

## **COMPATIBILITY DETERMINATION**

**Use:** Scientific Research

**Supporting Uses:** The following activities are often done in support of or in conjunction with scientific research: audio recording; boating – electric, wind-driven, human-powered, and motorized; cabin use; camping; concession use; cross-country skiing; disease management; dog sledding & ski touring; fixed-wing aircraft use; fuel caches; helicopter use (case by case determination); hiking and backpacking; photography and videography; electronics use; scientific capture/release or collection – plants, fish, birds, mammals, insects, rocks, etc.; snowmobile use; snowshoeing; surveys – scientific inventory and monitoring; swimming and beach use; tree harvest – firewood; and wildlife observation.

**Refuge Name:** Yukon Flats National Wildlife Refuge, Fairbanks, Alaska

### **Establishing and Acquisition Authority**

In 1978, President Jimmy Carter established the 10.6 million-acre Yukon Flats National Wildlife Monument with Presidential Proclamation 4627. The monument was established from lands in the public domain. In 1980, the Alaska National Interest Lands Conservation Act (ANILCA) (Section 302) adjusted the boundary to 8.6 million acres, and established the Yukon Flats National Wildlife Refuge (Yukon Flats NWR) as part of the National Wildlife Refuge System (Refuge System).

### **Refuge Purposes**

ANILCA sets out the primary purposes for each refuge in Alaska. The purposes of the Yukon Flats NWR are described in Section 302(9) (B), and are as follows:

- to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, canvasbacks and other migratory birds, Dall sheep, bears, moose, wolves, wolverines and other furbearers, caribou (including participation in coordinated ecological studies and management of the Porcupine and Fortymile caribou herds) and salmon
- to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats
- to provide, in a manner consistent with the purposes set forth above, the opportunity for continued subsistence uses by local residents
- to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth above, water quality and necessary water quantity within the refuge.

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

The mission of the 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

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benefit of present and future generations of Americans” (National Wildlife Refuge System Administration Act of 1966, as amended [16 USC 668dd-668ee]).

### **Description of Use**

This compatibility determination is a re-evaluation of an existing public use.

Yukon Flats Refuge is composed of various terrestrial ecoregions and freshwater aquatic habitats, and scientific research may occur in all of these areas. Scientific research has been and would continue to be a common activity. These activities would occur at all times of the year, but mostly in the spring, summer and fall. A partial list of research categories includes biology, ecology, botany, geology, climatology, paleontology, archaeology, paleoecology, sociology, hydrology, and anthropology.

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

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

This compatibility determination addresses the full spectrum of uses normally associated with the scientific research of fish, wildlife, habitat, and other refuge resources. It includes all means of access, lodging, facilities, and other elements that would be included in a typical 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 independent research conducted by all agencies or entities other than the Service. Scientific research that is part of a

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collaborative effort or part of a cooperative effort with the U.S. Fish and Wildlife Service is not subject to a formal compatibility determination.<sup>1</sup>

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

Specific means of access for all areas on the refuge will be authorized in each special use permit. Common methods of access for research include motor boats, human-powered boats, fixed-wing aircraft, helicopters, dog sleds, hiking, snowshoeing, snowmachines, and cross-country skiing. Requests for access by helicopter are anticipated, and would be considered on a case by case basis with regard to refuge purposes.

### **Availability of Resources**

Adequate refuge personnel and base operational funds are available to manage research activities at existing (generally no more than two requests per year) levels. Staff time (not more than five days) primarily involves phone conversations, written correspondence, proposal review, permit issuance, and providing comments on data analysis and reports. Field work associated with administering the program primarily involves monitoring researchers' compliance with the terms of the permit as well as impacts to refuge resources.

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

Because of the refuge's administrative oversight of this activity, i.e., issuance of special use permits to allow scientific research, knowledge of this activity at current levels is very good. This activity at current levels – in accordance with established Federal regulations – is not having significant long-term impacts to natural resources. Factors such as focal area(s) or species, number of researchers, transportation modes, number of aircraft and anticipated amount of aircraft 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. Frequency of this activity may rise in the next ten years as interest in arctic and sub-arctic ecosystems and global climate change increases. This could lead to more aircraft landings, natural resource collection, and conflicts with refuge visitors. In

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

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our opinion, impacts to natural resources and refuge visitors from this activity at present levels as well as the levels expected to occur in the next ten years are minimal.

### **Public Review and Comment**

The refuge considers the proposed use to be a minor use with history of minimal impact. Public involvement for this document includes: notification to interested parties, a public notice in the *Fairbanks Daily News Miner* newspaper, and a thirty-day public comment period. This draft compatibility determination is available for review on the Service's Alaska Region compatibility determination Web site, <http://alaska.fws.gov/nwr/planning/index.htm>

Copies may be mailed or e-mailed upon request. Comments must be received by the refuge headquarters within the thirty-day comment period to receive timely consideration.

U.S. Fish and Wildlife Service  
Yukon Flats National Wildlife Refuge  
Attn: Compatibility Determination Comments  
101 12<sup>th</sup> Avenue, Room 264, Box 14  
Fairbanks, Alaska 99701  
(907)456-0440  
(907)456-0447 (fax)  
[yukonflats@fws.gov](mailto:yukonflats@fws.gov)

If you e-mail comments, please place the words, "Research Comments," in the subject line and your comments in the body of the text. Please do not include attachments because they will not be opened due to the potential of computer viruses.

The period of public review and comment began 27 May 2005, and will end on 27 June 2005.

The following methods are being used to solicit public review and comment:

- Posted notice at refuge headquarters
- Public notice in newspaper with wide local distribution
- Letter to adjacent landowners and community governments
- Letter to other interested persons

### **Determination**

\_\_\_\_\_ Use is Not Compatible

\_\_\_\_\_ Use is Compatible

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

Refuge staff will monitor all research being conducted on the refuge. These monitoring results will determine what additional management actions, if any, are needed to ensure that research activities remain compatible with refuge purposes. Monitoring all authorized research activities will ensure compliance with the specific terms and conditions tailored for each special use permit, as well as with the following general conditions that are incorporated into all scientific research permits to minimize impacts on refuge lands and resources and conflicts with refuge visitors.

- Failure to abide by any part of this special use permit; violation of any refuge related provision in Titles 43 (Part 36) or 50 Code of Federal Regulations (CFR) (sub-chapters B and C); or violation of any pertinent state regulation (e.g., fish or game) 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 Service. This provision applies to all persons working under the authority of this permit. Appeals of decisions relative to permits are handled in accordance with 50 CFR 36.41.
- The permittee is responsible for ensuring that all employees, party members, aircraft pilots and 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 due to high fire danger, flooding, unusual resource problems, or other significant problems or emergencies.
- 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.
- Before 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 assistants and helpers; and (4) any changes to information provided in the original permit application.
- In accordance with the Archaeological Resources Protection Act (16 USC 470aa), the removal, excavation, disturbance, collection, or purchase of historical, recent, ethnological, or archaeological specimens or artifacts is prohibited.

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- The use of off-road vehicles (except snow machines) is prohibited.
- 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 maintain a minimum altitude of 2000 feet above ground level, except during take-off and landing, and when safety considerations require a lower altitude.
- 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, and no clearing of vegetation for landing/takeoff is permitted.
- Fuel caches are allowed only in designated areas, must be identified on a US Geological Survey map (or map photocopy), and submitted in writing for approval by the refuge manager before they are established. Storage will meet standards of US Fish and Wildlife Service-Alaska Region, Fuel Storage Policy.
- Any action by a permittee or the permittee's employees that unduly interferes with or harasses refuge visitors or impedes access to any site is strictly prohibited. Examples of prohibited acts include, but are not limited to: 1) parking aircraft or placing other objects (rocks, tents, etc.) on any area so as to restrict use by other aircraft; 2) otherwise intentionally interfering in the activity of other refuge users; and 3) engaging in activity that is contrary to state and federal laws.
- The permit is for refuge lands only. This permit does not authorize use of private lands such as land owned by Alaska Native Claims Settlement Act native regional and village corporations, individuals or the State of Alaska.
- The permittee will take no action that interferes with subsistence activities of rural users or restricts the reasonable access of subsistence users to refuge lands. This may include, but is not limited to, disturbance of wildlife and their movements near subsistence hunters, and damage to cabins, trails, traditional campsites or caches used by subsistence users.
- The permittee will be responsible for reporting any fires arising from these activities and will immediately notify the Alaska Fire Service and the Fish and Wildlife Service.
- Peregrine falcons (*Falco peregrinus anatum*) and other raptors may have active nest sites on cliffs and bluff faces within the refuge. Authorized helicopter activity is prohibited within one-half mile of these active raptor nest sites during the period 1 May through 15 August.
- 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

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researchers' privileged position regarding first publication. However, these data may be used in resource management decisions by the Service before their publication. Proprietary data of commercial value will be treated confidentially upon request, but may also be used in management decisions.

- Before implementing field work, the permittee must provide documentation that activities involving an invasive procedure that harms, potentially 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.

Depending on the specific circumstances, additional special conditions may be applied to the special use permit. These include but are not limited to:

- Some activities may not be permitted in certain areas and/or during some sensitive time periods (e.g., raptor nesting 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 route, proposed activity, etc.
- An annual report of research activities conducted on the refuge shall be provided to the refuge manager within thirty days of the permit expiration (normally one-two pages). Copies of all final reports and publications resulting from the studies will be forwarded to the refuge manager for inclusion in the refuge library.

### **Justification**

Scientific research is not one of the specific purposes (e.g., wildlife, subsistence, water quality...) of the Yukon Flats Refuge, but 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 scientific purposes when such use is compatible with the

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objectives for which the refuge is managed. Priority will be given to studies that contribute to the enhancement, protection, use, preservation, and management of current, indigenous wildlife populations and their habitats in their natural diversity. All proposed research conducted by other agencies or entities will be thoroughly evaluated before authorization and then monitored closely to ensure 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 research is also mentioned as one of the purposes under which lands in Alaska were reserved in ANILCA. Section 101(b) in *Title 1 – Purposes, Definitions, and Maps* explains, “It is the intent of Congress in this Act [ANILCA] to preserve unrivaled scenic and geological values associated with natural landscapes;...and to maintain opportunities for scientific research and undisturbed ecosystems.” The Yukon Flats National Wildlife Refuge Comprehensive Conservation Plan (CCP) of 1987 broadens the scope of research by recognizing scientific research historically conducted on Yukon Flats Refuge (e.g., ecology, climatology, geology, etc.). The CCP (page 127) states,

The Service will encourage other researchers to study the refuge and will participate in cooperative studies with other organizations, such as ADF&G. Cooperative agreements with the State and with native organizations, authorized by Section 809 of ANILCA, may be particularly useful for subsistence research.

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 compatibility determination, it is my determination that the described uses on the refuge supports the refuge’s establishing purposes, and the mission of the refuge system.

**Mandatory 10-Year Re-Evaluation Date** November 2015

### **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

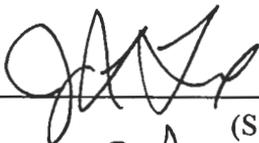
### **Supporting Documents**

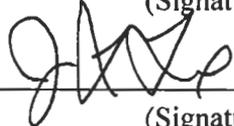
- Alaska National Interest Lands Conservation Act of 1980 (as amended)
- Alaska Native Claims Settlement Act of 1971 (as amended)
- Alaska Region Fuel Storage Policy, US Fish and Wildlife Service, 1997

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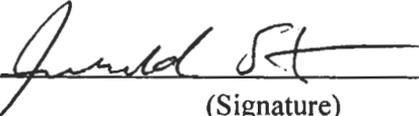
- Animal Welfare Act of 1966 (as amended)
- Archaeological Resources Protection Act of 1979 (as amended)
- Compatibility Determination, Uses (includes aircraft landings, boating, camping, hiking and backpacking, research and snowmachine use) allowed by the 1987 Yukon Flats NWR Comprehensive Conservation Plan, 19 July 1994
- Comprehensive Conservation Plan, Environmental Impact Statement and Wilderness Review, Yukon Flats NWR, 29 December 1987
- National Wildlife Refuge System Administration Act of 1966 (as amended)
- Refuge Manual, US Fish and Wildlife Service, 12 March 1982
- River Management Plan – Beaver Creek Wild River, December 1983

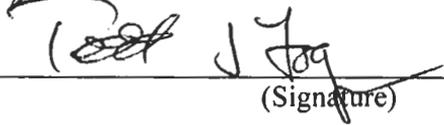
**Refuge Determination**

Prepared by:  7/19/05  
(Signature) (Date)

*for* Refuge Manager / Project Leader Approval:  7/19/05  
(Signature) (Date)

**Concurrence**

Refuge Supervisor:  10/27/05  
(Signature) (Date)

Regional Chief,  
National Wildlife  
Refuge System:  11/22/05  
(Signature) (Date)