FNSB
Community Wildfire Protection Plan
2025
Appendix A -
Community Ignitability Analysis

The following supplemental information for the FNSB CWPP project details community hazard ratings. **This should be read with the respective CWPP documents for FNSB including the Appendixes B, C and D.**

This report was funded by the US Forest Service through the Alaska Division of Forestry and Fire Protection. It was prepared for the FNSB by Bintel Inc with partners Fire Adaptive Solutions, FirePoint Forestry and Fjordland Fire Solutions.

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COMMUNITY IGNITABILITY ANALYSIS

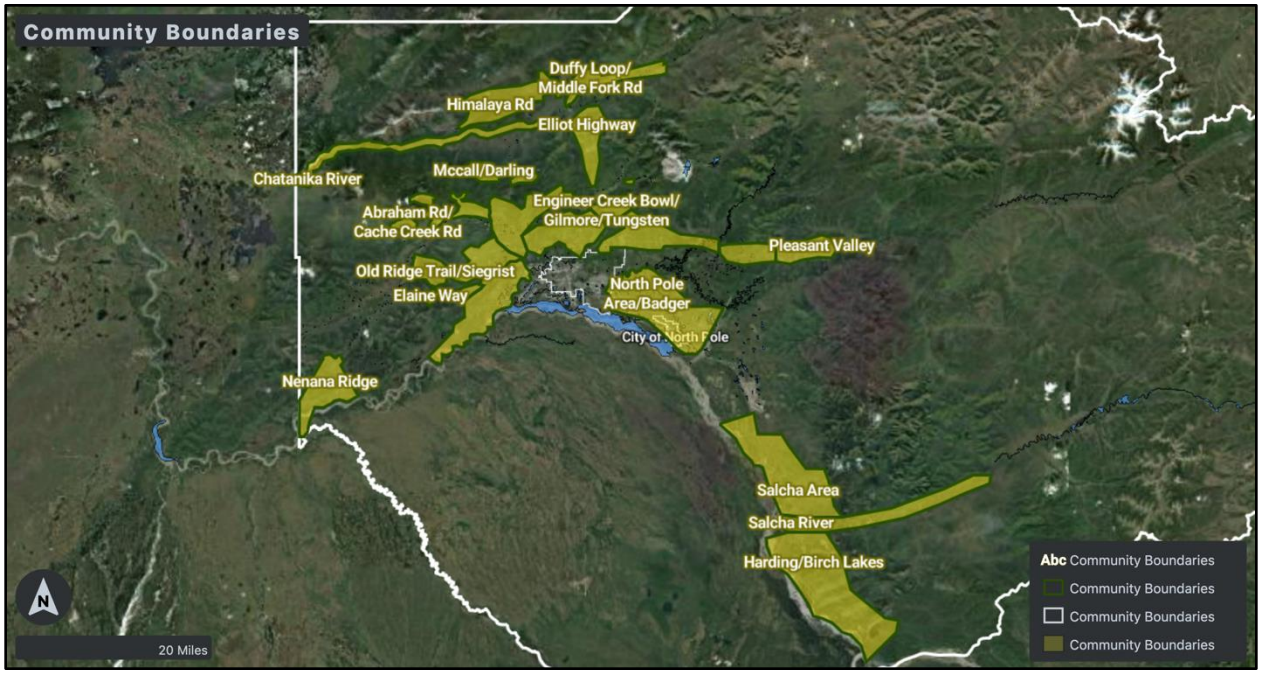

Figure 1 – FNSB AOI Community Boundaries

Click on any of the maps in this report to view the maps online and zoom into features. The maps include the Community boundaries but also layers with additional information including planned or completed treatments by the AK-DOF or BLM.

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Table 1 - ICHR Ratings

Fairbanks North Star Borough, AK ICHR Ratings (2025)		
Community Name	**Score**	**Adjective Rating**
Himalaya Road	76	Extreme
McCall/Darling	76	Extreme
Elaine Way	71	Very High
Two Rivers	66	Very High
Chatanika River	65	Very High
Determination Drive	65	Very High
Old Ridge Trail/Siegrist	65	Very High
Duffy Loop/Middle Fork Road	64	Very High
Elliot Highway	64	Very High
Engineer Creek Bowl/Gilmore/Tungsten	62	Very High
Harding/Birch Lakes	62	Very High
Salcha River	62	Very High
Nenana Ridge	61	Very High
Richard Berry/Yellowknife	61	Very High
Salcha Area	61	Very High
Abraham Road/Cache Creek	59	High
Old Murphy Road/Bristol Bay Drive	57	High
Peartree/Parks Ridge/Cripple Creek	57	High
Farmers Loop/Skyridge	55	High
Chena Hot Springs Road	54	High
Pleasant Valley	52	High
Eielson Farm Road North/Moose Creek	51	High
Gold Hill/Ester	51	High
Spinach Creek	50	High
Chena Ridge/Rosie Creek Trail	47	High
Goldstream/Sheep Creek	46	High
North Pole Area/Badger	44	High
Rating Categories: Low < 21; Moderate 21-40; High 41-60; Very High 61-75; Extreme > 75.		

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Purpose

The purpose of dividing residential areas into hazard zones (Communities) is to group the most heavily populated WUI/WI residential areas into hazard categories for prioritization of recommendations. This is accomplished through the use of the Interface/Intermix Community Hazard Rating (ICHR) tool, which is designed to analyze Home Ignition Zone (HIZ) hazard and mitigation factors within WUI/WI developments.

This document should be read in conjunction with the FNSB CWPP and Appendixes for context, definition of terms and recommended action plans.

Methodology

The ICHR analysis incorporates data gathered in the field regarding structural ignitability, conditions in the home ignition zone, manmade fuel hazards and suppression factors with IFTDSS fire behavior modeling and GIS zonal analysis to generate a hazard score of 0 to 100 points where a 0 represents the lowest possible hazard and 100 the greatest. Adjective ratings for ICHR numeric scores for Fairbanks North Star Borough (FNSB) Communities are as follows: 20 or less = Low, 21-40 = Moderate, 41-60 = High,61-75 = Very High and >75 = Extreme. For a more detailed discussion of the methodology behind these ratings please see Appendix C: Methodology.

Description

There are 27 Communities in the study area. ICHR scores have been used to sort these Communities into one of five adjective rating categories: low, moderate, high, very high and extreme. The Community boundaries and ratings are shown in **Figure 1** and **Table 1**.

Of the 27 Communities, two rated Extreme, 13 rated Very High and 12 rated High. None of the WUI/WI Communities in FNSB rated Moderate or Low hazard.

The following Community descriptions are an overview of the general characteristics of the area. They focus on structural ignitability and Home Ignition Zone (HIZ) hazards (both natural and man-made) based on field observations, fire behavior modeling and GIS zonal analysis. This view is not intended to describe every home or street but rather what is average or typical for that Community.

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Table of Figures/WUI Community Maps

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IGNITABILITY DISCUSSION – HIMALAYA ROAD

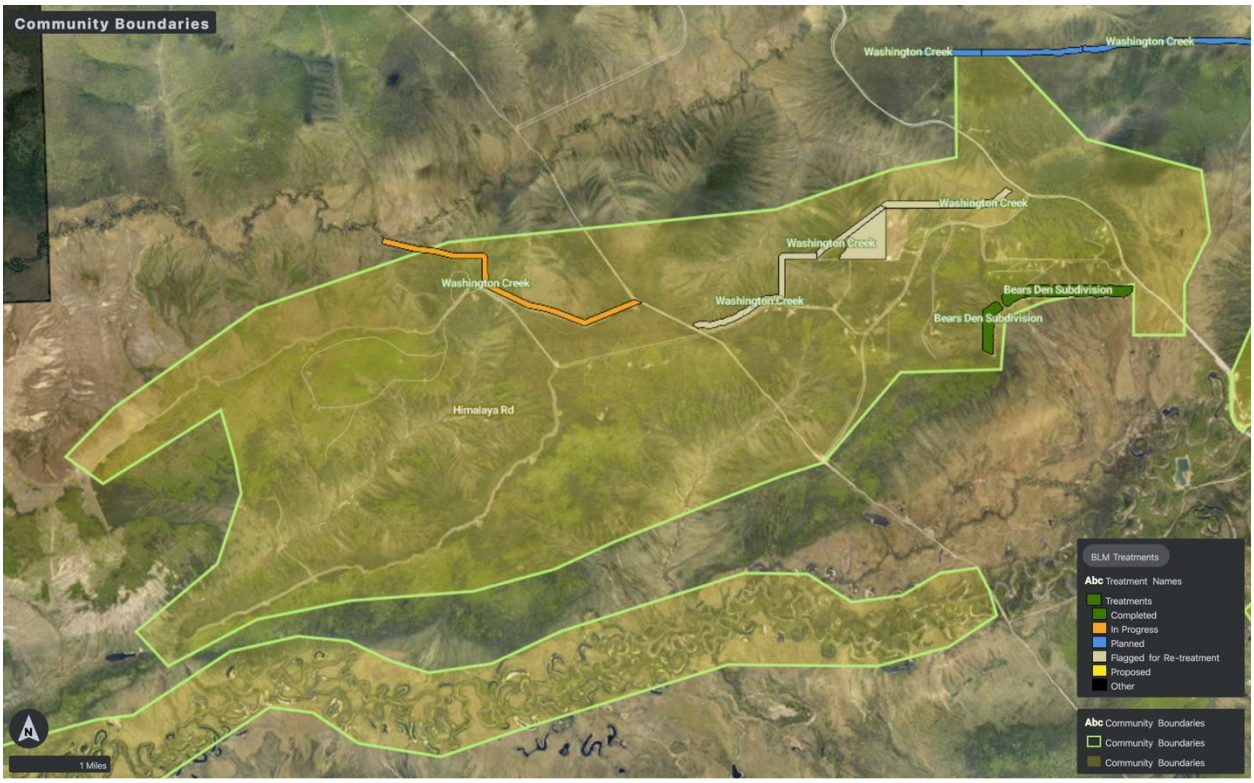

Figure 2 - Himalaya WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Extreme**
Utilities Above or Below Ground:	Above
General Construction:	Wood/vinyl/poly siding with asphalt/metal roof
Dual Access Roads:	No
Road Widths, Slope and Surface:	Variable, see text
Water Supply:	Dip or Draft
Proximity to Fire Station:	17.5 to 29.4 miles

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Ignitability Discussion – Himalaya Road

ICHR Hazard Rating
Extreme

Himalaya Road is a Community with variable concentrations of widely spaced homes and commercial rentals on large lots, with a mix of old, new, and unconventional construction. The predominant construction type is wood or vinyl siding with an asphalt or metal roof. Most properties have outbuildings or additions that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, or fuel oil. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire. The Community's most vulnerable homes are located on ridgetops and mid-slopes within steep and complex topography. Black spruce stands are the dominant fuel type. Many structures on Himalaya Road are situated on ridgetops or mid-slope with substantial stringers of continuous black spruce or spruce-hardwood mix downslope of them. Many properties have partial defensible space clearings, but native vegetation is often too close to structures.

The topography rises steeply in places from drainage bottoms with slopes reaching up to 31° and a mean slope of 8.4°. This area has mixed topography ranging from flat to rolling hills, to steep slopes and ridges over wet drainages. Elevations range from 518 feet to 1,886 feet. Homes in this Community are accessed primarily from Elliot Highway which has 40-60 feet of clearance. Himalaya Road serves as the only access to a large portion of this Community. Himalaya Road is unpaved with 20-40 feet of total clearance in mostly heavy black spruce. Minor roads are mostly narrow, seasonal dirt roads with tight hairpin turns, many in black spruce. These roads are challenging for large suppression apparatus to navigate. Road intersections with Himalaya are sparsely marked with reflective signage, and many smaller roads lack signage. Many homes lack visible address markers.

This Community falls outside of a Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or tender shuttle from Steese Volunteer Fire Station in Fox. This fire station is located approximately 19.5 miles from the most vulnerable structures within this Community. Himalaya Road is the only non-seasonal road that accesses the Elliot Highway, meaning the most hazardous structures are also single access/egress with no adequate Safety Zone further complicating fire suppression efforts.

Fuel treatments in this area are substantial with the Washington Creek shear blade treatments to the north and the Bear's Den Subdivision shear blade treatment to a portion of the south.

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IGNITABILITY DISCUSSION – MCCALL/DARLING

Figure 3 - McCall/Darling WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Extreme**
Utilities Above or Below Ground:	Above on McCall Street. Off-grid on Darling Avenue.
General Construction:	Wood/vinyl/log siding with asphalt/metal roof
Dual Access Roads:	Yes
Road Widths, Slope and Surface:	20ft clearance on primary roads, flat to moderate incline, gravel
Water Supply:	Dip or Draft
Proximity to Fire Station:	8.2 to 10.2 miles

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IGNITABILITY DISCUSSION – MCCALL/DARLING

ICHR Hazard Rating
Extreme

McCall/Darling is a Community of varying concentrations of widely spaced homes on large lots, with a mix of old and new construction. The predominant construction type is wood/vinyl/log siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, or fuel oil. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire. The Community's most vulnerable homes are located on ridgetops and mid-slope within steep and complex topography. Black spruce stands are the dominant fuel type. Most structures throughout this Community are situated mid to upper slope with substantial stringers of continuous black spruce downslope of them. Hardwoods increase towards the north end of Darling Avenue providing some break in the continuous black spruce; however, the majority of the homes in this Community have continuous black spruce downslope of them. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Dog sled team operations are present in this Community and present a substantial risk as the dogs are confined. They also increase the evacuation times for both humans and dogs.

This Community generally wraps around a ridgetop with slopes reaching up to 21°, with a mean slope of 8.9°. Elevations range from 860 feet to 1,637 feet. Homes in this Community are accessed from Old Murphy Dome Road which has 20-25 feet of clearance but also has a shear bladed fuel break along a large portion of its distance. Most secondary roads are gravel with approximately 20 feet of vegetative clearance. Some driveways contain tight hairpin turns which are challenging for large suppression apparatus to navigate. Darling Avenue's intersection with Old Murphy Dome is marked with reflective signage while McCall Street's intersection is not. Spur roads lack signage. Many homes on secondary roads lack visible address markers.

The entirety of this Community falls outside of a Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or tender shuttle from Chena Goldstream Fire Station 41 on Murphy Dome Road. This fire station is located approximately 9.2 miles from the most vulnerable structures within this Community. Darling Avenue and McCall Street are connected by an unmaintained seasonal road, but because Darling Avenue and McCall Street both connect with Old Murphy Dome Road in such close proximity of one another, this Community should be considered one way in and one way out. Considering the steep slopes and heavy concentrations of black spruce, a wildfire that impinges one road will likely impinge the other cutting off all access to this Community. There are potential safety zones present, but they are on private property and gated.

The McCloud Subdivision shaded fuelbreak offers relief to the North, with Old Murphy Dome West shear blade (to the west) and Old Murphy Dome Central shear blade to the east.

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IGNITABILITY DISCUSSION – ELAINE WAY

Figure 4 - Elaine Way WUI Community

Western Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/metal with asphalt/metal roof
Dual Access Roads:	Yes
Road Widths, Slope and Surface:	Variable widths, flat to steep, paved to seasonal
Water Supply:	Dip or Draft
Proximity to Fire Station:	7.6 to 8.9 miles

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Ignitability Discussion – Elaine Way

ICHR Hazard Rating
Very High

Elaine Way is a small Community of moderately sized homes on large to midsized lots. There is a mix of old and new construction types along with some industrial properties. The predominant construction type is wood or metal siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, and fuel oil. Some homes have oil tanks or wood piles close to structures, as well as industrial supply caches which increase the risk of ignition and long-range ember cast. This Community's most hazardous homes are located primarily in continuous black spruce stringers running from drainage bottoms to homes located mid-slope and on the tops of ridges. Old Nenana Highway generally follows a north-south ridge with black spruce on both aspects. Many properties have substantial defensible space clearings but given the magnitude of the spruce concentration combined with the topography; spruce is often too close to structures.

Black spruce is the dominant fuel type on both north and south aspects. Old Nenana Highway has an intermittent hardwood component along its entirety, moderating intensity somewhat should the road become impinged by wildfire. Other than these intermittent hardwood stands and manmade clearings, fuels are largely spruce dominated.

Topography in this Community is generally homogenous with wet drainage bottoms rising to ridgetops. Slopes rise steeply from the drainage bottoms reaching up to 26° with a mean slope of 11° for the entire Community. Elevations range from 873 feet to 1,689 feet. Homes in this area are accessed primarily from Old Nenana Highway which has 25-40 feet of vegetative clearance. Secondary roads are variable, some of these are narrow, seasonal dirt roads with tight hairpin turns that would be challenging for large suppression apparatus to navigate. Road intersections with Old Nenana Highway are intermittently marked with signage. Many smaller roads lack signage. Many homes on secondary roads lack visible address markers.

This Community is in Ester Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or tender shuttle from Ester Volunteer Fire Station 51 at the intersection of Parks Highway and Old Nenana Highway. This fire station is located approximately 8.9 miles from the most distant homes in this Community.

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IGNITABILITY DISCUSSION – TWO RIVERS

Figure 5 - Two Rivers WUI Community

Eastern/Southern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above/Off grid
General Construction:	Wood/metal/poly/log siding with asphalt/metal roof
Dual Access Roads:	Single access on Numerous secondary roads off Chena Hot Springs Road
Road Widths, Slope and Surface:	Wide to variable widths, flat to moderate, paved to seasonal
Water Supply:	Dip or Draft
Proximity to Fire Station:	13.1 to 22.5 miles

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Ignitability Discussion – Two Rivers

ICHR Hazard Rating
Very High

Two Rivers Community is a series of neighborhoods that spread north and south from Chena Hot Springs Road as it extends out of the flats in the west to south facing hills in the east. From west to east it transitions from more continuous spruce stands in the flats to south facing spruce and hardwood/spruce mix. This Community consists of varying concentrations of widely to moderately spaced homes on large to midsized lots. There is a mix of old and new construction, as well rental property and small businesses. The predominant construction type is metal/wood/vinyl/log siding with an asphalt or metal roof. Many properties have outbuildings, wood piles or wood sheds, and supply stashes that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Chena Hot Springs Road has intermittent bands of hardwoods along the road, but beyond these hardwoods there is often continuous black spruce. These continuous spruce stands intersect the road in places in this Community. Many of the roads that running off Chena Hot Springs Road are single access/egress and cross heavy spruce stands, making them more difficult to defend as agency resources are usually resistant to committing personnel for fear of entrapment. There is a mosaic of agricultural clearings in various parts of Two Rivers. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Heating is provided by electricity, wood stoves, fuel oil, and some off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the likelihood of ignition, as well as long-range ember cast.

This area is known for having a large presence of dog sled teams. These operations are particularly vulnerable due to the prevalence of heavy spruce stands and the potential for fast-moving, wind-driven fires. They also increase evacuation times for humans and dogs as it may take some mushers two or more trips to fully evacuate all the dogs. Many mushers remove dog transport boxes during fire season to haul other supplies.

Although much of the topography ranges from flat to rolling there are steep slopes above drainage bottoms. Although the mean slope of this Community is only 3.2°, the steepest slopes reach 29°. Elevations range from 522 feet to 958 feet. Chena Hot Springs Road serves as the main transportation artery for this Community and all secondary roads extend from it. Chena Hot Springs Road runs through intermittent substantial hardwood stands sporadically throughout this Community, offering subdued fire intensity along the road during a wildfire evacuation. Secondary and tertiary roads are variable in condition and vegetative clearance. Some of these are narrow, seasonal dirt roads that can be challenging for large suppression apparatus to navigate. Intersections with Chena Hot Springs Road are consistently marked with reflective signage, but some secondary roads and smaller dirt roads are more sparsely marked. Many homes on smaller roads lack visible address markers.

This Community falls completely outside of a Fire Service Area. Water sources for fire suppression are most likely dip or draft from natural water sources. The closest fire station is Steese Station 62 which is 22.5 miles from the most distant homes in this Community. While a tender shuttle is possible from Station 62 it is unlikely to be effective considering the distances involved.

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IGNITABILITY DISCUSSION – CHATANIKA RIVER

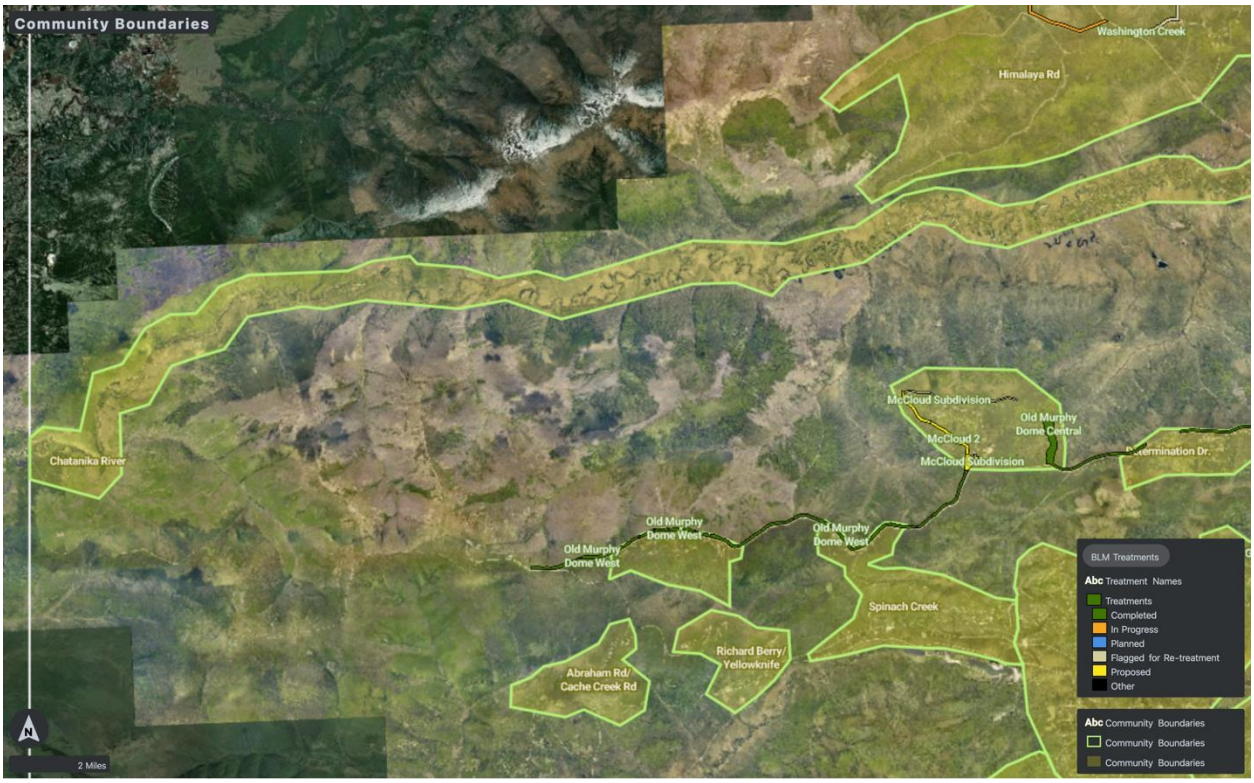

Figure 6 - Chatanika River WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	None/Off grid
General Construction:	Predominantly wood/log siding with asphalt/metal roof
Dual Access Roads:	No. Predominantly river access with some seasonal road access/off-road access
Road Widths, Slope and Surface:	See above
Water Supply:	Dip or Draft
Proximity to Fire Station:	This Community is 28 miles from the nearest fire station.

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IGNITABILITY DISCUSSION – CHATANIKA RIVER

ICHR Hazard Rating
Very High

Chatanika River area is a Community of very sparsely spaced recreational cabins, with a predominance of older/traditional construction. The construction type is largely wood/log siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections/additions. An average lot size of 1.1 acres makes these some of the smallest lots in the AOI, however, there are only 140 building footprints in this entire Community, so residential density is still quite low and structural spacing is generally large.

Heating is provided by wood stoves or fuel oil. Many homes have wood piles close to structures, which increases the risk of fire. The community's at-risk homes are located riverfront with substantial stringers of continuous black spruce adjacent to them. Some properties have partial defensible space clearings, but spruce is often too close to structures.

The topography is either flat/rolling or rises away from structures. Elevations range from 330 ft. to 1,165 ft. with slopes of up to 40°, although the mean slope is only 5.4°. Homes in this area are accessed primarily by riverboat (or snowmachine). The riverboat launches from Elliot Highway or the Murphy Dome Road Extension. Most homes lack visible address markers from the river.

The entirety of this community falls outside of a Fire Service Area. Homes in this Community are 27.9 to 28.8 miles from the nearest fire station. Water sources for fire suppression are dip or draft. River access only greatly complicates fire suppression efforts.

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Ignitability Discussion – Determination Drive

Figure 7 - Determination Drive WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above/Off grid
General Construction:	Wood/vinyl/metal siding with some log and asphalt/metal roof
Dual Access Roads:	No
Road Widths, Slope and Surface:	20ft surface, flat to steep, paved to seasonal
Water Supply:	Dip or Draft
Proximity to Fire Station:	11.7 to 16.1 miles

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Ignitability Discussion – Determination Drive

ICHR Hazard Rating
Very High

Determination Drive is a Community of varying densities of widely spaced homes on large lots, with a mix of older and newer construction. The predominant construction type is wood/vinyl/metal siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, or fuel oil. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire. This Community's most vulnerable homes are located on a south-facing ridgetop or mid-slope in steep/complex topography. Continuous black spruce stands are predominant. The western side of the community transitions into a hardwood component which is far less problematic from a wildfire perspective, but as you move toward the east, it becomes initially a spruce/hardwood mix then all spruce. Structures on the east side of Determination Drive are situated mid-slope with substantial stringers of continuous black spruce downslope of them. Some properties have partial defensible space clearings, but spruce is often too close to structures for this degree of slope.

Dog sled team operations are present in this community and present a substantial risk as the dogs are confined. They also increase the evacuation timeframe for humans and dogs.

The topography rises steeply from drainage bottom with slopes reaching up to 27° with a mean slope of 11.2°. This area is mostly wet drainage to ridgetop and elevations range from 1033feet to 1,585feet. Homes in this area are accessed exclusively from Old Murphy Dome Road which has 20-30foot clearance, in addition to either a substantial, adjacent shear blade fuel break, or a substantial hardwood component. Secondary roads are steep, narrow, seasonal/ dirt roads with tight hairpin turns. These roads are challenging for large suppression apparatus to navigate. Resolution and Hattie Creek Road intersections with Old Murphy Dome Road are marked with reflective signage, though some smaller roads lack signage. Many homes on secondary roads lack visible address markers.

The entirety of this Community falls outside of a Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or tender shuttle from Steese Fire Station 62 in Fox. This fire station is located approximately 13.1 miles from the most at-risk structures within the community. Resolution and Determination Road/Hattie Creek Road are single access/egress with no adequate Safety Zone on-site, further complicating fire suppression efforts.

The Old Murphy Dome East shear blade treatment adds some protection for this Community from wildfire from the north.

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Ignitability Discussion – Old Ridge Trail/Siegrist

Figure 8 - Old Ridge Trail/Seigrist WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above/Off grid
General Construction:	Wood/vinyl/poly/log siding with asphalt/metal roof
Dual Access Roads:	Single access on Old Ridge Trail
Road Widths, Slope and Surface:	Variable widths, flat to steep, paved to seasonal
Water Supply:	Dip or Draft
Proximity to Fire Station:	5.1 to 10 miles

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Ignitability Discussion – Old Ridge Trail/Siegrist

ICHR Hazard Rating
Very High

Old Ridge Trail/Siegrist Drive is a Community with varying concentrations of widely to moderately spaced homes on large to midsized lots. There is a mix of old and new construction. The predominant construction type is wood/vinyl/poly/log siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, fuel oil, or off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire, as well as long-range ember cast. The Community's most vulnerable homes are located primarily in continuous black spruce stringers running from drainage bottoms to homes located mid-slope and on ridgetops. There are heavy, continuous hardwood stands on both north and south-facing slopes. Black spruce stringers align with topography for rapid upslope fire runs. Old Nenana Highway generally follows a ridge with south-facing hardwoods transitioning to north-facing black spruce, but Siegrist Drive is south facing and situated in one of the continuous black spruce runs. Deraco Lane is situated at the top of slopes with a continuous black spruce running to the drainage bottom below. Old Ridge Trail is one way in, one way out, steep in places and narrow. It is surrounded by substantial hardwood and mixed hardwood/spruce stands, but there are also fingers of black spruce that threaten the road in places, potentially blocking the only escape route. Structures lower on Old Ridge Trail on the fringe of hardwoods and black spruce are vulnerable. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Dog sled team operations are present in this Community and are particularly vulnerable due to either upper-slope location or single road access issues hampering evacuation on Old Ridge Trail. They also increase the evacuation times of humans and dogs as it may take some mushers two or more trips to fully evacuate all the dogs.

The topography rises steeply in places from drainage bottoms with slopes reaching up to 28° with a mean slope of 7.7°. This Community varies from flat to rolling to steep and complex topography with ridges and wet drainages. Elevations range from 440 feet to 1,644 feet. Homes in this Community are accessed primarily from Old Nenana Highway which has a 25-40 foot vegetative clearance. Old Nenana has intermittent hardwood stands which will reduce fire behavior along this road. Secondary and tertiary roads are variable in condition and vegetative clearance. Some of these are narrow, seasonal dirt roads with tight hairpin turns that would be challenging for large suppression apparatus to navigate. Road intersections with Old Nenana are intermittently marked with reflective signage. Many smaller roads lack signage. Many homes on secondary roads lack visible address markers.

Approximately half of this community is in Ester Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or via tender shuttle from Ester Volunteer Fire Station 51 at the intersection of Parks Highway and Old Nenana Highway. This fire station is located approximately 9.3 miles from the most distant homes within this Community. Some secondary roads off of Old Nenana are single access/egress, meaning some of the most hazardous homes are also single access/egress with no adequate Safety Zone, further complicating fire suppression efforts.

Old Ridge Trail shear blade treatments adjacent to Goldstream Creek offer a break in the black spruce to the northwest of Old Ridge Trail.

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IGNITABILITY DISCUSSION – DUFFY LOOP/MIDDLE FORK ROAD

Figure 9 - Duffy Loop/Middle Road WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/vinyl siding, some heavy timber with asphalt/metal roof
Dual Access Roads:	No
Road Widths, Slope and Surface:	Variable widths, flat to steep, predominantly dirt with some seasonal
Water Supply:	Dip or Draft
Proximity to Fire Station:	16.1 to 27.2 miles

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Ignitability Discussion – Duffy Loop/Middle Fork Road

ICHR Hazard Rating
Very High

Duffy Loop/Middle Fork Road is a Community of different concentrations of widely spaced homes on large lots, with a mix of older and newer construction. The predominant construction type is wood/vinyl siding with some log construction. Asphalt or metal roofs are predominant. Most properties have outbuildings or woodsheds that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, or fuel oil. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire. This Community's most vulnerable homes are located on ridgetops and mid-slopes within steep/complex topography. Black spruce stands are the dominate fuel type. Some structures within this Community, including most structures on Sharmon Court, are situated mid-slope to top of slope with substantial stringers of continuous black spruce downslope of them. Many properties have partial defensible space clearings, but spruce is often too close to structures.

The topography rises steeply in places from drainage bottoms with slopes reaching up to 29° with a mean slope of 9° for the entire Community. This area has a mix of topography features, from ridges and wet drainages to rolling hills and flats. Elevations range from 548 feet to 2,506 feet. Homes in this area are accessed primarily from Elliot Highway which has ample (40-60 feet) clearance and adequate signage. Secondary roads are variable, some of these are narrow, seasonal dirt roads with tight hairpin turns. Some of these roads would be challenging for large suppression apparatus to navigate. Road intersections with Haystack Drive are relatively well marked with reflective signage, though some smaller roads lack signage. Many homes on secondary roads lack visible address markers.

This entire Community falls outside of a Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or tender shuttle from Steese Volunteer Fire Station in Fox. This fire station is located approximately 16 to 27 miles from homes within this Community, so response times will be long. The ridgetop Communities within this area are accessed solely by Haystack Drive, a two-way road with variable clearance but surrounded by large stretches of hardwoods. This means the structures that are at the highest risk are also single access/egress with no adequate Safety Zone on-site, further complicating fire suppression efforts.

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IGNITABILITY DISCUSSION – ELLIOT HIGHWAY

Figure 10 - Elliot Highway WUI Community

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Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/vinyl siding with asphalt/metal roof
Dual Access Roads:	No
Road Widths, Slope and Surface:	Variable widths, flat to steep, paved to seasonal
Water Supply:	Dip or Draft
Proximity to Fire Station:	5.7 to 17.5 miles

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Ignitability Discussion – Elliot Highway

ICHR Hazard Rating
Very High

The Elliot Highway area is a Community with varying concentrations of widely spaced homes on large lots. There is a mix of old and new construction. The predominant construction type is wood or vinyl siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, or fuel oil. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire. This Community's most vulnerable homes are located on ridgetops and mid-slopes within steep, complex topography. Some structures on Lundeberg Road are situated mid-slope with substantial stringers of continuous black spruce downslope of them. Many properties have partial defensible space clearings, but native vegetation is often too close to structures. Black Spruce is the dominant fuel type in this Community.

The topography rises steeply in places from drainage bottoms with slopes reaching up to 28° and a mean slope of 8.3°. Topography varies from flat areas, to rolling hills to complex terrain with ridges and wet drainages. Elevations range from 564 feet to 1,575 feet. Homes in this Community are accessed primarily from Elliot Highway which has a 40-60 foot clearance. Secondary roads are variable in width and surface quality. Some of these are narrow, seasonal dirt roads with tight hairpin turns that would be challenging for large suppression apparatus to navigate. Lundeberg Road is accessed solely by a road marked “At Your Own Risk”, meaning the structures that are the most hazardous are also single access/egress with no adequate Safety Zone, further complicating fire suppression response. Road intersections with Elliot Highway are consistently marked with reflective signage, though some smaller roads lack signage. Many homes on secondary roads lack visible address markers.

The majority of this Community falls outside of a Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or tender shuttle from Steese Volunteer Fire Station in Fox. This fire station is located approximately 11.5 miles from the most hazardous structures within this Community.

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IGNITABILITY DISCUSSION – ENGINEER CREEK BOWL/GILMORE TRAIL/TUNGSTEN TRAIL

Figure 11 - Engineer Creek/Gilmore Trail/Tungsten Trail WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/metal/poly/log siding with asphalt/metal roof
Dual Access Roads:	Single access on Upper Gilmore Trail, Upper Tungsten Trail
Road Widths, Slope and Surface:	Wide to variable widths, flat to moderate, paved to seasonal
Water Supply:	Tender shuttle from Steese Station 62 or Station 63
Proximity to Fire Station:	1 to 6 miles

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Ignitability Discussion – Engineer Creek Bowl/Gilmore Trail/Tungsten Trail

ICHR Hazard Rating
Very High

Engineer Creek/Gilmore/Tungsten is a Community situated largely on southern aspects in hardwood stands. It consists of variable concentrations of widely to moderately spaced homes on large to midsized lots. There is a mix of old and new construction, as well as some small businesses and rental properties. The predominant construction type is metal/wood/vinyl/log siding with an asphalt or metal roof. Many properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, fuel oil, or some off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire, as well as long-range ember cast. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Gilmore Trail generally runs along a ridgeline, with south-facing neighborhoods in protective hardwoods and north-facing structures in black spruce stands that increase wildfire hazards. There are also vulnerable structures in continuous spruce fuelbeds in the flats south and west of the Gold Mine Trail neighborhood. The upper reaches of Gilmore Trail turn into black spruce and constitute one of the most hazardous areas due to upslope, continuous black spruce stands and single access/egress. Some north facing structures on Goldstreak Road are also in black spruce stands.

Dog sled team operations have a small presence in this Community. They can increase the evacuation timeframe of humans and dogs as it may take some mushers two or more trips to fully evacuate all the dogs. Many mushers remove dog transport boxes during fire season to haul other supplies.

The topography ranges from flat to rolling hills, to steep slopes rising from drainage bottoms with slopes reaching up to 30° with a mean slope of 10.4°. Elevations range from 709 feet to 1,847 feet. Homes in this Community can be accessed by Gilmore Trail which connects to Gold Mine Trail and loops back to the Steese Highway. These roads, as well as Tungsten Trail, have predominant hardwood stands throughout, offering reduced fire behavior near the road during a wildfire evacuation event. The fact that these road networks are loops surrounded by hardwood stands gives most neighborhoods ample access/egress options, excluding the upper stretches of Gilmore and Tungsten which transition into single access. Secondary and tertiary roads are variable in condition and vegetative clearance, some of which are narrow, seasonal dirt roads. These roads can be challenging for large suppression apparatus to navigate. Intersections of major roads are consistently marked with reflective signage, while some secondary roads and smaller dirt roads are more sparsely marked. Many homes on smaller roads lack visible address markers.

The Steese Fire Service Area covers most of this Community. Water for fire suppression would most likely be delivered by tender shuttle from Station 62 or Station 63. These fire stations are located approximately one to six miles from the homes in this Community.

The Gold Mine Trail shear blade treatment offers some protection to structures off of Goldstreak Road from ignitions occurring to the north.

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IGNITABILITY DISCUSSION – HARDING/BIRCH LAKES

Figure 12 - Harding/Birch Lake WUI Community

Eastern/Southern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above/some off-grid systems
General Construction:	Wood/metal/poly/log siding with asphalt/metal roof
Dual Access Roads:	Single access on Country Road, Louis Demontford Drive, Birch Lake Road, Lost Lake Road, sections of Salcha Drive and several smaller roads.
Road Widths, Slope and Surface:	Wide to narrow, flat to moderate steepness, paved to seasonal road access/off-road access
Water Supply:	Dip or draft
Proximity to Fire Station:	0.3 to 19.9 miles

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Ignitability Discussion – Harding/Birch Lakes

ICHR Hazard Rating
Very High

Harding/Birch Lakes is a partially residential Community in the north that transitions to mainly lakefront residential. The lakefront homes are often tightly spaced on small lots with a mix of new and older, more traditional construction. The construction type is largely metal/wood/log/poly siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections/additions.

Heating is electric, wood stoves or fuel oil. Many homes have wood piles close to structures, which increases the risk of fire. This Community's vulnerable homes are in continuous, heavy spruce stands in the Country Road area and the Lost Lake Road area, as well as on both lakefronts. There are hardwood stands along the lakes which many structures have utilized for some protection, but beyond this thin stringer of hardwoods is often, expansive and continuous stands of spruce. Some properties have partial defensible space clearings, but spruce is often too close to structures.

The topography is generally flat to rolling, rising away from the lakes, steeply in some places. Elevations range from 643 feet to 1,926 feet with slopes of up to 47°. Richardson Highway is generally wide with ample clearance. Secondary and tertiary roads are variable in condition and vegetative clearance, some of these are narrow, seasonal dirt roads. These roads can be challenging for large suppression apparatus to navigate. Primary road intersections are consistently marked with reflective signage, while some secondary roads and smaller dirt roads are more sparsely marked. Many homes on smaller roads lack visible address markers. Many lake homes lack visible address markers, and identifiers from the water side are rare.

Although the entirety of this Community falls outside of a Fire Service Area, there is a fire station indicated in the GIS data (Salcha Fire and Rescue Station 122). This is a local volunteer fire department with discretionary response. Water sources for fire suppression are dip or draft. Lake access eases some evacuation concerns regarding limited road access.

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IGNITABILITY DISCUSSION – SALCHA RIVER

Figure 13 - Salcha River WUI Community

Eastern/Southern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above/off-grid systems
General Construction:	Wood/metal/log siding with asphalt or metal roof
Dual Access Roads:	Single access on Sadiemac Lane, Aurora Lodge. See below.
Road Widths, Slope and Surface:	Predominantly river access east of Richardson Highway with some seasonal roads and off-road access
Water Supply:	Dip or draft
Proximity to Fire Station:	0 to 13.4 miles

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IGNITABILITY DISCUSSION – SALCHA RIVER

ICHR Hazard Rating
Very High

The Salcha River Community is a mixed area of some residential clusters accessible by road in the west and very sparsely spaced recreational cabins on large lots in the east along the river. There is a mix of new, old and seasonal cabin construction. Construction types are largely metal, wood or log siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections or additions.

Heating is provided by wood stoves, fuel oil or electricity. Many homes have wood piles close to structures, which increases the likelihood of an ignition. This Community's most vulnerable homes are primarily located on the riverfront with substantial stringers of continuous black spruce adjacent to them. There is a hardwood component along the river which many structures have utilized for some protection, but beyond this thin stringer of hardwoods is often an expansive and continuous stand of spruce. Some properties have partial defensible space clearings, but spruce is often too close to structures.

The topography is generally flat to rolling, however there are also steep slopes above the river, especially to the north. Elevations range from 623 feet to 1,844 feet. Although the steepest slopes reach 47°, the mean slope of this Community is 4.8°. Recreational cabins in this Community are accessed primarily by riverboat which launches from the Richardson Highway, or by snowmachine in the winter. Most homes lack visible address markers from the river.

Although the Salcha River Community falls outside of a Fire Service Area, Salcha Fire and Rescue maintains a station (Station 122) in this Community. Salcha Fire and Rescue is a member-based, volunteer fire department with discretionary response. Water sources for fire suppression are dip or draft from natural water sources, or possibly a tender shuttle from Salcha Station 122 if that station is equipped with water tenders. River only access greatly complicates fire suppression efforts, including response time and logistics.

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Ignitability Discussion – Nenana Ridge

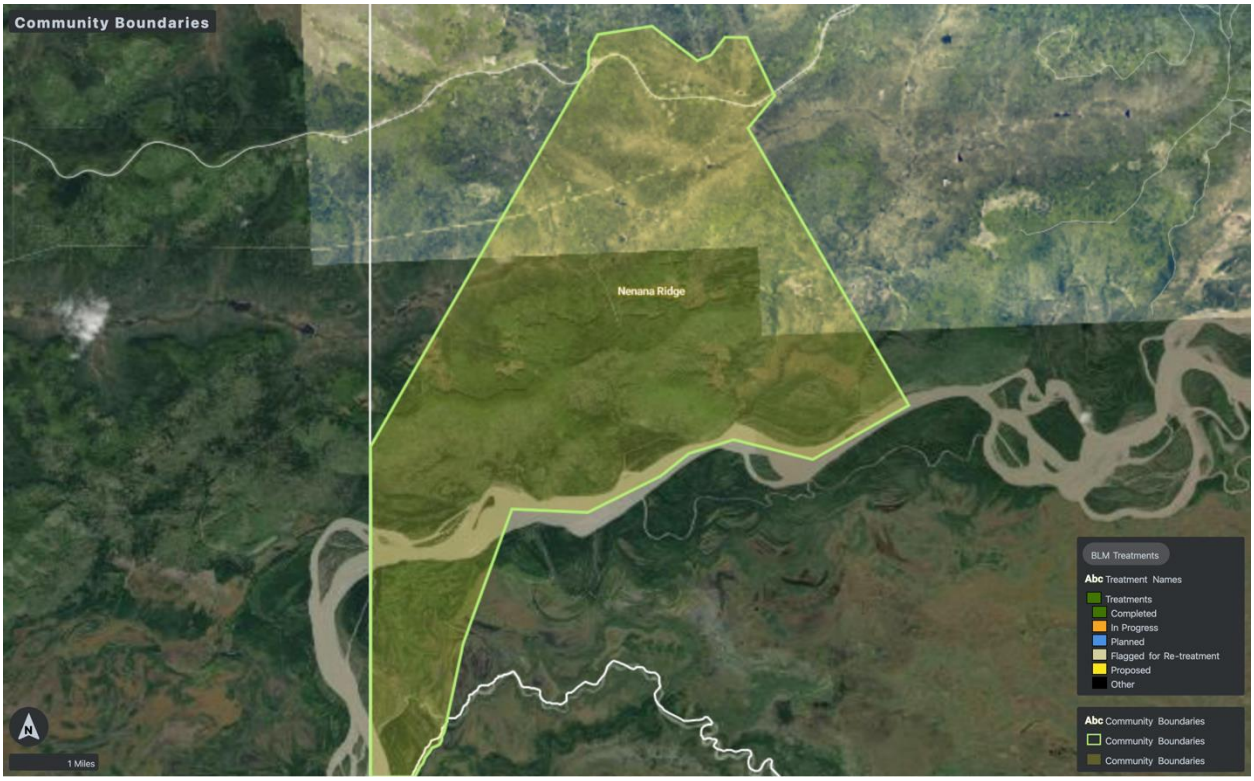

Figure 14 - Nenana Ridge WUI Community

Western Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/metal/log siding with asphalt or metal roof
Dual Access Roads:	Yes
Road Widths, Slope and Surface:	Wide/major to seasonal, flat to moderate, paved to dirt
Water Supply:	Dip or draft
Proximity to Fire Station:	20 to 23 miles

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Ignitability Discussion – Nenana Ridge

ICHR Hazard Rating
Very High

Nenana Ridge is a small Community of widely to moderately spaced homes and businesses on large to midsized lots, with a mix of old and new construction. The predominant construction type is wood/metal/log siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, and fuel oil. Some homes have oil tanks or wood piles close to structures, as well as flammable supply caches, which increases the likelihood or ignition, as well as long-range ember cast. This Community's most vulnerable homes are located primarily in a continuous white/black spruce mix fuelbed on flat to rolling terrain. These unbroken fuelbeds of spruce are more hazardous due to frequent exposure to high winds. The Parks Highway has ample vegetative clearance and intermittent, although substantial, hardwood stands. Many properties have adequate defensible space clearings, however, there are still some homes without defensible space.

The topography is generally flat to gently rolling. Although there are some slopes up to 35° the mean slope in this Community is only 4.2°. Elevations range from 358 feet to 1,096 feet. Homes in this area are accessed exclusively from Parks Highway which has ample (50-75 feet) vegetative clearance. The Parks Highway has intermittent hardwood stands along its entire length through this Community, so fire intensity near the road should be subdued. Secondary roads are variable in terms of condition and clearance to vegetation. Some of these are narrow, seasonal dirt roads with tight hairpin turns. These roads are challenging for large suppression apparatus to navigate. Intersections with Parks Highway are intermittently marked. Many smaller roads lack signage. Many homes on secondary roads lack visible address markers.

This Community falls entirely outside of a Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or via tender shuttle from either Ester Volunteer Fire Station 51 at the intersection of Parks Highway and Old Nenana Highway, or the Ester Volunteer Fire Department fill site on Oboe Court. Fire Station 51 is located approximately 23 miles from the most distant homes in this Community.

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Ignitability Discussion – Richard Berry/Yellowknife

Figure 15 - Richard Barry/Yellowknife WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above/Off-grid systems
General Construction:	Wood/vinyl/poly/log siding with asphalt or metal roof
Dual Access Roads:	Single access on Yellowknife Drive
Road Widths, Slope and Surface:	Variable, see text
Water Supply:	Dip or draft
Proximity to Fire Station:	5.5 to 12.7 miles

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IGNITABILITY DISCUSSION – RICHARD BERRY/YELLOWKNIFE

ICHR Hazard Rating
Very High

Yellowknife Drive and Richard Berry Drive are two neighborhoods in close proximity. They are split by a ravine and Spinach Creek. This Community has varying concentrations of widely spaced homes on large lots, with a mix of old and new construction. The predominant construction type is wood/vinyl/poly/log siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Many of this Community's homes are built in hardwoods which offer some protection from wildfire, but there are also black spruce stands on the fringe of the dominant hardwood stands. This is particularly true on Yellowknife Drive where several of the switchbacks cross black spruce stands making structures built there more hazardous.

Heating is provided by electricity, wood stoves, or fuel oil. Many homes have oil tanks or wood piles close to structures, which increases the likelihood of an ignition. This Community's most vulnerable homes are located on ridgetops and the upper 1/3 of slopes in steep, complex topography. Although hardwood stands are the dominant fuels on these slopes, mixed stands of hardwood and spruce are also present in varying concentrations. There is also the possibility of wildfire running up and over the northeast ridge and threatening south facing structures on Yellowknife Drive situated in the spruce fringe. There are also some structures closer to Spinach Creek located in substantial stringers of unbroken spruce stands. Many properties have partial defensible space clearings, but spruce is often too close to structures.

The topography rises steeply in places from drainage bottoms with slopes reaching up to 31° with a mean slope of 9.1°. This area has a mix of flat to rolling topography and steep slopes complicated by ridges and wet drainages. Elevations range from 479 feet to 1745 feet. Homes in this Community are accessed primarily from Murphy Dome Road which has 20-30 feet of clearance. Secondary roads generally have good vegetative clearance at intersections with Murphy Dome Road, which lessens further away, eventually becoming narrow, seasonal dirt roads with tight hairpin turns. These roads are challenging for large suppression apparatus to navigate. Intersections with Murphy Dome Road are marked with reflective signage, though some smaller roads lack street signs. Many homes on secondary roads lack visible address markers.

The Richard Berry portion of this Community is within the Chena Goldstream Fire Service Area. The Yellowknife portion falls outside of a Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or tender shuttle from Chena Goldstream Fire Station 41 on Murphy Dome Road. This fire station is located approximately 11.7 miles from the most vulnerable structures within this Community. Yellowknife Drive and Williston Way are accessed solely through by Murphy Dome Road, meaning the structures that are most vulnerable are also single access/egress with no adequate Safety Zone, further complicating fire suppression efforts.

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IGNITABILITY DISCUSSION – SALCHA AREA

Figure 16 - Salcha Area WUI Community

Eastern/Southern Annex

Zone Characteristics and Hazards

Hazard Rating:	**Very High**
Utilities Above or Below Ground:	Above/ some off-grid systems
General Construction:	Wood/metal/poly/log siding with asphalt or metal roof
Dual Access Roads:	Single access on Johnson Road, Canaday Road, some tertiary roads
Road Widths, Slope and Surface:	Variable, see text
Water Supply:	Dip or draft. Possibly tender shuttle
Proximity to Fire Station:	0 to 8.4 miles

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Ignitability Discussion – Salcha Area

ICHR Hazard Rating
Very High

The Salcha Area Community is primarily composed of residential homes with some businesses bordered by the Tanana River and Richardson Highway to the west and the Salcha River to the south. This Community consists primarily of widely to moderately spaced homes on large to midsized lots, with a mix of old and new construction, as well as rental properties, businesses and industrial properties. The predominant construction type is metal/wood/vinyl/poly/log siding with a asphalt or metal roof. Many properties have outbuildings, wood piles or wood sheds, and supply stashes that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

The structures in the north are spread out through long, continuous, uninterrupted stands of black and white spruce. This consistent spruce presence and potential southern wind effects over the flatter topography to the south increases the chances of a significant ignition. A substantial hardwood component does emerge in key places extending south along the Richardson Highway, offering some protection to Salcha (proper) and the surrounding neighborhoods in these hardwood stands. Outside of these hardwood mosaics the dominant fuels are uninterrupted spruce stands.

Johnson Road is a single access/egress road though it is surrounded by hardwood stands. Some smaller roads such as Sundown Road or Ingrid Trail that access satellite neighborhoods are single access/egress and cross heavy spruce stands, making them more difficult to defend as agency resources will be resistant to committing personnel for fear of entrapment. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Heating is provided by electricity, wood stoves, fuel oil, or some off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the likelihood of ignition, as well as long-range ember cast.

The topography is generally flat transitioning into more complex topography in the south. Although this Community has a mean slope of only 2.6° the steepest slopes reach 37°. Elevations range from 551 feet to 1,660 feet. Richardson Highway is generally wide with ample clearance. Secondary and tertiary roads are variable in condition and vegetative clearance. Some of these are narrow, seasonal dirt roads that can be challenging for large suppression apparatus to navigate. Primary road intersections are consistently marked with reflective signage, while some secondary roads and smaller dirt roads are more sparsely marked. Many homes on smaller roads lack visible address markers.

Although the Salcha Area Community falls outside of a Fire Service Area, Salcha Fire and Rescue maintains a station (Station 121) in this Community. Salcha Fire and Rescue is a member-based, volunteer fire department with discretionary response. Water sources for fire suppression are dip or draft from natural water sources, or possibly a tender shuttle from Salcha Station 121 or 122 if those stations are equipped with water tenders. Although there are several ponds in the southern portion of this Community, natural water sources are sparse in the northern portion.

The Johnson Road mechanical fuel breaks offer some protection to the East.

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Ignitability Discussion – Abraham Road/Cache Creek

Figure 17 - Abraham Road/Cache Creek WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Off-grid systems
General Construction:	Wood/vinyl/poly/log siding with asphalt or metal roof
Dual Access Roads:	Yes
Road Widths, Slope and Surface:	Narrow, flat to steep, gravel to seasonal
Water Supply:	Dip or draft
Proximity to Fire Station:	9.3 to 13.1 miles

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Ignitability Discussion – Abraham Road/Cache Creek

ICHR Hazard Rating
High

Abraham Road/Cache Creek Road is a Community with varying concentrations of widely spaced homes on large lots. There is a mix of older and newer construction. It is the Fairbanks North Star Borough's only registered Firewise Community. Firewise certification requires a community to develop their own risk assessment and action plan, as well as to form a community committee to make wildfire a significant part of the community narrative. In this Community, among other things, this has directly translated into increased defensible space around structures. The predominant construction type in this Community is wood/vinyl/log siding with an asphalt or metal roof. Many properties have outbuildings that are vulnerable to fire, as well as vulnerable to ember cast from large fires in the area. Many homes have flammable decks, stairs, and other projections. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Heating is provided by off-grid electricity, wood stoves, or fuel oil. Many homes have oil tanks or wood piles close to structures. The bulk of the homes in this Community with a significant exposure to wildfire are located on a ridgetop off Abraham Road. Highly flammable north-facing black spruce stands are continuous from the homes to the drainage bottom. Fires in these fuels could also substantially impinge Abraham Road, forcing evacuations to utilize the secondary Cache Creek Road out to Murphy Dome. Some south facing, mid-slope structures could also be threatened by small fire runs in black spruce stringers within hardwood stands, as well as in spruce/hardwood mixed stands. Hardwoods adjacent to roads in this area were heavily damaged by a recent ice storm, leaving heavy loads of dead and down surface fuels, as well as broken standing-dead trees (snags).

There is steep/complex topography throughout this Community. The topography rises steeply from drainage bottoms with slopes reaching up to 32°. This Community has a mean slope of 13.5°. The main topographic feature is a generally east-west running ridge with some south facing bowls. Elevations range from 738 ft. to 1,804 ft. Homes in this area are accessed primarily from Murphy Dome Road which has 20-30 ft. clearance. Abraham Road, the primary access road, runs across the ridgetop above a continuous black spruce fuelbed to the drainage bottom. The road itself has 20-25 ft. clearance where it leaves Murphy Dome Road, but its clearance deteriorates to 12-15 ft. at its westernmost point. Secondary roads are variable, some of these are narrow, seasonal dirt roads with tight hairpin turns. These roads are challenging for large suppression apparatus to navigate. Road intersections with Murphy Dome Road are marked with reflective signage, as well as most smaller roads. Some homes on secondary roads lack visible address markers.

The entirety of this community falls outside of a Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or via tender shuttle from Chena Goldstream Fire Station 41 on Murphy Dome Road. This fire station is located as far as 13 miles away from the most hazardous structures within this Community. Homes in this Community are 1.2 to 3.2 miles from the closest water source.

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Ignitability Discussion – Old Murphy Dome/Bristol Bay

Figure 18 - Old Murphy Dome/Bristol Bay WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/vinyl/metal siding with asphalt or metal roof
Dual Access Roads:	Single access on High Sierra Drive
Road Widths, Slope and Surface:	15-20 feet vegetation clearance, flat to steep, gravel/dirt to seasonal
Water Supply:	Dip or draft
Proximity to Fire Station:	8 to 11.4 miles

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Ignitability Discussion – Old Murphy Dome/Bristol Bay

ICHR Hazard Rating
High

Old Murphy Dome/Bristol Bay Road area is a Community with variable concentrations of widely spaced homes on large lots. Homes are a mix of old, new, and unconventional conventional construction types. The predominant construction type is wood/metal siding with an asphalt or metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, or fuel oil. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire. The Community's most hazardous homes are located mid-slope to the upper 1/3 of ridges within steep and complex topography. Mixed black spruce and hardwood stands are the dominant vegetation in these areas. Some structures have more of a black spruce component downslope of them, but the predominant fuel type is a spruce and hardwood mix. The recent Shovel Creek Fire (2019) offers substantial protection from wildfire impingement from the north. Many properties have partial defensible space clearings, but spruce is often too close to structures.

The topography rises steeply from drainage bottom with slopes reaching up to 26° with a mean slope of 10.8°. Slopes opposite this Community consist of continuous black spruce to the drainage bottom where it changes to more of a hardwood component with intermixed spruce still present. Elevations range from 709 feet to 2007 feet. Homes in this Community are accessed from Old Murphy Dome Road which has vegetative clearance of 20-30 feet as well as the Old Murphy Dome shear blade fuelbreak which is adjacent to the road. This Community is protected from the north by the 2019 Shovel Creek Fire burn scar. Old Murphy Dome Road turns into an unmaintained seasonal road after McCall Road, so this route cannot be depended upon in an evacuation or for responder access. Secondary roads are variable in condition and clearance. Some of these are narrow, seasonal dirt roads with tight hairpin turns that are challenging for large suppression apparatus to navigate. Road intersections with Old Murphy Dome Road are inconsistently marked with reflective signage and some smaller roads lack signage. Many homes on secondary roads lack visible address markers.

This Community falls outside of a Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources, or via tender shuttle from Chena Goldstream Fire Station 41. During the Shovel Creek Fire there was also an improvised fill site to the west of the fire station. Station 41 is located approximately 11 miles from the most hazardous structures within the Community. High Sierra Drive is single access, further complicating fire suppression efforts.

Ignitability Discussion – Peartree/Parks Ridge/Cripple Creek

Figure 19 - Peachtree/Parks Ridge/Cripple Creek WUI Community

Western Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/metal/log siding with asphalt or metal roof
Dual Access Roads:	Yes
Road Widths, Slope and Surface:	Variable, see text
Water Supply:	Dip or draft
Proximity to Fire Station:	1.6 to 5 miles

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Ignitability Discussion – Peartree/Parks Ridge/Cripple Creek

ICHR Hazard Rating High

Peartree Loop/Parks Ridge/Cripple Creek is a small Community concentrated mostly in south-facing hardwood stands. It consists of widely to moderately spaced homes on large to midsized lots, with a mix of old and new construction. The predominant construction type is wood/metal/log siding with an asphalt or metal roof. Many properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, and fuel oil. Some homes have oil tanks or wood piles close to structures which increase the likelihood of ignitions, as well as long-range ember cast. This Community's most vulnerable homes are located where hardwood stands transition to black spruce. Most structures are situated in hardwood stands, but structures on the margins of mixed stands of hardwoods and spruce, particularly where the ridgetop shifts to north-facing, could see extreme fire behavior and ember cast from uphill fire runs in the north-facing spruce. There are also some vulnerable structures to the south of Cripple Creek Road situated in spruce stands, although these are less vulnerable than mid-slope and ridgetop homes as they are between a creek and the road in flat to mildly rolling topography. The Parks Highway has ample vegetative clearance and hardwood stands are dominant near the highway in this Community. Many properties in the spruce/hardwood fringe have moderate clearings but most homes lack adequate defensible space.

The topography is variable ranging flat to rolling, to steep complex with slopes reaching up to 24° and a mean slope of 9.2°. Elevations range from 610 feet to 1,529 feet. Homes in this Community are accessed primarily from the Parks Highway. Secondary roads such as Cripple Creek Road range from paved surfaces with ample vegetative clearance and paved gravel roads with tight hairpin turns. These secondary roads are challenging for large suppression apparatus to navigate. Intersections with the Parks Highway are marked with reflective signage. Some secondary roads lack street signs, and some homes lack visible address markers.

This Community is in Ester Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or tender shuttle from Ester Volunteer Fire Station 51 at the intersection of Parks Highway and Old Nenana Highway, or Ester Volunteer Fire Department fill site on Oboe Court. Fire Station 51 is located approximately 5 miles from the most distant homes in this Community.

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Ignitability Discussion – Farmers Loop/Skyridge Drive

Figure 20 - Farmers Loop/Skyridge

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/metal/poly/log siding with asphalt or metal roof
Dual Access Roads:	Single access on multiple secondary roads off of Farmers Loop Road and Skyline Drive
Road Widths, Slope and Surface:	Wide to variable widths, flat to moderate, paved to seasonal
Water Supply:	Dip/Draft from small ponds, but most likely tender shuttle from Station 61 or 62.
Proximity to Fire Station:	0 to 5.1 miles. Steese Station 61 is in this Community and Station 62 is just outside the eastern boundary.

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Ignitability Discussion – Farmers Loop/Skyridge Drive

ICHR Hazard Rating
High

Farmers Loop/Skyridge Drive is a large Community with varying concentrations of widely to moderately spaced homes on generally midsized lots. There is a mix of old and new construction, as well as rental properties, businesses and small industrial sites. The predominant construction type is metal/wood/vinyl/log siding with an asphalt or metal roof. Many properties have outbuildings or supply caches that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections. Heating is provided by electricity, wood stoves, fuel oil, or some off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the likelihood of home ignition from ember cast.

This Community is much like the Goldstream/ Sheep Creek Community, but on a smaller scale, Farmers Loop generally runs adjacent to a ridgeline, with south-facing neighborhoods in protective hardwoods and north-facing structures in black spruce stands that increase wildfire hazards. There are also vulnerable structures on the flats located in continuous spruce stands. The secondary roads that run off Farmers Loop Road into black spruce constitute the highest hazard area and most of these homes have only single access/egress. Many of this Community's most vulnerable homes are located in flat to rolling terrain with a heavy black spruce fuelbed to the south of Farmers Loop. These spruce stands, unlike spruce stringers in the outskirt communities of the FNSB, are often broken by residential neighborhoods or infrastructure. Many properties have partial defensible space clearings, but spruce is still often too close to structures.

Dog sled team operations are present in this Community and are particularly at-risk due to the high spruce density. They also increase the evacuation timeframe of humans and dogs as it may take some mushers two or more trips to fully evacuate all the dogs. Many mushers remove dog transport boxes during fire season to haul other supplies.

The topography ranges from flat to rolling hills to steep slopes rising from drainage bottoms. Slopes reach up to 26° and even with significant flat areas this Community still has a mean slope of 5.6°. Elevations range from 446 feet to 1,529 feet. Homes in this Community are accessed primarily by Farmers Loop or Skyridge Drive which both have intermittent hardwood stands throughout, offering reduced fire intensity along these roads during most wildfire evacuations. The fact that these road networks are loops adjacent to hardwood stands gives most residents ample access/egress options. Secondary and tertiary roads are variable in condition and vegetation clearance. Some of these are narrow, seasonal dirt roads and some homes are only accessible by rough single access roads which complicates suppression efforts due to a resistance to committing firefighters for fear of entrapment. These roads would be challenging for large suppression apparatus to navigate. Intersections of major roads are consistently marked with reflective signage, while some secondary roads and smaller dirt roads are more sparsely marked. Many homes on smaller roads lack visible address markers.

This Community is split between the Steese Fire Service Area and the University Fire Service Area. Water sources for fire suppression could be dip or draft from small ponds, but water would most likely be delivered by tender shuttle from Steese Station 61 or 62. Steese Station 61 is located in this Community and is 5.1 miles from the most remote homes in this Community.

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IGNITABILITY DISCUSSION – CHENA HOT SPRINGS ROAD

Figure 21 - Chena Hot Springs Road WUI Community

Eastern/Southern Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Above/Off grid
General Construction:	Wood/metal/poly/log siding with asphalt or metal roof
Dual Access Roads:	Single access on numerous secondary roads off Chena Hot Springs Road
Road Widths, Slope and Surface:	Wide to variable widths, flat to moderate, paved to seasonal
Water Supply:	Dip/Draft from natural sources within the Community
Proximity to Fire Station:	1 to 13.1 miles

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Ignitability Discussion – Chena Hot Springs Road

ICHR Hazard Rating
High

The Chena Hot Springs Road Community is a series of neighborhoods spreading north and south off Chena Hot Springs Road as it extends out of steeper, more complex topography in the west to rolling flats in the east. This Community consists of different concentrations of widely to moderately spaced homes on large to midsized lots, with a mix of older and newer construction, as well as rental and small commercial properties. The predominant construction type is metal/wood/vinyl/log siding with an asphalt/metal roof. Many properties have outbuildings, wood piles or woodsheds, and supply stashes that are vulnerable to fire. Many properties also have flammable decks, stairs, and other projections. Heating is provided by electricity, wood stoves, fuel oil, or some off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire, as well as long-range ignition from ember cast.

From west to east fuels transition from south facing hardwoods with pockets of spruce to a more continuous spruce component with a high potential for wind-driven fires. In the eastern flats Western Chena Hot Springs Road generally has a large hardwood component except for the north-facing terrain and flats behind Birch Hill, where there is a substantial spruce component. This type of continuous spruce flat becomes more prominent in the eastern side of this Community. Many of the access roads extending from Chena Hot Springs Road are single access/egress surrounded by heavy spruce fuelbeds. This makes fire suppression difficult as Agency resources are resistant to committing personnel for fear of entrapment. There are also clusters of homes off Nordale Road located in continuous spruce stands. Many properties have partial defensible space clearings, but spruce is often too close to structures.

This area is known for a large presence of dog sled teams. These operations are particularly threatened by the heavy spruce fuel loads and the potential for fast-moving, wind-driven fires. Evacuation may be time consuming and logistically difficult for these properties, as it may take some mushers two or more trips to fully evacuate all the dogs. Many mushers also remove dog transport boxes during fire season to haul other supplies.

The topography ranges from flat or mildly rolling hills to steep slopes rising from drainage bottoms. Slopes reach up to 29°, although the mean slope is only 5.2°. Elevations range from 472 feet to 1,562 feet. Chena Hot Springs Road serves as the main artery of transportation for this Community with all secondary roads extending from it. Nordale Road is the most substantial cutoff that leads to the Badger Road area. Chena Hot Springs Road is surrounded by an intermittent to substantial hardwood component throughout which should reduce fire intensity near this road during a wildfire evacuation. Secondary and tertiary roads are variable in condition and vegetation clearance, some of these are narrow, seasonal dirt roads. These roads can be challenging for large suppression apparatus to navigate. Road intersections with Chena Hot Springs Road are consistently marked with reflective signage, while some secondary roads and smaller dirt roads are more sparsely marked. Many homes on smaller roads lack visible address markers.

The Steese Fire Service Area and North Star Fire Service Area split first response duties. Water for fire suppression consists of dip/draft or tender shuttle from natural water sources within the Community. The closest fire station is located approximately one mile from the nearest structures and over 13 miles for those furthest away, with a mean distance of 5.6 miles from homes to the closest fire station.

South of the eastern side of this community are the Little Chena shear blade/mechanical fuel breaks. To the north are the Smallwood Creek treatments.

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IGNITABILITY DISCUSSION – PLEASANT VALLEY

Figure 22 - Pleasant Valley WUI Community

Eastern/Southern Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Above/Off grid
General Construction:	Wood/metal/poly/log siding with asphalt or metal roof
Dual Access Roads:	Single access on numerous secondary roads off Chena Hot Springs Road
Road Widths, Slope and Surface:	Variable, see text
Water Supply:	None, other than a few ponds
Proximity to Fire Station:	20 to 28 miles

FNSB CWPP Appendix A

Ignitability Discussion – Pleasant Valley

ICHR Hazard Rating
High

Pleasant Valley is a series of homes that spread north and south from Chena Hot Springs Road. These homes are situated in black spruce and mixed spruce/hardwood stands between the Chena River and steeper topography to the north. Although there are breaks in fuel continuity provided by the Stuart Creek and Nugget Creek fire scars to the south, there are still continuous spruce patches between the Chena River and this Community. This Community consists of variable concentrations of widely to moderately spaced homes on large to midsized lots. There is a mix of old and new construction, as well as rental and small business properties. The predominant construction type is metal/wood/vinyl/log siding with an asphalt or metal roof. Many properties have outbuildings, wood piles or wood sheds, and supply stashes that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Chena Hot Springs Road has intermittent bands of hardwoods along the road, but beyond the hardwoods there are often continuous black spruce stands. These continuous stands intersect the road in some places. Some of the roads extending from Chena Hot Springs Road are single access/egress through heavy spruce concentrations, making them more difficult to defend as agency resources are likely to be resistant to committing personnel for fear of entrapment. There is a mosaic of agricultural clearings in Pleasant Valley, with the greatest number of these in the southern portion. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Heating is provided by electricity, wood stoves, fuel oil, or some off-grid systems. Many homes have oil tanks or wood piles close to structures that increase the likelihood of ignition and long-range ember cast.

This area is known for having a large presence of dog sled teams. These operations are particularly vulnerable due to the prevalence of heavy spruce stands and the high potential for fast-moving, wind-driven fires. They also increase evacuation times of humans and dogs as it may take some mushers two or more trips to fully evacuate all the dogs. Many mushers remove dog transport boxes during fire season to haul other supplies.

The topography is generally flat to gently rolling, but there are some steep slopes above drainage bottoms. Although the steepest slopes reach 28°, this Community has a mean slope of only 2°. Elevations range from 548 feet to 1,159 feet. Chena Hot Springs Road serves as the main transportation artery for this Community with all secondary roads extending from it. Chena Hot Springs Road is surrounded by intermittent heavy hardwood stands sporadically throughout its length, offering some reduction in fire intensity during a wildfire evacuation. Secondary and tertiary roads are variable in condition and vegetative clearance, some of these are narrow, seasonal dirt roads. These roads can be challenging for large suppression apparatus to navigate. Intersections with Chena Hot Springs Road are consistently marked with reflective signage, while some secondary roads and smaller dirt roads are more sparsely marked. Many homes on these smaller roads lack visible address markers.

This Community falls completely outside of a Fire Service Area. Water sources for fire suppression are most likely dip or draft from natural water sources. The closest fire station is Steese Station 62 which is 28 miles from the most distant homes in this Community. While a tender shuttle is possible from Station 62 it is unlikely to be effective considering the distances involved.

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Ignitability Discussion – Eielson Farm Road North/Moose Creek

Figure 23 - Eielson Farm Road North/Moose Creek WUI Community

Urban Core Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/metal/poly/log siding with asphalt or metal roof
Dual Access Roads:	Single access on Old Valdez Trail/some tertiary roads
Road Widths, Slope and Surface:	Wide to variable widths, flat to moderate, paved to seasonal
Water Supply:	Dip/draft from natural sources. Tender shuttle from Station 35 or single hydrant located on the southern end of this Community
Proximity to Fire Station:	0 to 8.7 miles. Station 35 is in this Community

FNSB CWPP Appendix A

Ignitability Discussion – Eielson Farm Road North/Moose Creek

ICHR Hazard Rating
High

The Eielson Farm Road North/Moose Creek Community is composed of primarily residential homes bordered by the Tanana River to the southwest and the Pipeline Access Road to the north. This Community consists primarily of widely to moderately spaced homes on larger/midsized lots, with a mix of older and newer construction. The predominant construction type is metal/wood/vinyl/poly/log siding with an asphalt/metal roof and some cedar shake. Many properties have outbuildings, wood piles or wood sheds, and supply stashes that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

The structures in Moose Creek to the north of the Richardson Highway are located in primarily hardwood fuelbeds, but beyond the small patch of hardwoods is a long, continuous stand of black spruce/white spruce. Montana Circle transitions into an even heavier spruce component. Beyond the mixed stands of spruce/hardwoods, fuels transition to heavily spruce dominant stands. Potential wind effects over this flatter topography increases the chance of significant ember cast and direct flame impingement. Also of concern are sections of Old Valdez Trail due also to a heavy spruce fuelbed. This area is protected by the Tanana River to the south and to some degree by the pipeline cut in the north. The pipeline cut is not a stand-alone fuelbreak, but it does offer an opportunity as a control line for Agency resources to burn from consuming fuel ahead of a large fire moving from the north. There are also agricultural clearings that provide some break in fuel continuity. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Heating is provided by electricity, wood stoves, fuel oil, or some off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire, as well as long-range ember impingement.

The topography is generally flat transitioning into some hills and drainages in the south with reaching 10°, however the mean slope for the entire Community is less than 1°. Elevations range from 509 to 564 feet. Richardson Highway is generally wide with ample clearance; however, some sections of Old Valdez Trail are single access/egress. Other access roads, such as Osage Street, extend into satellite neighborhoods that are single access/egress with homes located in heavy spruce fuelbeds, making them more difficult to defend as Agency resources will be resistant to committing personnel for fear of entrapment. Secondary and tertiary roads are variable in condition and vegetation clearance, some of these are narrow, seasonal dirt roads. These roads can be challenging for large suppression apparatus to navigate. Primary road intersections are consistently marked with reflective signage, while some secondary roads and smaller dirt roads are more sparsely marked. Many homes on smaller roads lack visible address markers.

The Eielson Farm Road North/Moose Creek Community falls mostly within the North Star Fire Service Area and Station 35 is located in this Community. Water sources for fire suppression are dip or draft from natural water sources, as well as tender shuttle from Station 35, which is 8.7 miles from the most distant homes in this Community. There is also a single North Star Volunteer Fire Department hydrant just outside the southern border of this Community.

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IGNITABILITY DISCUSSION – GOLDHILL/ESTER

Figure 24 - Goldhill/Ester WUI Community

Western Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Above/Off grid
General Construction:	Wood/vinyl/poly/log siding with asphalt or metal roof
Dual Access Roads:	Yes
Road Widths, Slope and Surface:	Wide to variable widths, flat to steep, paved to seasonal
Water Supply:	Ester Volunteer Fire Department/Dip or draft
Proximity to Fire Station:	0 to 8.7 miles. Station 35 is in this Community

FNSB CWPP Appendix A

Ignitability Discussion – Goldhill/Ester

ICHR Hazard Rating
High

Goldhill/Ester is a Community with variable concentrations of widely to moderately spaced homes on large/midsized lots. There is a mix of older and newer construction. The predominant construction type is wood/vinyl/poly/log siding with an asphalt or metal roof, as well as some cedar shake. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, fuel oil, or off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire, as well as long-range ember cast. The Community's most vulnerable homes are located primarily in either flat to rolling terrain with continuous black spruce stands (the Gold Hill Road area), or north-facing upper slopes also with black spruce stands. Old Nenana Highway generally follows a ridge with south-facing hardwoods transitioning to north-facing black spruce. The structures built on the edge of these two fuel types are more hazardous. Neighborhoods south of the Parks Highway have continuous black spruce stands in the Cripple Creek drainage. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Dog sled team operations are present in this Community and present a substantial risk as the dogs are confined. They increase the evacuation times of humans and dogs as it may take some mushers two or more trips to fully evacuate all the dogs.

The topography rises steeply in places from drainage bottoms with slopes reaching up to 26°. Even with large areas of flat to gently rolling terrain, the mean slope of this Community is still 5.5°. Elevations range from 456 feet to 2,362 feet. Homes in this area are accessed primarily from Parks Highway, Old Nenana Highway, or Gold Hill Road. These primary access roads generally have ample (25-90 feet) clearance. Old Nenana is on the narrower end of this range but runs through fairly consistent hardwood stands. Secondary and tertiary roads are variable, some of which are narrow, seasonal dirt roads with tight hairpin turns. These roads are challenging for large suppression apparatus to navigate. Road intersections with Parks Highway and Goldhill Road are consistently marked with reflective signage, while Old Nenana is more intermittently marked. Many smaller roads lack signage. Many homes on secondary roads lack visible address markers.

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Ignitability Discussion – Spinach Creek

Figure 25 - Spinach Creek WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/vinyl/poly/metal/log siding with asphalt or metal roof
Dual Access Roads:	Yes
Road Widths, Slope and Surface:	Predominantly ample widths, flat to steep, paved to gravel
Water Supply:	Dip or draft
Proximity to Fire Station:	0.5 to 6.2 miles

FNSB CWPP Appendix A

Ignitability Discussion – Spinach Creek

ICHR Hazard Rating
High

Spinach Creek Community is a dynamic Community with varying concentrations of widely spaced homes on large lots. These are a mix of old and new construction. The predominant construction type is wood/vinyl/metal siding with some log. Most roofs are asphalt or metal. Many properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, or fuel oil. Many homes have oil tanks or wood piles close to structures, which increases the likelihood of an ignition. Much of this Community is located in south-facing hardwood stands that generally would not support intense fire behavior. The Community's most vulnerable homes are located on the Old Murphy Dome Road ridgetop or on the upper 1/3 of slopes within steep, complex topography. Black spruce stands are the most hazardous fuel type on these slopes. Some of these structures are above hardwood stands, but there are two continuous and substantial stringers of black spruce leading to multiple ridgetop structures. Several of these properties have substantial defensible space clearings, but spruce is still often too close to structures. The other area of concern is everything south of Murphy Dome Road (proper) where predominant hardwood transitions into a white spruce/black spruce mix. The terrain in this area is flat to rolling and these structures are nestled between the road and a creek, but they are still vulnerable as the spruce stands are continuous east to west.

The topography rises steeply in places from drainage bottoms to culminate at Old Murphy Dome Road. The steepest slopes reach up to 26° and the mean slope of this Community is 8°. This area has a mix of flat to rolling and steep, complex topography with wet drainages and ridges. Elevations range from 486 feet to 1,726 feet. Homes in this area are accessed primarily from Murphy Dome Road or Spinach Creek Road which both have 30-50 feet of clearance and substantial hardwood stands. Secondary roads are variable, some of these are narrow gravel roads with tight hairpin turns. These roads are challenging for large suppression apparatus to navigate. Intersections with major roads are consistently marked with reflective signage, though some smaller roads lack street signs. Some homes on secondary roads lack visible address markers.

The majority of this community falls in the Chena Goldstream Fire Service Area. Water sources for fire suppression are dip or draft from natural water sources or tender shuttle from Chena Goldstream Fire Station 41 on Murphy Dome Road. This fire station is located approximately 5.5 miles from the most vulnerable structures within this Community. During the Shovel Creek Fire there was also an improvised water source to the west of the fire station.

The Old Murphy Dome East shear blade treatment protects several at-risk structures on Old Murphy Dome Road from potential fire from the north. The Shovel Creek Fire (2019) stopped to the west of Spinach Creek Road and does not offer protection from the north.

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Ignitability Discussion – Chena Ridge/Rosie Creek Trail

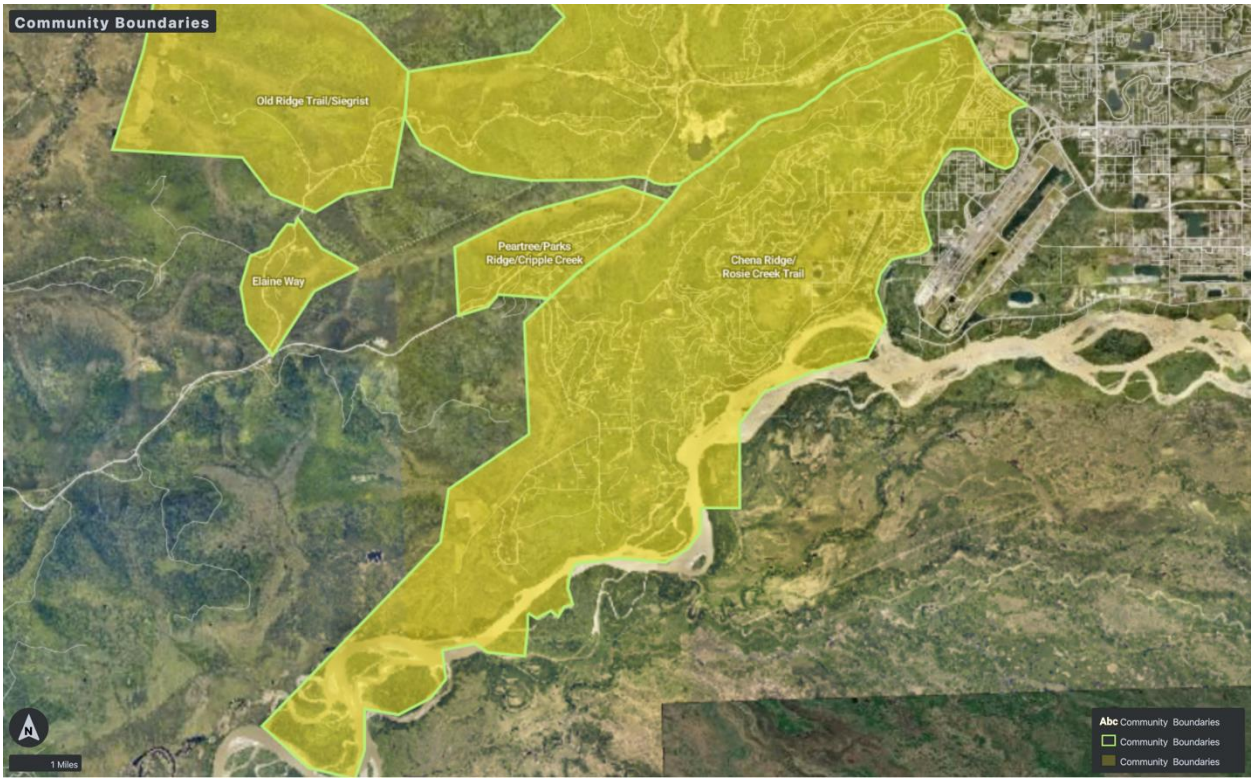

Figure 26 - Chena Ridge/Rosie Creek Trail

Western Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/poly/metal/log siding with asphalt or metal roof
Dual Access Roads:	Single access on Chena-Ester Ditch Road
Road Widths, Slope and Surface:	Wide to variable widths, flat to steep, paved to seasonal
Water Supply:	Dip or draft from Natural water sources within this Community
Proximity to Fire Station:	0 to 4.2 miles

FNSB CWPP Appendix A

Ignitability Discussion – Chena Ridge/Rosie Creek Trail

ICHR Hazard Rating
High

This is a large Community with variable concentrations of widely to moderately spaced homes on large/midsized lots. There is a mix of older and newer construction. The predominant construction type is metal/wood/vinyl/log siding with an asphalt/metal roof. Most properties have outbuildings that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, fuel oil, or off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire, as well as long-range ember impingement. The most vulnerable homes are located primarily in one of two fuel types: flat to rolling hills with continuous fuelbeds of white/black spruce, or north-facing slopes with heavy black spruce. Chena Ridge Road generally follows a continues ridgeline for most of the length of this Community. Along this ridgeline there are south-facing hardwood stands consistently transitioning to north-facing black spruce. The structures built on the fringe of these two fuel types, or built fully in north-facing black spruce, are far more hazardous than other parts of this Community. The Rosie Creek and Reliance Drive areas constitute the flat/rolling topography with structures in continuous black/white spruce stands. The Reliance Drive area is also a single access neighborhood. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Topography and Access:

This area has a mix of steep slopes and flat to mildly rolling topography with ridges and wet drainages. Elevations range from 371 feet to 1,526 feet. The topography rises steeply in places from drainage bottoms with slopes reaching up to 42°, however because so much of this Community is flat to low slope the mean slope is only 5°. Homes in this area are accessed primarily through a large loop formed by Chena Ridge Road and Chena Pump Road, with Isberg Road connecting this loop to Cripple Creek Road and the Parks Highway. This network gives most homes ample access/egress options, as most of these secondary roads are surrounded by hardwood fuelbeds. Secondary and tertiary roads are variable in condition and vegetative clearance. Some of these are narrow, seasonal dirt roads with tight hairpin turns. These roads are challenging for large suppression apparatus to navigate. Road intersections are consistently marked with reflective signage, while smaller dirt roads are more intermittently marked. Many homes on smaller roads lack visible address markers.

Response: Station 42 and Station 44 of the Chena Goldstream Fire Service Area are located in this Community.

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IGNITABILITY DISCUSSION – GOLDSTREAM/SHEEP CREEK

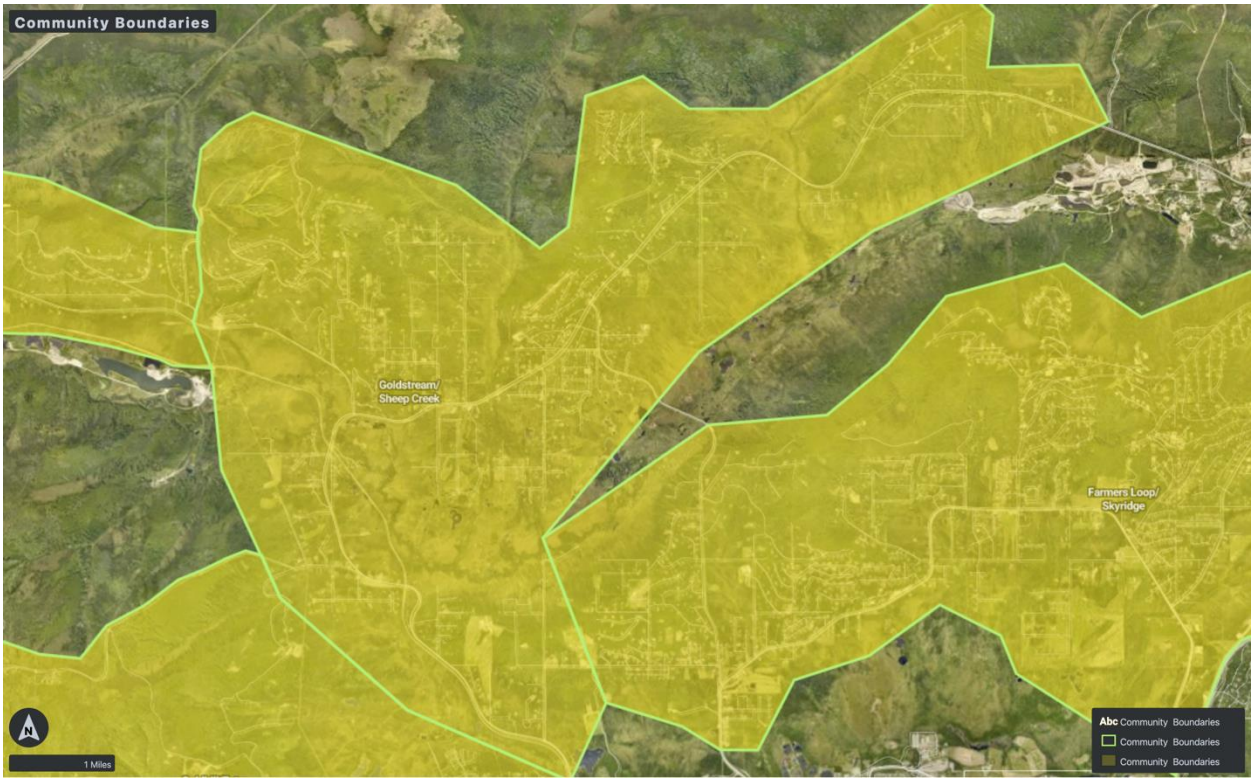

Figure 27 - Goldstream Sheep Creek WUI Community

Northern Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Above
General Construction:	Wood/poly/metal/log siding with asphalt or metal roof
Dual Access Roads:	Single access on multiple secondary roads off Goldstream Road
Road Widths, Slope and Surface:	Wide to variable widths, flat to moderate, paved to seasonal
Water Supply:	Dip/draft or tender shuttle from Station 41 or 43
Proximity to Fire Station:	0 to 5 miles. Stations 41 and 43 are in this Community

FNSB CWPP Appendix A

Ignitability Discussion – Goldstream/Sheep Creek

ICHR Hazard Rating
High

Goldstream/Sheep Creek is a large Community with varying concentrations of widely to moderately spaced homes on large to midsized lots. There is a mix of old and new construction, as well as business and small industrial properties. The predominant construction type is metal/wood/vinyl/log siding with an asphalt or metal roof. Many properties have outbuildings or supply caches that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

Heating is provided by electricity, wood stoves, fuel oil, or some off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire, as well as long-range ember cast. Most of the Community's more vulnerable homes are located in flat to rolling terrain with continuous black spruce stands. These spruce runs, unlike spruce stringers of outer Communities of the AOI, are often broken up by suburban neighborhoods or infrastructure. Sheep Creek Road has several neighborhoods in a continuous spruce fuelbed. Goldstream Road has many housing clusters surrounded by hardwoods, but as it progresses from west to east, it gradually shifts to more of a black spruce component with several neighborhoods extending into the spruce by single ingress/egress secondary roads. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Dog sled team operations are present in this Community and are particularly hazardous due to the prevalence of spruce stands. They also increase the evacuation timeframe of humans and dogs as it may take some mushers two or more trips to fully evacuate all the dogs. Many mushers remove dog transport boxes during fire season to haul other supplies.

The topography is primarily rolling but does rise steeply in places from drainage bottoms with slopes reaching up to 30° with a mean slope of 5.2°. Elevations range from 486 feet to 1,978 feet. Homes in this Community are accessed primarily from a large loop formed by Sheep Creek Road and Goldstream Road, with Ballaine Road as a cutoff, and Murphy Dome Road extending to the west through substantial hardwood stands. This road network gives most neighborhoods ample access/egress options. Secondary and tertiary roads are variable in condition and vegetative clearance. Some of these are narrow, seasonal dirt roads. These roads can be challenging for large suppression apparatus to navigate. Intersections of major roads are consistently marked with reflective signage, while smaller dirt roads are more sparsely marked. Many homes on smaller roads lack visible address markers.

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Ignitability Discussion – North Pole/Badger

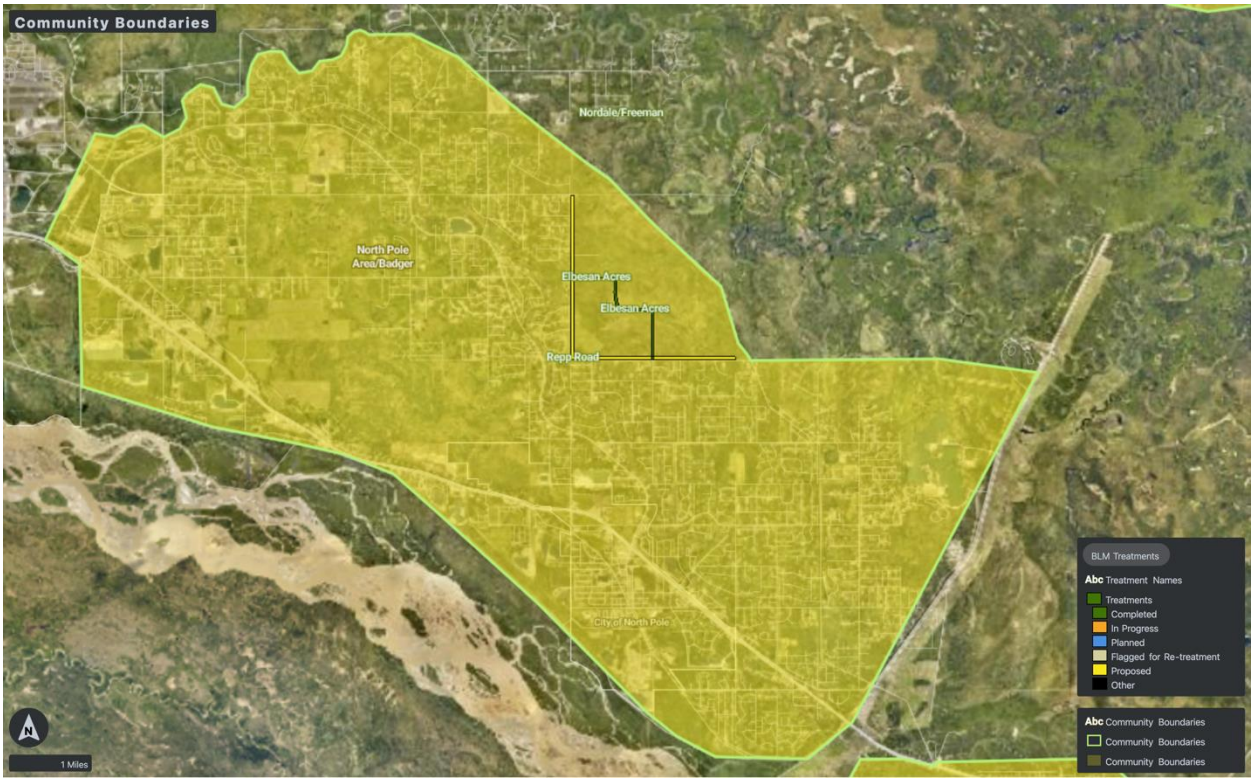

Figure 28 - North Pole Area/Badger WUI Community

Urban Core Annex

Zone Characteristics and Hazards

Hazard Rating:	**High**
Utilities Above or Below Ground:	Mixed
General Construction:	Wood/poly/metal/log siding with asphalt or metal roof
Dual Access Roads:	Single access on numerous tertiary roads
Road Widths, Slope and Surface:	Wide to variable widths, flat to moderate, paved to seasonal
Water Supply:	Hydrants
Proximity to Fire Station:	0 to 7.4 miles

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Ignitability Discussion – North Pole/Badger

ICHR Hazard Rating
High

The North Pole/Badger Community has a large number of residential homes and businesses bordered by the Tanana River and Richardson Highway to the south, Chena floodplains to the west, Chena River to the North and Fort Wainwright Army Base to the East. This Community consists primarily of moderately to tightly spaced homes on midsized to small lots, with a mix of old and new construction, as well as rental housing, businesses and industrial facilities. The predominant construction type is metal/wood/vinyl/poly/log siding with an asphalt or metal roof. Many properties have outbuildings, wood piles or wood sheds, and supply stashes that are vulnerable to fire. Many properties feature flammable decks, stairs, and other projections.

This Community has a heavy concentration of spruce stands spread throughout neighborhoods over a generally flat topography. This heavy spruce component and frequent high winds over this topography increases the chances of an urban conflagration event. In this type of event it would become very difficult to stop house to house transmission from becoming the primary carrier of fire.

Between concentrations of homes and the Chena River to the north are large, uninterrupted stands of black spruce leading into neighborhoods. One example of this is Brock Road. Many smaller roads that extend into satellite neighborhoods are single access/egress and extend into heavy spruce concentrations, making them more difficult to defend as agency resources will be resistant to committing personnel for fear of entrapment. Many properties have partial defensible space clearings, but spruce is often too close to structures.

Heating is provided by electricity, wood stoves, fuel oil and some off-grid systems. Many homes have oil tanks or wood piles close to structures, which increases the risk of fire, as well as long-range ember cast.

The topography is generally flat. While there are some slopes reaching up to 30° the mean slope of this Community is less than 1°. Elevations range from 439 feet to 663 feet. There is a latticework of interconnected streets and roads in this Community. Tertiary roads are variable in condition and vegetative clearance. Some of these are narrow, seasonal dirt roads which would be challenging for large suppression apparatus to navigate. Primary road intersections are consistently marked with reflective signage, while some secondary roads and smaller dirt roads are more sparsely marked. Many homes on smaller roads lack visible address markers.

North Pole/Badger Community falls inside of the North Star Fire Service Area as well as the City of North Pole Fire Department jurisdiction. Water sources for fire suppression are an extensive hydrant system or dip/draft from natural water sources, as well as tender shuttle from one of the five fire stations in this Community [North Pole Fire Department Stations 21, 31, 32, 33 and 34]. The most distant homes are located approximately 7.4 miles from the closest of these stations.

The Elbesan Acres shaded fuelbreak offers some protection to agency personnel protecting residences along Brock Road.