fire potential and impact. Due to the type of fuels both inside and outside of the community, fire protection resource availability, and the overall community Firewise rating to include safety zones and escape routes, are all given the score of high wildland fire potential. Combined with high ratings for natural and man-made barriers. Slana / Nabesna's overall assessment findings show a high threat of danger from wildland fire.

Wildfirerisk.org outlines Slana / Nabesna wildland fire risk of 87% higher than other communities throughout the United States. (July 2024)

Through collaboration on this CWPP, community members and organizations, Native entities, and the Slana and Gakona VFD will take first steps to mitigate the potential negative impacts from wildland fire. The community along with its entities are encouraged to continue fuels mitigation, education, and implementation efforts that are consistent with the Alaska Firewise program.

This is a living document, where changes can be discussed and made at any time. A review and updating process for this CWPP is recommended to happen every three (3) years, not to extend past five (5) years. The Community Risk Assessment and Action Plan needs to be reviewed and updated by subject matter experts, through solicited information via public meetings with community members and landowners.

The following table represents the timeline that the Slana / Nabesna CWPP needs to be reviewed, updated and when it expires.

REVIEW: 3 YEARS	UPDATE: 5 YEARS	EXPIRE: 10 YEARS
December 1, 2028	December 1, 2030	December 1, 2035

Signature Page

This plan has been reviewed and approved by the following:

Signed by:
Norm McDonald – State of Alaska Forestry & Fire Protection, Deputy Director (Fire)
X_____ Date_____
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State of Alaska Forestry & Fire Protection, Deputy Director (Fire)

JOSHUA SCOTT Digitally signed by JOSHUA SCOTT
Date: 2026.01.09 13:06:36 -09'00'
X_____ Date_____

Wrangell - St. Elias National Park and Preserve

William M. Dunk Jr. Digitally signed by WILLIAM DUNK
Date: 2026.01.14 13:33:26 -09'00'
X_____ Date_____

Bureau of Land Management

JOLENE JOHN Digitally signed by JOLENE JOHN
Date: 2026.01.16 11:51:57 -09'00'
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Bureau of Indian Affairs

X_____ Date_____

Ahtna Inc.

Jason Severs Digitally signed by Jason Severs
Date: 2026.02.13 15:55:25 -09'00'
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VFD Community Representative

Appendix A

The Community Wildfire Protection Plan (CWPP) is a collaborative effort created in response to the 2003 Healthy Forest Restoration Act (HFRA) which directs communities at risk for wildland fire to develop a risk assessment and mitigation plan (Community Wildfire Protection Plan Guidance, 2023). The HFRA includes the following guidance:

> The minimum requirements for a CWPP as described in the HFRA are: (1) Collaboration: A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties. (2) Prioritized Fuel Reduction: A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure. (3) Treatment of Structural Ignitability: A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan *(H.R.1904 - Healthy Forests Restoration Act of 2003, 2003).*

Additionally, the Alaska Interagency Fire Management Plan, of which the State of Alaska Division of Forestry & Fire Protection is a signatory, recognizes that each of the land-managing Federal and State agencies and ANCSA corporations in Alaska have their own missions, goals, and objectives related to their lands and that to effectively prioritize and manage Alaska wildland fires there is a need to consider the full spectrum of initial responses to wildland fire; from suppression actions designed to contain and control wildland fire growth, to periodic surveillance of wildland fires that are allowed to spread naturally across the landscape. To accomplish this, jurisdictional organizations and protecting agencies have collaboratively assigned one of four wildland fire management options (Critical, Full, Modified, and Limited) to nearly all lands in Alaska. Pre-identified Wildland Fire Management Options allow fire managers to:

- Quickly prioritize areas for protection actions and the allocation of available initial attack 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 economic, social, and resource values identified for protection. (*Alaska Interagency Wildland Fire Management Plan*, 2024).

Wildland fire management in Alaska is a joint effort among federal, state, local, and tribal governments, native organizations, local fire departments, communities, and landowners. The land management agencies, also known as jurisdictional agencies, have the overall land and resource management responsibilities as provided by federal,

state, or local law. The “Alaska Master Cooperative Wildland Fire Management and Stafford Act Response Agreement” improves Alaskan fire management agencies’ efficiency in responding to wildland fire by facilitating the coordination and exchange of personnel, equipment, supplies, services, and funds while sustaining 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.

Furthermore, future conditions for wildland fire hazards, including climate change; an intensified pattern of wildland fire is emerging in Alaska as rapidly increasing temperatures and longer growing seasons alter the state's environment. Both tundra and boreal forest regions are seeing larger and more frequent wildland fires. The impacts of these fires are felt across the state. In response to changing wildland fire patterns, Alaska's fire management agencies are adapting quickly. The use of remote sensing tools, such as data from satellites, and science-based decision making have been a critical component in responding to intensified wildland fire seasons (State of Alaska State Hazard Mitigation Plan, 2023).

The Statewide Operating Plan (SOP) is applicable to all signatory parties to the Alaska Master Agreement (AMA). Its purpose is to address statewide issues affecting cooperation, interagency working relationships and protocols, financial arrangements, sharing of resources, and joint activities/projects.

Jurisdictional agencies (as identified in the Alaska Master Agreement) are responsible for all planning documents (e.g., land use plans, resource management plans, fire management plans, and decision support documents) for a unit’s wildland fire and fuels management program.

Protecting agencies (as identified in the Alaska Master Agreement) are responsible for implementing the actions documented and directed by the appropriate planning and decision support documents for initial and extended attack on wildland fire incidents. They provide supervision and support including operational oversight, direction, and logistical support to incident management teams (IMTs) (*Alaska Master Cooperative Wildland Fire Management and Standford Act Response Agreement*, 2020).

The State of Alaska Forest Action Plan (FAP) seeks to prioritize areas where forests matter most to Alaska’s people—forest lands and wildland urban interface areas that have been identified through the robust Alaska Interagency Wildland Fire Management Plan as having resources requiring fire protection; private forest lands including Alaska Native corporation lands; and state forests and state land classified for forestry. This plan also highlights the following key goals relevant to fire management on State of Alaska lands:

1. Cultivate fire adapted communities
2. Manage fuels to reduce risk to communities & to benefit forest ecosystems (*2020 Forest Action Plan*, 2020)

Similarly, the National Cohesive Wildland Fire Management Strategy Addendum Update (Addendum Update) identifies new drivers impacting the wildland fire management system. As Federal agencies, states, tribes, and the private sector all ramp up work together to meet the challenge of the wildland fire crisis, stakeholders are challenged to reach beyond individual, organizational, and historical silos to collectively define and understand their risk; set landscape-level and community-wide priorities; share and co-manage risk across boundaries and jurisdictions; accept some short-term risk for long-term benefit; and collectively invest in outcome-based approaches and activities, rather than outputs. The Addendum Update elevates critical issues like climate change and environmental justice and defines key challenges that are not limited to one agency or organization, provides new guidance for stakeholders addressing today's wildland fire challenges and aims to "safely and effectively extinguish fire, when needed; use fire where allowable; manage natural resources; and collectively, learn to live with wildland fire." The updated National Cohesive Strategy goals include:

1. Resilient Landscapes – Landscapes, regardless of jurisdictional boundaries are resilient to fire, insect, disease, invasive species and climate change disturbances, in accordance with management objectives.
2. Fire Adapted Communities – Human populations and infrastructure are as prepared as possible to receive, respond to, and recover from wildland fire.
3. Safe, Effective, Risk-based Wildland fire Response – All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildland fire management decisions (Wildland Fire Leadership Council, 2023).

Ultimately, the Community Wildfire Protection Plan (CWPP) process aligns with the goals outlined by the National Cohesive Strategy and the State of Alaska Forest Action Plan, and offers prescriptive recommendations based on feedback gathered at the community level, while referencing Fire Management Response Guidance from the AIWFMP, Stafford Act and SHMP. This collaborative planning process assists communities in developing an appropriate and desired wildland fire protection plan to guide future mitigation efforts. Completion of this CWPP involved the following steps:

1) Identify stakeholders, land management agencies, and interested parties.
2) Establish a community planning area.
3) Develop a community risk assessment.
4) Ongoing opportunities for community input through surveys, public meetings, and the creation of a dedicated website.
5) Address priorities through stakeholder meetings and public input.
6) Development of an action plan and task-matrix.
7) Finalization of the plan with a total of three public community meetings throughout the process.

Appendix B

Assessment of Hazard, Barriers, and Defensible Space Rating Criteria (Community Risk Assessment)

Rating Elements

1) Risk/Hazard Analysis of available fuels inside community (inside community to 1 mile)
2) Risk/Hazard Analysis of available fuels outside community (1-10miles)
3) Barriers
4) Fire Protection Resource Availability
5) Community Firewise Rating
6) Overall Community Rating
7) Wildfire Risk to Communities (wildfirerisk.org) Rating Summary

Risk/Hazard Analysis, Available Fuels

The Copper River Basin is classified as Fire Regine Group IV, which means a stand replacement severity fire is possible every 35-100+ years.

1. **Inside Community**: The rating area includes lands within one mile of the community in all directions. The rating is based on history/likelihood of fire in the community and the availability of hazard fuels.

RISK/HAZARD ANALYSIS AVAILABLE FUELS CHART 1

FUELS (predicted fire behavior based on historic summertime weather with hot, dry conditions)	Alaska Fire Return Interval: High 0-99 years	Where Found:
Black Spruce Boreal Forest (CFFDRS=C2) *rate of spread: high intensity: high spotting potential: high*	HIGH	
Black Spruce Lichen Woodland (CFFDRS=C1) *rate of spread: moderate intensity: moderate spotting potential: high*	HIGH	
Grass (cured tall standing or matted; CFFDRS = O1a/O1b) *rate of spread: high intensity: moderate: spotting potential: low*	HIGH	
Mixed Boreal Forest (may include white or black spruce, aspen and/or birch; CFFDRS=M1) *rate of spread:* moderate intensity: moderate spotting potential: moderate	MODERATE	
Hardwood Forest (includes aspen & birch; CFFDRS use D1 or M1, M2) *rate of spread: low intensity: low spotting potential: low*	MODERATE	
Deciduous Brush (includes willow & alder) *rate of spread: low intensity: low spotting potential: low*	LOW	
Insect and Disease in Mixed Boreal Forest (may include white or black spruce, aspen and/or birch) *rate of spread: moderate intensity: High spotting potential: High*	MODERATE	

Narrative description fuels within one mile of community.

2. **Outside Community**: The rating area is from 1-10 miles outside the community and is based on the history/likelihood of fire in the area and the availability of hazard fuels.

RISK/HAZARD ANALYSIS AVAILABLE FUELS CHART 2

FUELS (predicted fire behavior based on historic summertime weather with hot, dry conditions)	Alaska Fire Return Interval: High 0-99 years	Where Found:
Black Spruce Boreal Forest (CFFDRS=C2) *rate of spread: high intensity: high spotting potential: high*	HIGH	
Black Spruce Lichen Woodland (CFFDRS=C1) *rate of spread: moderate intensity: moderate spotting potential: high*	HIGH	
Grass (cured tall standing or matted; CFFDRS = O1a/O1b) *rate of spread: high intensity: moderate: spotting potential: low*	HIGH	
Mixed Boreal Forest (may include white or black spruce, aspen and/or birch; CFFDRS=M1) *rate of spread:* moderate intensity: moderate spotting potential: moderate	MODERATE	
Hardwood Forest (includes aspen & birch; CFFDRS use D1 or M1, M2) *rate of spread: low intensity: low spotting potential: low*	MODERATE	
Deciduous Brush (includes willow & alder) *rate of spread: low intensity: low spotting potential: low*	LOW	
Insect and Disease in Mixed Boreal Forest (may include white or black spruce, aspen and/or birch) *rate of spread: moderate intensity: High spotting potential: High*	MODERATE	

Narrative description fuels 1-10 miles from community.

3. Barriers

Standards for rating natural and constructed (human-made) barriers:

Low Fire Danger: The community has a natural or constructed barriers that provide thorough protection from fuels less than 1 mile away in at least 3 cardinal directions. An example of this would be a small community sandwiched between a major river and a runway, or a community on an island

Moderate Fire Danger: The community has natural or constructed barriers that provide thorough protection from fuels less than 1 mile away in at least two cardinal directions. Communities may have multiple barriers affecting a rating. Examples are airstrips separating a community from significant outside fuels, communities set amidst less flammable vegetation types, or communities situated on major rivers.

High Fire Danger: Any barriers that exist which provide protection from fuels less than 1 mile away in fewer than two cardinal directions. Examples of insignificant barriers are small streams or sloughs with narrow riparian zones situated in highly flammable fuel types.

BARRIER RATING CHART

Barrier Type	Rating for Community (Low, Moderate or High Fire Danger)	Where Found:
Water Features		
Other Natural Features		
Constructed (Human-made) Features		
Overall Community Barrier Rating		

Narrative description of natural barriers.

Narrative description of constructed (human-made) barriers.

4. Fire Protection Resource Availability

FIRE PROTECTION RESOURCES RESPONSE CHART

Response Time	Risk	Kind of Response (List resources available for initial attack)
Adequate initial attack resources are more than 75 minutes away and adequate extended attack resources are more than 12 hours away.	High	
Adequate initial attack resources are 30- 75 minutes away and adequate extended attack can be in place in 8-12 hours.	Moderate	
Adequate initial attack resources are less than 30 minutes away and adequate extended attack can be in place in less than 8 hours.	Low	
Overall Fire Response Rating		

Narrative description of fire protection resources.

5. Community Firewise Rating

Alaska Firewise Standards for Creating Defensible Space

Landscaping: There is a clearing of flammable vegetation at least 30 feet around the home for firefighting equipment: coniferous brush and dead/overhanging branches are removed; trees are pruned 6-10 feet above the ground; lawn is mowed and watered regularly, and ladder fuels are removed from the yard; remaining trees are spaced at least 30’ apart at crowns; garden equipment (hoses and hand tools) are kept on the property.

Construction Guidelines: Home is made of fire-resistant or non-combustible construction materials (especially important for roofing); vents are covered with wire mesh no larger than 1/8 inch; at least two ground-level doors exist; at least two means of escape exist in each room.

Water Supply Guidelines: Home has a reliable water source, 3 to 4 sprinklers and enough hose to circle the home.

Access Guidelines: Access roads are at least 2 lanes wide and clearly marked; ample turnaround space exists for vehicles/fire equipment. Clear of Flammables/Refuse/Debris Guidelines: Combustible materials are not located in the yard or under decks or porches; firewood is stored away (at least 30 feet) from the house; all debris or refuse is picked up regularly.

COMMUNITY FIREWISE FOR DEFENSIBLE SPACE RATING CHART
(Overall community assessment, not individual structures)

Alaska Firewise Standards	Low Excellent Over 65% of homesites and community buildings meet standard	Moderate Between 35- 65% of homesites and community buildings meet standard	High Less than 35% of homesites and community buildings meet standard
Landscaping			
Construction			
Water Supply			
Clear of Flammables/ Refuse/Debris (flammables stored properly & area cleared)			
Overall Rating			

Narrative description of fire protection resources.

6. Overall Community Rating

OVERALL RATING CHART

Category	Rating
Risk/Hazard Analysis of available fuels inside community (inside community to 1 mile)	
Risk/Hazard Analysis of available fuels outside community (1-10miles)	

OVERALL RATING CHART

Category	Rating
Risk/Hazard Analysis of available fuels inside community (inside community to 1 mile)	
Risk/Hazard Analysis of available fuels outside community (1-10miles)	
Barriers	
Fire Protection Resource Availability	
Community Firewise Rating	

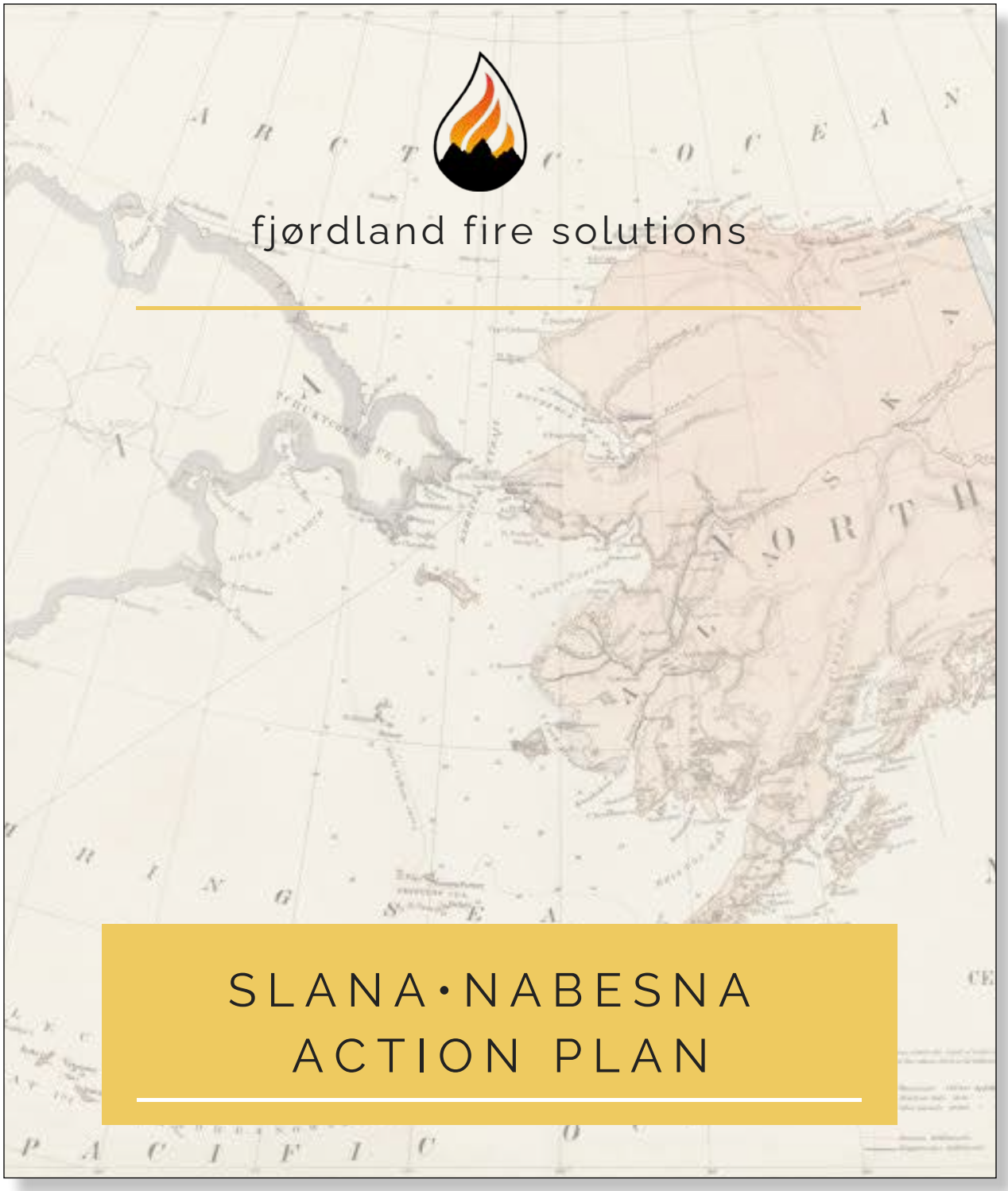
Narrative on other contributing factors to risk and mitigation of wildland fire in this community.

7. **Wildfire Risk to Communities (wildfirerisk.org) Rating Summary**

Appendix C

Fjørdland Fire Solutions

C.1 — RISK ASSESSMENT AND ACTION PLAN



CONTENTS

COMMUNITY CONCERNS

- Over 50% of households in community without a plan in place to save themselves in the event of a wildfire
- Need for Safety Zone/Escape Route establishment and awareness
- Need for defensible space around structures
- Inadequate community access during wildfire event (ingress/egress)
- Need for programs that facilitate/incentivize vegetation removal from private structures
- Request for funding solutions for the individual homeowner to acquire defensible space equipment
- Inadequate road signage
- Private roads structurally inadequate or otherwise inaccessible to large fire apparatus
- Communication difficulties during wildfire operations/lack of repeater
- Lack of community water source
- Risk of tourist/hunter/recreation fires
- Beetle killed spruce contributing to dead fuel loading
- Need for additional VFD Wildland training
- Need for additional/enhanced VFD Equipment
- Need for homeowner burning 'good practice' education
- Need for community woody debris disposal location
- Need for general community-aimed wildfire training
- Long response time for adequate first responders

1

Establish Community Wildfire Exposure Model Map

Associated Tasks

1. Create mapping system for Slana / Nabesna to determine which structures are most at risk of wildfire exposure
   a. Metrics should include fuels, topography and terrain-driven wind influences
   b. Use exposure model mapping system to establish community defensible space priorities
2. Coordinate public outreach to inform homes/neighborhoods of their risk determinations

Additional Notes

Exposure Model Mapping to be made public so-as to encourage a sense of individual homeowner responsibility for the Firewising of their own homes.

2

Community Firewise/Defensible Space

Associated Tasks

1. Reinstitute WUI Grant Cost Share Incentive Program for private/homeowner fuels reduction around structures
2. Adopt and apply Alaska Firewise Standards to all at-risk structures
    a. Firewise should include ample escape routes and safety zones for every household, as well as alternate escape routes and safety zones. If escape routes/safety zones are not viable, construct them
    b. Firewise should include evacuation plan for all pets and livestock
    c. Widen overgrown escape routes and establish ample ingress, egress, structural road capacities, and turnarounds for Emergency Vehicles
3. Post clear signage throughout community with adequate system for structure identification
4. Create system of structure mapping (including Firewise ratings) for land manager/emergency responder use
5. Institute program to remove junk vehicles and other hazmat
6. Provide community Firewise outreach and education
    a. Include general wildfire education, safe burning practices and correct procedures for relaying information to a 911 dispatcher
7. Provide Firewise construction method information to new construction projects

Additional Notes

It should be emphasized to the community that fuels reduction focus should be primarily on tall grasses and spruce species. Firewise efforts should be combined with Forest Stewardship Program directives.

It should be emphasized to community members that spruce is best cut at a certain time of year in order to mitigate the spread of spruce beetles.

3 Strategic Community Water Fill Sites

Associated Tasks

1. Map existing fill sites and provide public outreach to make them known
2. Identify strategic sites to improve/construct so-as to spread water access evenly throughout the community
3. Identify funding to implement water sites for Emergency Services/Agency Firefighters/community members and develop the preferred infrastructure

4 VFD Training & Funding

Associated Tasks

1. Apply for Federal/State Grants to bolster VFD with improved infrastructure, equipment and training
    a. Frequent training and standardization of Standard Operating Procedures between VFD, DOF and Park Service employees
    b. Increased Wildfire training and equipment

Additional Notes

Emphasis on Wildfire Training for VFD including but not limited to FFT2. Emphasis should be placed on equipment that benefits both the VFD and DOF/Agency Firefighters i.e. Water Tenders.

.

5 Create Community Emergency Plan

Associated Tasks

1. Create Community Emergency Plan
    a. Include updated and centralized community contact list
    b. Include maps with road signage and house identifiers (in conjunction with community Firewise mapping)
2. Identify and mitigate all communication issues that could arise during an emergency situation

Additional Notes

Consider using existing models for small community Emergency Plans such as SCERP.

6 Improve EMS Communication Coverage

Associated Tasks

1. Determine the best location, then deploy an agency radio repeater for Emergency Services use to mitigate gaps in radio communication coverage

7 Protection of Native Heritage Sites and Allotments

Associated Tasks

1. Identify heritage sites/allotments to be protected and implement appropriate measures
    a. Create improved mapping of heritage sites and allotments so that agency firefighters can locate and protect.

8 Community Woody Mass Disposal Site

Associated Tasks

1. Identify/designate an area for the community/private landowner to dispose of woody mass byproduct of community Firewise and fuel reduction projects
    a. Ideal area would be easily accessible
    b. Allow community access to repurpose woody mass accumulation for firewood, biomass, etc.

MITIGATION PRIORITIES

9 Biomass Viability

Associated Tasks

1. Continually reevaluate the viability of biomass solutions in Slana/Nabesna and outlying communities, including the viability of cooperating with other communities' programs
2. Explore the possibility of biomass utilization of byproducts of the mitigation of Slana/Nabesna standing dead timber

10 Standing Dead Timber Mitigation

Associated Tasks

1. Determine areas in which beetle-kill and other dead-standing timber can be accessed
2. Explore the viability of opening or gaining access to these areas for the purpose of community/private firewood or other viable biomass opportunities
3. Public outreach to make these areas known

11 Public Wildfire Education

Associated Tasks

1. Explore the viability of teaching general wildfire knowledge to the community with emphasis on basic wildfire behavior
2. Reinstitute/continue wildfire education outreach in schools
3. Special emphasis on safe homeowner burning practices

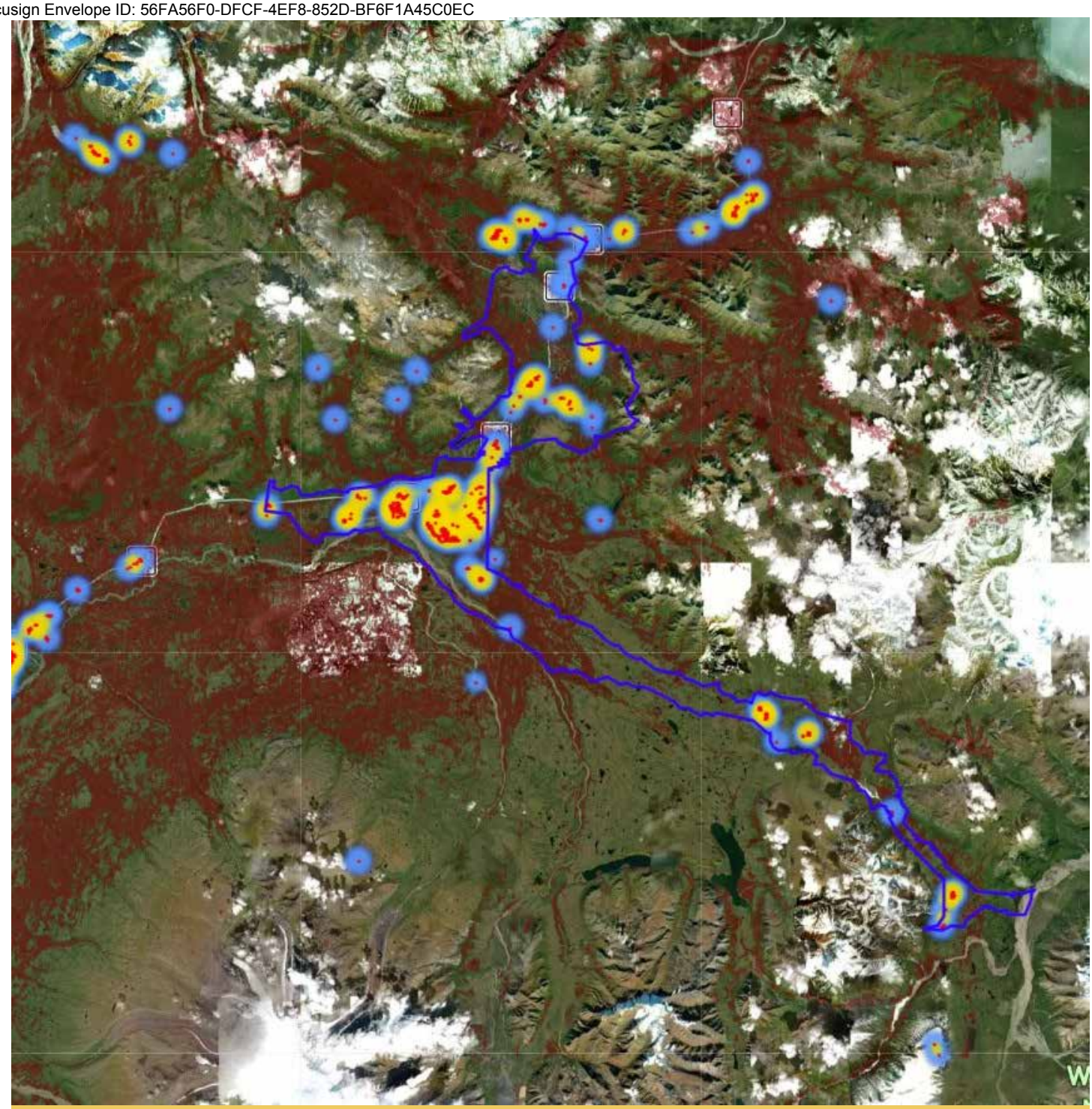
Additional Notes

Given the polling data from the community survey, emphasis in education should be placed foremost on the need for Primary and Secondary Escape Routes and Safety Zones for every household.

MAPS APPENDIX

SLANA•NABESNA 10

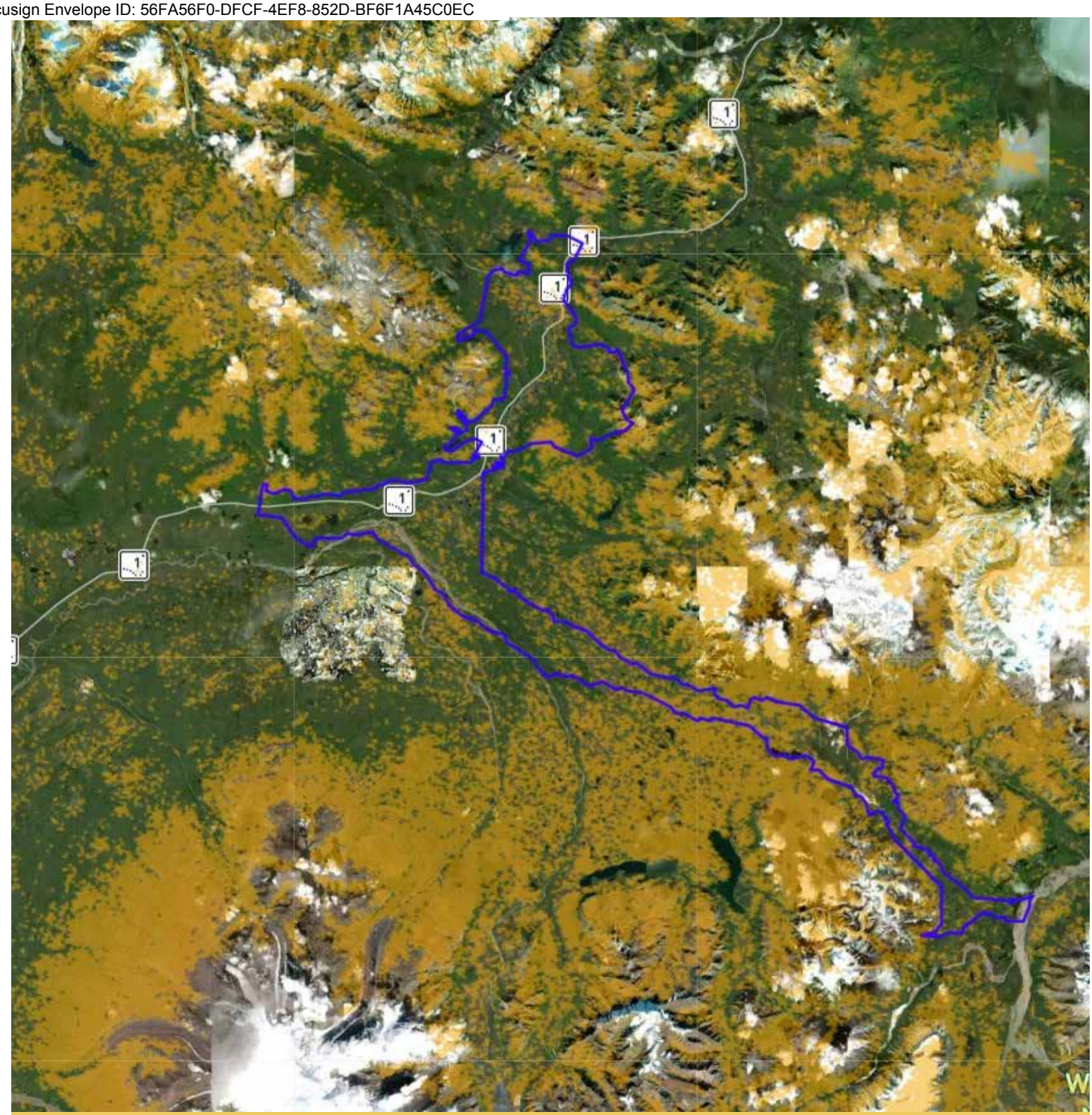
FJØRDLAND FIRE SOLUTIONS



STRUCTURE DENSITY MAP WITH SPRUCE IN RED

SLANA•NABESNA 11

FJØRDLAND FIRE SOLUTIONS



GRASSES IN GOLD

SLANA•NABESNA 12

FJØRDLAND FIRE SOLUTIONS

Assessment of Fuels Risk/Hazard, Barriers, Fire Protection Resources, and Firewise

Community: **Slana/Nabesna**

Rating Elements

1) Risk/Hazard Analysis of available fuels inside community (inside community to 1 mile)
2) Risk/Hazard Analysis of available fuels outside community (1-10 miles)
3) Barriers
4) Fire Protection Resource Availability
5) Community Firewise Rating
6) Overall Community Rating
7) Wildfire Risk to Communities (wildfirerisk.org) Rating Summary

Risk/Hazard Analysis, Available Fuels

The Copper River Basin is classified as Fire Regime Group IV, which means a stand replacement severity fire is possible every 35-100+ years.

1. **Inside Community**: The rating area includes lands within one mile of the community in all directions. The rating is based on history/likelihood of fire in the community and the availability of hazard fuels.

RISK/HAZARD ANALYSIS AVAILABLE FUELS CHART 1

FUELS (predicted fire behavior based on historic summertime weather with hot, dry conditions)	Alaska Fire Return Interval: High 0-99 years	Where Found:
Black Spruce Boreal Forest (CFFDRS=C2) *rate of spread: high intensity: high spotting potential: high*	HIGH	Refer to Maps Appendix for all relevant fuel types
Black Spruce Lichen Woodland (CFFDRS=C1) *rate of spread: moderate intensity: moderate spotting potential: high*	HIGH	
Grass (cured tall standing or matted; CFFDRS = O1a/O1b) *rate of spread: high intensity: moderate: spotting potential: low*	HIGH	
Mixed Boreal Forest (may include white or black spruce, aspen and/or birch; CFFDRS=M1) *rate of spread:* moderate intensity: moderate spotting potential: moderate	MODERATE	
Hardwood Forest (includes aspen & birch; CFFDRS use D1 or M1, M2) *rate of spread: low intensity: low spotting potential: low*	MODERATE	

Deciduous Brush (includes willow & alder) *rate of spread: low intensity: low spotting potential: low*	LOW	
Insect and Disease in Mixed Boreal Forest (may include white or black spruce, aspen and/or birch) *rate of spread: moderate intensity: High spotting potential: High*	MODERATE	

Notes on fuels within one mile of community:

Due to the prevalence and various concentrations of spruce (Black Spruce all types, White Spruce, Spruce/Hardwood mix), Insect and Disease in Mixed Boreal Forest (beetle-kill), and Grass (seasonal cured tall standing or matted), Slana/Nabesna is determined to be in the Risk/Hazard Analysis category of: HIGH

2. **Outside Community**: The rating area is from 1-10 miles outside the community and is based on the history/likelihood of fire in the area and the availability of hazard fuels.

RISK/HAZARD ANALYSIS AVAILABLE FUELS CHART 2

FUELS (predicted fire behavior based on historic summertime weather with hot, dry conditions)	Alaska Fire Return Interval: High 0-99 years	Where Found:
Black Spruce Boreal Forest (CFFDRS=C2) *rate of spread: high intensity: high spotting potential: high*	HIGH	Refer to Maps Appendix for all relevant fuel types
Black Spruce Lichen Woodland (CFFDRS=C1) *rate of spread: moderate intensity: moderate spotting potential: high*	HIGH	
Grass (cured tall standing or matted; CFFDRS = O1a/O1b) *rate of spread: high intensity: moderate: spotting potential: low*	HIGH	
Mixed Boreal Forest (may include white or black spruce, aspen and/or birch; CFFDRS=M1) *rate of spread:* moderate intensity: moderate spotting potential: moderate	MODERATE	
Hardwood Forest (includes aspen & birch; CFFDRS use D1 or M1, M2) *rate of spread: low intensity: low spotting potential: low*	MODERATE	
Deciduous Brush (includes willow & alder) *rate of spread: low intensity: low spotting potential: low*	LOW	
Insect and Disease in Mixed Boreal Forest (may include white or black spruce, aspen and/or birch) *rate of spread: moderate intensity: High spotting potential: High*	MEDIUM	

Notes on fuels 1-10 miles from community:

Due to the prevalence and various concentrations of spruce (Black Spruce all types, White Spruce, Spruce/Hardwood mix), Insect and Disease in Mixed Boreal Forest (beetle-kill), and Grass (seasonal cured tall standing or matted), Slana/Nabesna is determined to be in the Risk/Hazard Analysis category of: HIGH

3. Barriers

Standards for rating natural and constructed (human-made) barriers:

Low Fire Danger: The community has natural or constructed barriers that provide thorough protection from fuels less than 1 mile away in at least 3 cardinal directions. An example of this would be a small community sandwiched between a major river and a runway, or a community on an island

Moderate Fire Danger: The community has natural or constructed barriers that provide thorough protection from fuels less than 1 mile away in at least two cardinal directions. Communities may have multiple barriers affecting a rating. Examples are airstrips separating a community from significant outside fuels, communities set amidst less flammable vegetation types, or communities situated on major rivers.

High Fire Danger: Any barriers that exist which provide protection from fuels less than 1 mile away in fewer than two cardinal directions. Examples of insignificant barriers are small streams or sloughs with narrow riparian zones situated in highly flammable fuel types.

BARRIER RATING CHART

Barrier Type	Rating for Community (Low, Moderate or High Fire Danger)	Where Found:
Water Features	Major river	Spanning majority of Southern/Western side of Slana Wildland Urban Interface boundary
Other Natural Features	River	
Constructed (Human-made) Features	None	
Overall Community Barrier Rating		
HIGH		

Notes on natural and constructed (human-made) barriers:

Slana/Nabesna has a significant waterway spanning the Southern/Western side of its CWPP boundary, but due to the concentrations of Spruce between the waterway and the community, Slana/Nabesna is determined to be in the Risk/Hazard Analysis category of: HIGH

4. Fire Protection Resource Availability

FIRE PROTECTION RESOURCES RESPONSE CHART

Response Time	Risk	Kind of Response (List resources available for initial attack)
Adequate initial attack resources are more than 75 minutes away and adequate extended attack resources are more than 12 hours away.	High	
Adequate initial attack resources are 30- 75 minutes away and adequate extended attack can be in place in 8-12 hours.	Moderate	
Adequate initial attack resources are less than 30 minutes away and adequate extended attack can be in place in less than 8 hours.	Low	
Overall Fire Response Rating	**HIGH**	

Notes on fire protection resources:

Due to the availability of Initial Attack Resources and Extended Attack Resources, Slana/Nabesna is determined to be in the Risk/Hazard Analysis category of: HIGH.

5. Community Firewise Rating

Landscaping: Less than 35% of homes and community buildings have a clearing of flammable vegetation at least 30 feet around the structure or have lawns that are mowed and watered regularly. Ladder fuels can be found throughout the community and in-between structures with pockets of trees lacking crown spacing. Tall and matted uncut grass can be found along road corridors and around structures, along with unoccupied and dilapidated structures with debris, trash and junk cars surrounding them.

Construction: Less than 35% of homes are made of fire-resistant or non-combustible construction materials. Roofing materials range from metal to wood shake roofs. Many structures do not have skirting around the bottom, or other general Firewise recommendations such as covering vents and openings with wire mesh, cleaning organic debris off roofs and other surfaces that trap leaves and needles, to prevent ember entrapment and ignition.

Water Supply: Most homes do not have a reliable water source or the means to protect their property with a water source in event of a wildland fire.

Access Guidelines: Tok Highway 1 is two lanes wide with ample turnarounds. The access to most structures throughout Slana/Nabesna is fair. Combustible materials are located in many yards, under decks and porches and firewood and other flammable materials can be found within 30 ft. of many structures. More than one escape route and safety zone exist.

Possible Escape Routes:

1. Tok Highway 1
2. Nabesna Road

Possible Safety Zones:

1. Slana Quarry

COMMUNITY FIREWISE FOR DEFENSIBLE SPACE RATING CHART

(Overall community assessment, not individual structures)

Alaska Firewise Standards	Low Excellent Over 65% of homesites and community buildings meet standard	Moderate Between 35- 65% of homesites and community buildings meet standard	High Less than 35% of homesites and community buildings meet standard
Landscaping			X
Construction			X

Water Supply			X
Access Guidelines/ Combustibles		X	
Overall Rating			**HIGH**

Notes on defensible space within this community:

Due to inadequate defensible space around more than 65% of structures/allotments, non-fire-hardened construction methods of more than 65% of structures, inadequate water supply to more than 65% of structures/allotments, Slana/Nabesna is determined to be in the Risk/Hazard Analysis category of: HIGH

6. Overall Community Rating

OVERALL RATING CHART SUMMARY

Category	Rating
Risk/Hazard Analysis of available fuels inside community (inside community to 1 mile)	**HIGH**
Risk/Hazard Analysis of available fuels outside community (1-10 miles)	**HIGH**
Barriers	**HIGH**
Fire Protection Resource Availability	**MODERATE**
Community Firewise Rating	**HIGH**

Notes on other contributing factors to risk and mitigation of wildland fire in this community:

See Action Plan

7. Wildfire Risk to Communities (wildfirerisk.org) Rating Summary:

Slana/Nabesna, through the Overall Rating Chart Summary, has received an overall rating of: HIGH

Per wildfirerisk.org, Slana/Nabesna has also received a rating of VERY HIGH in the category of Vulnerable Populations due to the fact that people of this community may be disproportionately impacted by wildfire because of social or economic factors.

Slana — Nabesna

COMMUNITY WILDFIRE PROTECTION PLAN