FNSB CWPP 2007 Update
Appendix I

Little Chena Hazardous Fuels Reduction Project (photo 2006)

Public Meeting (11/06)
Ken Kunkel Community Center

Governor's Fire/Firewise Proclamation (6/07)

Interagency Fire/Firewise Booth (6/07)

FNSB Firewise Team Homeowner Interview
Channel 11 (6/07)

Executive Summary

Appendix I outline the updates since the development and the signing of the FNSB CWPP. Fairbanks North Star Borough, State of Alaska Division of Forestry Fairbanks Area Office, local fire departments and other partners including federal agencies have been busy holding public meetings, giving presentations, and hosting firewise training and booths. Copies of the FNSB CWPP have been available to the public at various functions, presentations, booths as well as the Interagency Firewise Task Group meeting; State of Alaska Division of Forestry annual resource meeting; and the Local Fire Management Leadership Course in Anchorage.

During the past fall (2006) public meetings regarding proposed wildland fire hazardous fuels reduction projects, community wildland fire protection plan, and firewise were held at the Fairbanks North Star Borough Administrative Center, Ken Kunkel Community Center and North Star Volunteer Fire Department. Presentations on the CWPP updates were also given at the FNSB platting board, FNSB borough assembly, and at the North Pole City Council. In addition presentations and meetings were held at the Mapping and Survey Conference, local subdivision on Old Murphy Dome, Old Ridge Trail residents (met at Ester VFD station) and Ester Volunteer Fire Department.

This winter/spring (2007), Fire Risk Assessment Team reviewed the wildland fire risks for the Fairbanks North Star Borough and discussed updates to the CWPP. One such update was the Zones of Concern as outlined in Objective 6. DOF fire personnel met with each of the local FNSB Fire Departments (Steese, Chena Goldstream Fire and Rescue, Ester, University) to discuss and map Zones of Concern. Each Fire Department discussed with DOF personnel their local service area concerns. As part of the update action plan, the DOF organized and hosted a firewise and fire prevention training for volunteer fire department 2 person teams.

Also complete were contracting of 1500 acres of hazardous fuel reduction projects on public surrounding the community. The largest accomplishment for any single community of its size in the United States. The treatments required numerous public meetings and contacts, as well as several interagency permits. Over 1000 acres of fuel treatments were completed.

Division of Forestry, Fire Departments along with Alaska Fire Service (BLM), National Park Service, Fish and Wildlife and Fish and Game have sponsored and assisted with various firewise programs and booths. Booths and displays include the Interior Alaska Home Show, Midnight Sun Festival, Alaska Public Lands Information Center, Fred Meyers Safety Weekend, Sportsman Warehouse Outdoor Safety, and the Tanana Valley State Fair. Governor Sarah Palin proclaimed a week in May as Wildland Fire Prevention and Preparedness week. An Interagency Statewide Firewise Task Group was created this year (07). The group provided an opportunity to share and gather additional firewise material. This year's objective for the Interagency Firewise Task Group was to send copies of the proclamation and generic press release to all group members and agency contacts. Firewise events included reading of the proclamation at the Interior Fire Chief's Meeting, North Pole Fire Department Open House. On June 7th Governor Palin visited Fairbanks Area Forestry Office and before local residents, fire department and agency personnel she gave a brief media clip on firewise, wildland fire prevention and the need for preparedness. In addition to the interagency effort to promote

firewise and wildland fire preparedness, two of the national home insurance companies are promoting Firewise. In 2007, All State joined State Farm in reviewing their local insured homeowners. This summer State Farm again sent letters to their local insured homeowners outlining fire wise steps. These are steps that State Farm would like the homeowner to complete in order to continue being insured.

The FRAT met many times through out the year to review progress on the action plan items and to establish new action plan items for this update. Great progress has been made on current action plan items. Nearly all the action plan targets have been completed. For example 1500 acres of hazardous fuels reduction identified in the action plan were contracted, which is 200 acres over the target set in the 2006 action plan. The items in this action plan continue those positive steps forward in a collaborative effort to reduce wildland fire risk to the community. The following is a list of updated goals, objectives and action plan.

GOAL: Reduce The Risk Of Wildfire To The Community Through The Most Cost Effective Risk Reduction Projects.

Objective #6: Identify and Map Zones of Concern.

A. Map and Rate Zones of Concern for Phase I Area.

DOF and the Fire Departments will collaboratively map and rate the Zones of Concern for each fire department. During this mapping project, road access types for engines and water sources will be reviewed and confirmed. DOF will review the ratings on the ground to guarantee consistency between fire departments.

A Zone of Concern is an area that has been identified as having an unusually high fire risk. In most cases there exists heavy black spruce and homes in the same area. A fire in this area has the potential to grow rapidly in size with the right fire weather due to heavy continuous fuel loading over a large area. The Zones of Concern are rated in three catagories of Extreme, Very High, and High. Because these are areas of high risk, there are no moderate or low ratings.

"Extreme" Zones of Concern are generally greater than 15% slope with large areas of dense black spruce. Access is poor to moderate. Valleys, known as chimneys, that tend to funnel fire are common. Homes tend to be located at the top of the chimneys or slopes. Homes anywhere in the zone are at extreme risk. Because of the slope, fire is easily carried and will move quickly without a wind. Wind and dry fuels greatly increase risk.

"Very High" Zones of Concern are flat to 15% slope with primarily black spruce intermixed with white spruce. Access is poor to moderate. Homes anywhere in the zone are at very high risk. Because of slope, fire can move uphill without a wind. Homes located at the top of hills are at the highest risk. Wind and dry fuels greatly increase risk.

"High" Zones of Concern are flat to gentle slope contains dense black spruce pockets intermixed with white spruce or open stands of black spruce. Includes lowland black spruce with greater than 30% decadent shrub component, may be intermixed with hardwoods. Access is moderate to good. Homes anywhere in the zone are at high risk. Wind and dry fuels greatly increase risk.

Action should be taken by the homeowner as soon as possible before the next fire season to reduce hazardous fuels around their home.

B. Incorporate Zones of Concern maps into GIS and display on ArcIMS Website.

The DOF will incorporate the Zones of Concern (ZOC) maps into Geographic Information Systems (GIS) so maps can be printed for both fire departments and the public. The ZOC layers will be loaded on the DOF interactive mapping website (http://www.forestrymaps.alaska.gov) for viewing by the public.

Objective #7: Inform Residents of Increased Risk Within Zones of Concern and Provide Residents Firewise Training to Reduce Risk.

A. Develop rating system and Firewise specifications specific to Zones of Concern.
Fire behavior specialists from DOF will develop the rating system for the Zones of Concern. They will also develop specific Firewise recommendations for each Zone of Concerning rating taking into account local fuel types and fire weather conditions.

B. Fire Departments/FNSB hire 2 fire fighters per Fire Department to implement ZOC notification.
The Fire Departments under a fiscal arrangement with the FNSB will hire 2 fire fighters per fire department that have ZOCs within their fire service areas. These fire fighters will be used to visit every residence within the ZOC to warn them of the elevated risk within the ZOC and to provide guidance to reduce the risk.

C. Train fire fighters on Firewise evaluations.
The DOF will provide training on Firewise evaluations to fire fighters from the fire departments. Training will also cover local fuel types and area specific guidelines developed in 7A. Training will provide both in classroom and field evaluations of real world situations.

D. Conduct door to door visit of residence by fire fighters in Zones of Concern and complete evaluation form.
After successfully completing training provided by DOF on Firewise, fire fighters will visit each residence in the Zones of Concern within their fire service area to provide information as to the elevated risk to wildland fire and the Firewise techniques to reduce the risk. A free evaluation to each resident will be made available. Evaluation forms will be completed by each department and turned into DOF for entry into the GIS database.

E. **Obtain funding and or incentives for homeowners to reduce their structure ignitability.**
DOF to pursue additional cost share grant funding to assist homeowners with hazardous fuels reduction projects on private lands. DOF and FNSB will work with local insurance agencies to promote firewise principals regarding home insurance.

Objective #8: Continue to Reduce Risk of Hazardous Fuels through Fuels Reduction Silvicultural Treatments.

A. Treat, pile and burn fuels on approximately 800 to 1000 acres in strategic locations on public land. Develop cooperative agreement with FNSB to accomplish treatments. Hold public meetings on treatments and obtain permits for treatments.
DOF and the FNSB will develop a cooperative agreement that allocates a portion of the federal earmark for reducing wildfire risk to the community by accomplishing fuel treatments in strategic locations identified by the FRAT. This objective will build upon fuels treatment work already completed. As part of this objective, DOF will host public meetings to describe the fuel treatment projects and provide input by the public. DOF will obtain necessary permits to

accomplish the fuel treatments. DOF will layout, contract, and administer fuel treatments and will follow up with burning windrows during the late fall.

B. Plan for additional hazardous fuel treatment areas in high exposure areas on 1500 to 3000 acres in strategic locations on public land.

This objective builds on fuel treatment projects completed in 8A and 8B. The FRAT will identify strategically placed fuel treatment projects that work in unison with the other projects. As part of the fuel treatment, public meetings will be held to describe the fuel treatment projects and provide input by the public. DOF will obtain necessary permits to accomplish the fuel treatments. DOF will layout, contract, and administer fuel treatments and will follow up with burning windrows during the late fall.

C. Obtain Funding for Fuels Treatment Projects identified in 8B.

DOF and FNSB will seek funding to accomplish this objective.

Objective #9: Reduce Risk of Escaped Fire By Improving the Effectiveness of Fire Suppression Resources.

A. Conduct Field Evaluation of Mobile GIS Applications for use by DOF and Fire Department fire personnel.

In other parts of the country, GPS linked mobile PCs have increased response time and the effectiveness of fire fighting forces. Mobile PCs with imagery allow responders to see access roads, water sources, structures threatened and safety zones. GPS linkage helps eliminate confusion to the call location and improving response time and increases effectiveness of deploying resources once on scene. Because safety zones can be clearly identified on imagery, it also greatly improves fire fighter safety.

DOF has worked with several different versions of mobile PCs including Panasonic Toughbook tablet and laptop, OQO pocket PC, and Samsung Tablet PC as well as variety of GPS models. These mobile PCs have been used to map large fires from fixed wing and helicopter as well as real time navigation with active GPS linked with imagery in both aerial and ground vehicle platforms. Tablet PCs linked with GPS have been used in forest environments in fire suppression response as well as forest classification and layout of fuel treatment areas. All the vector data important to fire suppression has been loaded on the mobile PC hard drives. All the imagery for the Fairbanks Area including Spot5 and QuickBird has been compressed and loaded on to the hard drives as well. DOF applications have been developed that provide easy to use large on screen access buttons for data display while driving. The GPS link up has been improved to occur upon bootup. Query tools for road and parcel location have been developed and implemented.

To test these mobile applications, vehicle mounts and power for the mobile PCs been installed in three vehicle types: Command, Engine, and Prevention. Chena-Goldstream and Steese Fire Department command vehicles have been included in the study. Feedback from users to improve the applications during the field evaluation will be an important priority. The field

evaluation will analyze the increase in effectiveness of fire suppression response by suppression resources.

B. Provide for Mobile GIS Applications to DOF and Fire Department fire fighters. Provide continuing GIS support both hardware and data. Upon successful completion of field evaluations, DOF implement mobile GIS applications for DOF and Fire Department fire suppression resources and FNSB emergency management. Hardware, mounting brackets, and mobile PCs with GPS and software would be purchased for all fire department, FNSB and DOF emergency response vehicles. Even though the primary usage is for wildland fire, the mobile PCs would prove useful for any all-risk emergency response. This objective would not only include installation, but also provide continuing GIS support for software application maintenance, developing new applications, and updating databases with new coverages both vector and imagery.

C. Obtain Funding for Mobile GIS Applications and support identified in 9B. DOF, FNSB, Interior Fire Chiefs Association or other organizations will assist in obtaining funds for these improvements.

D. Provide fire departments, DOF dispatch and fire managers, FNSB emergency managers with updated GIS data and map products incorporating Firewise evaluations. The Firewise evaluations completed by each department will require input into GIS for display in mobile applications as well as on the ArcIMS website. A cooperative agreement between DOF and FNSB will allow data to be developed as GIS coverages and installed in the mobile applications.

E. Incorporate High-resolution Imagery of the Settled Areas of the Borough and Map Structure Locations.
Imagery has proven invaluable for fire managers for determining fire spread, strategic, tactical and evacuation planning during a rapidly expanding fire. Currently available satellite imagery is several years old and does not show all the new house and road construction. New high resolution imagery covering the urban interface should be acquired. This imagery will be used for mapping structure location, new roads and trails. It will also provide the most current information to fire managers.

F. Provide support for additional aviation resources for initial attack.
Aviation resources such as retardant aircraft and helicopters are the back bone of fire suppression operations. Unfortunately retardant aircraft have been dramatically reduced by budget cuts and policy restriction from six (6) as recently as several years ago to two (2) aircraft this year. The lost of this aircraft greatly increases the exposure of the community to a tragedy wildfire. The objective of this action item is to increase the number of retardant ships available to FNSB. Helicopters have also been limited in number. The Type II helicopters are getting more difficult to contract with many going to oil production work. Past budget cuts also eliminated a light helicopter at Fairbanks DOF. Another objective is to restore a light helicopter for fire suppression at Fairbanks.

Objective #10: Community Planning.

A. Provide Title 17 Standards to FNSB Planning Department.

By identifying the Zones of Concern, current and future residents living within these areas that have an elevated wildfire risk can be informed. Current residents are being notified of their risk as described in Objective #7. However, future subdivisions in the Zones of Concern need to be designed to minimize the wildfire threat to future residents. By eliminating or reducing fire threats to future residents, potential loss of life to residents and fire fighters is avoided. Also the costs to fire service tax payers and the state to protect new subdivisions in black spruce is acknowledged by requiring developers to design subdivisions to safer standards and homeowners to complete Firewise around new homes. Wildfire specifications to reduce the increased risk will be incorporated into Title 17 Standards for subdivision design. The FRAT will analyze potential specifications and make recommendations to the FNSB Planning Department.

Updated Additions to Action Plan

The following action plan was developed from the goals and objectives.

Objective	Tasks	Timeline	Agency Responsible
#6 Identify and Map Zones of Concern	6.A Map and Rate Zones of Concern for Phase I Area.	Spring 2007	DOF-Fairbanks Area and Fire Departments
	6.B Incorporate Zones of Concern maps into GIS and display on ArcIMS Website.	Spring 2007	DOF-Fairbanks Area
#7 Inform Residents of Increased Risk Within Zones of Concern and Provide Residents Firewise Training to Reduce Risk	7.A Develop rating system and Firewise specifications specific to Zones of Concern	April 2007	DOF-Fairbanks Area
	7.B Fire Departments/FNSB hire 2 fire fighters per Fire Department and the FNSB will hire an admin position to enter Firewise evaluation data.	April 2007	FNSB/Fire Departments
	7.C Train fire fighters on Firewise evaluations	Early May 2007	DOF-Fairbanks Area
	7.D Conduct door to door visit of residence by fire fighters in Zones of Concern and complete evaluation form.	Spring & Summer 2007	Fire Departments
#8 Reduce Risk of Hazardous Fuels through Fuels Reduction Silvicultural Treatments	8.A Treat, pile and burn fuels on approximately 1000 acres in strategic locations on public land. Develop cooperative agreement with FNSB to accomplish treatments. Hold public meetings on treatments and obtain permits for treatments.	Winter 2007/2008 to 2010	DOF-Fairbanks Area
	8.B Plan for additional hazardous fuel treatment areas in high exposure areas on 1500 to 3000 acres in strategic locations on public land.	Fall 2007	DOF-Fairbanks Area
	8.C Obtain Funding for Fuels Treatment Projects identified in 8B.	Ongoing	DOF/FNSB
#9 Reduce Risk of Escaped Fire By Improving the Effectiveness of Fire Suppression	9.A Conduct Field Evaluation of Mobile GIS Applications for use by DOF and Fire Department fire fighters.	Summer 2007	DOF-GIS
	9.B Provide for Mobile GIS Applications to DOF and Fire Department emergency responders. Provide continuing GIS support both hardware and data.	Funding Dependent	DOF-GIS

Resources	9.C Obtain Funding for Mobile GIS Applications and support identified in 9A.	Ongoing	DOF/FNSB
	9.D Provide fire departments, DOF dispatch and fire managers, FNSB emergency managers with updated GIS data and map products incorporating Firewise evaluations.	Funding Dependent	DOF-GIS
	9.E Incorporate High Resolution Imagery into Mapping Website.	Fall 2007	DOF-GIS
	9.F Provide support for additional aviation resources for initial attack.	Ongoing	DOF/FNSB/ IFCA
#10 Community Planning	10.A Provide Title 17 Standards to FNSB Planning Department.	Fall 2007	FRAT

Summary: *The FNSB CWPP is assisting the Fairbanks North Star Borough and its partners in clarifying and refining its priority for the protection of life, property, and critical infrastructure in its wildland urban interface. Fairbanks North Star Borough Community Wildfire Protection Plan is not a stagnant document but a continual evolving document that is reviewed, modified and updated over time. Appendix I outlines addition and updates to the FNSB CWPP plans goals and objectives as well as the continuation of the Action Plan (time line and responsibility). As the 2007 wildland fire season slows, the Fire Risk Assessment team will hold its fall meeting to review the past and future projects, establish future community meeting schedule and lessons learned.*