

KANUTI NATIONAL WILDLIFE REFUGE

BURNED AREA REHABILITATION PLAN

Old Dummy Fire 2005

Kanuti National Wildlife Refuge

2005 Old Dummy Fire

BURNED AREA REHABILITATION PLAN

UNIT: Kanuti National Wildlife Refuge

LOCATION: *Fairbanks, Alaska*

DATE: *November 30, 2005*

PREPARED BY: *Lisa Saperstein, Wildlife Biologist, Kanuti National Wildlife Refuge
Karen Murphy, Regional Fire Ecologist, Region 7*

Submitted By: _____ Date: _____
Burned Area Emergency Response Team Leader

EXECUTIVE SUMMARY

Introduction

This Burned Area Rehabilitation Plan has been prepared in accordance with Department of the Interior and U.S. Fish and Wildlife Service policy. This plan provides rehabilitation recommendations for all lands burned within the 2005 Old Dummy Fire perimeter and downstream impact areas including public lands administered by the U.S. Fish and Wildlife Service and other jurisdictions if necessary. The primary objectives of the Old Dummy Fire Burned Area Rehabilitation Plan are:

- To prescribe cost effective post-fire rehabilitation measures necessary to protect human life, property, and critical cultural and natural resources.
- To prevent further degradation to affected resources on lands within the fire perimeter or downstream impact areas and mitigate damages caused by fire suppression operations in accordance with approved land management plans and policies, and all relevant federal, state, and local laws and regulations

This plan addresses rehabilitation treatments. The Old Dummy Fire burned approximately 231,822 acres based on a preliminary fire perimeter map developed by the Alaska Fire Service (AFS); 191,444 acres are within the Kanuti National Wildlife Refuge (NWR). Smokejumpers were deployed to the fire to protect the refuge's administrative cabin on Kanuti Lake and to protect Native allotments. The fire was officially declared to be out on September 30, 2005. Smoke, poor weather conditions, and October snowfall have prevented an assessment of the fire to date, and a full assessment will not be possible until spring 2006 (see specification #2). Therefore, this plan is based on existing knowledge of the affected area rather than post-fire assessments conducted by agency personnel. In preparation of this plan, the preparers reviewed existing information about biological and cultural resources within the fire perimeter and reviewed fire reports to assess potential impacts of suppression activities. Resource and land management plans were reviewed in addition to pertinent literature, and policy information has been incorporated, though more information is expected to be compiled during the spring assessments.

The individual Rehabilitation treatments specifications, including effectiveness monitoring identified in the assessments, can be found in Part F. A summary of the costs is in Part E. Appendix II contains the National Environmental Policy Act (NEPA) compliance documentation summary.

Fire Background

The Old Dummy Fire, fire number BUW3, was first detected on June 16, 2005 on Native corporation land within the Kanuti NWR boundary. Lightning was the cause, and the fire was officially declared out on Sept. 30, 2005, though smokes were still spotted in early November, 2005. The fire perimeter was last flown on August 27, resulting in a digitized acreage of 231,822 acres; 191,444 acres are in the refuge. The fire initially burned in open muskeg habitat, but eventually entered forested areas, including riparian habitat, and spread into the hills north of the Kanuti River and into the Ray Mountains foothills to the south. It burned around numerous wetlands adjacent to the Kanuti and Kanuti Kilolitna rivers and Nolitna Creek. The perimeter also included areas along the Kanuti Kilolitna River that support potentially sensitive plant communities atypical for the refuge. This area has been scheduled for a

botanical survey in cooperation with botanists from the University of Alaska Fairbanks since 2004, but the work was never completed due to smoke from the 2004 and 2005 fires. Uplands on the refuge's southern boundary, including some of the refuge's scarce tundra habitat, were also burned. The fire threatened the refuge's administrative cabin on Kanuti Lake, requiring that smokejumpers set a backburn to protect it. Smokejumpers also cut saw lines and used tactics such as cold trailing and hotspotting to protect Native allotments north of the Kanuti River. Ground damage from these activities is believed to be minimal. A maximum of eight firefighters worked on the fire at any given time, and the crew was frequently split between two different locations.

2. Chronological summary of fire and fire management organization growth.

The Old Dummy fire was monitored on an almost daily basis, except when smoke and weather precluded monitoring efforts or when resources were needed at higher priority fires.

Issues to be addressed in the Burned Area Rehabilitation Plan

The following issues will be addressed in the Burned Area Rehabilitation Plan:

1. Non-native, invasive plant species
2. Safety hazards on winter trail
3. Fire damage to scientific equipment

Fire Damages and Threats to Human Safety and Natural and Cultural Resources

Information is lacking about the fire's effect on human safety and natural and cultural resources as smoke and inclement weather prevented access to much of the burned area prior to snowfall. However, the fire perimeter includes a segment of a winter snowmobile trail regularly used by area residents and areas previously identified as seasonal cultural sites are within or adjacent to the perimeter (Clark 1996, Jones and Arundale 1997). Of more concern is the possibility that seeds of invasive weeds were inadvertently introduced on tools and equipment used by firefighters during suppression activities. These issues are discussed in more detail in Appendix I, Resource Assessments.

Management Requirements

Kanuti NWR was created in December 1980 with the passage of the Alaska National Interest Lands Conservation Act (ANILCA) (Public Law 96-487). The refuge encompasses 1.65 million acres in northcentral Alaska, straddling the Arctic Circle and occupying a basin formed by the Koyukuk and Kanuti rivers. Habitats consist of boreal forest and muskeg, numerous wetlands, riparian habitat, and limited tundra. The Brooks Range is to the north and the foothills of the Ray Mountains form the southern boundary.

The establishing purposes of the refuge, defined in ANILCA, are: 1) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, white-fronted geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers; 2) to fulfill international treaty obligations with respect to fish and wildlife and their habitats; 3) to provide, in a manner consistent with the purposes set forth in subparagraph (1) and (2), the opportunity for continued subsistence uses by local residents; and 4) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (1), water quality and necessary water quantity within the refuge.

Kanuti NWR does not contain designated Wilderness. No threatened or endangered species are known to occur on the refuge, although two Candidate 2 plants, *Aster yukonensis* and *Thlaspi arcticum*, have been found near the refuge (Murray and Lipkin 1987).

The Kanuti NWR revised Comprehensive Conservation Plan (CCP), Environmental Impact Statement, and Wilderness review was completed in 1987 (USFWS 1987) and is currently under revision. The original CCP does not include management goals and objectives that are specific enough to be used as justification for actions recommended in this plan. Several of the biological objectives in the draft CCP revision concern fire, but they focus on monitoring the ecological effects of naturally concerning fires and determining fire history patterns on the refuge and are therefore not relevant to this plan.

The Kanuti Fire Management Plan (FMP) is currently in draft status. Draft goals within the plan are (Section III.B):

1. Protect human life and settlements within and adjacent to Kanuti NWR from wildland fire;
2. Protect sensitive biological communities, cultural and historic sites, Native allotments, privately owned and legally registered cabins, and refuge administrative facilities on Kanuti NWR from wildland fires to the extent practicable;
3. Restore, perpetuate, and protect native wildlife and plant species on Kanuti NWR by maintaining a diversity of plant communities that would be expected under a natural regime of wildland fire;
4. Maintain natural fire-related ecosystem processes on Kanuti NWR to the maximum extent feasible and initiate studies if the role of fire in these processes is poorly understood;
5. Refuge staff will participate in interagency efforts to plan and implement fire-related monitoring and modeling activities such as those documented in the National Fire Plan or recommended by the Alaska Fire Effects Task Group;
6. Educate children and adults residing in or visiting northern Alaska to recognize the role of fire in the boreal forest and understand the long- and short-term ecological consequences of maintaining or restricting fire in the landscape.

Within these broad goals, several objectives are pertinent to BAER emergency stabilization and rehabilitation activities. Under Goal 2 in the FMP, there is an objective to work with the Regional Archaeologist or a cultural resources specialist to identify and map which cultural and historic sites are at risk of unacceptable damage from wildland fire by 2007 so that suppression efforts can be prioritized appropriately. This objective had not been initiated by the 2005 fire season, and effects of the Old Dummy fire on cultural resources are not known. Only known or suspected cultural resource sites within or adjacent to the Old Dummy fire perimeter are being considered under this stabilization plan. Seasonal camps have been identified within the fire perimeter, and these should be assessed to determine status, remove trees leaning over campsites that may be hazardous to campers, and in order to make recommendations about future management. The refuge staff recognizes that the ability to visit cultural resource sites within the burn may be limited depending on the wishes of area residents. The refuge will respect the concerns of residents in terms of visiting these sites. One known cultural area within the burn perimeter is on a Native corporation inholding within the refuge boundaries.

Activities within this BAER proposal are also supported by national policy. The FWS Biological Integrity, Diversity, and Environmental Health Policy (601 FW3, 2001) directs refuges to “prevent the introduction of invasive species, detect and control populations of invasive species, and provide for restoration of native species and habitat conditions in invaded ecosystems.” Kanuti NWR currently has

no known populations of invasive plants, and will take a proactive role in preventing introduction via seeds introduced on equipment or natural expansion into disturbed areas from existing populations along the Dalton Highway. Any populations identified and treated under the ES plan will need to be monitored to determine treatment effectiveness. In addition, some invasive plants can be difficult to identify in their first growth season. Revisiting key sites would confirm the presence or absence of plants that must be removed.

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PART A - FIRE LOCATION AND BACKGROUND INFORMATION

Fire Name	Old Dummy
Fire Number	BUW3
Agency Unit	Kanuti NWR
Region	7
State	Alaska
County(s)	NA
Ignition Date/Cause	June 16, lightning
Zone	Tanana
Date Fully Contained	September 30, 2005
Jurisdiction	FWS, 191,433.7cres
<i>other jurisdictions</i>	Doyon, 17,093.6 acres
<i>other jurisdictions</i>	BIA, 757.1 acres
<i>other jurisdictions</i>	BLM, 22,527.4 acres
Total Acres	231,821.8
Date Contained	September 30, 2005

PART B - NATURE OF PLAN

Type of Action (check one box below)

<input checked="" type="checkbox"/>	Initial Submission
<input type="checkbox"/>	Amendment to the Initial Submission

PART C - REHABILITATION ASSESSMENT

Rehabilitation Objectives

- Recommend post-fire rehabilitation prescriptions that prevent irreversible loss of natural, historic, and cultural resources.
- Use burn severity maps developed for the Old Dummy to assess fire related impacts to historic sites, and cultural resources.
- Determine if treatment of non-native invasive plants has been effective and confirm presence/absence of these species in areas occupied by fire personnel during suppression efforts or in severely burned sites adjacent to areas that may serve as seed sources for invasive species (e.g., winter trails, allotments, or other areas of human use where equipment/vehicles may serve as a vector for seed dispersal); develop eradication plans as appropriate.
- Replace fisheries telemetry tracking tower if damaged by the fire.

PART D - TEAM ORGANIZATION, MEMBERS, AND RESOURCE ADVISORS

I. Burned Area Emergency Response Team Members: *(List of technical specialists used to develop the plan)*

Position	Team Member (Agency)
Team Leader	Lisa Saperstein (FWS)
Fire Ecologist	Karen Murphy (FWS)
Operations	Mike Spindler (FWS)
Vegetation Specialist	Contract
Wildlife Biologist	Lisa Saperstein (FWS)
GIS Specialist	Lisa Saperstein (FWS)

III. Resource Advisors: *(Note: Resource Advisors are individuals who assisted the burned area emergency response team with the preparation of the plan. See Part H for a full list of agencies and individuals who were consulted or otherwise contributed to the development of the plan.)*

Name	Affiliation
Gene Long	USFWS, Fire Management Program
Randy McKinley	EROS Data Center, USGS
Randi Jandt	Alaska Fire Service, BLM
Randy Brown	Fisheries Biologist, USFWS

PART E - SUMMARY OF ACTIVITIES AND COSTS

The summary of activities and cost table below identifies rehabilitation costs charged or **proposed** for funding from subactivity 9262 funding sources.

REHABILITATION ACTIVITIES COST SUMMARY TABLE – Old Dummy Fire FY06

Spec #	Title	Unit	Unit Cost	# of Units	Work Agent	Cost
1	Plan Development and Assessment					\$ 1,436
2	Fish Telemetry Site replacement	Project	\$8,300	1	FA	\$ 8,300
TOTAL COST						\$ 9,736
Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer						

REHABILITATION ACTIVITIES COST SUMMARY TABLE – Old Dummy Fire FY07

Spec #	Title	Unit	Unit Cost	# of Units	Work Agent	Cost
3	Monitoring of Winter Trail hazard tree removal	Acres	\$723	14	FA & SC	\$10,783
4	Invasive Plant Species Monitoring	Acres	\$0.340	10,000	FA, SC	\$17,326
TOTAL COST						\$28,109
Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer						

PART F - INDIVIDUAL SPECIFICATIONS

TREATMENT/ ACTIVITY NAME	Initial BAER Rehabilitation Planning	PART E SPECIFICATION #	1
NFPORS TREATMENT CATEGORY*	Planning	FISCAL YEAR(S) (list each year):	2006
NFPORS TREATMENT TYPE *		WUI? Y / N	N
IMPACTED COMMUNITIES AT RISK	None	IMPACTED T&E SPECIES	None

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE

Number and Describe Each Task:

A. General Description:

Prepare BAER plan for Rehabilitation of the 2005 Old Dummy Fire on the Kanuti NWR.

Smoke and inclement weather conditions prior to snowfall prevented aerial reconnaissance to assess the fire's full extent and damage potential. The only information available during development of this BAER plan was the perimeter map as of August 27, 2005 and the fire reports from AFS. Known proximity of the fire to Native allotments, a winter trail, cultural sites, and sensitive plant communities have generated concern about effects on subsistence activities and biological diversity on the refuge. Burned areas associated with human visitation (e.g., trails and allotments) or fire suppression activities may be at increased risk for the introduction or spread of non-native, invasive plant species.

This initial Rehabilitation Plan describes the anticipated needs for FY06 and FY07 based on no field data and limited remote sensing data. These costs were accrued in October and November, 2005 in preparation of this plan. The remaining specifications describe additional assessment and treatment actions that are needed. Field assessments will be conducted in these areas after snow-melt in 2006. An addendum will be prepared for this report that provides the additional information and modifies specifications based on the new findings.

B. Location/(Suitable) Sites:

This plan covers the entire Old Dummy Fire within refuge boundaries.

C. Design/Construction Specifications:

- Prepare initial BAER Rehabilitation Plan

D. Purpose of Treatment Specifications:

Determine the extent and nature of impacts to natural resources, physical features, and structures. Use information, as appropriate, to guide activities detailed in Specifications #2-6

E. Treatment Effectiveness Monitoring Proposed:

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
GS-11 Wildlife Biologist/GIS Specialist @ \$40/hour X 10 hours	\$ 400
GS-12 Fire Ecologist @ \$48/hour X 10 hours	\$480
GS-13 Pilot/Manager @ \$57/hour X 8 hours	\$ 456
TOTAL PERSONNEL SERVICE COST	\$1,336
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	\$0
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
Miscellaneous office and GIS supplies @ \$100	\$ 100.00
TOTAL MATERIALS AND SUPPLY COST	\$ 100.00
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL TRAVEL COST	\$0
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL CONTRACT COST	\$0

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY-06	10/11/2005	8/30/2006	F	acres	\$0.01/acre	191,444	\$ 1,436
TOTAL							\$ 1,436

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1.	Estimate obtained from 2-3 independent contractual sources.	
2.	Documented cost figures from similar project work obtained from local agency sources.	
3.	Estimate supported by cost guides from independent sources or other federal agencies	E
4.	Estimates based upon government wage rates and material cost.	P
5.	No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, **E** = Equipment **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

TOTAL COST BY JURSDICTION

JURSDICTION	UNITS TREATED	COST
FWS	191,444 acres	\$1,436
	TOTAL COST	\$1,436

TREATMENT/ACTIVITY NAME	Facility repair and replacement Replacement of Telemetry Tower	PART E SPECIFICATION #	2
NFPORS TREATMENT CATEGORY*	Facilities and Infrastructure	FISCAL YEAR(S) (list each year):	2006
NFPORS TREATMENT TYPE *	Repair recreation/administrative facilities	WUI? Y / N	No
IMPACTED COMMUNITIES AT RISK	None	IMPACTED T&E SPECIES	None

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done): A. General Description: Repair or replace minor facilities (i.e., trails, campgrounds, fish monitoring sites) damaged by the 2005 wildfires. A telemetry tower for tracking radio-implanted fish and recording data was located on the southern bank of the Kanuti River near Ahagatyeit Lake in summer 2005. The mapped perimeter of the Old Dummy fire, as of Aug. 27, 2005, does not indicate that the fire reached the tower; however, the fire was not declared out until September 30, 2005, and smokes were observed in early November. It is therefore uncertain whether the fire damaged the equipment, and it will not be possible to check the site until a ski plane can land on the river.

B. Location

Refuge minor facilities damaged by the 2005 wildfires. Southern bank of Kanuti River, just north of Ahagatyeit Lake.

C. Design/Construction Specifications:

1. Determine the most cost effective treatment method repair, replace, or rehabilitate each fire damaged facility (e.g., force account, contract with native village, etc.).
2. Implement most cost effective treatment method.
3. Document actions taken and additional actions needed.
4. Follow-up on any additional actions no later than 1 year following wildfire containment (requires a plan amendment).

If the tower was damaged by fire, the following parts will need to be replaced:

- station box
- solar panel
- charge controller
- batteries
- antenna
- cables
- receiver

D. Purpose of Treatment Specifications:

Repair or replace minor facilities damaged by the 2005 wildfires. Replace telemetry equipment if it was damaged by the fire. The Fisheries Office uses this equipment for a variety of projects and was not prepared to incur the cost of replacement. No action will be required if the equipment was not damaged.

E. Treatment Effectiveness Monitoring Proposed:

All facilities repaired or replaced will be evaluated to determine if the work performed conforms to planned actions. Monitoring results are reported annually and summarized in NFPORS.

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
TOTAL PERSONNEL SERVICE COST	\$0
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
Station box	\$ 240
Solar panel	\$ 450
Charge controller	\$ 80
Batteries (2 @ 350 each)	\$ 700
Antenna	\$ 250
Cables	\$ 80
Receiver	\$6,500
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	\$8,300
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL MATERIALS AND SUPPLY COST	\$0
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL TRAVEL COST	\$0
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL CONTRACT COST	\$0

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY-06	12/10/2005	06/30/2006	F	Tower	\$8,300	1	\$8,300
TOTAL							\$8,300

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1.	Estimate obtained from 2-3 independent contractual sources.	
2.	Documented cost figures from similar project work obtained from local agency sources.	E
3.	Estimate supported by cost guides from independent sources or other federal agencies	
4.	Estimates based upon government wage rates and material cost.	
5.	No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

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TOTAL COST BY JURSDICTION

JURISDICTION	UNITS TREATED	COST
FWS	10	\$8,300
	TOTAL COST	\$8,300

Note: No replacement, or only partial replacement, may be required

TREATMENT/ACTIVITY NAME	Monitoring of Winter Trail hazard tree removal	PART E SPECIFICATION #	3
NFPORS TREATMENT CATEGORY*	Trails	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Monitoring	WUI? Y / N	No
IMPACTED COMMUNITIES AT RISK	Allakaket and Alatna	IMPACTED T&E SPECIES	None

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

A. General Description:
 Re-assess the winter trail route during the winter of 2006-2007 to determine if any additional trees need to be removed to allow safe public access to the trail. The aerial assessment will be conducted in a FWS aircraft, along with one village resident familiar with the route and one other refuge staff member. Ground assessment will be done if landing sites are available.

B. Location/(Suitable) Sites:
 According to the USGS topographical map, approximately 11 miles of a winter trail was burned by the Old Dummy fire south of Kanuti Chalatna Creek near Kaldolyeit Lake and Kadakina Creek. The trail crosses wetland areas, riparian habitat, and forested uplands within the fire perimeter.

C. Design/Construction Specifications:
 The refuge will conduct an aerial assessment in a FWS aircraft, along with one village resident familiar with the route and one other refuge staff member. If additional trees have fallen and need to be cleared, then the following specifications will be followed:

1. Clear original width of the trail from downed and leaning trees, approximately 6 – 10 feet wide, during late winter 2006-2007.
2. Install reflective trail markers as needed through burned areas to prevent people from straying off the trail.
3. Recommend rehabilitation actions if hazards cannot be readily removed.

D. Purpose of Treatment Specifications:
 Blocked trails and debris on trails can represent significant safety risks to travelers that rely on trails for winter travel to allotments and seasonal hunting areas. Burning can also remove familiar landmarks and destroy existing trail delineation that can result in travelers losing the trail in dark, cold conditions, a potentially life-threatening situation.

This monitoring is necessary to determine the effectiveness of hazard tree removal under the ES plan and to remove any additional trees that may have created a hazard over the following year.

E. Treatment Effectiveness Monitoring Proposed: A report of monitoring results will be produced by refuge staff.

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
GS-13/5 Pilot/Manager @ \$57/hour X 22 hours	\$ 1,254
GS-12 Deputy Manager @\$48/hr X 40 hours	\$1,920
TOTAL LABOR, MATERIALS, AND OTHER COST	\$3,174
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
Cessna 185@\$148/hour X 18 hours	\$2,664
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	\$2,664
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
Aviation fuel: 250 gallons @ \$5.00/gallon	\$1,250
TOTAL MATERIALS AND SUPPLY COST	\$1,250
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST / ITEM
Roundtrip (72 miles) @ \$35 x 7 x 4 snowmobiles	\$ 980
Roundtrip travel to Allakaket @ 290 x 1	\$ 290
Per diem @ \$135/day X 1	\$ 135
TOTAL TRAVEL COST	\$1,405
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST / ITEM
Labor- reconnaissance \$100/day X 1 people X 1 day	\$ 100
Crew Boss AD4 @21/hr X 40 hours	\$ 840
Trail Crew AD1 @ \$15/hr X 30 hrs X 3	\$1,350
TOTAL CONTRACT COST	\$2,290

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY-07	10/14/2006	08/30/2007	F & S	Acres	\$723	14 acres	\$10,783
TOTAL							\$10,783

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1.	Estimate obtained from 2-3 independent contractual sources.	
2.	Documented cost figures from similar project work obtained from local agency sources.	C
3.	Estimate supported by cost guides from independent sources or other federal agencies	E, T
4.	Estimates based upon government wage rates and material cost.	P,
5.	No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, **E** = Equipment **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

A map of the winter trail depicted on the USGS Bettles 1:250,000 quadrangle, with an overlay of the fire perimeter, can be found in Figure 5.

TOTAL COST BY JURSDICTION

JURISDICTION	UNITS TREATED	COST
FWS	14 acres	\$10,783
	TOTAL COST	\$10,783

Note: if no additional treatment work is required then the total cost for this would be \$3,942.00

TREATMENT/ACTIVITY NAME	Invasive Species Control	PART E SPECIFICATION #	4
NFPORS TREATMENT CATEGORY*	Invasive Species	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Hand Treatment	WUI? Y / N	No
IMPACTED COMMUNITIES AT RISK	None	IMPACTED T&E SPECIES	None

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

A. General Description:

Implement emergency stabilization measures to control and eradicate invasive species where ground wildfire suppression actions were taken and in the vicinity of public use and access areas.

Field investigations will be conducted within the Old Dummy fire to determine if exotic, invasive plant species were introduced into burned areas due to proximity to seed sources associated with human-use areas (e.g., trails, allotments) or areas occupied by fire suppression personnel. Hand-pulling of exotics will occur whenever these species are found unless the species do not respond to hand-pulling or the population extent is too large.

B. Location/(Suitable) Sites:

1. Ground wildfire suppression area and public use and access areas in the 2005 burned areas. Field sites for invasive species inventory will focus on burned areas near the following locations: Kanuti Lake administrative cabin
2. Winter trail
3. Allotment perimeters
4. Sites where smokejumpers conducted suppression activities

C. Design/Construction Specifications:

Work will be contracted out to the Alaska Natural Heritage Program (ANHP) or another contract botanist, but a refuge biologist will accompany the botanist in the field.

1. Identify likely invasive species issues and cost effective eradication treatments (chemical, cultural, biological).
2. Acquire resources needed to address the likely invasive species issues and anticipated control actions (e.g., pesticide use permits, FWS approved herbicides, mechanical control equipment, etc.).
3. Plan to visit each identified site at the most ecologically appropriate time (i.e., when the anticipated invasive species is easiest to detect and control).
4. Travel to, inspect and implement the appropriate invasive species control treatments at least once in FY2006.
5. Document control actions taken and additional control actions needed.
6. Follow-up on any additional actions no later than 1 year following wildfire containment.
7. For infestations involving a limited number of individuals, and where the plant ecology is conducive, non-native species will be pulled up and destroyed.
8. A report will be prepared for all sites searched, including recommendations for future action, if any. Findings will be incorporated into the Alaska Exotic Plant Information Clearinghouse database.

D. Purpose of Treatment Specifications:

Control and eradicate invasive species within the burned area within the initial year after wildfire containment.

E. Treatment Effectiveness Monitoring Proposed:

All treated area will be monitored (at least on the ground visits at the most ecologically appropriate time) through FY2009 to ensure that treatments are still in place and effective or additional burned area rehabilitation

invasive species control treatments are needed. Monitoring results are reported annually and summarized in NFPORS. The final report will include recommendations for future monitoring or other actions. All sites where exotic species were located will be revisited in FY07 under the rehabilitation plan.

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
GS-11 Wildlife Biologist @\$40/hour X 24 hours	\$960
GS-12 Deputy Manager@\$57/hr X 8 hours	\$456
TOTAL PERSONNEL SERVICE COST	\$1,416
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
Avgas@\$5.00/hr X 240 gallons (15 gal/hr for R44 X 16 hours)	\$1,200
Field camp food @ \$30/person/day x 3 people x 3 days	\$ 270
TOTAL MATERIALS AND SUPPLY COST	\$1,470
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST / ITEM
Commercial transport to Bettles@\$290.00 X 2 personnel	\$580
Excess baggage/freight	\$100
TOTAL TRAVEL COST	\$680
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST / ITEM
ANHP contract@\$40/hr X60 hrs X 35.5%+ \$800 travel and per diem	\$4,160
R-44 Helicopter (Charter)@\$600/hr X 16 hours	\$9,600
TOTAL CONTRACT COST	\$13,760

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY-07	06/01/2007	09/30/2007	F & S	acres	\$0.34	10,000	\$17,326
TOTAL							\$17,326

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1.	Estimate obtained from 2-3 independent contractual sources.	
2.	Documented cost figures from similar project work obtained from local agency sources.	C, M, E
3.	Estimate supported by cost guides from independent sources or other federal agencies	M, T
4.	Estimates based upon government wage rates and material cost.	P
5.	No cost estimate required - cost charged to Fire Suppression Account	C

P = Personnel Services, **E** = Equipment **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

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TOTAL COST BY JURSDICTION

JURSDICTION	UNITS TREATED	COST
FWS	10,000	\$17,326
	TOTAL COST	\$17,236

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Burned Area Rehabilitation Plan

Appendix I Resource Assessments

- A Vegetation Assessment**
- B Winter Trail Assessment**

A. VEGETATION RESOURCE ASSESSMENT

I. OBJECTIVES

- Evaluate and assess fire impacts on vegetation resources and identify values at risk associated with vegetation losses.
- Evaluate potential for invasive plant species introduction or encroachment into native plant communities within, and adjacent to, fire areas and along travel ways.

II. ISSUES

- An area recommended for increased protection in the refuge's draft fire management plan due to high lichen cover and use as caribou winter range was partially burned by the Old Dummy fire.
- Burned areas along the Kanuti Kilolitna River and associated uplands had been identified as possibly supporting unusual, potentially sensitive plant communities. Burned uplands may be at risk for erosion.
- Non-native noxious and invasive plant species may be inadvertently introduced on firefighting equipment or have a greater chance of proliferation in burned areas adjacent to existing seed sources in areas of human use.

III. Background

A. General Vegetation Information

The ecosystems of interior Alaska are considered to be fire-adapted. Stand-replacing fires occur on a regular basis, and boreal forests are characterized by a mosaic of different aged landscapes that are maintained by fire (BAER Team 2004). Kanuti NWR has had an active fire history since 1950 (Fig. 1).

About 70% of the refuge's landscape lies within burns that occurred from 1950 – 2005, but the actual area burned within the perimeters, and severity of burns, are only known for the most recent fires. Fires in 2004 and 2005 occurred during the largest and third largest fire years, respectively, for the state. Both years were associated with unusually high temperatures and low precipitation that resulted in a longer than average fire season and record acreage burned for the 60 year period in which fire records have been maintained.

Drought conditions in 2004 resulted in extremely low fuel moistures causing most fuel types to burn, including those that have lower burning potential such as deciduous forests, shrub lands and recent burns (BAER Team 2004). Throughout the state, burn severity was high due to the late season and low fuel moistures although most fires still exhibited a mosaic of unburned, low and moderate burn severities (BAER Team 2004). Severity data for Kanuti NWR are currently being analyzed. Conditions in 2005 were similar to 2004 in interior Alaska, with dry conditions and a fire season that extended into September.

Figure 1. Fire history on Kanuti NWR, 1950 – 2005. Data from Alaska Fire Service.

Because fire is a natural component of the boreal forest ecosystem, most of Kanuti NWR is in a limited suppression zone, meaning that fires are typically allowed to burn unless they are threatening life or property. Suppression actions were initiated on the Old Dummy fire when it threatened the refuge's administrative cabin on Kanuti Lake and several allotments to the north of the Kanuti River. Smokejumpers were deployed to the area; a backburn was set to protect the cabin; they also used saw lines, cold trailing, and hotspotting to protect the allotments.

Preliminary analysis indicated that the Old Dummy fire burned a variety of vegetation types (Fig. 2). About 115,806 acres were forested, including areas outside of the refuge boundary, the majority being woodland forest with 10 – 24% canopy cover of black spruce (*Picea mariana*) (Table 2). Over 22,451 acres of lichen habitat burned; this habitat is used by caribou in winter. The fire burned over approximately 58,665 acres that last burned in 1991 (Fig. 2).

Although naturally occurring fires are typically allowed to burn, the refuge is interested in the ecological effects of fire on vegetation and wildlife. Two of the refuge's purposes, as mandated in its establishing legislation, are to conserve fish and wildlife populations and habitats in their natural diversity and to provide, when consistent with other purposes, opportunities for subsistence activities by local residents. This does not mean that the refuge will strive to maintain current habitat diversity should changes in climate result in regional shifts in the composition of plant communities. However, the refuge does have an obligation to monitor changes in habitat, predict future changes and their effects when possible, and, in some cases, use management actions to influence these changes. Several specifications in this plan, discussed below, address refuge concerns about fire effects on vegetation.

Post-fire vegetation is largely determined by burn severity, particularly the amount of organic mat consumed (Viereck 1973; Viereck and Schandelmeier 1980). Burn severity determines whether post-fire recovery is driven largely by re-sprouting or by new seedlings. Paper birch (*Betula papyrifera*), aspen (*Populus tremuloides*), and many shrubs will re-sprout following a light to moderate fire, but recolonization of a severe burn is largely dependent on seeds (BAER Team 2004). Plants deeply rooted in mineral soil that can escape burning, such as horsetails (*Equisetum* spp.) can also re-sprout following a high severity burn (BAER Team 2004). Exposed mineral soil provides a seed bed for air-borne seeds, such as fireweed or willow, and spores of mosses and liverworts (BAER Team 2004). Long-term soil and hydrologic changes can also occur following a severe burn, particularly in permafrost areas, further affecting post-fire habitat.

The BARC maps and CBI fieldwork proposed for the Old Dummy Fire will provide refuge staff with a picture of differing burn severities within the fire perimeter, ranging from unburned to severely burned habitat. In addition to their usefulness in identifying potential "problem areas" – usually severely burned sites at higher risk for invasive plant establishment and erosion – the maps will enable some prediction of future habitat condition and potential use by wildlife. Post-fire successional stages remain poorly understood in Alaska, and the maps will provide a baseline against which to assess future vegetation patterns and wildlife use. Many post-fire studies involving different-aged burns, or even different habitats within a single burn, suffer from a lack of knowledge about the pre-fire vegetation and fire severity that formed the foundation for the observed characteristics.

A preliminary burn severity map is displayed in Figure 3. Post-fire satellite imagery used to develop the map was obtained on Aug. 12, two weeks before the fire was declared out. Therefore, the map does not include all burned areas, and a complete map will not be available before summer 2006. The preliminary map will be used for planning stabilization activities, and will be roughly checked for accuracy from the air during the spring assessment. A ground-based accuracy assessment will be conducted later in summer 2006. The preliminary map suggests that few areas sustained a severe burn, but this initial classification cannot be evaluated until spring 2006.

Figure 2. Mosaic of pre-fire landcover classes, based on 1999 Landsat 7 imagery, within the Old Dummy fire. The fire re-burned a 1991 burn. Landcover data from BLM et al. 2002.

Table 2. Landcover classes and acreage within the Old Dummy fire perimeter. Landcover classes are based on 1999 Landsat 7 imagery. Some vegetation within a 1991 fire scar could be assigned to a landcover class (e.g., “fire scar-tall shrub”); portions that could not be classified were called “Fire Scar” (BLM et al. 2002).

Landcover Class	Acres
Closed Needleleaf	259.31
Open Needleleaf	49779.12
Open Needleleaf - Lichen	6518.18
Woodland Needleleaf	16826.85
Woodland Ndl. - Lichen	15127.75
Woodland Ndl. - Moss	356.28
Closed Deciduous	5977.53
Open Deciduous	987.66
Closed Mixed Ndl./Decid.	6971.86
Open Mixed Ndl./Decid.	7812.29
Tall Shrub	7944.84
Low Shrub	21624.80
Low Shrub - Lichen	30.47
Low Shrub - Tussock Tundra	12931.38
Dwarf Shrub	2704.99
Wet Graminoid	2128.10
Lichen	805.74
Moss	308.24
Mesic/Dry Graminoid	369.84
Tussock Tundra	678.53
Tussock Tundra Lichen	670.52
Aquatic Bed	2782.61
Emergent	25.58
Clear Water	8948.51
Snow/Ice	0.89
Sparse Vegetation	1268.76
Rock/Gravel	1115.98
Terrain Shadow	36.03
Fire Scar	15056.81
Smoke	2.89
fire scar - open needleleaf	4271.32
fire scar - woodland needleleaf	918.05
fire scar - tall shrub	9901.69
fire scar - low shrub	10805.06
fire scar - low shrub tussock tundra	16076.71
fire scar - tussock tundra	1634.83
Total	233659.97

Figure 3. Preliminary burn severity map of the Old Dummy fire. Perimeter boundaries shown on the map are from the Alaska Fire Service. Post-fire imagery for the severity map was acquired on August 12, 2005, when the fire was still burning.

B. Noxious and Invasive Plant Species

The incidence of noxious and invasive plant species has increased in Alaska in recent years, particularly along road corridors. White sweetclover (*Melilotus officianalis*) is of particular concern to refuge staff as it is expanding north along the Dalton Highway, and numerous streams cross the highway and flow into the refuge. BLM personnel have pulled out sweetclover growing at the Kanuti River crossing, and the plant has reportedly also spread further north to the Jim River crossing. Invasive plant inventories were a major component of the 2004 BAER activities (see pages 79 – 86 of the 2004 plan), with specification costs exceeding \$1.3 million.

An invasive plant survey was conducted in 2004 burns on Kanuti NWR. Botanists with the Alaska Natural Heritage Program inventoried the boundaries of nine allotments that were burned and approximately 50 miles of the South Fork Koyukuk River within the burn (Carlson and Cortes-Burns 2005). No exotic species were found, but the botanists warn that riverbank sites could potentially harbor exotics if the river corridors serve as dispersal vectors. However, exotic plants were detected in 2004 burns on other refuges, generally associated with areas of human use such as allotments and winter trails (Carlson and Cortes-Burns 2005).

Under the Emergency Stabilization Plan, initial surveys for exotic species in the Old Dummy burn will occur in areas of increased potential for infestation, namely areas of medium to high burn severity adjacent to the winter trail, allotments, rivers, Kanuti Lake, and areas where smokejumpers performed suppression activities. Additional work proposed under this plan will concentrate on areas where invasive plants were detected during stabilization activities or at sites deemed to be at high risk for infestation even if plants were not detected in 2006.

B. WINTER TRAIL ASSESSMENT

I. Objectives

- Assess damage to winter trail
- Remove dead and leaning trees that pose a human safety hazard (FY06 and FY06)

II. Issues

- Actual route of trail is uncertain; route on map likely does not reflect current route
- The winter trail is used to access allotments and seasonal hunting/trapping areas
- Fallen trees blocking the trail, and trees likely to fall in the near future, can pose a safety risk to travelers
- Fire may have removed existing trail markers or trees and shrubs that delineate the route, increasing the likelihood that travelers could get lost during cold, dark conditions

III. Observations

Approximately 11 miles of a winter trail that runs between Allakaket and the Kanuti River is within the Old Dummy fire perimeter (Fig. 5). The trail, locally known as the Tsaalaaatne Winter Trail (Jones and Arundale 1997), provides access to several allotments, including ones that were protected by smokejumpers, and seasonal hunting and trapping areas. The trail is delineated on the USGS 1:250,000 scale Bettles map, originally developed in 1956 with limited revision in 1984, but the map may not reflect the current route. A refuge field crew was working near the trail in summer 2005, prior to burning, and noted that its location differed slightly from what is shown on the map. Therefore, the actual miles of trail that burned will not be known until the trail is surveyed in late winter 2006.

The field crew noted that the trail was well delineated and showed signs of recent use in the form of refuse and limbing/brushing along the trail. Some of the observed areas were in woodland black spruce with sparse trees; removal of trees by fire could make it difficult to safely follow the trail. The trail also ran up steep lake banks that could be dangerous to navigate if fallen trees block the way.

The trail also runs through wooded hills north of the Kanuti River. Depending of burn severity, this area may have experienced considerable deadfall, and dead trees adjacent to the trail may pose a threat to travelers.

Work proposed for FY06 will remove safety hazards by clearing woody debris from the trail and removing dead leaning trees that are immediately adjacent to the trail. The trail may need to be rerouted in some areas. Further rehabilitation work may be required in FY07 to remove additional deadfall.

Figure 5. Approximate location of winter trail within the Old Dummy fire perimeter.

APPENDIX II - ENVIRONMENTAL COMPLIANCE

Federal, State, and Private Lands Environmental Compliance Responsibilities

All projects proposed in the Kanuti National Wildlife Refuge 2005 Fires Burned Area Emergency Response Plan that are prescribed, funded, or implemented by Federal agencies on Federal, State, or private lands are subject to compliance with the National Environmental Policy Act (NEPA) in accordance with the guidelines provided by the Council on Environmental Quality (CEQ) Regulations (40 CFR 1500-1508) and the Department of the Interior. This Appendix documents the burned area emergency response team considerations of NEPA compliance requirements for prescribed emergency stabilization and monitoring actions described in this plan for all jurisdictions affected by the Kanuti National Wildlife Refuge 2005 Fires.

Related Plans and Cumulative Impact Analysis

Kanuti National Wildlife Refuge 2005 Fires Burned Area Emergency Response Plan *January 2006*. The Kanuti National Wildlife Refuge 2005 Fires Burned Area Emergency Response Plan was reviewed and it was determined that actions proposed in the Kanuti National Wildlife Refuge 2005 Fires Burned Area Emergency Response Plan within the boundary of the Old Dummy Fire are consistent with the management objectives established in the Comprehensive Conservation Plan. The Comprehensive Conservation Plan NEPA compliance process specifically addresses:

- Fire management and suppression activities within the refuge;
- Maintaining water quality;
- Conserving fish and wildlife populations and habitats in their natural diversities;
- Provide for continued subsistence uses by local residents.

The Kanuti National Wildlife Refuge 2005 Fires Burned Area Emergency Response Plan was reviewed and it was determined that actions proposed in the Kanuti National Wildlife Refuge 2005 Fires Burned Area Emergency Response Plan within the boundary of the Old Dummy Fire are consistent with the management objectives established in the Kanuti National Wildlife Refuge DRAFT Fire Management Plan. The fire management plan specifically addresses:

- Protection of sensitive biological communities, cultural and historic sites, Native allotments, privately owned and legally registered cabins, and refuge administrative facilities on Kanuti NWR from wildland fires to the extent practicable;
- Restoration, perpetuation and protection of native wildlife and plant species on Kanuti NWR by maintaining a diversity of plant communities that would be expected under a natural regime of wildland fire;
- Maintenance of natural fire-related ecosystem processes on Kanuti NWR to the maximum extent feasible and initiate studies if the role of fire in these processes is poorly understood;

Cumulative Impact Analysis

Cumulative effects are the environmental impacts resulting from the incremental impacts of a proposed action when added to other past, present, and reasonably foreseeable future actions, both Federal and non-Federal. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. The emergency rehabilitation treatments for areas affected by the Kanuti National Wildlife Refuge 2005 Fires, as proposed in the Kanuti National Wildlife Refuge 2005

Fires Burned Area Emergency Response Plan, do not result in an intensity of impact (i.e. major ground disturbance, etc.) that would cumulatively constitute a significant impact on the quality of the environment. The treatments are consistent with the above jurisdictional management plans and associated environmental compliance documents and categorical exclusions listed below.

Applicable and Relevant Categorical Exclusions

The individual actions proposed in this plan for the Kanuti National Wildlife Refuge 2005 Fires are Categorically Excluded from further environmental analysis as provided for in section 516 DM 2, Appendix 2 of the Departmental Manual. All applicable and relevant Department and Agency Categorical Exclusions are listed below. Categorical Exclusion decisions were made with consideration given to the results of required emergency consultations completed by the Burned area emergency response team and documented below.

Applicable Department Categorical Exclusions

- The operation, maintenance, and management of existing facilities and routine recurring management activities and improvements, including renovations and replacements which result in no or only minor changes in the use, and have no or negligible **environmental** effects on-site or in the vicinity of the site.
- Fire management activities, including prevention and restoration measures, when conducted in accordance with **departmental** and Service procedures.
- Consultation and technical assistance activities directly related to the conservation of fish and wildlife resources.

U.S. FISH AND WILDLIFE SERVICE, REGION 7 STATEMENT OF COMPLIANCE

This section documents consideration given to the requirements of specific environmental laws in the development of the Kanuti National Wildlife Refuge 2005 Fires Burned Area Emergency Response Plan. Specific consultations initiated or completed during development and implementation of this plan are also documented. The following executive orders and legislative acts have been reviewed as they apply to the Kanuti National Wildlife Refuge 2005 Fires Burned Area Emergency Response Plan:

Project Name: Burned Area Emergency Rehabilitation Plan, Kanuti National Wildlife Refuge.

Location: Old Dummy fire, southcentral portion of Kanuti National Wildlife Refuge

Description: The U. S. Fish and Wildlife Service proposes to conduct rehabilitation activities within the perimeter of the Old Dummy fire on refuge lands. These activities include assessment of burn severity and fire effects on critical wildlife habitat, detection of introduced noxious and invasive non-native plants, and assessment of fire damage to cultural resources.

National Environmental Policy Act: The Service has determined that implementation of the specifications of the plan for the proposed project qualifies as a categorical exclusion under 516 DM 6, appendix 1, C (4), to the National Environmental Policy Act of 1969 (see attached Qualification for Categorical Exclusion).

Endangered Species Act: The proposed action will not affect listed, proposed, or candidate species or adversely modify critical habitat.

Coastal Zone Management Act, Section 307: The Alaska Coastal Management Program (ACMP) has concurred with National Weather Service's negative determination, and that a ACMP review is not required for this project.

Telecommunications Act of 1996, Section 704: Not applicable

Coastal Barrier Resources Act, Section 6: Not applicable.

Subsistence Evaluation and Finding, Section 810 - Alaska Lands Act: Subsistence uses of the area will not be impacted by the proposed action. Subsistence user access and the availability of subsistence resources will not be affected by the proposed action and the competition for resources will remain unchanged.

National Historic Preservation Act, Section 106: The Service's Regional Archaeologist has determined that this action will have no effect on historic properties following regulations at 36 CFR 800.5(b).

Executive Order 11988 - Floodplain Management: Not applicable

Executive Order 11990 - Protection of Wetlands: No wetlands areas will be affected by the proposed project.

Executive Order 12372 - Inter-governmental Review of Federal Programs: Inter-governmental review was accomplished during formal review by the State of Alaska through the Alaska Coastal Management Program.

Refuge Compatibility Determination: This use has been determined to be compatible with purposes for which the Kanuti National Wildlife Refuge was established (see attached compatibility determination).

Public Participation: Due to the lack of potential adverse effects, and lack of controversy surrounding the proposed project, public participation activity was limited to that associated with the refuge compatibility determination, including posting a public notice and draft compatibility determination on the Service's compatibility web site, and at the refuge headquarters.

Prepared by: _____ Date: _____
Wildlife Biologist

Reviewed by: _____ Date: _____
Regional Fire Ecologist

Approved by: _____ Date: _____
Refuge Manager

NEPA Checklist: If any of the following exception applies, the Burned Area Emergency Response Plan cannot be Categorically Excluded and an Environmental Assessment (EA) is required.

(Yes) (No)

- (X) Adversely affect Public Health and Safety
- (X) Adversely affect historic or cultural resources, wilderness, wild and scenic rivers aquifers, prime farmlands, wetlands, floodplains, ecologically critical areas, or Natural Landmarks.
- (X) Have highly controversial environmental effects.
- (X) Have highly uncertain environmental effects or involve unique or unknown environmental risks.
- (X) Establish a precedent resulting in significant environmental effects.
- (X) Relates to other actions with individually insignificant but cumulatively significant environmental effects.
- (X) Adversely effects properties listed or eligible for listing in the National Register of Historic Places
- (X) Adversely affect a species listed or proposed to be listed as Threatened or Endangered.
- (X) Threaten to violate any laws or requirements imposed for the "protection of the environment" such as Executive Order 11988 (Floodplain Management) or Executive Order 11990 (Protection of Wetlands).

National Historic Preservation Act

Ground Disturbance:

- None
- Ground disturbance did occur and an archeologist survey, required under section 110 of the NHPA will be prepared. A report will be prepared under contract as specified by the Burned Area Emergency Response Plan.

A NHPA Clearance Form:

- Is required because the project may have affected a site that is eligible or on the national register. The clearance form is attached. SHPO has been consulted under Section 106 (see Cultural Resource Assessment, Appendix I).
- Is not required because the Burned Area Emergency Response Plan has no potential to affect cultural resources (initial of cultural resource specialist).

Other Requirements

(Yes) (No)

- (X) Does the Burned Area Emergency Response Plan have potential to affect any Native American uses? If so, consultation with affiliated tribes is needed.
- (X) Are any toxic chemicals, including pesticides or treated wood, proposed for use? If so, local agency integrated pest management specialists must be consulted.

PART H - CONSULTATIONS

U.S. Fish and Wildlife Service

Karen Murphy, Regional Fire Ecologist

Gene Long, Regional Fire Management Coordinator

Bureau of Land Management

Randi Jandt, Fire Ecologist