Community Wildfire Protection Plan

McKinley Village

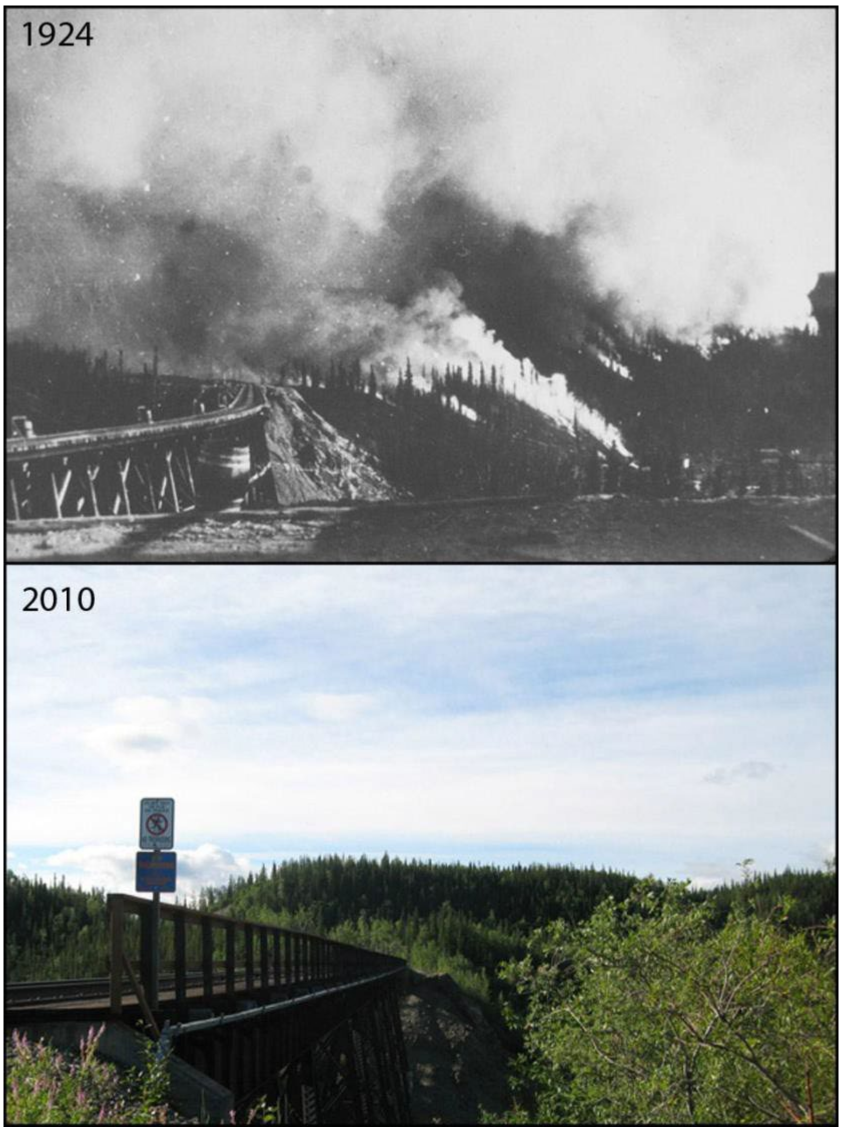


Table of Contents

Cover Photo: 1924 Fire in Denali National Park (10 Miles North of the Planning area), Riley Creek Railroad Trestle Looking south. Photo Credit: Denali NP&P Museum Coll. 8-0.5 (1924), Tamás Szerényi (2010)

Executive Summary

The McKinley Village Community Wildfire Protection Plan (McKinley CWPP) is developed in response to the 2003 Healthy Forest Reforestation Act (HFRA) which encourages communities to develop a risk assessment and then allows the community itself, in a collaborative effort with agencies, to develop its own ongoing mitigation plan for wildfire. Guidance for the format of the McKinley CWPP is based on the 2005 Alaska Interagency Community Wildfire Protection Plan Guide from the Alaska Department of Natural Resources. The McKinley CWPP will provide direction for ongoing and future wildfire hazard mitigation efforts and will allow participating agencies and individual landowners to take advantage of HFRA and federal Community Wildfire Defense Grant benefits, including prioritization for these and other federal/state programs and funding.

Given these directions, the purposes of this McKinley CWPP are to:

- Assess, along with collaborating agencies, the current risk posed by wildfire to the McKinley Village Area and Community, propose future efforts to refine this initial assessment.
- Identify, develop, and promote initial mitigation measures designed to protect lives and identified values within the community from threat of wildfire; and set up a format for the identification and consideration of future measures.
- Identify, develop and promote both initial and ongoing education, informational sources, and training for residents, with an emphasis on individual property owners' skills, means, and amenability, in mitigation and fuel reduction.
- Identify and develop emergency response and local fire protection resources and capabilities in planning, wildfire size up, warning/evacuation, and initial attack.
- Identify, develop, and employ a format for continued collaboration, both within the Community and between the Community and its Agency collaborators, to review, modify, and revise the McKinley CWPP in the future.

With the fulfillment of these purposes in mind, we concur in the adoption of the McKinley Village Community Wildfire Protection Plan as set forth below:

Signature Page

As administrator of a land management agency or emergency service provider represented in the McKinley Village Community Wildfire Protection Plan, I concur with the following recommendations to implement this plan.

List of Interagency Planning Team Members

Chris Noel

Chris Noel (Oct 20, 2023 11:37 AKDT)_

Oct 20, 2023

Christopher Noel, MVFD Fire Chief

Rob Allen

Rob Allen (Oct 30, 2023 08:33 AKDT)_

Oct 30, 2023

Division of Forestry and Fire Protection, Northern Region Fire Management Officer

Forest Shreeve (Oct 23, 2023 11:37 AKDT)_

Oct 23, 2023

Forest Shreeve, Denali Borough Emergency Manager

Nov 27, 2023

Denali National Park, Fire Management Officer

Clay Walker (Oct 20, 2023 17:31 AKDT)

20/10/2023

Clay Walker, Denali Borough Mayor

Not Required

Denali National Park, Superintendent

Background

The Community Wildfire Protection Plan process assists communities in developing an appropriate and desired wildfire protection plan unique for their area. Through discussion among interested parties about wildfire protection and risk, communities can develop, clarify, and refine their priorities for the protection of life, property, and critical infrastructure in the wildland urban interface.

While priorities will differ between stakeholders in the community, having a locally focused plan will provide clarity for the McKinley Volunteer Fire Department, the Denali Borough and the Division of Forestry & Fire Protection. This plan also allows for McKinley Village stakeholders to have a continued voice in identifying and protecting the community's unique assets.

Completion of a CWPP involves five (5) major activities:

1. Identify stakeholders
2. Complete community risk assessment
3. Address priorities
4. Develop mitigation plan
5. Establish a monitoring plan

Collaboration

This document was prepared by local, Federal and State decision makers including:

- McKinley Volunteer Fire Department (MVFD)
- State of Alaska, Division of Forestry & Fire Protection (DOF&FP)
- Denali Borough's Emergency Planning and Projects Coordinator
- Denali National Park Fire Management

Other organizations consulted individually or as groups during the process includes:

- Denali National Park and Preserve (DNPP)
- Individual and corporate landowners
- Local business owners

Community meetings and workshops were conducted within the community as a whole, and with several groups from respective residential and commercial areas.

Introduction

The unincorporated McKinley Village community is located within the Denali Park census-designated place in the Denali Borough, Alaska. For the purposes of this plan, we will refer to the area as McKinley Village, but it is also commonly referred to as both McKinley Park and Denali Park by residents. The local volunteer fire department is the McKinley Volunteer Fire Department, based out of the McKinley Village Community Center (MVCC).

The habitat surrounding McKinley Village is diverse and includes large glacial rivers and plains, boreal forest, and the northern foothills of the Alaska Range. This region is classified as a subarctic climate with traditionally very cold winters and mild summer temperatures. While the census designated place (Denali Park) includes a larger geographic area, this plan focuses on the location with the largest concentration of year-round residential and community structures: from Crabbie's Crossing at the Nenana River (Milepost 231 of the Parks highway) to just past the Carlo Creek area (Milepost 220). See Figure 1 for an overview. Additional areas may be added in the future due to interest and growth patterns. Initial fire response in the community comes from the MVFD at milepost 230.

Community Values

The safety of firefighters, residents of McKinley Village, and of the many travelers who are here during the fire season is the highest priority for firefighting personnel and the CWPP. Private property, improvements, cultural sites, and natural resources are other values of high concern. The adjacent Yanert Valley is known in the Native Ahtna language by a description- the "valuable headwaters". The traditional Ahtna description of the Yanert River, which forms part of the Northern plan boundary, is Tl'ahwdicaaxi Na', the "valuable headwaters" creek. Residents living in the the McKinley Village area enjoy access to beautiful wilderness lands, the rural lifestyle, and a strong sense of community. Both traditional and current values should be weighted highly when implementing the CWPP.

A specific structure of strategic value to the community is the McKinley Village Community Center (MVCC) run by a non-profit, which acts as the fire hall, community well, public gathering space., and the only year-round emergency shelter.

Community Profile

1. Identification and Description of Community and Area.

McKinley Village generally is the area bounded on the north and west by the Nenana River at "Crabbie's Crossing" (George Parks Highway Milepost 231) and to the south at Milepost 220, just past the cluster of structures around Carlo Creek (Parks Highway Milepost 223.5). Most of the eastern boundary of the area consists of undeveloped Ahtna Native Corporation lands with a mix of state, borough and federal land ownership (Figure 2).

This area includes the majority of residential and community structures in the area south of the Nenana Canyon commercial area and north of Cantwell. The area is accessible by one road, the George Parks Highway, and is approximately 130 miles from Fairbanks, the largest Interior community and closest hospital.

The Wildland Urban Interface (WUI) for the purpose of this plan is bordered by the Nenana River on the north and west, with federally owned Denali National Park and Preserve lands beyond the river. The eastern plan boundary is the high voltage transmission line known as the Intertie. The land that borders the Intertie is a mixture of state, borough, federal, Native/ANCSA, and private land. The southern boundary is the border of the MVFD fire service area at Milepost 220.

Two native allotments are located just outside the plan boundary, off approximately Milepost 228. The southern boundary is the cluster of private land and structures around Carlo Creek. AHTNA, Incorporated is an Alaskan Native Regional Corporation and the largest landowner in the area. The Alaska railroad in this area is located just outside of the immediate plan area with the tracks on the western side of the Nenana River within DNPP.

- General Geographical Location:
    a. Lat. 63.6513 Long: -148.8222
    b. Township: 15S Range: 6W Fairbanks Meridian

Other data sources, and plans are listed in the reference section.

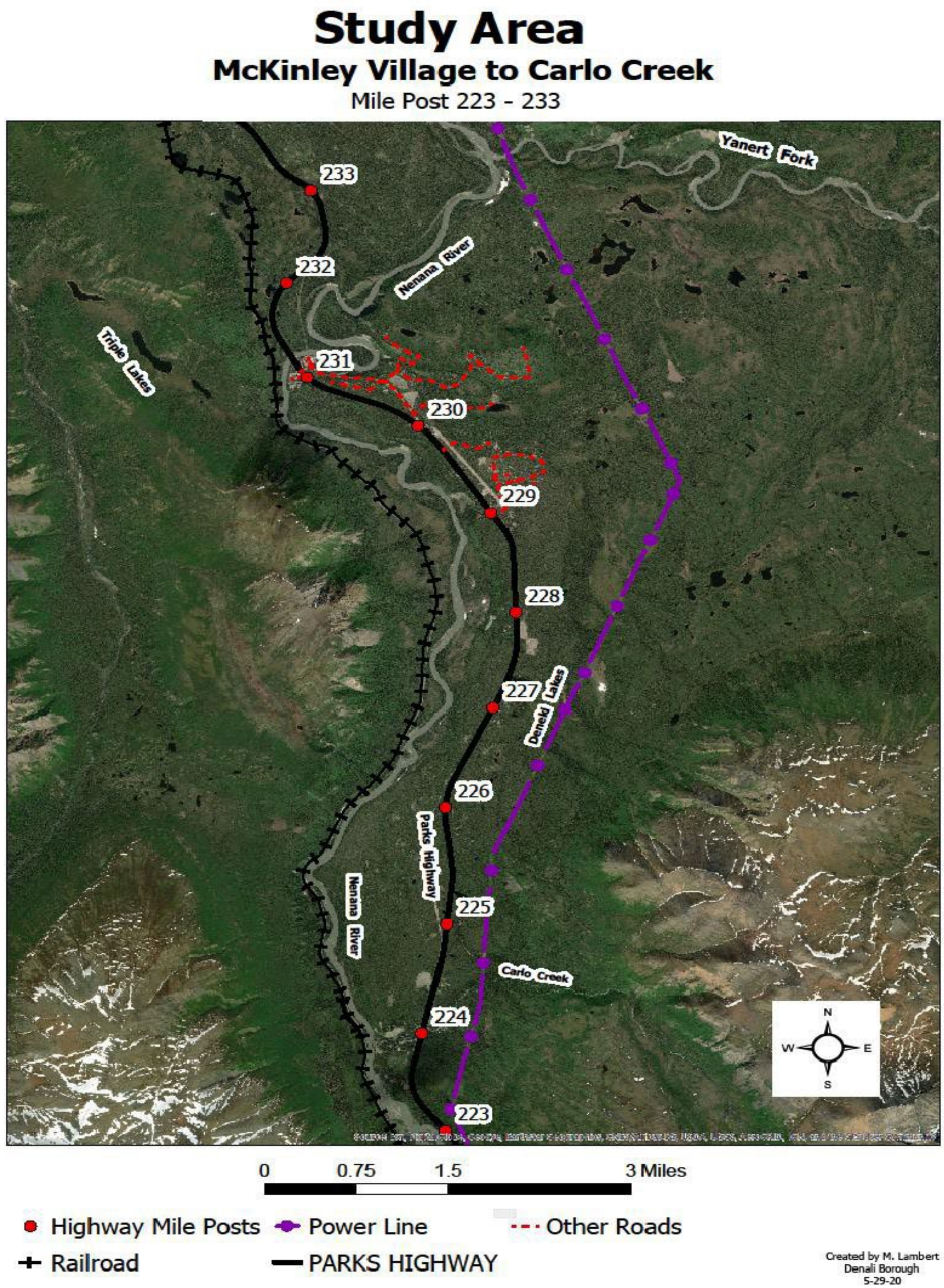


Figure 1 CWPP Study Area Map

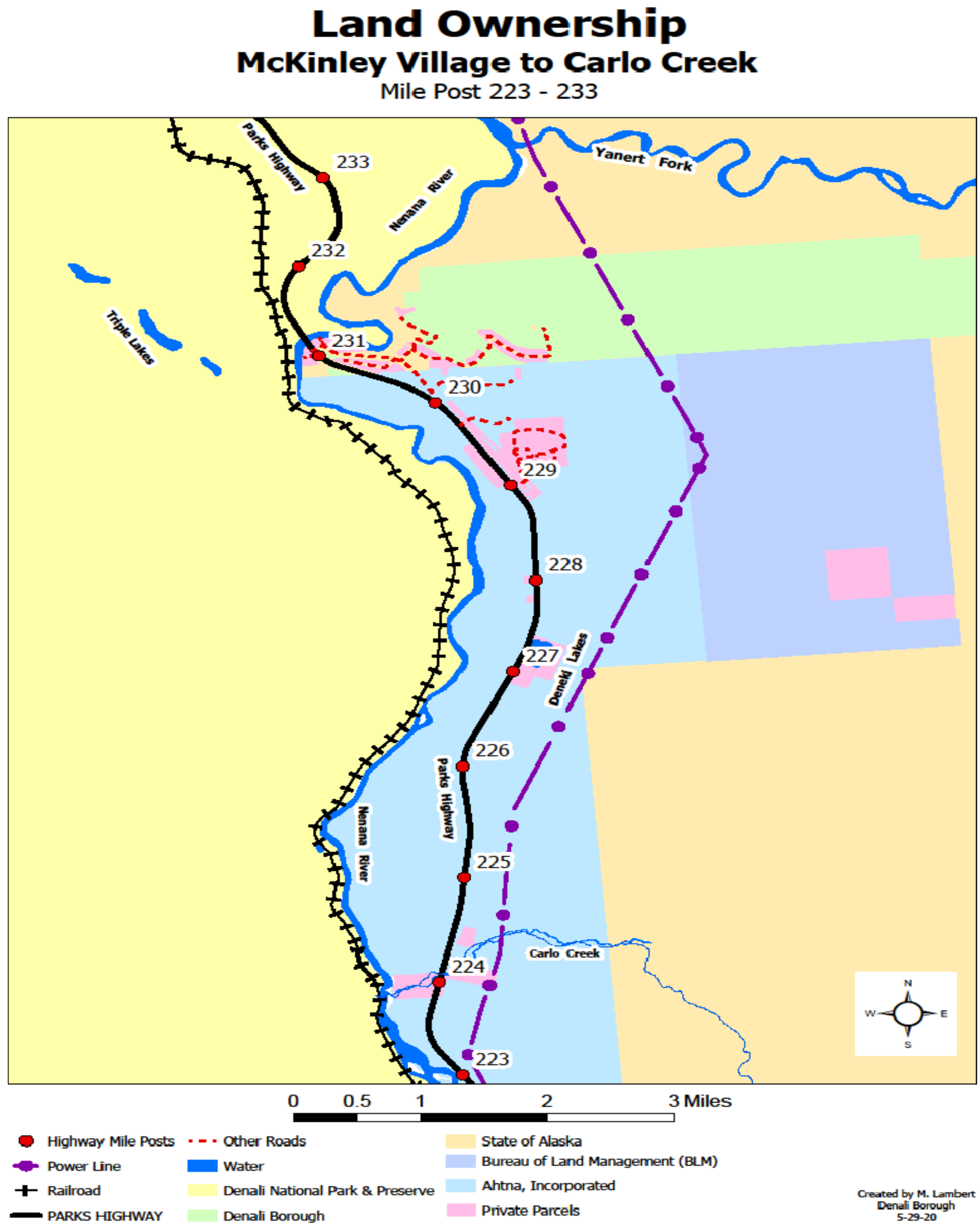


Figure 2 McKinley CWPP Land Ownership Map

2. Population:

Year-round residents (2020 U.S. Census): 163. Estimated year-round residents (2022 State of Alaska Dept. of Community and Regional Affairs): 149

Note: The numbers above include residents in the Denali National Park employee housing area at Milepost 237 so the actual residents in the McKinley CWPP area could be 30-50 people less.

The number of people in the area increases significantly from April to September during the traditional summer tourist season. Besides a large seasonal workforce housed in the area, there is also the potential for hundreds of additional overnight guests at area lodges, cabins, nightly rentals, campgrounds, and roadside pullouts. At the peak of summer (late June and July) it would not be unusual to have well over 1,500 people in the area overnight. This influx is largely comprised of older or seasonal people without their own cars, and dependent upon tour and shuttle buses for transportation. These additional factors make it much harder for them to respond to a wildfire evacuation situation, and greatly increases an otherwise very high risk factor during the wildfire season.

3. Structures:

A. Community Buildings and Utilities:

The McKinley Village Community Center is a building that provides the following services: volunteer fire department hall (which includes a 12,000 gallon water cistern and emergency services radio repeater), access to the high-capacity community well for domestic water, and an indoor community space run by a non-profit for local celebrations, trainings, playtimes and other special events. The MVCC also provides the only year-round emergency shelter for the community, most recently activated during the extreme weather event and power failures during the winter of 2021-2022. The MVCC is located at Milepost 230 off the Parks Highway about .5 miles down a wide gravel road.

B. Residential

There is not a list of current residential and commercial structures and their value in the area because there is no borough property tax and building permits are not required. There are two platted subdivisions in the area, the Village View Subdivision, which straddles the Old Parks Highway, and the Denali Homestead Subdivision, accessed to the East off the Parks Highway at Milepost 228.9. The 2020 census reported 298 housing units at the time, with 36% occupied and 64% vacant and likely included seasonal housing located on commercial and federal property (DNPP). This number in relation to the year-round population (163 in 2020) emphasizes the high number of seasonal and second homes in the area.

Using satellite imaging, a rough estimate of 170 residential homes (both occupied and vacant) was made, which does not include outbuildings or the seasonal housing provided within commercial properties in the area such as Denali Park Village, Denali Cabins, Grizzly Bear, and the

Carlo Creek lodges. These seasonal housings are often shared dorms, cabins, or trailers and cannot be counted from satellite images.

C. Commercial and Non-Profit

McKinley Village has a wide range of commercial businesses and associated structures in the area, with the vast majority of them open only in summer months (May – September). Nearly all of the commercial businesses are related to tourism. In addition to the commercial properties listed below, there are an increasing number of houses available for nightly rental for at least part of the year which may well be included in residential house numbers (Info obtained from nightly rental websites in 2022).

McKinley Village businesses and non-profits with structures in the CWPP area in 2023:

Grizzly Bear Resort – large lodge, cabins, campground, stores
Denali Park Village – large lodge, restaurants and stores
Denali Education Center (non-profit)- cabins, summer educational facility, year-round offices
Tonglen Lake Resort – lodge, cabins, restaurant, summer community events, year-round office
Traverse Alaska – tour company, offices and gear storage (year-round)
Denali Air – flightseeing and aircraft hanger
Denali Cabins – cabins and restaurant
Husky Homestead – Sled dog tours (seasonal) and kennel operations year round
Denali Jeep Excursions – tour company and vehicle storage
Denali PT – physical therapist office (year-round)
Camp Denali - year-round offices
Deneki Lakes B and B
Carlo House
Moose's Brew Coffee
Panorama Pizza Pub
Creekside Cabins and Cafe – cabins, lodge, and restaurant
Denali Hostel and Cabins – hostel, cabins
Denali Perch Resort – cabins and restaurants
Carlo Creek Lodge – cabins, and lodge.

4. Infrastructure and Utilities

The Parks Highway (AK 3) provides road transport from McKinley Village to the rest of the state. The Alaska Dept. of Transportation maintains the paved highway, as well as a half mile of the gravel road called "Old Parks Highway" at Mile 230, which leads to the MVCC and Fire Hall.

There is one privately owned 5000' airstrip in the McKinley Village area at Milepost 229. The airstrip is used as a base for a summer air taxi and flightseeing business, as well as being regularly used by locals with personal planes.

Electricity to the area is provided by Golden Valley Electric Association (GVEA) on a single thread overhead line from its substation in Cantwell to the South. Besides above-ground local power lines along the highway and into subdivisions, there is the 345kV transmitting lines of the Alaska Intertie on the east side of the developed area that connects the GVEA power grid with southcentral Alaska utilities.

MTA provides telephone and internet service to the area with above and below ground wires. GCI Communication Corp. (GCI) owns a buried fiber optic cable that parallels the Parks Highway, which provides service along the Park's Highway route and access services to various telecommunications carriers in the area.

There are two cell phone towers and associated structures, including an MTA shelter, located in the area on top of a hill behind the airstrip at milepost 229.5. These are serviced by overhead power and underground telecommunications lines. One tower is owned and operated by AT&T Mobility, and the second tower is owned by Vertical Bridge, with the wireless facilities operated by GCI. Access is provided by a road through two locked gates at the airstrip crossing and eventually departing the east side of the Parks highway.

The State of Alaska (SOA) operates a microwave facility located at the top of a hill off the end of Yanert Road, above the Village View Subdivision. This is served by overhead power lines. It provides various telecommunications services for the SOA, the Alaska Railroad, as well as the multi-agency Alaska Land Mobile Radio emergency system.

The MVFD maintains a stand-alone emergency radio repeater at its fire hall located at the MVCC.

Most commercial businesses and some year-round residents use water from personal wells, but there is a sizable part of the population that hauls water from the community well at the MVCC for personal use. This contributes to a poor score in the Risk/Hazard analysis as to water supply.

The MVFD does maintain a 12,000 gallon emergency water cistern at its fire hall located at the MVCC.

There are no landfills, schools or government offices in the area. A BLM Field Office/cabin is located just outside the plan area to the south, at milepost 219.9.

Additionally, there are four gravel pits in the area, with all being active at various times within the last few years. Three of these gravel pits are owned by AHTNA Incorporated (milepost 228 pit, milepost 224.5 pit, and .4 Mile Old Parks Highway pit) and one by the State of Alaska (.5 Mile Old Parks Highway Pit).

5. Industry

Tourism is the largest industry in the McKinley Village CWPP area. There are a large number of seasonal hotels, cabins, nightly rentals, restaurants, tours, educational facilities and offices catering primarily to summer visitors. Winter guided activities include trapping, hunting and dog sled tours in the state and federal lands beyond the McKinley Park area, but access begins from the Parks Highway. Construction of residential and commercial buildings is a year-round activity that also employs many residents.

Figure 3 Denali Park Village, 1976 to 2005 Credit Fred Dean (1976), Carl Roland (2005)

Other employers in commuting distance include the government at the federal, state, and borough level. This includes the National Park Service, Clear Space Force Base, Tri-Valley School, AK Dept of Transportation, and the Denali Borough. A few residents commute to jobs in the energy industry, which includes the Usibelli coal mine and GVEA power plant in Healy. There are 4 gravel pits in the area with varying levels of activity each year, but they often employ workers from outside the immediate area. There is a possibility of having construction work camps housed in one or more of them over the summer, as has currently been done in conjunction with DOT work in the area.

6. Transportation

The George Parks Highway, also known as AK Route 3, is the only road in and out of the community and connects the two major population centers of Alaska, Fairbanks (120 miles North) and Anchorage (230 miles south).

The Alaska Railroad in this stretch is located outside of the immediate McKinley Village area with the tracks on the western side of the Nenana River in Denali National Park.

There is a private gravel airstrip located in McKinley Village at milepost 229 which is 5000 ft long and is accessed at milepost 229.

Trails in the McKinley Village/Yanert area are used as a means of transportation and recreation. Common recreation usage includes walking, biking, skiing, dog mushing, snow machine and all-terrain-vehicle travel. Dog teams have been a longstanding part of the community and there is a network of mushing and snowmachine trails east of the Parks Highway between Mile 229 and the Carlo Creek area that provide access to public lands beyond. Where applicable, access to cross Ahtna lands is provided through public easements and an Ahtna permit system.

A public boat launch used by private and commercial rafters in summer is available at Mile 231 by the Denali Park Village Resort.

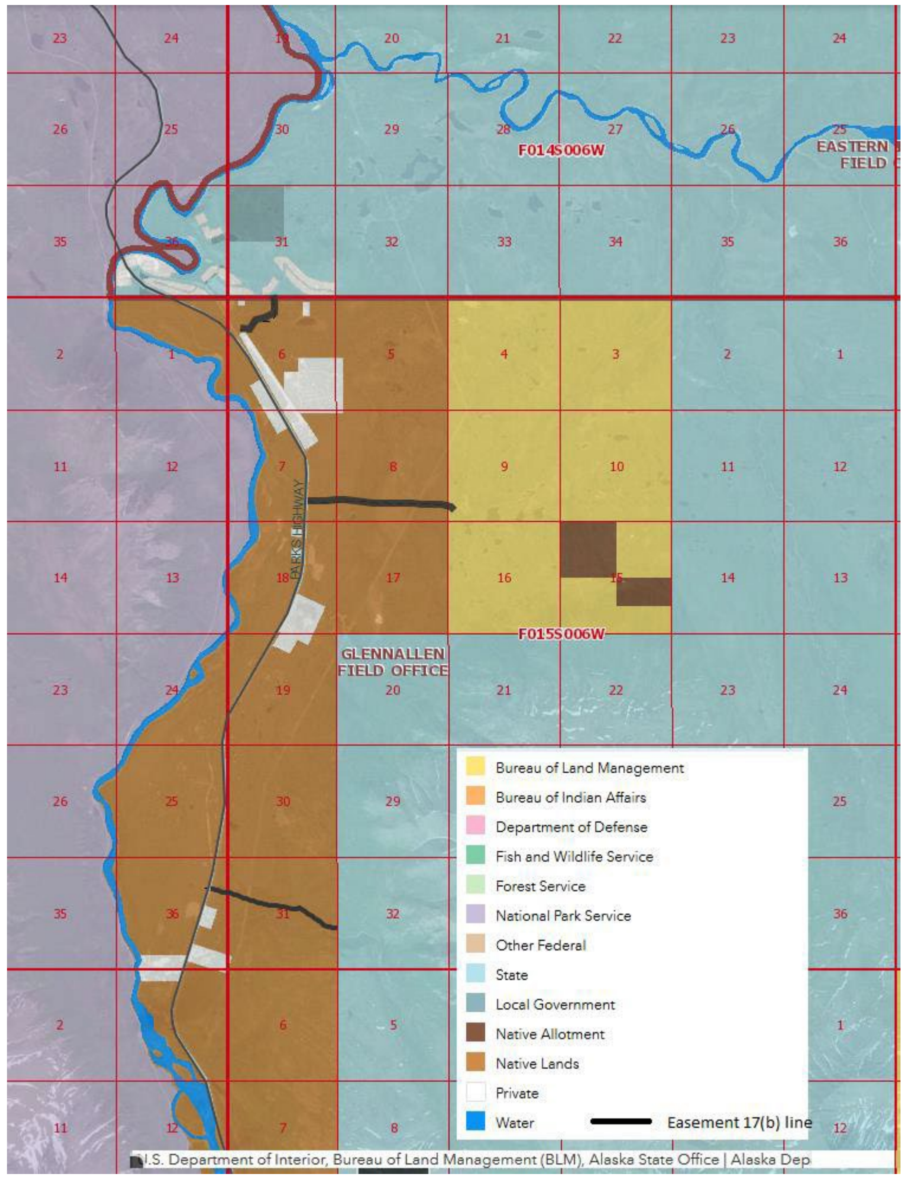


Figure 4 Map of Native Allotment lands (AHTNA owned) and 17 (b) easements (Bureau of Land Management)

Alaska Native Claims Settlement Act (ANCSA) 17 (b) public easement trails exist in the area, including a trail at Milepost 228 to a non-motorized hunting area to the East that is used heavily by hunters in the fall, as well as to access Native Allotments just outside the plan's Eastern boundary.

7. Cultural Sites

There are seven identified prehistoric archeology sites and one historic site in the plan area that should be avoided, when possible, when actively fighting fire, or during planning for any fuel reduction in the plan area. The State of Alaska, Office of History and Archaeology (OHA) should be consulted when planning any ground-disturbing activities, and in the case of any incidental discoveries are made during fire events. Wildfires in and of themselves generally do not affect prehistoric archaeological sites but can impact historic sites and other cultural resources with surface components.

8. Subsistence:

A subsistence survey of Denali Park residents concluded the resource category with the greatest level of participation in was vegetation (88%), which includes blueberries, low bush cranberries and mushrooms. Smaller percentages of individuals harvested and processed birds and eggs (10%) and large land mammals (7%). (Brown and Kostick 2017)

9. Hazards

The risk of fire starting inside and outside the community is high, based on potential ignition sources and surrounding fuel types. In 2021, 67% of all Alaskan wildland fires were started by humans, the remainder were started by lightning[1]. Due to the scarcity of developed campsites, roadside camping and use of undeveloped roadside areas poses a definite ignition risk. See the Risk/Hazards Analysis section below. Fire history indicates a wildfire could swiftly endanger life and property if it moves into and through the area. In fact, nearly the entire plan area of 35 square miles has been burned in several historic events. See Figure 5, Fire History Map. Most residential and commercial infrastructure, including the two residential subdivisions in the plan area, utilize single access and egress roads located in proximity to continuous stands of Black and White spruce, which present the highest risk to the community. Virtually all power lines in the plan area, including the intertie on its Eastern boundary, are overhead. 100% of commercial power in the plan area is furnished on a single overhead powerline, running along the highway from Cantwell to the South.

10. Fire, Rescue and Ambulance Equipment

The McKinley Volunteer Fire Department has the following:

- 2007 International Pumper- 1,500 gallons (Type 3 Wildland Tanker)
- 2011 Ford F350 Light Rescue
- 2007 Ford F450 Type 6 Wildland Engine- 300 gallons

[1] Alaska Division of Forestry, 2021 Fire Statistics, http://forestry.alaska.gov/firestats/, (retrieved 6/3/22)

In addition, MVFD has mutual aid agreements to provide aid to and receive aid from: Tri-Valley Volunteer Fire Department (Milepost 248), Cantwell Volunteer Fire Department (Milepost 210), Anderson Volunteer Fire Department (Milepost 283+6) Nenana Volunteer Fire Department (Milepost 304), Denali National Park and Preserve (Milepost 238), and Clear Space Force Station (Milepost 278). MVFD is also a cooperator with the Alaska Division of Forestry and Fire Protection, Northern Region, Fairbanks (Milepost 323) through the 2020 Fire Protection Agreement and 2023 Annual Operating Plan. Thus, additional volunteer initial attack resources are at least 30- 75 minutes away and Alaska Fire Service smokejumpers (if available) are approximately 2 hours away, although extended attack through the DOF&FP can be in place in 8-12 hours.

11. Local Fire Prevention Efforts

The MVFD offers fire prevention and Firewise literature at community events and informational posts on social media. A recent Community Wildfire Education Workshop, with speakers from the ADF&FP and MVFD, attracted approximately 35% of the number of permanent residents in the plan area. Landowners in the area, as well as more focused subdivision groups, were apprised as to the final drafts of this plan.

Figure 5 2023 Community Wildfire Education Workshop, Denali Education Center

Despite state and local informational efforts, based on a cursory examination, it appears that a current community Firewise rating for defensible space overall in the area would be rated as poor, with less than 35% of homesites and community buildings meeting Alaska Firewise Standards, as set forth in the Alaska Interagency Community Wildfire Protection Plan Guide. Only a single standard achieved a “fair “assessment as to building construction, as although there are no building codes in the plan area, nearly all residences have metal roofs.

A reenergized and targeted Firewise campaign, hopefully leading to a McKinley Village Firewise Community designation, must be part of the plan implementation. This would include sending local representatives to Firewise workshops, an improved recognition of hazards, focused planning options, and improved community education. The training would facilitate focused local meetings and workshops for both seasonal and permanent residents. At the recent workshop, community interest was shown as to an actual Firewise volunteer workday at the MVCC, which would demonstrate methods to the residents. Based on community feedback in this CWPP process, the MVFD arranged with DOT to utilize its gravel pit for brush collection and burning in 2023.

Fire History

Scars of large old fires can be seen today throughout the McKinley Village area. While there has not been a large-scale wildfire in the area since 1924, a fire history map of the area, indicates the extreme potential for another catastrophic fire, as virtually all the CWPP area burned in two large fires around 1880 and 1907 (T. Caprio, 1982).

There is no record of the cause of those early fires. The 1924 fire was attributed to sparks coming off the railroad and the speed and damage done by the fire is a lesson on wildfire behavior in the area. A written description of the 1924 incident by local historian, Tom Walker, relates that:
“Heavy rains in late July finally extinguished the threats but not before the fires had consumed an estimated 35 square miles, and to as high as 2000’ on the hillsides.”

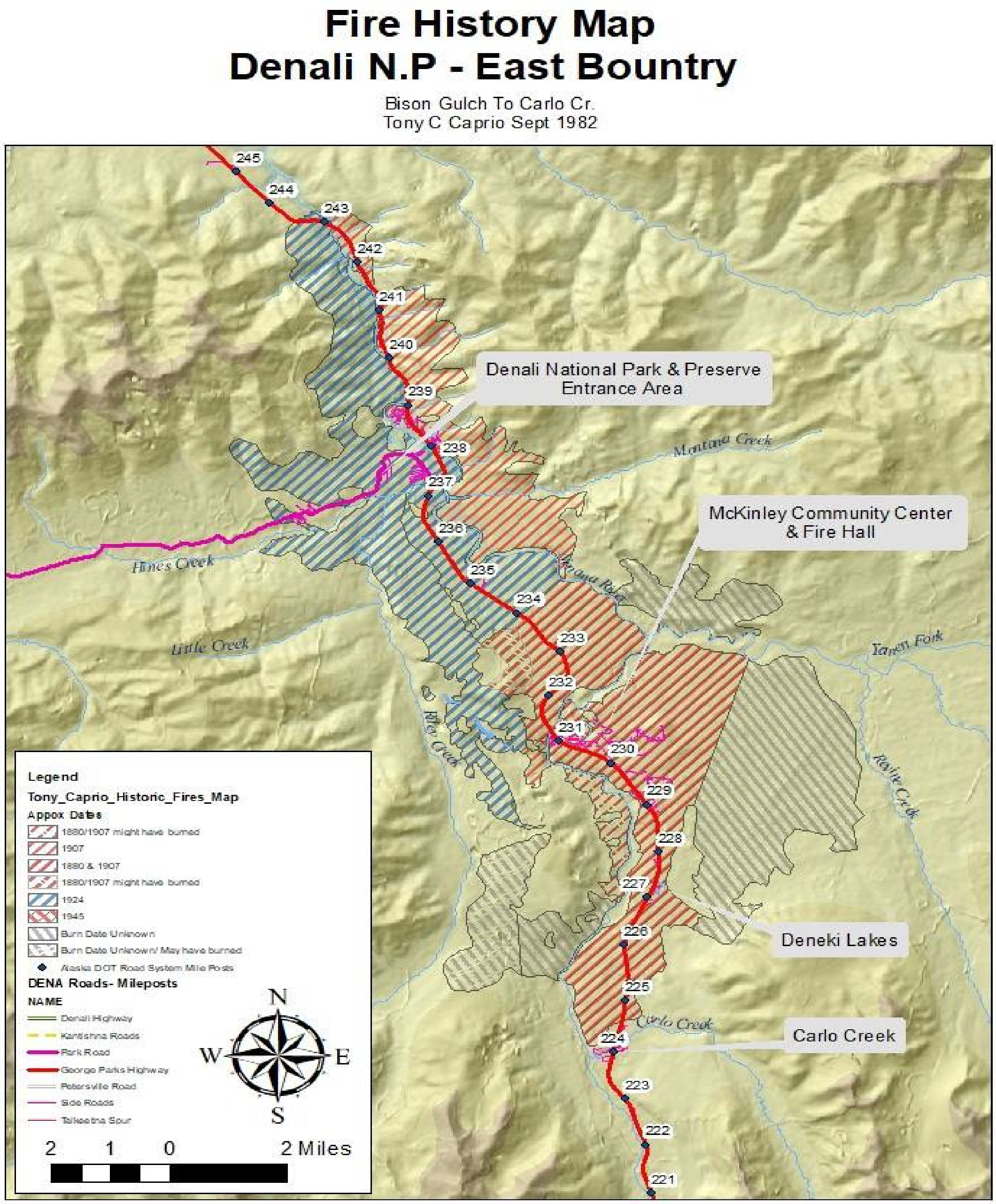


Figure 6 Fire History Map

Current Fire Management

Alaska Interagency Fire Management Plan and Classification

The Alaska Interagency Wildland Fire Management Plan (AIWFMP) was developed in the 1980s by the Fire Subcommittee of the Alaska land Use Council, later renamed the Alaska Interagency Fire Management Council, to provide a coordinated and cost-effective approach to fire management to all lands in Alaska. All fire management decisions by land managers and owners are based on values warranting protection, protection capabilities, firefighter safety and or land resource management needs. Before the plans were developed, an existing strategy called for suppression of all wildfires. The AIWFMP requires all land managers review the fire protection needs on lands under their management authority. The fire protection levels are Critical, Full, Modified or Limited Management Option. The levels are based on land managers' values to be protected as well as land and resource management objectives. The categorization and prioritization ensure that human life, private property and identified resources receive an appropriate level of protection with the available firefighting resources.

The Alaska Department of Natural Resources, through DOF&FP, has the responsibility for classifying State and Private lands, as they are the Jurisdictional Agency under the interagency Master agreement. The DOF&FP is responsible for all planning documents (i.e. land use, resource and fire management plans) for a unit's wildland fire and fuels management program.

The homes and commercial structures in the McKinley CWPP are classified as **Critical Protection**. This means the suppression objective is to provide complete protection to identified sites and control the fire at the smallest acreage reasonably possible. The allocation of suppression resources to fires threatening critical sites is given the highest priority. The rest of the area of the CWPP falls under **Full Protection** where wildland fire threatens uninhabited private property, high-valued natural resource areas, and other high-valued areas such as identified cultural and historical sites. The suppression objective is to control the fire at the smallest acreage reasonably possible. The allocation of suppression resources to fires receiving the full protection option is second in priority only to fires threatening a critical protection area.

Risk/Hazard Analysis

The McKinley Village community has a very high risk of wildfire; higher than 92% of communities in the United States. (Short 2022). This risk is recognized throughout the area by residents.

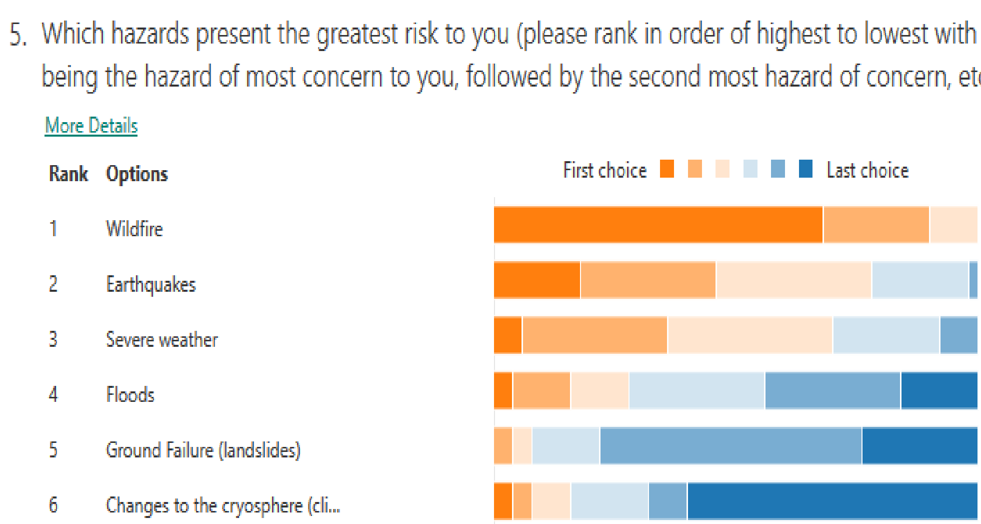


Figure 7 Snapshot from the 2020 borough wide public survey of local hazards

Most of the area both within and surrounding McKinley Village is forested with continuous stands of black and white spruce. (Black Spruce Boreal Forest, Alaska Fuel Type Number 6, CFFDRS C2, FBFM TU4/TU5) Mixed stands of spruce and tall open birch shrubs are also present, intermixed with some kettle ponds and riparian vegetation. (Open Tall Shrub Birch, Alaska Fuel Type Number 5 and 27, FBFM SH3 and TU1) The stands of black and white spruce are highly susceptible to wildland fire. Under natural conditions, these forests will burn, with varying intensity, every 35-100 years. Fire has been excluded around the community, leading to the accumulation of hazardous fuels and expansion of forests dominated by spruce.

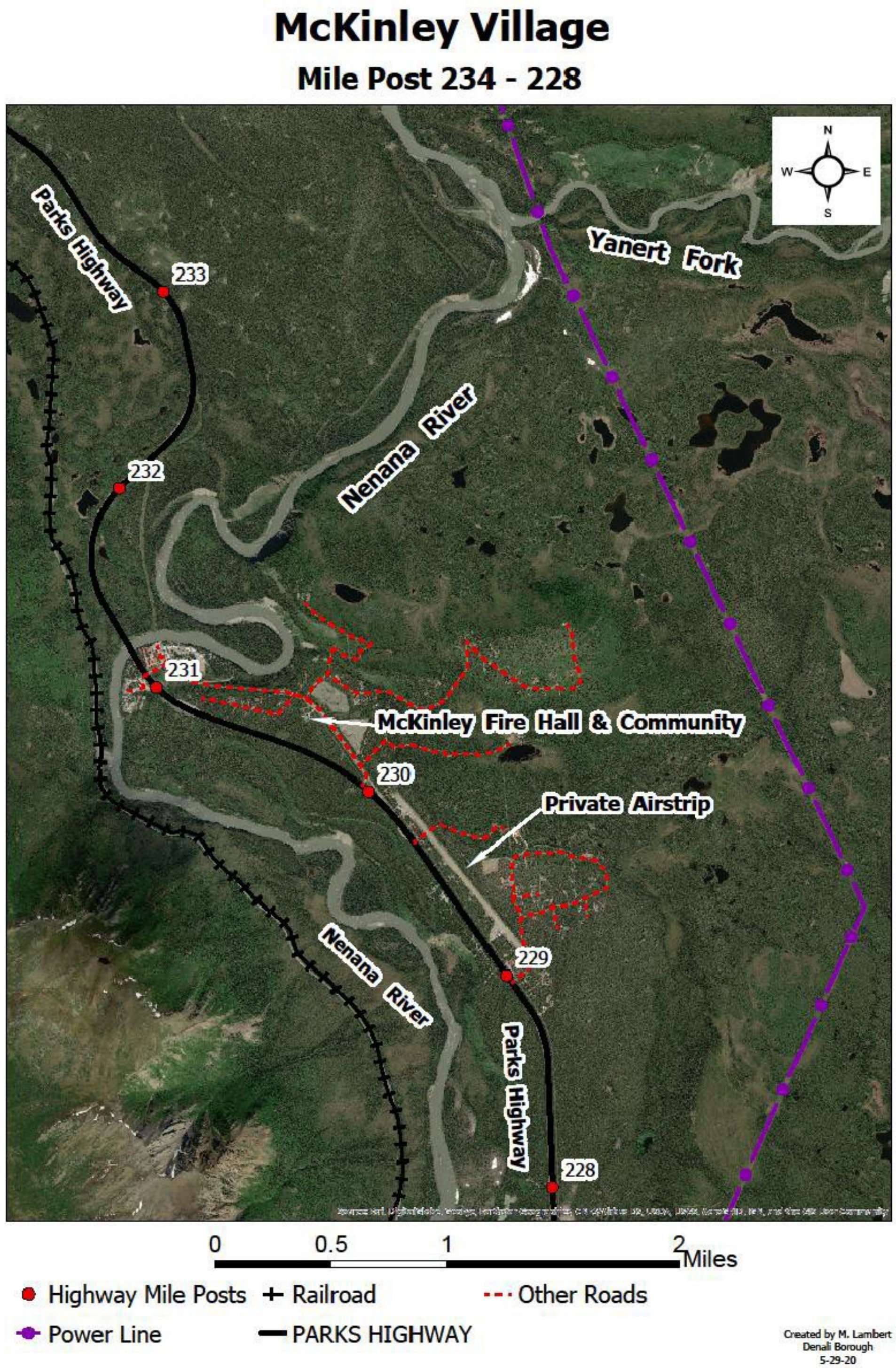
The Alaska Fire Return Interval rating for the fuel types and lack of recent burning is already at a high level, with an additional component as to heightened intensity, rate of spread, and spotting potentials due to the arrival of the spruce beetle infestation in the plan area, (Alaska Fuel Type Number 54, FBFM SB2) and its anticipated spread throughout the plan are over the next few years. (Stehn and Syrotchen, updated April 2023).

The risk of fire starting inside the community is high, based on potential ignition sources and surrounding fuel types. The area of highest concern is open burning on private property. Residential and commercial properties have a variety of hazardous materials including fuel oil and propane tanks, and above-ground utility lines.

Burn barrels are used by some residential property owners to dispose of class A materials including cardboard and other burnable materials. The McKinley Village area is heavily traveled by visitors during the summer months who participate in recreational activities on and adjacent to the highway. Some local campgrounds provide fire pits for guests to have small warming fires, and ad hoc camping occurs in parking areas adjacent to the Highway. The Alaska Railroad corridor passes west of McKinley Village, across the Nenana River in Denali National Park. The most recent large fire the area saw was attributed to railroad activity in 1924, and the corridor brings a risk of wildland fire compounded with the potential for hazardous materials. Other contributing risk factors include periodic dry lighting and chinook winds. Power line maintenance on the Alaska Intertie and distribution lines also add to local fire risk. The alternate route(s) for all current proposals for an Alaska Natural Gas Line traverse the plan area, chiefly along its Eastern edge, with access roads proposed leading through the plan area from the Parks Highway.

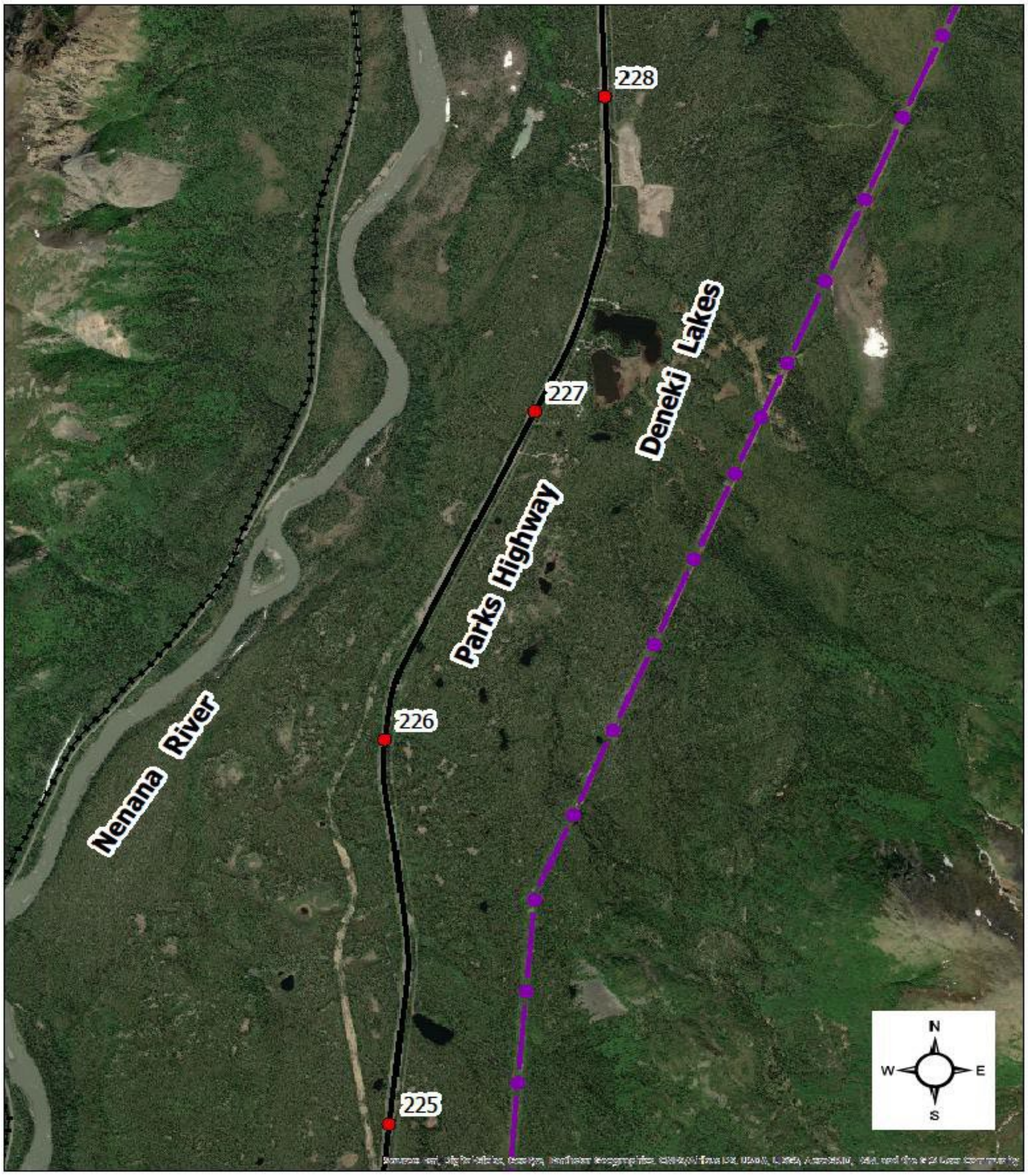
Residential and commercial infrastructure, including both residential subdivisions in the plan area, utilize single access and egress roads in proximity to continuous stands of Black and White spruce and present the highest risk to the community and will be the primary target of fire hazard mitigation planning efforts.

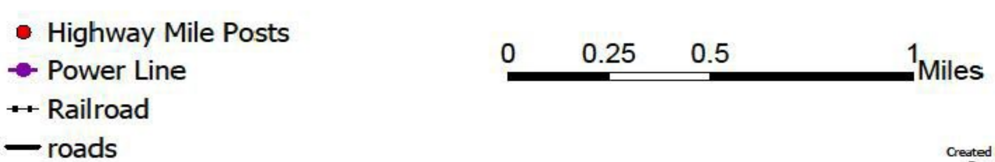
Planning Area Maps Mile Posts 225 -230 Parks Highway



Deneki Lakes Area

Mile Post 225 - 228

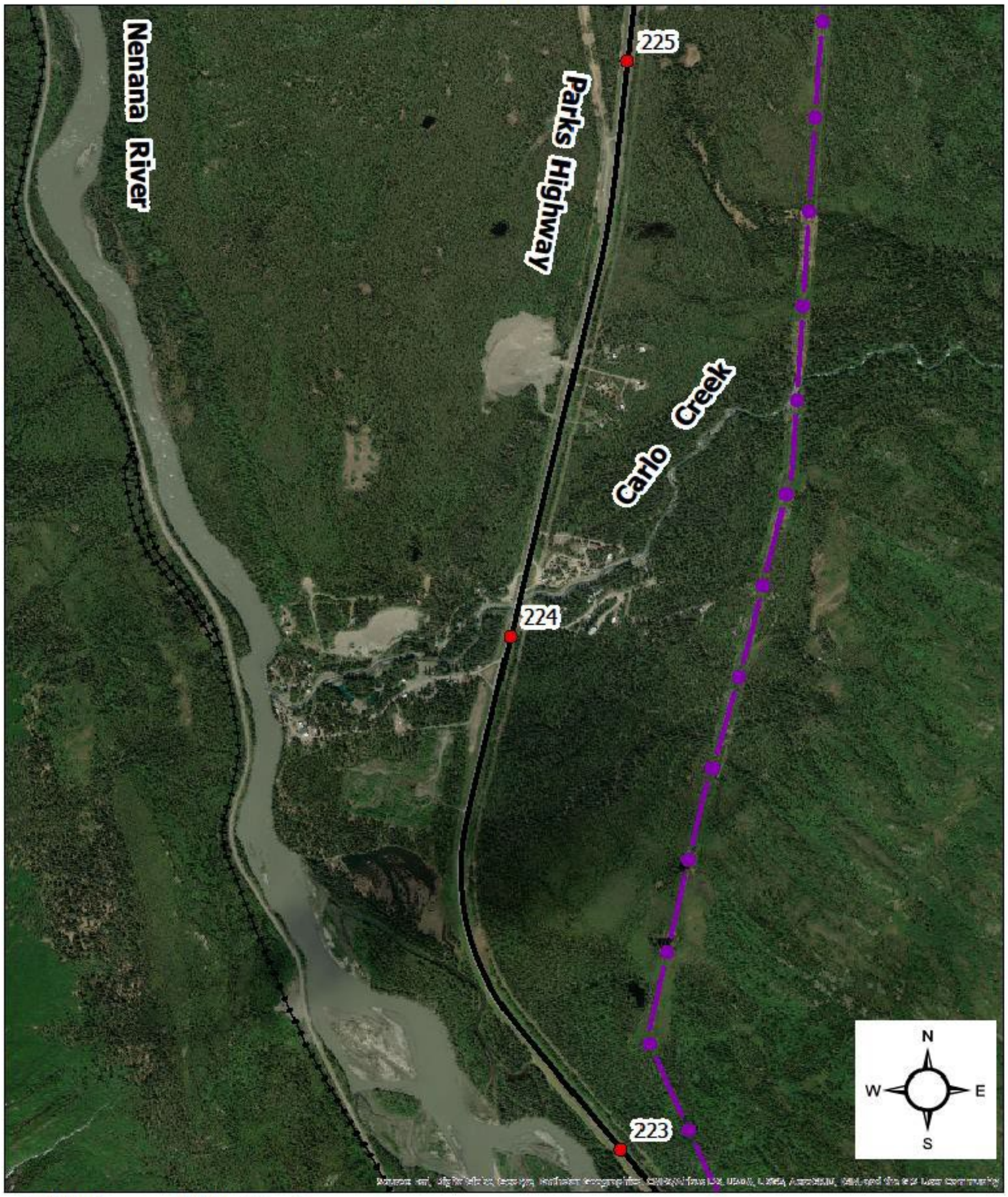




Created by M. Lambert
Denali Borough
5-29-20

Carlo Creek

Mile Post 223 - 225



- Highway Mile Posts
- Power Line
- Railroad
- roads

0 0.25 0.5 1 Miles

Created by M. Lambert
Denali Borough
5-29-20

Barriers and Fuel Breaks

Barriers are zones that would help restrict large fire movement from coming into the community or spreading within the community. Barriers may be water, natural or manufactured. The McKinley CWPP area has water barriers on two sides in large, glacial-fed rivers. The Nenana River makes up the western boundary and the Yanert Fork of the Nenana is to the north. Fire history of the late 1800s and early 1900s, however, shows large wildfires have jumped the rivers, but they are known natural fuel breaks that can be utilized during wildfire suppression.

The paved George Parks Highway with its wide, its brush free shoulders are a human made barrier that runs north/south through the community and separates residential and commercial structures on both sides of the highway. While it cannot necessarily restrict large fires from entering the community, it can be utilized to inhibit the spread within the community, or to channel wildfires away from the most dangerous fuels. It also can be used to allow for evacuations and some safe, effective initial attack work while anticipating future extended attack when a wildfire cannot be contained immediately.

The area under the Intertie power lines to the east of McKinley Village area is periodically brushed out to remove spruce and brush and may be used as a partial barrier to major wildfires entering the plan area, but most of it is not accessible by vehicle. The last major brushing of the northern section within the plan area was done in 2010. The southern portion of the intertie was brushed in 2023. The local power lines of GVEA were last brushed out in 2020. There is no natural barrier to the south, but the rocky slopes of Panorama Mountain come within 2000 ft of the Parks Highway and Nenana River, just outside of the scope of this CWPP near Sline[2] Creek.

Most roads off the highway in McKinley Village cannot be considered adequate fuel breaks in the event of a wind driven wildland fire. The exception could be the Old Parks Highway running to the MVCC which is wider than other local roads and has gravel pits lining the east side. The airstrip is also a human created barrier that parallels the east side of the Parks Highway from Milepost 229 to 230. It could be utilized to inhibit the spread within the community, or to channel wildfires away from the most dangerous fuels. In terms of identifying emergency alternate access to the main Parks Highway from the two subdivisions, access to the airstrip and the Old Parks Highway are priorities.

[2] The creek, located at Milepost 219, is generally identified on maps as Slime Creek. It is however known by local residents as Sline Creek, after an early resident named Joe Sline. The Ahtna name for the creek is Nanikaeni Na', the place where the rocks fell across creek.

Plan/Hazard Mitigation

Goals and Objectives

Interagency wildland fire policy identifies public safety as its top priority. The primary goal of the CWPP is to reduce the risk of wildfire to the residents and guests of the community of McKinley Village and its essential infrastructure.

The goal of this CWPP is to develop wildfire prevention strategy and eventually prioritize a list of risk reduction projects in the highest risk areas identified by vegetation maps and local community knowledge/assessment.

Continued collaboration may be accomplished through these processes. Encourage continued dialogue among decision makers, local, borough, state, and federal agencies, and continuing to engage landowners and interested parties. Decision makers will include those that have been responsible for the development of the CWPP, as well as additional interested parties.

The following is a list of specific objectives proposed to reduce the risk of wildfire in the community.

Objective #1: Support and Encourage the Use of Firewise Programs and Education

The first line of defense against a wildland fire is to encourage the creation of a Firewise landscape around homes and businesses and the construction of new homes to Firewise standards. Fire and fuel breaks around the outskirts of the community and even within the community will not protect against all wildfires and resources are quickly stretched thin during a fire. Only in conjunction with landowners will this plan succeed. The Alaska Department of Forestry and Fire Protection offers information and literature on defensible space and other Firewise tactics, that can be utilized by the fire department in local efforts. The MVCC can immediately be utilized as a Firewise demonstration project to educate residents. The Denali Borough has undertaken a brush collection program at its solid waste facilities, the MVFD has arranged with DOT to use its pit within the Community, and they both will continue to receive brush from residents and businesses completing Firewise clearing projects around their property.

Objective #2: Develop an Evacuation and Notification Plan for wildfires

An evacuation plan for the community and its residents and seasonal visitors is needed along with primary evacuation routes identified to provide the public with information and a safe means to escape a wildfire. This is consistent with the Final Denali Borough Emergency Operations Plan (2020). A communication system to allow for better and more timely notification in the event of an emergency is needed to be updated for both residents and visitors. Due to the lack of broadcast and cable services in the plan area, foreclosing normal emergency alerts, an emphasis on a targeted use of the more recent Wireless Alert System should be prioritized. Continued use of email community chat rooms and social media must continue and should be coordinated. Emergency access/egress routes, shelters and safe areas need to be identified and approved, and the plan exercised with the Denali Borough and other cooperating agencies and landowners on a regular basis to ensure its effectiveness.

Evacuation planning must include consideration of the large influx of visitors during the summer season. This influx is largely comprised of older or seasonal people without their own cars, and dependent upon tour and shuttle buses for transportation. These factors make it much harder for them to respond to a wildfire evacuation situation, and greatly increases an otherwise very high-risk factor during the wildfire season.

The “Ready, Set, GO!” program is a national standard used by firefighters and public safety organizations to inform the public, and has been used effectively by the Borough during large recent fire events in 2022 and 2023. Continued collaboration and coordination with the Borough are key components of the plan.

Objective #3: Develop a Hazard Matrix and Map that Prioritizes Areas for Potential Hazard Fuel Reduction

Forestry personnel can map the hazardous fuels from the ground and by using GIS and satellite imagery. Concurrently with this mapping project, a plan can be developed with community and landowner collaboration that will allow Forestry personnel to prioritize areas for potential hazard fuel reduction. Since public safety is of the highest concern, the matrix will prioritize removal of hazardous fuels from areas that most affect life safety, such as critical ingress/egress roads, areas that might be used for safety zones and emergency shelters, agencies that might be involved in the firefighting or evacuation effort, and communication facilities. The next highest priorities will be areas that have large continuous stands of hazard fuels that would be difficult to access by firefighters. Firefighter access is critical to Initial Attack efforts that are designed to contain wildfires before they reach a size that makes them much more dangerous and expensive. The areas where these large stands of hazard fuels border the community or populated enclaves will also be identified as areas that need to be treated to give firefighters a chance to stop a fire from entering the outskirts of, or key components within the community.

Objective #4 Reduce Hazardous Fuels within the Community

In addition to the creation of a Firewise landscape around individual homes and businesses, hazardous fuel reduction will provide the greatest benefit to fire suppression efforts in the event of a wildland fire threatening the community. Initial projects will consist of removing spruce trees and creating a predominately willow and aspen forest in critical areas within the plan area. See Hazard Fuel Reduction plan, below. **Major projects within a fuel reduction plan would only be identified following further mapping and implemented with additional community input from directly affected landowners and residents.**

Objective #5 Improve Firefighter and Emergency Response Staff Effectiveness and Response through Technology and Training

Increasing the emphasis on training for local firefighters and borough emergency response staff will also enhance the ability of the MVFD and Forestry to suppress fires quickly and safely before they become large fires that can threaten many lives and property. Working with cooperating agencies and exercising these skills on a regular basis will help to minimize the confusion inevitably created during Wildland Urban Interface fires. Increasing the use of satellite imagery and GIS data to provide the firefighter with better maps and data will enable them to improve their response time to a complete size-up of any fires and then success rate on Initial Attack of fires, while greatly increasing the effectiveness of the firefighters during Extended Attack on large fires.

Objective #6: Build the CWPP to be Sustainable and Efficient

It is in the best interest of the community to make the CWPP a sustainable and adaptable plan. It is hoped that this can be done through increased use of contractors and members of the public to remove fuels, and possibly even the use of those hazard fuels as energy or wood products. Continued and scheduled collaboration among all parties should encourage future modifications to the plan that serve to advance its objectives.

Hazard Fuel Reduction Plan

A. Specific hazardous fuels reduction projects to be immediately considered:

- Remove hazardous fuels around the MVCC and Fire Hall, if initially done to Firewise standards, this could serve as an active demonstration of Firewise practices for residents.
- Identify, and upon future collaboration with residents, remove hazardous fuels around single access/egress routes to the two residential subdivisions **.**
- Continue to provide a free and convenient option for brush disposal within the McKinley CWPP area.
- Enlist help from Federal, State, and local experts to prioritize further hazardous fuels reduction possibilities and fire hazard reduction within the community and consult with residents and landowners on these findings.

B. Equipment, tools, materials, and personnel required to implement McKinley CWPP:

- Utilization of GIS mapping of area and readily available maps for further planning efforts and first responders (MVFD, Forestry and/or NPS).
- Seasonal MVFD staff to coordinate Firewise implementation, including a voluntary physical assessment program and various social media surveys, mitigation trainings, and reports.
- Denali Borough staff member time to pursue implementing the CWPP, including coordinating the use of the Wireless Emergency Alert System and evacuation planning.
- Training, equipment, and personnel for wildland fire prevention and education within the community as determined.

Summary

The community of McKinley Village is in a difficult situation regarding wildfire. It has a large hazardous fuel load that encompasses nearly the entire community and areas immediately surrounding it. It also has limited wildland firefighting resources available due to its low population and distance from larger communities (120 miles to Fairbanks). This situation is conducive to the possibility of a wildfire that could quickly threaten lives and property, and cause millions of dollars in damage.

Fuel reduction remains the most effective way to protect the community from a large-scale destructive wildfire. However, fuel reduction on the outskirts of the area will not solve the problem. The initial recommendations in this plan rely on utilizing the Firewise program for educating and motivating community members to reduce the amount of fuel on their own property and look to make their own structures and property more fire safe. It is the intent of this plan to reduce fuel from inside the community, working outwards. Another high priority is removing fuel around essential infrastructure such as primary evacuation routes and centers, around facilities responsible for conducting or assisting in evacuation and firefighting efforts, and communications towers and power lines.

The most effective way for landowners to become involved is to incorporate Firewise measures into their home construction and landscaping, as well as providing improved ingress and egress to their property. Landowners can also help locate and design further community fuel reduction projects to protect specific areas within the community. Community involvement is the key to a functioning Firewise community.

As it is recognized that given the right conditions, a destructive wildfire could occur which would quickly overwhelm local firefighting capabilities and advance within the community, the surest way to prepare for a wildfire of this magnitude is through fire prevention and mitigation as discussed above. In the event of wildfire, however, adequate and timely warnings are key to the immediate safety of residents and visitors, as are preset evacuation plans. Local firefighting training in planning, wildfire size up, and initial attack, and the coordination of mutual aid and cooperating firefighting resources for speedy extended attack are also essential. These aspects are included in the plan.

Therefore, it is imperative that all the members of the community stay involved with this process as it goes forward. It is hoped that through interagency cooperation and public involvement the McKinley Village Community can become a safer and more Firewise community for the benefit and safety of all its residents and visitors.

References:

AHTNA website: https://www.ahtna.com See also: Fire Protection on Ahtna Lands, https://www.ahtna.com/kanas/fire-protection-on-ahtna-lands

Alaska Fuel Model Guide Task Group. 2018. Fuel model guide to Alaska vegetation. Unpubl. report, Alaska Wildland Fire Coordinating Group, Fire Modeling and Analysis Committee. Fairbanks, AK. 105 pp.

Alaska Smokejumpers User Guide 2023: DOI/BLM/AFS

Brown, C.L. and M.L. Kostick, editors. 2017. Harvest and Use of Subsistence Resources in 4 Communities in Nenana Basin, 2015. Alaska Dept of Fish and Game Division of Subsistence, Technical Paper No. 429, Fairbanks.

Census website (2020 data): https://www.census.gov

Community Wildfire Protection Plans (Alaska): https://forestry.alaska.gov/fire/cwpp/index

Final Denali Borough Emergency Operations Plan (2020): https://www.denaliborough.org/vertical/sites/%7B63112C6F-13FC-4147-831D-8F3F0E33EC53%7D/uploads/201209_Final_Denali_Borough_EOP.pdf

FCC Wireless Emergency Alert info: https://www.fcc.gov/how-public-safety-officials-can-issue-emergency-alerts ; see also: https://www.gci.com/support/support-articles/wireless-emergency-alerts-faqs

State of Alaska Dept. of Community and Regional Affairs website: https://dcced.maps.arcgis.com/apps/MapJournal/index.html?appid=a0035c1c31b4460f9d2a11d580bd40b0

LANDFIRE, 2016, Existing Vegetation Type Layer, LANDFIRE 2.0.0, U.S. Department of the Interior, Geological Survey, and U.S. Department of Agriculture. Accessed 28 October 2021 at http://www.landfire/viewer.

Sarah Stehn and Jill Syrotchen, Assessing the Risk of Denali's Forests to Spruce Beetle Outbreak: https://www.nps.gov/articles/assessing-the-risk-of-denali-forests-to-spruce-beetles.htm *(last updated April 2023)*

Short, Karen C. 2022. Spatial wildfire occurrence data for the United States, 1992-2020 [FPA_FOD_20221014]. 6th Edition. Fort Collins, CO: Forest Service Research Data Archive. https://doi.org/10.2737/RDS-2013-0009.6. As reported at wildfirerisk.org/preventignitions. See: https://wildfirerisk.org/explore/overview/02/02068/0200018805/

Tom Walker, McKinley Station: The People of the Pioneer Park that Became Denali (2009): https://www.amazon.com/McKinley-Station-People-Pioneer-Became/dp/1575101459?ref_=ast_author_dp