

# **Kanuti National Wildlife Refuge**

## **Compatibility Determinations**

### **Prepared with the Revised Comprehensive Conservation Plan**

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## Compatibility Determination

**Use:** Subsistence Activities

**Primary Use:** Fishing, natural resource gathering, hunting, trapping and subsistence (other).

**Supporting and Incidental Uses:** Boating (motorized and non-motorized), snowmobiling, snowshoeing, trapping, firewood cutting, natural resource gathering, camping, cross-country skiing, dog sledding and skijoring, hiking and backpacking, picnicking, wildlife photography and videography, pets, wildlife observation, fixed-wing aircraft landings, swimming and beach use.

**Refuge Name:** Kanuti National Wildlife Refuge

### **Establishment and Acquisition Authority:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Kanuti Refuge Purposes:**

ANILCA sets out the primary purposes for each Refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the Refuge.

### **National Wildlife Refuge System Mission:**

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

**Description of Use:**

This is a re-evaluation of the compatibility of subsistence uses of Federal lands within Kanuti Refuge. Subsistence was originally found to be a compatible use during the development of the Refuge Comprehensive Conservation Plan in 1987. Subsistence was again determined to be compatible, subject to reasonable regulation in 1994. Subsistence activities addressed in this determination include hunting, fishing, trapping, firewood gathering, berry picking, and gathering of other plant materials. Consumptive uses of fish and game are generally regulated by State regulations (5AAC), or Federal subsistence regulations 50 CFR Part 100. Gathering of plant materials, including firewood, on the Refuge, is regulated by 50 CFR Part 36. Snowmobiles and motorboats are the primary means of surface transportation traditionally employed for such purposes, as allowed under ANILCA Section 811 and Refuge regulations (50 CFR 36). Subsistence has also been historically supported by the occasional use of airplanes for access to remote locations surrounding some communities.

Residents of Allakaket, Alatna, Evansville and Bettles, located just outside of the Refuge, have lifestyles and economies that depend on subsistence resources, including resources within the Refuge. Subsistence activities are not just a way of obtaining food, but an important mechanism for maintaining cultural values such as kinship, community, respect for elders, hospitality, sharing resources, and the passing of values to younger generations. In addition, many residents in the area simply prefer the taste of traditional wild foods to that of commercially purchased foods. Mainstay subsistence foods for residents near Kanuti Refuge are fish, moose and caribou. Waterfowl, black bear and small game including grouse and snowshoe hare, beaver and furbearers are at times important to local residents for food, fur, and traditional crafts. Berries and other plant materials such as firewood, house logs, and birch bark are also frequently gathered. Compatibility of gathering house logs for subsistence is evaluated under a separate determination presented elsewhere in this Plan. A detailed description of subsistence uses and harvest can be found in Chapter 3 of the Kanuti Refuge Comprehensive Conservation Plan.

Trappers operate within the Refuge, harvesting marten, lynx, fox, wolves, beaver, river otter and other small furbearers. The sale of these furs provides supplemental income to residents depending on a subsistence lifestyle. Trapping is considered a subsistence activity, but the compatibility of trapping as a Refuge use is considered elsewhere in this Plan under a separate determination.

**Availability of Resources:**

Adequate Refuge personnel and base operational funds are available to manage subsistence activities at existing and projected levels. Management primarily includes the inventory and monitoring of fish and wildlife subsistence species; surveys of public use and subsistence harvest in local communities; environmental education, such as steel shot clinics or other efforts aimed at improving public understanding of major conservation issues; and law enforcement patrols. During such patrols, Refuge staff members opportunistically conduct outreach to increase subsistence user awareness of the status of local fish and wildlife populations, the relationship of regulations to sustainable yield, and the importance of knowing land ownership and regulatory boundaries where subsistence activities take place. Refuge staff members spend considerable time participating in and supporting the regulatory development process with the Federal Subsistence Board (FSB) and Alaska Boards of Fish and Game to ensure that harvest levels are sustainable. In 2006 the Refuge manager was delegated by the FSB in-season management

responsibility for Federal moose hunts in September and March. The Refuge currently allocates over 10 percent of its budget towards managing subsistence resources and subsistence activities because it constitutes the primary public use of Kanuti Refuge.

### **Anticipated Impacts of the Use:**

Fish and wildlife harvested by subsistence users at current and projected levels—in accordance with established State and Federal regulations pertaining to season, bag limits, and methods of harvest—are not expected to have long-term impacts on the overall populations of fish and wildlife resources within the Refuge. State and Federal biologists monitor fish and game populations, and State and Federal regulatory bodies continually respond to management needs by adopting regulations to ensure the continued health of fish and wildlife populations. The combination of Alaska State Hunting Regulations (5AAC) and the Federal Subsistence Regulations (50 CFR Part 100) are intended to provide a sustainable harvest over the long term. It is possible that localized or short-term population reductions may occur due to unanticipated changes in physical condition of animals, environmental conditions, distribution, predation and harvest pressure. Refuge staff will continue to monitor populations to avoid depletion of game by overharvesting, and to monitor subsistence harvest levels through surveys.

Impacts to the resources from berry picking, firewood gathering, and other plant harvesting activities, at low intensity, are relatively insignificant. Impacts to habitat caused by aircraft, boats, and foot travel are generally minimal but increased use could cause disturbance to wildlife and increased pressures on wildlife. Much of the access by subsistence users is by boat or snowmobile (in winter during adequate snow cover). Refuge staff members have observed that to date these activities have caused very little impact to habitats. The introduction of invasive plant species, perhaps from seeds carried on boats, snowmobiles, or dog mushing equipment, could affect Refuge resources, although it is not known to have occurred on the Kanuti Refuge. The Service will be vigilant to prevent such introductions. Refuge staff will monitor subsistence use levels to determine if changes in conditions or intensity have the potential to impact Refuge resources.

If snowmobile or motorboat use on Kanuti Refuge was to increase substantially, disturbance to important subsistence species including moose and caribou could occur (McTaggart-Cowan 1981 and Creel et al. 2002). Denning bears are most susceptible to snowmobile disturbance. Ill-advised or uninformed snowmobile use could cause bears to abandon dens and harm newborn cubs incapable of travel (Jonkel 1980) Noise disturbance could also affect moose and caribou energy budgets, reproductive success and long-term survival (Calef et al. 1976 and Olliff et al. 1999).

Snowmobile use is only allowed during periods of adequate snow cover and the refuge manager has authority to announce when conditions are or are not adequate for snowmobile use on the refuge based on resource conditions per 43 CFR 36.11. Because a portion of Kanuti Refuge (southeastern quarter) is wind-blown and adequate snow cover usually does not remain on the ground, a great increase in intensity of snowmobile use might have to be addressed by restrictions to protect resources in this area. Refuge staff will monitor use levels to determine if intensity in this area has the potential to impact Refuge resources.

**Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge’s Comprehensive Conservation Plan. One person commented that our bibliography was outdated and that using information from 10-50 years ago is not useful for the future. We find both references from the past and recent ones to be useful for current management.

The State of Alaska commented that we had inconsistencies in the stipulations between subsistence and recreational activities. We added stipulations regarding harvest monitoring and law enforcement to the subsistence compatibility determination. The State commented that we should clarify that snowmobile use is only allowed during periods of adequate snow cover and that the refuge manager is authorized to announce when snow cover is or is not adequate for snowmobile use. We revised the text as recommended. The State questioned inclusion of “pets” as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in subsistence activities.

While not specific to the compatibility determination, we received comments opposing hunting on the refuge. Hunting, that is compatible with refuge purposes, is identified as one of the six priority public uses to be facilitated on refuges in the National Wildlife Refuge System Improvement Act. As explained in this compatibility determination, we have found hunting to be compatible with the purposes of Kanuti Refuge.

**Refuge Determination (check one below):**

- Use is not compatible
- Use is compatible

**Stipulations Necessary to Ensure Compatibility:**

Management direction provided in the revised Refuge Conservation Plan requires monitoring of subsistence use. Findings from monitoring will be used to guarantee that additional management actions, if any are needed, ensure that all subsistence activities remain compatible with other refuge purposes. To minimize impacts on lands and resources within the refuge, law-enforcement patrols will be routinely conducted in an effort to maximize compliance with existing policies, rules and regulations.

**Justification:**

One of the purposes of Kanuti Refuge is to provide for continued subsistence uses by local residents, consistent with the other Refuge purposes of conserving fish and wildlife populations and habitats in their natural diversity and fulfilling international treaty obligations with respect to fish and wildlife. ANILCA recognized that the continued opportunity for subsistence uses of public lands is critical to the physical, economic, traditional, social, and cultural existence of rural residents of Alaska. ANILCA established a preference for subsistence users, stating that the taking of fish and wildlife on public lands for nonwasteful subsistence use is given priority over other consumptive uses. In times of scarcity, recreational use is limited first. Section 811 of ANILCA ensures that subsistence users can access public lands by snowmobile, motorboat, and other traditionally used means of surface transportation, subject to reasonable regulation. After fully considering the impacts of this activity, as described previously in the “Anticipated

Impacts” section of this document, it is my determination that subsistence activities within the Refuge do not materially interfere with or detract from the purposes of the Refuge or mission of the National Wildlife Refuge System.

**Supporting Documents:**

Calef, G.W., E.A. DeBock, and G.M. Lortie. 1976. The reaction of barren-ground caribou to aircraft. *Arctic* 29(4):201-212.

Creel, S., J.E. Fox, A. Hardy, J. Sands, B. Garrott, and R.O. Peterson. 2002. Snowmachine activity and glucocorticoid stress responses in wolves and elk. *Conservation Biology* 16:809-814.

Jonkel, C. J. 1980. Black, brown, and polar bears. Pages 227–228 *in* Big game of North America: ecology and management. J. L. Schmidt and D.L. Gilbert, *eds.* Harrisburg, Pennsylvania: Stackpole Books.

Marcotte, J.R. and T.L. Haynes.1985. Contemporary resource use patterns in the upper Koyukuk region, Alaska. Division of Subsistence Technical Paper No. 93. Alaska Dept. of Fish and Game, Anchorage, AK.

McTaggart-Cowan, I. 1981. Wildlife conservation issues in northern Canada. Canadian Environmental Advisory Council report, no. 11. University of Calgary, Canada.

Olliff, T., K. Legg, and B. Kaeding, editors. 1999. Effects of winter recreation on wildlife of the Greater Yellowstone Area: a literature review and assessment. Report to the Greater Yellowstone Coordinating Committee. Yellowstone National Park, Wyoming. 315 pages.

Strong, B.J. and E. W. McIntosh. 1985. Resource harvest by local residents of the Upper Koyukuk Region in 1984. U.S. Fish and Wildlife Service, Fairbanks, AK. 51pp.

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service. Anchorage, Alaska. 326 pp.

U.S. Fish and Wildlife Service. 1992*a*. Subsistence Management for Federal public Lands in Alaska, Final Environmental Impact Statement, Record of Decision, April 2, 1992

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval: /s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System: /s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-year Re-Evaluation Date (for allowed uses only):** \_\_\_\_\_

**Mandatory 15-year Re-Evaluation Date (for priority public uses):** 2023

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Wildlife Observation, Wildlife Photography, Environmental Education, and Interpretation

**Primary Uses:** Environmental education (education of teachers, group leaders or students), interpretation, wildlife photography and videography, wildlife observation.

**Supporting and Incidental Uses:** Boating (motorized and non-motorized), fixed-wing aircraft landings, fishing, hunting, trapping, natural resource gathering, camping, cross-country skiing, dog sledding and skijoring, snowmobiling, hiking and backpacking, firewood cutting, picnicking, pets, snowshoeing, swimming and beach use.

**Refuge Name:** Kanuti National Wildlife Refuge

### Establishing and Acquisition Authority:

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### Kanuti Refuge Purposes:

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### National Wildlife Refuge System Mission:

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C.668dd-668ee]).

### **Description of Uses:**

This determination re-evaluates the following wildlife-dependent activities: wildlife observation, wildlife photography/videography, environmental education, and interpretation. These uses were found to be compatible under the original Refuge Comprehensive Conservation Plan in 1987 and were again determined to be compatible in 1994. While some visitors come to the refuge specifically to engage in one or more of these non-consumptive activities, many visitors also include these activities as part of a refuge hunting or fishing trip. Compatibility of hunting and fishing is evaluated separately. Associated activities such as camping, backpacking, hiking, and other incidental uses are considered part of these wildlife-dependent activities for the purposes of this evaluation. Of these priority public uses, wildlife observation and photography are by far the most widespread.

Interpretive and educational efforts occur primarily in the communities of Allakaket, Alatna, Bettles, and Evansville, and at the Arctic Interagency Visitor Center within the Dalton Highway Corridor rather than on the refuge because of the lack of developed visitor facilities and difficult access to the refuge itself. Limited, informal interpretive and environmental education services are provided during contacts with visitors on the refuge by staff on routine patrol. No formal environmental education or interpretive programs are regularly conducted on the refuge nor are any formal on-site programs planned under the revised Comprehensive Conservation Plan.

Visitors take advantage of opportunities to view and photograph wildlife, plants, and landscapes within the refuge. Most of these activities predate the establishment of the refuge in 1980. Recreational settings on the refuge are remote. Typical forms of access for all areas of the refuge include fixed-wing airplanes, motorboats, non-motorized boats, hiking, snowshoeing, snowmobiles, cross-country skiing, and other non-motorized means. However, most non-local visitors access the refuge by commercial air taxis from Bettles. Private boats and airplanes are the most common means of access for local visitors or the relatively few visitors not using commercial transporters. Day trips to the refuge are uncommon for visitors interested in wildlife observation, wildlife photography, and sightseeing but do occasionally occur. Camping on the refuge usually extends for periods of several days and is often associated with hunting activities. Campers use tents ranging from small backpacking tents to larger multi-person tents.

People can visit the refuge year-round, but most come to hunt, fish or conduct subsistence activities during the warmer months. Use is concentrated in areas that are accessible to rivers or larger lakes. These areas generally provide reliable opportunities for wildlife observation, especially along major rivers including the Kanuti, Koyukuk and South Fork Koyukuk rivers.

### **Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage these wildlife-dependent recreational activities. Administrative staff time primarily involves phone conversations, written correspondence, public use surveys, and interaction with visitors at the visitor center. Staff time will also be involved with any subsequent step-down planning (public use management) or for recreational monitoring. Field work associated with administering this use primarily involves conducting patrols to increase visitor compliance with State and Federal regulations. Refuge staff members opportunistically conduct outreach to visitors to minimize the impacts of camping to improve understanding of local residents' subsistence activities and awareness of private

inholdings and property. Outreach efforts at the Arctic Interagency Visitor Center in Coldfoot, Alaska emphasize “leave no trace” camping and hiking practices.

For commercial videography, administrative staff time would primarily involve issuing permits, and recording activity data. Fieldwork associated with administering the program would primarily involve monitoring permittees’ compliance with the terms of the permits. Estimated staff time to annually administer and monitor these permits is less than one week.

**Anticipated Impacts of the Uses:**

Adverse impacts to refuge wildlife and habitats associated with these priority public uses and associated uses are evaluated in this draft environmental assessment for the Kanuti Refuge Comprehensive Conservation Plan. Negligible impacts to habitats within the refuge from disturbance are anticipated. Possible localized adverse impacts to some plant and wildlife species could occur, but the proposed plan would not have any long-term population-level impacts on refuge plants and wildlife. The introduction of invasive plant species, perhaps from seeds carried on boats, on airplane floats, in snowmobile sleds or dog sleds, could affect refuge resources, although it is not known to have occurred on the Kanuti Refuge. Refuge staff will be vigilant to prevent such introductions. Positive effects on the local economy, though small, are anticipated from these uses.

**Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge’s Comprehensive Conservation Plan. While no comments were received specifically for this compatibility, one general comment applied to this determination. The State of Alaska questioned inclusion of “pets” as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in these activities.

**Refuge Determination (check one below):**

- Use is Not Compatible
- Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

Visitors will be required to comply with any regulations in place, such as seasonal closures for resource protection.

Permits are required for all commercial videography, including filming of documentaries, travelogues, feature stories, and advertising. Liability insurance and bonding may be required depending on the specific production activities proposed. Additionally, a \$100 fee may be required. News gathering organizations are exempt from fee, insurance, and bonding requirements, but may require a Special Use Permit to ensure compatibility with refuge purposes, public use, ongoing research, or to protect refuge resources.



**Mandatory 10-Year Re-evaluation Date (for allowed uses only):** \_\_\_\_\_

**Mandatory 15-Year Re-evaluation Date (for priority public uses):** 2023\_\_\_\_\_

**NEPA Compliance for Refuge Use Decision:**

\_\_\_\_\_ Categorical Exclusion without Environmental Action Memorandum

\_\_\_\_\_ Categorical Exclusions and Environmental Action Memorandum

  X   Environmental Assessment and Finding of No Significant Impact

\_\_\_\_\_ Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Recreational Hunting

**Primary Use:** Hunting (big game, waterfowl, other migratory birds, and upland game).

**Supporting and Incidental Uses:** Boating (motorized and non-motorized), fixed-wing aircraft landings, fishing, trapping, natural resource gathering, camping, firewood cutting, dog training (including field trials), snowmobiling, hiking and backpacking, pets, wildlife photography, videography and audio recording, swimming and beach use, wildlife observation.

**Refuge Name:** Kanuti National Wildlife Refuge.

### **Establishing and Acquisition Authority:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Kanuti Refuge Purposes:**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### **National Wildlife Refuge System Mission:**

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C.668dd-668ee]).

### **Description of Use:**

Recreational hunting is re-evaluated in this determination. Recreational hunting was found to be compatible in the original Refuge Comprehensive Conservation Plan (1987), and was again determined to be compatible in 1994. Associated activities such as camping, backpacking, hiking, and other incidental uses are considered part of recreational hunting. The majority of recreational hunting has been for moose and caribou but hunting for black bear, grizzly bear, small game and waterfowl also occurs on the refuge, usually as part of a moose hunt, as allowed under State of Alaska hunting regulations (5 AAC). Small-game and waterfowl hunting often occurs in conjunction with big game hunts and fall fishing excursions. Recreation settings on the refuge are remote. The number of recreational use-days for small game and waterfowl hunting on the refuge is unknown, but thought to be minimal. In recent years refuge staff members were aware of an annual range of two to five parties of recreational moose hunters using Kanuti. Traditional forms of access to the refuge include fixed-wing aircraft, motorboats, snowmobiles and non-motorized means. Levels of recreational hunting are estimated primarily from direct observation by refuge staff, annual reports provided by air-taxi operators who transport most recreational hunters to locations within the refuge, and information from State harvest tickets. Permitted air-taxi operators provide visitor information, including primary activity, location, length of stay, and group size.

Most of Kanuti Refuge is located within State of Alaska Game Management Unit (GMU) 24B, although a small part is within GMU 24A. Moose, caribou, black and brown bear are the primary species sought after by hunters, but wolves and wolverine may be taken incidentally on Kanuti Refuge. The Kanuti Controlled Use Area (KCUA), which includes all but the extreme southern and eastern portions of the refuge, was established by the State of Alaska in 1981. The KCUA restricts aircraft access for the transport of moose hunters, gear or moose parts. (However, moose hunters, their gear, and or moose parts may, be transported by aircraft between publicly owned airports in the controlled use area or between a publicly owned airport within the area and points outside the area.) The KCUA is bounded by a line from the Bettles Field VOR, to the east side of Fish Creek Lake, to Old Dummy Lake, to the south end of Lake Todatonten (including all waters of these lakes), to the northern most headwaters of Siruk Creek, to the highest peak of Double Point Mountain, then back to Bettles Field VOR. Federal subsistence regulations for the Kanuti Refuge were imposed in 1992, further restricting access for the purposes of taking moose on Federal lands within the KCUA to rural residents of GMU 24 and the villages of Koyukuk, Galena, and Anaktuvuk Pass.

### **Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage recreational hunting activities at existing and projected levels. Administrative staff time primarily involves phone conversations and written correspondence to answer questions from hunters, attendance at regulatory meetings, and engagement in the regulatory review process. Field work associated with administering the program primarily involves conducting law enforcement patrols to ensure recreational hunter compliance with State and Federal refuge regulations. Refuge staff members opportunistically conduct outreach to hunters to increase their awareness of national wildlife refuge programs, the status of local wildlife populations, the relationship of regulations to sustainable yield, and the importance of knowing land ownership and regulatory boundaries in locations where hunting activities are to take place.

### **Anticipated Impacts of the Use:**

The refuge is directly involved in review and implementation of the regulatory process and administrative oversight of the activity. Because of combined regulatory and law enforcement efforts of the State and refuge personnel, direct impacts from recreational hunting under existing management should have minimal impacts to fish and wildlife resources, other resources, or other refuge users.

Moose hunting locations outside of the KCUA are concentrated in narrow river corridors along the Kanuti River and the South Fork Koyukuk River, affording little opportunity for hunters to spread out and avoid each other. The combination of low moose density and concentration of hunting activity in narrow river corridors in a small area outside the KCUA may reduce success and detract from the isolated quality hunting experience sought by other hunters also using these remote locations. Recreational hunters may, in some cases compete with subsistence users for the limited number of game animals in these corridors. Refuge staff members are aware of these potential conflicts and monitor use levels each hunting season. Should conflicts arise, the Service will work to address them through the Federal Subsistence Board and Alaska Board of Game. These Boards have established regulations aimed at managing populations of animals at sustainable levels and to prevent conflicts between user groups.

Impacts to refuge habitats are considered minimal because access is primarily by boat or plane, with planes landing on lakes and rivers with floats or on gravel bars with wheels. Disturbance to vegetation is minimal and short-term and would likely be restricted to campsites that receive repetitive use. Temporary displacement and or disturbance to wildlife can occur with any form of motorized transport (Bouffard 1982, Calef et al. 1976, Miller 1994, and Ward et al. 1994). A large increase in recreational hunting on the refuge could cause user conflicts, wildlife disturbance, and in some cases undermine the wild character of the refuge. The introduction of invasive plant species carried on boats or aircraft floats could affect refuge resources, although it is not known to have occurred on the Kanuti Refuge to date, and staff will be vigilant to prevent such occurrences.

### **Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge's Comprehensive Conservation Plan. One person commented that our bibliography was outdated and that using information from 10-50 years ago is not useful for the future. We find both references from the past and recent ones to be useful for current management. The State questioned inclusion of "pets" as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in these activities.

The State also commented that the term "high quality" is found throughout the CDs. The inherent difficulty in defining "high" quality is a long standing state comment and we suggest performing a word search on all CDs to remove these qualifiers when they may indicate or imply a management standard. As the Service manual talks about quality hunting and fishing programs on refuges, we changed the phrase high quality to quality in this compatibility determination.

While not specific to the compatibility determination, we received comments opposing hunting on the refuge. Hunting, that is compatible with refuge purposes, is identified as one of the six

priority public uses to be facilitated on refuges in the National Wildlife Refuge System Improvement Act. As explained in this compatibility determination, we have found hunting to be compatible with the purposes of Kanuti Refuge.

**Refuge Determination (check one below):**

- Use is Not Compatible
- Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

Management direction provided in the revised Refuge Conservation Plan would require adequate monitoring of visitor use, including recreational hunting. Findings from monitoring will be used to ensure that additional management actions, if any are needed, ensure that all hunting activities remain compatible with refuge purposes. To minimize impacts on lands and resources within the refuge, law-enforcement patrols will be routinely conducted in an effort to maximize compliance with the existing policies, rules and regulations.

**Justification:**

All lands in the Kanuti Refuge are open to general public access, with some exceptions: the Kanuti Controlled Use Area (restrictions for moose hunting only) and private inholdings. The National Wildlife Refuge System Administration Act of 1966 (as amended by the Refuge Improvement Act of 1997) identifies recreational hunting as one of six priority public uses of national wildlife refuge system lands. The Act states that “compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System.” When determined appropriate and compatible with refuge purposes, Service policy guides refuge managers to provide opportunity for all six wildlife-dependent recreational uses, while maintaining quality of experience. The overarching goal of the wildlife-dependent recreation policy (605 FW 1) is to enhance wildlife-dependent recreation opportunities and access to quality visitor experiences on refuges while managing refuges to conserve fish, wildlife, plants, and their habitats. The law also states that the Service should provide increased opportunities for families to experience compatible wildlife-dependent recreation, particularly opportunities for parents and their children to safely engage in traditional outdoor activities such as hunting.

Means of access by airplanes, motorboats, and non-motorized means for traditional activities, as provided by ANILCA and as currently regulated by the Service, have not materially interfered with or detracted from refuge purposes. Should motorized transportation grow to levels where it interferes with refuge purposes, staff would work with hunters and the State of Alaska to address impacts and resolve compatibility concerns. Recreational hunting is an activity that Congress intended to preserve when the refuge was established by ANILCA. As stated previously, recreational hunting on the refuge provides the public with quality, safe, and unique hunting opportunities found few places elsewhere in the world. To ensure sustainability of harvest of wildlife resources and to provide the continued opportunity for subsistence uses of these species by local residents, both the Federal Subsistence Board and State Board of Game regularly adopt regulations in response to wildlife population levels and management needs. These regulations provide adequate protection for the refuge’s wildlife resources, continued hunting opportunities, and other refuge purposes. After fully considering the impacts of these activities, as described previously in the “Anticipated Impacts” section of this document, it is my determination that

recreational hunting within the refuge does not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

**Supporting Documents:**

Alaska Department of Fish and Game. 2006. Alaska hunting regulations effective dates July 1, 2006–June 30, 2007, governing general, subsistence, and commercial uses of Alaska’s wildlife. Juneau, Alaska. Viewed December, 2006 at [www.state.ak.us/adfg/wildlife/wildmain.htm](http://www.state.ak.us/adfg/wildlife/wildmain.htm).

Bouffard, S. 1982. Wildlife values versus human recreation: Ruby Lake National Wildlife Refuge. Transactions of the North American Wildlife and Natural Resources Conference 47:553-558.

Calef, G.W., E.A. DeBock, and G.M. Lortie. 1976. The reaction of barren-ground caribou to aircraft. Arctic 29(4):201-212.

Miller, M. W. 1994. Route selection to minimize helicopter disturbance of molting Pacific black brant: a simulation. Arctic 47: 341–349.

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service. Anchorage, Alaska. 326 pp.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

Ward, D. H., R. A. Stehn, D. V. Derksen. 1994. Response of staging brant to disturbance at the Izembek Lagoon, Alaska. Wildl. Soc. Bull. 22: 220–228.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval:  /s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System:  /s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-Year Re-evaluation Date (for allowed uses only):** \_\_\_\_\_

**Mandatory 15-Year Re-evaluation Date (for priority public uses):** \_\_\_\_\_ 2023 \_\_\_\_\_

**NEPA Compliance for Refuge Use Decision:**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Recreational Fishing

**Primary Use:** Fishing (general and other)

**Supporting and Incidental Uses:** Boating (motorized and non-motorized), fixed-wing aircraft landings, hunting, firewood cutting, trapping, camping, hiking and backpacking, picnicking, pets, natural resource gathering, wildlife photography and videography, swimming and beach use, wildlife observation, snowmobiling.

**Refuge Name:** Kanuti National Wildlife Refuge

### Establishing and Acquisition Authority:

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### Kanuti Refuge Purposes:

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### National Wildlife Refuge System Mission:

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C.668dd-668ee]).

**Description of Use:**

This determination re-evaluates recreational fishing as a compatible use on Kanuti NWR. Recreational fishing was originally found to be compatible in the original Refuge Comprehensive Conservation Plan (1987), and was again determined to be compatible in 1994. Means of access for recreational fishing include fixed-wing airplanes (mainly floatplanes), motorboats, non-motorized boats, hiking and snowmobiling. Associated activities such as camping, backpacking, hiking, and other incidental uses are considered part of wildlife-dependent recreational fishing activities. Recreational fishing occurs spring through fall, and is managed under State of Alaska fishing regulations (5AAC). Of the four major rivers on the refuge, all could be classified as having good recreational fishing opportunities, based on reasonable accessibility by float plane or boat, and sustainable populations of anadromous and/or resident fish. Although all these drainages provide opportunities for day use and overnight primitive camping, cost of traveling to these areas for day-use fishing is prohibitive for most visitors. All drainages provide opportunities for northern pike fishing; however, only the Koyukuk, South Fork Koyukuk, and Jim rivers, and Fish and Henshaw creeks have salmon runs that would attract recreational fishing. Arctic grayling, whitefish, and Dolly Varden are also available in some waters within the refuge. Recreational fishing patterns are estimated primarily through direct observation by refuge staff and reports from local residents. Use is very low outside of the hunting season. Refuge staff members are aware of only a few public recreational trips per year, mainly non-motorized river trips. It is likely recreational fishing occurs on most of these trips.

**Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage recreational fishing at existing levels. Administrative staff time primarily involves phone conversations, written correspondence, and could involve engagement in regulatory review. Field work associated with administering the program primarily involves conducting law enforcement patrols to ensure recreational users' compliance with State fishing regulations and refuge regulations and to work with adjacent land owners to monitor public use on rivers flowing onto Kanuti Refuge. It is estimated that less than a week of staff time is required to manage this use on Kanuti NWR.

**Anticipated Impacts of the Use:**

Both the Federal Subsistence Board and State Board of Fisheries regularly adopt regulations in response to fish population levels and to address issues of fishery allocation. Providing an opportunity for continued subsistence uses of fishery resources by local residents receives the highest priority from the Federal Subsistence Board. Although salmon experienced a worrisome decline in the late 1990's, recent run strengths indicate that a recreational fishery on salmon currently is sustainable. The Kanuti Refuge Fisheries Management Plan (USFWS 1993) warned that refuge fish populations could decline without sufficient data to measure population trends. Based on guidance provided in the Fisheries Management Plan, refuge staff members continue to work with the Fairbanks Fish and Wildlife Field Office and ADF&G to implement inventories and studies in the Plan and to conduct other research aimed at understanding fish populations and key habitats on Kanuti Refuge. At current levels recreational fishing harvests require little monitoring, and there are no anticipated deleterious effects on fish habitat. Should intensity of use increase, refuge staff would increase monitoring efforts. If necessary, refuge staff would

review regulations and, propose changes to protect fishery resources and subsistence fishing opportunities for people living near the refuge.

Additional potential impacts or threats are associated with floatplane or motorboat access. The introduction of invasive plant species carried on boats or aircraft floats could affect refuge resources, although it is not known to have occurred on the Kanuti Refuge to date. In addition, frequent motorboat or aircraft traffic could impact nesting, molting or staging birds (Bouffard 1982, Miller 1994 and Ward et al. 1994). Temporary displacement and/or disturbance to wildlife can also occur in response to low level overflights and during aircraft takeoffs and approaches to landings (Calef et al. 1976).

**Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge’s Comprehensive Conservation Plan. One person commented that our bibliography was outdated and that using information from 10-50 years ago is not useful for the future. We find both references from the past and recent ones to be useful for current management. The State questioned inclusion of “pets” as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in these activities.

**Refuge Determination (check one below):**

- Use is Not Compatible
- Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

The Fisheries Management Plan for Kanuti Refuge (1993) will be used to identify specific management actions to ensure that recreational fishing and related activities continue to remain compatible with refuge purposes.

**Justification:**

The National Wildlife Refuge System Administration Act (as amended by the Refuge Improvement Act of 1997) identifies compatible recreational fishing as one of six priority public uses of national wildlife refuges. The law states that, when managed in accordance with principles of sound fish and wildlife management, administration of these uses has been, and is expected to continue to be, generally compatible and that priority public uses should receive enhanced consideration over other general public uses in refuge planning and management. The law also states that the Service should provide increased opportunities for families to experience compatible wildlife-dependent recreation, particularly opportunities for parents and their children to safely engage in traditional outdoor activities such as fishing. When determined appropriate and compatible with refuge purposes, Service policy guides refuge managers to provide opportunity for all six wildlife-dependent recreational uses, while maintaining quality of experience. The overarching goal of the wildlife-dependent recreation policy (605 FW 1) is to enhance wildlife-dependent recreation opportunities and access to quality visitor experiences on refuges while managing refuges to conserve fish, wildlife, plants, and their habitats.

Means of access by airplanes, motorboats, snowmobiles and non-motorized means for traditional activities, as provided by ANILCA and as currently regulated by the Service, have not materially interfered with or detracted from refuge purposes. Should motorized transportation in support of recreational fishing increase to levels where it interferes with refuge purposes, staff would work with anglers and ADF&G to address impacts and resolve compatibility concerns.

Recreational fishing is an activity that Congress intended to preserve when the refuge was designated by ANILCA. As stated previously, recreational fishing within the refuge provides the public with safe and unique recreational fishing opportunities of a quality found few places elsewhere in the world. The State Board of Fisheries and the Federal Subsistence Board, respectively, review regulations to manage public fishery resources and to provide the continued opportunity for subsistence fishing by local residents in response to changing fish population levels and harvest patterns. These regulations provide adequate protection for the refuge's fishery resources, and continued subsistence opportunities, in balance with other refuge purposes. After fully considering the impacts of these activities, as described previously in the "Anticipated Impacts" section of this document, it is my determination that recreational fishing within the refuge does not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

#### **Supporting Documents:**

Bouffard, S. 1982. Wildlife values versus human recreation: Ruby Lake National Wildlife Refuge. *Transactions of the North American Wildlife and Natural Resources Conference* 47:553-558.

Calef, G.W., E.A. DeBock, and G.M. Lortie. 1976. The reaction of barren-ground caribou to aircraft. *Arctic* 29(4):201-212.

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service. Anchorage, Alaska. 326 pp.

Kanuti National Wildlife Refuge, Fisheries Management Plan 1993, U.S. Fish and Wildlife Service, Fairbanks, Alaska, 52pp.

Miller, M. W. 1994. Route selection to minimize helicopter disturbance of molting Pacific black brant: a simulation. *Arctic* 47: 341-349.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

Ward, D. H., R. A. Stehn, D. V. Derksen. 1994. Response of staging brant to disturbance at the Izembek Lagoon, Alaska. *Wildl. Soc. Bull.* 22: 220-228.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval: /s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System: /s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-Year Re-Evaluation Date (for allowed uses only):** \_\_\_\_\_

**Mandatory 15-Year Re-Evaluation Date (for priority public uses):** 2023

**NEPA Compliance for Refuge Use Decision:**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Non-Wildlife Dependent Recreational Activities

**Primary Uses:** Picnicking, boating (motorized and non-motorized), fixed-wing aircraft landings, natural resource gathering, camping, cross-country skiing, dog training (including field trials), dog sledding and skijoring, snowmobiling, hiking and backpacking, pets, videography and audio recording, snorkeling and scuba diving, snowshoeing, swimming and beach use, firewood cutting.

**Supporting and Incidental Uses:** None

**Refuge Name:** Kanuti National Wildlife Refuge

### **Establishing and Acquisition Authorities:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Kanuti Refuge Purposes:**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### **National Wildlife Refuge System Mission:**

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C.668dd-668ee]).

**Description of Uses:**

This determination evaluates general public uses not covered in other compatibility determinations, including camping, hiking, backpacking, firewood cutting for recreational purposes, boating (motorized and non-motorized), plant gathering (including berry picking), rock gathering, cross-country skiing, dog sledding, skijoring, snowmobiling, beach use, snowshoeing, wildlife photography, and other general outdoor recreation when the uses are not associated with one of the other uses evaluated elsewhere for compatibility. These uses could occur year-round; though most are common in summer. The uses probably occur infrequently when *not* in association with other uses. Most of these uses were originally found to be compatible during preparation of the Refuge Comprehensive Conservation Plan in 1987, and were again determined to be compatible, subject to reasonable regulation in 1994.

**Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage these uses. Management consists of refuge staff contacting visitors on an opportunistic basis when in the field for other purposes.

**Anticipated Impacts of the Uses:**

These activities are anticipated to have negligible effects on refuge resources and other visitors, primarily because they occur so infrequently. For example, most berry picking occurs as a subsistence activity or by visitors engaged in another activity such as wildlife observation, hunting, or fishing.

**Public Review and Comment:**

Public comment was solicited concurrently with revision of the Refuge’s Comprehensive Conservation Plan. The State questioned inclusion of “pets” as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in these activities.

**Refuge Determination (check one below):**

- Use is Not Compatible
- Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

None

**Justification:**

These uses, at the levels anticipated, are not likely to have any adverse effects on refuge resources or other visitors. The activities have been found compatible when conducted in relation to other refuge uses such as wildlife observation and photography, hunting, fishing, trapping, or subsistence activities. Because the refuge is remote and only accessible by boat, airplane, snowmobile, dogsled, or arduous cross-country travel on foot, it is extremely unlikely that many visitors will travel to Kanuti to engage solely in these non-priority public use activities. After

fully considering the impacts of these activities, as described previously in the “Anticipated Impacts” section of this document, it is my determination that these non-priority public use activities within the refuge do not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

**Supporting Documents:**

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service. Anchorage, Alaska. 326 pp.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval:  /s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System:  /s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-Year Re-evaluation Date (for allowed uses only):** 2018

**Mandatory 15-Year Re-evaluation Date (for priority public uses):** \_\_\_\_\_

**NEPA Compliance for Refuge Use Decision:**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Trapping

**Supporting and Incidental Uses:** Fixed-wing aircraft landings, snowmobiling, boating (motorized and non motorized), fishing, hunting, natural resource gathering, camping, cross-country skiing, dog sledding and skijoring, hiking and backpacking, wildlife photography and videography, snowshoeing, swimming, wildlife observation, pets, and firewood cutting.

**Refuge Name:** Kanuti National Wildlife Refuge

### **Establishing and Acquisition Authorities:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Kanuti Refuge Purposes:**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### **National Wildlife Refuge System Mission:**

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

### **Description of Use:**

This determination re-evaluates the compatibility of furbearer trapping as a use of Kanuti Refuge. Trapping was originally found to be a compatible use during preparation of the refuge Comprehensive Conservation Plan in 1987. Trapping was again determined to be compatible,

subject to reasonable regulation in 1994. Wolves, fox, beaver, marten, lynx, snowshoe hares, wolverine, ermine, and river otters are regularly trapped on Kanuti Refuge. Trapping occurs during winter on the refuge in accordance with State of Alaska trapping regulations and seasons (5 AAC). Trapping activity on Kanuti Refuge has generally been decreasing since the 1980's, as described in Chapter 3 of this plan.

The majority of trapping activities within Kanuti Refuge are based out of Allakaket, Alatna, Bettles, and Evansville. Access to trapping areas is primarily by snowmobile. Currently, approximately eight to 12 trap lines occur on the refuge; some are located along the river systems between the villages, while others extend between rivers (e.g. from the Koyukuk River to Kanuti Chalatna Creek, and beyond to the Kanuti River, and from the lower Kanuti River to the Indian River). By tradition, each trap line tends to be used by a particular family or clan in a village; different trap lines are usually separated by several miles and respected locally as exclusive trapping use areas. Most trapping activities can be characterized as an extension of subsistence because much of the fur harvest is used for clothing including hats, parka ruffs and gloves. Income and products from trapping add to the self sufficiency of people living in remote regions of Alaska.

#### **Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage trapping on Kanuti Refuge. A few days of staff time are required annually to survey and map trap lines, review harvest estimates, and consider the occasional application for related permits (e.g. trapping cabin permits).

#### **Anticipated Impacts of the Use:**

No long-term adverse impacts on wildlife populations or other refuge resources are likely to occur due to continuation of trapping on the refuge. State trapping regulations are established to ensure healthy, sustainable furbearer populations. These regulations also provide potential for income from a renewable natural resource that supports local subsistence. Trapping can be an integral part of furbearer studies whenever biologists have sufficient funding to conduct trapper interviews and occasionally purchase large numbers of carcasses to determine population parameters such as productivity and reproductive history. Intensity of harvest and density of trap lines on Kanuti Refuge is very low and overall trapping pressure has declined since the 1980s. Therefore, except for the occasional harvest of non-targeted animals, trapping has little impact on the refuge. Diminishing trapping activity seems to have been the result of low fur prices, high energy prices and increasing number of people leaving the village for seasonal jobs outside of the area. Refuge staff will monitor harvest to the extent possible and attempt to determine trends through field observations and trapper interviews. If population concerns manifest, the Service will become engaged in review of the appropriate State of Alaska trapping regulations. The refuge will also be engaged in field enforcement of trapping regulations.

The introduction of invasive plant species, perhaps from seeds carried on equipment used in support of trapping efforts (e.g., boats, snowmobiles, dogsleds and straw bedding), could affect refuge resources, although it is not known to have occurred on the Kanuti Refuge. The Service will be vigilant to prevent such introductions.

**Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge’s Comprehensive Conservation Plan. The comment was made that there is no justification for trapping, that it should be totally banned. Trapping is a long-established use of the refuge. The State of Alaska manages harvest of furbearers to ensure their long-term sustainability. Most trapping on the refuge is for subsistence. Trapping provides fur that is used locally for garments and handicrafts or sold to provide limited cash income, a critical component of the mixed subsistence economy of rural Alaska. The State questioned inclusion of “pets” as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in trapping.

**Refuge Determination (check one below):**

Use is Not Compatible  
 Use is Compatible

**Stipulations Necessary to Ensure Compatibility:**

None.

**Justification:**

Trapping is a long-established use of the refuge. The State of Alaska manages harvest of furbearers to ensure their long-term sustainability. Most trapping occurs at the time of year when there are few visitors on the refuge. The majority of trapping effort on the refuge may be characterized as an extension of local subsistence activities. The current level of trapping, or even an increase in trapping activities, would most likely have a negligible effect on the resources of Kanuti Refuge. After fully considering the impacts of this activity, as described previously in the “Anticipated Impacts” section of this document, it is my determination that trapping activities within the refuge do not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

**Supporting Documents:**

Marcotte, J.R. and T.L. Haynes. 1985. Contemporary resource use patterns in the upper Koyukuk region, Alaska. Division of Subsistence Technical Paper No. 93. Alaska Dept. of Fish and Game, Anchorage, AK.

Strong, B.J. and E. W. McIntosh. 1985. Resource harvest by local residents of the Upper Koyukuk Region in 1984. U.S. Fish and Wildlife Service, Fairbanks, AK. 51pp.

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service, Anchorage, Alaska 326 pp.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

Wildlife Society Position Statement on Traps, Trapping and Furbearer Management. 2005.  
<http://www.wildlife.org/policy/positionstatements/09-Trapping.pdf>.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval:  /s/ Mike Spindler  8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System:  /s/ Mike Boylan  8/12/2008  
(Signature) (Date)

**Mandatory 10-year Re-Evaluation Date (for allowed uses only):**  2018

**Mandatory 15-year Re-Evaluation Date (for priority public uses):** \_\_\_\_\_

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Snowmobiling

**Primary Use:** Snowmobiling

**Supporting and Incidental Uses:** Hunting, fishing, trapping, natural resource gathering, firewood cutting, camping, picnicking, cross-country skiing, wildlife photography and videography, snowshoeing, pets, research, scientific collecting, surveys, wildlife observation.

**Refuge Name:** Kanuti National Wildlife Refuge

### **Establishing and Acquisition Authority:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Kanuti Refuge Purposes:**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### **National Wildlife Refuge System Mission:**

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C.668dd-668ee]).

### **Description of Use:**

This determination re-evaluates use of snowmobiles for access to Kanuti Refuge. Snowmobiles were originally found to be compatible during preparation of the Refuge Comprehensive Conservation Plan in 1987. Snowmobiles were again determined to be compatible, subject to reasonable regulation in 1994. The Alaska refuge regulations define a snowmobile as “a self-propelled vehicle intended for off-road vehicle travel primarily on snow [and] having a curb weight of not more than 1000 pounds, driven by track or tracks in contact with the snow and driven by a ski or skis in contact with the snow (50 CFR 36.32).” Alaska refuge regulations also specify that snowmobiles are only allowed during periods of adequate snow cover. Adequate snow cover is defined as an amount of snow, distributed in a continuous manner, which will protect underlying vegetation from adverse effects. Kanuti Refuge staff consider adequate snow cover for this use to be at least six inches. Snowmobile use occurs during winter throughout all accessible areas of the refuge. Although the exact amount of snowmobile use on the refuge is not documented, it is not believed to be substantial. Snowmobiles are an important traditional means of access for subsistence and trapping activities, and are a means of access for non-local recreation in winter. The vast majority of snowmobile use on Kanuti Refuge takes place along well-established inter-village trails and along traditional trap line trails (*See Compatibility Determination on Trapping*).

### **Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage this use. Currently, monitoring is conducted by talking with local residents and, during winter and spring, through overflights of the refuge conducted for other purposes. If the Dalton Highway Corridor is opened to public use of snowmobiles and off-road vehicles, an increase in monitoring and winter law enforcement would be required to protect resources.

### **Anticipated Impacts of the Use:**

Potential impacts of snowmobile use include disturbance of underlying vegetation and wildlife, and noise pollution. Because the majority of snowmobile use occurs on established trails, disturbance to vegetation above and beneath the snow is minimal and localized. In areas where snowmobiles leave established trails there may be small amounts of damage to shrub branches above the snow level.

If snowmobile use on Kanuti Refuge increased substantially from opening the Dalton Highway Corridor to public snowmobile use and off-road vehicles, disturbance to important subsistence species including moose and caribou could occur (McTaggart 1981 and Creel et al. 2002). Denning bears are most susceptible to snowmobile disturbance. Ill-advised or uninformed snowmobile use could cause bears to abandon dens and newborn cubs incapable of travel (Jonkel 1980). Snowmobile disturbance could also affect moose and caribou energy budgets, reproductive success and long-term survival (Fancy and White 1985). In addition, the wild character of Kanuti could be altered by increased noise disturbance.

Snowmobile use is only allowed during periods of adequate snow cover and the refuge manager has authority to announce when conditions are or are not adequate for snowmobile use on the refuge based on resource conditions per 43 CFR 36.11. Because a portion of Kanuti Refuge (southeastern quarter) is wind-blown and adequate snow cover usually does not remain on the

ground, restrictions may be required to protect resources if there is a substantial increase in snowmobile use in this area. Refuge staff will monitor use levels to determine if intensity in this area has the potential to impact refuge resources.

The introduction of invasive plant species, perhaps from seeds carried on snowmobiles or sleds, could affect refuge resources, although it is not known to have occurred on the Kanuti Refuge. Refuge staff will be vigilant to prevent such introductions.

**Public Review and Comment:**

Public comment was solicited concurrently with revision of the Refuge’s Comprehensive Conservation Plan. The State questioned inclusion of “pets” as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in these activities.

The State commented that we should clarify that snowmobile use is only allowed during periods of adequate snow cover and that the refuge manager is authorized to announce when snow cover is or is not adequate for snowmobile use. We revised the text as recommended. The State commented that we did not mention ANILCA provisions in this CD and recommended including references to ANILCA Sections 811 and 110(a). We have added the referenced legal citations.

**Refuge Determination (check one below):**

- Use is Not Compatible
- Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

None

**Justification:**

ANILCA Section 811 provides for snowmobile access for subsistence purposes, and Section 1110 allows for access to inholdings using snowmobiles. Snowmobiles allow access for a majority of winter activities on the refuge, and present use levels support compatible refuge activities. Regulations defining the size and weight of snowmobiles, coupled with the requirement that adequate snow cover be present, eliminate most potential for damage to habitat. The current low level of snowmobile use on Kanuti Refuge would have negligible adverse effects on wildlife and habitat. If the intensity of snowmobile use increases greatly, which is a real possibility if the Dalton Highway Corridor ORV restrictions are lifted, disturbance to sensitive wildlife species and habitats, such as denning bears and wind-scoured areas with insufficient snow cover, may occur. The refuge will continue to monitor snowmobile use levels and winter travel conditions and may take restrictive action if conditions warrant. After fully considering the impacts of this activity, as described previously in the “Anticipated Impacts” section of this document, it is my determination that snowmobile use within the refuge does not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

**Supporting Documents:**

Creel, S., J.E. Fox, A. R. Hardy, J. Sands, B. Garrot, and R.O. Peterson. 2002. Snowmobile activity and glucocorticoid stress responses in wolves and elk. *Conservation Biology* 16(3);809 <http://www.montana.edu/wwwbi/staff/creel/snomoGC.pdf>

Fancy, S. G., and R. G. White. 1985. Energy expenditures by caribou while cratering in snow. *Journal of Wildlife Management* 49(4):987-993.

Jonkel, C. J. 1980. Black, brown, and polar bears. Pages 227–228 *in* Big game of North America: ecology and management. J. L. Schmidt and D.L. Gilbert, *eds.* Harrisburg, Pennsylvania: Stackpole Books.

McTaggart-Cowan, I. 1981. Wildlife conservation issues in northern Canada. Canadian Environmental Advisory Council report, no. 11. University of Calgary, Canada.

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service. Anchorage, Alaska. 326 pp.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval:  /s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System:  /s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-Year Re-evaluation Date (for allowed uses only):**  2018

**Mandatory 15-Year Re-evaluation Date (for priority public uses):** \_\_\_\_\_

**NEPA Compliance for Refuge Use Decision:**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Trapping Cabin and Temporary Camps

**Primary Use:** Trapping cabin and temporary camps

**Supporting and Incidental Uses:** Boating (motorized and non-motorized), fixed-wing aircraft landings, hunting, natural-resource gathering, camping, picnicking, snowmobiling, hiking and backpacking, pets, wildlife photography and videography, swimming and beach use, firewood cutting.

**Refuge Name:** Kanuti National Wildlife Refuge

### **Establishment and Acquisition Authority:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Kanuti Refuge Purposes:**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### **National Wildlife Refuge System Mission:**

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

**Description of Use:**

This determination re-evaluates one trapping cabin permit and the potential for temporary camp permits. This use was originally found to be compatible in the Refuge Comprehensive Conservation Plan (1987). In 1996 the refuge issued a Special Use Permit to a Bettles resident for a subsistence trapping cabin. The applicant built a small trapping cabin along the South Fork Koyukuk River. In 2005 the permit was re-issued as a trapping cabin permit. Most local rural residents conduct these uses on Refuge lands supported by use of cabins that are located on private native allotments; however, it is possible that there may be future applications for subsistence or trapping cabin or temporary camp permits. New subsistence and trapping cabin permits would require a separate compatibility determination. New temporary camp permits are addressed in this compatibility determination.

**Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage the trapping cabin permit and temporary camps at current and projected levels. Administrative staff time primarily involves phone conversations and written correspondence, and issuing permits. Fieldwork associated with administering the program primarily involves monitoring permittees' compliance with the terms of the permits. Estimated staff time to annually administer and monitor these permits is one week.

**Anticipated Impacts of the Use:**

Special conditions attached to each special use permit are designed to minimize the chances of adverse effects to resources within the refuge and to its visitors. There are two primary concerns: impacts to wildlife resources and habitat; and visual impacts. The single permitted structure is small, (about 12 ft x 12 ft), is screened by dense vegetation, and has been in place for many years. Any wildlife displacement that may have occurred has already. Most wildlife using the area near such permitted cabins is likely habituated to the presence of these structures and the activities that routinely occur in and near them. The structures provide relatively secure storage for food, trapping supplies and bait, and other materials that might attract bears.

**Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge's Comprehensive Conservation Plan.

The State of Alaska commented on our display of regional special use permit stipulations in the compatibility determinations. The State suggested that the special use permit stipulations be preceded by an introductory statement such as, "A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility." We made the recommended change.

The State commented that we should clarify that snowmobile use is only allowed during periods of adequate snow cover and that the refuge manager is authorized to announce when snow cover is or is not adequate for snowmobile use. We revised the text as recommended.

The State questioned why we included “temporary camps” in “primary uses” though there is no other reference to temporary camps in the document. The State also commented that the compatibility determination mixed references to “trapping cabins” and “subsistence trapping cabins”. The State commented that trapping in Alaska is considered a use and not differentiated by user group. Trapping cabins are not limited to subsistence use and subsistence cabins are not limited to trapping uses. The State requested the “Primary Use” heading match the compatibility determination title. We added temporary camps” to the text in several places, as we do permit temporary camps associated with subsistence and trapping. We added “and Temporary Camps” to the title and corrected the “Primary Use” heading. We do not distinguish between cabins authorized for subsistence trapping and other trapping in this compatibility determination.

The State requested that “local rural residents” be changed to “other trappers” because use of trapping cabins is not limited to local rural residents. We removed the phrase “local rural residents.”

The State commented on Regional Standard Special Conditions.

The sixth bullet states that the use of off-road vehicles is "prohibited on Kanuti Refuge unless specifically authorized in writing in this permit." There are no regulations "prohibiting" subsistence ORV use on the refuge, as use of the term would imply. The regulation at 43 CFR 36.11 is apparently the basis for including this regional stipulation; however this regulation addresses recreational use of ORVs, not subsistence use. We therefore request this condition be deleted.

If subsistence use of ORVs needs to be addressed in this CD, we recommend addressing this in the Description of Use with a reference to ANILCA Section 811 and a clarifying statement similar to the following: "Based on the Oral History of ORV Use in Appendix K, there is no known history of subsistence use of ORVs on the refuge."

We did not delete the condition as the regional special use permit conditions cannot be changed by the refuge and a cabin or temporary camp permit would authorize a structure not the use of off-road vehicles.

The State questioned inclusion of “pets” as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in various activities on the refuge.

**Refuge Determination (check one below):**

Use is Not Compatible

Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility. Site-specific special use conditions related to maintenance of defensible space will be incorporated into permits on a case-by-case basis.

The management direction provided in the revised comprehensive conservation plan for the refuge will be implemented. Monitoring would be used to determine what additional management actions, if any, were needed to ensure compatibility. Continuing law enforcement and administrative monitoring of permits will be carried out to ensure compliance with the following conditions that are incorporated into all permits to minimize impacts on lands and resources within the refuge. The Refuge-specific stipulations will be updated to comply with the final revised Kanuti National Wildlife Refuge Comprehensive Conservation Plan, and if necessary, to comply with future step-down plans.

#### Regional Standard Special Conditions

- Failure to abide by any part of this special use permit; violation of any refuge related provision in Titles 43 (Part 36) or 50 (Subchapters B and C) Code of Federal Regulations; or violation of any pertinent State regulation (e.g., fish or game violation) will, with due process, be considered grounds for immediate revocation of this permit and could result in denial of future permit requests for lands administered by the U.S. Fish and Wildlife Service. This provision applies to all persons working under the authority of this permit (e.g., assistants). Appeals of decisions relative to permits are handled in accordance with 50 Code of Federal Regulations 36.41.
- The permittee is responsible for ensuring that all employees, party members, contractors, aircraft pilots, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- Any problems with wildlife and/or animals taken in defense of life or property must be reported immediately to the Refuge Manager, and the Alaska Department of Fish and Game, and animals taken must be salvaged in accordance with State regulations.
- In accordance with the Archaeological Resources Protection Act (16 U.S.C. 470aa), the removal or disturbance of archaeological or historical artifacts is prohibited. The excavation, disturbance, collection, or purchase of historical, ethnological, or archaeological specimens or artifacts is prohibited.
- Permittees shall maintain their use areas in a neat and sanitary condition. Latrines must be located at least 150 feet from springs, lakes, and streams to avoid contamination of water resources. All property (except cabins and/or tent frames) of the permittee must be removed from refuge lands upon completion of permitted activities.
- The construction of landing strips or pads is prohibited. Incidental hand removal of rocks and other minor obstructions may be permitted.
- The use of off-road vehicles (except snowmobiles with adequate snow cover) is prohibited unless specifically authorized in writing in this permit.
- The operation of aircraft at altitudes and in flight paths resulting in the herding, harassment, hazing, or driving of wildlife is prohibited. It is recommended that all aircraft, except for take-off and landing, maintain a minimum altitude of 2,000 feet above ground.

- Fuel caches are allowed only in designated areas and must be approved by the Refuge Manager or his designate prior to caches being established. If caches are established, fuel containers must be clearly marked with the permittee's name, address, local contact telephone number and type of fuel.
- Any major exterior rehabilitation of or additions to existing structures must have the Refuge Manager's prior approval in writing. This does not include minor remodeling or routine maintenance.
- Subject to available suppression resources and taking into consideration specific site conditions (including human presence), permitted cabins, structures, and/or related facilities may be protected from wildfire to the extent possible. Human safety will receive the highest priority consideration by land managers and fire suppression personnel.
- This permit authorizes use on State selected lands. If any of these lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands until and unless permission is obtained from the Alaska Department of Natural Resources.
- This permit authorizes use only on the Native selected lands specifically identified in the description block of this permit. If any of these Native selected lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands unless permission is obtained from the Native corporation to which land ownership has been conveyed.
- Any action by a permittee or the permittee's employees which unduly interferes with or harasses other refuge visitors or impedes access to any site is strictly prohibited. Examples of prohibited acts include, but are not limited to: 1) intentional low flights over camps or persons at less than 500 feet, except when necessary for take off and landing; 2) parking aircraft or placing other objects (rocks, tents, etc.) on any landable area so as to restrict use by other aircraft; 3) otherwise intentionally interfering in the activity of other refuge users; 4) engaging in activity which is contrary to State and Federal laws.

#### Refuge-Specific Special Conditions

- All garbage and non-combustible debris will be removed from the refuge. Food, garbage, other materials will be stored so as not to attract bears and other wildlife.
- Use of cabins is authorized for trapping or subsistence related activities only. Use of the cabin for any other purposes is prohibited and will result in revocation of the permit. The permittee must notify the Refuge Manager of any proposed or ongoing changes in use or in cabin users.
- This permit is not marketable or transferable and is subject to renewal five years from the date of issuance.

- The permittee acknowledges that he/she has no interest in the real property on which the cabin(s) and related structures are located. The granting of this permit in no way implies that the permittee has exclusive use of the site or lands covered by the permit, or of local resources.
- The permittee agrees to vacate the cabin(s) and related structures within one year of non-renewal or revocation of this permit, and will leave the surrounding grounds in a neat, clean and orderly condition. If the permittee fails to remove all such personal property within one year, the permittee will be liable for the cost of its removal and the restoration of the site.
- The permittee will take no action that interferes with subsistence activities of rural users or restricts the reasonable access of subsistence users to refuge lands. This may include, but is not limited to, disturbance of wildlife and their movements near subsistence hunters, and damage to cabins, trails, traditional campsites or caches used by subsistence users.
- A valid copy of the issued special use permit, signed by the Refuge Manager or designee, must be in the permittee's possession at all times while exercising the privileges of the permit.

**Justification:**

The impacts of these permanent, semi-permanent, and temporary facilities to refuge resources and other refuge users were considered in detail during the permit application and renewal process. 50 CFR 36.33 (d) states in part that “a nontransferable, five year special use permit shall only be issued upon a determination that the proposed construction, use and maintenance of the cabin is compatible with refuge purposes and that the cabin use ...is needed for continuation of an ongoing activity or use otherwise allowed within the refuge where the applicant lacks a reasonable off-refuge site. In addition these activities must have historically been supported by the construction and use of cabins in the geographic area. In general, new cabin permits will be given only to local residents to pursue a legitimate subsistence activity....” Trapping and subsistence are the primary uses that historically have been supported by cabins in the Kanuti Refuge area, therefore, the Refuge Manager must issue a permit if it is otherwise compatible with refuge purposes. Refuge staff will monitor compliance with permit special conditions to ensure that the cabins and use of the cabins will not adversely affect resources within the refuge or other visitors. After fully considering the impacts of these activities, as described previously in the “Anticipated Impacts” section of this document, it is my determination that the existing trapping cabin and future temporary camp use within the refuge does not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

**Supporting Documents:**

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service. Anchorage, Alaska. 326 pp.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval:  /s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System:  /s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-Year Re-Evaluation Date:** 2018

**NEPA Compliance for Refuge Use Decision:**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Subsistence Harvest of House Logs

**Primary Use:** Construction of homes or outlying cabins.

**Supporting and Incidental Uses:** Boating (motorized and non-motorized), snowmobiling, camping, picnicking, hiking and backpacking, pets, wildlife photography and videography and firewood cutting.

**Refuge Name:** Kanuti National Wildlife Refuge

### Establishment and Acquisition Authority:

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### Kanuti Refuge Purposes:

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### National Wildlife Refuge System Mission:

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

### Description of Use:

This determination re-evaluates subsistence house log cutting as a use of Kanuti Refuge. Subsistence log cutting was originally found to be compatible in the Refuge Comprehensive Conservation Plan (1987), and was again determined to be compatible in 1994. Associated uses

include hunting, fishing, trapping, firewood gathering, berry picking, and gathering of other plant materials while harvesting trees for house building. These uses also include motorboat access and other means of surface transportation traditionally employed for such subsistence purposes, as allowed under ANILCA Section 811. According to 50 CFR, 36.15, “Notwithstanding any other provision of this part, the noncommercial cutting of live standing timber by local rural residents for appropriate subsistence uses, such as firewood or house logs, may be permitted in Alaska National Wildlife Refuges as follows: For live standing timber greater than six inches diameter at breast height (4 ½ feet above ground level), the Refuge Manager may allow cutting in accordance with the specifications of a special use permit if such cutting is determined to be compatible with the purposes for which the refuge was established.”

Residents of Allakaket, Alatna, Evansville and Bettles, located near Kanuti Refuge, have lifestyles and economies that depend on subsistence resources (Strong and McIntosh 1985). Subsistence activities described here focus primarily on cutting house logs greater than six inches diameter at breast height for local cabin construction, and firewood collecting that may be associated with the logging. Kanuti Refuge has some limited historical data on the number of house logs or intensity of harvest for subsistence prior to or shortly after refuge establishment (562 logs in Allakaket and 17 logs in Bettles, McGee and McIntosh 1984). Permits issued early in the history of the refuge did not assign specific cutting areas. Refuge staff members have issued more than a dozen house log cutting permits since the refuge was established. Most of the permits were to cut logs for personal residences in Allakaket, Bettles, or Evansville. A few permits were issued for logging on refuge lands near private Native allotments where the permittee intended to build a subsistence cabin. Most permits were for 40-80 logs, one was for more than 100 logs. Most of the cutting activity has been along the South Fork Koyukuk River, where Allakaket residents can raft the logs downriver to the village. Logs from the South Fork Koyukuk River have also been cut and transported on the winter road to Bettles. Occasionally, materials not suitable for house logs are salvaged for use as firewood.

### **Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage subsistence house log harvest activities at existing and projected levels. Management primarily includes surveys conducted specifically for the management of house logs and firewood collecting. Surveys will be conducted from the air and from motor boats and will be used to determine where adequate stands of large white spruce occur and how many trees can be removed while allowing sustainability of riparian spruce stands. It is anticipated that management of these permits will require no longer than one week of staff time annually.

### **Anticipated Impacts of the Use:**

White spruce is the favored timber species for logging. It occurs throughout central Alaska on well-drained floodplain soils, uplands, and south-facing slopes where seasonal thaw is deep. Most white spruce stands in floodplains and on uplands consist of trees 40-50 feet tall and eight to 16 inches in diameter. Exceptional trees with diameters of 24-36 inches at breast height and 100 feet tall may occur on floodplain islands that have not been burned for a long time. Stands of white spruce of a size usable for house logs are mainly limited to the Koyukuk River, South Fork Koyukuk River, Kanuti River, and Kanuti Kilolitna River. The nearest study aimed at examining sustainability of white spruce logging was about 100 miles south at Nowitna NWR, where Lambrecht (2004) estimated a sustainable harvest of one house log per 2.5 acres per year

in ideal riparian white spruce habitat on islands along the Yukon River. Because Kanuti Refuge straddles the Arctic Circle, tree growth is likely slower than in the study cited above, and impacts of unrestricted tree harvests could be significant unless closely monitored through the permit process. Current permits assign cutting areas and staff will conduct follow-up site visits to examine cutting intensity. If cutting intensity increases, refuge staff will make an effort to determine sustainable harvest levels and regeneration time for riparian white spruce. In the meantime, trees will be taken based on sustainability recommendations adopted from Koyukuk and Nowitna Refuges. Possible impacts to anadromous fish will be minimized by following appropriate sections of the Alaska Forest Resources & Practices Act (Alaska Statutes 41.17 Sec. 115-119).

Impacts to habitat caused by supporting aircraft, boats, snowmobiles and foot travel are generally believed to be minimal. Much of the access by subsistence users is by boat (spring and summer) or snowmobile (winter) during adequate snow cover. Impacts to the wild character of Kanuti Refuge will be minimized through special conditions limiting the number of trees that can be taken within ten feet of river banks. The introduction of invasive plant species, perhaps from seeds carried on boats, snowmobiles, or dog sleds, could affect refuge resources, although it is not known to have occurred on the Kanuti Refuge. Logging sites may be particularly vulnerable to establishment of non-native, noxious weeds if the ground is disturbed. Refuge staff will be vigilant to prevent such introductions.

**Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge’s Comprehensive Conservation Plan.

The State of Alaska commented on our display of regional special use permit stipulations in the compatibility determinations. The State suggested that the special use permit stipulations be preceded by an introductory statement such as, "A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility." We made the recommended change.

The State questioned inclusion of “pets” as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in various activities on the refuge.

**Refuge Determination (check one below):**

- Use is not compatible
- Use is compatible

**Stipulations Necessary to Ensure Compatibility:**

A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility. Continuing monitoring of permittees will be carried out to ensure compliance with the following conditions that are incorporated into permits in order to minimize impacts on lands and resources within the refuge. These

stipulations will be updated to comply with the final revised Kanuti National Wildlife Refuge Comprehensive Conservation Plan.

#### Regional Standard Special Conditions

- Failure to abide by any part of this special use permit; violation of any refuge related provision in Titles 43 (Part 36) or 50 (Subchapters B and C) Code of Federal Regulations; or violation of any pertinent State regulation (e.g., fish or game violation) will, with due process, be considered grounds for immediate revocation of this permit and could result in denial of future permit requests for lands administered by the U.S. Fish and Wildlife Service. This provision applies to all persons working under the authority of this permit (e.g., assistants). Appeals of decisions relative to permits are handled in accordance with 50 Code of Federal Regulations 36.41.
- The permittee is responsible for ensuring that all employees, party members, contractors, aircraft pilots, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- Any problems with wildlife and/or animals taken in defense of life or property must be reported immediately to the Refuge Manager and Alaska Department of Fish and Game, and be salvaged in accordance with State regulations.
- This permit does not grant the permittee and his/her employees exclusive use of the site(s) or lands covered by the permit.
- This permit may be canceled or revised at any time by the Refuge Manager in case of emergency (e.g. high fire danger, flooding, unusual resource problems, etc.).
- The permittee or his/her designee shall notify the Refuge Manager during refuge working hours in person or by telephone before beginning and upon completing activities allowed by this permit.
- The permittee shall provide the Refuge Manager with a report including the number of trees harvested, estimate of size (length & diameter) of logs and which area(s) logs were harvested from) under this permit within 30 days of permit expiration.
- In accordance with the Archaeological Resources Protection Act (16 U.S.C. 470aa), the removal or disturbance of archaeological or historical artifacts is prohibited. The excavation, disturbance, collection, or purchase of historical, ethnological, or archaeological specimens or artifacts is prohibited.
- Permittees shall maintain their use areas in a neat and sanitary condition. Latrines must be located at least 150 feet from springs, lakes, and streams to avoid contamination of water resources. All property (except cabins and/or tent frames) of the permittee must be removed from refuge lands upon completion of permitted activities.
- The construction of landing strips or pads is prohibited. Incidental hand removal of rocks

and other minor obstructions may be permitted.

- The use of off-road vehicles (except snowmobiles with adequate snow cover) is prohibited unless specifically authorized in writing in this permit.
- Fuel caches are allowed only in designated areas and must be approved by the Refuge Manager or his designate prior to caches being established. If caches are established, fuel containers must be clearly marked with the permittee's name, address, local contact telephone number and type of fuel.
- Construction of cabins or other permanent structures is prohibited.
- This permit authorizes use on State selected lands. If any of these lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands until and unless permission is obtained from the Alaska Department of Natural Resources.
- This permit authorizes use only on the Native selected lands specifically identified in the description block of this permit. If any of these Native selected lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands unless permission is obtained from the Native corporation to which land ownership has been conveyed.
- Any action by a permittee or the permittee's employees which unduly interferes with or harasses other refuge visitors or impedes access to any site is strictly prohibited. Examples of prohibited acts include, but are not limited to: 1) intentional low flights over camps or persons at less than 500 feet, except when necessary for take off and landing; 2) parking aircraft or placing other objects (rocks, tents, etc.) on any landable area so as to restrict use by other aircraft; 3) otherwise intentionally interfering in the activity of other refuge users; 4) engaging in activity which is contrary to State and Federal laws.

#### Refuge Special Conditions

- All garbage and non-combustible debris will be removed from the refuge. Food, garbage, other materials will be stored so as not to attract bears and other wildlife.
- Collection of logs is limited to permitted area.
- The permit authorizes the harvest of logs only for permittee's personal use for construction of subsistence cabins and houses. Harvest of logs for commercial use is prohibited.
- The permittee is not authorized to clear cut or group harvest an area, and is required to follow selective cutting procedures when harvesting trees (e.g. after harvesting one tree the next tree harvested must be a minimum of 100 feet away from a previously cut tree). This 100 feet restriction does not apply to trees that are ready to fall in the river ("leaners"). Trees should be cut no closer than 10 feet from the river banks, although

“leaners” may be cut if desired.

- The permittee is required to lop and scatter all slash (i.e. all branches must be cut off the bole, with the remaining bole cut every four feet). Cut limbs may not be concentrated on the site – all tree harvest debris must be scattered to avoid fuel accumulations and eliminate potential spruce bark beetle habitat.
- The permittee is required to utilize as much of the harvested tree as possible.

**Justification:**

One of the purposes of Kanuti Refuge is to provide for continued subsistence uses by local residents, consistent with the other refuge purposes of conserving fish and wildlife populations and habitats in their natural diversity and fulfilling international treaty obligations with respect to fish and wildlife. ANILCA recognized that the continued opportunity for subsistence uses of public lands is critical to the physical, economic, traditional, social, and cultural existence of rural residents of Alaska. ANILCA established a preference for subsistence users, stating that the taking of fish and wildlife on public lands for non-wasteful subsistence use is given priority over other consumptive uses. Previous studies on a nearby refuge estimated the allowable sustainable cut for house logs. Our management of log cutting permits on Kanuti Refuge will strive to allow cutting at sustainable rates. Section 811 of ANILCA ensures that subsistence users can access public lands by snowmobile, motorboat, and other traditionally used means of transportation, subject to reasonable regulation. After fully considering the impacts of these activities, as described previously in the “Anticipated Impacts” section of this document, it is my determination that subsistence house-log gathering within the refuge does not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

**Supporting Documents:**

Code of Federal Regulations, 50, U.S. Government Printing Office, Washington: 2003.

Division of Forestry, Department of Natural Resources, 2000. Alaska Forest Resources and Practices Regulations.

David R. Klein, David F. Murray, Robert H. Armstrong, and Betty A. Anderson. 2005. Status and Trends of the Nation’s Biological Resources. Alaska.  
<http://biology.usgs.gov/s+t/SNT/noframe/ak177.htm>

Lambrecht, R. 2004. Forest Inventory - Nowitna NWR Islands. Unpubl. report in files, USFWS, Galena, Alaska. 4pp.

McGee, R. and E. W. McIntosh. 1984. Local resident harvest inventory – Phase II, Upper Koyukuk Subsistence Study. U.S. Fish and Wildlife Service, Kanuti NWR, Fairbanks, AK. 16pp.

Strong, B.J. and E.W. McIntosh. 1985. Resource harvest by local residents of the Upper Koyukuk Region in 1984. U.S. Fish and Wildlife Service, Kanuti NWR, Fairbanks, AK. 51 pp.

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service. Anchorage, Alaska 326 pp.

U. S. Fish and Wildlife Service. 1992a. Subsistence Management for Federal public Lands in Alaska, Final Environmental Impact Statement, Record of Decision, April 2, 1992.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval: /s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System: /s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-year Re-evaluation Date (for allowed uses only):** 2018

**Mandatory 15-year Re-evaluation Date (for priority public uses):** \_\_\_\_\_

**NEPA compliance for Refuge Use Decision:**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusion and Environmental Action Memorandum
- Environmental Assessment and Finding of No significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Scientific Research

**Primary Use:** Research and surveys

**Supporting and Incidental Uses:** Fixed-wing aircraft landings, helicopter landings, boating (motorized and non-motorized), snowmobiling, environmental education and interpretation (not conducted by refuge staff or authorized agents), fishing, firewood cutting, trapping, natural resource gathering, camping, picnicking, cross-country skiing, hiking and backpacking, wildlife photography, videography, and audio recording, snorkeling and scuba diving, snowshoeing, swimming and beach use, scientific collecting, wildlife observation.

### **Refuge Name:**

Kanuti National Wildlife Refuge

### **Establishing and Acquisition Authority:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Refuge Purposes:**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### **National Wildlife Refuge System Mission:**

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present

and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C.668dd-668ee]).

### **Description of Use:**

This compatibility determination is a re-evaluation of an existing public use that was originally found to be compatible in 1994. Scientific research has been and would continue to be a common activity within Kanuti Refuge. Research activities would occur at all times of the year, but mostly in the spring, summer and fall. A partial list of research categories includes biology, ecology, botany, geology, climatology, paleontology, archaeology, paleoecology, sociology, hydrology, and anthropology.

This compatibility determination addresses the full spectrum of uses associated with the scientific research and surveys of fish, wildlife, habitat, and other refuge resources. It includes all means of access, lodging and facilities, and other elements identified in the research proposal. Research proposals that substantially differ in scope and purpose from the activities covered by this compatibility determination will require a separate determination for compatibility. The scope of this determination includes research conducted by all agencies or entities other than the Service. Scientific research that is part of a collaborative effort or part of a cooperative effort with the U.S. Fish and Wildlife Service is not subject to a formal compatibility determination.<sup>1</sup>

Most activities occur during spring, summer, and fall, but winter research and surveys are also possible. Since establishment, Kanuti Refuge has issued one to four scientific research permits annually. Permits have been issued primarily to Universities for academic research and to other government agencies, such as U.S. Geological Survey, Bureau of Land Management, and U.S. Forest Service.

Scientific research may employ a wide spectrum of methods from many disciplines of science. Researchers would be expected to submit investigation plans or proposals, annual activity reports, and copies of publications resulting from the research. Proposed research and investigation plans developed for research on the refuge are expected to be peer reviewed. The type and level of review should be commensurate with the potential significance of the scientific information and its likely influence on policy and management actions. They would also be encouraged to communicate research activities and findings to refuge staff, communities near the refuge and the general public.

Researchers will be required to minimize impacts on refuge resources, effects on other users of refuge lands, and to minimize negative encounters with wildlife. When justified to collect important data not otherwise available, lethal sampling may be allowed. Equipment for sampling may include both hand-powered and motorized instruments (tools). Logistical support for research activities may include base camps with tents, tent frames, spike camps, weatherports, removable floors, existing administrative cabins, satellite communication systems, human waste management, and temporary fuel and supply caches. Any scientific research activity that

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<sup>1</sup> Scientific research done by the Service is a refuge management activity, and thus is exempt from the compatibility determination process. 50 CFR 25.12 defines refuge management activities as any activity conducted by the Service or a Service-authorized agent to fulfill one or more purposes of the National Wildlife Refuge, or the National Wildlife Refuge System Mission. Service-authorized agents include contractors, cooperating agencies, cooperating associations, refuge support groups, and volunteers.

involves an invasive procedure, or that harms or materially alters the behavior of an animal under study, must be reviewed and approved by a recognized Institutional Animal Care and Use Committee pursuant to the Animal Welfare Act before implementing field work.

When a refuge use is allowed, a special use permit with stipulations is issued to ensure compatibility. When requested, the permittee would provide logistical support for site visits. Logistical support may include transportation from Fairbanks or a community adjacent to the refuge. An administrative fee is charged to private companies and for-profit organizations seeking to do research or data collection on the refuge. This fee is waived for research associated with public agencies and educational institutions.

Specific authorized means of access for all areas on the refuge will be described in each special use permit. Potential means of access include fixed-wing aircraft, helicopter, motor boats, non-motorized boats, hiking, snowshoeing, snowmobiles (providing there is adequate snow cover) and cross-country skiing. Requests for access by helicopter are anticipated, and would be considered on a case by case basis with regard to refuge purposes.

#### **Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage research activities at existing and projected levels. Administrative staff time primarily involves phone conversations, written correspondence, proposal review, and interaction with researchers. Field work associated with administering the program primarily involves monitoring researchers' compliance with the terms of the permit. Total staff time required is less than one week per year.

#### **Anticipated Impacts of the Use:**

The Refuge Manager will assist the applicant with obtaining appropriate collection permits for research involving fish and wildlife. Factors such as targeted research species, number of researchers, transportation modes, number of aircraft and amount of aircraft use, number of watercraft and frequency of use, fuel storage, garbage and human waste management, type and location of lodging, and location of access points will determine the extent of impacts on the refuge. The introduction of invasive species carried on boats or aircraft floats could affect refuge resources, although it is not known to have occurred on the Kanuti Refuge to date, and staff will be vigilant to prevent such occurrences.

Frequency of this activity may rise in the next ten years as interest in arctic and sub-arctic ecosystems and global climate change increases. This could lead to more aircraft landings, natural resource collection, and conflicts with refuge visitors. However, special conditions imposed on scientific research and associated activities would ensure these activities would not have significant impacts on wildlife resources, water quality, soil, vegetation; and other refuge users, especially subsistence users. Anticipated impacts to natural resources and refuge visitors from this activity at present levels as well as the levels expected to occur in the next ten years are minimal.

#### **Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge's Comprehensive Conservation Plan.

The State of Alaska commented on our display of regional special use permit stipulations in the compatibility determinations. The State suggested that the special use permit stipulations be preceded by an introductory statement such as, "A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility." We made the recommended change.

The State commented, "We agree with the statement in the Justification section that "scientific research is not one of the specific purposes...of the Kanuti Refuge", based on the listing of purposes in ANILCA Section 302(4)(B). However, Section 101 describes additional purposes for setting aside all refuges in Alaska, which include, "maintain opportunities for scientific research." We recommend including this very relevant purpose in this CD." We made the requested change.

**Refuge Determination (check one below):**

- Use is Not Compatible
- Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

Refuge staff will monitor all research being conducted on the refuge. Findings from monitoring will be used to determine what additional management actions, if any, are needed to ensure research activities remain compatible with refuge purposes. Unless access is specifically authorized as part of a cooperative research project with the Service, seasonal access limits may apply to research activities.

A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility. Continued monitoring of all authorized research activities will be carried out to ensure compliance with specific terms and conditions tailored for each research project's permit as well as the following general conditions that are incorporated into all research permits to minimize impacts on refuge lands and resources. These stipulations will be updated to comply with the final revised Kanuti National Wildlife Refuge Comprehensive Conservation Plan.

Regional Standard Special Conditions:

- Failure to abide by any part of this special use permit; violation of any refuge related provision in Titles 43 (Part 36) or 50 (Subchapters B and C) Code of Federal Regulations; or violation of any pertinent State regulation (e.g., fish or game violation) will, with due process, be considered grounds for immediate revocation of this permit and could result in denial of future permit requests for lands administered by the U.S. Fish and Wildlife Service. This provision applies to all persons working under the authority of this permit (e.g., assistants). Appeals of decisions relative to permits are handled in accordance with 50 Code of Federal Regulations 36.41.
- The permittee is responsible for ensuring that all employees, party members, contractors, aircraft pilots, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.

- Any problems with wildlife and/or animals taken in defense of life or property must be reported immediately to the Refuge Manager, and the Alaska Department of Fish and Game, and animals taken must be salvaged in accordance with State regulations.
- This permit may be canceled or revised at any time by the Refuge Manager for noncompliance or in case of emergency (e.g., public safety, unusual resource problems).
- This permit does not grant the permittee and his/her employees or coworkers exclusive use of the site(s) or lands covered by the permit.
- This permit may be canceled or revised at any time by the Refuge Manager in case of emergency (e.g. high fire danger, flooding, unusual resource problems, etc.).
- The permittee or his/her designee shall notify the Refuge Manager during refuge working hours in person or by telephone before beginning and upon completing activities allowed by this permit.
- Prior to beginning activities allowed by this permit, the permittee shall provide the refuge Manager with: (1) the name and method of contact for the field party chief/supervisor; (2) the aircraft and other vehicle types to be used, including identification information; (3) names of assistant guides and helpers; and (4) any changes to information provided in the original permit application.
- The Refuge Manager, upon request, shall be afforded the opportunity and logistical support from the nearest commercial transportation site to accompany the permittee for the purpose of inspection and monitoring permittee activities. A final inspection trip provided by the permittee of the areas of use may be required by the Refuge Manager to determine compliance with the terms of this permit.
- The permittee shall provide the Refuge Manager with a report of activities under this permit within 30 days of permit expiration.
- In accordance with the Archaeological Resources Protection Act (16 U.S.C. 470aa), the removal or disturbance of archaeological or historical artifacts is prohibited. The excavation, disturbance, collection, or purchase of historical, ethnological, or archaeological specimens or artifacts is prohibited.
- Permittees shall maintain their use areas in a neat and sanitary condition. Latrines must be located at least 150 feet from springs, lakes, and streams to avoid contamination of water resources. All property (except cabins and/or tent frames) of the permittee must be removed from refuge lands upon completion of permitted activities.
- The construction of landing strips or pads is prohibited. Incidental hand removal of rocks and other minor obstructions may be permitted.
- The use of off-road vehicles (except snowmobiles with adequate snow cover) is

prohibited unless specifically authorized in writing in this permit.

- The operation of aircraft at altitudes and in flight paths resulting in the herding, harassment, hazing, or driving of wildlife is prohibited. It is recommended that all aircraft, except for take-off and landing, maintain a minimum altitude of 2,000 feet above ground.
- The use of helicopters may be authorized, provided that landing is prohibited except for the direct support of the activity covered by this permit and emergencies (no recreational use of helicopters is permitted), and no clearing of vegetation for landing/takeoff is permitted.
- Fuel caches are allowed only in designated areas and must be approved by the Refuge Manager or his/her designate prior to caches being established. If caches are established, fuel containers must be clearly marked with the permittee's name, address, local contact telephone number and type of fuel.
- Construction of cabins or other permanent structures is prohibited.
- This permit authorizes use on State selected lands. If any of these lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands until and unless permission is obtained from the Alaska Department of Natural Resources.
- This permit authorizes use only on the Native selected lands specifically identified in the description block of this permit. If any of these Native selected lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands unless permission is obtained from the Native corporation to which land ownership has been conveyed.
- Any action by a permittee or the permittee's employees which unduly interferes with or harasses other refuge visitors or impedes access to any site is strictly prohibited. Examples of prohibited acts include, but are not limited to: 1) intentional low flights over camps or persons at less than 500 feet, except when necessary for take off and landing; 2) parking aircraft or placing other objects (rocks, tents, etc.) on any landable area so as to restrict use by other aircraft; 3) otherwise intentionally interfering in the activity of other refuge users; 4) engaging in activity which is contrary to State and Federal laws.

Refuge Special Conditions:

- All information, reports, photos, data, collections and observations obtained as a result of this permit must be accessible from the permittee at any time upon request by the Service at no cost, unless specific arrangements are made to the contrary. The service recognizes the proprietary nature of scientific data and will respect the researchers' privileged position regarding first publication. These data may be used in resource management decisions by the Service prior to their publication, however. Proprietary data of commercial value will be treated confidentially upon request, but may also be used in management decisions.

- Prior to implementing field work, the permittee must provide documentation that activities that involve an invasive procedure that harms or materially alters the behavior of an animal under study have been reviewed and approved by an Institutional Animal Care and Use Committee (IACUC) pursuant to the Animal Welfare Act.
- Some activities may not be permitted in certain areas and/or during some sensitive time periods. Area closures and effective dates may be modified by the Refuge Manager as needed. Specific authorization to use localities within special areas may sometimes be obtained on a case-by-case basis, depending on the location of animal concentrations, high public use areas, access routes, proposed activity, etc.

**Justification:**

Scientific research is not one of the specific purposes (e.g., wildlife, subsistence, water quality...) of the Kanuti Refuge. However, ANILCA Section 101 describes additional purposes for setting aside all refuges in Alaska, which include “maintain opportunities for scientific research.” The U.S. Fish and Wildlife Service also supports research as described in the Refuge Manual (4 RM 6.1), which states:

“Natural and social science information is necessary for the proper management of the National Wildlife Refuge System. It is the policy of the Service to encourage and support research and management studies in order to provide scientific data upon which decisions regarding management of units of the refuge system may be based. The Service will also permit the use of a refuge for other investigatory scientific purposes when such use is compatible with the objectives for which the refuge is managed. Priority will be given to studies that contribute to the enhancement, protection, use, preservation, and management of native wildlife populations and their habitats in their natural diversity.”

The Refuge Manager also may permit the use of a refuge for other investigatory purposes when such use is compatible with the purposes for which the refuge is managed. Priority will be given to studies that contribute to the enhancement, protection, use, conservation, and management of native wildlife populations and their habitats in their natural diversity. All proposed research conducted by other agencies or entities will be thoroughly evaluated prior to authorization and then monitored closely to ensure that the activities do not materially interfere with or detract from the purposes of the refuge or the mission of the National Wildlife Refuge System.

Scientific investigations of wildlife, resources, and social interactions will support the refuge’s ability to provide for wildlife-dependent priority public uses and to meet other refuge purposes. These investigations must be conducted safely. After fully considering the impacts of this activity, as described previously in the “Anticipated Impacts” section of this document, it is my determination that scientific research activities within the refuge do not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

**Supporting Documents:**

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service. Anchorage, Alaska. 326 pp.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

**Refuge Determination:**

Refuge Manager/  
Project Leader Approval:

/s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,  
National Wildlife Refuge System:

/s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-Year Re-evaluation Date (for allowed uses only):** 2018

**Mandatory 15-Year Re-evaluation Date (for priority public uses):** \_\_\_\_\_

**NEPA Compliance for Refuge Use Decision:**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Helicopter Landings to Support Authorized Activities by Other Federal, Tribal, State, and Local Governments, Universities, etc.

**Primary Use:** Helicopter Landings

**Supporting and Incidental Uses:** Research, scientific collecting, surveying, rights-of-way utility).

**Refuge Name:** Kanuti National Wildlife Refuge

### **Establishment and Acquisition Authority:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Kanuti Refuge Purpose:**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### **National Wildlife Refuge System Mission:**

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

### **Description of Use:**

This determination re-evaluates helicopter use to support authorized activities of local, State, tribal, other Federal agencies, or universities. This use was originally found to be compatible in the refuge Comprehensive Conservation Plan (1987). One to four applications per year are

normally received to allow helicopter landings as part of some other authorized use such as scientific research (geologic, fire ecology, archaeology, etc.), State of Alaska wildlife capture work and fish or wildlife surveys. Permits could be issued at any time of the year but are most likely to be for activities during spring, summer, or fall. State law enforcement use of helicopters would typically be limited to special cases and would normally be preceded by close coordination between the Alaska State Troopers and the Refuge Manager.

**Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage helicopter use to support authorized activities at existing levels. Administrative staff time primarily involves phone conversations and written correspondence. Field work associated with administering the use primarily involves monitoring compliance with the terms of the permit. It is estimated that less than a week of staff time is required to manage this use on Kanuti Refuge.

**Anticipated Impacts of the Use:**

Adverse impacts associated with helicopter landings on the refuge would be associated with displacement of wildlife, particularly during ungulate calving and bird nesting seasons (Calef et al. 1976, Gunn et al. 1985 and Miller 1994, Ward et al. 1994). The experience of refuge visitors could also be adversely affected by noise disturbance. Hunters would likely be especially vulnerable to disturbance by helicopters, both as a result of wildlife displacement and noise.

**Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge’s Comprehensive Conservation Plan.

The State of Alaska commented on our display of regional special use permit stipulations in the compatibility determinations. The State suggested that the special use permit stipulations be preceded by an introductory statement such as, "A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility." We made the recommended change.

The State commented, “Regarding helicopter landings. Under Justification, the CD indicates the 1987 CCP states "use of helicopters is not permitted for recreational activities; other uses require a special use permit." The referenced page in our copy of the final 1987 CCP/EIS instead indicates helicopters "may be permitted but only by special use permit." We request the Service verify the source of the quote and make any needed corrections. In addition, the correct regulatory citation at the beginning of this section is 43 CFR 36.11(f)(4) (emphasis added).” The State is correct and we deleted the incorrect quote.

**Refuge Determination (check one below):**

Use is Not Compatible

Use is Compatible with the Following Stipulations

### **Stipulations Necessary to Ensure Compatibility:**

A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility. Monitoring of permittees will be carried out to ensure compliance with the following conditions that are incorporated into permits in order to minimize impacts on lands and resources within the refuge. Other project-specific stipulations may be included in individual permits. These stipulations will be updated to comply with the final revised Kanuti National Wildlife Refuge Comprehensive Conservation Plan.

#### Regional Standard Special Conditions

- Failure to abide by any part of this special use permit; violation of any refuge related provision in Titles 43 (Part 36) or 50 (Subchapters B and C) Code of Federal Regulations; or violation of any pertinent State regulation (e.g., fish or game violation) will, with due process, be considered grounds for immediate revocation of this permit and could result in denial of future permit requests for lands administered by the U.S. Fish and Wildlife Service. This provision applies to all persons working under the authority of this permit (e.g., assistants). Appeals of decisions relative to permits are handled in accordance with 50 Code of Federal Regulations 36.41.
- The permittee is responsible for ensuring that all employees, party members, contractors, aircraft pilots, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- Any problems with wildlife and/or animals taken in defense of life or property must be reported immediately to the Refuge Manager, and the Alaska Department of Fish and Game, and animals taken must be salvaged in accordance with State regulations.
- This permit does not grant the permittee and his/her clients exclusive use of the site(s) or lands covered by the permit.
- This permit may be canceled or revised at any time by the Refuge Manager for noncompliance or in case of emergency (e.g., public safety, unusual resource problems).
- The permittee or his/her designee shall notify the Refuge Manager during refuge working hours in person or by telephone before beginning and upon completing activities allowed by this permit.
- Prior to beginning activities allowed by this permit, the permittee shall provide the Refuge Manager with: (1) the name and method of contact for the field party chief/supervisor; (2) the aircraft and other vehicle types to be used, including identification information; (3) names of assistant guides and helpers; and (4) any changes to information provided in the original permit application.
- The Refuge Manager upon request shall be afforded the opportunity and logistical support from the nearest commercial transportation site to accompany the permittee for the purpose of inspecting and monitoring permittee activities. A final inspection trip provided by the permittee of the areas of use may be required by the Refuge Manager to

determine compliance with the terms of this permit.

- The permittee shall provide the Refuge Manager with a report of activities under this permit within 30 days of permit expiration unless stated otherwise in the permit.
- In accordance with the Archaeological Resources Protection Act (16 U.S.C. 470aa), the removal or disturbance of archaeological or historical artifacts is prohibited. The excavation, disturbance, collection, or purchase of historical, ethnological, or archaeological specimens or artifacts is prohibited.
- Permittees shall maintain their use areas in a neat and sanitary condition. Latrines must be located at least 150 feet from springs, lakes, and streams to avoid contamination of water resources. All property (except cabins and/or tent frames) of the permittee must be removed from refuge lands upon completion of permitted activities.
- The construction of landing strips or pads is prohibited. Incidental hand removal of rocks and other minor obstructions may be permitted.
- The use of off-road vehicles (except snowmobiles with adequate snow cover) is prohibited unless specifically authorized in writing in this permit.
- The operation of aircraft at altitudes and in flight paths resulting in the herding, harassment, hazing, or driving of wildlife is prohibited. It is recommended that all aircraft, except for take-off and landing, maintain a minimum altitude of 2,000 feet above ground.
- Fuel caches are allowed only in designated areas and must be approved by the Refuge Manager or his/her designate prior to caches being established. If caches are established, fuel containers must be clearly marked with the permittee's name, address, local contact telephone number and type of fuel.
- Construction of cabins or other permanent structures is prohibited.
- All aircraft being used in commercial operations must have 12-inch identification numbers in contrasting colors, which are readily visible.
- This permit authorizes use on State selected lands. If any of these lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands until and unless permission is obtained from the Alaska Department of Natural Resources.
- This permit authorizes use only on the Native selected lands specifically identified in the description block of this permit. If any of these Native selected lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands unless permission is obtained from the Native corporation to which land ownership has been conveyed.

- Any action by a permittee or the permittee's employees which unduly interferes with or harasses other refuge visitors or impedes access to any site is strictly prohibited. Examples of prohibited acts include, but are not limited to: 1) intentional low flights over camps or persons at less than 500 feet, except when necessary for take off and landing; 2) parking aircraft or placing other objects (rocks, tents, etc.) on any landable area so as to restrict use by other aircraft; 3) otherwise intentionally interfering in the activity of other refuge users; 4) engaging in activity which is contrary to State and Federal laws.

### Refuge-Specific Special Conditions

- All garbage and non-combustible debris will be removed from the refuge. Food, garbage, other materials will be stored so as not to attract bears and other wildlife.
- Ensure that all aircraft transiting the refuge actively avoid large mammals (including moose caribou, grizzly bears, black bears, wolves, active bald eagle nests, and large flocks of waterfowl). “Active avoidance” includes making a vertical or lateral deviation from a flight path within flight safety parameters to minimize or prevent adverse impact on the animals.
- A valid copy of the issued special use permit, signed by the Refuge Manager or designee, must be in the party leader’s possession at all times while exercising the privileges of the permit.

### **Justification:**

Under 43 CFR 36.11(f)(4), helicopter use on national wildlife refuges requires a special use permit. As only occasional and limited use of helicopters would be authorized, the potential for adverse effects to resources and visitors within the refuge would be negligible. It is recommended that all aircraft fly 2,000 feet above ground level when possible. When weather conditions do not permit, aircraft should maintain an altitude of at least 800 feet above ground level if at all possible. Helicopter landings would only be authorized when other means of access are impractical or unsafe. After fully considering the impacts of these activities, as described previously in the “Anticipated Impacts” section of this document, it is my determination that under specific conditions, helicopter use within the refuge does not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

### **Supporting Documents:**

Calef, G.W., E.A. DeBock, and G.M. Lortie. 1976. The reaction of barren-ground caribou to aircraft. *Arctic* 29(4):201-212.

Gunn, A., F.L. Miller, R. Glaholt & K. Jingfors. 1985. Behavioural responses of barren-ground caribou cows and calves to helicopters on the Beverly herd calving grounds, Northwest Territories. In *Proceedings of the First North American Caribou Workshop*, ed. Martell, A.M. and D.E. Russel. Whitehorse, Yukon, p10-14.

Miller, M. W. 1994. Route selection to minimize helicopter disturbance of molting Pacific black brant: a simulation. *Arctic* 47: 341–349.

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service. Anchorage, Alaska. 326 pp.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

Ward, D.H., R.A. Stehn, D.V. Derksen, 1994. Response of staging brant to disturbance at the Izembek Lagoon, Alaska. Wildl. Soc. Bull. 22:220-228.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval:  /s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System:  /s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-Year Re-Evaluation Date:** 2018

**NEPA Compliance for Refuge Use Decision:**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Commercial Transporter Services

**Primary Use:** Other uses

**Supporting and Incidental Uses:** Boating (motorized and non motorized), fixed-wing aircraft landings, environmental education, interpretation, fishing (guided and non-guided), hunting (guided and non-guided), trapping, natural resource gathering, camping, picnicking, cross-country skiing, dog sledding and skijoring, pets, hiking and backpacking, wildlife photography, videography and audio recording, snowshoeing, swimming and beach use, research, scientific collecting, surveys, and wildlife observation.

### **Establishing and Acquisition Authority:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Kanuti Refuge Purposes:**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### **National Wildlife Refuge System Mission:**

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.@ (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

## **Description of Use:**

This description of use includes a re-evaluation of the compatibility of use of Federal lands within Kanuti Refuge for commercial transporter services. These services allow the public to hunt, fish or enjoy other outdoor activities on the remote and largely inaccessible Kanuti NWR. Commercial transporter use was originally found to be compatible in 1987 during the development of the original Comprehensive Conservation Plan for Kanuti Refuge. Commercial transporter use was again determined to be compatible in 1994, subject to reasonable regulation. Since establishment, Kanuti NWR has issued between one and five special use permits annually to commercial air taxi businesses desiring to provide transportation services within the refuge. In most recent years there have usually been one, but sometimes two, commercial transporters permitted to operate on the refuge. These transporters have provided services to an average of two to three parties per year, primarily for hunting, fishing, or river floating. The lengths of typical trips made by commercially transported clients are usually in the range of seven to ten days, although shorter trips sometimes occur.

The objective of allowing commercial transporter services in national wildlife refuges is to make available a variety of quality opportunities for the public to hunt, fish or enjoy outdoor activities where such activities are compatible with the refuge's purposes, resources and management objectives. Furthermore the Congressional Committee Report on the National Wildlife Refuge System Improvement Act of 1997 states: "It establishes as the policy of the United States that wildlife-dependent recreation, when it is compatible, is a legitimate and appropriate public use of the Refuge System, through which the American public can develop an appreciation for fish and wildlife."

Most of Kanuti Refuge is located within State of Alaska Game Management Unit (GMU) 24B, although a small part is within GMU 24A. Moose, caribou, black and brown bear are available and wolves and wolverine may be taken incidentally within Kanuti Refuge. The Kanuti Controlled Use Area (KCUA), which includes all but the extreme southern and eastern portions of the refuge, was established by the State of Alaska in 1981. The KCUA restricts aircraft access for the transport of moose hunters, gear or moose parts. (However, moose hunters, their gear, and or moose parts may be transported by aircraft between publicly owned airports in the controlled use area or between a publicly owned airport within the area and points outside the area.) The KCUA is bounded by a line from the Bettles Field VOR to the east side of Fish Creek Lake to Old Dummy Lake, to the south end of Lake Todatonten (including all waters of these lakes), to the northern most headwaters of Siruk Creek to the highest peak of Double Point Mountain, then back to Bettles Field VOR. In 1992, the Federal Subsistence Board further restricted access for the purposes of taking moose on Federal lands within the KCUA to rural residents of GMU 24 and the villages of Koyukuk, Galena, and Anaktuvuk Pass.

Commercial transporters provide a service that most non-local visitors require in order to access the refuge. Most commercial transporting activities on Kanuti Refuge are conducted by air taxis with float-equipped aircraft. Transporters are required, as a condition of their permits, to provide information on the primary activity, location, length of stay, group size, and other related items. These reports provide the most accurate and reliable information the Service has on refuge use by unguided visitors. Commercial transporter-related services contribute to fulfillment of refuge purposes and the National Wildlife Refuge System mission by providing access for refuge visitors unable to provide their own access, and therefore facilitate priority public uses such as

recreational hunting, fishing, and wildlife observation, and other uses found compatible in separate compatibility determinations. Many of these compatible public uses contribute directly to maintaining healthy fish and wildlife populations through managed use.

Operators are required to submit an annual report of client trips to refuge lands. There is currently no limit to the number of trips or clients air taxi operators can take to the refuge, nor is there a limit to the number of air taxi operators permitted to operate on Kanuti Refuge. This is an existing activity that supports wildlife-dependent priority public uses. Activities generally occur May through September since timing typically coincides with State fishing and hunting seasons.

### **Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage commercial transporter service activities at existing and projected levels. Administrative staff time primarily involves reviewing permit applications, responding to applicants, issuing and renewing special use permits and collecting client use fees. Field work associated with administering the program primarily involves patrolling during hunting and fishing seasons in order to monitor permittees' compliance with permit terms, and to determine whether unpermitted operators are using the refuge. It is anticipated that this use will require a total of one week of staff time for permit issuance/renewal, activity reporting, administration of use-day fees, and field compliance checks. An administrative fee of \$100 fee is assessed when each special use permit is issued. In addition, client use-day fees are assessed for each day a transporter drops off and/or picks up a client on the refuge. Fees collected are returned to the refuge to administer the program.

### **Anticipated Impacts of the Use:**

Impacts associated with the activities that occur on Kanuti Refuge as a result of commercial transporters providing the public access to the refuge are addressed in the respective compatibility determinations for each activity. The refuge is directly involved in review and implementation of the regulatory process and administrative oversight of the activity. Because of combined law enforcement efforts of State and refuge personnel, direct impacts from commercial transporter services under existing management should have minimal impacts to fish and wildlife resources within the refuge, other resources, or other visitors.

Available moose hunting areas outside of the KCUA are concentrated in narrow river corridors along the Kanuti River and the South Fork Koyukuk River and hence do not afford compelling opportunities for users to hunt in isolation or with little competition. Commercially transported non-local big-game hunters may, in some cases, result in some competition or interference with subsistence users for the limited number of game animals in these corridors. Refuge staff are aware of these potential conflicts and monitor use levels each hunting season. Should conflicts arise, the Service will work to address them through the Federal Subsistence Board and Alaska Board of Game. These Boards have established regulations aimed at managing populations of animals at sustainable levels and avoiding conflicts between user groups.

Impacts to refuge habitats would be minimal and transitory because access to the refuge would be primarily by landing float-equipped aircraft on lakes and rivers, or wheel-equipped aircraft on gravel bars. Landings on vegetated lowland tundra and disturbance to vegetation would be prohibited. The introduction of invasive species carried on aircraft floats could affect refuge resources, although it is not known to have occurred within Kanuti Refuge to date, and staff will

be vigilant to prevent such occurrences. In addition, frequent aircraft traffic could impact nesting, molting or staging birds (Ward et al. 1994). Winter access would be by aircraft fitted with skis. Disturbance to vegetation would be limited by conditions within the special use permit. Temporary displacement and/or disturbance to wildlife can occur in response to low level overflights and during takeoffs and approaches to landings (Calef et al. 1976), but impacts would likely be short term and minimal.

**Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge’s Comprehensive Conservation Plan.

The State of Alaska commented on our display of regional special use permit stipulations in the compatibility determinations. The State suggested that the special use permit stipulations be preceded by an introductory statement such as, "A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility." We made the recommended change.

The State questioned inclusion of “pets” as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in various activities on the refuge.

The State commented that in Refuge Specific Special Conditions, we treat selected and conveyed lands equally – advising users to not camp or hunt on them without permission. Conveyed lands are private property while selected lands remain federal property until title is conveyed. We agree and this statement has been removed.

The State commented about the stipulation that stated, “The permittee will take no action that interferes with subsistence activities.” They said that this stipulation provides no allowance for accidental incidents or instances where a permit holder is not aware they are interfering with subsistence uses. We removed the stipulation as unnecessary.

**Refuge Determination (check one below):**

- Use is Not Compatible
- Use is Compatible with Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility. Continuing law enforcement and administrative monitoring of permittees will be carried out to ensure compliance with the following conditions that are incorporated into all permits in order to minimize impacts on refuge lands and resources. These stipulations will be updated to comply with the final revised Kanuti National Wildlife Refuge Comprehensive Conservation Plan.

## Regional Standard Special Conditions

- Failure to abide by any part of this special use permit; violation of any refuge related provision in Titles 43 (Part 36) or 50 (Subchapters B and C) Code of Federal Regulations; or violation of any pertinent State regulation (e.g., fish or game violation) will, with due process, be considered grounds for immediate revocation of this permit and could result in denial of future permit requests for lands administered by the U.S. Fish and Wildlife Service. This provision applies to all persons working under the authority of this permit (e.g., assistants). Appeals of decisions relative to permits are handled in accordance with 50 Code of Federal Regulations 36.41.
- The permittee is responsible for ensuring that all employees, party members, contractors, aircraft pilots, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- Any problems with wildlife and/or animals taken in defense of life or property must be reported immediately to the Refuge Manager and Alaska Department of Fish and Game, and be salvaged in accordance with State regulations.
- This permit does not grant the permittee and his/her clients exclusive use of the site(s) or lands covered by the permit.
- This permit may be canceled or revised at any time by the Refuge Manager in case of emergency (e.g. high fire danger, flooding, unusual resource problems, etc.).
- The permittee or his/her designee shall notify the Refuge Manager during refuge working hours in person or by telephone before beginning and upon completing activities allowed by this permit.
- Prior to beginning activities allowed by this permit, the permittee shall provide the Refuge Manager with: (1) the name and method of contact for the field party chief/supervisor; (2) the aircraft and other vehicle types to be used, including identification information; (3) names of assistant guides and helpers; and (4) any changes to information provided in the original permit application.
- The permittee shall maintain, throughout the use period specified on this permit, insurance (Passenger Liability - \$150,000/seat plus \$100,000 property) covering his/her refuge air taxi/transporter operations. This insurance is required for all aircraft operations involving clients.
- The permittee shall provide the Refuge Manager with a report including the number and species of all animals transported, pick up/drop off locations, numbers of clients, and number of client use days per type of activity. This report is within 30 days of permit expiration unless stated otherwise in the permit. For law enforcement purposes, the permittee may be required to provide names and addresses of clients.
- In accordance with the Archaeological Resources Protection Act (16 U.S.C. 470aa), the

removal or disturbance of archaeological or historical artifacts is prohibited. The excavation, disturbance, collection, or purchase of historical, ethnological, or archaeological specimens or artifacts is prohibited.

- Permittees shall maintain their use areas in a neat and sanitary condition. Latrines must be located at least 150 feet from springs, lakes, and streams to avoid contamination of water resources. All property (except cabins and/or tent frames) of the permittee must be removed from refuge lands upon completion of permitted activities.
- The construction of landing strips or pads is prohibited. Incidental hand removal of rocks and other minor obstructions may be permitted.
- The use of off-road vehicles (except snowmobiles with adequate snow cover) is prohibited unless specifically authorized in writing in this permit.
- The operation of aircraft at altitudes and in flight paths resulting in the herding, harassment, hazing, or driving of wildlife is prohibited. It is recommended that all aircraft, except for take-off and landing, maintain a minimum altitude of 2,000 feet above ground level (AGL).
- Fuel caches are allowed only in designated areas and must be approved by the Refuge Manager or his/her designate prior to caches being established. If caches are established, fuel containers must be clearly marked with the permittee's name, address, local contact telephone number and type of fuel.
- Construction of cabins or other permanent structures is prohibited.
- All aircraft being used in commercial operations must have 12-inch identification numbers in contrasting colors, which are readily visible.
- This permit authorizes use on State selected lands. If any of these lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands until and unless permission is obtained from the Alaska Department of Natural Resources.
- This permit authorizes use only on the Native selected lands specifically identified in the description block of this permit. If any of these Native selected lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands unless permission is obtained from the Native corporation to which land ownership has been conveyed.
- Any action by a permittee or the permittee's employees which unduly interferes with or harasses other refuge visitors or impedes access to any site is strictly prohibited. Examples of prohibited acts include, but are not limited to: 1) intentional low flights over camps or persons at less than 500 feet, except when necessary for take off and landing; 2) parking aircraft or placing other objects (rocks, tents, etc.) on any landable area so as to restrict use by other aircraft; 3) otherwise intentionally interfering in the activity of other

refuge users; 4) engaging in activity which is contrary to State and Federal laws.

### Refuge-Specific Special Conditions

- Motorboat operators must possess U.S. Coast Guard (USCG) licenses for all passenger-carrying operations, if required by USCG regulations.
- The permittee may not sublet any part of the authorized use area and is prohibited from subcontracting clients with any other transporter.

### **Justification:**

Commercial transporting has been found to be compatible with the purposes of Kanuti Refuge and with the National Wildlife Refuge System Mission. Commercial transporting services provide the public with safe access to unique hunting, fishing, wildlife observation, wildlife photography, and environmental education opportunities found few places elsewhere in the world. These are all activities that the National Wildlife Refuge System Administration Act (as amended) identifies as priority public uses. When determined appropriate and compatible with refuge purposes, Service policy guides refuge managers to provide opportunity for all six wildlife-dependent recreational uses, while maintaining quality of experience. The overarching goal of the wildlife-dependent recreation policy (605 FW 1) is to enhance wildlife-dependent recreation opportunities and access to quality visitor experiences on refuges while managing refuges to conserve fish, wildlife, plants, and their habitats. Commercial transportation services are a valuable benefit to a segment of the public that does not have personal or other means of access to the extremely remote environment of the refuge.

Commercial transporters are the Service's primary source of information about unguided use of the refuge. After fully considering the impacts of this activity, as described previously in the "Anticipated Impacts" section of this document, it is my determination that commercial transporter activities within the refuge do not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

### **Supporting Documents:**

Calef, G.W., E.A. DeBock, and G.M. Lortie. 1976. The reaction of barren-ground caribou to aircraft. *Arctic* 29(4):201-212.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

U.S. Fish and Wildlife Service. 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service. Anchorage, Alaska. 326 pp.

Ward, D. H., R. A. Stehn, D. V. Derksen. 1994. Response of staging brant to disturbance at the Izembek Lagoon, Alaska. *Wildl. Soc. Bull.* 22: 220–228.

**Refuge Determination:**

Refuge Manager/  
Project Leader Approval:

/s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,  
National Wildlife Refuge System:

/s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-year Re-evaluation Date (for allowed uses only):** 2018

**Mandatory 15-year Re-evaluation Date (for priority public uses):** \_\_\_\_\_

**NEPA compliance for Refuge Use Decision:**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusion and Environmental Action Memorandum
- Environmental Assessment and Finding of No significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Commercial Big Game Hunting Guide Services

**Primary Use:** Hunting (big-game guiding and outfitting).

**Supporting and Incidental Uses:** Fixed-wing aircraft landings, boating (motorized and non-motorized), snowmobiling, environmental education and interpretation (not conducted by refuge staff or authorized agents), fishing, hunting (non big-game), firewood cutting, natural resource gathering, camping, picnicking, hiking and backpacking, snowshoeing, pets, swimming and beach use, wildlife photography and videography, wildlife observation.

**Refuge Name:** Kanuti National Wildlife Refuge, Alaska

### **Establishing and Acquisition Authority:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Kanuti Refuge Purposes:**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### **National Wildlife Refuge System Mission:**

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

### **Description of Use:**

This is a re-evaluation of the compatibility of use of Federal lands within Kanuti Refuge for big-game guided hunting. The compatibility of recreational hunting on Kanuti Refuge is evaluated in a separate compatibility determination. Compatibility of big game guiding was determined during the development of the original Comprehensive Conservation Plan for Kanuti Refuge in 1987. Guided hunting was again determined to be compatible, subject to reasonable regulation in 1994. Commercial guide services have periodically been offered on the refuge since its establishment in 1980. Kanuti NWR has one exclusive commercial big-game guiding area. This area was awarded to one guide from 1982 to 1984, and to a different guide from 1993 to 2003. Both guides conducted minimal commercial hunting activity during this time period due to low moose populations and limited access. The area was unsubscribed in 2004 and 2005, and was reopened to competition in 2005. A five-year permit was issued to a different guide in 2006. The current permittee intends primarily to offer spring and fall bear hunts.

The 2005 Prospectus under which proposals for big-game guiding on Kanuti NWR were solicited states:

*“The objective of allowing commercial big game guiding is to make available to the public a variety of quality recreational hunts on areas of the refuge where such activities are compatible with the mission of the National Wildlife Refuge System and the refuge’s purposes, and consistent with management objectives. Refuge policies require that sport hunting must reflect well on the refuge and on the tradition of hunting. It must promote positive hunting values and hunter ethics such as fair chase, and provide participants with reasonable harvest opportunities, less crowding, less competition, fewer conflicts between hunters, relatively undisturbed wildlife, greater hunter safety, less than average crippling loss, and less interference from or dependence on mechanized aspects of the sport. Commercial guiding activities authorized on refuge lands should contribute to these policies.”*

The Congressional Committee Report on the National Wildlife Refuge System Improvement Act of 1997 states: “It establishes as the policy of the United States that wildlife-dependent recreation, when it is compatible, is a legitimate and appropriate public use of the Refuge System, through which the American public can develop an appreciation for fish and wildlife.”

Most of Kanuti Refuge is located within State of Alaska Game Management Unit (GMU) 24B, although a small part is within GMU 24A. Moose, caribou, black and brown bear are available and wolves and wolverine may be taken incidentally within Kanuti Refuge. The Kanuti Controlled Use Area (KCUA), which includes all but the extreme southern and eastern portions of the refuge, was established by the State of Alaska in 1981. The KCUA restricts aircraft access for the transport of moose hunters, gear or moose parts. (Moose hunters, their gear, and or moose parts may, however, be transported by aircraft between publicly owned airports in the controlled use area or between a publicly owned airport within the area and points outside the area.) The KCUA is bounded by a line from the Bettles Field VOR, to the east side of Fish Creek Lake, to Old Dummy Lake, to the south end of Lake Todatonten (including all waters of these lakes), to the northern most headwaters of Siruk Creek, to the highest peak of Double Point Mountain, then back to Bettles Field VOR. Federal subsistence regulations for the Kanuti Refuge were imposed in 1992, further restricting access for the purposes of taking moose on Federal lands within the KCUA to rural residents of GMU 24 and the villages of Koyukuk, Galena, and Anaktuvuk Pass.

Big game guides are competitively selected to operate on refuge lands through a formal process, first established by regional policy in 1992, and later codified (50 CFR subpart F, 36.41). Competitive selection is intended to limit or manage commercial guiding to a level compatible with refuge purposes and to ensure that quality guiding services are available to the public. Due to low density of game and limited access within the KCUA (which comprises approximately 2/3 of the refuge), there is only one big game guide area on Kanuti Refuge. Guides must be qualified and licensed by the State and are required to follow written operations plans, which are evaluated by Service personnel during the competitive selection process. These operations plans include the following: 1) dates of field operations; 2) species to be hunted; 3) maximum and expected number of clients for each species hunted; 4) number and type of existing or new camps (i.e., tent, tent platform or frame, boat) including other needed facilities such as caches and weatherports; 5) access points and mode(s) of transportation (e.g., airplanes, boats, snowmobiles, pack animals, and other nonmotorized means); 6) fuel storage needs; and 7) services provided by others (e.g., contracts for transportation, food services).

This compatibility determination addresses the full spectrum of uses associated with the overall activity of commercially guided hunting of big game, including all means of access, lodging and facilities, and other elements identified in the guides' operations plans. Authorized modes of access for all areas within Kanuti Refuge include fixed-wing aircraft, motor boats, snowmobiles, non-motorized boats, dogsled, foot, snowshoe, and cross-country ski. Lodging and facilities include tents, tent frames, tent platforms, weatherports, and caches. The use of off-road vehicles is not authorized.

This is an existing activity that supports wildlife-dependent priority public uses. Activities would occur throughout Kanuti Refuge during State regulated hunting seasons.

### **Availability of Resources:**

Permits are issued competitively for five years, with provision for automatic renewal for a second five years. The competitive process requires a significant level of time and effort for the applicants as well as for refuge and agency staff. Adequate refuge personnel and base operational funds are available to manage guided big-game hunting activities at existing and projected levels.

Refuge staff participation includes the following: During the initial competitive process, the refuge Manager spends approximately one month writing/reviewing the prospectus, conducting guide interviews and making a selection, writing decision documents, and potentially dealing with appeals that may result in litigation; The Deputy Refuge Manager assists the Refuge Manager throughout the decision process. After initial selection, the Refuge Manager may spend about three days per year on oversight, permit compliance, and other guiding issues; the Deputy Refuge Manager may spend one week issuing or renewing permits, administering use-day fee collections, monitoring permit compliance and conducting related activities. Non-refuge staff (e.g. law enforcement officers from other refuges or the zone officer for northern refuges) may be required to spend an average of one week per year monitoring permit and hunting regulation compliance. In summary, administrative staff time primarily involves reviewing applications, researching and writing decisions, responding to appeals, and conducting regional office briefings if appeals occur, issuing and renewing special use permits every five years; ensuring

licenses and certificates are current; collecting client use-day fees; and reporting data on an annual basis. Field work associated with administering the program primarily involves patrolling during hunting seasons and monitoring permittees' compliance with permit conditions. Estimated costs to administer commercial guided hunting on Kanuti NWR are over \$20,000 in a year during which the permit is open to competition; and about \$5,000 per year for the intervening years. An administrative fee of \$100.00 is assessed when each permit is issued. In addition, client use-day fees are assessed for each day a guide has a client on the refuge. Fees collected are returned to the refuge to administer the program.

### **Anticipated Impacts of the Use:**

Criteria in the competitive scoring and selection process used to select big-game guide permittees attempt to address minimizing impacts to refuge resources and to other visitors. These criteria include impacts on wildlife resources; other refuge resources such as water quality, soil and vegetation, and other refuge users, especially subsistence. The criteria address such factors as target species, number of clients, transportation modes, amount of aircraft use, fuel storage, garbage and human waste management, methods to protect wildlife and habitat, type and location of lodging, and location of access points. These selection criteria are used to rank or score applicants and provide a strong incentive to maintain a low-impact guide service. Permit conditions and stipulations noted in the following sections also contribute to minimizing potential impacts.

Commercial big-game hunting is also regulated by the State, and new draft regulations (AS 08.54 and 12 AAC 75) are under review by the Big Game Commercial Services Board. Moose numbers are low within Kanuti Refuge and moose hunting is permitted only outside of the KCUA near the eastern and southern boundaries of Kanuti Refuge. The combination of low moose density and concentration of hunting activity in narrow river corridors in a small area outside the KCUA may reduce success and detract from the isolated quality hunting experience sought by other hunters also using these remote locations. Commercial big-game guiding operations may, in some cases, result in some competition or interference with subsistence users and/or other non-guided recreational hunters for the limited number of game animals in these corridors. Refuge staff members are aware of these potential conflicts and monitor use levels each hunting season. Should allocation conflicts arise, the Service will work to address them through the Federal Subsistence Board and Alaska Board of Game. These Boards establish regulations aimed at managing populations of animals at sustainable levels and to avoid conflicts between user groups.

Because of low moose populations and the presence of the KCUA, a moose-only commercial big game guiding operation is not likely to be viable on the Kanuti Refuge over the long term. More likely, a guiding operation targeting other species, such as bear and wolf, in addition to moose, may be viable. A commercial big-game guiding operation focused on black and brown bears would allow full use of the refuge and provide an experience with little competition from other recreational or subsistence hunters.

Impacts to refuge habitats would be minimal and transitory. Access to the refuge during summer months would be primarily by landing float-equipped aircraft on lakes and rivers, and wheel-equipped aircraft on gravel bars, by motor boat, or by floating into the refuge. Landings on vegetated lowland tundra and disturbance to vegetation would be prohibited. The introduction of invasive species carried on boats and aircraft floats could affect refuge resources, although it is not known to have occurred within Kanuti Refuge to date, and staff will be vigilant to prevent such

occurrences. In addition, frequent motorboat or aircraft traffic could impact nesting, molting or staging birds (Bouffard 1982, Miller 1994 and Ward et al. 1994). Winter access could be by dog sled, cross-country skis, snowmobile or aircraft fitted with skis. Disturbance to vegetation would be limited by conditions within the special use permit. Temporary displacement and/or disturbance to wildlife can occur in response to low level overflights and during takeoffs and approaches to landings (Calef et al. 1976), but impacts would likely be short term and minimal.

Compliance with regulations and permit conditions will be routinely checked by officers. Refuge officers and State wildlife protection officers would routinely patrol the refuge during hunting seasons. In accordance with regulations, no new cabins will be authorized in association with commercial guiding (50 Code of Federal Regulations 36.33 [5,d,1]).

### **Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge's Comprehensive Conservation Plan.

The State of Alaska commented on our display of regional special use permit stipulations in the compatibility determinations. The State suggested that the special use permit stipulations be preceded by an introductory statement such as, "A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility." We made the recommended change.

The State questioned inclusion of "pets" as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in various activities on the refuge.

The State commented that the term "high quality" is found throughout the CDs. The inherent difficulty in defining "high" quality is a long standing state comment and we suggest performing a word search on all CDs to remove these qualifiers when they may indicate or imply a management standard. As the Service manual talks about quality hunting and fishing programs on refuges, we changed the phrase high quality to quality in this compatibility determination.

The State commented that it would be more appropriate to rephrase our description of ORVs from "prohibited" on the refuge to "are not authorized" on the refuge. We should remove "except snowmachines" from the stipulation as they are not ORVs. We agree and have changed the text as suggested.

The State commented about the stipulation that stated, "The permittee will take no action that interferes with subsistence activities." They said that this stipulation provides no allowance for accidental incidents or instances where a permit holder is not aware they are interfering with subsistence uses. We removed the stipulation as unnecessary.

The State commented that in "Refuge Specific Special Conditions" we should insert the text; "However, driftwood, standing dead trees, and brush may be used for firewood, but standing vegetation may not be cut within 200 feet of streams or lake shores." We revised the text as to say that standing dead trees and brush may not be cut within 200 feet of streams or lake shores.

While not specific to the compatibility determination, we received comments opposing hunting on the refuge. Hunting, that is compatible with refuge purposes, is identified as one of the six priority public uses to be facilitated on refuges in the National Wildlife Refuge System Improvement Act. As explained in this compatibility determination, we have found hunting to be compatible with the purposes of Kanuti Refuge.

**Refuge Determination (check one below):**

Use is Not Compatible

Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility. Continuing law enforcement and administrative monitoring of permittees will be carried out to ensure compliance with the following conditions that are incorporated into all permits in order to minimize impacts on refuge lands and resources. These stipulations will be updated to comply with the final revised Kanuti National Wildlife Refuge Comprehensive Conservation Plan.

Regional Standard Special Conditions

- Failure to abide by any part of this special use permit; violation of any Refuge related provision in Titles 43 (Part 36) or 50 (Subchapters B and C) Code of Federal Regulations; or violation of any pertinent State regulation (e.g., fish or game violation) will, with due process, be considered grounds for immediate revocation of this permit and could result in denial of future permit requests for lands administered by the U.S. Fish and Wildlife Service. This provision applies to all persons working under the authority of this permit (e.g., assistants). Appeals of decisions relative to permits are handled in accordance with 50 Code of Federal Regulations 36.41.
- The permittee is responsible for ensuring that all employees, party members, aircraft pilots, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- The permittee may not sublet any part of the authorized use area and is prohibited from subcontracting clients with any other guide. The permittee must also be personally present with each client in the refuge designated use area at least once during each contracted hunt.
- Any problems with wildlife and/or animals taken in defense of life or property must be reported immediately to the Refuge Manager and/or Alaska Department of Fish and Game, and be salvaged in accordance with State regulations.
- The permittee and permittee's clients do not have the exclusive use of the site(s) or lands covered by this permit, except for the authorized camp facilities.
- This permit may be canceled or revised at any time by the Refuge Manager in case of

emergency (e.g., high fire danger, flooding, unusual resource problems, etc.).

- The permittee shall notify the Refuge Manager during refuge working hours, in person or by telephone, before beginning and upon completion of annual activities allowed by this permit.
- Prior to beginning any activities allowed by this permit, the permittee shall provide the refuge Manager with: (1) proof of comprehensive general liability insurance (\$300,000 each occurrence, \$500,000 aggregate) covering all aspects of operations throughout the annual use period, (2) aircraft and other vehicle types to be used, with identification information, if different from the original permit or previous year; (3) changes in names of assistant guides and other employees; and (4) any other changes in information provided in the original permit/proposed operations plan.
- The permittee is responsible for accurate record keeping and will provide the Refuge Manager with a comprehensive summary report of the number of clients, and number of client days per activity type by December 31 for all uses during that calendar year unless stated otherwise in the permit. A legible copy of the State's "Hunt Record" for each client will be required in addition to the summary report.
- Failure to report the actual number of client use days per type of authorized activity by December 31 of each calendar year and annually pay the Service's established fees (client use day and reserved land site) within 30 days after receiving a bill for collection will be grounds for revocation of this permit.
- This permit authorizes use on State selected lands. If any of these lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands until and unless permission is obtained from the Alaska Department of Natural Resources.
- This permit authorizes use only on the Native selected lands specifically identified in the description block of this permit. If any of these Native selected lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands unless permission is obtained from the Native corporation to which land ownership has been conveyed.
- In accordance with the Archaeological Resources Protection Act (16 U.S.C. 470aa), the removal or disturbance of archaeological or historical artifacts is prohibited. The excavation, disturbance, collection, or purchase of historical, ethnological, or archaeological specimens or artifacts is prohibited.
- Permittees shall maintain their use areas in neat and sanitary condition. Latrines must be located at least 150 feet from springs, lakes, and streams to avoid contamination of water resources. All property (except cabins and/or tent frames) of the permittee must be removed from refuge lands upon completion of permitted activities.
- The construction or clearing of landing strips or pads is prohibited. Incidental hand

removal of rocks and other minor obstructions may be permitted.

- The use of off-road vehicles (except snowmobiles with adequate snow cover) is prohibited unless specifically authorized in writing in this permit.
- The operation of aircraft at altitudes and in flight paths resulting in the herding, harassment, hazing, or driving of wildlife is prohibited. It is recommended that all aircraft, except for take-off and landing, maintain a minimum altitude of 2,000 feet above ground level (AGL).
- All aircraft being used in commercial operations must have 12-inch identification numbers in contrasting colors which are readily visible.
- Motorboat operators must possess a U.S. Coast Guard (USCG) license for all passenger-carrying operations, if required by USCG regulations.
- Construction of cabins or other permanent structures is prohibited.
- The permittee's operation plan, as amended and accepted by the U.S. Fish and Wildlife Service, is hereby incorporated in its entirety as a special condition. All deviations from the operations plan must receive prior written approval by the Refuge Manager or his designee.
- Any action by a permittee or the permittee's employees that unduly interferes with or harasses other refuge visitors or impedes access to any site is strictly prohibited. Examples of prohibited acts include, but are not limited to, low flights over camps or persons at less than 500 feet (unless landing) and parking aircraft or placing other objects (rocks, tents, etc.) on any landable area to restrict use by other aircraft or persons.

#### Refuge – Specific Special Conditions

- Base camp locations must be approved by the Refuge Manager. Base camps will be located on durable surfaces, or relocated at intervals adequate to prevent site impacts.
- All temporary accommodations will be constructed of materials that blend with the immediate surroundings. Campsites, shelters and equipment will be used and maintained in a manner consistent with the protection of area resources, including wilderness character.
- Provisions for human waste management and disposal must be approved by the Refuge Manager.
- Equipment caches may be located in approved areas. Contact the Refuge Manager for approval. The cache will be clearly marked with the permittee's name, will be designed to blend in with the surrounding environment, and will be bear-proof.
- Use of gasoline or similar fuel for heating and cooking is encouraged. However,

driftwood, standing dead trees and brush may be used for firewood, but standing dead trees and brush may not be cut within 200 feet of streams or lake shores

- All garbage and trash will be secured in a manner that minimizes attraction to wildlife and must be removed from the field before vacating the site for the season.
- Fuel storage sites must be approved by the Refuge Manager. Preparations to prevent and respond to a fuel spill must be fully adequate at all sites for the amount of fuel stored on site. All containers must be properly stored and marked with the permittee's name, address and type of fuel.
- The permittee shall ensure that all employees and clients seek to minimize the effect of their activities on the wilderness character of the land, wildlife, and the unique experience available there.

### **Justification:**

Recreational hunting has been found to be compatible with the purposes of Kanuti Refuge and with the National Wildlife Refuge System Mission. Commercial big-game guiding and outfitting services are a form of traditional Alaskan activity that Congress intended to preserve with enactment of the Alaska National Interest Lands Conservation Act, which designated Kanuti Refuge. These services support not only hunting, but also other activities, including wildlife observation and photography; these are three of the priority public uses of National Wildlife Refuges. When determined appropriate and compatible with refuge purposes, Service policy guides refuge managers to provide opportunity for all six wildlife-dependent recreational uses, while maintaining quality of experience. The overarching goal of the wildlife-dependent recreation policy (605 FW 1) is to enhance wildlife-dependent recreation opportunities and access to quality visitor experiences on refuges while managing refuges to conserve fish, wildlife, plants, and their habitats. Most non-Alaska residents would not be able to hunt grizzly bears within Kanuti Refuge if guiding were not allowed.

Requirements placed on commercial hunting guides by the Service through the original selection process and the terms of their special use permits and regulations of the State of Alaska ensure that these commercial operators provide safe, quality experiences for their clients. These operations can help the refuge achieve its purposes of protecting fish and wildlife resources of the refuge and meeting legal requirements to provide compatible opportunities for the public to use and enjoy these resources. After fully considering the impacts of this activity, as described previously in the "Anticipated Impacts" section of this document, it is my determination that commercially guided recreational big game hunting activities on the refuge do not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

### **Supporting Documents:**

Bouffard, S. 1982. Wildlife values versus human recreation: Ruby Lake National Wildlife Refuge. Transactions of the North American Wildlife and Natural Resources Conference 47:553-558.

Calef, G.W., E.A. DeBock, and G.M. Lortie. 1976. The reaction of barren-ground caribou to



## Compatibility Determination

**Use:** Commercial Recreational Fishing Guide Services

**Primary Use:** Fishing (guiding and outfitting)

**Supporting Uses:** Fixed-wing aircraft landings, boating (motorized and non-motorized), snowmobiling, environmental education and interpretation (not conducted by Refuge staff or authorized agents), hunting, firewood cutting, natural resource gathering, camping, picnicking, hiking and backpacking, snowshoeing, pets, swimming and beach use, wildlife photography and videography, wildlife observation.

**Refuge Name:** Kanuti National Wildlife Refuge

### Establishing and Acquisition Authority:

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### Refuge Purposes:

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

(i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;

(ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;

(iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;

(iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### National Wildlife Refuge System Mission:

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C.668dd-668ee]).

**Description of Use:**

This description of use includes a re-evaluation of the compatibility of use of Federal lands within Kanuti Refuge for commercially guided recreational fishing. The original compatibility determination for commercially guided recreational fishing was made in 1994, subject to reasonable regulation and special conditions provided with a special use permit. This compatibility determination addresses the full spectrum of uses associated with commercially guided recreational fishing. This includes all means of access, lodging and facilities, and other elements identified in the guides' operations plans. The compatibility of recreational fishing on Kanuti Refuge is evaluated in a separate compatibility determination. Commercial fishing guides could target three species of Pacific salmon, plus Arctic Grayling, Northern Pike, Whitefish, and Dolly Varden that occur within Kanuti Refuge. Commercially guided recreational fishing and related services could contribute to the fulfillment of refuge purposes and the National Wildlife Refuge System Mission by facilitating priority public use and management of healthy fish populations through managed fishing. Historically there have been no commercial fishing guides operating on Kanuti NWR. Guided fishing may have taken place ancillary to guided hunting and commercially guided wildlife observation tours, and it is anticipated that this use may increase in the future as activity increases along the Dalton Highway.

Means of authorized access for commercially guided fishing could include fixed-wing airplanes, motorboats, non-motorized boats, and hiking. Guided recreational fishing could occur spring through fall. Recreational fishing is managed under State of Alaska fishing regulations. Of the four major rivers on the refuge, all could be classified as having good recreational fishing opportunities, based on reasonable accessibility by float plane or boat, and sustainable populations of anadromous and/or resident fish. Although all these drainages provide opportunities for day use and overnight primitive camping, cost of traveling to these areas for day-use fishing is prohibitive for most visitors. All drainages provide opportunities for northern pike fishing; however, only the Koyukuk, South Fork Koyukuk, and Jim Rivers, and Fish and Henshaw Creeks could support guided salmon fishing.

Recreational fishing guides under permit from the refuge may operate from a temporary camp on a river or lake. Each guide would submit a year-end report to the refuge identifying the number of clients guided, the location(s) of fishing activities, and the number of fish caught by species.

**Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage commercially guided recreational fishing activities at current and projected levels. Administrative staff time primarily involves issuing permits, ensuring that licenses and certifications are current, collecting client use-day fees, and recording activity data. Fieldwork associated with administering the program primarily involves monitoring permittees' compliance with the terms of the permits. Estimated staff time to annually administer and monitor these permits is one week. An administrative fee of \$100.00 is assessed when each permit is issued. In addition, a client use fee is assessed for each day a guide has a client on the refuge. Fees collected are returned to the refuge to manage the program.

### **Anticipated Impacts of the Use:**

Both the Federal Subsistence Board and State Board of Fisheries regularly adopt regulations in response to fish population levels and to address issues of fishery allocation. Providing an opportunity for continued subsistence uses of fishery resources by local residents receives the highest priority from the Federal Subsistence Board. Although salmon experienced a worrisome decline in the late 1990's, recent run strengths indicate that a small recreational fishery would be sustainable. The Refuge's Fisheries Management Plan (USFWS 1993) warned that fish populations within the refuge could decline without sufficient data to measure population trends.

Based on guidance provided in the Fisheries Management Plan, the refuge continues to work with the Fairbanks Fish and Wildlife Field Office to implement inventories and studies in the Plan and to conduct other research aimed at understanding fish populations on Kanuti Refuge. Guided recreational harvests would have to be monitored closely to protect fish, which are also an extremely important subsistence resource to people living near the refuge.

Two additional potential impacts or threats are associated with floatplane or motorboat access. The introduction of invasive species carried on boats or aircraft floats could affect refuge resources, although it is not known to have occurred on the Kanuti Refuge to date. In addition, frequent motorboat or aircraft traffic could impact nesting, molting or staging birds (Bouffard 1982, Miller 1994 and Ward et al. 1994). Temporary displacement and/or disturbance to wildlife can occur in response to low level overflights and during takeoffs and approaches to landings (Calef et al. 1976). There are no known long-term impacts to refuge wildlife populations from this disturbance. Refuge law enforcement officers would patrol the refuge to monitor compliance with State regulations and refuge permit conditions.

### **Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge's Comprehensive Conservation Plan.

The State of Alaska commented on our display of regional special use permit stipulations in the compatibility determinations. The State suggested that the special use permit stipulations be preceded by an introductory statement such as, "A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility." We made the recommended change.

The State questioned inclusion of "pets" as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in various activities on the refuge.

The State also commented that the term "high quality" is found throughout the CDs. The inherent difficulty in defining "high" quality is a long standing state comment and we suggest performing a word search on all CDs to remove these qualifiers when they may indicate or imply a management standard. As the Service manual talks about quality hunting and fishing programs on refuges, we changed the phrase high quality to quality in this compatibility determination.

The State commented about the stipulation that stated, “The permittee will take no action that interferes with subsistence activities.” They said that this stipulation provides no allowance for accidental incidents or instances where a permit holder is not aware they are interfering with subsistence uses. We removed the stipulation as unnecessary.

**Refuge Determination (check one below):**

- Use is Not Compatible  
 Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility. Continuing law enforcement and administrative monitoring of permittees will be carried out to ensure compliance with the following conditions that are incorporated into all permits in order to minimize impacts to refuge lands and resources. These stipulations will be updated to comply with the final revised Kanuti National Wildlife Refuge Comprehensive Conservation Plan.

Regional Standard Special Conditions

- Failure to abide by any part of this special use permit; violation of any refuge related provision in Titles 43 (Part 36) or 50 (Subchapters B and C) Code of Federal Regulations; or violation of any pertinent State regulation (e.g., fish or game violation) will, with due process, be considered grounds for immediate revocation of this permit and could result in denial of future permit requests for lands administered by the U.S. Fish and Wildlife Service. This provision applies to all persons working under the authority of this permit (e.g., assistants). Appeals of decisions relative to permits are handled in accordance with 50 Code of Federal Regulations 36.41.
- The permittee is responsible for ensuring that all employees, party members, contractors, aircraft pilots, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- Any problems with wildlife and/or animals taken in defense of life or property must be reported immediately to the Refuge Manager, and the Alaska Department of Fish and Game, and animals taken must be salvaged in accordance with State regulations.
- This permit may be canceled or revised at any time by the Refuge Manager for noncompliance or in case of emergency (e.g., public safety, unusual resource problems).
- This permit does not grant the permittee and his/her clients exclusive use of the site(s) or lands covered by the permit.
- This permit may be canceled or revised at any time by the Refuge Manager in case of emergency (e.g. high fire danger, flooding, unusual resource problems, etc.).
- The permittee or his/her designee shall notify the Refuge Manager during refuge working

hours in person or by telephone before beginning and upon completing activities allowed by this permit.

- Prior to beginning activities allowed by this permit, the permittee shall provide the Refuge Manager with: (1) the name and method of contact for the field party chief/supervisor; (2) the aircraft and other vehicle types to be used, including identification information; (3) names of assistant guides and helpers; and (4) any changes to information provided in the original permit application.
- The permittee shall maintain, throughout the use period specified on the permit, Comprehensive General Liability Insurance (\$300,000 each occurrence; \$500,000 annual aggregate) covering all ground or water based operations and (unless air transportation is already covered) Aviation Passenger Liability (\$150,000/seat plus \$100,000 property) covering all aircraft operations involving clients.
- The permittee shall provide the Refuge Manager with a report of the number and species of all fish taken, locations, numbers of clients, and number of client use days per trip. This report is within 30 days of permit expiration unless stated otherwise in the permit.
- In accordance with the Archaeological Resources Protection Act (16 U.S.C. 470aa), the removal or disturbance of archaeological or historical artifacts is prohibited. The excavation, disturbance, collection, or purchase of historical, ethnological, or archaeological specimens or artifacts is prohibited.
- Permittees shall maintain their use areas in a neat and sanitary condition. Latrines must be located at least 150 feet from springs, lakes, and streams to avoid contamination of water resources. All property (except cabins and/or tent frames) of the permittee must be removed from refuge lands upon completion of permitted activities.
- The construction of landing strips or pads is prohibited. Incidental hand removal of rocks and other minor obstructions may be permitted.
- The use of off-road vehicles (except snowmobiles with adequate snow cover) is prohibited unless specifically authorized in writing in this permit.
- The operation of aircraft at altitudes and in flight paths resulting in the herding, harassment, hazing, or driving of wildlife is prohibited. It is recommended that all aircraft, except for take-off and landing, maintain a minimum altitude of 2,000 feet above ground.
- Fuel caches are allowed only in designated areas and must be approved by the Refuge Manager or his/her designate prior to caches being established. If caches are established, fuel containers must be clearly marked with the permittee's name, address, local contact telephone number and type of fuel.
- Construction of cabins or other permanent structures is prohibited.

- All aircraft being used in commercial operations must have 12-inch identification numbers in contrasting colors, which are readily visible.
- This permit authorizes use on State selected lands. If any of these lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands until and unless permission is obtained from the Alaska Department of Natural Resources.
- This permit authorizes use only on the Native selected lands specifically identified in the description block of this permit. If any of these Native selected lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands unless permission is obtained from the Native corporation to which land ownership has been conveyed.
- Any action by a permittee or the permittee's employees which unduly interferes with or harasses other refuge visitors or impedes access to any site is strictly prohibited. Examples of prohibited acts include, but are not limited to: 1) intentional low flights over camps or persons at less than 500 feet, except when necessary for take off and landing; 2) parking aircraft or placing other objects (rocks, tents, etc.) on any landable area so as to restrict use by other aircraft; 3) otherwise intentionally interfering in the activity of other refuge users; 4) engaging in activity which is contrary to State and Federal laws.

#### Refuge-Specific Special Conditions

- All garbage and non-combustible debris will be removed from the refuge. Food, garbage, other materials will be stored so as not to attract bears and other wildlife.
- Motorboat operators must possess U.S. Coast Guard (USCG) licenses for all passenger-carrying operations, if required by USCG regulations.
- The permittee may not sublet any part of the authorized use area and is prohibited from subcontracting clients with any other guide.
- Provisions for human waste management and disposal must be approved by the Refuge Manager.
- A valid copy of the issued special use permit, signed by the Refuge Manager or designee, must be in the party leader's possession at all times while exercising the privileges of the permit.

#### **Justification:**

Commercially guided fishing services are a form of traditional activity that Congress intended to preserve with enactment of the Alaska National Interest Lands Conservation Act, which designated the refuge. Guides support not only angling, but also other activities, including wildlife observation and photography, all of which the National Wildlife Refuge System Administration Act of 1966 (as amended by the Refuge Improvement Act of 1997) identifies as priority public uses. When determined appropriate and compatible with refuge purposes, Service policy guides refuge managers to provide opportunity for all six wildlife-dependent recreational

uses, while maintaining quality of experience. The overarching goal of the wildlife-dependent recreation policy (605 FW 1) is to enhance wildlife-dependent recreation opportunities and access to quality visitor experiences on refuges while managing refuges to conserve fish, wildlife, plants, and their habitats. Guided recreational fishing operations on the refuge would provide the public with quality, safe, and unique recreational fishing opportunities found few places in the world. These visitor services are a valuable benefit to a segment of the public that is either not physically able to, not comfortable with, or for other reasons chooses not to participate in unguided fishing trips within the refuge.

Recreational fishing has been found compatible with refuge purposes and is one of the priority public uses of National Wildlife Refuges. Guides help facilitate public participation in this activity. After fully considering the impacts of this activity, as described previously in the “Anticipated Impacts” section of this document, it is my determination that commercially guided recreational fishing services within the refuge do not materially interfere with or detract from the purposes of the refuge or mission of the National Wildlife Refuge System.

**Supporting Documents:**

Bouffard, S. 1982. Wildlife values versus human recreation: Ruby Lake National Wildlife Refuge. *Transactions of the North American Wildlife and Natural Resources Conference* 47:553-558.

Calef, G.W., E.A. DeBock, and G.M. Lortie. 1976. The reaction of barren-ground caribou to aircraft. *Arctic* 29(4):201-212.

Comprehensive Conservation Plan 1987, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service, Anchorage, Alaska 325 pp.

Kanuti National Wildlife Refuge, Fisheries Management Plan 1993, U.S. Fish and Wildlife Service, Fairbanks, Alaska, 52pp.

Miller, M. W. 1994. Route selection to minimize helicopter disturbance of molting Pacific black brant: a simulation. *Arctic* 47: 341–349.

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

Ward, D. H., R. A. Stehn, D. V. Derksen. 1994. Response of staging brant to disturbance at the Izembek Lagoon, Alaska. *Wildl. Soc. Bull.* 22: 220–228.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval: /s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System: /s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-Year Re-evaluation Date (for allowed uses only):** \_\_\_\_\_2018

**Mandatory 15-Year Re-evaluation Date (for priority public uses):** \_\_\_\_\_

**NEPA Compliance for Refuge Use Decision:**

Categorical Exclusion without Environmental Action Memorandum

Categorical Exclusions and Environmental Action Memorandum

Environmental Assessment and Finding of No Significant Impact

Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Commercial Recreational Guide Services

**Primary Use:** Environmental education and interpretation (not conducted by Refuge staff or authorized agents), wildlife photography and videography, and wildlife observation.

**Supporting Uses:** Boating (motorized and non-motorized), fixed-wing aircraft landings, snowmobiling, dog sledding, cross-country skiing, and skijoring, camping, picnicking, hiking and backpacking, wildlife photography and videography, snowshoeing, wildlife observation, natural resource gathering, pets, firewood cutting, swimming and beach use.

**Refuge Name:** Kanuti National Wildlife Refuge, Alaska

### Establishing and Acquisition Authority:

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### Kanuti Refuge Purposes:

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### National Wildlife Refuge System Mission:

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

### Description of Use:

This description of use includes a re-evaluation of the compatibility of use of Federal lands within Kanuti Refuge for all types of guided recreation (except for hunting and fishing). The original compatibility determination for guided recreation was made in 1994, subject to reasonable regulation and special conditions provided with a special use permit. Historic activity in this use has been minimal. Since 1980, permits have been issued to four different commercial recreation guiding businesses, although in any one typical year there has usually been one permit issued, and there were many years in which no permits were issued. It has been many years since the last commercially guided recreation tour services have operated on Kanuti Refuge; however, it is anticipated that these uses could increase in the future as activity increases along the Dalton Highway.

Commercially guided recreation tours are an activity that supports wildlife-dependent priority public uses. The objective of guided tour services in national wildlife refuges is to make available a variety of quality opportunities for the public to enjoy outdoor activities where such activities are compatible with the refuge's purposes, resources and management objectives. Furthermore the Congressional Committee Report on the National Wildlife Refuge System Improvement Act of 1997 states: "It establishes as the policy of the United States that wildlife-dependent recreation, when it is compatible, is a legitimate and appropriate public use of the Refuge System, through which the American public can develop an appreciation for fish and wildlife."

Recreational Guides provide a service that visitors often require in order to access the refuge and gain an appreciation for its resources. In the past guided recreational activities on Kanuti Refuge have been conducted in summer as river float trips and during winter using dog sleds and snowmobiles. Guided recreational services considered here include activities occurring throughout the year. Guided recreational tour providers are required, as a condition of their permits, to provide information on the primary activity, location, length of stay, group size, and other related items. These reports can provide the most accurate and reliable information the Service has on refuge use by visitors. Guided recreational activities contribute to fulfillment of the National Wildlife Refuge System mission by providing access for non-local refuge visitors and therefore facilitate priority public uses and other uses found compatible in separate compatibility determinations.

#### **Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage commercial guided recreational activities at existing and projected levels.

Administrative staff time primarily involves issuing permits, ensuring that licenses and certifications are current, collecting client use-day fees, and recording activity data. Fieldwork associated with administering the program primarily involves monitoring permittees' compliance with the terms of the permits. Estimated staff time to annually administer and monitor these permits is one week.

### **Anticipated Impacts of the Use:**

Impacts associated with guided tours on Kanuti Refuge are addressed in the respective compatibility determinations for each activity. We anticipate minimal impacts to fish and wildlife resources, other refuge resources, or other refuge users. The refuge's administrative oversight of the activity and comprehensive State and Federal regulations continually evolve to respond to wildlife management needs. Law enforcement efforts of the State and refuge personnel will also help minimize direct impacts from tour guiding services.

Impacts to refuge habitats would be minimal and transitory. Access to the refuge during summer months would be primarily by landing float-equipped aircraft on lakes and rivers, and wheel-equipped aircraft on gravel bars, by motor boat, or by floating into the refuge. The introduction of invasive species carried on boats and aircraft floats could affect refuge resources, although it is not known to have occurred within Kanuti Refuge to date, and staff will be vigilant to prevent such occurrences. In addition, frequent motorboat or aircraft traffic could impact nesting, molting or staging birds (Bouffard 1982, Miller 1994 and Ward et al. 1994). Winter access could be by dog sled, skis, snowmobile or aircraft fitted with skis. Disturbance to vegetation would be limited by conditions within the special use permit. Temporary displacement and/or disturbance to wildlife can occur in response to low level overflights and during takeoffs and approaches to landings (Calef et al. 1976), but impacts would likely be short term and minimal.

### **Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge's Comprehensive Conservation Plan.

The State of Alaska commented on our display of regional special use permit stipulations in the compatibility determinations. The State suggested that the special use permit stipulations be preceded by an introductory statement such as, "A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility." We made the recommended change.

The State questioned inclusion of "pets" as an incidental use in compatibility determinations. We included pets because many people travel with their pets, usually pet dogs, and we were making it clear that pets are allowed to accompany people engaging in various activities on the refuge.

The State also commented that the term "high quality" is found throughout the CDs. The inherent difficulty in defining "high" quality is a long standing state comment and we suggest performing a word search on all CDs to remove these qualifiers when they may indicate or imply a management standard. As the Service manual talks about quality hunting and fishing programs on refuges, we changed the phrase high quality to quality in this compatibility determination.

The State commented about the stipulation that stated, "The permittee will take no action that interferes with subsistence activities." They said that this stipulation provides no allowance for accidental incidents or instances where a permit holder is not aware they are interfering with subsistence uses. We removed the stipulation as unnecessary.

**Refuge Determination (check one below):**

Use is Not Compatible

Use is Compatible with Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility. Continuing law enforcement and administrative monitoring of permittees will be carried out to ensure compliance with the following conditions that are incorporated into all permits in order to minimize impacts on refuge lands and resources. These stipulations will be updated to comply with the final revised Kanuti National Wildlife Refuge Comprehensive Conservation Plan. Management direction for monitoring public use will be provided in the revision of the Comprehensive Conservation Plan (Goal 1, objective 4.1).

Regional Standard Special Conditions

- Failure to abide by any part of this special use permit; violation of any refuge related provision in Titles 43 (Part 36) or 50 (Subchapters B and C) Code of Federal Regulations; or violation of any pertinent State regulation (e.g., fish or game violation) will, with due process, be considered grounds for immediate revocation of this permit and could result in denial of future permit requests for lands administered by the U.S. Fish and Wildlife Service. This provision applies to all persons working under the authority of this permit (e.g., assistants). Appeals of decisions relative to permits are handled in accordance with 50 Code of Federal Regulations 36.41.
- The permittee is responsible for ensuring that all employees, party members, contractors, aircraft pilots, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- Any problems with wildlife and/or animals taken in defense of life or property must be reported immediately to the Refuge Manager, and the Alaska Department of Fish and Game, and animals taken must be salvaged in accordance with State regulations.
- This permit may be canceled or revised at any time by the Refuge Manager for noncompliance.
- This permit does not grant the permittee and his/her clients exclusive use of the site(s) or lands covered by the permit.
- This permit may be canceled or revised at any time by the Refuge Manager in case of emergency (e.g. high fire danger, flooding, unusual resource problems, etc.).
- The permittee or his/her designee shall notify the Refuge Manager during refuge working hours in person or by telephone before beginning and upon completing activities allowed by this permit.

- Prior to beginning activities allowed by this permit, the permittee shall provide the Refuge Manager with: (1) the name and method of contact for the field party chief/supervisor; (2) the aircraft or other vehicle types to be used, including identification information; (3) names of assistant guides and helpers; and (4) any changes to information provided in the original permit application.
- The permittee shall maintain, throughout the use period specified on the permit, Comprehensive General Liability Insurance (\$300,000 each occurrence; \$500,000 annual aggregate) covering all ground or water based operations and (unless air transportation is already covered) Aviation Passenger Liability (\$150,000/seat plus \$100,000 property) covering all aircraft operations involving clients.
- The permittee shall provide the Refuge Manager with a report of activities under this permit, including pick up/drop off locations, numbers of clients, and number of client use days per trip. This report is within 30 days of permit expiration unless stated otherwise in the permit.
- In accordance with the Archaeological Resources Protection Act (16 U.S.C. 470aa), the removal or disturbance of archaeological or historical artifacts is prohibited. The excavation, disturbance, collection, or purchase of historical, ethnological, or archaeological specimens or artifacts is prohibited.
- Permittees shall maintain their use areas in a neat and sanitary condition. Latrines must be located at least 150 feet from springs, lakes, and streams to avoid contamination of water resources. All property (except cabins and/or tent frames) of the permittee must be removed from refuge lands upon completion of permitted activities.
- The construction of landing strips or pads is prohibited. Incidental hand removal of rocks and other minor obstructions may be permitted.
- The use of off-road vehicles (except snowmobiles with adequate snow cover) is prohibited unless specifically authorized in writing in this permit.
- The operation of aircraft at altitudes and in flight paths resulting in the herding, harassment, hazing, or driving of wildlife or wildlife is prohibited. It is recommended that all aircraft, except for take-off and landing, maintain a minimum altitude of 2,000 feet above ground.
- Fuel caches are allowed only in designated areas and must be approved by the Refuge Manager or his designate prior to caches being established. If caches are established, fuel containers must be clearly marked with the permittee's name, address, local contact telephone number and type of fuel.
- Construction of cabins or other permanent structures is prohibited.
- All aircraft being used in commercial operations must have 12-inch identification numbers in contrasting colors, which are readily visible.

- This permit authorizes use on State selected lands. If any of these lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands until and unless permission is obtained from the Alaska Department of Natural Resources.
- This permit authorizes use only on the Native selected lands specifically identified in the description block of this permit. If any of these Native selected lands are conveyed during the term of this permit, the permittee will no longer be authorized to use those lands unless permission is obtained from the Native corporation to which land ownership has been conveyed.
- Any action by a permittee or the permittee's employees which unduly interferes with or harasses other refuge visitors or impedes access to any site is strictly prohibited. Examples of prohibited acts include, but are not limited to: 1) intentional low flights over camps or persons at less than 500 feet, except when necessary for take off and landing; 2) parking aircraft or placing other objects (rocks, tents, etc.) on any landable area so as to restrict use by other aircraft; 3) otherwise intentionally interfering in the activity of other refuge users; 4) engaging in activity which is contrary to State and Federal laws.

#### Refuge-Specific Special Conditions

- All garbage and non-combustible debris will be removed from the refuge. Food, garbage, and other materials will be stored so as not to attract bears and other wildlife.
- Motorboat operators must possess U.S. Coast Guard (USCG) licenses for all passenger-carrying operations, if required by USCG regulations.
- The permittee may not sublet any part of the authorized use area and is prohibited from subcontracting clients with any other guide.
- Provisions for human waste management and disposal must be approved by the Refuge Manager.
- A valid copy of the issued special use permit, signed by the Refuge Manager or designee, must be in the party leader's possession at all times while exercising the privileges of the permit.

#### **Justification:**

Commercially guided recreational activities have been found to be compatible with the purposes of Kanuti Refuge and with the National Wildlife Refuge System Mission. Commercial recreational guiding services provide the public with safe access to unique wildlife observation, wildlife photography, and environmental education opportunities found few places elsewhere in the world. These are all activities that the National Wildlife Refuge System Administration Act (as amended) identifies as priority public uses. When determined appropriate and compatible with refuge purposes, Service policy guides refuge managers to provide opportunity for all six wildlife-dependent recreational uses, while maintaining quality of experience. The overarching



**Mandatory 10-year Re-evaluation Date (for allowed uses only):** \_\_\_\_2018\_\_\_\_

**Mandatory 15-year Re-evaluation Date (for priority public uses):** \_\_\_\_\_

**NEPA compliance for Refuge Use Decision:**

\_\_\_\_\_ Categorical Exclusion without Environmental Action Memorandum

\_\_\_\_\_ Categorical Exclusion and Environmental Action Memorandum

  X   Environmental Assessment and Finding of No significant Impact

\_\_\_\_\_ Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** State of Alaska Management Activities

**Primary Use:** Uses (other) - State of Alaska management activities

**Supporting Uses:** Boating (motorized and non-motorized), fixed-wing aircraft landings, helicopter landings, snowmobiling, environmental education and interpretation (not conducted by refuge staff or authorized agents), firewood cutting, fishing, natural resource gathering, camping, picnicking, cross-country skiing, hiking and backpacking, wildlife photography, videography, and audio recording, snorkeling and scuba diving, snowshoeing, swimming and beach use, research, scientific collecting, surveys, wildlife observation.

**Refuge Name:** Kanuti National Wildlife Refuge

### **Establishment and Acquisition Authority:**

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### **Kanuti Refuge Purposes:**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Kanuti National Wildlife Refuge are described in Section 302 (4) (B) of ANILCA and are as follows:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose, caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

### **National Wildlife Refuge System Mission:**

The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

**Description of Use:**

This compatibility determination addresses routine management activities conducted by the Alaska Department of Fish and Game and the Alaska State Troopers Bureau of Wildlife Enforcement that are not cooperative projects with the Service. These projects may not be encompassed by the Master Memorandum of Understanding between the Alaska Department of Fish and Game, Juneau, Alaska, and the U.S. Fish and Wildlife Service, Department of the Interior, Anchorage, Alaska, signed March 13, 1982, and/or be law enforcement activities conducted by Alaska Bureau of Wildlife Enforcement State Troopers. This includes the following activities: fish and wildlife surveys conducted by boat, foot, or other means not restricted by regulation or policy; aircraft landings in support of aerial fish and wildlife surveys; vegetation and habitat classification and surveys; and law enforcement activities.

This compatibility determination does not address predator management, fish and wildlife control (with the exception of animals taken in defense of life or property), reintroduction of species, native fish introductions, non-native species introductions, non-native species management, pest management, disease prevention and control, fishery restoration, fishery enhancement, construction of facilities, or any other unpermitted activity that could alter ecosystems within the refuge. Separate compatibility determinations addressing specific proposals will be required for those activities. All management and research activities conducted by the Alaska Department of Fish and Game under a specific cooperative agreement with the Fish and Wildlife Service to fulfill one or more purposes of the refuge or the National Wildlife Refuge System mission are not subject to a compatibility determination.

Potential means of access include fixed-wing aircraft, motorboats, snowmobiles, non-motorized boats, foot, snowshoes, and cross-country skis. Helicopter access is addressed in a separate compatibility determination. Potential lodging and facilities include tents, tent frames, tent platforms, weatherports, existing permitted cabins, and caches.

**Availability of Resources:**

Adequate refuge personnel and base operational funds are available to manage activities at existing and projected levels. Administrative staff time (as many as 10 staff days per year) primarily involves phone conversations, written correspondence, and personal interaction with State personnel regarding ongoing activities. Field work associated with administering the program primarily involves monitoring (when applicable) the State's activities to ensure all activities remain compatible.

**Anticipated Impacts of the Use:**

Because Alaska Department of Fish and Game and wildlife enforcement personnel are trained professionals, the Service anticipates that routine law enforcement and fish and wildlife monitoring and management activities would have positive overall impacts on wildlife resources, other resources within the refuge (such as water quality, soil, and vegetation), and visitors. These positive impacts would support refuge purposes and goals and the Service mission.

**Public Review and Comment:**

Public comment was solicited concurrently with the revision of the Refuge's Comprehensive Conservation Plan.

No comments were received specifically for this compatibility determination.



**Mandatory 10-Year Re-evaluation Date:**

**NEPA Compliance for Refuge Use Decision**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

## Compatibility Determination

**Use:** Reburial of Archaeological Human Remains per State and Federal Guidelines

**Primary Use:** Use (other)—Reburial of archaeological human remains

**Supporting and Incidental Uses:** Boating (electric and wind-driven), boating (human-powered), boating (motorized), camping, hiking and backpacking, photography, video, filming, audio recording (non wildlife-dependent, recreational—other), fixed-wing aircraft, indigenous cemetery.

**Refuge Name:** Kanuti National Wildlife Refuge

### Establishing and Acquisition Authorities:

The Alaska National Interest Lands Conservation Act (ANILCA) established the 1.6 million acre Kanuti National Wildlife Refuge (Kanuti Refuge) as part of the U. S. Fish and Wildlife Service National Wildlife Refuge System (Department of the Interior) in 1980.

### Kanuti Refuge Purposes:

Section 302(4) (B) of ANILCA sets forth the following major purposes for which Kanuti Refuge was established and shall be managed:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, White-fronted Geese and other waterfowl and migratory birds, moose caribou (including participation in coordinated ecological studies and management of the Western Arctic caribou herd), and furbearers;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in subparagraph (i), water quality and necessary water quantity within the refuge.”

### National Wildlife Refuge System Mission:

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C.668dd-668ee]).

### Description of Use:

The refuge anticipates requests to rebury human remains eroding from recorded and unrecorded prehistoric sites and remains that have been removed from prehistoric sites. The inadvertent-discovery section of the Native American Graves Protection and Repatriation Act of 1990 (Public Law 101-601) requires that the land-management agency identify and notify the closest Native group and then, if requested, provide for the repatriation of the remains. With this in

mind, the refuge has prepared this compatibility determination to cover an expected several burial requests over the next 10 years. Each proposed burial and its proposed reburial location would need to be approved by the Regional Historic Preservation Officer, who will ensure compliance with the National Historic Preservation Act Section 106 prior to issuance of a permit for this activity.

Reburial of repatriated human remains would take place near the place of discovery of such remains or near their original burial place. Each burial would involve a small excavation with hand tools. Impacts to Refuge resources would be negligible and short-term, with no foreseeable long-term effects, and would not affect subsistence use of the refuge. A copy of the Global Positioning System (GPS) coordinates and contents of the burial site will be filed at refuge headquarters and with the Regional Historic Preservation Officer. The remains should be buried with a modern object (e.g., coin, button—with date) to indicate it is a historical reburial.

Potential means of access include fixed-wing aircraft, motorboats, snowmobiles, non-motorized boats, foot, snowshoes, and cross-country skis. Helicopter access is addressed in a separate compatibility determination.

**Availability of Resources:**

Except for issuance of the permit, no refuge resources would be needed to administer use. All activities associated with use would be accomplished by the permittee.

**Anticipated Impacts of the Use:**

Reburials would result in minimal and short-term impacts to refuge resources, involving a few small-scale excavations with hand tools and then interment of the remains.

**Public Review and Comment:**

Public comment was solicited concurrently with the revision of the refuge’s comprehensive conservation plan. The State of Alaska questioned why a Regional Condition on prohibited helicopter use when it can be allowed by special use permit. They suggested revising the text to reflect that helicopters may be authorized. The description of the use was changed to indicate that helicopter access is addressed in a separate compatibility determination.

**Refuge Determination (check one below):**

Use is Not Compatible

Use is Compatible with the Following Stipulations

**Stipulations Necessary to Ensure Compatibility:**

A special use permit with stipulations is required for this use. The following are typical stipulations, some of which are necessary for compatibility.

Note that the following special conditions for a special use permit for Reburial of Archaeological Human Remains per State and Federal Guidelines will be updated to reflect changes, if any, due to step-down plans completed in the future.

## Regional conditions

- Failure to abide by any part of this special use permit; violation of any Refuge-related provision in Titles 43 or 50, Code of Federal Regulations; or violation of any pertinent State regulation (e.g., fish or game violation) will be considered grounds for immediate revocation of this permit and could result in denial of future permit requests for lands administered by the U.S. Fish and Wildlife Service. This provision applies to all persons working under the authority of this permit (e.g., assistants or contractors). Appeals of decisions relative to permits are handled in accordance with 50 Code of Federal Regulations 36.41.
- The permittee is responsible for ensuring that all employees, party members, contractors, aircraft pilots, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- Any problems with wildlife and/or animals taken in defense-of-life-or-property must be reported immediately to the Refuge Manager, the Alaska Department of Fish and Game, and the Alaska State Troopers. Animals taken must be salvaged in accordance with State regulations.
- The permittee and permittee's employees do not have the exclusive use of the site(s) or lands covered by the permit.
- This permit may be cancelled or revised at any time by the Refuge Manager for noncompliance or in case of emergency (e.g., public safety, unusual resource problems).
- The permittee or party chief shall notify the Refuge Manager during Refuge working hours in person or by telephone before beginning and upon completion of activities allowed by this permit.
- Prior to beginning any activities allowed by this permit, the permittee shall provide the Refuge Manager with: (1) name and method of contact for the field party chief/supervisor; aircraft and other vehicle types to be used, identification information for these vehicles; and names of crew members, and (2) any changes in information provided in the original permit application.
- In accordance with the Archaeological Resources Protection Act (16 U.S.C. 470aa), the disturbance of archaeological or historical sites, and the removal of artifacts are prohibited. The excavation, disturbance, collection, or purchase of historical, ethnological, or archaeological specimens or artifacts is prohibited.
- Permittees shall maintain their use areas in a neat and sanitary condition. Latrines must be located at least 150 feet from springs, lakes, and streams. All property of the permittee except for cabins and tent frames is to be removed from Refuge lands upon completion of permitted activities.
- The construction of landing strips or pads is prohibited. Incidental hand removal of rocks and other minor obstructions may be permitted.
- The use of off-road vehicles (except snowmobiles with adequate snow cover) is prohibited unless specifically authorized in writing in this permit.
- The operation of aircraft at altitudes and in flight paths resulting in the herding, harassment, hazing, or driving of wildlife is prohibited. It is recommended that all

aircraft, except for takeoff and landing, maintain a minimum altitude of 2,000 feet above ground level.

- Unauthorized fuel caches are prohibited. Fuel storage, if any, will be in compliance with regional Service fuel storage policy.

#### Refuge Conditions

- Visitors will be required to comply with any temporary restrictions, emergency orders or other types of regulatory actions promulgated by the Refuge Manager to prevent resource problems or conflicts, in cases of emergency, public safety, or unusual resource problems.
- The use of Native or State lands that have been conveyed (patented) is not authorized by this permit.
- Use of Native or State lands that have been selected but not yet conveyed is prohibited unless a letter of concurrence is submitted to the Refuge Manager prior to beginning any activities allowed by this permit.
- A copy of this special use permit must be in the party leader's possession at all times while exercising the privileges of the permit.
- Cabins on Refuge lands shall not be used by the permittee without the permission of the Refuge Manager except in cases of dire emergency for survival purposes.
- Food or garbage attractive to bears or other wildlife will be immediately disposed of. No attractive nuisance for bears or other wildlife shall be created by food storage, improper disposal of garbage (includes of burying of garbage), fish smoking, salting, drying, or other uses.
- Combustibles (paper, wood, etc.) may be burned, but all other debris, including cans, bottles, fuel containers, and any other noncombustible material shall be removed and disposed of off Refuge when departing camps.
- Reburial of repatriated human remains will take place near the place of discovery of such remains and/or near the place of their original burial.
- The permittee or permittees' representatives will make the smallest possible excavation, using only hand tools.
- The Global Positioning System (GPS) coordinates and a list of the contents of the burial site will be filed at Refuge headquarters and with the Regional Historic Preservation Officer within 30 days of burial.
- Remains shall be buried with a modern object (e.g., coin, button, etc.—with date) to indicate that it is a historical reburial.
- The discharge of firearms is prohibited, except in conjunction with authorized hunting seasons or for protection of life or property.

#### **Justification:**

The proposed use is limited and short-term and thus will result in minimal impact to refuge resources. This use is necessary for the refuge to comply with the Native American Graves

Protection and Repatriation Act of 1990. It will not interfere with nor detract from the National Wildlife Refuge System mission or the purposes of the refuge.

**Supporting Documents:**

U.S. Fish and Wildlife Service (USFWS). 1987. Kanuti National Wildlife Refuge Final Comprehensive Conservation Plan, Wilderness Review, and Environmental Impact Statement. U.S. Fish and Wildlife Service, Anchorage, Alaska 326 pp.

U.S. Fish and Wildlife Service, 1994. Native American Policy. U.S. Fish and Wildlife Service National Policy Issuance #94-10 and appendix. Washington, D.C. 13 pages, available at [http://policy.fws.gov/npi94\\_10.html](http://policy.fws.gov/npi94_10.html).

U.S. Fish and Wildlife Service. 2007. Draft Revised Comprehensive Conservation Plan and Environmental Assessment Kanuti National Wildlife Refuge . U.S. Fish and Wildlife Service. Anchorage, Alaska.

**Refuge Determination:**

Refuge Manager/

Project Leader Approval:  /s/ Mike Spindler 8/4/2008  
(Signature) (Date)

**Concurrence:**

Acting Regional Chief,

National Wildlife Refuge System:  /s/ Mike Boylan 8/12/2008  
(Signature) (Date)

**Mandatory 10-Year Re-evaluation Date:** 2018

**NEPA Compliance for Refuge Use Decision**

- Categorical Exclusion without Environmental Action Memorandum
- Categorical Exclusions and Environmental Action Memorandum
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision