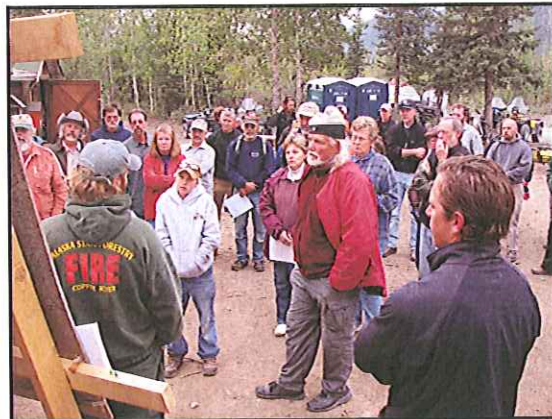
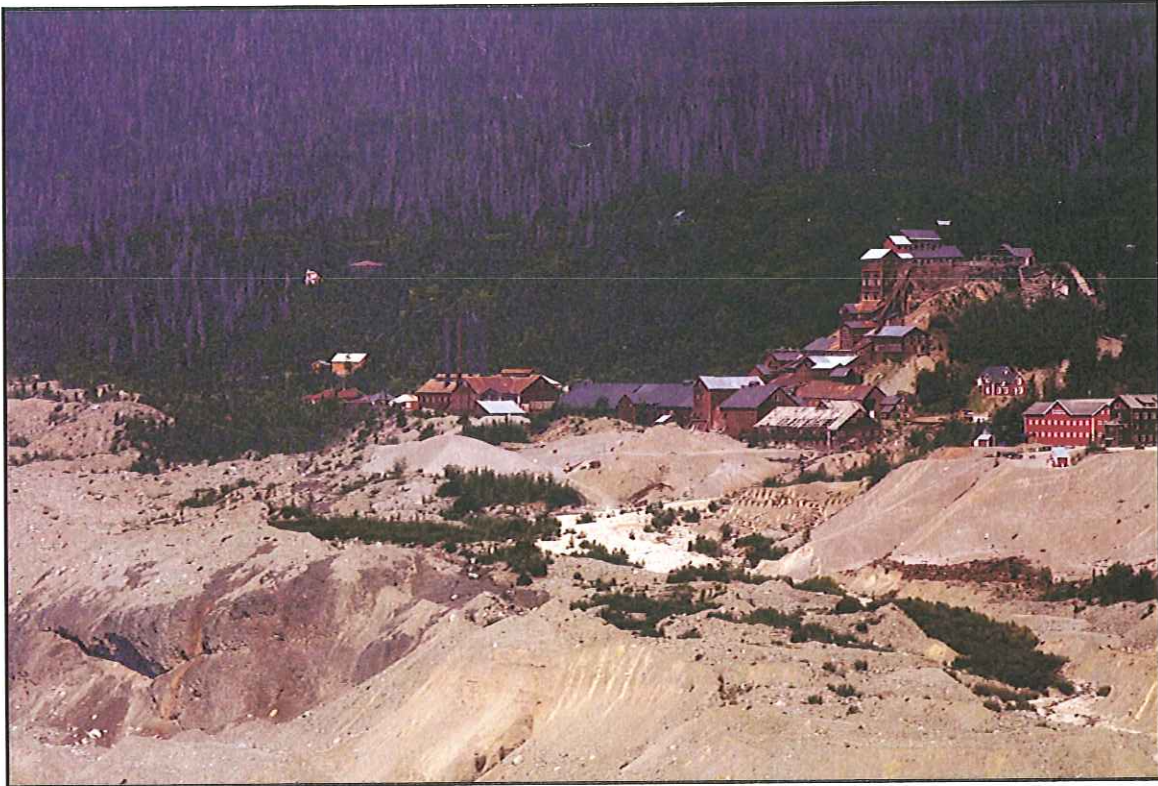


Community Wildfire Protection Plan

For the Kennicott/McCarthy Community
Copper River Valley, Alaska
2011



Prepared for:

Kennicott/McCarthy Community

By: State of Alaska Division of Forestry (Valdez-Copper River Area Office)

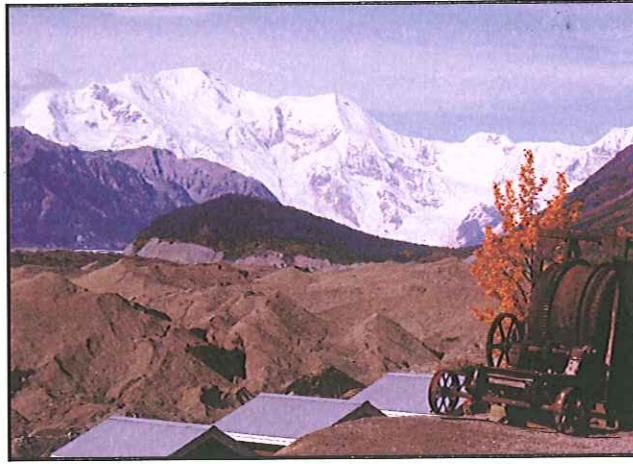


Table of Contents:

Executive Summary.....	page 3
Community Profile.....	page 4
Community Risk Assessment.....	page 6
Firewise Ratings.....	page 7
Mitigation Plan.....	page 8
Action Plan.....	page 9
Fire History.....	page 11
Declaration of Agreement and Concurrence....	page 13
APPENDIX A	
Fire Risk Hazard Rating Map.....	page 14

Executive Summary

The Kennicott/McCarthy Community Wildfire Protection Plan (CWPP) is a collaborative effort made in response to the 2003 Healthy Forest Restoration Act (HFRA). The act directs communities at risk from wildfire to develop risk assessment and mitigation plans. Guidance for the Kennicott/McCarthy Community Wildfire Protection Plan is based on the Alaska Wildland Fire Coordinating Group CWPP outline.

McCarthy is a community that is uniquely situated, deep in the heart of the Wrangell-St. Elias National Park and Preserve. Although it is technically accessible by road, it is a remote community with very limited and incomplete access, therefore creating many logistical hurdles for wildfire prevention activities and suppression responses. Surrounding McCarthy is an area that has a history of and is prone to large fires. Although McCarthy does have some large, natural fuel barriers, it is also encompassed by miles of black and white spruce, some of which is beetle-killed. Dead and down hardwoods greatly increase the fuel loading. Grass is also prolific and grows tall in less shaded areas, and greatly increases the threat of wildland fire, especially after spring breakup.



Kennicott, a historical mining community and related structures, (about four miles from McCarthy) is also represented in this CWPP. The site boasts a massive, 27-story wooden structure that served as the concentration and

smelting plant for mining operations. It is now a tourist attraction and a National Historic Landmark and is extremely vulnerable to fire. Another area represented by this CWPP is the Fireweed Subdivision, eight miles from the town of McCarthy. All three locations are inhabited and contain homes, cabins and year round residents.

Wrangell-St. Elias National Park and Preserve and local guides provide backcountry opportunities and experiences for visitors. The community population increases dramatically during fire season as visitors from around the world come to this highly-sought after destination. A small volunteer fire department organization is in place and is struggling to meet the concerns associated with increased back country travelers, campers and associated warming fires.

The wildland urban interface (WUI) continues to develop in the McCarthy area. **McCarthy Residents, Alaska State Forestry and the National Park Service** have prepared this plan in preparation to help mitigate the severe potential for a devastating wildfire that may not only impact local residents property, but also their livelihood as well, much of which is tourism-based. Firewise landscaping and fuel reduction programs will be the primary tools used to address the wildfire risks of the McCarthy community.

- **Collaboration:** This CWPP is a collaborative effort between the Kennicott/McCarthy Volunteer Fire Department (VFD), State of Alaska Division of Forestry (DOF), National Park Service (NPS), members of the Kennicott/McCarthy community, and the McCarthy Area Council. (MAC).
- **Prioritized Fuel Reduction:** The DOF is working to complete a hazard/risk assessment of the vegetation within the Kennicott/McCarthy Wildland Urban Interface (WUI) boundaries. The risk assessment map (attachment A) identifies areas and vegetation that poses the greatest risk to the community and prioritizes where fuel mitigation projects are needed and will be most effective.
- **Structural Ignitability:** The CWPP is a continuation of several years of community outreach; it incorporates the information dispersed and gathered during the 2009 Chakina Fire. Homes and structures that have surroundings that allow for fire spread need to be addressed, and the community needs to be further educated about current Firewise standards. Some initial hazard fuel mitigation efforts/creation of defensible space measures were provided to homeowners in the WUI during the Chakina Fire. However, the structures that received initial mitigation measures need additional work to meet or exceed Firewise standards for the clearing and thinning of debris.

Kennicott/McCarthy Community Profile

History

For centuries, Ahtna Indians traversed the Chitina River Valley in search of fish and game. They fished the area, but never established permanent settlements as far up the valley as McCarthy. They did take advantage of local copper resources to make knives and other tools used to trade with other Native peoples.

In 1900, two prospectors, Clarence Warner and “Tarantula Jack” Smith, saw large, green copper perches on the east side of Kennicott Glacier and staked out a claim called the “Bonanza Mine Outcrop.” Multiple mining sites and the town of Kennecott were soon to follow. By 1911, a railway was completed. The town of McCarthy sprang up on the outskirts of Kennecott to satisfy the demand for alcohol and brothels, which were prohibited in Kennecott. It quickly became a large town with other amenities such as a hardware store, school, saloons, dress shop, shoe shop, dry goods stores, and mechanic’s garages.

In 1938, the mine and railroad shut down. During its years of operation, the mining operations had extracted more than \$200,000,000 worth of ore from the surrounding mountains. At the time, it was the largest copper deposit in the world. McCarthy and Kennecott became ghost towns until the early 1970s when people began to return to the area to take advantage of the remote lifestyle and to make a living on the tourism industry. The area is now a national and international travel destination due to the natural beauty and rich history.

Location

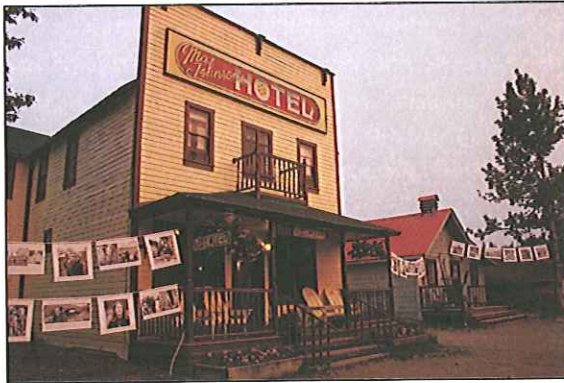
The McCarthy/Kennicott community and surrounding vicinity covers approximately 23,000 acres. McCarthy is located approximately at 61.256 degrees North Latitude and - 142.55 degrees West Longitude in the Chitina recording district, section 17, Township

005S, Range 014E. The community is located just over 100 air miles from Glennallen, embedded deep within the Wrangell-St. Elias National Park and Preserve. The 60 mile "McCarthy Road," built over the old railroad tracks, is treacherous to those who dare venture, with railroad spikes sticking up through gravel. The climate is continental with long, cold winters, and relatively warm summers. Temperatures can stretch from -50 degrees F in winter to 80 degrees F in summer. The area receives an average snowfall of 39 inches with a total precipitation accumulation of 11-14 inches a year.

Population

The 2000 census indicates 42 people reside in the McCarthy/Kennicott area year-round. That population increases drastically to approximately 1,200 with the influx of seasonal summer workers and landowners.

Structures



There are approximately 320 homes in the affected area. Almost all homes have one to five out-buildings associated with them.

Commercially, there are two lodges, a hotel, several flight services, wilderness guide services, rental cabins, bed and breakfasts', campgrounds, various eateries, a commercial construction company, and a newspaper office.

Infrastructure

The road system is comprised entirely of narrow gravel roads. There are two privately owned bridges that can be accessed for a fee: one that crosses the Kennicott River into McCarthy, and on that goes across McCarthy Creek to access the University Subdivision. There is a 1066 m/3,500 foot gravel runway located between Kennecott Mine and McCarthy, and several small private air strips throughout the area. Phone services are provided to the town by Copper Valley Telecom by way of a cell tower and the only internet is via satellite through a variety of different companies. Electricity is provided primarily by way of personal generators.

Industry

Tourism is the main source of income. McCarthy and the Kennecott Mine have their history preserved in buildings and other relics that attract tourists to the mountain community. Natural features including massive glaciers, mountains, and rivers attract the international outdoor community. The wilderness boasts the largest area of any protected land in the Western Hemisphere. And when put alongside its neighbor, the Kluane Wilderness Park, it is the largest protected area North of Antarctica.

Natural Resource Values

The area is rich in natural resources and wildlife, including Dall sheep, moose, bear, mountain goats, and many predators that support traditional trapping. Salmon, grayling, dolly varden and trout thrive in the lakes, rivers and streams. Berries, mushrooms and

other natural fauna play a vital role in the subsistence lifestyle most year-round residents depend on.

Cultural Sites

In 1986 the Kennecott Mine was declared a National Historic Landmark District that is administered by the National Park Service. It consists of several old, large mining buildings, some which have been rehabilitated for current use, other which are left to crumble away with time.

Hazards

Not only do large areas of beetle-killed trees and other vegetation pose a risk, local practicalities and the potential for fire spread from one house to the next is a major concern. The majority of local businesses and residents use gas or diesel generators, while many people use oil heat to back up their wood stoves. Most of the cooking in the town is done with wood or propane stoves. Fuel tanks and wood piles are in close proximity to structures and pose a threat should fire encroach. Education needs to continue regarding Firewise standards, construction and landscaping.

Fire Equipment/Volunteer Fire Department Support

The Kennicott/McCarthy VFD has approximately 20 members and three engines. The department deploys fold-a-tanks and pumps with premade hose lays to high-risk areas within the McCarthy/Kennicott WUI. Support for obtaining equipment and training for the local responders is necessary.

Local Fire Prevention



The VFD, DOF and NPS work together to educate the community about Firewise and other fire-safe practices, as well as the risks/hazards involved with the approach of a wildfire in a rural community. The 2009 Chakina Fire resulted in many teachable moments where fire personnel were able to engage residents in learning about and implementing the creation of defensible space and family/ community emergency planning.

Risk Assessment

Fire Regime and Condition Class

The McCarthy area Fire Regime is IV, meaning that it has a history of high severity replacement fires every 35-200 years. The Condition Class rates an E, the forest rates a C or D, this means the forest has areas in mid-development with hardwoods and spruce overtop the shrubs and has dominance. Then the region flows into areas where spruce is dominant over hardwoods and shrubs, with up to 60-percent canopy cover.

The Risk/Hazard Analysis

<u>Community</u>	<u>Inside (within 1 mile)</u>	<u>outside (1-10 miles)</u>
McCarthy	Moderate	High
Kennicott	Moderate	Moderate
University Subdivision	High	High
Westside Subdivision	High to Moderate	High to Moderate
Fireweed Subdivision	High	High

Barriers

There are two major natural wildfire barriers for the community. The Kennicott Glacier and River divide the community of McCarthy East and West, while the Nizina and Chitina Rivers serve as barriers to fire encroaching from the south.

Fire Protection Resources

Kennicott/McCarthy Volunteer Fire Department

1 Type 6 brush engine	good
1 Structural Pumper 1500 gal	fair
1 Structural Pumper 1500 gal	good

The DOF has statutory authority to protect forested lands from wildfire on State, private and Federal lands in the Copper River Valley.

Division of Forestry approximate response time to Kennicott/McCarthy

Retardant Ship --- 75 minutes

Fire Engine -----3.5 hours

Because DOF Valdez-Copper River Area shares a helicopter with neighboring Tok Area Forestry, Helitak is between one and two hours away.

Other Resources approximate response time to Kennicott/McCarthy

Strelna VFD-Crystal Creek Station	Mile 42 McCarthy Road	1 hour
Strelna VFD- Chokosna Station	Mile 27 McCarthy Road	1.25 hours
Strelna VFD- Strelna Station	Mile 10 McCarthy Road	1.5 hours
Chitina VFD	Mile 0 McCarthy Road	2.5 hours

Firewise Ratings

The lack of Firewise landscaping and construction in the target area is a growing concern. The desire for privacy has put many homes at risk of wildfire. The lack of knowledge concerning a variety of options to protect homes is a problem and needs to be addressed. The Firewise rating for the McCarthy/Kennicott community rates a low 20- percent of 100 on the chart.

- | | |
|-------------------------------------|------------------|
| • Risk/Hazard inside the community | Moderate to High |
| • Risk/Hazard outside the community | High |
| • Barriers | Fair |
| • Fire Protection | High Risk |
| • Firewise | 20% Poor |

The starting emphasis on individual and neighborhood creation of defensible space will expand into the risk assessment map that focuses on hazard fuels within the different subdivisions in and surrounding McCarthy and Kennecott.

McCarthy-The streets of McCarthy are lined with hardwoods mixed with spruce. In the spring, seeds from hardwoods provide an additional fuel that easily carries fire. The risk assessment map indicates that it is a moderate risk area for wildfire. However, the area surrounding McCarthy is high risk due to continuous black spruce.

Kennecott Mine- Located four miles north of the town of McCarthy, the National Historic Landmark includes a massive wood 27-story ore concentration and smelting plant and adjacent buildings. There is a high amount of human traffic, many large wooden buildings, and while the Kennicott glacial moraine protects it from the west, there are volatile fuels surrounding the other three sides. One-hundred year old lumber litters the ground, and black spruce flanks the western edge to the glacier up to timberline on the east.

University Subdivision- The subdivision is 1.5 miles south of the town of McCarthy. It is one of the newer subdivisions within the community. Although access was recently provided across McCarthy Creek by way of a private vehicle bridge, the egress is still limited. It is inhabited year-round. Miles of black spruce lie to the south of McCarthy and all the way to the Nizina River, and across the Kennicott River.

Westside Subdivision- Located two miles west of McCarthy, the subdivision is inhabited by many residents and is situated on the west bank of the Kennicott River. The property has a high black spruce and black spruce/hardwood component. It is located amongst very volatile fuels, much which have been devastated by the spruce bark beetle. There are large amounts of standing/fallen dead that, in conjunction with the densely populated area, provide extra need for defensible space.

Fireweed Subdivision- Located eight miles west of McCarthy, the subdivision consists of subsistence homes for year-round residents, in addition to summer cabins. It has very limited access, accessible only by ATV and walking paths. The fuel types in the area are predominantly black spruce and black spruce/hardwood mix. It is far more vulnerable than any other populated subdivision in the area.

Mitigation Plan

The goal of the mitigation plan is to protect life, property, historical values, and a way of life from the threat of wildfire in the Kennicott/McCarthy area through education, fuel mitigation and natural resource management.

Goal 1: Reduce the Risk of Wildfire Through Site Specific Fuel Reduction

- Support and encourage the treatment of fuels around individual structures. Prioritize areas for fuel reduction projects.
- Firewise standards should be considered the first steps in fuel reduction.
- Cost-share programs are needed to clear beyond Firewise standards.
- Fuel Reduction is needed on both State and Federally managed lands.

Goal 2: Education and Community Outreach

- Support and educate the public in the application of Firewise principles.
- Brochures, mail outs, and signs with local messaging and graphics.
- Booths, seminars and fun days.
- Newspaper articles, inserts and radio spots.

Goal 3: Reduce Vegetation Along Roads with Poor Access to Improve Egress

- Clear brush up to 50 feet from the edge along the McCarthy, Kennicott and Nizina roads and along access routes into the Fireweed Subdivision, within DOT and subdivision right of ways.

Goal 4: Improve the Effectiveness of Local Fire Suppression Resources.

- Assist in the recruitment of wildland and structural firefighters.
- Seek funding and opportunities to train local VFD fire fighters. Seek to expand infrastructure and equipment of local VFD.

Goal 5: Develop a Biomass Utilization Program

- Design a disposal for woody debris, by creating a public discard site at no cost to the public. Debris could be chipped and then provided to be burned as biofuel, made into pellets, or simply scattered over the ground to be used as mulch. By working together, wood debris created by fuel reduction could be put to use as biofuel. Those processing the debris could cover their costs by selling to those using the end product.

Goal 6: Create Shaded Fuel Breaks

- From McCarthy Creek south along the section lines between NPS and State land down to the southeastern corner, then West to the Kennicott River.

Goal 7: Identify and Construct Water Sources in High Risk Areas

- Identify available water sources and areas that are in need of supplemental water.
- Design site-specific water containment for high risk areas.

	Action Plan	Resources Needed	Who is Responsible
Goal #1	Reduce the Risk of Wildfire Through Site Specific Fuel Reduction		
Objective #1	Identify high risk areas and develop cost effective treatments.		<ul style="list-style-type: none">• Division of Forestry• Local VFD
Objective #2	Select home sites to begin a process of fuels mitigation to minimize ignitability.		<ul style="list-style-type: none">• Division of Forestry• Local VFD

Objective #3	Support and encourage the treatment of hazardous fuels around residents' homes through cost-share incentives and the incentive of agency provided fuels mitigation on agency lands.		<ul style="list-style-type: none"> • Division of Forestry • Local VFD
Goal #2	Education and Community Outreach		
Objective #1	Promote and develop Firewise and wildland fire prevention workshops, presentations and displays for local events.		<ul style="list-style-type: none"> • Division of Forestry • Local VFD • NPS
Objective #2	Design brochures, mail outs, signs. Plan booths, seminars and fun days, Coordinate with local agencies to write newspaper articles, inserts and radio spots.		<ul style="list-style-type: none"> • Division of Forestry • Local VFD • NPS • MAC
Goal #3	Reduce Vegetation Along Roads with Poor Access to Improve Egress		
Objective #1	Seek funding to clear brush up to 50 ft from the edge along the McCarthy, Kennicott and Nizina roads and along accesses into the Fireweed Subdivision within DOT and subdivision right of ways.		<ul style="list-style-type: none"> • Division of Forestry • Local VFD
	Action Plan	Resources Needed	Who is Responsible
Goal #4	Improve the Effectiveness of Local Fire Suppression Resources		
Objective #1	Identify methods for recruiting firefighters; advertisements in newspapers, display ads at local stores and meeting areas.		<ul style="list-style-type: none"> • Division of Forestry • Local VFD
Objective #2	Work in conjunction with other agencies and organizations to expand employment and educational opportunities for firefighters.		<ul style="list-style-type: none"> • Local VFD • MAC
Objective #3	Identify opportunities to assist in the training of firefighters i.e. Code Red.		<ul style="list-style-type: none"> • Local VFD
Goal # 5	Develop a Biomass Utilization Program		

Objective #1	Identify opportunities for marketing and utilization of small diameter wood products. In order to sustain fire protection and fuels reduction programs there must be a way to pay for it.		<ul style="list-style-type: none"> • Local VFD • MAC • Division of Forestry
Objective #2	Biomass marketing and utilization of small diameter wood may be a strategy to motivate businesses to help cover the cost of removing hazardous fuels on state and federal lands.		<ul style="list-style-type: none"> • Local VFD • MAC • Division of Forestry
Goal # 6	Create shaded fuel breaks		
Objective #1	Seek funding to cut a shaded fuel break from McCarthy Creek south along the section lines between NPS and State land down to the southeastern corner, then West to the Kennicott River. There is potential for future fuel break projects as well.		<ul style="list-style-type: none"> • Division of Forestry • Local VFD • NPS
Goal # 7	Identify and Construct Water Sources in High Risk Areas		
Objective #1	Identify available water sources and areas that are in need of supplemental water.		<ul style="list-style-type: none"> • Local VFD • Division of Forestry
Objective #2	Seek funding for design and construction of water containment.		<ul style="list-style-type: none"> • Local VFD • MAC
Objective #3	Design site specific water containment for high risk areas.		<ul style="list-style-type: none"> • Local VFD

Fire History

- 1915 – Sourdough Hill Fire – 384,000 acres
The fire was presumably set by sparks from the railroad. It burned from Chitina to the Kennicott River and from the Chitina River to the mountains north.
- 1915 – Kennicott Fire – 64,000 acres
The fire was intentionally set to kill timber so as to provide fuel-wood for sale at the Kennicott mine.
- 2009 - Chakina Fire – 60,000 acres



The lighting-caused fire started on July 2nd, southwest of the confluence of the Chakina and Chitina Rivers. The fire burned north to the Chitina River and south as far as the Tana River.

- 2011 – Gilahina Fire – 1,234 acres


The fire was started from a lightning strike in the Gilahina River drainage May 30, 2011 approximately 20 miles west of McCarthy.


The Alaskan spruce bark beetle, *Dendroctonus rufipennis*, has caused extensive spruce mortality in mature forest stands throughout the Copper River Basin. Over a decade of this epidemic has resulted in heavy fuel loading, along with a steady decline in the health of the remaining forest. There is now opportunity for catastrophic wildfires in and around Kennecott and McCarthy, an area that last saw significant wildfire occurrence in the 1920s.

Currently, 90-percent of wildfires in the Copper River Valley are human-caused. This emphasizes the need to address the growing concern in the McCarthy area. An increasing number of people are seeking McCarthy as a gateway into the famed Wrangell St. Elias National Park. Wrangell St Elias has seen a steady 15-percent increase in visitors in the last five years, from 56,224 in 2005 to 73,170 in 2010. Many people are seeking the outdoors and, as a consequence, there are more and more warming fires, increasing the possibility of wildfire from within McCarthy or along the road system.

Signature Page

We below have agreed to the contents of this Community
Wildfire Protection Plan:


AK Division of Forestry, Area Forester

 LEATH KRAMER
Kennicott/McCarthy VFD, Chief


National Park Service, Chief of Resources

For planning purposes
 pres.
McCarthy Area Council, President

