

Alaska Interagency Community Wildfire Protection Plan Guide

Bettles/Evansville

I. BACKGROUND

The Community Wildfire Protection Plan (CWPP) process assists communities in developing an appropriate and desired wildfire protection plan that addresses elements of community protection. A community can use this outline to develop a plan. Through discussion among interested parties about wildfire protection, communities develop clarity and refine their priorities for protection of life, property, and critical infrastructure in the wildland urban interface. Minimum requirements for a CWPP include: (1) collaboration, (2) prioritizing areas for treatment, and (3) recommended measures to reduce structure ignitability. The following process is an aid to help a community to complete a CWPP. It should not be overly complex. Three elements are addressed in this process: (1) the risk/hazard assessment, (2) mitigation plan, and (3) monitoring.

II. EXECUTIVE SUMMARY

The Evansville Fuels Reduction Project has been a collaborative effort from the onset. The Evansville Tribal Council, the City of Bettles, the Alaska Fire Service (AFS), the National Park Service (NPS) and the U.S. Fish & Wildlife Service (USFWS) have worked together to identify the fire protection needs of Evansville and Bettles. Areas to be treated include: (1) community property surrounding the house lots at Evansville, (2) around the tank farm (four large fuel oil, av gas, and unleaded fuel storage tanks at Bettles) as well as around the firehouse at Bettles, and (3) expanding the fuel break along the 2004 cat trail cut during the 2004 Evansville fire, located to the east of Bettles. The final phase of the project will include: (1) furthering FIREWISE principles, (2) encouraging fuels reduction work around individual homes, and (3) strengthening the capabilities of the volunteer fire department.

III. COLLABORATION

Collaboration may be accomplished through three processes. Convene decision makers, involve local, state, and federal agencies, and engage interested parties. Decision makers will be those responsible for the development of the CWPP. The make up of this group will depend upon the community. Involvement of local, state, and government agencies and other interested parties will depend upon the needs of the community. In the same way approval or adoption of the plan will be governed by the appropriate process identified by the community.

This risk assessment system provides information about four primary elements contributing to or mitigating wildfire danger within or near a given Alaska community. These elements are:

- 1) Risk/Hazard
- 2) Barriers
- 3) Fire Protection Response
- 4) Community Firewise Rating

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The collaboration process for this project began when the Evansville Tribal Administrator and the Vice-Mayor of the City of Bettles asked the Fish and Wildlife Service (USFWS) and AFS for assistance in protecting their adjoining villages from wildfire. The USFWS responded by sending field personnel to Bettles/Evansville to perform a hazardous fuels assessment in June and July 2005. Various options were presented to the Administrator and Vice-Mayor. The initial project was discussed with local residents of Bettles and Evansville, the Tribal Council, the Vice-Mayor of Bettles, and local National Park Service officials (Gates of the Arctic NP). The USFWS agreed to fund/administer the fuels reduction project for the village. The National Park Service has offered in-kind services in support of the project. Project scoping was officially pursued by the USFWS during February 2006. NEPA was completed by the Service in May 2006. Project design has been a collaborative process involving the Tribal Chairman, the Tribal Administrator, residents of Evansville, the City of Bettles, NPS, AFS, and USFWS.

IV. ASSESSMENT TO PRIORITIZE AREAS FOR FUEL REDUCTION

A. Introduction: treatment areas were selected based on input from the Tribal Administrator, residents of Evansville, the City of Bettles, AFS, NPS, and USFWS.

B. Identification and Description of Community and Area:

1. Describe the WUI boundary and how it was delineated:

The WUI boundary lies adjacent to the village and the Bettles airport facilities. It was delineated based on the hazardous fuels assessments and extensive input from the village and city governments.

2. Community Name:

Bettles/Evansville. These are two adjoining communities. Evansville is primarily residential. Bettles is primarily industrial and commercial. There are two separate local governments: the Evansville Tribal Council and the City of Bettles.

3. Location:

Evansville is located on the east bank of the Koyukuk River, about 180 air miles northwest of Fairbanks. Evansville is located in the Fairbanks Recording District. The Evansville residential area dates from mining support activities at the turn of the last century. Bettles Field, located immediately south of Evansville, dates from the construction of a WWII-era Lend-Lease airbase. The two adjoining communities have grown together over time.

4. General Geographic Location:

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a. Lat. N66.9249° Long. W-151.505°

b. Township 24N Range 18E Fairbanks Meridian

5. Population:

Combined population for the two local areas is 70 (2000 census), although there is marked seasonal fluctuation in the number of residents. There are considerable ties to Fairbanks and some residents move back and forth seasonally.

6. Structures:

a. Homes: 30 homes in total.

b. Community buildings:

Evansville Tribal Office, incl. Laundromat
Electrical Power station and Fuel Site (incl. 5000 gal. diesel tank)
Health clinic (but no Health Aide)
Bettles City Office (in Fire Hall building)
Two Community Halls
FAA VOR; Localizer; ANICS Uplink site; Satellite Site; NDB site
Airport maintenance shed
Firehouse
National Park Service/USFWS visitor center and office
Fish and Wildlife Service Field Station, Hangar, Shop, Fuel Shed,
4 USFWS fuel tanks
Former School building (currently closed)
Weather Station and FAA transient Quarters

c. Commercial:

Bettles Lodge (5 buildings, 4 hangars, 1 lodge);
Brooks Range Aviation building;
Bettles Tank Farm.
Three stores (in the above Bettles Lodge, Brooks Range Aviation,
and at Sourdough Outfitters).

d. Seasonally inhabited structures:

USFWS bunkhouse.

e. Outbuildings:

There are approximately 40 outbuildings ranging in size from outhouses to storage sheds.

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7. Infrastructure:

Utilities include telephone (ACS and AT&T) and electrical (Alaska Power & Telephone) service. A network of gravel roads and drainages borders the main treatment area in the village. South of Evansville, gravel roads border both sides of the Bettles Airfield. Bettles Field is a 5300 x 100 foot and is capable of supporting heavy aircraft including DC-6's and C-130's. A large float pond has been recently constructed southeast of the main runway for float-equipped aircraft. The Bettles Winter Trail provides residents access to the Dalton Highway under certain conditions.

8. Industry:

Airline services include Brooks Range Aviation, Arctic Circle Air Service, Everts Air Alaska, Warbelow's Air Ventures, and Wright Air. The Bettles Tank Farm serves fuel needs of both the aviation facilities and the local community. Bettles Lodge is a commercial lodge, guiding and outfitting business, and store.

9. Natural Resource Values:

Timber resources are limited to merchantable white spruce, primarily used for local house logs, found along the Koyukuk River. Common berries include blueberry, cloudberry, low and high-bush cranberry. Wildlife habitats include those of moose, furbearers, and waterfowl. The Koyukuk River is a major drainage and extends to the west of Bettles/Evansville.

10. Cultural Sites:

The cemetery is the only identified cultural site.

11. Dumps:

There is one open pit dump located southeast of Bettles Field. The material in the pit is periodically burned. Several burn barrels are currently being used throughout the Evansville village.

12. Hazards:

The Bettles Tank Farm (4 large above-ground fuel storage tanks) has an extensive capacity for fuel oil, aviation fuel and unleaded gasoline. The other known hazardous materials sites at Bettles/Evansville include eleven smaller fuel tanks at government and commercial structures. Many homes also have above-ground

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fuel oil storage tanks. The vegetation type surrounding the village and airfield is dominated by black spruce and black spruce/muskeg. Some of these black spruce stands are relatively dense. Within the village, the prevalent fuel type is a regenerating white spruce understory within a mixed balsam poplar, aspen, and white birch stand. Photographs at the Evansville Tribal office indicate that this regrowth dates from a 1948 fire, which eliminated all tree cover at the time in the vicinity. The 2004 Evansville Fire burned large areas of black spruce to the east, northeast, and south of the village, but unburned black spruce stands remain to the north and south. A small amount of road improvement work has generated some slash along the Bettles Winter Trail road system, which extends from the village east to the Dalton Highway. Part of the hazard lies within the village of Evansville itself, where a 50-year accumulation of natural fuels around the homes needs to be reduced, particularly the spruce regeneration.

13. Fire Equipment:

The village has a Code Red unit. There is a cache of hand tools and several defunct structure suppression engines located in the Bettles Firehouse. The only piece of currently functioning fire equipment is a small Ford tractor with a rear-mounted rotary blade that could be used for vegetation cutting along the roadsides. There are two other caterpillar tractors at Bettles/Evansville. These tractors are used for maintenance on the Winter Road and at the Bettles Airport. These heavy caterpillar tractors (D8 size) were proven vital for construction of defensive fire lines east of Bettles during the 2004 Evansville Fire.

14. Local Fire Prevention Efforts:

A limited amount of fire prevention education has taken place in the village. The community has had a volunteer structure fire department in the past, but statewide budget cuts and personnel turnover terminated fire prevention efforts. This has essentially closed the firehouse. The former USFWS/NPS Bettles Office and bunkhouse burned (a 3 million dollar loss), in a structure fire January 2004. None of the Bettles fire engines would operate at the time.

15. Other community values:

Value sets in the community are decidedly mixed and range from maintaining the subsistence economy to fostering commercial tourism and big-game hunting in the Brooks Range.

C. Areas or Values to be Protected

Protecting the Evansville residential area has been the priority identified by the village. This is followed by the protecting the four large commercial fuel storage tanks at the Bettles Tank Farm, around the Bettles Firehouse, and then expanding the existing fire line cat trail located east of Bettles. This one-lane fuel break was constructed during the

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2004 Evansville Fire, but needs to be widened substantially. No monetary value has been established for these areas. All three areas are very vulnerable to a wildland fire originating from lightning strikes to the north or south, or from within the village.

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

1. Fire Regime and Condition Class

Fire Regime IV Condition Class 1.

2. Rating Elements

a) Risk/Hazard Analysis

(1) Inside Community:

The Evansville Fire started as a lightning strike just southeast of Bettles in July 2004 and shortly thereafter nearly burned through the village, except for a fortuitous minor wind shift. The fire approached the east side of the village within ¼ mile. Judging by the age of the local white and black spruce stands, it has been over 50 years since the previous wildland fire burned in the vicinity (ca. 1948, from photographs). The likelihood of a fire occurring in the village is moderately high given two situations: (1) the increase in the number of fires in interior Alaska related to drying climate conditions, (2) open barrel burning in the village has a high potential to start a fire; and (3) the highly lightning-prone geography of the upper Kanuti basin.

There is some information regarding the fire history of the local area. The fire regime probably follows that described for the interior black spruce biophysical setting developed for the Alaska Fire Regime and Condition Class (2004). The fire return interval for this setting ranges from 40-120 years. Since 1948, natural fuels have accumulated in and around the village to the point that they will challenge fire suppression efforts if a fire were to start near the village. The village has a **MODERATE** Risk/Hazard rating based on the following charts.

(2) Outside Community:

During the past fifty years, most fire activity occurred near the village during the 1940's. There is a **MODERATE** likelihood of fire occurring outside of the village because hazardous fuels accumulated since the last local fire (ca. 1948). The 2004 Evansville fire burned to ¼ mile of the east, northeast and southeast of the village. Fire could still enter the village from the

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north or south. The entire area is highly prone to lightning strikes. The fire history is as described in the above section.

b) Barriers

The Koyukuk River provides a good natural barrier to fire to the west but does not complete protection given dry conditions and/or a wind driven event. The only manmade barriers are the gravel roads that lie within the village and along both sides of the Bettles Field airstrip. In a few places these one-lane gravel roads could serve as a fuel break, but a wind-driven fire would rapidly jump these roads. It is recommended that the small Ford tractor with rear-mounted rotary brush hog could expand the fuel breaks along the road system, but barrier rating is currently **POOR**.

c) Fire Protection Resources

The village is provided suppression coverage by AFS Tanana Zone. The AFS Galena Zone can send supplemental resources within several hours. Fire Protection Response rating is **MODERATE**. Smokejumpers are the usual resources available for initial attack. Although there is a HazMat crew in the village, there is no trained wildland fire crew, and the local fire department is defunct. BLM formerly staffed a fire base at Bettles Field, but all wildland fire suppression forces were transferred to Fairbanks in 1993. If more resources are needed for extended attack, EFF and Hotshot crews would be ordered along with air support currently located at AFS in Fairbanks.

d) Firewise Ratings

The FireWise Home Rating is **POOR** based on observations made during the hazardous fuels assessment (July 2005). Many homes are surrounded or overtopped by black spruce and/or highly flammable ericaceous shrubs and have varying accumulations of flammable materials.

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RISK/HAZARD ANALYSIS CHART 1

Outside Community Area (1-10 miles)

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

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RISK/HAZARD ANALYSIS CHART 2

Inside Community Area (within 1 mile)

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

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BARRIER RATING CHART

Barrier Type (list specific type under excellent, fair or poor)	Excellent	Fair	Poor
Water (may include lakes, rivers, streams and sloughs)		Koyukuk River and a few scattered wetland areas.	
Natural features (may include barren landscape, rock, topographic features)			Only one very small rock outcrop located to the north of the village.
Human-made features (may include airstrips or other clearings)			The airstrip lies parallel to the Koyukuk River. There are a few gravel roads in the village.
Overall Rating			POOR

Barrier Rating Chart Key:

Excellent: Community has a barrier(s) that provides thorough protection from fuels less than 1 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 than 1 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 than 1 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.

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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	
Adequate initial attack resources are 30-75 minutes away and adequate extended attack can be in place in 8-12 hours.	Moderate	AFS Tanana Zone provides suppression coverage for the village providing air support (helicopters and air tankers) along with ground support (smokejumpers, Hotshot crews, and EFF); Galena Zone can also send additional resources within 45 minutes (if they are available).
Adequate initial attack resources are less than 30 minutes away and adequate extended attack can be in place in less than 8 hours.	Low	

FIRE PROTECTION RESOURCES RESPONSE CHART

*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.

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

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

<p>Total of Rating Sum / 25 x 100 = Community Firewise Rating 20% POOR Excellent greater than 65%, Fair 35-65%, Poor less than 35%</p>
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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	MODERATE
a) outside community	MODERATE
Barriers:	POOR
Fire Protection:	MODERATE
Community Firewise Rating:	POOR

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4. Other Contributing Factors to risk and mitigation of wildland fire [*List other factors not previously addressed or of a unique nature that may contribute to the risk of wildland fire or mitigate the risk from wildland fire.*]

V. WILDLAND FIRE HISTORY

There have been four large wildfires within a 20 mile radius of Evansville since 1950. Fire activity was highest during 1977 (Pope Creek Fire e. of Bettles), 1991 (Koyukuk River Fire s. of Bettles), and 2002 (Jim River Fire s.e. of Bettles). The 2004 Evansville Fire started as a lightning strike within sight of Bettles and very nearly entered the two neighboring communities except for a minor wind shift.

VI. SUMMARY

The overall rating for Evansville is moderate to poor due to the volatility and extent of the surrounding fuels (primarily black spruce and open muskeg) and the physical location of the village (exposed to the north and south to large stands of continuous black spruce, but protected to the west by the Koyukuk River and to the east by the 2004 fire). The defensibility of the village right now is very marginal depending upon several variables (time of year, location of the wildfire, winds, available suppression forces, time since last rainfall, and period of drought)

VII. MAPS:

Photos of the village and surrounding area along with a proposed treatment area map are found in Appendix A.

VIII. APPENDICES:

Appendix A. Photos and Map.

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THE NEXT STEP *[The first element, risk/hazard assessment, should provide the community with a greater understanding of the risk and hazard associated with wildland fire. It should identify those resources that are most at risk from wildland fire, what types of firefighting resources that may or may not be available, and if structures and the community are Firewise. To complete the CWPP elements two and three the mitigation plan and monitoring plan should be completed. The Mitigation plan will take the information from the assessment and with input from the community members develop goals and objectives and treatments to assist the community to become less at risk from loss due to wildland fire. Attached is a template that will help you develop a mitigation plan. The third element (monitoring) reminds the community to follow-up on treatments to determine if goals and objectives were met and address periodic checks of the area to determine maintenance needs of the treated area(s).]*

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MITIGATION PLAN

Executive Summary

The village of Evansville is located 180 air miles northwest of Fairbanks along the Koyukuk River. It is surrounded by landscape composed of primarily black spruce and muskeg. The (2000) population of the village was 78. There are 30 homes in the village along with several other major buildings (power station, health clinic, community hall, tribal office and Laundromat, city office building, communications building, fuel plant, and an airport maintenance shed). The economy is split between subsistence based activities and commercial tourism and guiding. Both the National Park Service and the US Fish and Wildlife Service maintain field stations at Bettles, which is the adjacent commercial and industrial area to Evansville.

The initial field assessments (June and July 2005) along with the final assessment both found the village in need of wildland fire protection. The wildland fire Risk Assessment process determined the village to be in a **MODERATE** to **POOR** condition.

Background

Wildland fire is a common feature of the area surrounding Evansville. The village is surrounded by a black spruce/muskeg fuel complex. Fire behavior varies from smoldering to active torching to running crown fires with long-range spotting depending upon fuel type, fine fuel moisture, wind, and topography.

Values to be protected include life, property, and cultural resources.

Goals and Objectives

The **goal** of this project is to reduce the threat of wildland fire to Evansville and Bettles.

The **objectives** of the proposed project include: (1) reduce the amount of brush and trees in the community areas around the Evansville village residences (2) conduct similar thinning around the Bettles Tank Farm and the Bettles firehouse (3) create a defensible fireline east of Bettles along the 2004 cat trail.

Strategic Plan/Desired Condition

The priority values to be protected include life, property, and cultural resources.

The proposed strategy includes: (1) constructing a fuel break around the village residences, tank farm, firehouse, and cat trail fire break to the east, (2) improving the defensibility of village homes and buildings by implementing Firewise techniques, (3) working collaboratively with the Village, Bettles City Government, and AFS, (4) provide

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an education/outreach program focusing on Firewise principles and understanding fire's role in the environment, and (5) monitoring.

Fuel reduction priorities will be: (1) removing flammable fuels from the proposed fuel breaks and (2) reducing the concentrations of natural fuels around the residences.

Structural ignitability will be reduced through implementation of Firewise principles in Evansville village and around the government housing at Bettles. This is already independently underway around the Park Service facilities.

Strengthening the capability of the volunteer fire department in the future through training and acquisition of new equipment will be encouraged during the design and implementation of this project.

A collaborative approach will be adhered to throughout the design, implementation, and monitoring phases of this project.

The *desired condition* focuses on (1) providing Evansville with a first line of defense against an oncoming wildland fire and (2) level of understanding of Firewise principles and wildland fire that sustains an organized response to wildland fire when it threatens Bettles/Evansville.

Actions and Methodology (Tactical Plan)

The proposed Evansville Hazardous Fuels Reduction Project includes: (1) building a fuel break (removing fuels such as regenerating spruce and deciduous brush from around the village residences), (2) constructing a similar fuel break around the Bettles Tanks Farm and firehouse (3) thinning and pruning black spruce while expanding the fuel break along the existing 2004 cat trail east of Bettles. This will extend from the airport to the Winter Trail.

Rural fire assistance will be pursued FY 2007. Prevention and public education will be an ongoing activity within the community and the school during the life of the project.

Roles and Responsibilities

Planning has been a collaborative effort between the Evansville Tribal Administrator, AFS, NPS, and USFWS. The Project will be funded by USFWS. Monitoring will be carried out by the Village and the USFWS during implementation and 5 years after completion. The actual fuels reduction work is scheduled to be completed within two years (FY2006 and 2007).

Funding Guidelines

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The USFWS will fund the project through a cooperative agreement with the Evansville Tribal Council. The USFWS agreement with the Evansville Tribal Council will be for one year.

The estimated cost for USFWS-funded work is \$50,000.00.

Signatures

Evansville Tribal Administrator

Sam Patten, Fire Management Officer-Kanuti NWR

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Monitoring Plan

Monitoring will take place during implementation of the project and post implementation out to five years. Implementation monitoring will be done by the USFWS project inspectors. Pre-treatment, treatment, and post-treatment photos will be taken at established photo points by the project administrator/inspector(s). Weekly progress inspections will be done by the USFWS administrator/inspector and documented on the "Inspectors Daily Log". All monitoring information will be placed in the Evansville Hazardous Fuels Reduction Project folder and/or filed electronically in the WUI folder Evansville subfolder of the Fire Management files. A post treatment summary will assess whether treatment objectives were met and filed in the project folder.

Post implementation monitoring will be the responsibility of the Evansville Tribal Office. It will consist of a site inspection for each site and representative photos (taken at USFWS photo points) during years 2007, 2009, and 2011.

During the summer 2011 the Evansville Tribal Office along with fire management representatives of USFWS, and/or AFS, will assess the treated sites for effectiveness of treatment and need for maintenance.

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Appendix A. Photos and Maps

Location of the three proposed treatment areas at Bettles/Evansville. Overhead perspective.

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Aerial view of Evansville looking southwest. Fuels complex consists of muskeg, mixed hardwoods, and black spruce.

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Village of Evansville and surrounding area. Looking northeast.

East of Evansville where the proposed fuel break would be constructed.

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Evansville. Koyukuk River is to the left and thinning/pruning would occur on the right.

Proposed location of fuel breaks.