

2012
COMMUNITY WILDFIRE PROTECTION PLAN
Delta Junction
and the
Greater Delta Area, Alaska

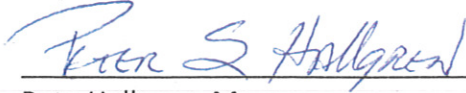


Prepared by:
Bruce Balderston, Fire Prevention Officer
State of Alaska
Department of Natural Resources
Division of Forestry
2012-2013

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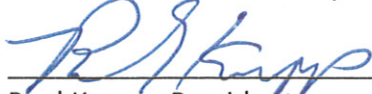
As administrator of a community organization or State of Alaska land management agency represented in the Delta Community Wildfire Protection Plan, I concur with the following recommendations and priorities of the Delta CWPP.

City of Delta Junction



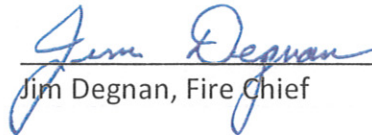
Pete Hallgren, Mayor

Rural Deltana Community Corporation



Paul Knopp, President

Fort Greely Fire



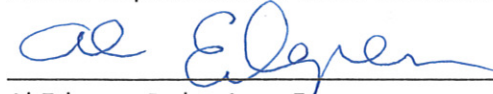
Jim Degnan, Fire Chief

Local Emergency Planning Committee



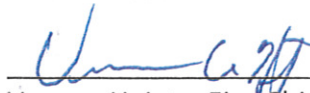
Mike Paschall, Chairperson

Alaska Department of Natural Resources, Division of Forestry



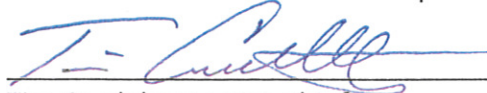
Al Edgren, Delta Area Forester

Delta Junction Volunteer Fire Department (DJVFD)



Vernon Heintz, Fire Chief

Rural Deltana Volunteer Fire Department (RDVFD)



Tim Castleberry, Fire Chief

2012 Community Wildfire Protection Plan

Table of Contents

	Section
Executive Summary	1
Community Profile	2
Community Collaboration	3
Plan Development Methodology	4
Community Risk Assessment Ranking	5
Wildfire Ignition Sources	6
Firewise Communities USA Program	7
Community Wildfire Survey Results and Analysis	8
Proposed Fort Greely Biomass Project- Impact on Community Wildfire	9
Community Wildfire Protection Plan-Overview	10
Community Wildfire Protection Plan-Fire Prevention	11
Community Wildfire Protection Plan-Fire Suppression	12
Community Wildfire Protection Plan- Reduction of Wildfire Impact on the Community	13
Community Wildfire Protection Plan – Resident Concerns Regarding Wildfire in the Community	14
Wildland Urban Interface-Hazardous Fuels Reduction Projects	15

TABLES

CWPP-Threat/Risk Analysis	Section 5	Table 1
CWPP-Risk Assessment Ranking	Section 5	Table 2
2007-2012 Wildfire Ignition Sources	Section 6	Table 1

APPENDICES

CWPP Area Locator Maps (1-6)	Appendix	A
Community Business and Infrastructure List	Appendix	B
Area Resident Survey	Appendix	C
Area Resident Survey Results	Appendix	D

SECTION 1

2012 CWPP

Executive Summary

2012 Community Wildfire Protection Plan

Executive Summary

The Delta **CWPP** has been prepared in accordance with the 2003 “Healthy Forest Reforestation Act” (HFRA), which directs communities at risk of wildfires to develop a risk assessment and mitigation plan. **Guidance for the Delta CWPP** is based on “Preparing a Community Wildfire Protection Plan, 3/2004”, “Alaska Interagency Community Wildfire Protection Plan Guide, 11/2005” and the “Community Guide to Preparing and Implementing a Community Wildfire Protection Plan, 8/2008”.

The plan is based on information, data and demographic information dating from 2006. The thrust of the plan, however, is to present a concise overview of what is at risk, why it is at risk and plans to reduce the threat to life and property from wildland fires in the region.

To match current demographic information (life and property at risk) taking into account environmental factors, a specific and structured methodology is required to assure that the plan is reflective of actual wildfire threat and risk and that proposed mitigations will be effective in addressing these threats and risks. The “methodology” section of this plan addresses these key foundations of the plan.

In addition to the foundation of information to develop a protection strategy there are four distinct areas on which the overall plan needs to focus:

1. **Fire Prevention**-The simple concept is that if you reduce the number of fire ignitions you have reduced the threat to the community.
2. **Suppression**-Once a fire starts, the effectiveness of all of the community’s firefighting response and how the entities communicate and respond have a direct bearing on the magnitude and result of wildland fires in the community.
3. **Reduction of Wildland Fire Impact on the Community**-When a fire starts and resources have responded to the threat, what programs are in place that will lessen the impact the fire has on the community?
4. **Resident Concerns Regarding Wildfire in the Community**-It is important to discover and understand what the concerns of residents in the community are regarding wildfire. Focusing on issues that are of little or no interest to the community will insure failure of community-wide action.

The information, background, summaries and recommendations in the plan will focus on addressing these four key areas in the overall development of the plan.

Implementation in all four areas is necessary to have a truly effective working plan.

SECTION 2

2012 CWPP

Community Profile

2012 Community Wildfire Protection Plan

Community Profile

Delta Junction is located at the convergence of the Richardson Highway and Alaska Highway approximately 95 miles southeast of Fairbanks. The city developed along the east bank of the Delta River, south of its junction with the Tanana River.

Delta Junction lies at approximately 64.037780 North Latitude and -145.732220 West Longitude (Sec. 23, T010S, R010E, Fairbanks Meridian). The area encompasses 17.3 square miles of land.

The Local Hazardous Mitigation Plan (LHMP) area extends along the Alaska Highway from Johnson River crossing (Milepost 1380 Alaska Highway; 41.5 miles south of Delta Junction) north to the Fairbanks North Star Borough boundary (Milepost 295 Richardson Highway; 69 miles north of Delta Junction). It is bordered on the east by a line due north from the Alaska Highway crossing at Johnson River to the borough boundary and the Delta River on the west.

This area of Interior Alaska experiences seasonal extremes. The average low temperature in January is -11 degrees Fahrenheit. The average high during July is 69 degrees Fahrenheit. Temperatures have been recorded between a low of -63 degrees to a high of 92 degrees Fahrenheit. Average annual liquid equivalent precipitation is 12 inches.

The communities of the Delta Region vary from the subsistence-based and largely Athabascan village of Healy Lake, which is not connected by road, to the military base at Fort Greely, to the largely agricultural community east of Delta Junction. Construction for ground-based missile defense at Fort Greely has boosted employment since 2002, and construction employment related to Fort Greely and Pogo Mine should continue to be high for several years.

There has been a noted influx of Slavic immigrants into the Delta area over the last 20 years. The Slavic population has risen from a handful of families to more than 100. The 2000 census reported more than 300 people of Russian or Ukrainian ancestry. After the near closure of Fort Greely in the late 1990s, students of Slavic descent comprised nearly 40 percent of the student body—a number that is now closer to 20 percent. Many Delta area residents of Slavic descent have graduated from the Delta Mine Training Center and are employed at the Pogo Mine on the Goodpaster River, approximately 40 air miles from Delta Junction.

The population of Delta Junction is approximately 1,158 and approximately 2,355 for the Greater Delta Area. (State of Alaska Hazard Mitigation Plan 2010). *(Note: The Greater Delta Area population includes the population in the unincorporated areas of the plan area. The 2010 U.S. Census, identified these as Big Delta and Deltana)*

Delta Junction is strategically located to provide services to summer tourist traffic. The Visitor Center is located at the "Triangle," where the Alaska Highway meets the Richardson Highway. Delta Junction also has an Elementary School, Middle School, High school (with track and football field) and the Career Advancement Center (trades school).

Delta Junction and east of the city lie on the east bank of the Delta River about nine miles south of the confluence of the Delta and Tanana rivers. The community is bordered on the south by the Alaska Range mountain system. Jarvis Creek flows through Fort Greely and into the Delta River at the southern end of Delta Junction. The Gerstle River is southeast of Delta Junction, crossing the Alaska Highway near George Lake Lodge. These three rivers and Jarvis Creek are glacier fed and have broad braided streambeds.

The Delta Area Forestry Orientation Guide 2009, Delta Area Overview states that local vegetation varies from highly volatile Black Spruce to the fire resistant hardwoods, such as: Balsam Poplar, Aspen, and Paper Birch. Extensive stands of Black Spruce can be found intermixed with tussocks and bogs in the lowland flats and on north slopes. White Spruce stands are normally found along the river bottoms and south slopes. Hardwood stands are also found on south slopes and sites with well-drained soils. The mountain passes are characterized by stands of stunted white spruce along the slopes up to 3,300 feet elevations.

SECTION 3

2012 CWPP

Community Collaboration

2012 Community Wildfire Protection Plan

Community Collaboration

Delta Area Forestry has been working with **Firewise** area protection concepts since the **mid 1990s**, evaluating home sites, educating the public, and extensively mapping road and **Firewise** rated structure locations.

In **2001** the document “**Alaska Communities At Risk From Wildfire**”(January 2001) (appendix C) placed both Delta Junction and North Delta Junction in “Ranking 1”(highest) for risk due to “Fire Behavior Potential” in conjunction with five other factors. Healy Lake community received a “Ranking 2”. Fort Greely and Whitestone community received a “Ranking 4”.

The Delta Community Wildfire Protection Plan (**CWPP**) **is a collaboration of** the people of the area as represented by City of Delta, Deltana Community Corporation, Local Emergency Planning Committee (LEPC), Delta Junction Volunteer Fire Department , Rural Deltana Volunteer Fire Department, Deltana Local Hazard Mitigation Plan (LHMP) Group, Fort Greeley Fire Department and Delta Area Forestry. Meetings have been held with the individual signers and/ or groups involved in the development of the CWPP.

Delta Area Forestry also distributed the **Community Wildland Fire Protection Plan-Area Resident Survey** (See **Appendix C**) to solicit community concerns regarding wildfire in the community. The results of this survey were used in the formulation of the **CWPP Action Plan (See Section 7)**

The draft copy of the CWPP was distributed to the signers for review and comment and the final product will be delivered to the signers by April 1, 2013.

SECTION 4

2012 CWPP

Plan Development Methodology

2012 Community Wildfire Protection Plan

Plan Development Methodology

There are five key areas that have been defined in the development of the CWPP:

- Community Leadership
- Community Awareness
- Demographic Data
- Wildland Fire Risk and Threat Analysis
- Wildfire Ignition Data

Community Leadership

A meeting was held with the following community groups or individuals to explain what the methodology, process, and timeline would be for the development of the plan :

State of Alaska Forestry-Delta Junction

Al Edgren - Area Forester

City of Delta Junction-City Council

Pete Hallgren - Mayor

Mike Tvenge - City Administrator

*Rural Deltana Community Corporation
Board of Directors*

Paul Knopp - President

Fort Greely Fire Department

Jim Degnan - Chief

Delta Junction Volunteer Fire Department

Vernon Heintz - Chief

Rural Deltana Volunteer Fire Department

Tim Castleberry - Chief

Local Emergency Planning Committee

Mike Paschall - Chair

Community Awareness

A “firewise” questionnaire was developed to solicit community participation in expressing citizen concerns and perceptions of needs regarding wildfire in the community. The questionnaire was made available via the local newspaper, the internet, at the Delta Forestry Office and at the Rural Deltana Fair. Results were tabulated and taken into consideration in the formulation of the plan. (**See Appendix D for “Area Resident Firewise Survey”**)

Demographic Data

In analyzing assets threatened by wildfire, the area that comprises the Delta Area Forestry Protection area (See Protection Area Map) was divided into nineteen (19) geographic areas based on geographic and ownership parameters. For example, Pogo Mine and Fort Greely are separate areas based on location and the fact that the mine is private industry and Fort Greely is a Federal Military Installation. **Each area is referred to as an “Area” for the purpose of the CWPP(See Appendix A for Locator Maps of the “Areas”).**

For each area the number of housing units was established. The number of housing units was then used to rank each of the **Areas**, one through nineteen (1-19) number one being the highest number of housing units and nineteen being the lowest.

A review of the infrastructure list from the **“2011 Delta Junction and Deltana Local Hazard Mitigation Plan”** was reviewed, revised, and each of the items was assigned by location to one or more of the nineteen **Areas**.(See **Appendix B for the Community Business and Infrastructure list.**) Based on the numbers and significance of the businesses and infrastructure each area was assigned a value with one being the highest value and five being the lowest value.

The **Areas** were placed in a matrix entitled **“Community Wildfire Prevention Plan-Risk/Threat Analysis**. (See the Community Wildfire Prevention Plan- Risk/Threat Analysis and Risk Assessment Ranking in the following section)

Wildland Fire Risk and Threat Analysis

For each of the nineteen areas a review was done to analyze the type and density of the fuels that would impact housing units, businesses, and infrastructure in a wildfire. This was listed as **“Fuel Type/Density Threat”**.

The results of this analysis were ranked on a scale of one to five with one being the most volatile and densest of fuels with five representing no volatile fuels and no density.

A second threat factor that was reviewed was **“Threat of Fuels to Assets”**. This was an area by area analysis of the proximity fuels to assets and breaks between fuel loads and assets. These were ranked on a scale of one through five with one being the highest threat and five being the lowest threat.

Once these two categories were added to the matrix, a total score was computed including the number of housing units ranking, high value structures and community infrastructure ranking, fuels type/density threat and threat of fuels to assets rank. Based on the total numerical score for each of the nineteen **Areas**, a Risk Assessment Rank was established. See the **Community Wildfire Prevention Plan- Risk/Threat Analysis**. (Section 5-2)

The results of this matrix were added into a second matrix entitled **Community Wildfire Prevention Plan- Risk Assessment Ranking**. This matrix simply reviews the assessment categories and lists the **Areas** from number one to nineteen with one being the most at risk of loss and nineteen being the least at risk of loss.

Wildfire Ignition Data

The final fire factor that was reviewed was the actual history of the ignition sources of wildfires in the area over the past six years. The 2012 data is only seasonal information through August 6, 2012. (See **Tables 6-1 for 2007-2012 Wildfire Ignition Data**)

SECTION 5

2012 CWPP

Community Risk Assessment Ranking

2012 Community Wildfire Protection Plan

Community Risk Assessment Ranking

The **CWPP Threat/Risk Analysis** Table is located in Table Section 5-1. This table lists the nineteen Areas in order 1-19, followed by the indicators of threat and risk. The second table (Table Section 5-2) is the **CWPP-Assessment Ranking** in which each of the **Areas** are listed in order of highest to lowest risk of loss of community assets in relation to wildland fire threat.

Overall comments about wildland fire concerns for each of the areas:

1. Pogo Mine (Area 17). Pogo mine is well situated with on-site firefighting equipment and personnel as well as aviation resources. Delta Area Forestry has toured the mine and made specific recommendations for additional clearances to protect structures. Forestry has also requested a generalized triage map indicating structure survival priorities in the event it is called up to respond to a fire at or close to the mine.
2. Fort Greely (Area 15)- Fort Greely has equipment and personnel to respond to a wildland fire. They have mutual aid wildland fire response agreements in place.

The following twelve areas have a between 100 and 241 homes, businesses and/or infrastructure, with high Fuel Type/Density Threat and/or Threat of Fuels to Asset indicators.

3. NE Nistler (Area 7)
4. Nistler/CW (Area 8)
5. N. Delta Junction (Area 2)
6. N. of Nistler (Area 6)
7. N. Nistler to CWR (Area 9)
8. Delta Junction (Area 1)
9. Greater Delta (Area 4)

10. W Tan Loop Ext-East (Area 11)
11. ALCAN to CW Rd. (Area 3)
12. Greater Delta-East (Area 5)
13. W Tan Loop Ext (Area 10)
14. Big D (Area 12)

The following five areas require targeted community based mitigations. These five areas have less than 50 residences, with little to no businesses and/or community infrastructure. Because of their distance and separation from other segments of the community they will require location by location wildland fire mitigations.

15. Quartz (Area 13)
16. Goodpaster (Area 19)
17. Tenderfoot (Area 14)
18. Whitestone (Area 16)
19. Healy Lake (Area 18)

SECTION 6

2012 CWPP

Wildfire Ignition Sources

2012 Community Wildfire Protection Plan

Wildfire Ignition Sources

The number of wildfires, the location and sometimes the severity of a fire is integrally linked to the ignition source of wildfire. Once a fire starts, the weather, topography, suppression response times, issues of manpower, training and equipment come into play. However, prior to the start of a wildland fire, for each type of ignition source the questions should be:

❖ Can we reduce or eliminate the frequency ignitions?

To answer this question there must be a review of the data related to ignitions within the CWPP area. Since 2007 the CWPP area has experienced an average of 26 human caused ignitions per season with an average of 3 lightning caused ignitions. **(See Table 6-1- "Wildland Fire Ignition Sources 2007-2012")**

With lightning-caused fires the State of Alaska Division of Forestry has an aggressive and ongoing program of doing flight detection surveys. The monitoring of lightning activity is frequently done during fire season, ranging from daily to hourly monitoring depending on weather and fuel conditions.

A further breakdown of human caused ignitions shows that as a six year average the number of ignitions caused by people's behavior is nearly 75%. In terms of protecting the community, 75% of all wildfire could be eliminated from the community by a change in people's behavior. Therefore a key component in the CWPP, will address a multi-phase plan to change the public's behavior in relation to safely igniting fires.

SECTION 7

2012 CWPP

Firewise Communities USA Program

2012 Community Wildfire Protection Plan

Firewise Communities USA Program

The **Firewise Communities USA** program is managed by the National Fire Protection Association. The aim of the program is educate the general public about the risk of wildfire in the community and ultimately to reduce that risk.

The program is a framework to bring community leaders together in a unified format to educate the community and put fire authorities and experts in touch with the community to reduce the impact of wildfire.

The first step on the path to national recognition as a Firewise Community is the development of the ***Community Wildfire Protection Plan(CWPP)***.

The benefits of becoming a Firewise Community include educating the community to the threat and risk of wildfire, taking action to risks, opportunities for grant funding and assistance to continue and improve the program in the community.

Under the right weather and fuel conditions, no community is safe from the potential devastation that wildfire poses to life and property. There are numerous case histories of dozens, even hundreds of homes lost in a single fire. In 2011 a tree blown onto a power line destroyed 1,660 homes in Bastrop, Texas. With dry fuels and high winds the fire destroyed 600 homes in less than twenty-four hours with an additional loss during the following forty-eight hours. The miraculous fact of this fire is that driving past ten, twenty, thirty houses laying in ash piles, occasional single homes were unscathed. Luck? Luck had nothing to do with the fact that these homes survived while neighboring residences were destroyed. The homes that survived the fire did not have fuels that carried the fire to the house, and they were protected from embers and firebrands entering into or under the homes.

The Bastrop fire is a perfect case study for the value of the concepts of the Firewise Community USA program.

SECTION 8

2012 CWPP

Community Wildfire Survey Results

2012 Community Wildfire Protection Plan

Community Wildfire Survey Results and Analysis

During the month of June and July 2012 a “***Community Wildland Protection Plan-Area Resident Survey***” was conducted.(See Appendix C for survey). There were 120 responses. This represents approximately 6% of the area’s population over the age of eighteen.

One hundred (100) surveys were collected at the Delta Forestry exhibit at the Deltana Fair with twenty (20) surveys conducted at informational meetings held in the community to explain the CWPP process.

The survey focused on three areas including:

1. Residents’ concerns if wildland fire threatens their community.
2. Residents’ concerns if wildland fire threatens their homes.
3. Prioritized needs for the community regarding the threat of wildland fire.

A summary of the results are as follows:

(The exact computation of the survey results can be found in the **Appendix D**)

Question:

If wildland fire threatens Delta Junction or the Greater Delta Area, what are your concerns?

	Response Rank
Accurate information	1
Lack of responders and equipment	2
Preparedness planning	2
Coordination of activities	3
Other	4

Question:

If wildland fire threatens your home what are your concerns?

	Response Rank
Response time for fire assistance	1
Your home's ability to withstand fire	2
Preparedness planning	3
Coordination of activities	4
Other	5

Question:

Please prioritize the following from Greatest Need #1 to Lowest #6

	Response Rank
Emergency Preparedness and Communication Programs	1
Community and Home Owner Wildland Fire Education Programs	2
Wildland Fire Suppression Programs	2
Wildland Fire Prevention Programs	3
Hazardous Fuels Reduction Programs	4
Restoration of Fire-Adapted Ecosystems Programs	5

The following conclusions can be reasonably drawn from the survey results.

If wildland fire threatens Delta Junction or the Greater Delta Area, what are your concerns?

Resident's number one concern when wildfire occurs in the community is accurate information.

Two items which tied for the second most important concern was-lack of responders and equipment and preparedness planning.

It can be said that these concerns can be addressed by improved communications when wildfires occur. By providing timely, accurate and detailed information the area residents will be informed and be aware of the effectiveness and responsiveness of area responders, equipment and planning. Specific recommendations regarding these concerns are addressed in the **Community Wildfire Protection Plan**(See sections 11-14)

If wildland fire threatens your home what are your concerns?

Resident's number one concern when wildfire threatens their homes in the community is response time for fire assistance.

The second most noted concern was owner's home's ability to withstand fire.

It can be said that these concerns can be addressed through improved communications as previously discussed as well as the development of a community-wide Firewise USA program implementation. Specific recommendations regarding these concerns are addressed in the **Community Wildfire Protection Plan** (See sections 11-14).

Please prioritize the following from Greatest Need #1 to Lowest #6

Resident's number one wildfire priority was listed as emergency preparedness and communications programs.

The second most noted concern was both community and home owner wildland fire education programs and wildland fire suppression programs.

Based on the community's prioritizing of wildland fire issues they strongly reinforced the concerns of communication, education and suppression programs. Specific recommendations regarding these concerns are addressed in the **Community Wildfire Protection Plan** (See sections 11-14).

SECTION 9

2012 CWPP

Proposed

Fort Greely Biomass Project
Impact on Community Wildfire

2012 Community Wildfire Protection Plan

Proposed Fort Greely Biomass Project Impact on Community Wildfire

Siemens has entered into an agreement with the Department of Defense to begin to explore a “biomass” heat generation plant at Fort Greely. The purpose of the plan is to replace more costly fossil fuel with less costly “biomass” fuels.

Though the timing of the project and the exact details of biomass locations, multiple agency approvals and a myriad of other details have not been completed there are several solid concepts that emerge from this type of project.

1. The requirements for the project on an annual basis will be approximately 110,000 tons annually. This converts to one to three thousand acres annually.
2. The biomass will have a value which is yet to be determined, however, a conservative estimate is \$30-\$40 per ton or \$210 -\$280 per acre.

Based on the calculated need for biomass at Fort Greely and the value of the biomass the following conclusions can be reasonably drawn.

- Vendors providing the biomass to Fort Greely will be willing to pay compensation to land owners for clearing acres of plant material.
- Home owners, business owners, government agencies and other civic organizations will have a financial incentive to remove hazardous fuels from their properties in exchange for financial compensation.
- Through a properly managed, unified area effort removing hazardous fuel loading near residences, businesses and other infrastructure will reduce the risk of destruction from wildfire.
- By incentivizing fuels reduction a new and profitable alternative will be available to area residents in lieu of individual burns on their property-a significant cause of area wildland fires.

Though the biomass project is not completed or assured, it is clear that if the project proceeds it can have a major positive impact on wildfire prevention and reduction of hazardous fuels, thus lessening the threat of the impact of wildland fire on the community. Details of the application of these concepts are discussed in the **Reduction of Wildfire Impact on the Community** (Section 13).

SECTION 10

2012 CWPP

Community Wildfire Protection Plan

2012 Community Wildfire Protection Plan

The Protection Plan

The protection plan that follows is broken down into the following four categories:

- Fire prevention (Section 11)
- Fire suppression (Section 12)
- Reduction of wildfire Impact on the community (Section 13)
- Resident Concerns Regarding Wildfires in the Community (Section 14)

Within each of these areas there are two ingredients that are discussed. The first is “Current”. This information addresses what is currently in place to respond and cope with each of the four categories in the plan. The second is the “Plan” proposed for improving each of the categories.

Under the plan items for each of the categories additional plan details cover these three key components:

- ❖ **Action-** What is proposed
- ❖ **Purpose-** What results can be expected through implementation of the action
- ❖ **Timeline-** A proposed start date, frequency and time continuum for each action

To implement the plan it will be critical for all signers of the Community Wildfire Protection Plan to meet as early as possible prior to the start of the 2013 fire season in the Delta Area. At this meeting the signers should review the plan, determine who will take active roles regarding implementing, coordinating, monitoring and accessing each item in the plan.

SECTION 11

2012 CWPP

Fire Prevention

FIRE PREVENTION

	Current
Fire Prevention	Delta Forestry has a Fire Prevention program which includes student and community education regarding safe burning practices.
	Area burning falls under specific state statutes which incorporate proven safe burning practices. Key to the program is the permitting program which extends from April 1-August 31 st each season.
	A significant safety feature of the permitting program is the requirement that permits be activated by calling the "Delta Forestry Burn Permit Line" before burning. This must be done for each day one plans to burn. On a daily basis Forestry knows who is burning, where they are burning and contact telephone numbers. When a permit is activated the caller is informed as to whether the day they are calling is a "burn day" or "no burn day" based on observed and predicted weather.
	A permit required for larger burns that requires a site visit/inspection during which time the exact parameters of the proposed burn are spelled out in detail in the permitting process.
	In the event of burning that is not compliant, State Forestry has the legal authority to issue written warnings as well as misdemeanor criminal citations.
	PLAN
Fire Prevention	
Action	Improve the burn permit program to include permits that are numbered and each time the permit is activated the burn permit number is listed.
Purpose	For residents who burn more frequently, this change will help fire prevention personnel to make contact, to offer assistance with information on safe and effective burn practices, conditions and fire considerations. The intended effect is to reduce human caused fires that are the result of unsafe burning practices primarily due to lack of experience and training regarding fire.
Timeline	This program would be best if in place by April 1, 2013 and run through August 2013.
Action	Increase the number of wildland fire informational articles in the local newspaper and expand the information to local radio stations and websites.

<i>Purpose</i>	To educate the public about burning permits, safe burning, and other wildland fire information
<i>Timeline</i>	These actions should be started by mid-March 2013.
	This should continue through the fire permit season, until August 31 each year.

SECTION 12

2012 CWPP

Fire Suppression

Community Wildfire Protection Plan
FIRE SUPPRESSION

	Current
Fire Suppression	Primary wildfire suppression in the community rests initially on Alaska State Forestry-Delta Junction Station. Trained, qualified suppression personnel are typically on duty from mid-March through Mid-August annually. An array of fire apparatus including a model 212 helicopter are staffed as well as hand crews, all available to respond to fire calls.
	Community firefighting personnel and equipment respond to wildland fire calls with State Forestry. These include Fort Greely Fire, Rural Deltana Volunteer Fire Department and City of Delta Volunteer Fire Department.
	The combined forces of wildland fire response in the community has to date been quite effective in terms of protecting life and property.
	All of the responding wildland fire organizations in the community have a history of communicating and working effectively together.
	PLAN
Fire Suppression	
Action	Have a preseason meeting with all community responders to identify areas of operational concern, plan and schedule joint training simulations throughout the fire season. Conduct After-Action Reviews (AARs) in the fall.
Purpose	To identify areas where joint response can be improved.
	Practice unified command.
	Identify through simulation potential situations and mitigations for incidents that might exceed local response capabilities.
Timeline	A planning meeting should take place in March with follow-up in April each year.

SECTION 13

2012 CWPP

Reduction of Wildfire Impact on the Community

REDUCTION OF WILDFIRE IMPACT ON THE COMMUNITY

	Current
<i>Reduction of Wildfire Impact on the Community</i>	The current structure in place to reduce wildfire impact on the community rests on fire prevention through education, permitting and monitoring residential burning activities.
	Fire suppression is heavily reliant on favorable weather, rapid response to wildfire, and trained efficient firefighters to deliver suppression response.
	PLAN
<i>Action</i>	The greater Delta area needs to implement an aggressive Firewise Communities USA, community-wide program.
<i>Purpose</i>	Wildfires that occur in the community during the correct weather and fuel conditions can quickly outstrip the community's ability to protect life and property. In the greater Delta area only a sustained Firewise Communities USA community-wide program that removes hazardous fuels in the burn zone of structures can significantly reduce the impact of wildland fire in the community.
<i>Timeline</i>	Coordination of efforts to register the greater Delta Area as a Firewise Communities USA community need to started in April of 2013 and carrying on through the fire season and into subsequent seasons.

SECTION 14

2012 CWPP

Resident Concerns
Regarding Wildland Fire
in the Community

Community Wildfire Protection Plan
RESIDENT CONCERNS REGARDING WILDFIRE IN THE COMMUNITY

Concerns	Current
<i>Accurate information</i>	There is no consistent community-wide program to alleviate this concern.
<i>Lack of responders and equipment</i>	Though the history of wildland fire in the community does not support that this is actually the situation, there is no mechanism in place to explain this to the community.
<i>Preparedness planning</i>	Preparedness planning for wildfire is somewhat compartmentalized between responding agencies, but the public perception appears to be that this area is lacking of attention.
<i>Coordination of activities</i>	Wildfire coordination in the community is at a fairly high level.
<i>Response time for fire assistance</i>	History has shown that consistently, community rapid response to wildland fire has had a major bearing on lessening the degree of fire's impact on the community.
<i>Home's ability to withstand fire</i>	No formalized program has been implemented to address this area of concern.
<i>Emergency preparedness and communications programs</i>	An emergency response plan is in place from the Local Emergency Planning Committee.
<i>Community and home owner wildland fire education programs and wildland fire suppression programs</i>	Literature and websites are available to address these concerns. There is not a consolidated program in the community to disseminate this information.
PLAN	
<i>Accurate information</i>	
Action	Develop a specific protocol to collect all fire information pertinent to the community and disseminate the information to all media sources and local information posting locations. A fire Public Information Officer should be assigned to all Delta Area fires which are Typed as 4,3,2 and 1.
Purpose	To make information readily available to the community.
Timeline	Implement on April first of each year.
<i>Lack of responders and equipment</i>	
Action	The perception that there are not enough responders or equipment is directly tied to lack of comprehensive information related to fires in the community.
Purpose	Improved information will provide the correct and accurate conception of personnel and equipment responses to wildfire.
Timeline	Information should be available throughout fire season

<i>Preparedness planning</i>	
Action	Provide information. More off-station prepositioning.
Purpose	Increased information as discussed above will provide the community with the knowledge that there is planning in place
Timeline	Information should be available throughout fire season
<i>Coordination of activities</i>	
Action	Provide information.
Purpose	Increased information as discussed above will provide the community with the knowledge that there is coordination of activities.
Timeline	Information should be available throughout fire season
<i>Response time for fire assistance</i>	
Action	Provide information.
Purpose	Increased information as discussed above will provide the community with the knowledge that the response time to fires in the community is and continues to be rapid and efficient.
Timeline	Information should be available throughout fire season
<i>Home's ability to withstand fire</i>	
Action	Implementation of the Firewise Communities USA program.
Purpose	To improve the chances of homes in the community to withstand the effects of wildland fire.
Timeline	Begin community-wide implementation at the start of fire season, throughout the season and on an annual basis.
<i>Emergency preparedness and communications programs</i>	
Action	Provide information.
Purpose	Increased information as discussed above will provide the community with the knowledge that the response time to fires in the community is and continues to be rapid and efficient.
Timeline	Information should be available throughout fire season

SECTION 15

2012 CWPP

Wildland Urban Interface

Hazardous Fuels Reduction Projects

2012 Community Wildfire Protection Plan

Wildland Urban Interface Hazardous Fuels Reduction Projects

There are three primary types of projects that will have the most significant results in terms of reducing the effects of wildland fire on the community:

- Reduction of hazardous fuels around individual residences.
- Removal of fuels and hazard trees in power line right-of-ways
- Agricultural and land clearing, burn safety training video

Reduction of hazardous fuels around individual residences

There is significant diversity of residential density in the CWPP coverage area. Many residences closer to Delta Junction are clustered in dense stands of white and black spruce, while other areas have mixed birch, spruce, poplar vegetation. Other areas of lesser density residences have varying degrees of the spruce, poplar, and birch fuels with intermittent agricultural tracts. While a number of these large agricultural tracts are actively farmed, others are not and lie fallow with dense grasses.

The initial defense of all homes in the CWPP area is comprehensive “Firewising” of individual homes, business and infrastructure.

A project to “Firewise” up to 50 homes would be based on the risk of residential loss and the owner’s physical and/or economic inability to “Firewise” their residence. Under this project up to fifty homes would be treated.

Removal of fuels and hazard trees in power line right-of-ways

Based on fire history, the frequency of power line caused fires and the proximity of power line right-of-ways to numerous residential structures a significant mitigation of wildland fire is hazardous fuels reduction in some of these key locations.

The power line hazardous fuels mitigation plan would accomplish several fire mitigations. First, by removing trees which cause an imminent threat of falling on power lines you reduce the risk of an ignition. Secondly, by removing fuels you reduce the risk of fire spread or in high fire danger periods you slow the spread of growing wildfire. Lastly, in some areas the power line right-of-way is the only area from which firefighting crews and equipment might access larger areas of continuous fuels. By removing

hazardous fuels from the right-of-ways the changes that a moving fire can be slowed or stopped is greatly enhanced.

Agricultural and land clearing, burn safety training video

The vast majority of fires in the CWWP area are human caused and of those, over 55% are the direct result of open burning. Delta Forestry has made efforts in the past to produce an agricultural burn safety video. Under the current CWPP, funding of an expanded, professionally produced Agricultural and land clearing, burn safety training video would be undertaken.

Annual Burn of Community Hazardous Fuels Drop-off Site

Under this program heavy equipment would be used to consolidate the drop-off site's dispersed materials. At the conclusion of the fire season the hazardous fuels would be burned under controlled, safe conditions.

If the Fort Greely Biomass project moves forward, this project would no longer be needed.

On the following page the **Wildland Urban Interface-Hazardous Fuels Reduction Projects** matrix lists the proposed projects, action required and purpose as well as the treatment method, location and project cost estimate.

Wildland Urban Interface-Hazardous Fuels Reduction Projects

<i>Project</i>	<i>Action/Purpose</i>	<i>Treatment</i>	<i>Locaton</i>	<i>Cost EstimateRange</i>
Neighborhood Powerline-Hazardous fuels reduction	Reduce fuel load and problem trees in powerline right-of-ways where wildfire would threaten infrastructure.	Mechanical Removal	Sandra Lane	\$3,000-\$5,000
Neighborhood Powerline-Hazardous fuels reduction	Reduce fuel load and problem trees in powerline right-of-ways where wildfire would threaten infrastructure.	Mechanical Removal	Reeve Avenue	\$3,000-\$6,000
Neighborhood Powerline-Hazardous fuels reduction	Reduce fuel load and problem trees in powerline right-of-ways where wildfire would threaten infrastructure.	Mechanical Removal	Spengler Road (3-5 locations on east/west bearings)	\$3,000-\$5,000/power line Maximum total \$25,000
Neighborhood Powerline-Hazardous fuels reduction	Reduce fuel load and problem trees in powerline right-of-ways where wildfire would threaten infrastructure.	Mechanical Removal	Burris Subdivision-Delta Junction	\$3,000-\$5,000
Neighborhood Powerline-Hazardous fuels reduction	Reduce fuel load and problem trees in powerline right-of-ways where wildfire would threaten infrastructure.	Mechanical Removal	Alaska Highway to Ft. Greely boundary-Delta Junction	4,000-\$7,000
Indiviudal Homeowner-Residence "Firewising"	Provide labor and equipment to do individual residence firewising in high risk fire areas for the elderly and low income residences	Mechanical Removal	Throuhout the CWPP area on an individual, as needed basis	Average \$700/home (Target 50 homes- \$35,000)
Agricultural and Land Clearing - Burn Safety Video	Professional produce an agricultural burn safety video to teach proper safety factors, actions and considerations when burning fields	Professional video production	Media-community wide	\$6,000-\$8,000
Annual Burn of Community Hazardous fuels drop-off site	End of fire season burn of hazardous fuels brought to this central location	Burn	Delta Dike-Hazardous Fuel Drop Site	\$3,000-\$4,000

TABLES

CWPP-Threat/Risk Analysis	Section 5 Table 1
CWPP-Risk Assessment Ranking	Section 5 Table 2
2007 – 2012 Wildfire Ignition Sources	Section 6 Table 1

Community Wildfire Prevention Plan

Risk Assessment Ranking

Section 5 TABLE 2

Area	Reference	# Homes	Rank	High Value Structures & Community Infrastructure	Fuel Type/Density Threat	Threat of fuels to Assets	Total Score	Risk Assessment Rank
17	Pogo Mine	468	1	1	2	2	6	1
15	Greeley	364	2	1	3	3	9	2
7	NE Nistler	241	3	4	1	2	10	3
8	Nistler/CW	212	4	4	1	2	11	4
2	N. Delta Jct	120	9	3	1	1	14	5
6	N. of Nistler	152	6	5	1	2	14	6
9	N Nistler to CWR	155	5	5	1	3	14	7
1	Delta Jct	100	11	1	2	2	16	8
4	Greater Delta	147	7	3	3	4	17	9
11	W Tan LP Ext-East	128	8	4	2	3	17	10
3	Alcan to CW Rd.	50	14	4	1	1	20	11
5	Greater Delta-East	110	10	3	3	4	20	12
10	W Tan LP Ext	98	12	4	2	3	21	13
12	Big D	79	13	4	2	4	23	14
13	Quartz	40	16	5	1	2	24	15
18	Goodpasture	46	19	5	2	2	28	16
14	Tenderfoot	35	17	5	3	1	26	17
16	Whitestone	26	18	5	2	2	27	18
19	Healy Lake	23	15	5	2	2	0	19

Community Wildfire Prevention Plan

Threat/Risk Analysis

Section 5 TABLE 1

Area	Reference	# Homes	Rank	High Value Structures & Community Infrastructure	Fuel Type/Density Threat	Threat of fuels to Assets	Total Score	Risk Assessment Rank
1	Delta Jct	100	11	1	2	2	16	8
2	N. Delta Jct	120	9	3	1	1	14	5
3	Alcan to CW Rd.	50	14	4	1	1	20	11
4	Greater Delta	147	7	3	3	4	17	9
5	Greater Delta-East	110	10	3	3	4	20	12
6	N. of Nistler	152	6	5	1	2	14	6
7	NE Nistler	241	3	4	1	2	10	3
8	Nisler/CW	212	4	4	1	2	11	4
9	N Nistler to CWR	155	5	5	1	3	14	7
10	W Tan LP Ext	98	12	4	2	3	21	13
11	Tan LP Ext-East	128	8	4	2	3	17	10
12	Big D	79	13	4	2	4	23	14
13	Quartz	40	16	5	1	2	24	15
14	Tenderfoot	35	17	5	3	1	26	17
15	Greeley	364	2	1	3	3	9	2
16	Whitestone	26	18	5	2	2	27	18
17	Pogo Mine	468	1	1	2	2	6	1
18	Healy Lake	23	19	5	2	2	28	19
19	Good Pasture	46	15	5	2	2	24	16

2007-2012
Wildland Fire Ignition Sources
Section 6 Table 6.1

Years	2007	2008	2009	2010	2011	2012 *	Totals	Annual Average	Average %
Wildland Fire Ignition Cause									
Human Caused	28	21	40	25	23	21	158	26	
Lightning	4	1	2	7	1	1	16	3	
Human Caused Detail									
Camping	8	3	3	2	1	2	19	3	12.03%
Debris Burning	15	9	23	14	11	12	84	14	53.16%
Powerlines	1	2	4	4	2	4	17	3	10.76%
Children	0	1	2	1	2	0	6	1	3.80%
Incendiary	0	0	1	0	3	1	5	1	3.16%
All Other	3	6	7	4	4	2	26	4	16.46%
Human Caused Totals	28	21	40	24	23	22	158	26	99.4%

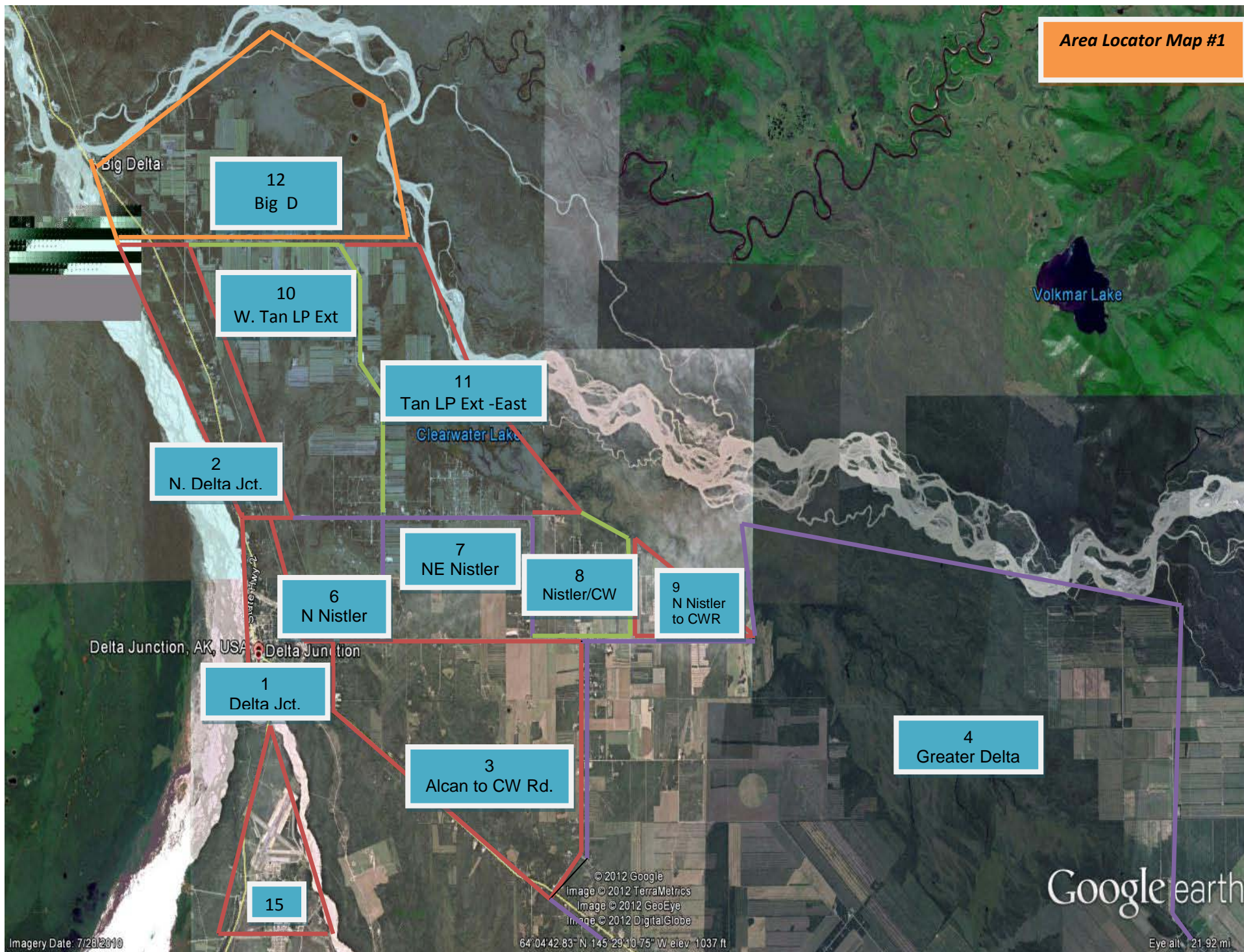
2012* figures through September 10, 2012.

APPENDIX A

Area Locator Maps

Maps 1-6

Area Locator Map #1



Area Locator Map #2

4
Greater Delta
Continued

5
Greater Delta-East

Healy Lake

18
Healy Lake

Healy Lake

Twelvemile Lake

Black Lake

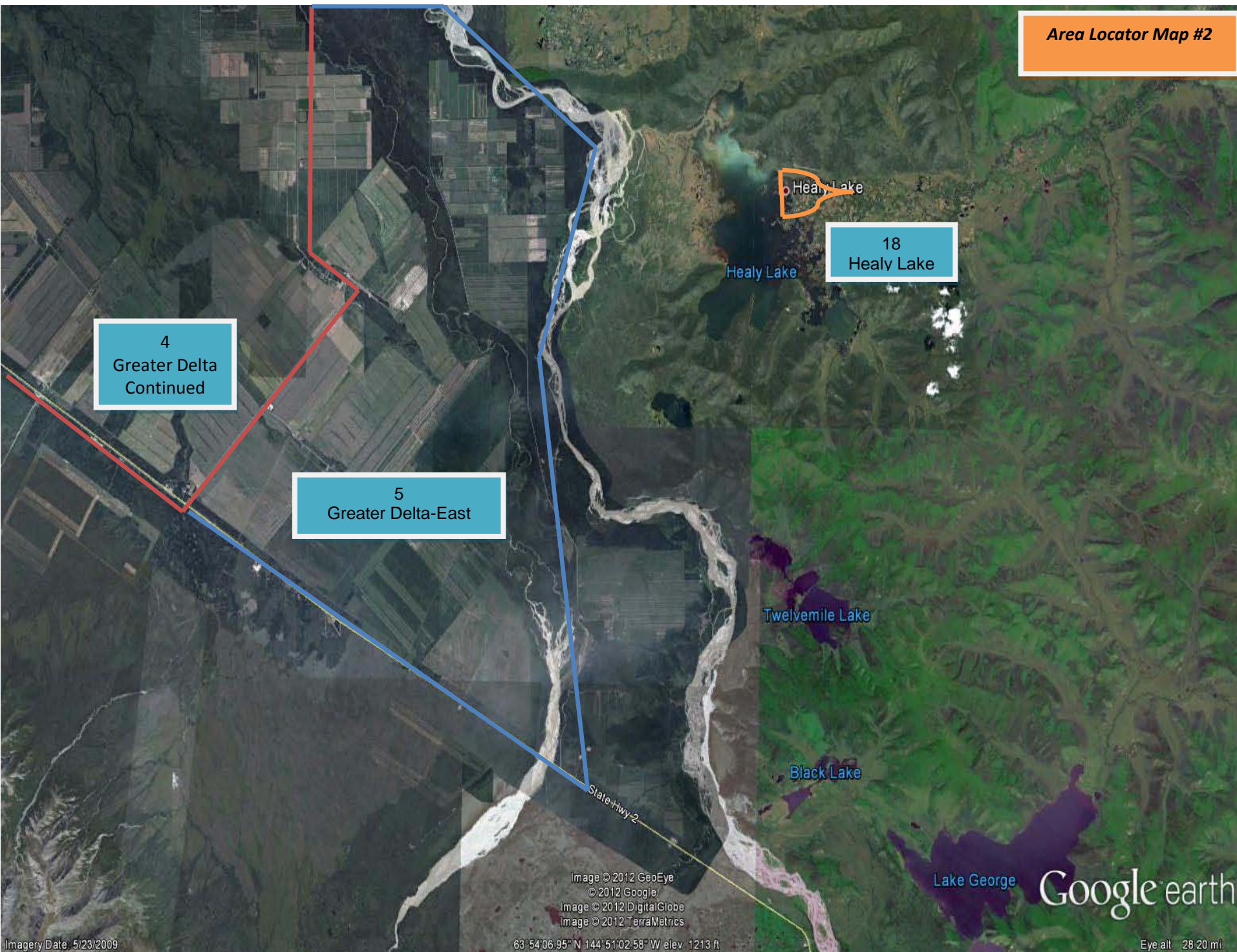
Lake George

Google earth

Imagery Date: 5/23/2009

63° 54' 06.95" N 144° 51' 02.58" W elev. 1213 ft

Eye alt. 28.20 mi



Area Locator Map #3

Quartz Lake

Lost Lake

Thompson Lake

13
Quartz Lake

16
Whitestone

Image © 2012 DigitalGlobe
Image © 2012 GeoEye
© 2012 Google

Google earth

Imagery Date: 8/23/2005

64°12'07.98" N 145°48'28.71" W elev. 983 ft

Eye alt. 51890 ft

14
Tenderfoot

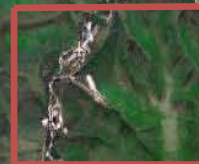
State Hwy 2

Google earth

© 2012 Google
Image © 2012 DigitalGlobe
Image © 2012 TerraMetrics
64°16'51.23" N 146°15'20.53" W elev 1180 ft

Eye alt 35873 ft

Area Locator Map #5



17
Pogo Mine

Image © 2012 DigitalGlobe
© 2012 Google

Image © 2012 TerraMetrics

64° 27' 05.81" N 144° 53' 05.50" W elev. 2499 ft.

Google earth

Imagery Date: 8/26/2007

Eye alt: 37.70 mi.

19

Image © 2012 DigitalGlobe
© 2012 Google

Image © 2012 TerraMetrics

64°15'40.31" N 145°04'57.28" W elev. 1968 ft

Google earth

Imagery Date: 8/3/2004

Eye alt 12.88 mi

APPENDIX B

Community Business and Infrastructure List

Community Business and Infrastructure

Area	Business or Infrastructure	Location
	Infrastructure	
1	Delta Junction Family Medical Center	2360 Service Street, M 267.2 Richardson Highway
1	Delta Junction Public Health Center	2857 Alaska Highway, Room 210
1	Division of Forestry	2058 Richardson Highway
1	Delta Junction Fire Department	2288 Deborah Street, Richardson Highway and Second Street
1	Delta Rescue Squad – EMTs and Ambulance	Richardson Highway and Second Street
2	Rural Deltana Fire District	M 272.2 Richardson Highway
4	Clearwater Fire Station	Clearwater Road
2	Big Delta Fire Station	Richardson Highway north of 272
1	Delta High School	1655 N. Clearwater Ave.
1	Elementary School	2659 Nistler Road and North Clearwater Avenue
15	Fort Greely Middle School	1st & Clearwater St # 725, Fort Greely
1	Delta Career Advancement Center	N. Clearwater Avenue behind the Delta High School
2	Alaska State Troopers Post facilities	Jarvis Building 2887 Alaska Highway
1	State Magistrate facilities	1435 Richardson Highway
1	City/Delta Junction Community Center	Richardson Highway and Deborah Street
3	Delta Greely LEPC office	Richardson Highway and Second Street
1	City/Delta-Clearwater Seniors	Richardson Highway & Deborah Street; @ the Delta Junction Community Center
15	Fort Greely (gym, pool, movie theater, middle school)	Fort Greely Alaska
1	Alpha Omega Life Care	2415 Rapids Street, Delta Junction
5	Gerstle River School	Cummings Road (Delta-Greely School District)
1	Delta Community Library	Deborah Street, near City Hall
1	City Hall	Deborah Street off Richardson Highway
1	Courthouse	2243 Richardson Highway
17	Pogo Mine	38 miles northeast of Delta Junction off Richardson Highway

Community Business and Infrastructure

Area	Business or Infrastructure	Location
	<i>Infrastructure-continued</i>	
2	Delta Laundry & Thrift Shop (Closed 2012)	2243 Richardson Highway
	<i>Social and Cultural Facilities</i>	
1	First Baptist Church	1801 Richardson Highway
1	Church of Jesus Christ of Latter Day Saints	2378 Deborah Street
4	Clearwater Baptist Church	5588 Remington Road
1	Our Lady of Sorrows Catholic Church	2565 Deborah Street
4	Delta Seventh Day Adventist	5610 Clearwater Road
11	New Hope Community Church Training Center	2775 Tanana Loop Extension
10	Delta Christian Center	4514 Jack Warren Road
1	Pioneer Intersection Park	At intersection of the Richardson and Alaska Highways
1	Delta Junction Visitor Center	M 1422 Alaska Highway
10	Rest Haven Cemetery	Mil-tan and Jack Warren Road
1	Sullivan Roadhouse and Museum	M 266 Richardson Highway and Alaska Highway intersection, 64°2'7"N145°43'43"W
1	City Park and playground/baseball field	Richardson Highway and Kimball Street to Harper Avenue
12	Rika's Roadhouse and Landing	Big Delta State Historical Park, M 275 Richardson Highway, 64°9'19"N145°50'4"W
3	Alaska Homestead and Historical Museum	M 1415.4 Alaska Highway, 1 miles south on Dorshorst Road
15	Rapids Roadhouse	764 Rikas Road (63°31'48"N145°51'24"W)
2	Smith's RV Park	267.5 Richardson Highway
Transportation Infrastructure		
15	Allen Airfield on Fort Greely	All medevacs go out of this airfield
5	Gerstle River Bridge	
12	Tanana River Bridge	
13	Quartz Lake Road	

Community Business and Infrastructure

Area	<i>Business or Infrastructure</i>	<i>Location</i>
	<i>Public Works and Utilities</i>	
1	Delta School well water system	
1	City Landfill	M 257.2 Richardson Highway
1	High capacity well City's Fire Station (potable water) 10" we	
7	Delta Sanitation	1649 Souhrada Road
1	Golden Valley Electric -Richerson Sub Station	
	<i>High Loss Facilities</i>	
1	AT&T Tower	
5,15	Phone line hub at PS 9 handles Greely and DJ phones	Alyeska PS 9
1,2	Trans Alaska Pipeline System	TAPS routes through Delta Junction
1	High capacity well City's Fire Station (potable water) 10" we	
	<i>High Loss Facilities</i>	
8	Crowley Bulk fuel manufacturing plant (>500 gallons)	4721 Richardson Highway
4	Fuel storage tanks (>1000 gallons)	Gas stations 5 (Saw Mill Creek)
15	Fort Greely Bulk Fuel Storage	
	<i>Communications and Telecommunications</i>	
15	Phone line hub at PS 9 handles Greely and DJ phones	
1	Dobson Communications Cell Tower	

Community Business and Infrastructure

[illegible]

Community Business and Infrastructure

Community Business and Infrastructure

Community Business and Infrastructure

Alyeska PS 9, Richardson Highway

1471 Stirewalt Street, near Access Road off Alaska Highway

APPENDIX C

Area Resident Survey

Community Wildland Protection Plan Area Resident Survey

1. If wildland fire threatens the Rural Deltana/Delta Junction Area what are your concerns:

- ☐ **Accurate information**
- ☐ **Coordination of activities**
- ☐ **Lack of responders and/or equipment**
- ☐ **Preparedness planning**
- ☐ **Other**

2. If wildland fire threatens your home what are your concerns:

- ☐ **Coordination of activities**
- ☐ **Preparedness planning**
- ☐ **Response time for fire assistance**
- ☐ **Your home's ability to withstand fire**
- ☐ **Other**

3. Please prioritize the following from Greatest Need #1 to Lowest #6

_____ **Wildland Fire Prevention Programs**

Programs can include Smokey Bear school programs, site inspection for debris burns etc.

_____ **Wildland Fire Suppression Programs**

Programs can include firefighter red card classes, additional firefighting equipment, and firefighter recruitment.

_____ **Hazardous Fuels Reduction Programs**

These can include removing woody materials on public and, or private land and establishing areas for safe disposal of these materials.

_____ **Restoration of Fire-Adapted Ecosystems Programs**

These programs can include prescribed fire for bison habitat to remove fuels in high risk areas.

_____ **Community and Homeowner Wildland Fire Education Programs**

Programs include information on how to make your home safer from wildland fire threat.

_____ **Emergency Preparedness and Communication Programs**

These can include developing evacuation procedures for contacting residents, locations for evacuation of people pets and livestock.

OPTIONAL:

Name: _____ **Telephone #:** _____

- ☐ **Interested in participating in Delta Area Firewise Community Program**

APPENDIX D

Area Resident Survey Results

2012 CWPP RESIDENT SURVEY RESULTS

[illegible]