

# Helicopter Access to Conduct Forest Inventory and Analysis (FIA) in Wilderness

## Record of Decision (ROD)

May 2008

United States Department of Agriculture  
Forest Service - Alaska Region

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# Record of Decision Helicopter Access to Conduct Forest Inventory and Analysis (FIA) in Wilderness

**United States Department of Agriculture  
Forest Service - Alaska Region**

## Introduction

The Forest Inventory and Analysis (FIA) program managed by the Forest Service Pacific Northwest Research Station (PNW) collects information on forest resources on the national forests in Alaska. As part of the national inventory in wilderness, the Alaska Region and PNW are proposing to use helicopters to access a portion of the inventory plots. The Wilderness Act allows the landing of aircraft if necessary to meet the minimum requirements for the administration of the area for the purposes of the Act.

The purpose of this analysis was to determine the effects of the use of helicopters to safely collect statistically valid FIA inventory data consistent with national protocols in the wilderness areas of the Alaska Region. The short and long-term benefits and impacts of the inventory were considered in the analysis.

## Project Area

The project area includes 19 wilderness areas on the Tongass National Forest (Figure R-1) and one wilderness study area (WSA) on the Chugach National Forest (Figure R-2). These wilderness areas include many types of ecosystems, ranging from the high mountains of the Coast Range to the maritime islands on the outer coast on the Tongass National Forest to the glacial fiords and marine environment of Prince William Sound on the Chugach National Forest. The Tongass National Forest represents one of the world's largest coastal temperate rainforests, and approximately one-third of the 17-million acre forest is designated wilderness (5.7 million acres). The two-million-acre Nellie Juan - College Fiord WSA on the Chugach National Forest makes up about one-third of that 5.45-million-acre forest.

Figure R-1. Tongass National Forest Wilderness Areas.

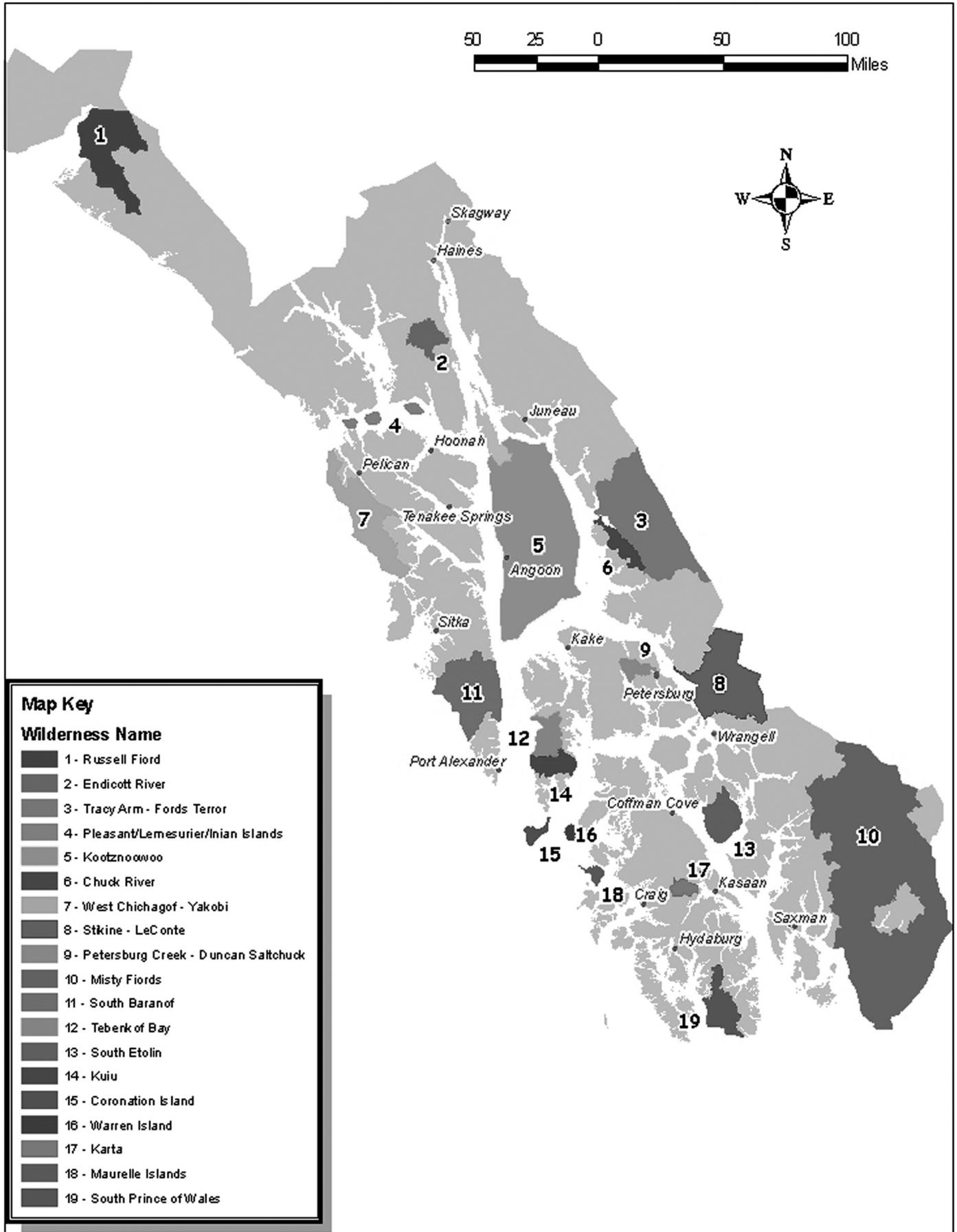
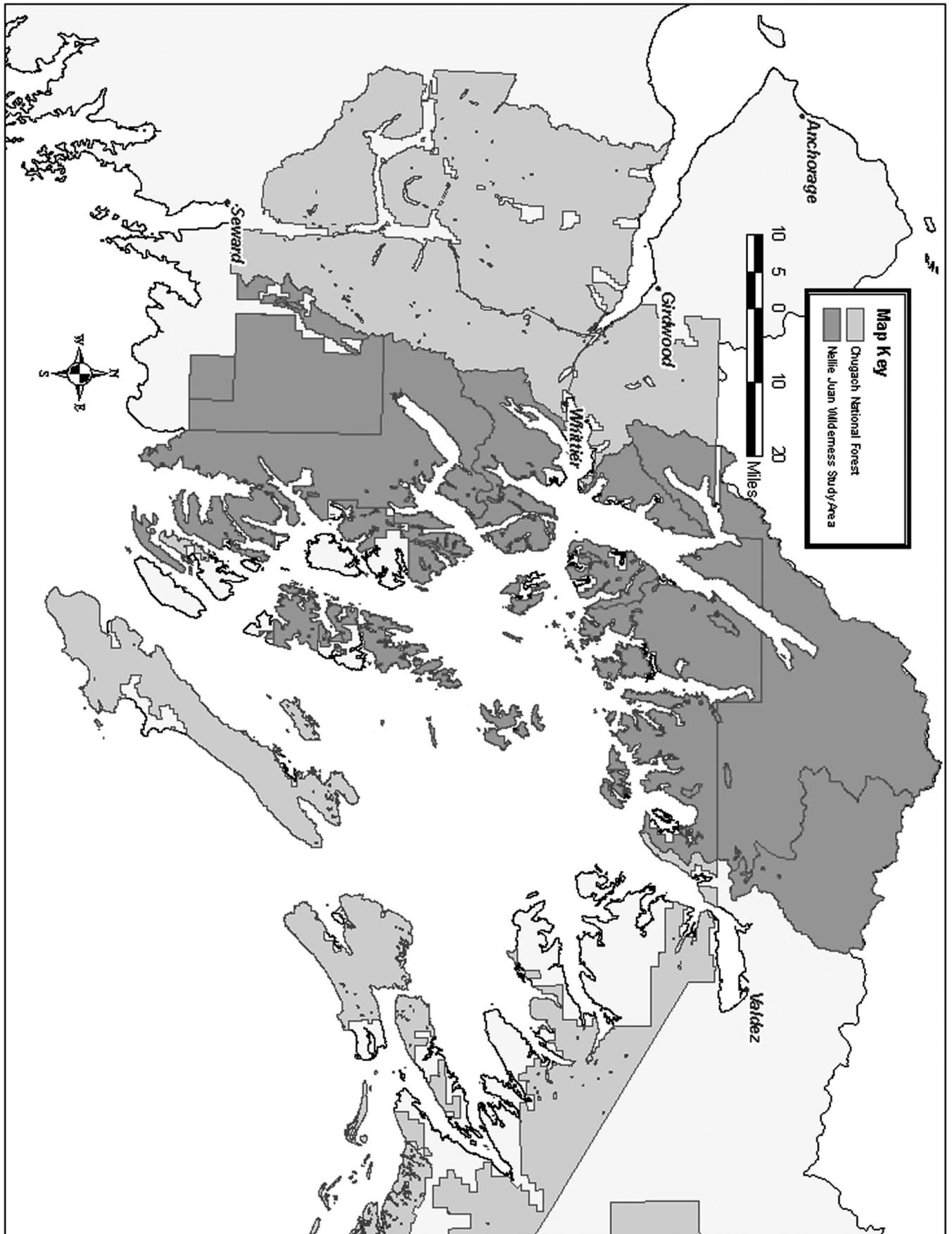


Figure R-2. Nellie Juan-College Fiord Wilderness Study Area.



This Record of Decision (ROD) uses the term wilderness study area (WSA) interchangeably with wilderness since the Chugach National Forest Plan states that “the WSA is to be managed to maintain and protect the existing wilderness character. The WSA shall be managed as described in this prescription until Congress acts on this area.”

## Decision

This Record of Decision (ROD) documents my decision to select Alternative 0, the No Action Alternative. This alternative does not authorize the use of helicopters to conduct FIA inventory in the wilderness areas of the Alaska Region. My decision to select the No Action alternative should not diminish the importance of FIA data collection in wilderness areas where it can be done safely using non-motorized forms of access. The use of helicopters for the FIA inventory program will continue outside of wilderness areas on the Tongass and Chugach National Forests.

This decision is based on the environmental analysis and takes into consideration public comments on the project including comments received on the Draft Environmental Impact Statement (EIS) and Final EIS. The purpose of this analysis was to determine the effects of the use of helicopters to safely collect statistically valid FIA inventory data consistent with national protocols in the wilderness areas of the Alaska Region. The short and long-term benefits and impacts of the inventory were considered in the analysis.

This analysis fulfilled that purpose by assessing the effects and benefits of the inventory. My decision to select the No Action alternative does not meet the project’s need.

## Reasons for the Decision

In making my decision, I considered the potential benefits of the inventory, the safety of Forest Service employees, and the impacts to wilderness character. The Selected Alternative provides for management of the wilderness resource to ensure its character and values are dominant and enduring within the framework of existing laws, policies, public needs and desires, and capabilities of the land. It also ensures that FIA crews will not be hiking to inventory plots in hazardous terrain where risks to their safety have been determined to be high, and in some cases, extreme.

My original intent in considering authorizing helicopters to conduct the FIA inventory in the wilderness areas of the Alaska Region was based on the important role this inventory plays in administering our national forests and the wilderness areas within those forests. The standardized inventory and statistical protocols used by FIA provide consistent, high quality data. The value of FIA data is set forth in the Forest Service intra-agency agreement between FIA and the Wilderness and Wild and Scenic River programs: “The inventory will provide “strategic, ‘state-of-the-wilderness’ information on vegetation soils, and wildlife habitat.” This inventory is consistent with the scientific purpose identified in the Wilderness Act.

From a safety standpoint, I believe that helicopters provide a safer method of access than increasing employee’s risk exposure from regularly traversing hazardous terrain. While many wilderness areas in the continental United States have rugged terrain, the

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combination of steep, wet, heavily vegetated slopes and extreme remoteness that are prevalent in the wilderness areas of the Alaska Region make foot travel more hazardous. The use of helicopters also has associated risk, but as the analysis demonstrates, the risk is lower than asking employees to traverse these wilderness areas. This is borne out by the Alaska Region's outstanding aviation safety record over the past 11 years.

As the analysis continued and the Preferred Alternative changed from Alternative 4 (helicopters landings at 540 plots) in the Draft EIS to Alternative 1 (no helicopter landings) in the Final EIS, my focus was on protecting the wilderness character, while trying to strike a balance to ensure FIA crew safety. Alternative 1 addressed many of the key issues regarding wilderness character, but I still struggled with the idea of authorizing a project that would have a high level of risk—even after dropping the more hazardous non-forested plots. The statistical need to access essentially all the forested plots and the concern that many of those same plots could not be accessed safely unless helicopters were authorized, were factors in my decision. After additional consultation with Forest Service staff and a review of comments I received on the Final EIS, I simply cannot authorize a project that includes all the reasonable safety mitigation for an activity yet, in my judgment, still has this level of employee risk.

In making my decision, I weighed the benefits of the FIA inventory in wilderness areas against the impacts of allowing helicopters to land in these areas, and the safety of employees. Even with the already noted value of the FIA data, it was difficult to clearly discern the overriding need for gathering data when it would require such extensive use of helicopters in wilderness areas.

There are no completely objective and quantitative means for evaluating a project of this nature. Despite the benefits of the inventory, I concluded that the noise and visual impacts from helicopters would exceed the benefits of the inventory. I ultimately based my judgment on the side of employee safety and the wilderness values that are articulated in the Wilderness Act.

I will continue to explore existing and emerging technologies for gathering data using remote methods such as aerial and satellite imagery. This will not provide the same kind of data obtainable via the FIA inventory, but it may be a satisfactory substitute for the Forest Service to redeem its responsibilities for obtaining baseline information and monitoring change in the wilderness areas of the Alaska Region. Helicopters may still be used to collect FIA data from the approximately 11 million acres of the Tongass and the 3.5 million acres of the Chugach National Forest that are outside the wilderness areas of the Alaska Region.

I will also continue to consider proposals for the administrative use of helicopters from State and federal agencies, and other organizations on a case-by-case basis where the proposed activity is limited in scope and intensity, and meets the minimum requirements for the administration and protection of wilderness areas.

## Public Involvement

In addition to the following specific public involvement activities, the FIA project has been listed on the Alaska Region's Schedule of Proposed Actions (<http://www.fs.fed.us/sopa/>) since October 2005. To date, information was shared with the public and the public has been invited to participate in the project in the following ways:

Comments were received during development of the Minimum Requirements Decision Guide in 2004 - 2005.

A website (<http://www.fs.fed.us/r10/ro/projects-plans/fia/index.shtml>) was developed to share information about the project in the fall of 2005.

A letter was mailed on December 7, 2005 to give members of the public and organizations who had previously expressed concerns about the inventory an update about the project's status.

A total of 20 comments were received prior to availability of the Draft EIS. These comments focused on four issues: whether helicopters are the minimum tool to conduct the inventory; whether the inventory is essential for managing the wilderness areas; how the inventory data will be used to manage wilderness; and effects to wilderness character, wildlife, vegetation, and other resources.

### **Consultation with Tribal Governments and Other Government Agencies**

Consultation with the tribes began with a letter dated November 10, 2005 that was sent to all the tribes within the Alaska Region of the Forest Service. The same letter was also e-mailed to the tribes. In addition, a letter dated November 23, 2005 was sent to all the Alaska Native corporations within the Region as part of National Historic Preservation Act Section 106 consultation. Contact with tribes was also made and four comments were received prior to availability of the Draft EIS. No concerns were expressed about the project before or during the Draft EIS comment period.

The National Marine Fisheries Service (NMFS), United States Fish and Wildlife Service, and the Alaska Department of Fish and Game were contacted and did not have concerns about the project.

### **Notice of Intent**

A Notice of Intent to prepare an environmental impact statement was published in the Federal Register on February 3, 2006. Legal notices were also placed in the two newspapers of record for Regional Forester decisions (Juneau Empire and Anchorage Daily News) on February 6, 2006, notifying the public of the preparation of an EIS for this project.

### **Notice of Availability**

A Notice of Availability of the Draft EIS was published in the Federal Register on June 23, 2006. Legal notices were placed in the two newspapers of record for Regional Forester decisions (Juneau Empire and Anchorage Daily News) on June 25, 2006, notifying the public of the Draft EIS availability. A Notice of Availability of the Final

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EIS was published in the Federal Register on November 9, 2007 and a corrected Notice of Availability published on November 23, 2007 that also extended the wait period until December 24, 2007.

### **Mailing List**

A mailing list was established to provide interested citizens, groups, tribes, Alaska Native corporations, and agencies with information and documents. The list consists of individuals and organizations that have expressed interest or have been consulted about the project. As people responded to scoping or contacted the Forest Service, their names were added to the list.

### **Local News Media**

A news release about the Notice of Intent dated February 6, 2006 was sent out to a list of approximately 265 newspapers, radio stations, and interested parties. A news release about the Draft EIS availability, dated June 23, 2006, and another release for the Final EIS, dated October 26, 2007 were also sent out to the same list.

### **Public Comments Received on the Draft EIS**

A total of 51 individuals, organizations and agencies commented on the Draft EIS. The comments covered many topics. The main topics included whether helicopters are the minimum tool to conduct the inventory; whether the inventory is essential for managing the wilderness areas; how the inventory data will be used to manage wilderness; effects to wilderness character, the range of alternatives considered; FIA data and statistics, and safety. Public comments were analyzed and considered in the preparation of the Final EIS and this ROD. The responses to the input received during the comment period are included in the Final EIS (Appendix A).

### **Public Comments Received on the Final EIS**

Twenty-six individuals, organizations and agencies also commented on the Final EIS. The comments primarily addressed overflights, monumentation<sup>1</sup>, safety, and non-forested plots. These comments were carefully reviewed and considered in my decision to select the No Action alternative.

## Alternatives Considered in Detail

The No-Action Alternative (Alternative 0), Proposed Action (Alternative 4) and four other action alternatives were considered in detail. Alternative 4 was identified as the Preferred Alternative in the Draft EIS and Alternative 1 was the Preferred Alternative in the Final EIS. The alternative discussion below identifies the number of plots and the form of access for the entire 10-year period of the inventory. All action alternatives had a total of 913 plots inventoried during the 10-year period. Inventory activity in any given year averaged one-tenth of the use listed in each alternative.

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<sup>1</sup> Monumentation refers to the permanent use of metal stakes approximately eight inches in length placed in the ground with approximately one inch showing to mark portions of the plot. Eight stakes per plot would be installed. In addition, small metal tags would be attached to the base of trees that are sampled.

**Alternative 0 (Selected Alternative - No Action):** Under this alternative, there would be no FIA inventory conducted in wilderness areas. The FIA inventory program would continue outside of wilderness areas on the Tongass and Chugach National Forests.

**Alternative 1:** All 913 plots would have been accessed by hiking. Approximately 370 plots would have been day hikes, 130 backpack plots needed an estimated three days to complete, 200 plots required extended backpack trips (at least five days), and 210 plots required a base camp and an estimated three days to complete. No plots would have been accessed by helicopter, but approximately 490 overflights would have been needed for reconnaissance to help determine safe hiking routes. An estimated 1140 campsites and 8170 person days would have been needed.

**Alternative 2:** This alternative emphasized hiking to the plots with about one-quarter of the plots accessed by helicopter. Approximately 370 plots would have been day hikes, 130 backpack plots would have needed an estimated three days to complete, 210 plots required a base camp and an estimated three days to complete, and 200 plots would have been accessed by helicopter. There would have been no extended backpack plots. Approximately 400 helicopter landings would have taken place and there would have been an estimated 290 helicopter overflights to perform reconnaissance for determining route selection. An estimated 340 campsites and 4770 person days would have been needed.

**Alternative 3:** This alternative emphasized hiking to the plots with about one-third of the plots accessed by helicopter. Approximately 370 plots would have been accessed by day hikes, 210 plots required a base camp and an estimated three days to complete, and 330 plots would have been accessed by helicopter. There would have been no extended backpack plots. Approximately 660 helicopter landings would have taken place and there would have been an estimated 170 helicopter overflights to perform reconnaissance for determining route selection. An estimated 210 campsites and 3990 person days would have been needed.

**Alternative 4 (Proposed Action):** This alternative emphasized helicopters with over one-half of the plots accessed by helicopter. Approximately 370 plots would have been accessed by day hikes and 540 plots would have been accessed by helicopter. There would have been no base camp, backpack, or extended backpack plots. Approximately 1080 helicopter landings would have taken place and there would have been an estimated 40 helicopter overflights to perform reconnaissance for determining route selection. No campsites would have been needed, but an estimated 2730 person days would have been needed.

**Alternative 5:** All 913 plots would have been accessed by helicopter. Approximately 1826 helicopter landings would have taken place. No overflights or campsites would have been necessary, but an estimated 2730 person days would have been needed.

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## Comparison of Alternatives

Tables R-1 through R-8 compares the alternatives, define the effects, and identify the potential effects to the resources and risks to employees. A complete discussion of effects to all resources can be found in Chapter 3 of the Final EIS.

**Table R-1. Alternative components for a typical year of inventory activity and the 10-year inventory period**

<b>Alternatives</b>						
<b>Alternative Components</b>	<b>Selected (No Action)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>One-Year of Inventory</b>						
Helicopter plots (# landings)	0 (0)	0 (0)	20 (40)	33 (66)	54 (108)	91 (182)
Total Helicopter time (48 min/plot)	0 hrs	0 hrs	16 hrs	26 hrs	43 hrs	73 hrs
Helicopter overflights	0	49	29	17	4	0
Overflight time (48 min/plot)	0 hrs	39 hrs	23 hrs	14 hrs	3 hrs	0 hrs
Campsites	0	114	34	21	0	0
Person days	0	817	477	399	273	273
<b>10-Year Inventory</b>						
Helicopter plots (# landings)	0 (0)	0 (0)	200 (400)	330 (660)	540 (1,080)	913 (1,826)
Total Helicopter time (48 min/plot)	0 hrs	0 hrs	160 hrs	260 hrs	430 hrs	730 hrs
Helicopter overflights	0	490	290	170	40	0
Overflight time (48 min/plot)	0 hrs	392 hrs	232 hrs	136 hrs	32 hrs	0 hrs
Campsites	0	1,140	340	210	0	0
Person days	0	8,170	4,770	3,990	2,730	2,730

**Table R-2. Forested and non-forested plots by type of access and alternative.**

	Heli- Accessed Forested Plots	Heli- Accessed Non-forested Plots	Walk-In Forested Plots	Walk-In Non- forested Plots	Total Plots
<b>Selected Alternative (No Action) # of plots</b>	0	0	0	0	0
<b>Alternative 1 # of plots</b>	0	0	646	267	913
<b>Alternative 2 # of plots</b>	93	107	553	160	913
<b>Alternative 3 # of plots</b>	169	161	477	106	913
<b>Alternative 4 # of plots</b>	315	225	331	42	913
<b>Alternative 5 # of plots</b>	646	267	0	0	913

**Table R-3. Definitions of potential effects to the wilderness character**

<p><b>Negligible:</b> only slight changes in one or more of the wilderness qualities occur as a result of helicopter landings and/or overflights, and inventory activity.</p>
<p><b>Minor:</b> ephemeral impacts to one or more wilderness qualities could occur as a result of increased helicopter use and/or inventory activity. Over the course of a visitor season a few individuals or visitor groups could encounter helicopters engaged in FIA work.</p>
<p><b>Moderate:</b> short-term (lasting less than one season) impacts to one or more wilderness qualities could occur as a result of increased helicopter use and/or inventory activity. The proportion of summer days in the wilderness areas without helicopter landings could be reduced by up to 25 percent. Over the course of a visitor season, a few individuals or visitor groups could encounter helicopters engaged in FIA work, or other evidence of access to inventory plots.</p>
<p><b>Major:</b> long-term impacts (lasting more than one season) to one or more wilderness qualities could occur as a result of increased helicopter use and/or inventory activity. The proportion of summer days in the wilderness areas without helicopter landings could be reduced by more than 25 percent. Over the course of their wilderness trips, several individuals or groups could encounter helicopters engaged in FIA work, or other evidence of access to inventory plots.</p>

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**Table R-4. Definitions of potential effects for wildlife, heritage, vegetation resources**

<b>Negligible:</b> effects may or may not cause observable changes to natural conditions; regardless, they do not reduce the integrity of a resource.
<b>Minor:</b> effects cause observable and short-term changes to natural conditions, but they do not reduce the integrity of a resource.
<b>Moderate:</b> effects cause observable and short-term changes to natural conditions, and/or they reduce the integrity of a resource.
<b>Major:</b> effects cause observable and long-term changes to natural conditions, and they reduce the integrity of a resource.

**Table R-5. Definition of safety risk for employees**

<b>Low:</b> risk is when an activity is seldom or unlikely to occur and the severity of injury is marginal or negligible.
<b>Medium:</b> risk is when an activity has a: probability of unlikely and the severity is catastrophic, probability of seldom and the severity is critical, or probability of occasional or likely and the severity is marginal
<b>High:</b> risk is when the activity has a: probability of seldom or occasional and the severity of an injury is catastrophic, probability is occasional or likely and the severity is critical, or probability is high and the severity is marginal.
<b>Extreme:</b> risk is when an activity has a: Probability of likely or frequent and the severity of an injury is catastrophic or critical.

**Table R-6. Definition of risk for invasive species**

<b>Low:</b> risk for introduction of and/or spread of invasive organisms, leading to reduced ecosystem integrity.
<b>Moderate:</b> risk for significant introduction of and/or spread of invasive organisms, leading to reduced ecosystem integrity.
<b>High:</b> risk of immediate introduction of and/or spread of invasive organisms, leading to reduced ecosystem integrity

**Table R-7. Comparison of Selected Alternative and alternatives by significant issues and potential direct and indirect effects**

Issues and Effects	Alternative					
	Selected (No Action)	1	2	3	4	5
<b>Wilderness Character</b>						
1. Untrammelled - unhindered and free from modern human control or manipulation	None	None	None	None	None	None
2. Natural - ecological systems are substantially free from effects of modern civilization	None	None	Negligible	Negligible	Negligible	Negligible
3a. Undeveloped* - helicopter use	None	Negligible	Minor	Minor	Moderate^	Major
3b. Undeveloped - monumentation	None	Major	Major	Major	Major	Major
4. Effect to Outstanding opportunities for solitude or primitive, unconfined recreation	None	Negligible	Minor	Minor	Moderate^	Major
<b>Wildlife</b>						
TE species	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect
Sensitive Species	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Bald Eagles	None	Negligible	Negligible	Negligible	Negligible	Negligible
Mountain Goats	None	Negligible	Negligible	Negligible	Negligible	Negligible
Wolverines	None	Negligible	Negligible	Negligible	Negligible	Negligible
Bears	None	Minor	Minor	Negligible	Negligible	Negligible
<b>Employee Safety - Risk</b>						
Slips, Trips, Falls	None	Extreme^	High^	Medium	Medium	Low
Repetitive Motion Disorders	None	Medium	Medium	Low	Low	Low
Watercraft Operations	None	Medium	Medium	Medium	Low	Low
Aircraft Operations	None	Medium	Medium	Medium	Medium	Medium
Bear Encounters	None	High	High	Medium	Medium	Low

\*The undeveloped quality refers to the presence of structures, construction, habitations including the development of trails and campsites. It also refers to the absence of mechanical transport or motorized equipment.

^ These effects would change if non-forested plots are excluded:

Wilderness Character: Alternative 4 would be Minor

Safety: Alternative 1 would be High, Alternative 2 would be Medium

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**Table R-8. Comparison of alternatives by other resources of concern and potential direct and indirect effects**

Other Resource Concerns and Effects	Alternative					
	Selected (No Action)	1	2	3	4	5
<b>Heritage Resources</b>						
NHPA Section 106 Effect	NHPA*	NHPA*	NHPA	NHPA	NHPA	NHPA
Environmental Effect	None	Minor	Minor	Minor	Negligible	Negligible
<b>Vegetation Resources</b>						
Sensitive Species	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
General Vegetation	None	Negligible	Negligible	Negligible	Negligible	Negligible
Rare Plants	None	Negligible	Negligible	Negligible	Negligible	Negligible
<b>Invasive Species</b>						
Plants	None	Low Risk				
Aquatic Organisms	None	Low Risk	Low Risk	Low Risk	Low Risk	No Risk
Terrestrial Wildlife	None	No Risk				
Pathogens	None	No Risk				
Insects	None	No Risk				

\*NHPA = No historic properties affected

## Environmentally Preferred Alternative

Based upon a comparison of the alternatives and their effects, the No Action Alternative is the Environmentally Preferred alternative because it causes no impacts to the physical and biological environment.

## Alternatives Not Considered in Detail

Three alternatives were considered during the planning process, but were not included in the Final EIS for detailed study. These are described briefly below, along with the reasons for not considering them further.

### Reducing the Number of Plots

Inventorying fewer plots based upon the type of access does not meet the national standardized sampling error goals established for the FIA inventory.

The statistical approach for the FIA inventory assumes that the inventory is conducted using random sampling and is in accordance with standard statistical practices. This means that any plot (forested or non-forested) within the population has the same chance of being selected for the inventory. Sampling by “pre-selecting” plots to not inventory due to the type of access would violate the principle of randomness. Since many of the helicopter-accessed plots are in areas where the vegetation may be different from the rest of the wilderness, removing just the helicopter accessed plots would result in a bias of unknown size.

Even if the accessible plots were a random selection of the forest, reducing the number of plots would increase errors by increasing the variance of estimates. This is a basic property of sample-based estimation, and it is also true of FIA estimates. As the number of plots is decreased, the precision (accuracy) of estimates also decreases.

### **Including a “Wilderness-Compatible” Alternative**

A “wilderness-compatible” alternative was suggested during the Draft EIS comment period and it included no helicopter landings at plots, no permanent monumentation, and no helicopter overflights to scout safe routes. That alternative was considered, but eliminated from detailed study in the Final EIS for the following reasons:

**Helicopter Plots:** Selectively “dropping” plots that require helicopter landings would be inconsistent with the Purpose and Need, which is to obtain a statistically valid sample of the plots. Approximately 200 plots (forested and non-forested) are considered too distant and inaccessible by Alaska Region wilderness managers, and an additional amount of plots have safety concerns. Not inventorying these plots would prevent obtaining a statistically valid sample by not being random or having sufficient sample size.

**Monumentation:** GPS and digital photos that do not leave stakes or other markings were suggested and have their application, but have not proven reliable for the precise re-establishment of plots and specific micro-plots within those plots. This is because GPS accuracy varies a great deal depending on the number of satellites that can be reached at northern latitudes, the time of day, type and thickness of forest canopy and topography that can block satellite signals. Digital photos are helpful, but the level of vegetation change that can occur over time prevents precise re-establishment of the plot. GPS, a compass, and aerial photos are used to navigate to the general area near the plot.

Minimum guidelines for the use of monumentation in wilderness areas were established in a 2005 national intra-agency agreement between the Wilderness, Wild and Scenic Rivers and FIA programs. The monumentation proposed in this inventory is consistent with that agreement. Additional information regarding the suitability of alternative methods and discussions about monumentation are included in the planning record.

**Overflights:** Overflights by float planes to scout safe routes will make the reconnaissance work less safe because they fly faster, need larger areas to turn, can stall at low speeds, and cannot stop or turn around like helicopters. Helicopters also have lower weather minimums (one-half mile versus two miles), which allow them to operate more safely in variable weather conditions.

The effects from the use of helicopters for access to plots, monumentation, and overflights have been analyzed within the existing range of alternatives.

### **Excluding the Non-Forested Plots**

Based upon public comment to exclude the non-forested plots and consider this in a separate alternative, an analysis was done to determine if this alternative should be considered in detail. The analysis indicated the current range of alternatives was sufficient because a review of the alternative components and effects from including forested and non-forested plots (a total of 913 plots) and only the forested plots (646 total plots) indicated:

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1. Almost all of the alternative components such as the number of campsites, helicopter-accessed plots, overflights, etc. fall within the existing range of components displayed in the Draft EIS;
2. None of the effects in the Final EIS would increase from not inventorying the non-forested plots. The majority of resource effects would be largely the same with a few effects decreasing.

There was not enough difference between alternative components or effects to warrant additional analysis of alternatives in the Final EIS regarding excluding non-forested plots from the inventory. In addition, excluding the non-forested plots from all the alternatives did not affect the relative ranking of the alternatives. The existing number of alternatives in the Final EIS provided a reasonable range of alternatives for the decision maker. Excluding the non-forested plots was an option that could be applied to any of the action alternatives. Additional information about the review of alternative components and effects is available in the project planning record.

## Planning Record

The planning record for this project includes the Draft EIS, Final EIS, the Minimum Requirement Decision Guide and material leading up to the 2005 FIA helicopter authorization, material incorporated by reference, and all materials produced during the environmental analysis of this project. The planning record is available for review at the Regional Office in Juneau.

## Findings Required By Law

### **National Forest Management Act - Forest Plan**

This decision is consistent with the 2008 Tongass Land and Resource Management Plan and the 2002 Chugach Land and Resource Management Plan.

### **Alaska National Interest Lands Conservation Act, Section 810, Subsistence Evaluation and Finding**

The effects of this project have been evaluated to determine potential effects on subsistence opportunities and resources and the Selected Alternative shall not result in a significant restriction of subsistence uses.

### **Endangered Species Act**

Biological evaluations were completed for threatened, endangered, candidate, and sensitive plant and animal species. The Selected Alternative will have no effect on threatened, endangered or proposed species and no impact on sensitive species.

### **Marine Mammal Protection Act**

Biological evaluations were completed for marine mammals and the Selected Alternative will have no effect on threatened, endangered or proposed species.

### **Bald Eagle Protection Act**

There will be no effects to bald eagles.

### **Magnuson-Stevens Fishery Conservation and Management Act (Essential Fish Habitat)**

The Magnuson-Stevens Fishery Conservation and Management Act (the Act) requires that all federal agencies consult with NMFS to determine if a project may adversely affect essential fish habitat. NMFS has determined that this project has no effect on essential fish habitat.

### **National Historic Preservation Act**

I have determined that there will be no effects on historic properties listed in or eligible for listing in the National Register of Historic Places for the Selected Alternative. This action complies with Section 106 of the National Historic Preservation Act by following the provisions of the Programmatic Agreement signed July 29, 2002 between the Forest Service, Alaska State Historic Preservation Officer, and the Advisory Council on Historic Preservation.

### **Clean Water Act**

The Selected Alternative will not exceed State of Alaska water quality standards.

### **Clean Air Act**

Emissions from the Selected Alternative will not exceed national ambient air quality standards.

### **Coastal Zone Management Act**

Under the Coastal Zone Management Act (CZMA), the Forest Service must determine whether an activity will affect any land or water use or any natural resource of Alaska's coastal zone. The Forest Service has determined that this project will not affect the coastal zone and does not require Alaska Coastal Management Program review because there are no ground-disturbing activities and there will be no noise from helicopter flights accessing the inventory plots. This negative determination was provided to the Alaska Department of Natural Resources, Office of Project Management and Permitting, which did not respond within 60 days. Therefore, under 15 CFR Section 930.35©, the State's concurrence with the negative determination is presumed.

## **Executive Orders**

### **Executive Order 11990 (Wetlands)**

Executive Order 11990 directs federal agencies to take action to avoid, to the extent practicable, the long and short-term adverse impacts associated with the destruction or modification of wetlands. The Selected Alternative will not have any impacts to wetlands because there is no destruction, or modification of wetlands from FIA inventory.

### **Executive Order 12898 (Environmental Justice)**

Executive Order 12898 direct federal agencies to identify and address the issue of environmental justice and the effects of agency programs that disproportionately impact

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minority and low income populations. The Executive Order specifically directs agencies to consider patterns of subsistence hunting and fishing when an agency may affect fish and wildlife. The Selected Alternative will not have any disproportionate impacts to minority and low income populations.

### **Executive Order 13007 (Indian Sacred Sites)**

Executive Order 13007 directs federal agencies to accommodate access to and ceremonial use of American Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites. Consultation with local federally recognized tribes occurred during this analysis and no issues were raised about use or access of sacred sites. The Selected Alternative will not limit access to or ceremonial use of sacred sites by Indian religious practitioners and will not adversely impact the integrity of such sites.

### **Executive Order 13112 (Invasive Species)**

Executive Order 13112 directs federal agencies to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause. The Selected Alternative will not contribute to the introduction or spread of invasive species.

## Federal and State Permits

No permits, licenses or certifications are necessary for this project.

## Implementation

Since the No Action alternative was selected, there is no implementation period.

## Right to Appeal

This decision is subject to administrative review (appeal) pursuant to 36 CFR Part 215. Individuals or organizations who submitted comments, or otherwise expressed interest during the comment period specified at 215.6, may appeal this decision. The notice of appeal must be in writing, meet the appeal content requirements at 215.14, and be filed with the Appeal Deciding Officer:

**Regular Mail\*:**

Abigail Kimbell, Chief  
USDA Forest Service  
Attn: EMC Appeals  
Mail Stop 1104  
1400 Independence Ave., SW  
Washington, DC 20250-1104

\*Note that regular mail is still irradiated before it comes to the National Headquarters; so regular mail may take longer than normal to arrive. Anything time sensitive should be sent FedEx, UPS, Courier, etc. to the following address:

USDA Forest Service  
Ecosystem Management Coordination  
Attn: Appeals  
Yates Bldg., 3CEN  
201 14th Street, SW  
Washington, DC 20250

Email address: [appeals-chief@fs.fed.us](mailto:appeals-chief@fs.fed.us)  
Phone: 202-205-0895  
Fax: 202-205-1012

Electronic appeals must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), or Word (.doc). Appeals may also be hand delivered to the Courier address above between the hours of 8 a.m. and 5 p.m. Monday through Friday, except holidays.

The Notice of Appeal, including attachments, must be filed (regular mail, fax, email, express delivery or messenger service) with the Appeal Deciding Officer at the correct location within 45 calendar days of the date that the legal notification of this decision is published in the Juneau Empire and the Anchorage Daily News. The publication date in the newspapers of record is the exclusive means for calculating the time to file an appeal. Those wishing to appeal this decision should not rely upon dates or timeframe information provided by any other source.

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Since the No Action alternative was selected, there is no implementation period.

For additional information concerning this decision, contact Ken Post, Helicopter Access to Conduct Forest Inventory and Analysis (FIA) in Wilderness Team Leader, Alaska Regional Office, P.O. Box 21628, Juneau, AK 99802-1628, or call (907) 586-8796.



DENNIS E. BSCHOR

Regional Forester



DATE

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