

**Innoko National Wildlife Refuge  
2005 Fires  
BURNED AREA REHABILITATION PLAN**

**UNIT:** Innoko National Wildlife Refuge

**LOCATION:** McGrath, Alaska

**DATE:** 1 December 2005

**PREPARED BY:** Steven Kovach, Wildlife Biologist, Innoko NWR  
Karen Murphy, Fire Ecologist, Region 7

Submitted By:  Date: 1 December 2005  
*Wildlife Biologist, Innoko National Wildlife Refuge*

**EXECUTIVE SUMMARY**

## **Introduction**

This Burned Area Rehabilitation Plan has been prepared in accordance with Department of the Interior and US Fish and Wildlife Service policy. This plan provides rehabilitation recommendations for all lands burned within the 2005 fire perimeters within and adjacent to the Innoko National Wildlife Refuge (Innoko NWR) and downstream impact areas including: public lands administered by the US Fish and Wildlife Service and other jurisdictions if necessary. The primary objectives of the Innoko NWR Fire Burned Area Rehabilitation Plan are:

- Prescribe cost effective post-fire stabilization measures necessary to protect human life, property, and critical cultural and natural resources.
- Evaluate wildfire effects on plant communities and natural regeneration processes so refuge wildlife management actions can be taken which incorporate anticipated recovery periods.

This plan addresses rehabilitation assessments and treatment actions. The treatments are only very briefly outlined as staff have been unable to assess the effects of each fire, or their actual extent due to dense smoke and adverse weather conditions making aerial work unsafe; additionally, aircraft availability impacts staff's ability to access the refuge prior to the first snowfall of the season. These conditions are resulting in delaying full field assessments until spring/summer 2006. Preliminary extent of each fire presented in this plan is based on data obtained from Alaska Fire Service.

Preliminary assessments of fire impacts were based on: a 1km resolution GINA satellite image from 1 September 2005 while most fires were still active; 1980 and 1981 color infrared (CIR) photographs (0.5m ground resolution); land cover maps of the refuge (1986 and 1996; 30m ground resolution); moose census and nesting waterfowl data; moose browse study site locations and data; historic sites and trail location GIS coverages; and consultations with research biologists, fishery biologists, hydrologists, and contaminants specialists.

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. Appendix III contains relevant maps.

## **Fire Background**

The intent was to monitor all fires on a weekly basis. However, extreme smoke and low clouds prevented normal monitoring. Monitoring happened sporadically and incompletely. All fire sizes reported below are rough estimates due to smoke and weather conditions. All fires are believed to have been ignited by lightning strikes. Acreage estimates were provided by the Alaska Fire Service; these will be compared against data derived from LANDSAT imagery taken 2 September 2005. Several of the fires burned through September, so final acreage estimates will not be available until next summer when new LANDSAT imagery can be obtained after snowmelt.

One fire (Dishkakat) began in May 2005, three fires (Hammer Creek #1, Hammer Creek #2, and Camp Creek) began in June 2005, four fires (Papa Willie Creek, Menotl East, Little Mud River #1, and Tlati

Hills) began in July 2005, and three fires (Hammer North, Chick Mountain, and Yetna) began in August 2005. Based on Alaska Fire Service records: the Papa Willie Creek and Menotl East fires merged; the Little Mud River #1 and the Tlati Hills fires merged; and the Cache Creek fire merged with the East Fork Yuki fire. Preliminary sizes of these fires place them between 10 and 121,000 acres. An estimated 6% of the Innoko NWR was burned by these fires.

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

No damage was caused by suppression activities as the only activity was occasional aerial monitoring.

Human safety threats are unknown at this time but could include hazard trees adjacent to seasonal use trails and down trees obstructing seasonal use trails. Safety concerns were addressed in the Emergency Stabilization Plan (ES Plan); however, follow-up work that may be necessary in FY07 or FY08 is described in this plan.

Damage caused to natural resources are not fully known at this time, but potentially include impacts to critical winter moose habitat, furbearer habitat, waterfowl nesting habitat, and salmon spawning habitat. Additionally, an unknown number of bald eagle and osprey nest trees are believed to have been lost.

Impacts to cultural resources are unknown at this time, but may include impacts to sections of the historic Iditarod Trail. Actions to maintain the historic Iditarod trail may be needed for the safety of the public and to fulfill our management responsibilities.

Individual rehabilitation treatments have not been formulated at this time due to our inability to do on-ground investigations, as outlined above. Similarly, individual resource burned area assessments have not been prepared as well; preliminary information on water quality and fish habitat impacts are provided.

### **Innoko National Wildlife Refuge Management Requirements**

Innoko NWR was created in December 1980 with the passage of the Alaska National Interest Lands Conservation Act (Public Law 96-487). Innoko NWR encompasses 3.8 million acres in western Alaska. Habitats are typical of the transition between boreal forests and tundra. The Yukon River forms the western boundary. The Innoko River is the primary water course through the central portion of the refuge; major tributaries to the Innoko River include the Iditarod River, Dishna River, Hather Creek, and Mud River. Major purposes of the refuge include: 1) the conservation of “fish and wildlife populations and habitats in their natural diversity including but not limited to, waterfowl, ... other migratory birds, black bear, moose, furbearers, ... and salmon.”; 2) fulfill international treaty obligations with respect to fish and wildlife and their habitats; 3) provide opportunities for continued subsistence uses by local residents; and 4) ensure water quality and quantity within the refuge. The Innoko Wilderness Area encompasses approximately 1.24 million acres in the south-central portion of the refuge. The refuge has seven Gold Rush era sites within its boundaries, and another two sites just outside its boundaries. Several sections of the historic Iditarod Trail are also located on the refuge.

No threatened or endangered species are known to occur on the Innoko NWR.

The Innoko NWR Comprehensive Conservation Plan (CCP) was finalized and approved by the Regional

Director in October 1987. Management concerns specifically identified in the CCP include maintaining adequate information on the status of fish and wildlife populations and their habitats (CCP, page 16). Habitat quality has a direct impact on population responses, which in turn impact the refuges' ability to fulfill international treaty obligations (CCP, pages 4, 16). Information on wildlife populations and habitat interactions was also identified as a management concern (CCP, page 17). Preliminary information indicates that habitat recovery from fire may be prolonged compared to eastern interior Alaska. Additionally, preservation of the Iditarod Trail, designated by Congress as a National Historic Trail under the National Trails System Act, is an important stewardship task of the refuge (CCP, page 32).

The Innoko NWR Fire Management Plan (FMP) was rewritten and approved in October 2005. Page 67 of the FMP, under the Emergency Stabilization and Rehabilitation section states "To determine ... if stabilization efforts are required to prevent the further degradation of natural resources." It goes on to state, "To determine what actions of a non-emergency nature are required to rehabilitate a resource whether man-made or natural." The FMP recognizes the unique nature of each fire and recommends that emergency stabilization and rehabilitation "monitoring elements should be determined by incident specific attributes". On page 69 of the FMP, both "post wildland fire monitoring" and "fire research and monitoring" activities are identified as needed on Innoko NWR.

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## **PART A - FIRE LOCATION AND BACKGROUND INFORMATION**

The Papa Willie Creek Fire (Fire # B13V) was first discovered on 26 July 2005. This fire grew and overtook the Menoti East Fire (Fire #B13Y) on or before 6 August 2005. As of September 30<sup>th</sup>, the Papa Willie Creek fire is estimated at 121,600 acres and is believed to have burned critical winter moose, furbearer, and waterfowl nesting habitats.

The Chick Mountain Fire (Fire #B2VK) was first discovered on 1 August 2005. This fire is estimated to be over 83,200 acres. A wide variety of habitats were impacted, including waterfowl nesting habitat, furbearer habitat, and important moose winter habitat along the Iditarod River. This fire appears to be wholly contained within the Innoko Wilderness Area. This fire is near, but is believe not to have impacted the Gold Rush era site of Dikeman along the Iditarod River. This fire appears to have burned over sections of the Historic Iditarod Trail.

The Little Mud River #1 Fire (Fire #B10P) was first discovered on 25 July 2005. This lightning strike fire started in low growing tundra, but spread to an estimated 35,600 acres potentially impacting critical moose, furbearer, and waterfowl habitats. This fire grew and overtook the Tlatl Hills Fire (Fire #B18J) on or before 27 August 2005.

The Hammer North Fire (Fire #B21N) was another lightning strike fire in tundra was first discovered on 2 August 2005. Detection aircraft declared this fire administratively out on 27 August 2005 after burning 300 acres; refuge personnel believed that this fire reignited for a time in September and October, however. While resources affected are unknown at this time, it may have impacted sections of the Historic Iditarod Trail as well as waterfowl nesting habitat.

The Hammer Creek #2 Fire (Fire #BUL2) was first discovered on 15 June 2005. This tundra and black spruce fire burned approximately 2,000 acres; detection aircraft declared this fire administratively out on 27 August 2005; refuge personnel believed that this fire reignited for a time in September and October, however. While resources affected are unknown at this time, it may have impacted sections of the Historic Iditarod Trail as well as waterfowl nesting habitat.

The Dishkakat Fire (Fire #BS3J) was first discovered on 29 May 2005. This fire burned approximately 20 acres and was declared administratively out on 15 July 2005 by detection aircraft; smoke was again observed by refuge personnel in September, however. This fire was near the Gold Rush era site of Dishkakat and may have impacted archeological resources, sections of the Historic Iditarod Trail, as well as critical winter moose habitat.

The Yetna Fire (Fire #B3HV) was first discovered on 2 August 2005 just south of the Innoko NWR boundary and burned onto the Innoko Wilderness Area portion of Innoko NWR. This fire is estimated at 46,000 acres; however, final perimeters are not yet available to determine how much burned on the Innoko NWR. The fire was declared administratively out on 5 September 2005 by detection aircraft; refuge personnel were never able to observe this fire later in September, so it is unknown if it also reignited. This fire appears to have impacted critical winter moose habitat as well as critical furbearer habitat. The fire burned headwater areas that could have downstream impacts to waterfowl nesting habitats.

The Camp Creek Fire (Fire #BW1K) was first discovered on 28 June 2005 just upstream from the

northeast corner of Innoko NWR. It grew to approximately 14,000 acres and merged with the East Fork Yuki River Fire (Fire #B2MH) on or before 27 August 2005, and burned onto the Refuge. Like the Yetna Fire, final perimeters are not yet available to determine the extent that burned on Innoko NWR. This fire appears to have burned headwater areas of the Innoko River that could have downstream impacts to furbearer habitats as well as critical winter moose habitat.

Summary of fires included in the Innoko National Wildlife Refuge 2005 Fires Burned Area Rehabilitation Plan

Fire Name	Papa Willie <sup>a</sup>	Chick Mtn	Little Mud River #1 <sup>b</sup>	Hammer North	Hammer Creek #2	Dishkakat	Yetna	Camp Creek <sup>c</sup>
Fire Number	B13V	B2VK	B10P	B21N	BUL2	BS3J	B3HV	BW1K
Agency Unit	FWS	FWS	FWS	FWS	FWS	FWS	FWS	FWS
Region	7	7	7	7	7	7	7	7
State	AK	AK	AK	AK	AK	AK	AK	AK
County(s)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ignition Date/Cause	07/26/05, lightning	08/01/05, lightning	07/25/05, lightning	08/02/05, lightning	06/15/05, lightning	05/29/05, lightning	08/02/05, lightning	06/28/05, lightning
Zone	Galena	Galena	Galena	Galena	Galena	Galena	Galena	Galena
Date Fully Contained <sup>d</sup>	09/31/05	09/31/05	09/31/05	09/31/05	08/27/05	07/15/05	09/05/05	09/31/05
Jurisdiction(s)	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres
US Fish and Wildlife Service	Unknown at this time	Unknown at this time	35,600	300	2,000	20	Unknown at this time	Unknown at this time
<i>other jurisdictions</i>	Unknown at this time	Unknown at this time					Unknown at this time	Unknown at this time
Total Acres	122,000	83,200	35,600	300	2,000	20	46,000	14,000 <sup>e</sup>

<sup>a</sup> Combined with Menoti East Fire (Fire #B13Y)

<sup>b</sup> Combined with Tlati Hills Fire (Fire #B18J)

<sup>c</sup> Combined with East Fork Yuki River Fire (Fire #B2MH)

<sup>d</sup> As listed by Alaska Fire Service

<sup>e</sup> Combined acreage approximately 50,000

**PART B - NATURE OF PLAN**

Type of Action (check one box below)

X	Initial Submission
	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.
- Develop monitoring specifications designed to document relative effectiveness of rehabilitation treatments or whether additional rehabilitation treatments are required.
- Determine if treatment of non-native invasive plants adjacent to areas of human use and high severity sites were effective and develop additional eradication plans as appropriate.

## PART D - TEAM ORGANIZATION, MEMBERS, AND RESOURCE ADVISORS

### I. Burned Area Rehabilitation Team Members:

Position	Team Member (Agency)
Team Leader	Steven Kovach (FWS)
Fire Ecologist	Karen Murphy (FWS)
Operations	William Schaff (FWS)
Wildlife Biologist	Steven Kovach (FWS)
Wildlife Biologist	Robin Corcoran (FWS)
Vegetation Specialist	TBA
Fire Management Specialist	Robert Lambrecht
GIS Specialist	Steven Kovach (FWS)
Documentation/Computer Specialist	TBA
<i>Other Technical Specialists</i>	Randy McKinley – EROS data center

II. Resource Advisors: (Note: Resource Advisors are individuals who assisted the burned area rehabilitation 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
Randy Brown	Fishery Biologist, Fairbanks Resource Office, FWS
John Trawicki	Hydrologist, Water Resources Division, Alaska RO, FWS
Deborah Corbett	Archeologist, Alaska RO, FWS
Carl Key	Research Biologist, USGS-BRD, West Glacier, MT
Keith Mueller	Contaminants Specialist, Fairbanks Resource Office, FWS
Kevin Keeler	Historic Iditarod Trail Coordinator, Alaska State Office, BLM

**PART E - SUMMARY OF ACTIVITIES AND COSTS**

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

**REHABILITATION ACTIVITIES COST SUMMARY TABLE – Innoko NWR Fires**

Spec #	Title	Unit	Unit Cost	# of Units	Work Agent	Cost
1	Historic Iditarod Trail Assessment	Acres	\$1,017.80	15	FA & SC	\$ 15,627
2	Historic Iditarod Trail Hazard Tree Removal	Acres	\$7,060.80	5	FA & SC	\$ 35,304
3	Invasive Plant Species Treatment Effectiveness (FY-07, FY-08)	Acres	\$ 31.92	500	FA & SC	\$ 31,922
4	Plan Development and Assessment	Acres	\$0.03	303,120	FA & SC	\$ 9,336
<b>TOTAL COST FY 06</b>						\$60,267
<b>TOTAL COST FY 07</b>						\$ 15,961
<b>TOTAL COST FY 08</b>						\$ 15,961
<b>Work Agent:</b> CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer						

**PART F – INDIVIDUAL SPECIFICATION**

<b>TREATMENT/ ACTIVITY NAME</b>	Historic Iditarod Trail Assessment	<b>PART E SPECIFICATION #</b>	1
<b>NFPORS TREATMENT CATEGORY*</b>	Heritage Resources	<b>FISCAL YEAR(S) (list each year):</b>	2006
<b>NFPORS TREATMENT TYPE *</b>	Prescription and Design	<b>WUI? Y / N</b>	
<b>IMPACTED COMMUNITIES AT RISK</b>		<b>IMPACTED T&amp;E SPECIES</b>	None

\* See NFPORS Restoration & Rehabilitation module.

**WORK TO BE DONE:**

<p><b>A. General Description:</b></p> <p>Clearly mark public access winter trail location and remove all hazardous trees. Based on the preliminary boundaries for the Chick Mountain, Dishkakat, Hammer North, Hammer Creek #2, and Cabin Creek fires, an estimated 20 miles of the Historic Iditarod Trail was burned over on lands managed by FWS. This specification will assess how much of the historic trail was impacted and if any historic roadhouse sites along the trails are now visible. There may be potential rehabilitation issues associated with these sites to maintain the historic trail as specified in the 1987 Interagency Agreement with BLM and the State of Alaska, from fire-caused erosion, from the exposure of previously hidden artifacts that now may be subjected to looting, and human safety issues. Field visits to these sites will be used to determine if any action is necessary to rehabilitate these trail segments from adverse fire effects.</p> <p><b>B. Location/(Suitable) Sites:</b></p> <p>The Historic Iditarod Trail within and immediately adjacent to the Chick Mountain, Dishkakat, Hammer North, Hammer Creek #2, and Cabin Creek Fires.</p> <p><b>C. Design/Construction Specifications:</b></p> <ol style="list-style-type: none"> <li>1. Determine the most cost effective treatment method to mark winter trail location and remove hazard tree (e.g., force account, contract with native village, etc.) and mark trails. During winter 2005-2006 the trail segments both within or adjacent to the final fire perimeters will be refined and primary and backup logistics plans for site evaluations will be developed.</li> <li>2. Initial examination of the trail segments will be conducted by helicopter overflight in summer 2006 while the helicopter from ES work is present on the refuge. A helicopter is the best platform as following the trail may be difficult in some areas and will allow recording the trail location with a GPS. Where necessary, remote landings will take place to allow ground inspection. Locations needing high resolution aerial digital photography will be recorded with a GPS.</li> <li>3. When necessary, site specific recommendations for rehabilitation will be developed. If simple actions are sufficient to camouflage artifacts, these actions will be completed at the time of the site evaluation.</li> <li>4. High resolution digital aerial photos will be taken to record historical sites encountered and trail sections needing clearing, stabilization, or rehabilitation.</li> <li>5. Details for trail maintenance/protection will be refined in cooperation with the BLM Historic Iditarod Trail coordinator.</li> </ol>
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6. Implement most cost effective treatment method.

**D. Purpose of Treatment Specifications:**

Reduce public safety risks along the Historic Iditarod trails to refuge standards as described in the interagency MOU. Blocked trails and large debris on trails can represent significant safety risks to travelers that use the historic trail for winter travel.

**E. Treatment Effectiveness Monitoring Proposed:**

Treatments will be monitored to determine if refuge winter trails are clearly marked and meet refuge safety standards. Monitoring results are reported annually and summarized in NFPORS.

**LABOR, MATERIALS AND OTHER COST:**

<b>PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).</b>	<b>COST / ITEM</b>
GS-13 Refuge Manager @ \$57/hour X 16 hours X 1 Fiscal Year	\$ 912
GS-12 Archaeologist @ \$48/hour X 40 hours X 1 Fiscal Year	\$ 1,920
GS-12 Wildlife Biologist @ \$48/hour X 48 hours X 1 Fiscal Year	\$ 2,304
GS-12 Pilot @ \$52/hour X 4 hours X 1 Fiscal Year	\$ 208
GS-11 Historic Trails Coordinator (BLM) @ \$40/hour X 40 hours X 1 Fiscal Year	\$ 1,600
GS-07 Biological Technician @ \$19.40/hour X 44 hours X 1 Fiscal Year	\$ 854
<b>TOTAL PERSONNEL SERVICE COST</b>	<b>\$ 7,796</b>
<b>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.</b>	<b>COST / ITEM</b>
OAS charges for C-185 @ \$145/hour X 4 hours X 1 Fiscal Year	\$ 580
<b>TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST</b>	<b>\$ 580</b>
<b>MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
Jet-A fuel @ \$4.50/gal X 150 gal X 1 Fiscal Year	\$ 675
AvGas fuel @ \$4.50/gal X 72 gal X 1 Fiscal Year	\$ 324
Miscellaneous office and GIS supplies @ \$500	\$ 500
Miscellaneous field supplies @ \$200	\$ 200
<b>TOTAL MATERIALS AND SUPPLY COST</b>	<b>\$ 1,699</b>
<b>TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
Commercial transport between Anchorage and McGrath @ \$385/round trip X 2 X 1 Fiscal Year	\$ 770
Travel per diem @ \$135/day X 2 days X 2 X 1 Fiscal Year	\$ 540
Field per diem @ \$3/day X 6 days X 3 X 1 Fiscal Year	\$ 54
Field camp food @ \$400 X 1 Fiscal Year	\$ 400
<b>TOTAL TRAVEL COST</b>	<b>\$ 1,769</b>
<b>CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):</b>	<b>COST /</b>

	<b>ITEM</b>
Helicopter time @ \$3,425/day X 1 day (helicopter already on site for ES plan) X 1 Fiscal Year	\$ 3,425
<b>TOTAL CONTRACT COST</b>	<b>\$ 3,425</b>

**SPECIFICATION COST SUMMARY**

<b>FISCAL YEAR</b>	<b>PLANNED INITIATION DATE (M/D/YYYY)</b>	<b>PLANNED COMPLETION DATE (M/D/YYYY)</b>	<b>WORK AGENT</b>	<b>UNIT S</b>	<b>UNIT COST</b>	<b>PLANNED ACCOMPLISHMENTS</b>	<b>PLANNED COST</b>
FY-06	01/01/2006	10/01/2006	F & S	mile	\$763	est. 20 miles	\$15,269
FY-07							
FY-08							
FY-09							
<b>TOTAL</b>							<b>\$15,269</b>

**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.	C
2. Documented cost figures from similar project work obtained from local agency sources.	E, M, C
3. Estimate supported by cost guides from independent sources or other federal agencies	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:**

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
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**TOTAL COST BY JURSDICTION**

<b>JURISDICTION</b>	<b>UNITS TREATED</b>	<b>COST</b>
FWS	est 3,300 acres	\$13,669
BLM	est 3,300 acres	\$ 1,600
<b>TOTAL COST</b>		<b>\$15,269</b>

<b>TREATMENT/ ACTIVITY NAME</b>	Historic Iditarod Trail Hazard Tree Removal	<b>PART E SPECIFICATION #</b>	2
<b>NFPORS TREATMENT CATEGORY*</b>	Heritage Resources	<b>FISCAL YEAR(S) (list each year):</b>	2006
<b>NFPORS TREATMENT TYPE *</b>	Hazard Removal	<b>WUI? Y / N</b>	
<b>IMPACTED COMMUNITIES AT RISK</b>		<b>IMPACTED T&amp;E SPECIES</b>	None

\* See NFPORS Restoration & Rehabilitation module.

### WORK TO BE DONE:

<p><b>A. General Description:</b></p> <p>Clear hazardous trees and fire debris from the Historic Iditarod Trail where needed. Details to this specification will likely be modified based on findings from specification #2.</p> <p><b>B. Location/(Suitable) Sites:</b></p> <p>The Historic Iditarod Trail within the Chick Mountain, Dishkakat, Hammer North, Hammer Creek #2, and Cabin Creek Fires.</p> <p><b>C. Design/Construction Specifications:</b></p> <ol style="list-style-type: none"> <li>1. Clear the trail segments within fire perimeters to original width in summer 2006.</li> <li>2. Reroute trail as needed if hazards cannot be easily removed.</li> <li>3. Install historic trail markers following established guidelines.</li> <li>4. Document control actions taken and additional control actions needed.</li> </ol> <p><b>D. Purpose of Treatment Specifications:</b></p> <p>Reduce public safety risks along the Historic Iditarod trail within the 2005 fires on the refuge. Blocked trails and large debris on trails can represent significant safety risks to travelers that use the historic trail for winter travel. The fires may have removed any trail markers that were in place, making route finding difficult, which in winter conditions can quickly become a potentially life-threatening situation. Only materials considered hazardous will be removed.</p> <p><b>E. Treatment Effectiveness Monitoring Proposed:</b></p> <p>Treatments will be monitored to determine if refuge winter trails are clearly marked and meet refuge safety standards. Monitoring results are reported annually and summarized in NFPORS. Refuge staff and crew leader will survey the trail from the air to ensure that the work was completed.</p>
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### LABOR, MATERIALS AND OTHER COST:

<b>PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).</b>	<b>COST / ITEM</b>
GS-13 Refuge Manager @ \$57/hour X 16 hours X 1 Fiscal Year	\$ 912

GS-12 Wildlife Biologist @ \$48/hour X 40 hours X 1 Fiscal Year	\$ 1,920
GS-12 Pilot @ \$52/hour X 14 hours X 1 Fiscal Year	\$ 716
TOTAL PERSONNEL SERVICE COST	\$ 3,548
<b>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.</b>	<b>COST / ITEM</b>
OAS charges for C-185 @ \$145/hour X 14 hours X 1 Fiscal Year	\$ 2,030
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	\$ 2,030
<b>MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
Jet-A fuel @ \$4.50/gal X 600 gal X 1 Fiscal Year	\$ 2,700
AvGas fuel @ \$4.50/gal X 250 gal X 1 Fiscal Year	\$ 1,134
Stihl chainsaw, model MS290 @ \$350 X 2 X 1 Fiscal Year	\$ 700
Chainsaw fuel @ \$4.50/gal X 10 gal X 1 Fiscal Year	\$ 45
Chainsaw and bar oil @ \$10/gal X 1 gal X 1 Fiscal Year	\$ 10
Miscellaneous spare parts for chain saws	\$ 100
Trail markers @ \$1.10 each X 100 X 1 Fiscal Year	\$ 110
Miscellaneous office and GIS supplies @ \$200	\$ 200
Miscellaneous field supplies @ \$200	\$ 200
TOTAL MATERIALS AND SUPPLY COST	\$ 5,199
<b>TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
Field camp food @ \$500 X 1 Fiscal Year	\$ 500
TOTAL TRAVEL COST	\$ 500
<b>CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
Crew Boss @ \$20.50/hour X 48 hours X 1 Fiscal Year	\$ 984
Trail Crew @ \$15.00/hour X 40 hours X 3 X 1 Fiscal Year	\$ 1,800
Helicopter @ \$3,035/day X 7 days X 1 Fiscal Year	\$ 21,245
TOTAL CONTRACT COST	\$ 24,029

### SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNIT S	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY-06	06/01/2006	10/01/2006	F & S	mile	\$7,060.80	est 5 miles	\$ 35,306
FY-07							
FY-08							
FY-09							
<b>TOTAL</b>							<b>\$ 35,306</b>

**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.	C
2.	Documented cost figures from similar project work obtained from local agency sources.	E, M, C
3.	Estimate supported by cost guides from independent sources or other federal agencies	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:**

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
--

**TOTAL COST BY JURISDICTION**

JURISDICTION	UNITS TREATED	COST
FWS	est. 5 miles	\$ 35,306
	<b>TOTAL COST</b>	\$ 35,306

<b>TREATMENT/ ACTIVITY NAME</b>	Invasive Plant Species Control	<b>PART E SPECIFICATION #</b>	3
<b>NFPORS TREATMENT CATEGORY*</b>	Invasive Species	<b>FISCAL YEAR(S) (list each year):</b>	2007, 2008
<b>NFPORS TREATMENT TYPE *</b>	Hand Treatment	<b>WUI? Y / N</b>	N
<b>IMPACTED COMMUNITIES AT RISK</b>	None	<b>IMPACTED T&amp;E SPECIES</b>	None

\* See NFPORS Restoration & Rehabilitation module.

### WORK TO BE DONE:

**A. General Description:** Implement emergency stabilization measures to control and eradicate invasive species in the vicinity of public use and access areas.

**B. Location/(Suitable) Sites:** Public use and access areas in the 2005 burned areas. Including: the Yukon River corridor and Papa Willie Creek corridor portions of the Papa Willie Creek Fire, the Iditarod River corridor portion of the Chick Mountain Fire, and the Dishkakat Fire.

**C. Design/Construction Specifications:**

1. Utilize 2005 wildfire suppression, first order fire effects monitoring records and information in the aerial assessment, to locate priority assessment and treatment areas (i.e., areas where human use has potentially introduced nonnative vegetation).
2. Identify likely invasive species issues and cost effective eradication treatments (chemical, cultural, biological).
3. 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.).
4. 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).
5. Travel to, inspect and implement the appropriate invasive species control treatments at least once in FY2006.
6. Document control actions taken and additional control actions needed. A report will be prepared for all sites searched and findings will be incorporated into the Alaska Exotic Plant Information Clearinghouse database.
7. Follow-up on any additional actions no later than 1 year following wildfire containment.

**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 will be monitored (at least on the ground visits at the most ecologically appropriate time) through FY2008 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.

### LABOR, MATERIALS AND OTHER COST:

<b>PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item):</b>	<b>COST /</b>
---	---------------

<b>Do not include contract personnel costs here (see contractor services below).</b>	<b>ITEM</b>
GS-12 Wildlife Biologist @ \$50/hour X 20 hours X 2 Fiscal Years	\$ 2,000
GS-12 Pilot @ \$54/hour X 8 hours X 2 Fiscal Years	\$ 972
Gs-05 Biological Technician @ \$16.50/hour X 40 hours X 2 Fiscal Years	\$ 2,640
TOTAL PERSONNEL SERVICE COST	\$ 5,612
<b>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.</b>	<b>COST / ITEM</b>
OAS charges for C-185 @ \$150/hour X 8 hours X 2 Fiscal Years	\$ 2,400
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	\$ 2,400
<b>MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
AvGas fuel @ \$5.00/gal X 144 gal X 2 Fiscal Years	\$ 1,440
Jet-A fuel @ \$5.00/gal X 120 gal X 2 Fiscal Years	\$ 1,200
Miscellaneous office and GIS supplies @ \$500 X 2 Fiscal Years	\$ 1,000
Miscellaneous field supplies @ \$500 X 2 Fiscal Years	\$ 1,000
TOTAL MATERIALS AND SUPPLY COST	\$ 4,640
<b>TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
Field per diem @ \$3/day X 5 days X 2 seasonals X 2 Fiscal Years	\$ 60
Field camp food @ \$500 X 2 Fiscal Years	\$ 1,000
TOTAL TRAVEL COST	\$ 1,060
<b>CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
Helicopter time @ \$3,035/day X 3 days X 2 Fiscal Years	\$ 18,210
TOTAL CONTRACT COST	\$ 18,210

### SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNIT S	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY-06							
FY-07	06/01/2007	09/01/2007	F, S	acre	\$ 31.92	500 acres	\$ 15,961
FY-08	06/01/2008	09/01/2008	F, S	acre	\$ 31.92	500 acres	\$ 15,961
FY-09							
<b>TOTAL</b>							<b>\$ 31,922</b>

**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, M, C
3. Estimate supported by cost guides from independent sources or other federal agencies	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:**

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
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**TOTAL COST BY JURSDICTION**

JURISDICTION	UNITS TREATED	COST
FWS FY07	500 acres	\$ 15,961
FWS FY08	500 acres	\$ 15,961
	<b>TOTAL COST</b>	\$ 31,922

<b>TREATMENT/ACTIVITY NAME</b>	Plan Development and Assessment	<b>PART E SPECIFICATION #</b>	4
<b>NFPORS TREATMENT CATEGORY*</b>	Planning	<b>FISCAL YEAR(S) (list each year):</b>	2006
<b>NFPORS TREATMENT TYPE *</b>	Prescription and Design	<b>WUI? Y / N</b>	
<b>IMPACTED COMMUNITIES AT RISK</b>	None	<b>IMPACTED T&amp;E SPECIES</b>	None

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

<p><b>Number and Describe Each Task:</b></p> <p><b>A. General Description:</b> Gather necessary information concerning resources at risk (i.e., cultural resource sites, invasive species, and FWS minor facilities [trails, campgrounds, etc.]) to develop the necessary Burned Area Rehabilitation Plans for the 2005 fires.</p> <p><b>B. Location/(Suitable) Sites:</b> 2005 burned areas with anticipated emergency stabilization or burned area rehabilitation issues.</p> <p><b>C. Design/Construction Specifications: (Note: many of these costs have been incorporated into the project specifications.)</b></p> <p>1. Review refuge land/fire management plans (i.e., CCP, HMP, FMP, etc.), 2005 wildfire suppression and first order fire effects monitoring records relative to the above resources at risk in the burned areas. Based on the approved land management plans, identify what constitutes “fire damage”, to what resource management standards will the fire damage need to be addressed, and are there administrative constraints that need to be addressed. Specifically:</p> <ul style="list-style-type: none"> <li>• What can realistically be done to each known cultural resource sites to minimize further degradation until additional long-term cultural resource management strategies can be developed and implemented?</li> <li>• What are the refuge winter trails and native use campground public use safety standards?</li> <li>• What is the approved refuge trail marking method.</li> <li>• What are the anticipated invasive species issues and where are the most likely locations for invasive species establishment? What invasive species control method are approved (i.e., approved pesticides).</li> </ul> <p>3. Locate (map) resources at risk.</p> <ul style="list-style-type: none"> <li>• Known cultural resource sites.</li> <li>• High priority invasive species invasion sites in the burned area (e.g., public access points, winter trails, etc.).</li> <li>• FWS minor facilities (e.g., trails, campgrounds, fish monitoring sites, etc.).</li> </ul> <p>4. Aerially assess each specific refuge resource at risk to preliminary determine whether any treatment is needed and, if so, the type and degree of treatment needed. Specifically identify:</p> <ul style="list-style-type: none"> <li>• Fire damage to known cultural resource sites containing combustible materials. Unstable culture resource sites or as site exposed by the wildfire and susceptible to erosion or looting.</li> <li>• Fire damage to refuge facilities that will need to be repaired or replaced.</li> <li>• Visible location of winter trails and the possible need for trail markers.</li> <li>• Tree mortality along winter trails creating unacceptable (based on refuge approved land management</li> </ul>
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<p>plan standards) public safety standards.</p> <ul style="list-style-type: none"> <li>• Fire damage to winter trails or native use campgrounds requiring rehabilitation to refuge approved land management plan standards.</li> <li>• Significant ground disturbance (high burn severity or suppression actions) creating the potential for invasive plant establishment.</li> </ul> <p>5. Record findings for plan preparation..</p> <p>6. Prepare Burned Area Emergency Response and/or Burned Area Rehabilitation Plans to address each individual resource treatment issue.</p> <p><b>D. Purpose of Specification:</b> Develop specific treatment specifications</p> <p><b>E. Treatment Effectiveness Monitoring Proposed:</b> None</p>
--

**LABOR, MATERIALS AND OTHER COST:**

<b>PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
GS-13 Refuge Manager @ \$57/hour X 8 hours X 1 Fiscal Year	\$ 456
GS-12 Wildlife Biologist/GIS Specialist @ \$48/hour X 60 hours X 1 Fiscal Year	\$ 2,880
GS-12 Fire Ecologist @ \$48/hour X 10 hours X 1 Fiscal Year	\$ 480
TOTAL PERSONNEL SERVICE COST	\$ 3,816
<b>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.</b>	<b>COST / ITEM</b>
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	\$
<b>MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
Miscellaneous office and GIS supplies @ \$300 X 1 Fiscal Year	\$ 300
TOTAL MATERIALS AND SUPPLY COST	\$300
<b>TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
TOTAL TRAVEL COST	\$ 0
<b>CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):</b>	<b>COST / ITEM</b>
Barge transport of fuel to field camp (note: this 1-time cost covers the portion of the \$17,500 barge fee for all the specifications that require helicopter and fixed-wing aviation fuel) X 1 Fiscal Year	\$5,250
TOTAL CONTRACT COST	\$ 5,250

**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
FY06	03/21/2006	06/21/2006	F	acres	\$.03	303,120 acres	\$9,336
<b>TOTAL</b>							\$9,336

**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	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:**

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
--

**TOTAL COST BY JURISDICTION**

JURISDICTION	UNITS TREATED	COST
FWS	303,120 acres	\$ 9,336
<b>TOTAL COST</b>		\$ 9,336

## **PART G - POST-REHABILITATION REQUIREMENTS**

Post-rehabilitation, implementation, operation, maintenance, monitoring, and evaluation actions after three years from the control of the fire to ensure the effectiveness of initial investments will be identified in an amendment to this initial submission after assessments have been completed. Estimated annual cost and funding sources will be indicated.

## **PART H - CONSULTATIONS**

### U.S. Fish and Wildlife Service

Jeff Adams, Fishery Biologist  
Randy Brown, Fishery Biologist  
Deborah Corbett, Archeologist  
Keith Mueller, Contaminants Specialist  
John Trawicki, Hydrologist

### Bureau of Land Management

Randi Jandt, Alaska Fire Service, Fire Ecologist  
Kevin Keeler, Historic Iditarod Trail Coordinator

### US Geological Survey, Biological Resources Division

Carl Key, Research Biologist

### Shageluk Traditional Council

Grayling Traditional Council

Anvik Traditional Council

## **APPENDIX I - BURNED AREA ASSESSMENT REPORTS**

The fires on the Innoko Refuge continued to burn through September and were inaccessible for refuge personnel to conduct assessments before snowfall occurred. As a result, this section includes outlines of assessment reports expected to be completed through the Integrated Spring Assessments (specification #6). Preliminary information has been incorporated where it was available.

- *Historic Iditarod Trail Damage Assessment Report Outline*

**INNOKO NATIONAL WILDLIFE REFUGE 2005 FIRES**  
**HISTORIC IDITAROD TRAIL DAMAGE ASSESSMENT REPORT**

**I. Objectives**

- Assess effects of fires on the Historic Iditarod Trail.

**II. Issues**

- Exposure of artifacts along the Historic Iditarod Trail and loss of landmarks to locate the trail in winter.

**III. Observations**

*A. Background Information*

*B. Reconnaissance Methods*

*C. Findings*

**IV. Recommendations**

*A. Management (specification related)*

*B. Specification Monitoring (specification related)*

*C. Management (non-specification related)*

**V. Consultations**

**VI. References**

## APPENDIX II - ENVIRONMENTAL COMPLIANCE

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

**Project Name:** Burned Area Rehabilitation Plan. Innoko National Wildlife Refuge.

**Location:** Papa Willie Creek Fire, Chick Mountain Fire, Little Mud River #1 Fire, Hammer North Fire, Hammer Creek #1 Fire, Hammer Creek #2 Fire, Dishkakat Fire, Cabin Creek Fire, and Yetna Fire.

**Description:** The U. S. Fish and Wildlife Service proposes to conduct remote sensing, aerial observation flights, and limited ground investigations to determine the extent and nature of impacts to critical wildlife resources, plant communities, subsistence resources, seasonal use trails, historic sites and trails, detect new occurrences of noxious plant species, and propose more intensive rehabilitation activities where necessary as a result of fires occurring on Innoko NWR in 2005.

**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 availability of subsistence resources will not be affected by the proposed action and competition for resources will be 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).

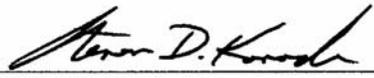
**Executive Order 11988 - Floodplain Management:** Not applicable.

**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 Innoko 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: 1 December 2005  
Wildlife Biologist

Reviewed by:  Date: 1-13-2006

Approved by:  Date: 1 December 2005  
Refuge Manager

Attachments

## COMPATABILITY DETERMINATION ADVANCE PLANNING SHEET

Refuge: Innoko NWR, McGrath Alaska	Date of the Last CD that Evaluated the Primary Use: 1987	
Title of CD:	Research	
Primary Use:	Research	Any Concerns with Compatibility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
NEPA Requirements Addressed In:	<input checked="" type="checkbox"/> Original CCP <input type="checkbox"/> Revised CCP <input type="checkbox"/> Separate EIS <input type="checkbox"/> Categorical Exemption <input type="checkbox"/> Step-Down Plan(Title): _____ <input type="checkbox"/> Other(List): _____	
Level of Controversy:	<input type="checkbox"/> Significant <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Low	
<b>Supporting Uses That Will Be Addressed in this CD</b> Mark with "✓" each of the Supporting Uses you think the analysis may find Compatible Mark with "X" each of the Supporting Uses you think the analysis may find Incompatible Circle each use that has a commercial component. Delete the uses that do not apply if you complete this form electronically.		
<input type="checkbox"/> Agriculture, aquaculture, or silviculture (other) <input type="checkbox"/> Amateur radio <input type="checkbox"/> Amateur radio (DXpeditions) <input type="checkbox"/> Amateur radio (HF Pack) <input type="checkbox"/> Animal control (other) <input type="checkbox"/> Aquaculture <input type="checkbox"/> Bee keeping <input type="checkbox"/> Bicycling <input type="checkbox"/> Boating (airboats and hovercraft) <input type="checkbox"/> Boating (electric and wind-driven) <input checked="" type="checkbox"/> Boating (human-powered) <input checked="" type="checkbox"/> Boating (motorized) <input type="checkbox"/> Boating (other) <input checked="" type="checkbox"/> Cabins <input checked="" type="checkbox"/> Camping <input type="checkbox"/> Caving. Cave exploration <input type="checkbox"/> Cemetery <input type="checkbox"/> Commercial/industrial (other) <input type="checkbox"/> Competitive sporting event <input type="checkbox"/> Concessions <input type="checkbox"/> Cross-country <input type="checkbox"/> Disease management Dog sledding & Ski Jouring <input type="checkbox"/> Dog training, including field trials <input type="checkbox"/> Downhill skiing or snow boarding <input type="checkbox"/> Dredge or fill <input type="checkbox"/> Energy (other) <input checked="" type="checkbox"/> Environmental Ed (By Others-students) <input checked="" type="checkbox"/> Environmental Ed (other) <input type="checkbox"/> Envir ed (teaching students) <input type="checkbox"/> Envir ed (teaching teachers) <input type="checkbox"/> Farming <input type="checkbox"/> Fishery enhancement <input type="checkbox"/> Fishing (commercial) <input checked="" type="checkbox"/> Fishing (general) <input type="checkbox"/> Fishing (guiding and outfitting) <input type="checkbox"/> Fishing (other) <input type="checkbox"/> Fishing (special events) <input type="checkbox"/> Fishing (subsistence) <input type="checkbox"/> Fishing (tournament) <input checked="" type="checkbox"/> Fixed-wing aircraft <input type="checkbox"/> Flowage easements <input type="checkbox"/> Fossil collecting <input type="checkbox"/> Gathering (subsistence)	<input type="checkbox"/> Geocaching <input type="checkbox"/> Geothermal energy <input type="checkbox"/> Grazing <input type="checkbox"/> Haying or ensilage <input type="checkbox"/> Hazardous fuels reduction <input checked="" type="checkbox"/> Helicopters <input type="checkbox"/> Hiking and <input type="checkbox"/> Horseback riding Hunting (big game) <input type="checkbox"/> Hunting (big game - guiding and outfitting) <input type="checkbox"/> Hunting (other - guiding or outfitting) <input type="checkbox"/> Hunting (other migratory birds) <input type="checkbox"/> Hunting (other) <input type="checkbox"/> Hunting (special events) Hunting (subsistence) <input type="checkbox"/> Hunting (tournament) <input type="checkbox"/> Hunting (upland game - guiding or outfitting) Hunting (upland game) <input type="checkbox"/> Hunting (waterfowl - guiding or outfitting) Hunting (waterfowl) <input type="checkbox"/> Hydroelectric energy <input type="checkbox"/> Interpretation (By Others) <input type="checkbox"/> Interpretation (By NWRS) <input type="checkbox"/> Jogging and walking <input type="checkbox"/> Leeching <input type="checkbox"/> Military activities (other) <input type="checkbox"/> Military facilities <input type="checkbox"/> Military training <input type="checkbox"/> Mineral exploration <input type="checkbox"/> Mining <input type="checkbox"/> Moorage <input type="checkbox"/> Mosquito management <input type="checkbox"/> Natural Res. collecting (other) <input type="checkbox"/> Natural resource dev. (other) <input type="checkbox"/> Navigation <input type="checkbox"/> Off-road vehicles (other) <input type="checkbox"/> Oil or gas development <input type="checkbox"/> Oil or gas exploration <input type="checkbox"/> Outdoor recreation (other) <input type="checkbox"/> Pack animals <input type="checkbox"/> Personal watercraft <input type="checkbox"/> Pets <input checked="" type="checkbox"/> Photography (wildlife)	<input type="checkbox"/> Photography, video, filming, etc. <input type="checkbox"/> Photography...etc. (news/educational) <input type="checkbox"/> Picnicking <input type="checkbox"/> Plant control (other) <input checked="" type="checkbox"/> Plant gathering <input type="checkbox"/> Predator management <input type="checkbox"/> Research <input type="checkbox"/> Residential (other) <input type="checkbox"/> Rights-of-way (other) <input type="checkbox"/> Rights-of-way (road) <input type="checkbox"/> Rights-of-way (trail) <input type="checkbox"/> Rights-of-way (utility) <input type="checkbox"/> Rock collecting <input type="checkbox"/> Sale of animals <input type="checkbox"/> Saltmaking <input type="checkbox"/> Scientific collecting <input type="checkbox"/> Sewage discharge <input type="checkbox"/> Skating (ice) <input type="checkbox"/> Skating (other) <input type="checkbox"/> Snorkeling or scuba diving <input type="checkbox"/> Snowmobiles <input type="checkbox"/> Snowshoeing <input type="checkbox"/> Solar energy <input type="checkbox"/> Subsistence (other) <input type="checkbox"/> Surveys. Scientific inventory or monitoring <input type="checkbox"/> Swimming and beach use <input type="checkbox"/> Technical climbing <input type="checkbox"/> Tent Platform Transport (air & boat taxi) Trapping Trapping (subsistence) <input checked="" type="checkbox"/> Tree harvest (firewood) <input type="checkbox"/> Tree harvesting (Christmas) <input type="checkbox"/> Tree harvesting (other) <input type="checkbox"/> Uses (other) <input type="checkbox"/> Water extraction <input type="checkbox"/> Water skiing. <input type="checkbox"/> Weed management <input checked="" type="checkbox"/> Wildlife observation <input type="checkbox"/> Wildlife obser. (Commercial) <input type="checkbox"/> Wind energy <input type="checkbox"/> Other (Describe): _____

## **APPENDIX III - MAPS**

- **Innoko NWR**
- **Land Status**
- **Historic Iditarod Trail**





