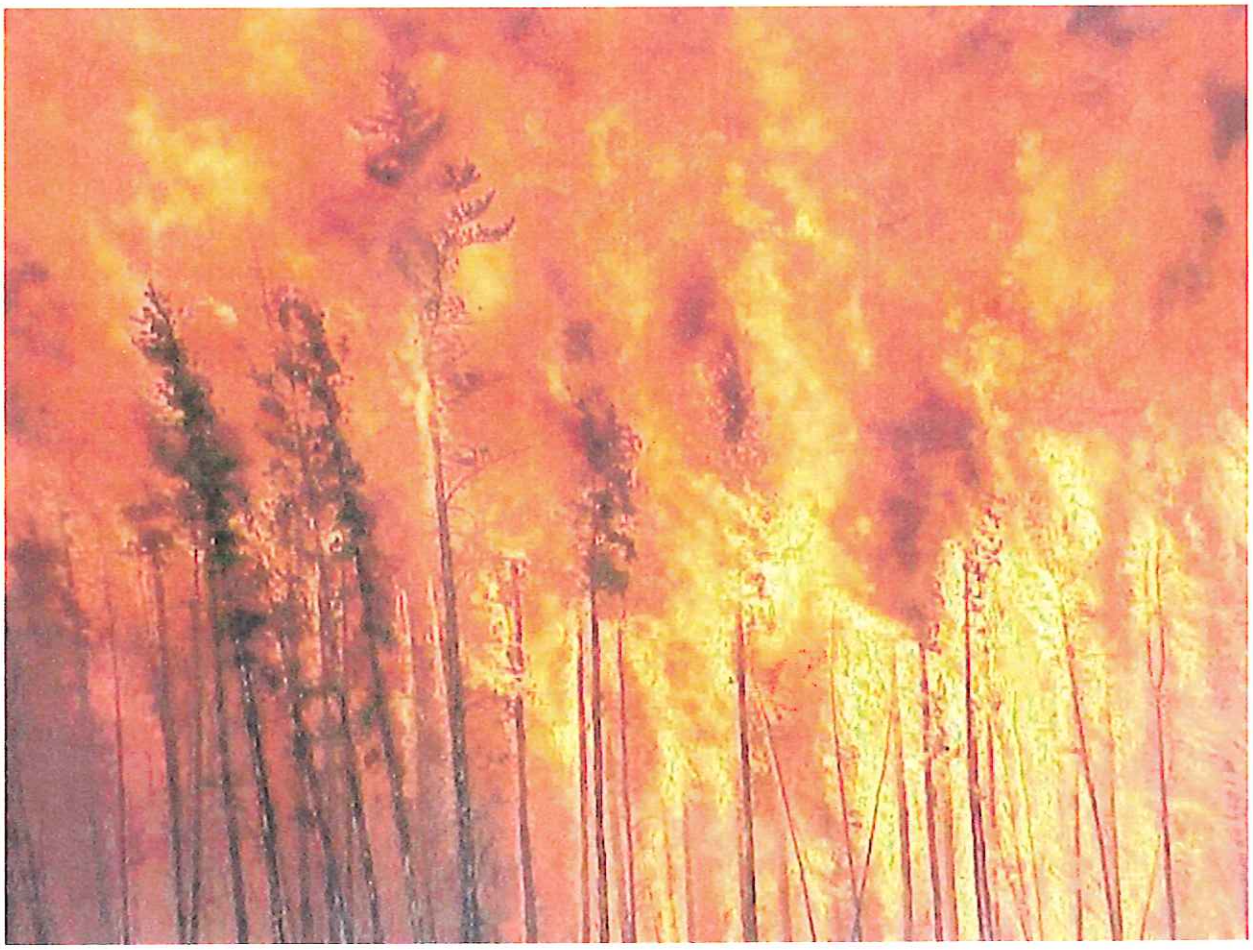
Dry Creek

Community Wildfire Protection Plan (CWPP)



Dry Creek CWPP

I. BACKGROUND

The Upper Tanana Valley community of Dry Creek (est.1979) is home to approximately 90 residents. The community is located 135 miles southeast of Fairbanks at mile marker 1379 of the Alaska Highway. The community encompasses an area of 568 acres at the foot of Horn Mountain. There is a commercial logging and milling company in Dry Creek and recently a wood pellet manufacturer facility was constructed. Community lands lay entirely within the Tok Area Fire Management Zone (TAS). The community is entirely encompassed within the Critical Fire Management Option. Protection from wildfire has long been a concern in the community. In 1993 a 58 acre wildfire spotted to the south side of the Alaska Highway within a mile of the community. A dozen spot fires and uninterrupted hazard fuels posed a serious threat to the community before being contained. Lightning fires at the base of the mountains to the south have also threatened the community on occasion.

II. EXECUTIVE SUMMARY

The Alaska Highway provides the community of Dry Creek some barrier from an approaching wildfire as do the mountains to the South and an airstrip on the North side of the community. The community is still at substantial risk however, from the effects of a wildfire originating on adjacent lands from either direction.

This Community Wildfire Protection Plan is a collaborative effort between the Division of Forestry and the community of Dry Creek to mitigate these risks. Input into this plan has also been received from and U.S. Fish and Wildlife, TNWR.

The following actions are proposed to mitigate the risk of wildfire to the community of Dry Creek:

Actions to be taken

Fuel Reduction Projects by Priority

1. Construct a fuel break 300' wide on the southwest side of the community (Unit 37)
2. Construct a fuel break 150' deep along both sides of the road leading into the community.
3. Construct a 300' wide fuel break around the rest of the community.
4. Construct a fuel break 150' deep along both sides of the airstrip to increase its effectiveness as a fire break and to make it a usable safety zone.
5. Construct a fuel break along the Alaska Highway from the rest stop near Dry Creek Road to Dry Creek where it crosses the Alaska Highway.

Firewise Measures

The community must improve firewise measures in an effort to reduce the ignitability of structures, this includes using fire resistant home construction materials and methods, building and maintaining green lawns complete with sprinklers, and removing flammable vegetation from around the houses. The use of unimproved burn barrels must also be

addressed and mitigated. The plan is to secure an incinerator to replace all of the burn barrels currently used.

Improve firefighting capabilities

- Facilitate the construction of the proposed pond for a water source
- Upgrade the Forestry fire equipment cache
- Facilitate the building or purchase of fire apparatus and a fire hall.
- Conduct scenarios in order to develop emergency skills such as firefighting, structure protection, evacuation

III. COLLABORATION

This plan is a collaborative effort between the community of Dry Creek and Tok Area Forestry. Other agencies that have had input into this plan or were asked to be a signatory are State of Alaska Fish and Game and U.S. Fish and Wildlife TNWR. A committee was formed in the community to make decisions regarding the CWPP. Several meetings took place between a committee appointed by Dry Creek and Tok Forestry personnel. Comments from these meetings can be found in the Appendix portion of this plan.

Signature page

William A. Trotter – President, Dry Creek Community Corp.

William A. Trotter

Jeff Hermanns – Tok Area Forester

Jeff Gross – Biologist, ADF&G

Peter Butteri – FMO, TNWR

~~Marsha Henderson – Northern Region FMO~~

VACANT

Mark Eliot – Northern Region Forester

Dave Bergstrom – Chief, Tok Volunteer Fire Department

CHRIS MAISCH - ALASKA STATE FORESTER

11/15/12

IV. ASSESSMENT TO PRIORITIZE AREAS FOR FUEL REDUCTION

A. Introduction:

B. Identification and Description of Community and Area

1. **Describe the WUI boundary and how it was delineated**
   For the purposes of this plan the WUI boundary is the area that inherits the Critical Fire Management Option as designated in the Alaska Interagency Wildland Fire Management Plan. The area is 3,744 acres in size.

2. **Community Name**
   Dry Creek

3. **Location:**
   Milepost 1379 Alaska Highway

4. **General Geographic Location**

   a. Lat. 63 41' 1" N Long. 144 36' 15" W

   b. Township 22N Range 16E Section 24 Meridian CR

5. **Population:**
   90

6. **Structures:**
   a. Homes
   29

   b. Community buildings
   18 community buildings and 5 generators.

   c. Commercial
   4 commercial buildings including a large shop, sawmill, pellet mill, dry kiln and biomass boiler.

   d. Seasonally inhabited structures
   N/A

   e. Outbuildings
   There are many outbuildings within the community.

7. Infrastructure:

5 Generators provide the electricity to the community, including the commercial property. Roads are gravel. There is a 3000' gravel and grass airstrip. The Alaska Highway is 1.5 miles from the community.

8. Industry:

A logging company, complete with sawmill, kiln, large metal commercial building and equipment. A wood pellet manufacturing company was started in fall/winter of 2008.

9. Natural Resource Values:

There is timber in the area and Dry Creek has an active and productive timber company. Many people within the community live a subsistence lifestyle of gardening/farming, hunting, gathering and some ranching.

10. Cultural Sites:

Dry Creek does have one cemetery.

11. Dumps:

There is one dump in Dry Creek.

12. Hazards:

There are several fuel tanks within the community to supply the generators. Vegetation consists of very dense white and black spruce boreal forest. Several homes lie in the foothills of Horn Mountain making access and fire protection to these structures difficult. These structures location and difficult ingress/egress are potentially hazardous to firefighters.

The area experiences high winds on many occasions during fire season, this combined with the fuel type make for a very hazardous situation.

13. Fire Equipment:

Forestry maintains a cache of wildland firefighting equipment consisting of pumps, hose and hand tools in Dry Creek. An old fire engine within the community is antiquated and no longer operable. Residents are attempting to build a fire engine using a flatbed truck and a water tank with pump.

14. Local Fire Prevention Efforts:

Forestry personnel visit several times per season to discuss fire prevention. Several of the homes on the outskirts of the community that have ingress/egress issues have some thinned areas around the homes.

15. Other community values:

The value of green space to the community must also be considered. Although its long term affects can be argued, a fire that removed all of the

trees surrounding the community would negatively affect the quality of life and the economic structure of the community due to its reliance on timber and other natural resources.

C. Areas or Values to be Protected

The protection of life and property, including the structures within the community is the highest priority and the natural resources are the areas of concern in the event of a wildfire.

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

1. Fire Regime 4
   Condition Class 2

2. Rating Elements

a) Risk/Hazard Analysis

(1) Inside Community:

The forest within the Dry Creek area consists of dense white and black spruce and is within the area that has a high occurrence of lightning during fire season. The risk of a human caused ignition in the timber stand in and surrounding the community is a real risk.

(2) Outside Community

Dense white and black spruce forest with a high occurrence of lightning during fire season.

b) Barriers

An airstrip on the North side of the community and a mountain range on the South side of the community afford Dry Creek a fair barrier rating.

c) Fire Protection Resources

Dry Creek is situated on the West end of Tok Forestry Fire Management Zone. Initial attack resources can also respond from the Delta Junction Station. This affords Dry Creek a fair rating for Fire Protection Resources. Up to 75 minutes or more may be required to respond with engines to the Dry Creek Community from Tok or Delta DNR forestry stations. This makes Dry Creek a real concern for initial attack response to a wildfire.

d) Firewise Ratings

The Firewise rating for this community is Fair.

RISK/HAZARD ANALYSIS CHART 1
Outside Community Area (1-10 miles)

	Alaska Fire Return Interval		
FUELS (predicted fire behavior based on historic summertime weather with hot, dry conditions)	High (0-99 years)	Moderate (100-300 years)	Low (>300 years)
Black Spruce Boreal Forest (CFFDRS=C2) *rate of spread: high* *intensity: high* *spotting potential: high*	H **80 yr avg FRCC Interagency Handbook**	M	M
Black Spruce Lichen Woodland (CFFDRS=C1) *rate or spread: moderate* *intensity: moderate* *spotting potential: high*	H **80 yr avg FRCC Interagency Handbook**	M	M
Grass (cured tall standing or matted; CFFDRS = O1a/O1b) *rate of spread: high* *intensity: moderate:* *spotting potential: low*	H **50 yr avg FRCC Interagency Handbook**	M	L
Mixed Boreal Forest (may include white or black spruce, aspen and/or birch; CFFDRS=M1) *rate of spread: moderate* *intensity: moderate* *spotting potential: moderate*	M **70 -120 yrs FRCC Interagency Handbook**	M	L
Hardwood Forest (includes aspen & birch; CFFDRS use D1 or M1, M2) *rate of spread: low* *intensity: low* *spotting potential: low*	M	L **116 yr avg FRCC Interagency Handbook**	L
Deciduous Brush (includes willow & alder) *rate of spread: low* *intensity: low* *spotting potential: low*	L	L **150 yr avg FRCC Interagency Handbook**	L
Insect and Disease in Mixed Boreal Forest (may include white or black spruce, aspen and/or birch; *rate of spread: moderate* *intensity: High* *spotting potential: High*	M **N/A**	H **N/A**	M **N/A**

RISK/HAZARD ANALYSISCHART 2
Inside Community Area (within 1 mile)

	Alaska Fire Return Interval		
FUELS (predicted fire behavior based on historic summertime weather with hot, dry conditions)	High (0-99 years)	Moderate (100-300 years)	Low (>300 years)
Black Spruce Boreal Forest (CFFDRS=C2) *rate of spread: high* *intensity: high* *spotting potential: high*	H **80 yr avg FRCC Interagency Handbook**	M	M
Black Spruce Lichen Woodland (CFFDRS=C1) *rate or spread: moderate* *intensity: moderate* *spotting potential: high*	H **80 yr avg FRCC Interagency Handbook**	M	M
Grass (cured tall standing or matted; CFFDRS = O1a/O1b) *rate of spread: high* *intensity: moderate:* *spotting potential: low*	H **50 yr avg FRCC Interagency Handbook**	M	L
Mixed Boreal Forest (may include white or black spruce, aspen and/or birch; CFFDRS=M1) *rate of spread: moderate* *intensity: moderate* *spotting potential: moderate*	M **70 -120 yrs FRCC Interagency Handbook**	M	L
Hardwood Forest (includes aspen & birch; CFFDRS use D1 or M1,M2) *rate of spread: low* *intensity: low* *spotting potential: low*	M	L **116 yr avg FRCC Interagency Handbook**	L
Deciduous Brush (includes willow & alder) *rate of spread: low* *intensity: low* *spotting potential: low*	L	L **150 yr avg FRCC Interagency Handbook**	L
Insect and Disease in Mixed Boreal Forest (may include white or black spruce, aspen and/or birch; *rate of spread: moderate* *intensity: High* *spotting potential: High*	M **N/A**	H **N/A**	M **N/A**

BARRIER RATING CHART

Barrier Type (list specific type under excellent, fair or poor)	Excellent	Fair	Poor
Water (may include lakes, rivers, streams and sloughs)			None
Natural features (may include barren landscape, rock, topographic features)		Mountains to the South of the community	
Human-made features (may include airstrips or other clearings)		Airstrip on the North side of community	
Overall Rating		fair	

Barrier Rating Chart Key:

Excellent: Community has a barrier(s) that provides thorough protection from fuels less than1 mile away in at least 3 cardinal directions. An example of this would be a small community sandwiched between a major river and a runway (e.g. Sleetmute), or a community on an island (Stony River).

Fair: The community has a barrier(s) that provides thorough protection from fuels less than1 mile away in at least two cardinal directions. Communities may have multiple barriers affecting a rating. Examples are airstrips separating a community from significant outside fuels, communities set amidst certain vegetation types or some communities situated on major rivers (e.g. Red Devil).

Poor: Any barriers that exist provide protection from fuels less than1 mile away in fewer than two cardinal directions. Examples of insignificant barriers are small streams or sloughs with narrow riparian zones situated in the midst of highly flammable fuel types.

FIRE PROTECTION RESOURCES RESPONSE CHART

Response Time	Risk	Kind of Resource (List kinds of resources available for initial attack)
Adequate initial attack resources are more than 75 minutes away and adequate extended attack resources are more than 12 hours away.	High	The State Forestry helicopter is 30 minutes away and engines are 70 minutes away, however, lack of cooperators and the wind the area experiences puts this rating in High
Adequate initial attack resources are 30-75 minutes away and adequate extended attack can be in place in 8-12 hours.	Moderate	
Adequate initial attack resources are less than 30 minutes away and adequate extended attack can be in place in less than 8 hours.	Low	

*Adequate initial and extended attack forces are defined as the minimum force necessary to stop the spread of a wildfire under 90th percentile weather and fuels conditions. Calculating percentile weather can be done by downloading RAWS data into FireFamilyPlus from WIMS/KCFAST. Response times are based on resource location and historical response times.

Alaska Firewise Standards	Excellent Over 65% of homesites and community buildings meet standard Value =5	Fair Between 35-65% of homesites and community buildings meet standard Value =3	Poor Less than 35% of homesites and community buildings meet standard Value=1
Landscaping		X	
Construction		X	
Water Supply			X
Access		X	
Clear of Flammables/ Refuse/Debris (flammables stored properly & area cleared)		X	
Ratings Sums		12	1

COMMUNITY FIREWISE RATING FOR DEFENSIBLE SPACE OVERALL COMMUNITY ASSESSMENT NOT INDIVIDUAL STRUCTURES

Total of Rating Sum / 25 x 100 = Community Firewise Rating Excellent greater than 65%, Fair 35-65%, Poor less than 35%

STANDARDS FOR FIREWISE RATING

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

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

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

Access Guidelines: Access roads are at least 2 lanes wide and clearly marked; ample turnaround space exists for vehicles/fire equipment.

Clear of Flammables/Refuse/Debris Guidelines: Combustible materials are not located in the yard or under decks or porches; firewood is stored away (at least 30 feet) from the house; all debris or refuse is picked up regularly.

3. Overall Assessment Rating of Risk/Hazard, Barriers, Fire Protection Resources, and Firewise

OVERALL RATING CHART

Category	Rating
Risk/Hazard	
a) inside community	Fair
a) outside community	Fair
Barriers:	Fair
Fire Protection:	High *
Community Firewise Rating:	Fair

4. Other Contributing Factors to risk and mitigation of wildland fire

* While the fire response time is within the guidelines for fair, the wind events the area experiences during the fire season greatly contribute to the risk of a wildfire escaping Initial Attack.

V. WILDLAND FIRE HISTORY

Forestry has responded to several fires in the preceding twenty years, including a lightning strike on the outskirts of the community in 2002 that burned 2.2 acres and cost $9,500.00 before being contained and a 58 acre human caused fire in 1993 that cost the State $120,000. Forestry personnel also responded to a human caused wildfire at a rest stop along the highway in 2008 underscoring the risk the traffic on the highway poses to the community.

The Upper Tanana River drainage has a significant history of fire occurrence. Most notably in 2004 with over 1 million acres burned.

VII. MAPS:

VIII. APPENDICES:

APPENDIX A. SUMMARY OF COMMENTS, QUESTIONS, AND DISCUSSIONS

APPENDIX B. REFERENCES

MITIGATION PLAN

Executive Summary

The community of Dry Creek has nearly continuous hazard fuels surrounding the community and very limited ingress/egress. The Alaska Highway provides the community of Dry Creek some barrier from an approaching wildfire as do the mountains to the South and an airstrip on the North side of the community. The community is still at significant risk however, from the effects of a wildfire originating on adjacent lands from either direction as well as a fire originating from within the community.

Goals and Objectives

Goals

1. Protect potential losses to life, property and natural resources from wildfire.
2. Reduce the ignitability of homes within the community by following Firewise standards.
3. Reduce the amount of hazardous fuels within the community and on state land immediately surrounding the community.
4. Increase the opportunities for bio mass production within the community in order to facilitate the future hazard fuel removal projects.

Objectives

- Construct a 300' firebreak surrounding the community. Much of the developed land in Dry Creek is adjacent to State land and the area to be cut was determined by aerial photography and ground survey.
- Since there is no dependable water source nearby, a large pond is proposed on the South side of the community where a small spring flows out of the mountains. A helispot will be built near the pond for future helitack operations and the pond will be located within the fuel break.
- The purchase of a fire engine and building a fire station or renovating a current building for that purpose is necessary for the community to be able to contain a fire.
- The community must adopt firewise measures in an effort to reduce the ignitability of structures, this includes using fire resistant home construction materials, building and maintaining green lawns complete with hose and sprinklers, and removing flammable vegetation from around the houses.
- Construct a fuel break 150' deep along both sides of the road leading into the community.
- Perform maintenance on the airstrip (cut brush and grass, remove FOD), which is no longer in use by the community.
- Elevate the timber and bio mass program in an effort to increase the hazard fuel removal capabilities of Logging and Milling Associates within the community.
- Procure and install an incinerator to replace the 12-15 burn barrels

- Procure a DR Mower or similar piece of equipment to maintain the airstrip
- Procure assistance to the outlying homes for fuel reduction
- Build a road (two track) to Bob and Betty's house east of Dry Creek to provide an egress to them.
- Construct a fuel break along the Alaska Highway from the rest area near the Dry Creek Road to the Dry Creek at the Alaska Highway.
- The community of Dry Creek needs to establish a fire department.

Firewise Education:

- Educate homeowners about wildland fire and Firewise
- Distribute Firewise educational materials and promote Firewise principles
- Provide home assessments

Prevention

- Educate the community on safe burning practices
- Conduct prevention education activities in school classes and during children's summer events
- Dedicate a prevention day once per month where community members discuss fire prevention for an allotted time at a scheduled meeting.

Hazard Fuel Removal

- Support hazard fuel removal on community property and adjacent State lands
- Support timber harvest activities and bio mass efforts by the community

Wildfire response capabilities

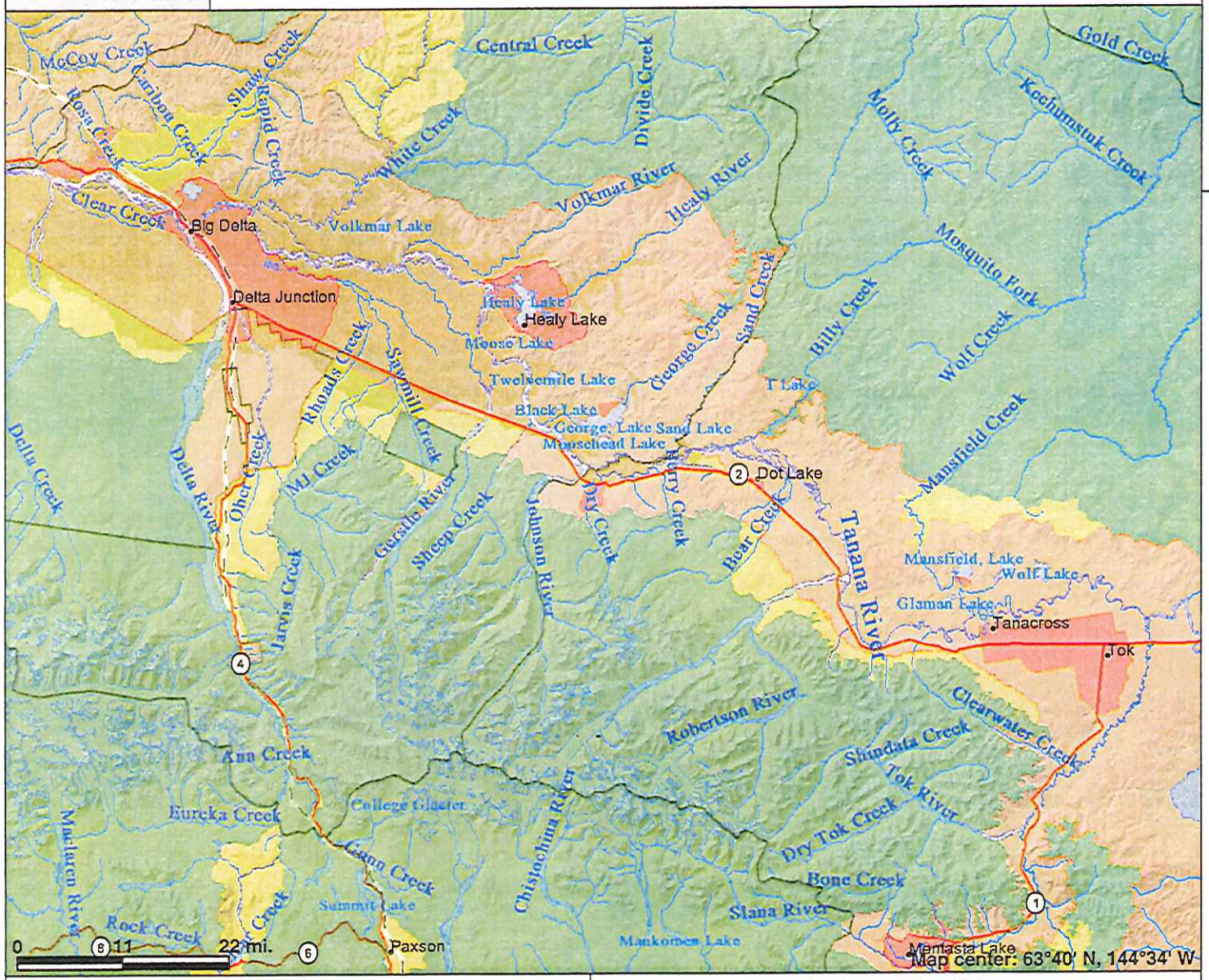
- Facilitate the construction of the proposed pond for a water source
- Upgrade the Forestry fire equipment cache
- Facilitate the building or purchase of fire apparatus including fire engines and a fire hall.
- Conduct scenarios in order to develop emergency skills such as firefighting, structure protection, evacuation

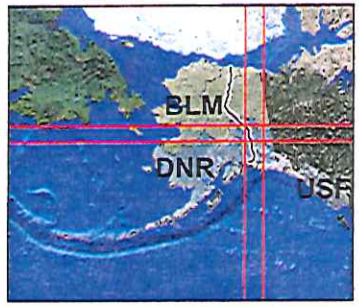
Monitoring Plan

Monitoring of projects will be done by community council members and Tok Forestry personnel. Activities will be documented to maintain accurate records and chart progress. Maintenance may also need to be performed on areas that have had hazard fuel removed or thinned, the water source, and the engine/fire hall.

Alaska Interagency Coordination Center

Dry Creek Community Wildfire Protection Plan





Legend

Elevation Meters
- 0-250
- 251-500
- 501-750
- 751-1000
- 1001-1250
- 1251-1500
- 1501-1750
- 1751-2000
- 2001-2500
- 2501-3000
- > 3001
- Background
- Out of range

Temporary Flight Restrictions

Towns
- Municipality
- Home Rule City
- Other Towns

Named Rivers

Regional River Areas
- Stream/River
- Area of Complex Channels
- Rapids
- Bay/Inlet

NHD Lakes GT 1 SQKM
- Lake/Pond
- Ice Mass
- Swamp/Marsh
- Reservoir

Minor Highways (Regional)
- Limited Access
- Highway
- Major Road

Scale: 1:1,000,000

This map is a user generated static output from an Internet mapping site and is for general reference. Data layers that appear on this map are obtained from many sources. This map is not to be used for navigation.

Notes: Dry Creek is located halfway between Tok and Delta

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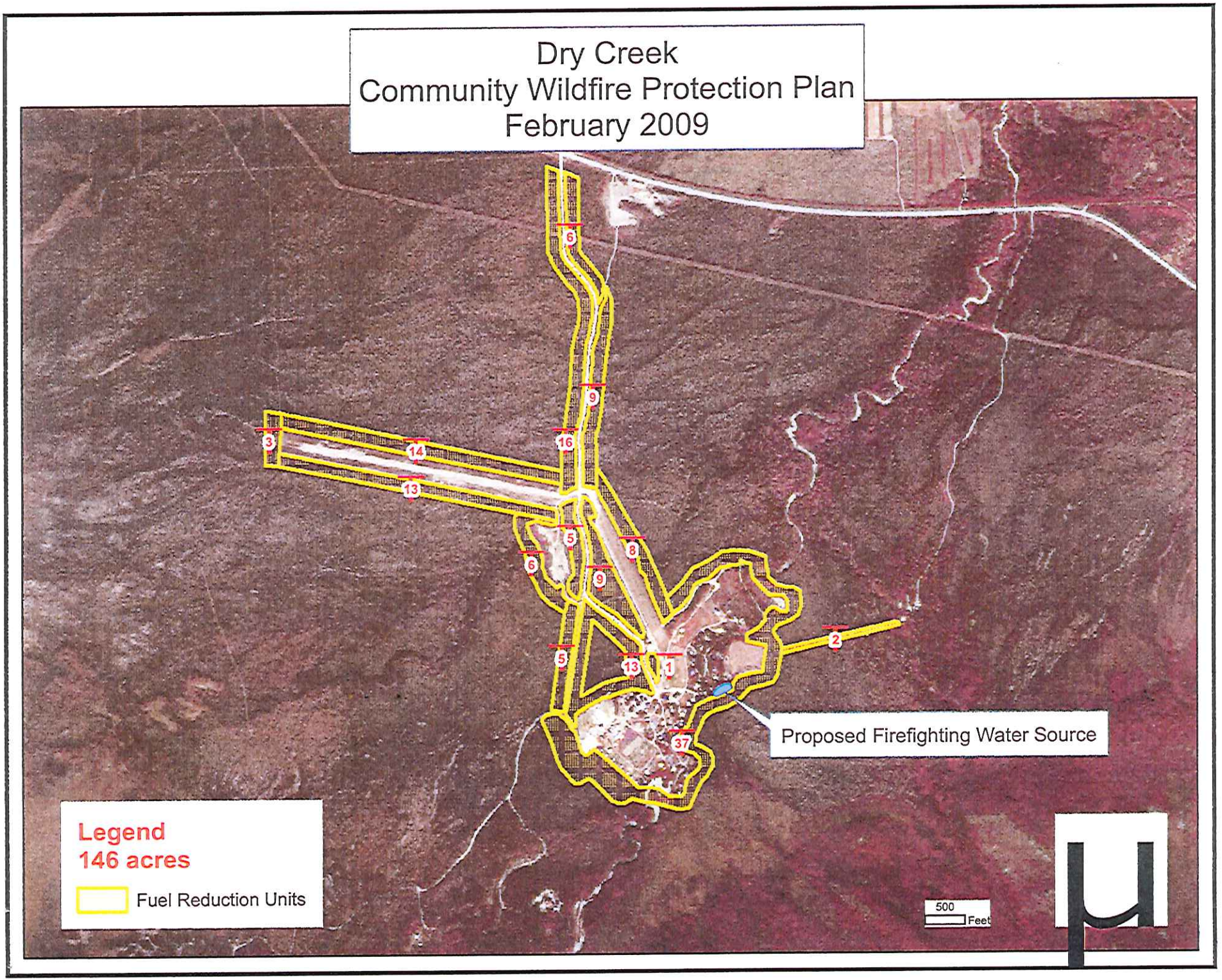
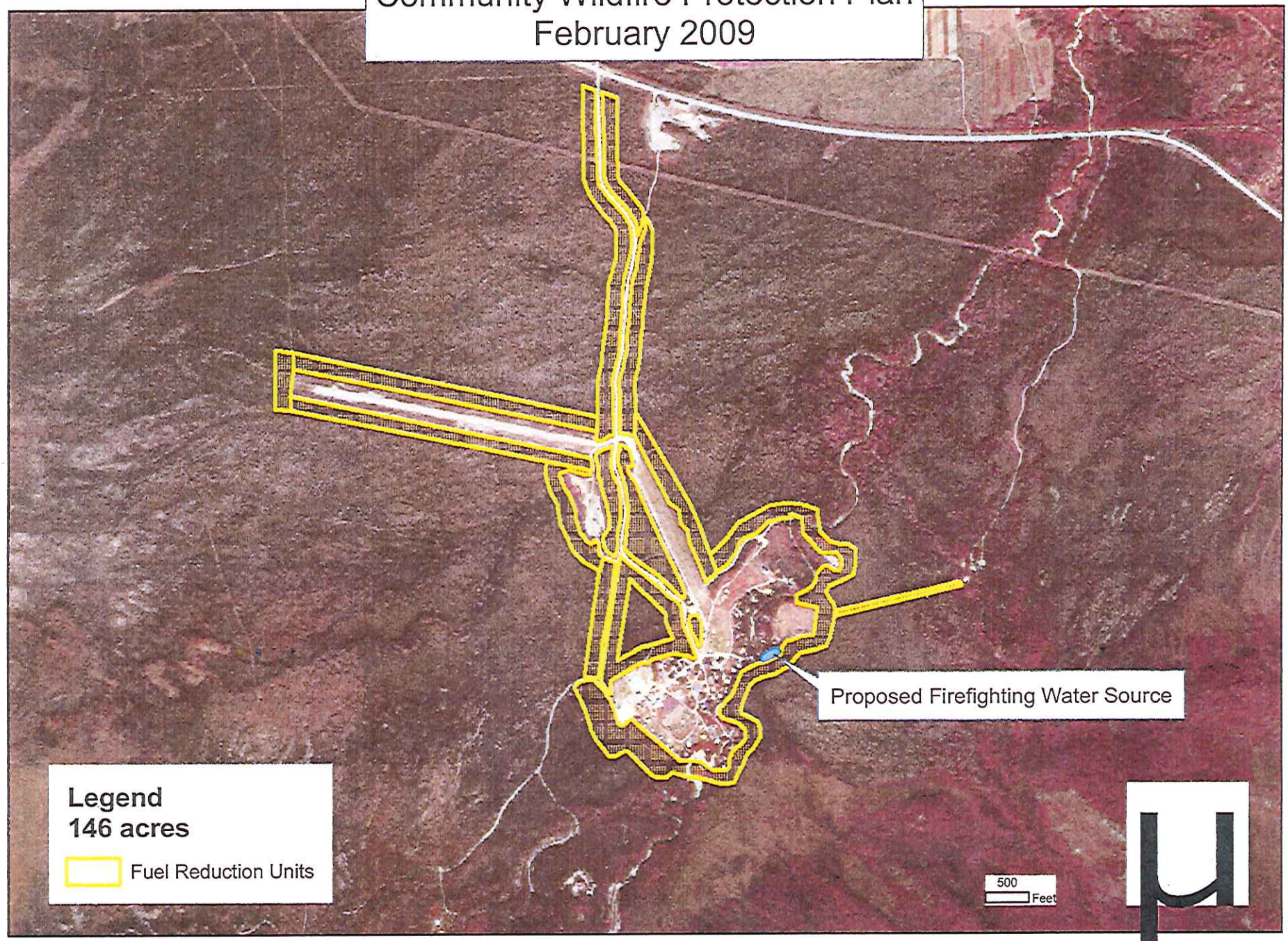

Dry Creek
Community Wildfire Protection Plan
February 2009
6
9
3
14
16
13
5
8
6
9
2
5
13
1
37
Proposed Firefighting Water Source
Legend
146 acres
Fuel Reduction Units
500
Feet

Dry Creek
Community Wildfire Protection Plan
February 2009



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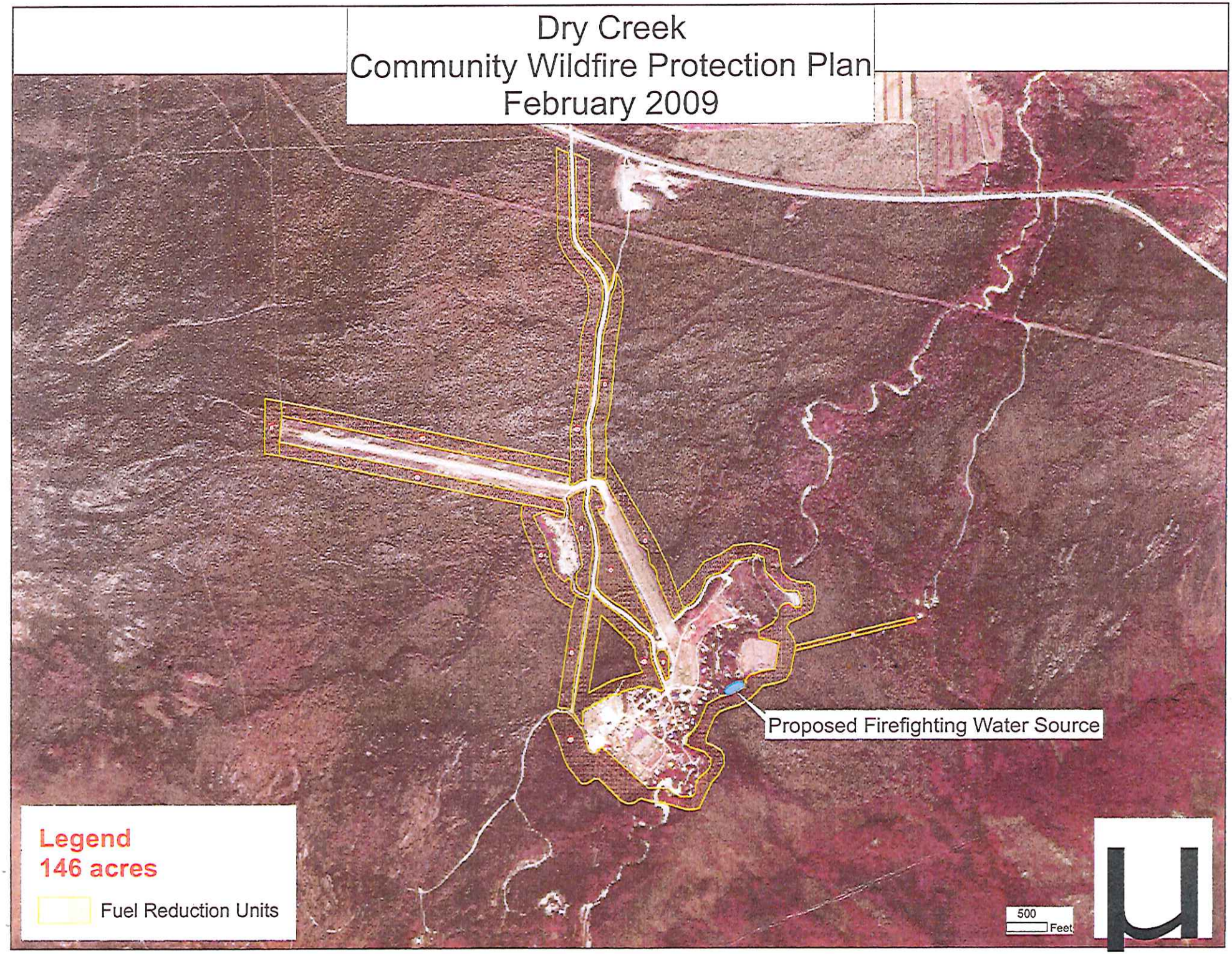
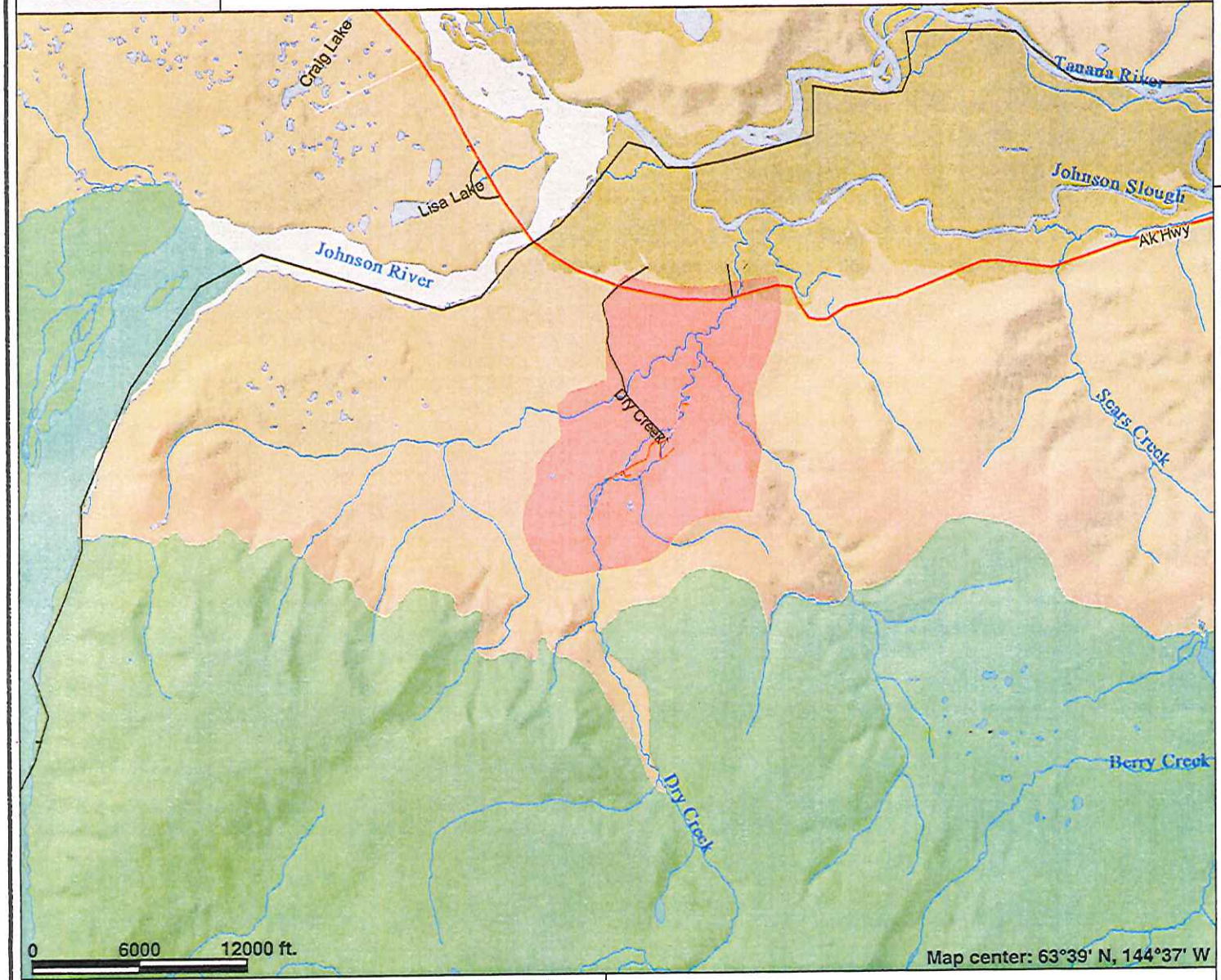
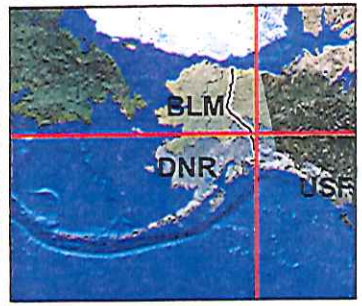


Dry Creek CWPP Fire Protection

Alaska Interagency Coordination Center





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NHD River Areas
- Stream/River
- Area of Complex Channels
- Rapids
- Bay/Inlet

NHD Rivers

Streets (Local)
- Highway
- Major Road
- Local Road

Scale: 1:102,084

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