

**Decision Notice
And
Finding of No Significant Impact**

**Authorization of Commercially Guided Helicopter Skiing
In the Allen Glacier to Cleave Creek Area
of the Cordova Ranger District**

November 27, 2002

USDA Forest Service
Alaska Region
Chugach National Forest

I. INTRODUCTION

The purpose of this Decision Notice is to document the factors I considered and the rationale I used in making a decision concerning authorization of guided helicopter skiing (heli-skiing) in the mountainous area between Marshall Pass and the Copper River on National Forest System lands. The area authorized is bounded by the BLM/National Forest boundary on the north side of Cleave Creek and on the south by the Allen Glacier. The area encompasses approximately 225,000 acres of the Cordova Ranger District.

This Decision Notice and Finding of No Significant Impact (FONSI) also contains certain findings required by various laws and information concerning the right to Administrative Review of this decision. An environmental assessment (EA) is available for public review in the Forest Supervisor's Office in Anchorage, Alaska and at the Cordova Ranger District Office in Cordova, Alaska. The EA discloses the environmental consequences, including cumulative effects, of alternatives for authorizing commercially guided heli-skiing in this area. It also discloses the consequences of the connected action of flying between the permit area and potential staging areas near Valdez and Cordova. The EA for this project is incorporated by reference in this decision document.

This action is in response to a request made by Valdez Heli-Ski Guides (VHSG) for reissuance of a permit to provide guided heli-skiing on National Forest System lands in the Allen Glacier to Cleave Creek Area. The permit holder has had temporary one year permits in the area in the past, including the 2002 season. Currently guided heli-skiing is authorized on both State and BLM lands adjacent to this analysis area. The demand for this type of activity prompted the applicant to approach the Forest Service for authorization to continue to provide this service on National Forest System lands. However, due to the interest expressed by several different heli-ski operators to provide this type of service to the public, an EA was done to determine the number of operators and the level of service that would be authorized. This has been the only location where guided helicopter skiing is authorized on the Cordova Ranger District.

II. DECISION AND REASONS FOR THE DECISION

A. Decision

Based on the EA for this project, as well as comments received during the 30-day public review of the document, my decision is to select Alternative 2 with modifications. Under this alternative, one operator will be authorized to provide heli-skiing using a maximum of five helicopters at one time. The use season will be from February 1 to April 30.

It is my decision to authorize the issuance of a one-year special use permit for guided helicopter skiing on National Forest System lands in the Chugach Mountain Range north of Cordova, Alaska, in the mountainous areas between Marshall Pass and the Copper River, as previously described. A prospectus will be used to select the successful applicant. Guided helicopter skiing will be permitted in seven regions totaling 225,280 acres of the project area. (Refer to Analysis Area Map on page iii of the EA). The season of use will be from February 1, 2003 through April 30, 2003. Based on the recreation carrying capacity for the area, a total of 87 persons at one time (PAOTs) will be allowed for the 89 service days. In response to comments received on the EA, I decided to reduce the number of helicopters allowed, and not consider extending the season past April 30th to reduce potential impacts to kidding goats.

Following a probationary period, subsequent permits (up to 5-years) may be issued contingent upon successful operations and acceptable performance by the permit holder, and no changes in impacts.

In addition, my decision includes the related activities of flying to and from the permit area and potential staging areas in or near Valdez or Cordova, Alaska, and a fuel cache. The permit area is not near any major population center and getting to and from the permit area does not involve flying over the towns of Valdez or Cordova. Stipulations concerning fuel caches will be included in the permit as they have been in the past.

Use of private land would not be authorized with this permit. Private land is located in the valley bottoms along Tasnuna Creek, Cleave Creek, and along the Copper River.

B. Applicable Laws, Regulations, and Policy

Revised Chugach Land and Resource Management Plan (2002) - This decision is consistent with the Revised Forest Plan. The permit area has an ANILCA 501(b) – 2 prescription that emphasizes the conservation of fish and wildlife and their habitats while providing opportunities for backcountry recreational activities in a natural appearing landscape. The Revised Forest Plan lists this area as being open to all types of winter-motorized use, including snowmobiles and helicopters. Effects are displayed in the FEIS for the Revised Forest Plan. This prescription was developed to address the “Management of fish and wildlife habitat”, “Motorized Access”, “Non-motorized access” and “Recreational opportunities” interests. Commercial outfitter guide carrying capacity is set at 50% of total carrying capacity. Allowed activities include special use permit (SUP) storage of related recreation equipment at an assigned site. The permit area has a Recreation Opportunity Spectrum (ROS) class of Primitive II, which allows motorized uses, involves low interactions between users, no or very infrequent sounds of human activity and

human use is essentially unnoticeable. The maximum party size is 15. This action will implement the Revised Forest Plan by providing opportunities for backcountry recreation activities in a natural appearing landscape, maintaining quality settings for motorized recreation opportunities, and providing undeveloped dispersed recreation opportunities.

National Forest Management Act (NFMA) 1976 – The Revised Forest Plan complies with all resource integration and management requirements of 36 CFR 219. Application of Forest Plan direction for the analysis area ensures compliance at the project level. Refer to pages 2 through 8 of the EA.

Coastal Zone Management Act of 1972, as Amended (CZMA) - The Memorandum of Understanding (MOU) between the State of Alaska and the Alaska Region of the Forest Service for implementing the CZMA, identifies types of projects that affect the coastal zone and are subject to ACMP review. Helicopter skiing is not an activity requiring a consistency review prior to permit issuance.

Endangered Species Act of 1973 - A Biological Evaluation has been completed for this action and it indicates that no Federally listed threatened, endangered, or sensitive species of plants or animals will be affected by this activity.

Bald Eagle Protection Act of 1940 - As described in the Response To Comments on pages 12-13, and pages 45 – 46 of the EA, this activity has been determined to have negligible to low impacts to bald eagles.

National Historic Preservation Act of 1966 – No significant effects on known or unknown cultural resources are anticipated. No cultural site survey is required for activities conducted on snow per the Programmatic Agreement between Forest Service, State Historic Preservation Officer and the Advisory Council.

Floodplain Management (E.O. 11988), Protection of Wetlands (E.O. 11990) - This activity is not located on any floodplain or wetland. It will not impact the functional value of any floodplain as defined by Executive Order 11988 and will not have negative impacts on wetlands as defined by Executive Order 11990.

Environmental Justice (E.O. 12898) - I have determined that in accordance with Executive Order 12898 this activity does not have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

Alaska National Interest Lands Conservation Act of 1980, Public Law 96-487, (ANILCA) Section 501 (b), CFR 241.22 - After review of the EA and in particular pages 58 – 59, I conclude that this activity does not materially interfere with or detract from the conservation of fish, wildlife, and their habitat and therefore is consistent with the multiple use activities allowable under 501(b) designation.

ANILCA Section 810, Subsistence Evaluation and Finding – As described on page 60 of the EA, the effects of this project have been evaluated to determine potential effects on subsistence opportunities and resources. There is no documented or reported subsistence use that would be restricted as a result of this decision.

Clean Air Act of 1970, as amended – Emissions anticipated from the implementation of any project alternative would be of short duration and not expected to exceed State of Alaska ambient air quality standards.

Clean Water Act of 1977, as amended – The design of the special use permit is in accordance with Forest Plan standard and guidelines, the best management practices and applicable Forest Service manual and handbook direction. The permit will include specific requirements to prevent or reduce water pollution. Permit activities are expected to meet all applicable State of Alaska water quality standards.

Wilderness Act of 1964 – No National Forest System lands are proposed to be designated Wilderness in the permit area and the permit request did not include flying across the Copper River and over adjacent Wrangell-St. Elias Wilderness and National Park/Preserve. However, to address the concern raised by the National Park Service during review of the EA, a stipulation will be included in the permit to not allow helicopter use within 2,500 feet horizontal distance from designated wilderness and park boundaries, and at no time would aircraft operating under this permit fly over the Wrangell-St. Elias Wilderness and National Park/Preserve, unless safety would be compromised.

C. Issues

Issues for this project were identified through public and internal scoping (EA, pages 8 – 10). Similar issues were combined into one statement where appropriate. The following four issues were determined to be substantive and within the scope of the project decision. These issues are addressed through the proposed action and alternatives. These issues were used in developing alternatives, mitigation measures, and monitoring plans, in the analysis of the environmental consequences, and in making my decision. Other concerns were raised but determined to be outside the scope of this site-specific analysis and decision to be made, or addressed in the Forest Plan or other processes (EA pages 9 – 10). As needed, resource effects related to those concerns are discussed in Chapter 3 of the EA.

Issue 1: *There were concerns that providing guided heli-skiing could be noisy and could impact the recreation experience of users in the area, including noise and type of experience provided.* The EA describes how this issue is addressed in all alternatives on pages 20 and 23-30 and describes the consequences on pages 36-41. All alternatives will provide a ROS class Primitive II (PII) type of recreation experience. This class establishes that the party size should not exceed 15 people and encounters between groups shall be one or less per day.

Issue 2: *There were concerns that guided heli-skiing could have impacts on the wildlife habitat and populations in the area; specifically that helicopter noise and the visual presence of helicopters could affect wildlife, especially mountain goats.* The EA describes how this issue is addressed by each alternative on pages 21 and 31 and displays the consequences of the alternatives with respect to this issue on pages 42-53. Areas of known goat winter range have been eliminated from the regions approved for operations and stipulations will be included in the special use permit to reduce potential disturbance to wildlife in the area.

Issue 3: *There was a concern that guided heli-skiing could have effects such as trespass or unauthorized use on adjacent private lands and bordering State and BLM lands.* The

operator will be required to use up-to-date maps and GPS equipment to make sure they are operating only on National Forest System lands (EA pages 20, 32, 54, and 55).

Issue 4: *There was a concern that the number of permits issued for the area could have an effect on the safety of the users in the area.* The EA describes how this issue is addressed by each alternative on pages 20 and 32-34 and displays the consequences on pages 55-56.

D. Rationale for the Decision.

In making my decision, I diligently considered all issues and took into account the competing interests and values of the public. There were many divergent public, personal, and professional opinions expressed during this analysis. The EA shows how issues raised during initial scoping were addressed. The attached Response To Comments shows how the comments received on the EA have been considered in making my decision. The selected alternative provides the opportunity for the public to pursue guided heli-skiing activities in a remote, pristine area within the framework of existing laws, regulations, policies, public needs and desires, and capabilities of the land, while responding to the purpose and need for the project. This proposal helps meet the public demand for quality, safe, guided helicopter skiing while minimizing impacts to wildlife and other users. This will be the only area under permit for guided helicopter skiing on the Cordova Ranger District of the Chugach National Forest during the 2003 season.

Alternative 2 was modified to allow a maximum of five helicopters and will allow for no exception for extending the season of use past April 30th in response to the comments received on the EA. It was selected with its mitigation measures for the following reasons:

1. Many comments were received during the comment period for the EA. In my considerations of the analysis and the issues and concerns raised by everyone, I put additional weight on information that related to the operational realities of heli-ski activities. The information from people who have intimate knowledge of the industry raised a number of issues. For example, safety hazards can occur when lack of sufficient terrain restricts the operator's flexibility to select ski locations given ever-changing snow and weather conditions and clients' differing abilities. Also, the potential for accidents increases when more helicopters are in use at the same time. Also highlighted were the logistical and economic difficulties that would occur if the regions were split between two or more operators, where each operation did not have the ability to use all the regions to move clients around the permit area. I also feel that my decision to authorize only one operator and reduce the maximum number of helicopters allowed responds to some of the concerns raised by other commenters. This decision will reduce the potential for effects on wildlife and other users as compared with the proposed action in the EA. It will better respond to people concerned with the associated noise and number of take-offs, landings, and overflights in the Primitive II ROS classification.
2. The selected alternative is consistent with the Revised Forest Plan and helps meet the desired conditions for the area. The desired condition for the analysis area is to maintain quality settings for motorized recreation opportunities, provide seasonal opportunities for motorized recreation activities in a safe manner and meet the recreation experience guidelines for the Recreation Opportunity Spectrum (ROS) Class of Primitive II

prescribed for the area. Since heli-skiing is only one of the potential commercial winter guided activities within the analysis area, and to assure meeting the Primitive II ROS standards, wildlife and recreation issues and concerns, and to maintain high safety standards, only half of the total Commercial Guided Carrying Capacity has been assigned as commercial heli-guided use. Also in response to comments received on the EA about potential for noise and impacts to other users and wildlife, and safety concerns, I reduced the maximum number of helicopters to five and operators to one.

3. By only allowing a maximum of five ships and one operator, it provides an opportunity for commercially guided heli-ski operations under conditions that the operator can best provide the quality of skiing experience that guided heliskiers are pursuing, while reducing the likelihood of disturbing wildlife, other users in the area, and reducing potential noise. A maximum of five helicopters still allows the operator to provide transportation for the allowable number of PAOTS (87) while reducing the number of overflights, take-offs and landings from what could have potentially taken place if eight helicopters were allowed. It also reduces the number of potential fly-bys that may occur if two or more operators were in the permit area or more ships were allowed. It also better provides a safer operating environment because on some days, weather and snow conditions may cause two or more operators to be competing for limited terrain suitable for skiing and result in an unacceptable recreation experience for the clients and other users. Concerns raised by the public when reviewing the EA are better addressed by Alternative 2 with modifications than by Alternative 3.
4. The mitigation measures and monitoring plan will result in meeting Forest Plan Standards and Guidelines and favorably address issues raised by reducing potential effects on goats, other wildlife, noise, safety, recreation experience, and private land in the area. These measures and monitoring plan will be included in the special use authorization.
5. The public was concerned with the potential noise and impacts on backcountry users by continuing to allow guided heli-ski operations in the area. This area was chosen for this activity because other use, including motorized and non-motorized, is relatively low. This area was originally considered as an area suitable for guided heli-ski operations because of its distance from Valdez and Cordova, the limited amount of non-motorized use in the area to begin with, and the fact that it is relatively inaccessible without using helicopters, planes, or snowmachines. There has only been an occasional snowmachine track or cross country ski track observed in the area. No negative comments have been received by any users of the area regarding the previous permitted heli-ski use. Impacts are disclosed in the EA.
6. Public concerns were raised about impacts to wildlife from helicopters. Of particular interest were concerns about impacts to mountain goats. Areas of currently known and potential goat winter habitat have been mapped on page 18 of the EA and eliminated from the areas authorized for heli-skiing and fuel caches. Also, the permit period will not extend past April 30th to avoid the goat-kidding period, which usually begins around mid May. The Revised Forest Plan standards and guidelines for mountain goats will be followed, and are attached as stipulations in the permit. The regions permitted for use can be modified as necessary. All of the impacts to wildlife due to the commercially guided helicopter skiing proposal would be characterized as indirect effects. No long-

term habitat alteration would occur. The indirect impacts, as disturbance and displacement, would be short term and limited duration, as discussed above. These impacts are not likely to cause long-term population impacts to any of the wildlife typically found in the area.

7. A public concern was raised that a broad enough range of alternatives for this activity was not analyzed; in particular that other locations for the proposed activity or the possibility of dropping portions of the analysis area were not considered as an alternative. In the recent Forest Plan Revision effort, a wide range of possible locations for winter motorized activities, including heli-skiing, went through an open public process. In various Forest Plan alternatives the entire Cordova Ranger District was analyzed for the appropriateness of heli-ski operations. As a result of that process, some areas on the District are open and some are closed. The analysis area for this proposed activity falls within a geographic location that was determined to be appropriate for this type of use. In addition, no issue or concern was raised during the public process for this proposal that suggested that specific geographic locations within the analysis area not be considered. The range of alternatives considered in the EA was developed in direct response to the issues identified during public and internal scoping. And finally, during alternative development, any areas of potential or known goat winter habitat were dropped from consideration, because I would not have considered these locations in any alternative. See Comment/Response #4, page 3-4 of the attached Response To Comments for additional discussion.
8. After a careful review of the environmental consequences documented in Chapter 3 of the EA and by taking this conservative approach to allowing this activity, I am satisfied that any adverse effects, especially to the fish, wildlife, and recreation experience of users, will be of a short term nature and are not significant. This finding applies to the authorized use and other related actions included in this decision, both separately and viewed together and in relation to the cumulative and other impacts addressed in the EA.

E. Additional Factors Considered in Making the Decision.

In making my decision to authorize issuing one special use permit to a single operator for conducting helicopter supported skiing within seven regions totaling 225,280 acres on the Cordova Ranger District in the Cleave Creek to Allen Glacier area, I also considered the following:

1. This commercial use of National Forest System lands is an allowed activity under the ANILCA 501(b) - 2 prescription of the Forest Plan and helps meet the desired condition by providing opportunities for winter motorized backcountry recreation activities in a natural appearing landscape.
2. The entire Chugach National Forest was reviewed through a public process to determine which areas should be open or closed to helicopter operations and other motorized uses, where wilderness designations were appropriate, which rivers were eligible for wild and scenic rivers designations and which rivers should be recommended for designation. Roadless areas were addressed as well in the Revised

Forest Plan. Effects are displayed in the FEIS for the Revised Forest Plan. It was through that process that the range of locations appropriate for motorized uses were considered. The proposed action of transporting skiers, landing a helicopter on snow or ice, dropping off and picking up skiers and transporting them back to private land would not alter the physical roadless characteristics of the area.

3. The Revised Forest Plan does not recommend the permit area for wilderness designation, and allows for winter-motorized use including helicopters in this area. I recognize that a constituency may develop that wants to continue this type of use in the area; however, the proposed helicopter use would not have a permanent effect on the physical environment nor preclude the area from being considered for wilderness in a future revision effort. Winter helicopter skiing would have little effect on the physical character of the wilderness environment. Although helicopter use would impact some wilderness values such as solitude, sense of remoteness, primitive recreation, self-reliance, and untrammeled natural state, such impacts would be temporary. No facilities would be built and no trees would be cut in the project area. Eliminating the use could reverse any impacts.
4. The allowed number of 87 guided PAOTS is one-half of the Commercial Outfitter Guide Capacity Allocation (50%) as shown on the Activities Table for this prescription in the Revised Forest Plan. Past use of 704 client days and 3-4 helicopters has been well below the maximum allowable use of 7,743 client-days. I considered the potential of each alternative of reaching this capacity and how each provides a safe recreation experience for both guided and nonguided users of the area.
5. The mitigation measures as outlined on pages 20 – 21 of the EA will be included as stipulations in the special use permit to reduce effects on recreation experience, quiet, and wildlife, especially goats. I will not consider extending the permit past April 30th to eliminate potential of disturbing goats during kidding period (usually starts mid May). Also, reducing the maximum number of helicopters allowed from eight to five will better meet the Primitive II ROS class by reducing the number of take-offs, landings, and overflights, the amount of noise, and potential for disturbing other users and wildlife.
6. A stipulation will be added to the permit authorization to address comments raised by the National Park Service. Unless safety would be compromised, helicopters will be required to stay 2,500 horizontal feet away from the Wrangell-St. Elias Wilderness and National Park/Preserve boundary and not be permitted to fly over the Park or Preserve to eliminate impacts to users of the Park.
7. A 100-gallon fuel cache has been included in previous permits for heli-ski activities in the same area. Stipulations for a fuel cache will be included in the permit authorization as it has been in the past. The USFS and operator will jointly determine the location of the fuel cache prior to the operating season. To meet State DEC requirements, an EPA approved leak-proof fuel containment bib must surround the cache. Fuel spill absorbent materials must be on site. The bib, fuel and all supplies must be removed at the conclusion of each operating season.

8. Requiring use of GPS equipment and up-to-date ownership maps should eliminate potential for trespass on adjacent lands and flying near or over Wrangell –St. Elias Wilderness and National Park/Preserve. Private lands are located in the valley bottoms and lower elevations. Use of private lands is not authorized with this permit.
9. Routine monitoring will occur as the special use permit is reviewed annually, and monitoring of goat populations and habitat will continue on an annual basis. The results can be used to adjust the location, the amount, or the duration of use allowed in the project area. As suggested in the comments received on the EA, besides getting reports from the operator, the Forest Service, as part of the routine monitoring of the special use permit authorization, will conduct inspection trips to the area.
10. Since this will be the only area where guided heli-ski operations are currently allowed on the Cordova Ranger District, there are other parts of the District available for other uses, both motorized and non-motorized.
11. The environmental analysis and accompanying biological evaluation considered wildlife species that are either listed on the Federal Threatened, Endangered or Sensitive List, are Management Indicator Species in the Revised Forest Plan, or were brought up as species of interest during the public scoping process. During the public comment period for the EA, several other species were mentioned, and additional questions were asked about some of the previously considered species. Since receiving those comments, considerable effort has been put into answering those questions and an analysis of the potential effects on the additional species. This information can be found on pages 7-18 of the Response To Comments attached to this Decision Notice, and literature sources reviewed and additional persons consulted are listed in the Project File. Based on the additional analysis, I am satisfied that the original determinations regarding the potential effects to wildlife are still valid, and that the effects of the permitted activities to the addition species considered will be negligible to low.
12. Chapters 2 and 3 of the EA disclose potential impacts, including the reasonably foreseeable cumulative effects of implementing each of the alternatives. When I consider the decision to conduct the above activities in this analysis area, with the information contained in the GIS database, Forest Plan FEIS, other EA's for similar activities, and the environmental analysis prepared for this project, I have sufficient information to make this decision.

III. ALTERNATIVES CONSIDERED.

A. Alternatives Eliminated from Detailed Study

I reviewed the rationale for eliminating the alternatives to consider a larger area, more than one operator in one region, and issuing a longer term permit initially, and agree with the conclusions given on page 16 of the EA.

B. Alternatives Considered

In making my decision, I considered the following alternatives:

The alternatives considered were:

1. Not authorize commercially guided heli-ski use of National Forest System lands.
2. Issue one permit allowing commercial use in the area previously under permit.
3. Issue two permits for the area, assigning operators to separate zones.
4. Issue more than two permits, assigning operators to separate zones.

Alternative 1 - No Action. In this alternative, a new permit would not be issued and the proposed commercially guided helicopter skiing would not be allowed. No client-days would be permitted. It does not preclude issuing helicopter guided skiing permits for other areas at this time or for this analysis area at some time in the future. This alternative responds to Issues 1 and 2 since no guided helicopter use would be allowed in the area and noise from helicopters would be less. It does not preclude unguided publics from chartering a helicopter and heli-skiing in the area. This alternative represents the pre-existing condition prior to issuance of previous temporary 1-year permits. The current special use permit expires December 31, 2002.

Alternative 2 - One Operator. Under this alternative a probationary one-year special use permit to a single operator would be issued for conducting helicopter supported skiing within seven regions of the permit area. A prospectus would be used to select the successful applicant and a one-year probationary permit issued. Following the probationary period, a subsequent permit may be issued contingent upon successful operations and acceptable performance by the permit holder. The season of use would be from February 1st through April 30th (89 days) and could be extended, upon request, if conditions warrant. Based on the recreation carrying capacity for the area and in response to comments received on the EA, a maximum of eight helicopters and 87 persons at one time (PAOTs) would be allowed for the 89 days. **This is the alternative I am selecting. However, I am modifying the maximum number of helicopters from eight to five and I am not going to consider extending the season past April 30th to eliminate potential effects on kidding goats.**

Alternative 3 (Proposed Action) - Two operators. Under this alternative one-year special use permits would be issued to two operators for conducting helicopter supported skiing within seven regions of the analysis area. A prospectus would be used to select the successful applicants and one-year probationary permits issued. Following the probationary periods, subsequent permits may be issued contingent upon successful operations and acceptable performance by the permit holders. The seven regions would be split between the two operators in such a way that they would not use the same runs at the same time. The season of use would be from February 1st through April 30th (89 days) and could be extended, upon request, if conditions warrant. A total of eight helicopters and 87 persons at one time (PAOTs) would be allowed for the 89 days.

Alternative 4 - Three or more operators. Under this alternative, probationary one-year special use permits would be issued to three or more operators for conducting helicopter supported skiing within seven regions totaling 225,280 acres in the analysis area. A prospectus would be used to select the successful applicants. Following the probationary periods, subsequent permits may be issued contingent upon successful operations and acceptable performance by the permit holders. The seven regions would be split between the operators in such a way that they would not use the same runs at the same time. The season of use would be from February 1st through

April 30th (89 days) and could be extended, upon request, if conditions warrant. A total of eight helicopters and 87 persons at one time (PAOTs) would be allowed for the 89 days.

IV. PUBLIC INVOLVEMENT

The public has been invited to participate in the project in several ways. Public involvement was initiated in April 2001, with the *Chugach National Forest Schedule of Proposed Actions for Environmental Analysis*. Approximately 344 quarterly schedules were mailed to interested individuals, organizations, and agencies.

In June 2001, a letter providing information about the proposal and seeking public comment was mailed to 5 companies that had expressed interest in providing heli-ski guided operations on the Cordova District of the Chugach National Forest. One objective of this letter was to gather information on potential demand for providing this service. In July of 2001, letters seeking comments concerning the proposed action were sent to adjacent landowners including State, Federal and private landowners and to people who had expressed interest in heli-ski operations on adjacent State lands near Thompson Pass. Public notices were printed in the Cordova Times, Valdez Vanguard, and Anchorage Daily News describing the proposal and asking for public input. A total of 30 written responses were received as a result of this scoping effort (see Appendix III of the EA).

In October 2002, the EA was made available for public review. A copy was mailed to those who expressed interest, a copy was posted on the Forest Web site, and copies were made available at the Supervisors Office in Anchorage and the Cordova District Office in Cordova.

We received 15 letters or e-mails in response to the EA. The attached Response to Comments shows how I considered them to make my decision. Based on the analysis and comments received, I decided to take a more conservative approach to authorizing this activity and selected and modified Alternative 2 instead of Alternative 3 as originally proposed in the EA.

V. IMPLEMENTATION, MONITORING, AND MITIGATION.

A. Implementation

This project will be implemented in accordance with Forest Service Manual and Handbook direction for issuing special use permits and mitigation measures and monitoring plans described in the EA. This direction provides a bridge between project planning and implementation and will ensure execution of the actions, environmental standards and mitigation approved by this decision and compliance with other laws.

Implementation of decisions made by the Cordova District Ranger, which are subject to appeal pursuant to 36 CFR part 215, may occur on, but not before, five business days from the close of the appeal filing period if no appeal is received. The appeal filing period closes 45 days after publication of legal notice of this decision in the Anchorage Daily News newspaper, published in Anchorage, Alaska. In the event an appeal is received, the decision may be implemented 15 days following disposition of the appeal.

B. Mitigation

Mitigation measures are site-specific measures to reduce the adverse impacts of proposed management activities. Applicable Forest Plan Standards and Guidelines are referenced on page 3 - 8 in the EA. Additional site-specific mitigation measures are specified on pages 20 through 21 of the EA. In addition, the stipulations described earlier in this Decision Notice on page 5 and 6 will be included in the permit authorization. Also the alternative was modified to only allow a maximum of five helicopters and not allow the operator to extend the season beyond April 30th to reduce potential impacts.

C. Monitoring

A specific monitoring plan for this proposal is included on page 21 of the EA. Comments concerning a baseline monitoring plan are addressed in the Revised Forest Plan, Chapter 5 – Monitoring and Evaluation Strategy. In addition, based on comments received that identified a concern with relying solely on information provided by the operator, an additional element has been added to the monitoring plan for on-site inspection and monitoring of the permit operations to be conducted by Forest Service personnel during the operating season.

VI. FINDING OF NO SIGNIFICANT IMPACT

In making my decision, besides reviewing the analysis conducted for this proposal, I also reviewed the Finding of No Significant Impact in the Decision Notice of October 10, 2000, for the Environmental Assessment for Commercially Guided Helicopter Skiing On the Glacier and Seward Ranger Districts, Chugach National Forest. While there are differences in the geographic setting, the effects of both proposed actions are similar. After review of the findings in the EA's, I have determined that these actions will not significantly affect the quality of the human environment; therefore, an environmental impact statement is not needed.

This determination is based on the effects analysis documented in the environmental assessment, in light of the following factors listed in 40 CFR 1508.27:

Context

The authorization to conduct commercially guided heli-skiing is an activity that is limited in scope and duration. The potential effects will be confined to approximately a 3-month period in the winter on snow and ice in an area that is relatively inaccessible except by motorized use. No ground disturbing activities will take place. The permit will be reviewed annually. Because of the temporary nature of the proposed action, no irreversible or irretrievable commitment of resources is anticipated. The activity is limited to areas allocated to motorized recreational activities in the recently revised Forest Plan.

Intensity

Both beneficial and adverse effects have been taken into consideration when making this determination of significance. Beneficial effects have not, however, been used to offset or compensate for potential adverse effects.

Public health and safety should not be adversely affected. Use of experienced guides can reduce risks to people unfamiliar with the area.

The characteristics of the geographic area do not make it uniquely sensitive to the effects of the guided heli-ski operations. Site-specific analysis and review of other similar projects on the Forest lead us to expect no measurable off-site environmental effects or serious on-site environmental effects. There would be no road construction, no helicopter landing pad construction, or clearing of vegetation.

Although there is public disagreement over the potential for significant effects, scientific and professional experts consulted agree that the activities can be implemented without significant effects on the environment. Public disagreement is not sufficient to create controversy of the nature that would require an EIS. Guided heli-ski activities have been conducted on the Forest for many years and monitoring efforts have not identified significant effects.

Commercially guided heli-ski operations are not unique uses of National Forest and are not considered highly uncertain nor do they represent unique or unknown risks.

This decision does not set a precedent for future decisions. Any future decisions within this analysis area or any other area on the Forest will need to consider all relevant scientific and site-specific information available at that time.

This action does not represent potential cumulative adverse impacts when considered in combination with other past or reasonably foreseeable actions. There would be no cumulative effects on roadless areas and their potential for wilderness classification because there would be no activities that would alter the physical setting or permanently degrade wilderness values.

The area contains no known threatened, endangered, or sensitive plants or animals. There is no critical habitat for threatened or endangered species within or adjacent to the project area.

This action does not threaten a violation of any federal, state, or local environmental protection law.

VII. ADMINISTRATIVE REVIEW

This decision is subject to administrative review pursuant to 36 CFR 215. The appeal must be filed in writing within 45 days of the date the legal notification of this decision is published in the Anchorage Daily News. We expect to publish the legal notification on or about November 28, 2002. Any appeal should be sent to:

Regional Forester
Alaska Regional Office
P.O. Box 21628
Juneau, AK 99802-1628

Anyone who appeals must provide the Regional Forester sufficient narrative evidence and argument to show why the decision by the District Ranger should be remanded or reversed. At a minimum the notice of appeal must:

1. State that it is an appeal pursuant to 36 CFR 215.
2. List the name and address of the appellant and, if possible, a phone number.
3. Identify this decision, the Chugach National Forest "Commercially Guided Helicopter Skiing in the Allen Glacier to Cleave Creek Area of the Cordova Ranger District Special Use Permit", the date it was signed, and the decision maker, Rebecca S. Nourse, District Ranger.
4. Identify the change or changes in the decision that the appellant seeks, or the portion of the decision to which the appellant objects.
5. State how the decision fails to consider comments previously provided, either before or during the comment period specified in 36 CFR 215.6, and, if applicable, how the appellant believes the decision violates law, regulation, or policy.

VIII. CONTACT PERSON

For additional information about this decision, contact Bruce Campbell, Forestry Technician, P.O. Box 280, Cordova Ranger District, Cordova, AK 99574, Phone # (907) 424-7661.

/s/ Rebecca S. Nourse

November 27, 2002

REBECCA S. NOURSE
District Ranger

Date

Attachment:
Response To Public Comments Received From The
Allen Glacier to Cleave Creek Area Heli-ski Environmental Assessment
Cordova Ranger District
November 26, 2002

Introduction: Numerous issues were brought to the attention of the Forest Service as a result of the public review of the Allen Glacier to Cleave Creek Area Helicopter Skiing Environmental Assessment (EA). Some of the issues are issues that were identified through previous public scoping during development of the Environmental Assessment. Other issues identified were addressed in the Chugach National Forest Revised Forest Plan Environmental Impact Statement signed 5/31/2002 (FEIS). Finally, a few new issues were identified as well.

This document will discuss each of the issues identified, what the issues are, and how they are addressed, either in the EA, FEIS, or the Decision Notice.

Issues Identified and Response to Comments Received:

Comment #1: Several comments were received recommending that this area should be considered for wilderness, and that commercial helicopter operations would detract from the wilderness values. Also, commercial helicopter operations in a roadless area would decrease the odds of the permit area being considered for wilderness and wild and scenic rivers recommendations in the forest planning process.

Response #1: This issue is addressed in the Chugach National Forest Revised Land and Resource Management Plan signed 5/31/2002. A wide range of alternatives was analyzed in the Revised Forest Plan Environmental Impact Statement (FEIS) including wilderness and non-wilderness designations for this area. The preferred alternative of the FEIS does not recommend this area for wilderness designation.

This Environmental Assessment implements the management direction of the Revised Chugach National Forest Plan which allows heli-ski activities within this area to occur. Because the issues of wilderness, wild and scenic rivers designation, and roadless areas are analyzed in the Revised Forest Plan, it is outside the scope of this Environmental Assessment and will not be considered further here.

Comment #2: An issue was identified suggesting the Forest Service needs to obtain existing baseline recreational use, and scientifically credible recreation data and user information for the permit area for snow machines and non-motorized use prior to issuing a permit for commercial helicopter operations in the area.

Response #2: Specific user information has been obtained by contacting one of the local snowmobilers known to use this area. He stated that use of the area by motorized and non-motorized recreationists during this time of the year is low. During the times he and others have traversed this area during the winter on their snow machines (1-2x/winter, Cordova to Valdez, approximately 100-110 miles), they saw tracks of other snowmachines, and occasional crosscountry skier tracks, but no other users in the area (Tasnuna Drainage). The current permitted heli-ski operator has also reported observing an occasional snowmobile track and very few ski tracks in the area. Also, a winter aerial

survey was flown in February 2002. No evidence of recreational use was seen except snowmachine tracks in Marshal Pass and a few others in the lower Tasnuna River Valley.

Because Cordova is a small community, and people know what winter recreation activities are occurring and where it is occurring, it is common knowledge that recreational use in this area during this time of the winter is low. The permit area is approximately 25 air miles from Cordova and Valdez, and approximately seven miles from the nearest road from Valdez (Richardson Highway in Thompson Pass), and 10 miles from the nearest road from Cordova (Copper River Highway at Childs Glacier, mile 48). Usually during an average winter, the Copper River Highway is open to mile 27 and mile 27 – 48 is closed due to drifting snow. It is approximately 50-60 miles between roads (from mile 48) traveling up the Copper River through the Tasnuna Drainage and Thompson Pass to where and the Richardson Highway (the next road) is located. Winter conditions in this area can be extreme. As a result, this 50-60 mile unroaded area receives low levels of motorized (primarily snow machine) use and very low levels of non-motorized (primarily cross country skier use).

This area has had three one year special use permits issued for commercial heli-skiing operations to a single operator during the 1998, 1999, and 2002 heli-ski seasons. Little or no conflict between users has resulted from issuance of these permits based on the fact that no complaints have been received by the Forest Service from other users during any of the three years these permits were issued.

Comment #3: An issue was identified suggesting that the Primitive II ROS class is incompatible or contradictory with the motorized management prescription of the area. In addition, the proposed commercial helicopter activity would allow up to 8 helicopters and that the management objectives of remoteness, very infrequent sounds of human activity, with a low number of social encounters will not be met.

Response #3: The Primitive II ROS is discussed in the following areas within this Environmental Assessment:

1. p. 4, Table 1.1. which identifies that the maximum ROS Class allowable for a 501(b) – 2 Management Area is Semi Primitive Motorized (SPM).
2. p. 6, 7, 8, Recreation Opportunity Spectrum, Table 1.2.
3. p. 12, 13, 14, 15, 16, Chapter II Alternatives.
4. p. 20 Mitigation for noise and Recreation Experience
5. p. 23 – 29 Effects of Alternatives
6. p. 29, Table 2.3 – Comparison of Alternatives and p. 30.
7. p. 35 Chapter 3 – Environmental Consequences (p. 36-42).

The Primitive II ROS Class is unique to the Alaska Region, and responds to the recognition that people in Alaska currently and historically have used motorized equipment to access the backcountry in much of Alaska and that motorized access is often the primary means used to access remote backcountry areas.

Based on the remote nature of the analysis area and the fact that motorized access is and has been a primary means of access into the area, a Primitive II ROS classification is compatible within the heli-ski analysis area. Both the revised Chugach Forest Plan and previous 1984 Chugach Forest Plan identified this area as having a Primitive II ROS prescription.

Based on public response to the environmental assessment, and the recognition that fewer helicopters within the analysis area would result in fewer take-offs and landings, fewer fly-bys, fewer encounters between groups, and less noise, the maximum number of helicopters allowed in the Decision Notice was reduced from eight (in the preferred alternative in the Environmental Assessment) to five, and the total number of operators for the heli-ski area from two to one (refer to p29, Table 2.3 - Comparison of Alternatives in the EA, and chapters 2 and 3 of the EA which describe and compare the range of effects of the various alternatives on the Primitive II ROS).

As outlined under the mitigation measures section of the EA under “mitigation for noise and recreation experience” item #3, the guidelines for a Primitive II ROS are identified which states that individual parties will be no larger than 15 people and flights will be conducted in a manner to limit encounters between parties (including unguided parties) to one or less per day. On page 22 of the EA under the Routine Implementation Monitoring section, the EA also states that surveys will be used to determine if Primitive II ROS standards and carrying capacity PAOT standards are being followed.

Comment #4: We received comments that said the EA did not consider a reasonable range of alternatives, that the amount of acreage, timing, and level of permitted use is the same in all action alternatives and that the environmental impact of all alternatives is likely to be identical.

Response #4: In the recent Forest Plan Revision effort, a wide range of possible locations for winter motorized activities, including heli-skiing, went through an open public process. In various Forest Plan (FEIS) alternatives the entire Cordova Ranger District was analyzed for the appropriateness of heli-ski operations. As a result of that process, some areas on the District are open and some are closed. The analysis area for this proposed activity falls within a geographic location that was determined to be appropriate for this type of use. In addition, no issue or concern was raised during the public process for this proposal that suggested that specific geographic locations within the analysis area not be considered. The range of alternatives considered in the EA was developed in direct response to the issues identified during public and internal scoping. And finally, during alternative development, any areas of potential or known goat winter habitat were dropped from consideration.

Table 2.3 on page 29 of the EA compares the range of effects of the various alternatives as they relate to the issues identified during public scoping. In addition, pages 23 – 34 of the EA “Comparison of Alternatives by Issue” section, and pages 35 – 56 of the EA Environmental Consequences and Cumulative Effects sections of the EA further describe the range of effects by alternative. Table 2.3 in particular clearly shows significant variation between the effects of the alternatives which indicates that a reasonable range of alternatives with a reasonable range of effects was analyzed.

Comment #5: We received comments suggesting an Environmental Impact Statement should be prepared to analyze the heli-ski alternatives because the foreseeable impacts would be significant and there is no need to open this area to heli-skiing.

Response #5: The Revised Forest Plan (FEIS) analyzes a full range of alternatives which addresses which areas on the Chugach National Forest should be open and which areas should be closed to helicopter use (refer to the Chugach National Forest Revised Forest Plan (FEIS) signed May 31, 2002). The Allen Glacier to Cleave Creek Area analyzed in this Environmental Assessment is open to commercial heli-skiing opportunities as determined in the Revised Forest Plan (FEIS). In addition, this area is not an area that has never had heli-skiing in it previously. The analysis area has been previously

under Forest Service one year special use permits for commercial heli-skiing in 1998, 1999, and 2002, issued to a single operator.

Comment #6: We received comments suggesting the cumulative effects analysis treated this commercial helicopter proposal in isolation and did not consider commercial helicopter activities on adjacent regions of the Forest. Also, that the Forest Service did not complete a legally sufficient additive cumulative impacts analysis of helicopters, snowmachines, fixed-wing aircraft and motorboats and any other motorized uses on the forest, and on areas adjacent to the forest, for both summer and winter seasons.

Response #6: In the recent Forest Plan Revision effort, a wide range of possible locations for summer and winter motorized activities, including heli-skiing, snowmachines, fixed-wing aircraft, motorboats, and other motorized uses went through an open public process. In various Forest Plan (FEIS) alternatives the entire Cordova Ranger District was analyzed for the appropriateness of summer and winter motorized uses, cumulative effects of these uses, including heli-ski operations. As a result of that process, some areas on the District are open and some are closed to motorized activities. The analysis area for this proposed activity falls within a geographic location that was determined to be appropriate for winter motorized activity, including commercial heli-ski activities.

The Cumulative Effects section of the Environmental Assessment on pages 54 and 55 further discusses this issue. Issue #3 states – “What effect will guided heli-skiing have on adjacent private lands and bordering state and federal lands? This section identifies the various adjacent landowners (Chugach Alaska Corporation, Tatitlek Corporation, State of Alaska, National Park Service, and Bureau of Land Management), and the expected cumulative effects the range of alternatives would have on adjacent landowners.

Finally, a comment received from the National Park Service (see comment #12 and response #12), identified the need to address the potential effects of increased air traffic and noise on designated wilderness and parkland, specifically on the Wrangell-St. Elias Wilderness and National Park/Preserve that is adjacent to the analysis area. To alleviate the potential for negative impacts on Park users, an additional mitigation measure that restricts permitted aircraft from flying within 2500 feet horizontal distance of the designated wilderness and park boundaries, or from flying over the Wrangell St. Elias Wilderness and National Park/Preserve, unless safety would be compromised, will be added to the heli-ski permit.

Comment #7: We received several comments that said splitting the heli-ski regions between two or more operators removes the necessary flexibility and would make safe use difficult, inefficient, and unfeasible. Some of the reasons cited included variations in snow stability, the effect of wind and sun on some slopes, periods of no precipitation, weather at the time of flying and skiing, clients’ skiing ability and desires, the possible necessity of locating a fuel cache within another permittee’s regions, and use of specific flight routes to allow efficient logistical use of the helicopters, all of which are taken into consideration by the operator(s) when selecting the day’s ski locations. Comments also said that splitting the regions between two or more operators would make it more difficult to meet the ROS Primitive II characteristics of low interactions between users, because the flight routes to reach some of the more outlying regions would necessitate flying past other regions. This would increase the potential for encounters between users, and could detract from the remote experience that clients expect when they come all the way to Alaska. And, commenters felt it was overly optimistic to expect that

communication and coordination between two or more operators would be very good, thereby compromising safety and the quality of experience for the users.

Response #7: These factors were taken into consideration as part of the reason for selecting Alternative 2 with modifications in the Decision Notice (Refer to page 5 of the Decision Notice/FONSI “D. Rationale for the Decision”). This alternative will authorize only one permit which will use all the regions, rather than selecting the Proposed Action (Alternative 3) which would have allowed two operators and splitting the regions between them.

Comment #8: We received a comment that suggested that splitting the analysis area between two or more operators would force both operators to also use other adjoining lands available for heli-skiing. They felt this would result in overcrowding the already oversaturated Alaska State and BLM lands that are used by the other five heli-ski operations in the area.

Response #8: This won't be an issue because the decision being made is to authorize only one operator, thereby eliminating the need to split the analysis area between two or more operators.

Comment #9: We received several comments that questioned the need to split the total number of allowed heli-ski PAOTs between regions, thereby restricting the number of PAOTs in each region to one half of the total commercial PAOTs for that region as determined by the carrying capacity analysis. The commenters felt that this unnecessarily restricted the ability of the operator(s) to make efficient logistical and economical use of the regions, since at this time there are no other commercial uses occurring within the analysis area that would use the other half of the commercial PAOTs.

Response #9: This issue is addressed in the EA on pages 14-15. The analysis allows for the Heli-ski PAOT capacity (87 PAOTs) to be distributed within each region *up to the Commercial capacity PAOT level* until the 87 maximum PAOT capacity is reached. Maximum group size and number of encounters must still stay within the ROS Primitive II guidelines. In other words, the operator(s) could potentially utilize up to the Commercial capacity PAOTs (for instance in Region 1 they could go to 33 PAOTs instead of 16 PAOTs) in order to fill out a full helicopter load of passengers. This may be allowed, at the discretion of the District Ranger, until such time as the District begins to receive other proposals for commercial use within the permit area.

Comment #10: We received several comments that said the only safe, effective, and feasible way to successfully split the regions between two operators would be to have one operator coming from the north (i.e. Valdez) and one from the south (i.e. Cordova.)

Response #10: Making a decision about which operator(s) to permit and the location of their base of operations is outside of the scope of this analysis. The EA is not the vehicle used to select a permittee. This EA was used to make a decision regarding the level of use and number of operators. The logistical realities of heli-ski operations are one of the many considerations used in making a decision to authorize only one permit. Refer to page 5 of the Decision Notice/FONSI “D. Rationale for the Decision”.

Comment #11: We received a comment that permitting two operators will be a benefit to heli-ski operations for a variety of reasons including: increased safety due to more backup, medical and rescue resources being readily available in the event of an accident, increased dispersal of the use resulting in reduced impacts, better meeting public demand and strengthening the economic growth of the heli-ski

industry, improved monitoring opportunities, and helping to eliminate hazards associated with unguided heli-ski activities.

Response #11: This comment is in direct opposition to the previously discussed comments that outlined a number of reasons why permitting two or more operators would not be desirable. The difference in effects is discussed and analyzed throughout Chapters 2 and 3 in the EA. After considering the analysis and the subsequent public comments, the decision was made to authorize only one operator because it was felt that would better address the issues pertinent to this proposal.

Comment #12: A comment was received requesting a discussion of the effects of increased air traffic and noise on designated wilderness and parkland, specifically on the Wrangell-St. Elias Wilderness and National Park/Preserve that is adjacent to the analysis area. It requested that an additional mitigation measure be included to address conflicts with flight paths and wilderness. And the comment also recommended that the Wilderness Act of 1964 be included in the list of applicable laws and executive orders in the EA.

Response #12: No communication or concern was originally expressed during the scoping period for this analysis that identified concerns about effects of the proposal on adjacent designated wilderness areas. However, this concern was raised during the EA review period. Because there are no commercially permitted heli-skiing activities in the adjacent designated wilderness, because an operator would have to intentionally fly through and beyond their authorized permit area to reach the designated wilderness, and because the designated wilderness lands are even further from the bases of heli-ski operations (Valdez and Cordova) than any of the heli-ski regions covered in this analysis and therefore more costly to reach, it was felt very unlikely that the amount of air traffic and related noise would increase enough to have any negative effect on users of the Wrangell St. Elias Wilderness and National Park/Preserve. To further alleviate the potential for negative impacts on Park users, an additional mitigation measure that restricts permitted aircraft from flying within 2500 feet horizontal distance of the designated wilderness and park boundaries, or from flying over the Wrangell St. Elias Wilderness and National Park, unless safety would be compromised, will be added to the heli-ski permit. The Decision Notice states this on page 8. The Wilderness Act of 1964 has also been added to the list under “B. Applicable Laws, Regulations and Policy” on page 4 of the Decision Notice.

Comment #13: A comment was made that suggested that private landowners had not commented on the potential for increased air traffic or noise.

Response #13: All adjacent landowners, public and private, were contacted during the EA scoping process, provided information regarding the proposal, and given the opportunity to comment on all aspects of the proposal throughout the process. As a result of these scoping efforts, both the Tatitlek Corporation and Chugach Alaska Corporation commented on the proposal. The Tatitlek Corporations primary concern was that potential trespass onto private lands may occur as a result of Forest Service permitted heli-ski activity. Also, that they generally support commercial recreational activity on National Forest System and BLM lands as long as the activity remains on those lands and does not impact Tatitlek Lands. Chugach Alaska Corporation’s primary concern was also trespass, and to assure that lands prioritized for conveyance would not become associated with expectations of useage created that did not historically occur on their land. To mitigate the concerns for trespass, the Forest Service identified a public issue regarding trespass and unauthorized use (see issue #3, p9, of the EA) and included a mitigation measure to require heli-ski operators to carry and use GPS equipment and maps to insure their activities occur on the National Forest System lands (refer to EA p20). No comments were

received from private landowners, either positive or negative, regarding the potential for increased air traffic or noise over private lands.

Comment #14: A comment was received suggesting the collection of baseline data for brown bear, black bear, mountain goat, moose, lynx, wolf, wolverine, raptors (especially bald eagle, golden eagle, gyrfalcon, goshawk, great horned owl, and great gray owl) and nesting birds (esp. chestnut-backed chickadee, and trumpeter swan).

Response #14: We have indicated that effects from heliskiing activities to the populations of all of these species are negligible to low. Therefore monitoring of these populations is unnecessary. Standards and guidelines for heliski activity are no less restrictive than those for other recreational activities, both motorized and non-motorized, in this area.

Comment #15: A comment was received suggesting that we should monitor commercial heliski activities regarding impacts to wildlife, and begin wildlife research before issuance of the permit.

Response #15: We have indicated that effects from heliskiing activities to the wildlife populations in the area are negligible to low. Therefore monitoring heliski activities regarding impacts to wildlife and conducting research before issuing the permit are not necessary.

Comment #16: There was a comment requesting a description of a mountain goat monitoring plan and suggesting the completion of several goat surveys. There was also a request for the identification of mountain goat populations and distribution.

Response #16: We have indicated that effects from heliskiing activities to the wildlife populations in the area are negligible to low. Therefore monitoring the population is not necessary. The intent of the mountain goat mitigation for this permit is to keep helicopters away from mountain goats. This has been done by restricting all heliski activity in goat habitat. Rather than monitor mountain goat population, it is more useful to assess mountain goat distribution and winter habitat. We intend to monitor winter habitat use so that we can identify specific sensitive habitats and control access to those areas. We have stated that skiable terrain may be altered depending on future surveys.

We have already conducted fall and winter aerial surveys for winter mountain goat habitat. We will continue this monitoring by flying 2–3 winter aerial surveys for mountain goats and mountain goat tracks during winter 2002–2003.

Comment #17: There was a comment requesting monitoring efforts to determine any impacts from motorized recreational uses (snowmachine, fixed-wing aircraft, and helicopters).

Response #17: We have indicated that, given our mitigation measures, the effects from heliskiing activities to the wildlife populations in the area are negligible to low. Therefore it is unnecessary to monitor effects of helicopters. This activity is consistent with the Chugach Forest Plan. Effects of both motorized and nonmotorized activities are described for applicable species in the Chugach National Forest Final Impact Statement (FEIS).

Comment #18: There was a comment regarding the need to collect baseline data and develop a research and monitoring plan for brown bears in and around the permit area.

Response #18: We have indicated that, given our mitigation measures, the effects from heliskiing activities to the brown bear population in the area are negligible to low. Therefore collection of baseline data, and the development of a research and monitoring plan are unnecessary.

Comment #19: There was a comment expressing concern over the effects of disruption of denning brown bears, and that these effects were dismissed in the EA. Also, the comment raises the question of the effects of overflights on denning brown bears.

Response #19: Den relocation within the hibernation period does have an energetic cost and can affect adult and cub survival. However, the chance of disturbance is low given the large area and the naturally low density of bear dens. We have revisited this issue and reanalyzed the available data, which we present here.

Brown bears are variable in habitat selection for den sites but have a tendency to den on steep slopes with stable snow conditions. They are often found above tree line, though B. Campbell (1987—ADF&G, unpubl. data) found that brown bears on the nearby Copper River Delta often denned below tree line and used mainly south or southeast-facing slopes. Although the angle of slopes normally used for denning precludes these areas from landings and takeoffs, this habitat can be terrain that skiers use. ADF&G has brown bear population estimates for game management unit 6C, which is just south of the proposed heliski area. Population estimates also exist for other parts of the state (Sterling 1997). This data can be used for an exercise in modeling the extent of possible disturbance.

Bear densities in Alaska range from about 10–550 bears/1000 km² (Sterling et al. 1997). This figure is for all bears (including subadults), which means that the number of dens is probably about half that amount (sows are most often seen with 1–3 subadults, which share a den with the sow). Lowest bear densities generally occur in the interior, and highest bear densities generally occur near the coast, often associated with abundant and consistent salmon runs. The GMU 6C is in between these two extremes at about 112 bears per 1000 km². We expect that bear density in the proposed heliski area would be about the same or somewhat lower than GMU 6C. The highest density of bears in the area should be in the slopes around the Tasnuna River because their proximity to salmon runs. This is also the area of least heliski activity. Runs north of the Tasnuna are on the opposite side of a mountain range, and most runs south of the Tasnuna are well away from the river drainage.

Activity within 200 m of the den can cause den disruption depending on various factors (Linnel et al. 2000). If we assume that the area supports the same density of bears as GMU 6C, then we should have about 66 dens/1000 km². Using a minimum convex polygon around all heliski regions and subtracting the area excluded for goat habitat, we calculate a total area of about 1100 km², which translates to about 73 dens in the permit area. During the scoping process, we canvassed various heliski outfitters to find out where suitable ski runs were in the project area. By considering the area that these chutes and slopes contain, and then buffering these areas by 200 m, we get an effective area of disturbance from skiers of about 175 km². By this model, about 12 dens would run the risk of a skier passing within 200 m.

Bear reaction to disturbance varies depending on several factors, such as bear temperament, the type of disturbance, the insulation of the den, and the time of year. Although Linnel states that activity within 200 m of the den can cause den disruption, this is highly variable. Many close encounters with dens resulted in no disruption. Also, many of the disturbance events he described involved motorized vehicles, and it is unclear whether skiers passing by would reach the same level of disturbance. Most brown bear dens at this altitude will be deep in the snow layer, which should provide insulation to sound. In

addition, bears in colder atmospheres and bears disturbed later in hibernation tend to tolerate more disturbance because of the higher energetic costs of relocating. Heliski activities will occur after Jan 1, and will occur in cold winter climate. Given these factors, of the estimated 12 dens that may occur within the disturbance zone, few will probably be disturbed sufficiently to relocate den sites. If we assume that half of the disturbed dens cause relocation, then it is possible that 6 den could be disrupted. If relocations occur and cubs are involved, their chances of survival will be reduced.

This analysis suggests that heliskiing activity may disturb some individual bears, but given the number of events, and the uncertainty of the effects on survival, we do not expect this disturbance to have an effect on the population in general. Black bears are even less likely to be affected by heliski activities because they tend to den in more forested and mid to low elevation habitats. These areas will be away from most heliski activity. In addition, black bears tend to go into a deeper state of torpor than brown bears. Bears in Alaska are a game animal. The Alaska Department of Fish and Game manages bear populations and regulates hunting. Through the scoping process, ADF&G raised no concerns about effects of heliskiing on bear populations.

Other sources of disturbance are overflights, takeoffs, and landings. Overflights will occur at 1500 ft. Young and McCabe (1997) found that flying at 300 m (984 ft) in a fixed-wing aircraft was sufficient to avoid disturbance for foraging bears. Little information exists on the effects of overflights on denning bears. Overflights during radio telemetry have caused increase movement inside the den (Shoen et al. 1987, Smith and Van Daele, 1990, J. Shoen, National Audubon Society, Anchorage, pers commun.), but we have been unable to find a threshold for overflights causing den relocation. Again the types of dens found at this altitude will most likely be in deep snow and should provide good auditory insulation. The loudest activity will be during landings and takeoffs. Brown bears tend to den on steep slopes, which would locate them away from heliski drop-off zones, which are mainly at mountain peaks, and from the flatter pickup areas.

Literature cited:

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- Schoen, J.W. L.R. Beier, J.W. Lentfer, and L.J. Johnson. 1987. Denning ecology of brown bears on Admiralty and Chichagof islands. *International Conference on Bear Research and Management* 7:293–304.
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- Sterling, D.M., G.C. White, R.A. Sellers, H.V. Reynolds, J.W. Schoen, K. Titus, V.G. Barnes, Jr., R.B. Smith, R.R. Nelson, W.B. Ballard, and C.C. Schwartz. 1997. Brown and black bear density estimation in Alaska using radiotelemetry and replicated mark-resight techniques. *Wildl. Monog.* 133:1–55.
- Young, D.D. and T.R. McCabe. 1997. Grizzly bear predation rates on caribou calves in northeastern Alaska. *J. Wildl. Manage.* 61:1056–1066.

Comment #20: Several comments were made listing concern of impacts on raptors and nesting birds (especially bald eagle, golden eagle, gyrfalcon, goshawk, great horned owl, great gray owl, trumpeter swan, chestnut-backed chickadee).

Response #20: Most of these species were focus species and are covered in the EA (pp. 45–47) or the Biological Evaluation (Appendix II). Golden eagle, gyrfalcon, and great gray owl, however, did not

come up during the scoping process and were not addressed in the EA. We discuss these species here. In addition, we discuss breeding goshawks and great-horned owls.

Gyrfalcons: The heliski area may be on the southern tip of gyrfalcon breeding range, but it is unlikely that they breed in this area. They may winter in the area, but gyrfalcons are highly mobile creatures, and are easily able to move away from disturbances. No gyrfalcon habitat or food resources will be affected by heliski activities, and we do not expect these activities to have an effect on gyrfalcon populations.

Golden eagles: Golden eagles are rare in the Prince William Sound, Gulf Coast region, but their occurrence increases inland. Golden eagles are migratory and will not occur in the heliski area during winter. They may breed in this area in low numbers, however. The last month of the heliski season may coincide with the initiation of eagle nesting (prospecting, courtship, nest building). Breeding habitat in this area would mainly be on steep cliffs. Golden eagles also nest in trees, but given the amount and type of forest in this area, cliffy habitat would probably provide better nest sites. Neither habitat, however, is the type of terrain frequented by skiers. Therefore heliski activities would likely occur away from golden eagle nest sites, and the main disturbance would come from overflights. Breeding of golden eagles can be affected by human disturbance, but our mitigation measures call for helicopters to fly at 1500 ft and stay at least 1 mile from wildlife. Also, overflights can be expected to be short-lived. If disturbance does occur during this time period, the eagles would be expected to return to the potential nesting site after the disturbance or to seek a nesting site further from the source of noise. Disturbance during this time period is less serious than disturbance after egg laying. Less is invested into nesting at this point, and the chance of renesting away from the source of disturbance is very high. Because of the large area involved, the low natural densities of golden eagle nests, and the mitigation measures, however, the chance of nest disturbance is low, and the effect to the overall population of golden eagles is considered to be low.

Great gray owls: Great gray owls are rare in the Prince William Sound, Gulf Coast region, but their occurrence may increase inland. This species may breed or winter in small numbers in the heliski area. Great gray owls are generally a forest species and would probably be found mainly in the timbered areas of the Tasnuna River valley. This area will have little heliski activity, and the main disturbance would be due to overflights. Reaction of forest-dwelling raptors to disturbance is generally to seek cover under the canopy. We can expect that if an individual is disturbed, the bird would either remain still or fly a short distance to better cover. Density of great gray owls is mainly dependent on adequate nest sites and prey base. Heliski activity will not affect great gray owl habitat or food resources. If nest disturbance does occur, it may cause abandonment. However, the chance of nest abandonment is probably low because of the low density of nests and because of the lack of skiing activity in nesting habitat. The effect of heliski activities in this area to the overall population is considered to be low.

Breeding goshawks and great-horned owls: Both of these species begin breeding early in spring, and breeding may coincide with the end of the heliski season. We would expect to find both of these species in timbered areas of the heliski region, mainly in the Tasnuna Valley. Little heliski activity will occur in the Tasnuna valley itself, and takeoffs and landings are restricted to the more alpine areas where skiing will occur. As part of the mitigation measures, if a goshawk nest were encountered no activity would be allowed within 660 feet. Generally, disturbance would be limited to overflights. Because helicopters are required to fly at 1500 ft above the surface and maintain a 1-mile distance from wildlife, we do not foresee any effects on breeding birds. Forest dwelling raptors generally seek cover under the canopy when disturbed. If a disturbance event does occur, we would expect individuals to remain still or fly a

short distance for cover. Also, in the case of great-horned owls, they are largely nocturnal, and their highest activity times will not coincide with heliski activities.

Comment #21: There was a comment suggesting that we collect baseline data and implement a monitoring plan for raptors in the permit area.

Response #21: We have indicated in the EA (pp. 45–46) that, given our mitigation measures, heliskiing activities in the permit area will not affect raptor populations. Therefore collection of baseline data, and the development of a monitoring plan are not necessary.

Comment #22: There was a comment stating a need for surveying, mapping, and monitoring of raptors. Specifically 1) spring nest surveys, 2) mapping raptor nests, flight corridors, and heli-ski activity, 3) incorporation of scientifically sound mitigation measures, 4) identifying restrictions and buffer zones for all raptors, sensitive species, and species of management concern, 5) identify scientifically sound monitoring plans for 2003 season, 6) identify compliance with the Bald Eagle Protection Act, 7) list Bald Eagle Protection Act as Applicable Law.

Response #22: We have indicated in the EA (pp. 45–46) that, given our mitigation measures, heliskiing activities in the permit area will not affect raptor populations. Therefore surveying, mapping, and monitoring raptors is not necessary. Specifically this applies to comments 1, 2, 4, and 5 in the previous paragraph. In response to number 3, the mitigation measures were based on the best current knowledge and current management policies. An EIS was completed for the Chugach National Forest Land and Resource Management Plan, and these mitigation measures were incorporated. In response to number 6, we have identified compliance with the Region 10 Memorandum of Understanding (MOU) between the Forest Service and the Fish and Wildlife Service (pg. 65 in the EA). This MOU is more restrictive than the Bald Eagle Protection Act. In response to number 7, we did not list the Bald Eagle Protection Act because we referred to the Region 10 MOU between the Forest Service and the Fish and Wildlife Service, which is more restrictive than the Bald Eagle Protection Act. We will list the Bald Eagle Protection Act on an errata sheet to be included with the EA.

Comment #23: There was a comment that the Forest Service should identify active and potentially active nest sites for raptors, sensitive species, and/or bird Species of Management Concern.

Response #23: We have indicated that, given our mitigation measures, heliskiing activities in the permit area will not affect raptor populations, sensitive species, or bird Species of Management Concern. Therefore identification of active and potentially active nest sites is not necessary. Standards and mitigation measures for heliskiers are no less restrictive than for other motorized and nonmotorized activities in this area.

Comment #24: There was a comment regarding the need to identify any potential impacts from disturbance to raptors, sensitive species, and/or bird Species of Management Concern due to motorized recreational uses (snowmachines, fixed-wing aircraft, and helicopters).

Response #24: Potential impacts due to heliski activities have been described for these species in the EA (pp. 45–47). Recreational activities have been defined by the Chugach National Forest Land and Resource Management Plan, and potential impacts due to both motorized and nonmotorized recreational uses have been described for applicable species in the FEIS.

Comment #25: A comment was made regarding the need for research and monitoring plans for black bear, moose, lynx, wolf, and wolverine. Specifically, the collection of baseline data, habitat requirements, monitoring plans, and determination of impacts from motorized uses.

Response #25: We have indicated that, given our mitigation measures, heliskiing activities in the permit area will not affect black bear, moose, lynx, wolf, or wolverine. Therefore the collection of baseline data, habitat requirements, and the development of a monitoring plan are not necessary. We have described the potential effects of heliski activities on all these species. Recreational activities have been defined by the Chugach National Forest Land and Resource Management Plan, and potential impacts due to both motorized and nonmotorized recreational uses have been described for applicable species in the FEIS.

Comment #26: A comment was made regarding the omission of potential impacts to denning lynx.

Response #26: Lynx den in forested habitats and will mainly be found in the Tasnuna River valley. Heliski activity will be in the alpine regions away from this area. In addition lynx are largely nocturnal, so their major activity time would not coincide with heliski activities. Potential disturbance is mainly limited to helicopter overflights. Overflights should be brief in duration and 1500 feet in elevation. The effects of overflights on denning lynx are not expected to cause disruption of the den site. Lynx have a history of tolerating a moderate amount of human activity, and we do not expect displacement of lynx in the area by recreational activity. Historically, lynx populations are cyclical and are closely tied to snowshoe hare populations. Heliski activity should not affect hare populations or habitat.

Comment #27: A comment was made that not enough information is known about wolverine distribution or the effects of heliskiing on denning. A comment was also made that the Forest Service needs to do additional effects on wolverines in order to comply with NEPA.

Response #27: We have revisited this issue and reanalyzed the available data, which we present here. As stated in the EA, denning wolverines are sensitive to human presence. Wolverines are found naturally in very low densities. Although we have no estimates of wolverine populations in this area, we can use a maximum value as an example to assess the extent of potential disturbance. We will use only females, as they are the only ones with natal and maternal den sites. Whitman et al. (1986) estimated that female wolverine home ranges are about 105 km². If home ranges are completely contiguous in this area, we get a maximum of about 10 females for the heliski area. Given the amount of area used by heliskiiers (as calculated in the example for brown bears previously in this document) we estimate that there is the potential for 1–2 dens to be encountered by skiers over the course of a season. This encounter rate assumes random distribution of dens, which is unlikely as wolverines have a tendency to den at or above treeline. But that assumption is offset because the actual density in the permit area is probably fewer than 10 females. Also, as compared to bears, the effects of den relocation on survival of both adults and kits are much more moderate. Wolverines do not go into a state of torpor as do bears, and do not undergo a change in metabolism upon den disruption. The energy expenditure required in moving a den therefore is much lower, and, in fact, undisturbed wolverines change dens at least once during the course of kit rearing. We do not expect den relocation to affect adult survival. The effect on kit survival is unknown. Magoun and Copeland (1998) suggest that relocation can affect kit survival if wolverines move to less secure den sites. Security in mountainous regions is less of an issue than on the arctic tundra, however. Wolverines in mountains tend to den at high elevations where few predators occur during winter. In addition, because of its remoteness, hunting and trapping do not generally occur here.

In summary, we expect that heliski activities will affect some denning individuals. We estimate that one or two wolverines may relocate dens. We do not expect the wolverine population or habitat to be affected by these activities, however. The FEIS discusses the issue of wolverines disturbance. Although the FEIS does say that some wolverines would be disturbed, it concludes that the activities would not be detrimental to wolverine populations or habitat. Wolverines are legally trapped in Alaska. The Alaska Department of Fish and Game regulates trapping and manages wolverine populations. During the scoping process ADF&G did not raise concern about wolverine populations in this area.

Literature cited:

- Magoun, A.J. and J.P. Copeland. 1998. Characteristics of wolverine reproductive den sites. *J. Wildl. Manage.* 62:1313–1320.
- Whitman, J.S., W.B. Ballard, and C.L. Gardner. 1986. Home range and habitat use by wolverines in southcentral Alaska. *J. Wildl. Manage.* 50:460–463.

Comment #28: A comment was made that heliskiing is incompatible with the ANILCA 501(b) determination because of a lack of baseline information.

Response #28: We have used the best available knowledge to analyze effects of these activities on wildlife populations. The determination was made that though some individuals may be affected, wildlife populations would not be adversely affected.

Comment #29: A comment was made that summer activities must be considered in the cumulative effects on wildlife.

Response #29: The permit for commercial heliskiing ends on April 30. While non-permitted helicopter activities can occur during other times of year, we have no indication that this area is accessed to any extent during any other time of year. The area is not on a major flight path, there are no lodges nearby, and landing a fixed-wing aircraft in most of the area would be difficult. A small amount of hunting and fishing may take place, but for the most part, motorized activity in the area is minimal. We do not expect negative cumulative effects to occur between summer and winter recreational activities.

Comment #30: A comment was made that alternate disturbance of helicopters and snowmachines was not addressed in the EA.

Response #30: Snowmachine and heliski activity are generally separated spatially in the permit area. Snowmachining occurs infrequently and generally in the Marshall Pass area and the lower Tasnuna River Valley. Neither of these areas support heliskiing. Because the two activities are spatially separated, the chance of an animal being disturbed at the same time by both activities or on an alternating basis is low. We do not expect a cumulative effect from a species being disturbed one day by one activity and the next day by another activity.

Comment #31: A comment was made that the EA did not adequately address cumulative impacts to wolverines from snowmachines and helicopters.

Response #31: The EA (p. 46) states that wolverines tend to den in alpine areas. The EA also states that snowmachine activities occur mainly in the Marshall Pass and lower Tasnuna Valley. We do not expect snowmachines to affect wolverine den sites. Snowmachines may encounter wolverines foraging

at lower elevations. In this case, the wolverine would probably attempt to move away from the disturbance area. This is not likely to have an effect on survival or on den disturbance. If a wolverine were to be disturbed at the den by heliskiers one day and then disturbed while foraging by snowmachiners the next, this may have an effect on its decision to relocate its den. However, the small chance of either of these encounters occurring leads to an even smaller chance that both would in close succession.

Comment #32: A comment was made expressing concern over nesting marbled murrelets.

Response #32: Marbled murrelets in Prince William Sound begin laying in early June. As heliski activities end April 30, the nesting area will not be disturbed during a crucial period.

Comment #33: A comment was made expressing concern over impacts to Steller Sea Lions and Harbor Seals.

Response #33: Steller Sea Lions and Harbor seals forage in Orca Inlet and in various parts of Prince William Sound. If heliski operations are based in Cordova, the permit area could be accessed via the Rude River Valley. This flight path would go over Orca Inlet. No breeding areas occur in the area, so breeding would not be affected by overflights. A few sea lions often haul out on buoys in Orca Inlet, but no major haul out areas occur. In addition, a substantial amount of boat and air traffic in this area has habituated these species to motorized traffic in the area. We do not expect that a helicopter flying at 1500 feet will cause significant disturbance. If disturbance does occur, it will be short-lived, and foraging individuals can avoid the noise by diving under water.

Comment #34: A comment was made expressing concern over impacts to mountain goats.

Response #34: This concern is addressed in the mitigation measures for mountain goats. All mountain goat habitat is off limits to heliski activity. No landings or takeoffs will occur within ½ mile of mountain goat habitat, and overflights will occur at 1500 feet above the surface.

Comment #35: A comment was made expressing concern over impacts to furbearers.

Response #35: Furbearers in the area include wolverine, pine marten, short-tailed weasel, mink, river otter, coyote, lynx, muskrat, and beaver. Wolverine and lynx are focus species, and their effects are covered in the EA (pp. 45, 52–53) and previously in this document. Pine marten, mink, and weasel will be found mainly in the lower-elevation areas of the Tasnuna River valley, which will not be used for heliskiing. Heliski activity will occur in the alpine regions away from the forested areas. Disturbance is limited to overflights, which will occur at 1500 feet above the surface. Overflights will be short in duration and should not lead to major disruption of any of these species. If an overflight constitutes a disturbance marten, mink, and weasel can be expected to either remain still or move a short distance for cover. Overflights are not expected to cause disruption in breeding for any of these species. Neither habitat nor food resources for these species will be affected by heliski activities.

River otter, beaver, and muskrat will be associated with waterways mainly in the lower Tasnuna valley. Heliski activity will occur in the alpine regions away from these lowland areas. Disturbance is limited to overflights, which will occur 1500 feet above the surface. Overflights will be short in duration and should not lead to major disruption of any of these species. If an overflight constitutes a disturbance, beaver, river otter, and muskrat would be expected to remain still, dive, or move to the nearest water

source. Overflights are not expected to cause disruption in breeding for any of these species. All of these species have a history of living in areas of high human activity, including airports and cities. Neither habitat nor food resources for these species will be affected by heliski activities.

Coyotes will range farther than these other species, and they can be expected to use all habitat types except water. Their presence and abundance is related to the presence and abundance of prey and probably an avoidance of wolves. Winter prey base consists of salmon carcass, carcass of moose and other animals, vole, hare, and ptarmigan. The highest concentration of these resources will be in the Tasnuna River valley, though coyotes will range out from this area. Coyotes are highly mobile, and they would react to a helicopter by moving away and seeking cover. There is an energetic cost to this behavior, but it is not expected to significantly affect survival or coyote populations in general. Coyotes have a history of living in areas of high human activity. Neither habitat nor food resources for coyotes will be affected, and potential impacts of heliski activities on coyotes in this area are considered negligible to low.

Comment #36: There was a comment expressing concern over impacts to waterfowl.

Response #36: Several waterfowl species nest in the Tasnuna River valley in spring. They will begin prospecting for nesting sites in late April, which coincides with the end of the heliskiing season. These birds will remain on the low-lying wetland areas and will be well away from heliskiing activity. Potential disturbance exists from helicopter noise. Helicopters will be required fly at 1500 ft above the surface and to stay at least 1 mile from wildlife. Following this procedure should result in no effects on waterfowl.

Comment #37: There was a comment regarding the uncertainty of impacts of disturbance events, and that this uncertainty should lead to an EIS.

Response #37: Uncertainty of impacts is stated several times in the EA, specifically for the effects of disturbance on denning bears and wolverines. Further analysis has been done for these two species in earlier sections of this response and some of the uncertainty has been further explained. In addition, the stated uncertainty is directed toward the impacts of the disturbance events on individuals, not on the population. Although uncertainty does exist in assessing reaction to disturbance, the effects on overall populations are expected to be low.

Comment #38: There was a comment regarding how focus species were selected and suggesting the need for more scientific data on effect of disturbance.

Response #38: The focus species are species that are listed, either through federal, state, or environmental agencies as species of concern or special interest. Additional species are added to the focus species list by being addressed by the public during the scoping process. Assessment of effects was made based on the best available knowledge.

Comment #39: A comment was made requesting specific citations on which conclusions were based.

Response #39: A literature cited section appears in the BE and in Appendix III of the EA. Additional literature was reviewed and that information was synthesized and considered as part of the analysis. By this process, specific citations were not necessarily used in the text of the document, and therefore they do not appear in Appendix III. A list of literature reviewed can be found in the project file.

Comment #40: A comment was made that 1500 ft. altitude is not enough, that horizontal distance is more important, and that overhead flights can have an impact on goats and birds.

Response #40: The mitigation measures call for overflights to be at 1500 ft above the surface, not 1500 ft in altitude. These measures also require pilots to stay at least 1 mile from wildlife. The effects of these measures has been reviewed in the EA (pp. 4–51, 53) and in this response to comments, and it was determined that wildlife populations would not be affected.