

Appendix D
Koyukuk/Nowitna/Northern Unit Innoko
National Wildlife Refuges

Compatibility Determinations

Prepared 2009 with revision of Refuge
Comprehensive Conservation Plan

Compatibility Determinations

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Compatibility Determination

Use: Alaska Department of Fish and Game Management and Public Safety Wildlife Enforcement Activities

Primary Use: Uses (other) - State of Alaska management and law enforcement 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, cross-country skiing, hiking and backpacking, wildlife photography, videography and audio recording, snorkeling and scuba diving, snowshoeing, research, scientific collecting, surveys, and wildlife observation.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity. including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 Public Safety wildlife enforcement officers 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 law enforcement activities conducted by Alaska wildlife enforcement officers. 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. Potential lodging and facilities include tents, tent frames, tent platforms, weather ports, 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 Departments of Fish and Game and Public Safety 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.

Mandatory 10-Year Re-evaluation Date: 2019

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 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, hiking and backpacking, snowshoeing, wildlife photography and videography, and wildlife observation.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 the Refuge for big-game guided hunting. The compatibility of recreational hunting on the Refuge is evaluated in a separate compatibility determination. Koyukuk/Nowitna Refuge has eight exclusive commercial big-game guiding areas. These areas are awarded to five guides currently.

The 2004 Prospectus, which prohibits the use of off-road vehicles by big-game hunting guides and their clients on the Koyukuk/Nowitna Refuge, 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.”

Koyukuk/Nowitna Refuge is located within State of Alaska Game Management Units (GMU) 21B, 21D, and 24D. Moose and black and brown bear are available to hunt.

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 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. 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 weather ports; 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). Big-game guides are required to comply with all applicable State and federal laws and regulations, including obtaining required State and federal permits/authorizations related to their guiding activities.

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 Koyukuk/Nowitna 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, weather ports, and caches. The use of off-road vehicles by big-game hunting guides and their clients is prohibited on the Koyukuk/Nowitna Refuge.

This is an existing activity that supports wildlife-dependent priority public uses. Activities would occur mainly on the Koyukuk and Nowitna rivers in the Nulato Hills 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 and 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 and 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 10 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. An administrative fee 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. 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 river 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.

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, or by motor boat, or by floating into the Refuge. Landings on vegetated lowland tundra and disturbance to vegetation would be limited under the terms of the special use permit. The introduction of invasive species carried on boats and aircraft floats could affect refuge resources; although it is not known to have occurred via this transmission method within Koyukuk/Nowitna Refuge to date, guides and refuge staff must be vigilant to prevent such occurrences. In addition, frequent motorboat or aircraft traffic could impact nesting, molting or staging birds (Bouffard 1982, Miller 1994, 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. The use of cabins in association with commercial guiding would be authorized in accordance with 50 Code of Federal Regulations 36.33.

Public Review and Comment:

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

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 commercially guided recreational hunting services. Each guide's operating plan is incorporated into the special use permit and contains details about the operation. Site-specific special use conditions related to maintenance of defensible space will be incorporated into permits on a case-by-case basis. Following are typical special use permit stipulations, some of which are necessary for compatibility. These stipulations will be updated to comply with the final revised Koyukuk/Nowitna National Wildlife Refuge Comprehensive Conservation Plan.

Continuing law enforcement and administrative monitoring of permittees will be carried out to ensure compliance with the terms of the special use permit.

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 tress and brush may be used for firewood. Standing dead trees 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 will take no intentional 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.
- To minimize the potential for conflicts with subsistence users, the permittee must review the Koyukuk/Nowitna Refuge land status maps (available from the Galena office) to ascertain the location of selected and conveyed lands within refuge boundaries.
- 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 Koyukuk/Nowitna 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 the Refuge. These services support not only hunting, but also other activities, including wildlife observation and photography; these are three of the

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 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, swimming and beach use, wildlife photography and videography, and wildlife observation.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity. including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl

and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 Koyukuk/Nowitna Refuge for commercially guided recreational fishing. The original compatibility determination for commercially guided recreational fishing was made in 1992, 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 Koyukuk/Nowitna Refuge is evaluated in a separate compatibility determination. Commercial fishing guides could target northern pike plus, two species of Pacific salmon, sheefish and whitefish that occur within Koyukuk/Nowitna 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 two commercial fishing guides operating on Koyukuk/Nowitna Refuge. Guided fishing also has taken place ancillary to guided hunting and commercially guided wildlife observation tours, and it is anticipated that this use may increase in the future.

Means of authorized access for commercially guided fishing could include fixed-wing airplanes, motorboats, non-motorized boats, and hiking. Guided recreational fishing occur spring through fall. Recreational fishing is managed under State of Alaska fishing regulations. Of the major rivers on the Refuge, all could be classified as having good recreational fishing opportunities, based on reasonable accessibility by floatplane 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.

Recreational fishing guides under permit from the Refuge may operate from a temporary camp on a river or lake or from a floating base. 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. Field work associated with administering the program primarily involves monitoring permittees' compliance with the terms of the permits and resource law enforcement patrols. Estimated staff time to annually administer and monitor these permits is two weeks. An administrative fee 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. The Refuge's Fisheries Management Plans (USFWS 1991, 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 Plans, the Refuge continues to work with the Fairbanks Fish and Wildlife Field Office to implement inventories and studies in the plans and to conduct other research aimed at understanding fish populations on the Refuge. Guided recreational harvests are monitored closely to protect fish, which are also an extremely important subsistence resource to people living near the Refuge.

According to the State of Alaska, "salmon stocks have displayed the normal variation of abundance expected in wild salmon, with some years having reduced returns and others displaying high productivity. In response to the variation of abundance, State and federal fishery management may be adjusted to allow increased or reduced harvest, as appropriate. Currently, there are no indications that recreational fishing is not sustainable (State of Alaska 2008)."

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 by boats on the same rivers. Landings on vegetated lowland tundra and disturbance to vegetation would be limited under the terms of the special use permit. The introduction of invasive species carried on aircraft floats and boat hulls could affect refuge resources, although it is not known to have occurred via this transmission method within the 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.

Compliance with regulations and permit conditions will be routinely checked by officers. Refuge officers and State wildlife officers would routinely patrol the Refuge during hunting seasons. The use of cabins in association with commercial guiding would be authorized in accordance with 50 Code of Federal Regulations 36.33.

Public Review and Comment:

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

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 commercially guided recreational fishing services. Site-specific special use conditions related to maintenance of defensible space will be incorporated into permits on a case-by-case basis. Following are typical special use permit stipulations, some of which are necessary for compatibility. These stipulations will be updated to comply with the final revised Koyukuk/Nowitna National Wildlife Refuge Comprehensive Conservation Plan.

Continuing law enforcement and administrative monitoring of permittees will be carried out to ensure compliance with the terms of the special use permit.

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.

Appendix D: Compatibility Determinations

- 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, and 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 therefuge. 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 and is prohibited from subcontracting clients with any other guide.
- The permittee will take no intentional 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. To minimize the potential for conflicts with subsistence users the permittee must review the Koyukuk/Nowitna National Wildlife Refuge land status maps (available from the Galena office) to ascertain the location of selected and conveyed lands within refuge boundaries.
- 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. 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 participate, not comfortable with participating, 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:

Alaska, State of 2008. Koyukuk-Nowitna-Northern Innoko Refuges. Internal Review Draft Compatibility Determinations. State of Alaska Comments – 08-14-08.

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. Koyukuk and Nowitna Comprehensive Conservation Plans 1987, Wilderness Review, and Environmental Impact Statements. U.S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement and Wilderness Review for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement, Wilderness Review, and Wild River Plan for the Nowitna National Wildlife Refuge. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U. S. Fish and Wildlife Service. 1991. Fisheries Management Plan for the Nowitna National Wildlife Refuge. U.S. Fish and Wildlife Service, Galena and Fairbanks, Alaska.

U. S. Fish and Wildlife Service. 1993. Fisheries Management Plan for the Koyukuk National Wildlife Refuge and Northern Unit of Innoko National Wildlife Refuge. U.S. Fish and Wildlife Service, Galena and Fairbanks, Alaska.

U.S. Fish and Wildlife Service. 2008. Draft Revised Comprehensive Conservation Plan and Environmental Assessment for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. 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.

Appendix D: Compatibility Determinations

Refuge Determination:

Refuge Manager/
Project Leader Approval: _____ /signed/ Kenton Moos 4/17/2009
(Signature) (Date)

Concurrence:

Regional Chief
National Wildlife
Refuge System: _____ /signed/ Todd Logan 4/17/2009
(Signature) (Date)

Mandatory 10-Year Re-evaluation Date (for allowed uses only): 2019

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: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl

and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 Koyukuk/Nowitna Refuge for all types of guided recreation (except for hunting and fishing). The original compatibility determination for guided recreation was made in 1992, subject to reasonable regulation and special conditions provided with a special use permit. Historic activity in this use has been minimal. Since 1980, a limited number permits have been issued for commercial recreation guiding businesses, although there has been permits issued, and there were many years in which no permits were issued. It has been a number of years since the last commercially guided recreation tour services have operated on the Refuge, however, it is anticipated that these uses will occur in the future.

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 Koyukuk/Nowitna 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. Field work 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 Koyukuk/Nowitna 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 because access to the Refuge would be primarily by landing float-equipped aircraft on lakes and rivers or by boats on the same rivers. Landings on vegetated lowland tundra and disturbance to vegetation would be limited under the stipulations of the special use permit. The introduction of invasive species carried on aircraft floats and boat hulls could affect refuge resources, although it is not known to have occurred via this transmission method within the 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.

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. The use of cabins in association with commercial guiding would be authorized in accordance with 50 Code of Federal Regulations 36.33.

Public Review and Comment:

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

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 guided recreational activities. Site-specific special use conditions related to maintenance of defensible space will be incorporated into permits on a case-by-case basis. Following are typical special use permit 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 FONSI for the final revised Koyukuk/Nowitna National Wildlife Refuge Comprehensive Conservation Plan. Management direction for monitoring public use will be provided in the revision of the 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.
- 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, and 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 and is prohibited from subcontracting clients with any other guide.
- The permittee will take no intentional 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. To minimize the potential for conflicts with subsistence users the permittee must review the Koyukuk/Nowitna National Wildlife Refuge land status maps (available from the Galena office) to ascertain the location of selected and conveyed lands within refuge boundaries.
- 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 Koyukuk/Nowitna 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. These visitor 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.

Through required client use reports, guided recreational activities can provide an important source of information about 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 guided recreational 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:

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.

Compatibility Determination

Use: Commercial Transporter Services

Primary Use: Transport of hunters, researchers, fisherman, and other refuge users.

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, research, scientific collecting, surveys, and wildlife observation.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity. including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl

and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 Koyukuk/Nowitna Refuge for commercial transporter services. These services allow the public to hunt, fish or enjoy other outdoor activities on the remote and largely inaccessible Koyukuk/Nowitna Refuge. Commercial transporter use was originally found to be compatible in 1987 during the development of the original Comprehensive Conservation Plans for Koyukuk and Nowitna refuges. Commercial transporter use was again determined to be compatible in 1992, subject to reasonable regulation. Since establishment, Koyukuk/Nowitna Refuge has issued 4-10 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 8–10 commercial transporters permitted to operate on the refuge. These transporters have provided services to an average of 35–45 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 7–10 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 Koyukuk/Nowitna Refuge is located within State of Alaska Game Management Unit (GMU) 21D, 21B, and 24D. Moose, some caribou, and black and brown bear are available, and wolves and wolverine may be taken incidentally within the Refuge. The Koyukuk Controlled Use Area (KCUA), which includes most of the Koyukuk Refuge, was established by the State of Alaska in 1979. 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. State of Alaska hunting regulations (5AAC) describe State seasons, bag limits, and regulations pertaining to hunting, fishing and trapping.

Commercial transporters provide a service that most non-local visitors require to access the Refuge. Most commercial transporting activities on Koyukuk/Nowitna 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, 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 Koyukuk/Nowitna Refuge. There is 30-day waiting period for all commercial transporters requesting a permit. This action prohibits an operator from accepting a number of clients at the last moment and just dropping clients off, producing an overcrowded situation and resulting in a poor quality experience for the client. 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 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 three weeks of staff time for permit issuance and/or 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 Koyukuk/Nowitna 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 major refuge river systems 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 is 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. The refuge staff was a very active cooperator in the completion of the State's Koyukuk River Moose Management Plan, which was designed to resolve some of these issues.

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 by boats on the same rivers. Landings on vegetated lowland tundra and disturbance to vegetation would be limited under the stipulations of the special use permit. The introduction of invasive species carried on aircraft floats and boat hulls could affect refuge resources, although it is not known to have occurred via this transmission method within the 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.

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 commercial transporter services. Site-specific special use conditions related to maintenance of defensible space will be incorporated into permits on a case-by-case basis. Following are typical special use permit 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 to minimize impacts on refuge lands and resources. These stipulations will be updated to comply with the FONSI for the final revised Koyukuk/Nowitna 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, and 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 and all boats will be operated safely in accordance with 50 CFR, subpart C, 27.32.
- The permittee may not sublet any part of the authorized use area and is prohibited from subcontracting clients with any other transporter.
- The permittee will take no intentional 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. To minimize potential for conflicts with subsistence users, the permit holder must: a) review Koyukuk/Nowitna National Wildlife Refuge land status maps (available from the Galena office) to ascertain location of the Koyukuk Controlled Use Area (when transporting moose hunters) and the location of selected and conveyed lands within the refuge boundary and b) advise clients that campsites may not be located on conveyed lands without permission of land owners. A copy of this special use permit must be in the airplane at all times while exercising the privileges of the permit.

Justification:

Commercial transporting has been found to be compatible with the purposes of Koyukuk/Nowitna 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. These visitor 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. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement and Wilderness Review for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement, Wilderness Review, and Wild River Plan for the Nowitna National Wildlife Refuge. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 2008. Draft Revised Comprehensive Conservation Plan and Environmental Assessment for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. 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: _____ /signed/ Kenton Moos 4/17/2009
(Signature) (Date)

Concurrence:

Regional Chief
National Wildlife
Refuge System: _____ /signed/ Todd Logan 4/17/2009
(Signature) (Date)

Mandatory 10-year Re-evaluation Date (for allowed uses only): 2019

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: 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: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within

the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 Plans (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. Routine 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 Koyukuk/Nowitna 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, 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.

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 most helicopter landings on the Refuge. Site-specific special use conditions related to maintenance of defensible space will be incorporated into permits on a case-by-case basis. Following are typical special use permit stipulations, some of which are necessary for compatibility. These stipulations will be updated to comply with the final revised Koyukuk/Nowitna National Wildlife Refuge Comprehensive Conservation Plan.

Monitoring of permittees will be carried out to ensure compliance with the terms of the special use permits. Project-specific stipulations may be included in individual permits.

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, and 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.
- The permittee will take no intentional 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. To minimize the potential for conflicts with subsistence users the permittee must review the Koyukuk/Nowitna National Wildlife Refuge land status maps (available from the Galena office) to ascertain the location of selected and conveyed lands within refuge boundaries.
- Encourage 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(4), helicopter use on national wildlife refuges requires a special use permit. The 1987 Comprehensive Conservation Plan (page 142, Access and Transportation) states, "The use of helicopters will be permitted on the refuge only with the issuance of 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

Compatibility Determination

Use: Native allotment surveys

Primary Use: Uses (other) – BLM allotment surveys

Supporting Uses: Boating (motorized and non-motorized), fixed-wing aircraft landings, helicopter landings, snowmobiling, natural resource gathering, camping, cross-country skiing, hiking and backpacking, wildlife photography, videography, snowshoeing, surveys, and wildlife observation.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

Appendix D: Compatibility Determinations

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 survey activities conducted by the Bureau of Land Management that are not cooperative projects with the Service. Surveyors (either contractors or BLM staff) are transported to remote sites within Koyukuk/Nowitna Refuge by helicopter, floatplane, or boat. Land surveys are conducted, usually in less than one day. Special restrictions may apply to helicopter use and would be addressed in the conditions of the Special Use Permit.

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 BLM personnel regarding ongoing activities. Field work associated with administering the program primarily involves accompanying the BLM personnel during survey activities and assisting with logistical issues.

Anticipated Impacts of the Use:

Because BLM personnel are trained professionals and are required by law to conduct Native allotment determinations, the Service anticipates that little to no negative impacts on wildlife resources, on other resources within the Refuge (such as water quality, soil, and vegetation), or on visitors will occur. Access requests via helicopter will be considered on a case-by-case basis.

Public Review and Comment:

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

Refuge Determination (check one below):

Use is Not Compatible
 Use is Compatible

Justification:

The Bureau of Land Management has been tasked by regulation with the conveyance on selected lands to individual Native allotments, local tribal corporations, as well as regional Native corporations. It is the policy of the Service to cooperate and assist with survey requests in a timely manner. If access via helicopters is requested, consideration is taken on a case by case basis to ensure the use is compatible with the purposes of the Refuge. (See compatibility determination for helicopter use.) After fully considering the impacts of these activities, as described previously in the "Anticipated Impacts" section of this document, it is my determination that Bureau of Land Management survey 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.

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, dog sledding and skijoring, snowmobiling, hiking and backpacking, pets, videography and audio recording, snorkeling and scuba diving, snowshoeing, swimming and beach use, and firewood cutting.

Supporting and Incidental Uses: None

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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, and other general outdoor recreation when the uses are not associated with one of the other uses evaluated elsewhere for compatibility. Most of these uses could occur year-round. 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 Plans in 1987 and were again determined to be compatible, subject to reasonable regulation in 1992.

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 the revision of the Refuge's Comprehensive Conservation Plan.

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.

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 Koyukuk/Nowitna Refuge 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

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 (human-powered), boating (motorized), camping, hiking and backpacking, photography, videography, audio recording (non wildlife-dependent, recreational—other), fixed-wing aircraft, and indigenous cemetery.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity. including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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—if requested—provide for the repatriation of the remains. With this in mind, the Refuge has prepared this compatibility determination to cover anticipated 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, dated button) to indicate it is a historical reburial.

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.

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 reburial of archaeological human remains. Site-specific special use conditions related to maintenance of defensible space will be incorporated into permits on a case-by-case basis. Following are typical special use permit 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 may be updated to reflect changes, if any, in the final revised Comprehensive Conservation Plan and 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.
- The use of helicopters is prohibited.
- 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 from the State, village or Native corporation 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, 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.

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement and Wilderness Review for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement, Wilderness Review, and Wild River Plan for the Nowitna National Wildlife Refuge. U. S. Fish and Wildlife Service, Anchorage, Alaska.

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, snowmobiling, hiking and backpacking, pets, wildlife photography, videography and audio recording, swimming and beach use, and wildlife observation.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 Plans (1987) and was again determined to be compatible in 1992. 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, but hunting for black bear, grizzly bear, wolf, 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. Current means 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.

Koyukuk/Nowitna Refuge is located within State of Alaska Game Management Units (GMU) 21 and 24. Moose, and black and brown bear, are the primary species sought after by hunters, but wolves and wolverine may be taken incidentally on the Refuge. The Koyukuk Controlled Use Area (KCUA), which includes most of the Koyukuk Refuge, was established by the State of Alaska in 1979. 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.) State of Alaska hunting regulations (5AAC) describe State seasons, bag limits, and regulations pertaining to hunting, fishing and trapping.

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 many rivers and sloughs within the refuge. Recreational hunters may, in some cases, compete with subsistence users for the limited number of game animals in these corridors. Air taxi operators are discouraged from dropping hunters in areas used by subsistence hunters. Most subsistence hunting occurs in areas of the Refuge where refuge and private lands are intermingled. Boundaries of private lands can be difficult to distinguish and inadvertent trespass could occur because non-local hunters would not be aware of the mixed ownership. 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 preventing 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. 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, 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 limited or no known introductions have occurred on the 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.

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.

Management direction provided in the revised refuge Comprehensive 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 within the boundary of the Koyukuk/Nowitna Refuges, except private inholdings, are open to general public access. In the Koyukuk Controlled Use Area, use of aircraft in the support of moose hunting is not allowed. Aircraft access in support of moose hunting is allowed in all other areas of the Refuge. 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 law states that, “when managed in accordance with principles of sound fish and wildlife management, administration of this use has been and is expected to continue to be generally compatible and that 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 hunting.

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 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.

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. Final Comprehensive Conservation Plan, Environmental Impact Statement and Wilderness Review for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement, Wilderness Review, and Wild River Plan for the Nowitna National Wildlife Refuge. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 2008. Draft Revised Comprehensive Conservation Plan and Environmental Assessment for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. 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.

Appendix D: Compatibility Determinations

Refuge Determination:

Refuge Manager/
Project Leader Approval: _____ /signed/ Kenton Moos 4/17/2009
(Signature) (Date)

Concurrence:

Regional Chief
National Wildlife
Refuge System: _____ /signed/ Todd Logan 4/17/2009
(Signature) (Date)

Mandatory 15-Year Re-evaluation Date (for priority public uses): 2024

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, and snowmobiling.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 evaluates the compatibility of recreational fishing as a use on Koyukuk/Nowitna Refuge. Recreational fishing was originally found to be compatible in the original refuge comprehensive conservation plans (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. Recreational fishing occurs spring through winter and is managed under State of Alaska fishing regulations (5AAC). The major rivers on the Refuge have good recreational fishing opportunities, based on reasonable accessibility by floatplane or boat, and sustainable populations of anadromous and/or resident fish. Although all these drainages provide opportunities for day use and overnight primitive camping, distance and cost of traveling to these areas for day-use fishing is prohibitive for most visitors. All drainages provide opportunities for fishing; however, the Nowitna has significant northern pike and sheefish populations, in addition to salmon, that would attract recreational fishing. The Kaiyuh Flats (Northern Unit of Innoko) also boasts large pike and is a popular fishing area. Arctic grayling, whitefish, and Dolly Varden are available in waters within the Refuge. Recreational fishing patterns are estimated primarily through direct observation by refuge staff and reports from transporters and from local residents. Use is concentrated in the summer months on rivers when flows are amenable to river travel.

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 and 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 the Refuge. It is estimated that less than two weeks of staff time is required to manage this use on Koyukuk/Nowitna Refuge.

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. [Recent, 1998 to present, Chinook salmon returns have been characterized as poor, and managers (State and federal) may restrict recreational use of this resources. Chum salmon experienced a worrisome decline in the late 1990s, however, recent run strengths indicate that a recreational fishery on chum salmon currently is sustainable.]

Based on guidance provided in the Koyukuk and Nowitna Fisheries Management Plans (USFWS 1991, USFWS 1993), refuge staff members continue to work with the Fairbanks Fish and Wildlife Field Office and Alaska Department of Fish and Game to implement inventories and studies in the Plan and to conduct other research aimed at understanding fish populations and key habitats on Koyukuk/Nowitna Refuge. At

current levels, recreational fishing harvests require little monitoring, and there are no anticipated deleterious effects on fish habitat. There are presently two sport fish guides utilizing the Koyukuk/Nowitna Refuge, targeting primarily pike. 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 introductions are not known to have occurred via this mode of transportation on the Refuge to date.

Public Review and Comment:

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

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.

The Fisheries Management Plans for Koyukuk and Nowitna Refuges (USFWS 1991, USFWS 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.

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 Alaska Department of Fish and Game 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

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, scientific collecting, and wildlife observation.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl

and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 1992. Scientific research has been and would continue to be a common activity within Koyukuk/Nowitna 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, entomology, 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.

Most activities occur during spring, summer, and fall, but winter research and surveys are also possible. Since establishment, Koyukuk/Nowitna Refuge has issued numerous scientific research permits annually. Permits have been issued primarily to universities for academic research, to other federal agencies, such as U.S. Geological Survey and Bureau of Land Management, and to State agencies.

Scientific research may employ a wide spectrum of methods from many disciplines of science. Researchers would be required 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. Researchers would also be encouraged to communicate research activities and findings to refuge staff, communities near the Refuge and the public.

Researchers will be required to minimize impacts on refuge resources, minimize effects on other users of refuge lands, and minimize negative encounters with wildlife. When justified to collect important data not otherwise available, lethal sampling may be allowed; all applicable permits will be acquired. 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, weather ports, removable floors, existing administrative cabins, satellite communication systems, human waste management, and temporary fuel and supply caches. Any scientific research activity that 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.

Most scientific research would require a refuge special use permit; the permit would contain stipulations to ensure compatibility. When requested, the permittee would provide logistical support for site visits. Logistical support may include transportation from Galena 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 those authorized by ANILCA 1110(a), such as fixed-wing aircraft, motor boats, and snowmobiles (providing there is adequate snow cover), and non-motorized surface transportation such as canoeing, hiking, snowshoeing, 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. Helicopter use in the Koyukuk Wilderness will be required to meet the minimum tool requirement through the “Minimum Requirements Decision Guide” process.

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 two weeks 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 limited or no known introductions have occurred on the Refuge to date, refuge staff will be vigilant to prevent such occurrences.

Frequency of this activity may rise in the next 10 years as interest in Arctic and subarctic 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 10 years, are minimal.

Public Review and Comment:

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

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 most scientific research on Koyukuk/Nowitna Refuge. Site-specific special use conditions related to maintenance of defensible space will be incorporated into permits on a case-by-case basis. Following are typical special use permit stipulations, some of which are necessary for compatibility. These stipulations will be updated to comply with the final revised Koyukuk/Nowitna National Wildlife Refuge Comprehensive Conservation Plan.

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, to minimize impacts on lands and resources within the Refuge.

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, and 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, within Wilderness, etc.

Justification:

Section 101 of ANILCA states, in part, the intent of Congress to maintain opportunities for scientific research on conservation system units, including national wildlife refuges. The U.S. Fish and Wildlife Service 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. 1982. Refuge Manual (4 RM 6.1) Research and Management Studies. U.S. Fish and Wildlife Service, Washington, D.C.

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement and Wilderness Review for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement, Wilderness Review, and Wild River Plan for the Nowitna National Wildlife Refuge. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 2008. Draft Revised Comprehensive Conservation Plan and Environmental Assessment for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. U. S. Fish and Wildlife Service, Anchorage, Alaska.

Refuge Determination:

Refuge Manager/
Project Leader Approval: _____ /signed/ Kenton Moos 4/17/2009
(Signature) (Date)

Concurrence:

Regional Chief
National Wildlife
Refuge System: _____ /signed/ Todd Logan 4/17/2009
(Signature) (Date)

Mandatory 10-Year Re-evaluation Date (for allowed uses only): 2019

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 Activities

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

Supporting and Incidental Uses: Boating (motorized and non-motorized), snowmobiling, snowshoeing, firewood cutting, house log cutting, natural resource gathering, camping, cross-country skiing, dog sledding and skijoring, hiking and backpacking, fixed-wing aircraft landings, and swimming.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within

the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 the Koyukuk/Nowitna Refuges. Subsistence was originally found to be a compatible use during the development of the refuge Comprehensive Conservation Plans 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, house log cutting, berry picking, and gathering of other plant materials. Snowmobiles and motorboats are the primary means of surface transportation traditionally employed for such purposes, as allowed under ANILCA section 811. Subsistence has also been historically supported by the occasional use of airplanes for access to remote locations surrounding some communities.

Residents of the eight villages located within or near 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 in and around the Refuge are fish, moose, waterfowl and caribou. Black bear and small game, including grouse and snowshoe hare, beaver, and furbearers, are also important to local residents for food, fur, and traditional crafts. Berries, firewood, house logs, and other plant materials are also frequently gathered. A detailed description of subsistence uses and harvest can be found in chapter 3 of the Koyukuk/Nowitna Refuge Comprehensive Conservation Plan.

Trappers operate within the Refuge, harvesting marten, lynx, wolverine, fox, wolves, beaver, river otter, and other small furbearers. The sale of these furs provides supplemental income to residents depending on a subsistence lifestyle. 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 when 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 Fisheries and Game to ensure that harvest levels are sustainable. 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 the Koyukuk/Nowitna 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 fish and wildlife resources by overharvesting.

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 via this method, there are a limited number of invasive species on the Refuges. 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. Because of changes in off-road vehicle (ORV) use in recent years, additional ORV use may have to be addressed by restrictions to protect resources within the Refuge in the future. Refuge staff will monitor use levels to determine if intensity 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.

Refuge Determination (check one below):

- Use is not compatible
- Use is compatible

Stipulations Necessary to Ensure Compatibility:

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

Justification:

One of the purposes of Koyukuk/Nowitna Refuges 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. 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

Compatibility Determination

Use: Subsistence Cabins and Trapping Cabins

Primary Use: Subsistence cabins, trapping cabins, and temporary camps

Supporting and Incidental Uses: Trapping, boating (motorized and non-motorized), fixed-wing aircraft landings, hunting, natural resource gathering, snowmobiling, and firewood cutting.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 permits for 35 existing trapping and subsistence cabins and the potential for temporary camp permits. New trapping or subsistence cabin permits would require specific compatibility determinations. This use was originally found to be compatible in the Refuge Comprehensive Conservation Plan (1987). The refuge has issued special use permits to local resident for trapping/subsistence cabins. Many local rural residents conduct activities such as hunting, trapping, and fishing on refuge lands supported by cabins. Some of these cabins are located on private native allotments; others on Refuge lands.

Availability of Resources:

Adequate refuge personnel and base operational funds are available to manage subsistence and trapping cabin permits at current and projected levels. Administrative staff time primarily involves phone conversations, written correspondence, and issuing permits. Field work associated with administering the program primarily involves monitoring permittees' compliance with the terms of the permits and evaluating potential damage caused by wildfires. Estimated staff time to annually administer and monitor these permits is less than 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. 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.

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. Site-specific special use conditions related to maintenance of defensible space will be incorporated into permits on a case-by-case basis. Following are typical special use permit stipulations, some of which are necessary for compatibility. These stipulations will be updated to comply with the final revised Koyukuk/Nowitna National Wildlife Refuge Comprehensive Conservation Plan and if necessary, to comply with future step-down plans.

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 permit conditions to minimize impacts on lands and resources within the Refuge.

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, and 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 intentional 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. To minimize the potential for conflicts with subsistence users, the permittee must review the Koyukuk/Nowitna Refuge land status maps (available from the Galena office) to ascertain the location of selected and conveyed land within the Refuge boundaries.
- 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 and semi-permanent facilities to refuge resources and other refuge users were considered in detail during the permit application and renewal process. Regulations at 50 CFR 36.33 (d) state, 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 cabins 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 Koyukuk/Nowitna 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 affect 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 subsistence and trapping cabin use within the refuge

Appendix D: Compatibility Determinations

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. Final Comprehensive Conservation Plan, Environmental Impact Statement and Wilderness Review for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement, Wilderness Review, and Wild River Plan for the Nowitna National Wildlife Refuge. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 2008. Draft Revised Comprehensive Conservation Plan and Environmental Assessment for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. U. S. Fish and Wildlife Service, Anchorage, Alaska.

Refuge Determination:

Refuge Manager/
Project Leader Approval:

_____ /signed/ Kenton Moos _____ 4/17/2009
(Signature) (Date)

Concurrence:

Regional Chief
National Wildlife
Refuge System:

_____ /signed/ Todd Logan _____ 4/17/2009
(Signature) (Date)

Mandatory 10-Year Re-Evaluation Date: 2019

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: Subsistence Harvest of House Logs

Primary Use: Construction of homes or outlying cabins

Supporting and Incidental Uses: Boating (motorized and non-motorized), snowmobiling, camping, and firewood cutting.

Refuge Name: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 Koyukuk/Nowitna Refuge. Subsistence log cutting was originally found to be compatible in the Refuge Comprehensive Conservation Plans (1987) and was again determined to be compatible in 1992. 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 the eight communities within or near the refuge boundary have lifestyles and economies that depend on subsistence resources. 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. The Refuge has some historical data on the number of house logs or intensity of harvest for subsistence prior to or shortly after refuge establishment. Permits issued early in the history of the Refuge did not assign specific cutting areas. Refuge staff members have issued house log cutting permits since the Refuge was established. Most of the permits were to cut logs for personal residences in Galena. 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 40–100 logs. Occasionally, materials not suitable for house logs are salvaged for use as firewood. Each permit application is evaluated on its own merits prior to approval.

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 8–16 inches in diameter. Exceptional trees with diameters of 24–36 inches at breast height and 100 feet tall occur on floodplain islands that have not been burned for a long time. A study aimed at examining sustainability of white

spruce logging was conducted on the Nowitna Refuge, 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. Current permits assign cutting areas, and staff conducts 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.

Impacts to habitat caused by supporting 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 the Refuge will be minimized through special conditions limiting the number of trees that can be taken within 10 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 Koyukuk/Nowitna Refuge to date. 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.

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 some house log cutting. Site-specific special use conditions related to maintenance of defensible space will be incorporated into permits on a case-by-case basis. Following are typical special use permit stipulations, some of which are necessary for compatibility.

Continuing monitoring of permittees will be carried out to ensure compliance with the following conditions, which 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 FONSI for the final revised Koyukuk/Nowitna 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.).

Appendix D: Compatibility Determinations

- 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, and 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 Koyukuk/Nowitna 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 Koyukuk/Nowitna 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.

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

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement and Wilderness Review for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. U. S. Fish and Wildlife Service, Anchorage, Alaska.

U.S. Fish and Wildlife Service. 1987. Final Comprehensive Conservation Plan, Environmental Impact Statement, Wilderness Review, and Wild River Plan for the Nowitna National Wildlife Refuge. U. S. Fish and Wildlife Service, Anchorage, Alaska.

USFWS. 1992. Subsistence Management for Federal Public Lands in Alaska, Final Environmental Impact Statement, Record of Decision, April 2, 1992.

U.S. Fish and Wildlife Service. 2008. Draft Revised Comprehensive Conservation Plan and Environmental Assessment for the Koyukuk/Northern Unit Innoko/Nowitna National Wildlife Refuges. U. S. Fish and Wildlife Service, Anchorage, Alaska.

Appendix D: Compatibility Determinations

Refuge Determination:

Refuge Manager/
Project Leader Approval: _____ /signed/ Kenton Moos 4/17/2009
(Signature) (Date)

Concurrence:

Regional Chief
National Wildlife
Refuge System: _____ /signed/ Todd Logan 4/17/2009
(Signature) (Date)

Mandatory 10-year Re-evaluation Date (for allowed uses only): 2019

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: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 Koyukuk/Nowitna Refuge. Trapping was originally found to be a compatible use during preparation of the refuge Comprehensive Conservation Plans in 1987. Trapping was again determined to be compatible, subject to reasonable regulation in 1992. Wolves, fox, beaver, marten, lynx, snowshoe hares, wolverine, ermine, and river otters are regularly trapped on Koyukuk/Nowitna Refuge. Trapping occurs during winter on the refuge in accordance with State of Alaska trapping regulations and seasons (5 AAC). Trapping activity on the Refuge has generally been decreasing since the 1980s. Access to trapping areas is primarily by snowmachine. Currently, only a small number of traplines are active. By tradition, each trapline tends to be used by a particular family or clan in a village; different traplines 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 Koyukuk/Nowitna Refuge. A few days of staff time are required annually to survey and map traplines, 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 traplines on the 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.

Public Review and Comment:

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

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, and 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: Koyukuk and Northern Unit of Innoko/Nowitna National Wildlife Refuge

Establishment and Acquisition Authority:

Koyukuk/Nowitna National Wildlife Refuge was established on December 2, 1980, when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA). It includes Koyukuk National Wildlife Refuge, Nowitna National Wildlife Refuge, and the Northern Unit of Innoko National Wildlife Refuge.

Refuge Purposes:

Section 302(5) (B) of ANILCA states purposes for which the Koyukuk Refuge was established and shall be managed include (purposes ii–iv are the same for all three refuges):

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

[Koyukuk Wilderness] to secure an enduring resource of wilderness, to protect and preserve the wilderness character of the area as part of the National Wilderness Preservation System, and to administer for the use and enjoyment of the American people in a way that will leave it unimpaired for future use and enjoyment as wilderness.

Section 302(3) (B) of ANILCA states purposes for which the Innoko Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to waterfowl, peregrine falcons, other migratory birds, black bears, moose, furbearers, and other mammals and salmon;

Section 302(6) (B) of ANILCA states purposes for which the Nowitna Refuge was established and shall be managed include:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity, including but not limited to trumpeter swans, white-fronted geese, canvasbacks and other waterfowl

and migratory birds, moose, caribou, martens, wolverines and other furbearers, salmon, sheefish, and northern pike;

While not a refuge purpose, ANILCA designated the Nowitna River as a Wild and Scenic River within the refuge boundary. The Nowitna River is managed as a wild river because of its natural, free-flowing condition, its water quality, wildlife, geology, and primitive setting.

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 and videography, environmental education, and interpretation. These uses were found to be compatible under the original Refuge Comprehensive Conservation Plans in 1987 and were again determined to be compatible in 1992. 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, boating, 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 eight communities located within or near the Refuge 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.

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 Fairbanks and Galena. 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 refuges 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 Yukon, Koyukuk, Nowitna, and smaller tributaries of these 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 local villages emphasize "leave no trace" camping and hiking practices.

For commercial videography, administrative staff time would primarily involve issuing permits and recording activity data. Field work 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 the environmental assessment for the draft revised Koyukuk/Nowitna 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, or in snowmobile sleds or dog sleds, could affect refuge resources, although limited or no known invasive species introductions are known to have occurred on the 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.

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 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.

Justification:

All refuge lands in the Koyukuk/Nowitna Refuge are open to public access unless specifically closed. The proposed uses represent four of the six priority public uses identified in the National Wildlife Refuge Administration Act (as amended). The law calls for the Service to ensure that opportunities are provided for these uses and requires that they receive enhanced consideration over other public uses in planning and management. The Koyukuk/Nowitna Refuge provides ample opportunity to those seeking to view and photograph wildlife, and provides interpretive and educational experiences in nearby communities. This is in support of the Service's goals to educate and motivate future generations of people to support wildlife conservation. The current and projected amount of these activities has been found to have insignificant adverse physical and biological effects in the Draft Refuge Comprehensive Conservation Plan. After fully considering the impacts of these activities, as described previously in the "Anticipated Impacts" section of this document, it is my determination that wildlife observation, wildlife photography, environmental education, and interpretation 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.

