

COMPATIBILITY DETERMINATION

Use: Rights-Of-Way for Remote Microwave Repeater Installation at Uganik, Spiridon, and Z-Ridge Sites

Refuge Name: Kodiak National Wildlife Refuge

Establishing Authorities:

Executive Order 8857 (1941) withdrew nearly two million acres from the unreserved public domain and established Kodiak National Wildlife Refuge. Public Land Order 1634 (1958) modified the original reservation, closing the one-mile shoreline strip to the land laws and other excepted purposes in exchange for classifying the Shearwater and Kupreanof peninsulas as unreserved public domain while retaining the original refuge purpose. As part of the Alaska Native Claims Settlement Act (1971), 345,600 acres of land within the Refuge were to be conveyed to Native village corporations subject to Section 22(g) of ANCSA. Alaska National Interest Lands Conservation Act (ANILCA; 1980) redesignated the Kodiak National Wildlife Refuge with additional purposes (below) and added approximately 50,000 acres of public lands on Afognak and Ban islands to the Refuge.

Refuge Purposes:

Executive Order 8857 established Kodiak National Wildlife Refuge “...for the purpose of protecting the natural feeding and breeding ranges of the brown bears and other wildlife on Uganik and Kodiak Islands . . .”. Lands that were part of the original refuge reservation retain this purpose along with the ANILCA purposes below. Section 303(5)(B) of ANILCA added the following purposes to the Refuge:

As ANILCA redesignated the Kodiak Refuge, all lands within the refuge, including the lands under ANILCA are managed for the following purposes:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited, to Kodiak brown bears, salmonids, sea otters, sea lions, and other marine mammals and migratory birds;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in subparagraph (i), water quality and necessary water quantity within the refuge.”

National Wildlife Refuge System Mission:

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

Description of Use: Kodiak Microwave Systems, LLC submitted an application to the Region 7 National Wildlife Refuge, Division of Realty and Conservation Planning requesting a right-of-way permit to construct microwave towers on Kodiak National Wildlife Refuge. The selected route would consist of three 50' free-standing, unlighted, lattice-type, microwave towers; Uganik (T27S R27W, Section 24 Seward Meridian), Spiridon (T28S R28W, Section 26 Seward Meridian), and Z Ridge (T30S R30W, Section 27 Seward Meridian). The towers will support three 8'-10' microwave dishes plus a single communication hut with all electronics and generation equipment inside. There will also be up to six 500-gallon propane tanks on site. Each leased area will be an approximately 80' circle (5,024 square feet).

The project will be staged from private land in the Village Islands and Larsen Bay. A barge will deliver equipment and materials to the staging sites and helicopters will be used to transport equipment, materials, and personnel to the construction sites. Approximately 110 helicopter flights to each site will be required. Most of these flights will be with a Robinson R66 helicopter but numerous flights will require a larger Bell Huey 204. Construction is expected to begin in July and end in late September, 2016.

Twice yearly maintenance visits via helicopter from the City of Kodiak are expected to each site. Refueling will occur from a barge located in either Uyak or Uganik Bay with several helicopter trips to replace propane tanks every 18 months. Maintenance and refueling trips are limited to mid-winter and early fall.

Availability of Resources: Oversight of this right-of-way permit would require moderate effort prior to and during the construction period, a limited amount of staff time annually during the life of the project, and again, some additional effort during decommissioning at the end of the project life. Staff time during the construction year would focus on development of mitigation measures, execution of the right-of-way permit with appropriate bonding and other required documents, and field monitoring to assure compliance with provisions of the operations plan and permit. Annual monitoring would be minimal and focus on compliance with the operations plan and adherence to mitigation measures. It is expected that adequate resources are available for administration of this proposed right-of-way permit.

Anticipated Impacts of the Use: The Kodiak Refuge Comprehensive Conservation Plan (2006) designates the vast majority of the refuge as Minimal Management. This designation recognizes the natural character of the area and includes the area of the proposed tower sites. Impacts to the natural character of the area resulting from the tower installation and operation will occur in several ways. Installation, scheduled for 90 days during the summer of 2016, will require approximately 110 helicopter flights to each site. Subsequent year operation of the sites will require maintenance and refueling flights two to three times each year. This combination of noise from operation and maintenance of the sites and the visual occurrence of the tower sites in this otherwise natural environment will have a minor negative impact on both wildlife and Refuge visitors in the vicinity of the installations or the flight paths used to access the sites.

Wildlife most likely to be affected includes surfbirds, marbled murrelets, and seabirds which nest in the vicinity of the tower sites and brown bear which den and forage in these areas. Steller's sea lions and sea otters which forage in the marine waters near the staging areas may be affected, but are not likely to be adversely affected. Vegetation will be removed from 1/3 of an acre at each tower site. In order to mitigate effects, the construction season is limited to July 1 to October 24 and maintenance activities will be limited to December 1 and February 28 or August 1 to October 24 with helicopter flights for construction and maintenance being limited to inland routes. No barge traffic or helicopter flights are allowed within 3 nautical miles of Steller's sea lion haul-outs at Noisy Islands, Bird Rocks, Cape Ugat or Cape Kuliuk.

The installations on Uganik, Spiridon, and Z-Ridge will have fixed visual and noise impacts over the life of the project. Mitigation will include painting of the facilities to reduce the contrast with surrounding terrain and timing of construction and maintenance of the facilities. Maintenance of the facilities -both annual and emergency - will take place exclusively with helicopter. Mitigation can be implemented that separates the scheduled maintenance activities from important wildlife occurrences and visitor use of the refuge. Unscheduled maintenance trips can be mitigated by conducting flights at the minimum 2000' AGL (weather permitting) until over the sites. The purposes of the Kodiak National Wildlife Refuge and the National Wildlife Refuge System mission are detailed above. The following table lists the anticipated impacts to selected environmental and social resources as detailed in the environmental assessment.

Affected Environment	Anticipated Impacts to Selected Resources
Soils	Negligible, direct, long-term adverse impacts would be expected. A total of 108 cubic ft of soil displaced over 3 sites and on each site approximately 0.33 acres would be disturbed.
Vegetation	Minor, long-term adverse impacts to vegetation are expected. Vegetation would be permanently affected on 1 acre; 1 of 3 sites is sparsely vegetated and rocky and 4.3 acres would be disturbed. With invasive species and prevention and mitigation measures properly implemented and without accidental fuel spills, impacts would be considered minor, affecting a relatively small area, for a long duration.
Hazardous Materials	Storage of fuels and hazardous materials onsite create risks of a release. However, containment designs and an approved SPCC plan reduce the risks. Given the limited fuel volume risks, the summary impact of a fuel spill would be considered minor in the long-term.
Surfbird (<i>Calidris virgate</i>)	Minor, short-term, direct during construction and minor, long-term, indirect effects through the life of the projects are expected to nesting habitat at Uganik site. There are no expected affects to surfbird nesting habitat on the other sites within this alternative. In the long term, no effects are expected as refueling and maintenance will be limited to early spring and late summer, which is before and after the nesting season.

Marbled Murrelet (<i>Brachyramphus marmoratus</i>)	Minor, short-term, direct during construction and minor, long-term, indirect effects through the life of the projects are expected to nesting habitat at Uganik site. There is no marbled murrelet nesting habitat on Spiridon or Z-Ridge. In the long term, no overall effects are expected as refueling and maintenance will be limited to early spring and late summer, which is before and after the nesting season.
Seabird Colonies	Minor to moderate short-term effects are expected to the nesting areas due to noise from dozens overflights during construction, but some disturbance will be mitigated by the helicopter flights being limited to the interior of the island. No long-term effects are expected as maintenance and refueling will be limited to before and after nesting season.
Brown Bears	Minor, direct and indirect impacts to brown bears are anticipated, because construction is limited to after July 1 and refueling and maintenance is limited to winter and late summer. Impacts would be due to noise disturbance by helicopters traffic and construction activities.
Threatened & Endangered Species (Sea Lions and Sea Otters)	Short-term, moderate noise disturbance at Village Islands and Larsen Bay to feeding sea lions and sea otters is expected from helicopter take-off and landing from the staging areas is expected over the short-term. Due to the proximity to Spiridon and Uganik tower sites, sea lion haul-outs at Noisy Rocks and Bird Rocks are at risk of minor disturbance in the short term due to the number of helicopter flights in the area. These species may be affected due to these disturbances but are not considered to have adverse effects due to a 3 nautical mile no-fly, no-barge zone around the haul-out areas.
Cultural Resources	No change to historic properties is expected at the construction sites or staging areas.
Socioeconomic	Nominal beneficial economic effects are expected to the communities of Larsen Bay & Karluk from an improved internet connection.
Environmental Justice	No environmental justice concerns were identified.
Subsistence	No effects to subsistence resources or opportunities are expected.
Land Use	Direct, minor adverse effects include the long-term displacement of 1.0 acres of recreational land within the. Three tower sites would be re-designated from Minimal Management to Moderate Management Areas.
Recreation	Minor, indirect effects to recreational use in the short-term due to multiple helicopter flights on the Spiridon Peninsula and near the community of Larsen Bay and indirect, long-term effects due to a change to the visual resources of the area in the long-term on the Spiridon Peninsula and Uganik Bay.
Lands with Wilderness Values	No towers would be constructed in lands eligible for wilderness designation.
Noise/Soundscape	Minor to moderate effects in the short-term and minor in the long-term effects to the soundscape of the area are expected. Noise from helicopter traffic would last for up to 3 months in and around the Spiridon

	Peninsula and would occur for a short duration (1 day) 2-3 times per year for maintenance and refueling.
Visual Resources	Moderate, short-term effects during construction would be expected due to numerous helicopter flights both on the Spiridon Peninsula and Z-Ridge which is next to the highly used Karluk River. Moderate, long-term effects are expected, as the towers would be visible from much of Uganik Bay, the areas around Amook Island, interior valleys eastward from the Spiridon Peninsula, and the ridges around Little River Lake public use cabin, when it is rebuilt. Although visible, the towers will not be as noticeable from Uganik Island cabin as it is more than 3 miles from the tower sites. Z-Ridge will be easily visible from the Karluk River, a popular fishing destination. Towers would be easily visible from the air, possibly affecting flight seeing activities in the area.

Preliminary Determination (check one below):

Use is Not Compatible
 Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

1. Permittee will proactively protect vegetation and soil using a paneled mat system (Duradeck®, AlternaMATS®, GreatMats® or equivalent) where wheeled or tracked equipment is used and where levels of foot or other traffic risk damage to the vegetative mat, soil displacement, or exposure of soil.
2. Impacts associated with trampling or crushing of vegetation are to be avoided to the maximum extent possible. Staging of construction equipment and supplies will also occur in locations devoid of vegetation where possible. Construction equipment, supplies and helicopters would be inspected and cleaned as necessary prior to transport to the microwave antenna sites to minimize potential for the introduction of invasive species to the sites. During the annual maintenance visit, the site will be inspected for the growth of invasive plants. If invasive plants are found at a site; the permittee, with guidance from the Refuge, would develop and implement a plan for eradication.
3. A 1/2 mile no fly zone around seabird colonies will be in place from May 15 to Sept 15. If a flight is needed outside of these parameters, the permittee shall receive written approval from the authorizing official prior to flight.
4. Construction will occur between July 1 and October 24 and maintenance and refueling activities will occur between December 1 and February 28 or August 1 to October 24 so as to not disturb denning brown bears, nesting birds, recreationists, or subsistence users.
5. Barge traffic will remain at least three nautical miles from any sea lion haul-out or rookery during transit to and from the staging and refueling areas and helicopter traffic during construction, maintenance and refueling will remain at least three nautical miles from sea lion haul-outs.

6. While working in the staging area, the Permittee will only operate in the location(s) designated by a qualified archaeologist.
7. Towers and sheds will be tan in color or with a matte finish to help them blend into the environment as much as possible.

ADDITIONAL GENERAL ROW STIPULATIONS

8. The Refuge Manager or designee, 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.
9. By accepting this permit, the Permittee agrees to reimburse the United States for costs incurred by the Service in monitoring the construction/installation, operation, maintenance, and removal of facilities within or next to the permit area. Cost reimbursement for these activities will be presented to the Permittee in annual cost Collection Agreements or activity specific cost collection agreements at the determination of the Refuge Manager.
10. This permit is subject to the express covenant that any facilities constructed thereon will be modified or adapted, if such is found by the Service to be necessary, without liability or expense to the United States, so that such facilities will not conflict with the use and occupancy of the land for any authorized works which may hereafter be constructed thereon under the authority of the United States. Any such modification will be planned and scheduled so as not to interfere unduly with the permitted project.
11. Grant of this permit is subject to the express condition that the exercise thereof will not unduly interfere with the management, administration, or disposal by the United States of the land affected thereby. The Permittee agrees and consents to the occupancy and use by the United States, its grantees, Permittees, or lessees, of any part of the permit area not actually occupied for the purpose of the granted rights to the extent that it does not interfere with the full and safe utilization thereof by the Permittee. The Permittee also agrees that authorized representatives of the United States will have the right of access to the permit area for making inspections and monitoring the construction, operation and maintenance of facilities.

Requirements for Construction

12. Prior to beginning construction authorized under this permit, the Permittee shall submit to the Refuge Manager a Plan of Development describing all construction related activities anticipated to be carried out under the authority of this right-of-way permit. The plan must provide sufficiently detailed information to allow the Refuge Manager to effectively monitor activities to be carried out under the plan. Receipt and approval of the plan will be acknowledged in writing by the Refuge Manager. Proposed deviations from the Plan of Development must be submitted in writing to the Refuge Manager, and will only be allowed with the written acknowledgment of the Refuge Manager. At the end of each construction season Permittee shall provide a written report to the Refuge Manager for review and acceptance that documents work completed and work planned for the next season. Plans of

development for any subsequent or additional construction must be submitted not later than 6 months from proposed construction for review and approval by the Refuge Manager.

13. Construction activities may only occur from July 1 to October 24.
14. Prior to commencing construction of the Facilities a preconstruction meeting including a representative of the Permittee, onsite project managers of all Permittee contractors or subcontractors and Service representatives shall be conducted on site.
15. The Permittee is responsible for obtaining all necessary State and Federal permits and submitting copies to the Refuge Manager prior to the start of construction.
16. Prior to commencing construction of the Facilities, the “construction boundary”, as shown on the site plans provided in the Plan of Development, shall be clearly marked in a manner that will survive and be evident throughout construction of the Facilities.
17. If construction is not commenced within one (1) year after permit issuance, the Service may cancel the permit.
18. Upon completion of construction, the Permittee will file two copies each of a Certification of Completion and as-built drawings and survey with the Chief, Division of Realty and Natural Resources, as proof of completion of construction.

Continuance of Operations

19. Prior to September 30 of each year during the term of this Permit, a Plan of Annual Operations for annual maintenance, refueling operations, and other planned visits to the Facilities will be submitted to the Refuge Manager for approval. Included in the plan will be the following:
 - a. Refueling and annual maintenance of the Facilities will be conducted during the periods December 1 through February 28 or August 1 through October 24 to avoid denning bears, nesting season, and the main concentration of public use taking place on the refuge during the summer and fall and .
 - b. The Refuge Manager will be notified no less than fourteen days prior to commencement of annual maintenance or refueling operations.
 - c. Flight routes to and from the Facilities which must avoid concentrated public use areas and sensitive wildlife areas to be identified by the refuge in advance
 - d. Subsequent plans must be submitted annually for approval and must be received by the Refuge office 30 days before the expiration of the current plan.
20. Permittee shall notify the Refuge Manager of any and all occurrences that require or necessitate emergency repairs/maintenance to the Facilities prior to commencement of activities if possible.
21. No later than January 15 of each year during the term of this permit, the Permittee will provide a report to the Refuge Manager that details the previous year’s activities at the Facilities. This report will include:
 - a. All helicopter flights to each site during the previous year including actual # of flights, dates of flights, aircraft used and actual flight paths.
 - b. The amount of fuel consumed at each site during the previous year (refuel to refuel).

22. Any service interruptions during the previous year as a result any equipment failures or other causes at these Facilities, along with the cause and duration of those service interruptions.
23. The Permittee is responsible for ensuring that all persons working for the Permittee and conducting activities including but not limited to contractors and subcontractors allowed by this permit have been given a copy of this Permit, have been briefed on the terms and conditions of this Permit and shall adhere to the conditions of this permit. A copy of this Permit will be kept on site at all times during construction and during major and scheduled maintenance of the Facilities.
24. The Permittee's contractor(s) will develop and have on site a Spill Prevention Control and Countermeasure Plan, as applicable. A copy of this plan will be submitted to the Refuge Manager prior to commencement of construction. If a spill does occur, the Refuge Manager would be notified immediately. A bond would be required of the permittee in order to ensure funding is available for any necessary contaminant clean-up.
25. All hazardous wastes (as defined by the Resource Conservation and Recovery Act of 1976, as amended) will be stored, transported, and disposed in accordance with regulation requirements.

Conservation Measures

26. The transportation and presence of any pets and other live animals of any kind to or on the Facilities are prohibited.
27. The Permittee's employees, contractors, subcontractors and any other individuals authorized to access the Facilities by the Permittee are prohibited from carrying or transporting firearms on and to the Refuge. Firearms to be used for safety purposes and only carried by a bear guard are permitted on the Facilities. A bear guard is defined as an employee of the Permittee or its contractors or subcontractors who has had 8 hours of bear awareness training.
28. The Permittee's employees, contractors, subcontractors and any other individuals authorized to access the Facilities by the Permittee are prohibited from hunting, fishing, and trapping while on the Refuge during construction, maintenance, refueling and emergency repair operations.
29. All helicopter flights to and from the sites will maintain a minimum altitude of 2000' AGL, weather permitting.
30. All food wastes will be stored in animal-proof containers and disposed on a weekly basis at a permitted off-Refuge facility.
31. All human waste will be removed from the site. All gray and black water or chemical toilet refuse generated at construction or production facilities will be transported off the Refuge to permitted treatment or disposal facilities.
32. Burning of trash, solid waste or any other substances or materials is prohibited. All trash and non-petroleum solid waste imported to or generated on the Facilities will be hauled off the Refuge and disposed in accordance with 18 AAC 60 (Solid Waste Regulations) and with 18 AAC 62 (Hazardous Waste Regulations).
33. ATV use shall not be permitted.

34. The Permittee shall be responsible for keeping the construction area clean. All trash, survey lath and other debris shall not be stored on site. All trash, survey lath and other debris shall be picked up daily and properly disposed of during the job. At the completion of construction, a final cleanup shall be conducted by the Permittee and approved by the Refuge Manager.
35. Permittee shall be responsible at all times during the life of this Permit for taking any and all actions to prevent introduction of invasive species on the Refuge. During each year for three years following construction and every five years thereafter, Permittee will be required to conduct a survey for invasive species at the Facilities and surrounding area. A report on this survey will be provided to the Refuge office no later than January 15 of each year following the survey.
36. Permittee will do everything reasonably within its power, both independently and on request of any duly authorized representative of the United States, to prevent and suppress fires on or near lands to be occupied under this permit, including making available such construction and maintenance forces as may be reasonably obtainable for the suppression of such fires.
37. Permittee must take such soil and resource conservation and protection measures on the land covered by the easement or permit as the Refuge Manager may request.
38. Any problems with wildlife must be reported immediately to the Refuge Manager. The Permittee, contractors, subcontractors and employees shall not feed animals. Wildlife shall not be harassed or intentionally approached closely enough to disrupt the animal's activity or to endanger human life. There shall be no taking of any animal except in the case of defense of life and property. In the case of a defense of life and property taking, the Permittee shall immediately contact the Alaska Department of Fish and Game and the Refuge Manager, and salvage those parts of the animal required by State regulations.
39. Permittee will comply with the Archaeological Resources Protection Act (16 U.S.C. 470aa). The disturbance of archaeological or historical sites and the removal of artifacts from Federal land is prohibited. If such sites or artifacts are encountered, the Permittee will immediately cease all work upon Federal land and notify the Refuge Manager.
40. The Permittee shall report any instances of dead birds found in the project area to the Refuge Manager or his/her representative in a timely manner.

Justification: In order to permit a new use, the U.S. Fish and Wildlife Service Compatibility Policy (603 FW 2) requires that the refuge manager determine that the use will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the national wildlife refuge.

Compatibility with Service Mission

The proposed use does not materially interfere with or detract from the National Wildlife Refuge System Mission of administering lands and waters for the conservation, management, and restoration of fish, wildlife, and plant resources, and their habitats. Although there would be loss of 2/3 of an acre and impacts to wildlife would occur, it is expected that they would be minimal

and that mitigation measures would further reduce anticipated impacts.

Compatibility with Refuge Purposes

The proposed use would not materially interfere with or detract from the Kodiak NWR's original purpose of protecting the natural feeding and breeding ranges of the brown bears and other wildlife on Uganik and Kodiak Islands. Impacts to brown bears have been mitigated by requiring construction to begin after denning season. Maintenance and refueling would be required during the winter or late summer to avoid denning and foraging bears.

The proposed use would not materially interfere with or detract from the Kodiak NWR's primary purpose to conserve fish and wildlife populations and habitats in their natural diversity. Although there would be minor habitat fragmentation, and impacts to fish and wildlife populations from helicopter operations, it does not rise to the level of incompatibility.

The proposed use does not materially interfere with or detract from the Kodiak NWR's purpose to fulfill international treaty obligations of the United States with respect to fish and wildlife and their habitats. The loss of migratory bird habitat from this project will be negligible. By locating the sites inland, their impact on coastal migratory birds will be minimized or eliminated. Because towers are no taller than 50' and no guy wires are used the mortality from bird strikes is expected to be minimized.

The proposed use does not materially interfere with or detract from the Kodiak NWR's purpose to provide the opportunity for continued subsistence uses by local residents. The Environmental Assessment and ANILCA Section 810 analysis evaluated the impact to subsistence and concluded that there are negligible effects to subsistence resources. The summary impact of this proposal on subsistence would be considered negligible.

The proposed use does not materially interfere with or detract from the Kodiak NWR's purpose to ensure water quality and necessary water quantity within the refuge. Neither of the sites is located near or adjacent to wetlands or waterways.

Mandatory 10-year Re-evaluation Date: N/A - Rights-of-Way often are approved for extended periods of time. The National Wildlife Refuge System Administration Act of 1966, as amended, treats Refuge uses that are approved for longer than 10 years differently than other uses. During the life of the permit, only compliance with the terms and conditions of the authorization is to be examined, not the authorization itself. After expiration of the permit, the use is to be re-evaluated for compatibility.