Kenai National Wildlife Refuge P.O. Box 2139 Soldotna, AK 99669-2139 (907) 262-7021

COMPATIBILITY DETERMINATION

The National Wildlife Refuge System Administration Act of 1966, as amended (16 U.S.C. 668dd-668ee) states that "The Secretary is authorized, under regulations as [s]he may prescribe, to – (A) permit the use of any area within the [National Wildlife Refuge] System for any purpose, including but not limited to hunting, fishing, public recreation and accommodations, and access wherever [s]he determines that such uses are compatible' and that "... the Secretary shall not initiate or permit a new use of a refuge or expand, renew, or extend an existing use of a refuge, unless the Secretary has determined that the use is a compatible use and that the use is not inconsistent with public safety." A compatible use is defined as "A proposed or existing wildlife-dependent recreational use or any other use of a national wildlife refuge that, based on sound professional judgment, 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." The compatibility determination is to be a written determination signed and dated by the Refuge Manager and Regional Chief of the National Wildlife Refuge System, signifying that a proposed or existing use of a national wildlife refuge is a compatible use or is not a compatible use.

Applicable compatibility regulations in 50 CFR Parts 25, 26, and 29 were published in the Federal Register October 18, 2000 (Vol. 65, No. 202, pp 62458 – 62483).

Use: Hiking, Walking, Skiing, Snowshoeing, Bicycling, Horse Riding/Packing, Dog Sledding, Non-motorized Boats and Canoes

Refuge: Kenai National Wildlife Refuge

Establishing and Acquisition Authorities: The Refuge was first established as the Kenai National Moose Range by Executive Order 8979 on December 16, 1941. The boundaries were modified, purposes expanded, and name changed to Kenai National Wildlife Refuge under the provisions of the Alaska National Interest Lands Conservation Act (ANILCA) on December 2, 1980 (Public Law 96-487 Stat. 2371).

Refuge Purposes: The Executive Order purpose was primarily to "... protect the natural breeding and feeding range of the giant Kenai moose on the Kenai Peninsula, Alaska...". ANILCA purposes for the Refuge include: "(i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to moose, bear, mountain goats, Dall sheep, wolves and other furbearers, salmonids and other fish, waterfowl and other migratory and nonmigratory birds; (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats; (iii) to ensure to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity with the refuge; (iv) to provide in a manner consistent with subparagraphs (i) and (ii), opportunities for scientific research, interpretation, environmental education, and land management training; and (v) to provide, in a manner compatible with these purposes, opportunities for fish and wildlife oriented recreation." The Wilderness Act of 1964 (Public Law 88-577) purposes are to secure an enduring resource of wilderness, to protect and

preserve the wilderness character of areas within the National Wilderness Preservation System, and to administer this wilderness system for the use and enjoyment of the American people in a way that will leave them unimpaired for future use and enjoyment as wilderness.

Policy (FWS 603 2.8) directs that pre-ANILCA purposes remain in force and effect, except to the extent that they may be inconsistent with ANILCA or the Alaska Native Claims Settlement Act, and that such purposes only apply to those areas of the Refuge in existence prior to ANILCA. The Executive Order purpose to protect Kenai moose, however, is treated as complimentary to the broader ANILCA purpose of conserving fish and wildlife populations; therefore, no special attention is given the Executive Order purpose in this compatibility review process.

Sec. 4(a) of the Wilderness Act provides that the purposes of the Act are to be within and supplemental to the purposes for which national wildlife refuges are established and administered. These purposes are applied to the approximately 1.3 million acres of Congressionally designated wilderness within the Refuge. While these purposes do not apply to the remaining approximately 700,000 acres of Refuge lands that are not designated as wilderness, we must consider the effects of uses on any Refuge lands that might affect the wilderness areas.

National Wildlife Refuge System Mission: The National Wildlife Refuge System Mission 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.

Description of Use: The uses described here are general public access, recreational, and transport methods that are non-motorized and generally are believed to have few impacts to wildlife or habitat at current levels and with current regulations. Since they are all public uses, however, they must be found to be compatible to be permitted on the Refuge. These uses include hiking and backpacking, walking and jogging, skiing, snowshoeing, bicycling, horse riding and packing, dog sledding, and non-motorized boats and canoes. The following descriptions will provide more detail on the inclusiveness of these uses; however, if a use is not generally described here, or in another approved compatibility determination, it may not be permitted until specifically found to be compatible with Refuge purposes and the System Mission.

Hiking and walking include backpacking, jogging, and running, but do not include organized or competitive events. Skiing and snowshoeing include cross-country skiing, use of all types of snowshoes, and the individual use of small recreational sleds, downhill skis, and snowboards in non-developed sites (no rope tows, groomed slopes, etc.) and do not include organized or competitive events. Bicycling is generally restricted, but is authorized on routes open to the legal use of licensed highway vehicles. Horse riding and packing includes the use of mules and other animals commonly accepted as riding or pack animals and may include private or commercial uses; however, any such commercial uses are subject to a special use permit and the issuance of any permit is discretionary. Dog sledding is limited to traditional winter use for ski-jouring, personal recreational and subsistence use, and use by organizations or special events when covered under a specific special use permit. This compatibility determination also covers all use of non-motorized water craft including row boats, sail boats, kayaks, canoes, rafts, and similar devices for personal and commercial use. Commercial uses, whether guided trips or rentals taking place on the Refuge, are required to obtain a Special Use Permit.

Water skiing and jet ski use are not permitted on the Refuge. Motor boat and aircraft use are addressed in a separate compatibility determination.

Walking, hiking, and backpacking is a very popular activity on the Refuge. There is no concrete estimate of the levels of use, but certainly a reasonable estimate is in the hundreds of thousands of users each year. The use varies from local folks stretching their legs for a morning or afternoon walk along Ski Hill Road near Soldotna, to day hikes, to multi-week backcountry treks. There are 12 popular trails used for day hikes including Egumen Lake, Hidden Creek, Lower Kenai River, Upper Kenai River, Seven Lakes, Burney's Trail, Bear Mountain, Upper Skilak, Hideout Trail, Skilak Lookout, Fuller Lakes, and Skyline. These trailheads are all road accessible and the trails range from .3 miles to 4.4 miles in length. Difficulty ranges from easy to very strenuous. The Keen-Eye interpretive trail and Centennial hiking trail located at the Refuge headquarters are also extremely popular for short hikes. Additionally, backcountry trails such as Emma Lake, Surprise Creek, Cottonwood Creek, Bear Creek and Moose Creek are popular seasonally with wilderness hikers and hunters. Several horse trails (Funny River Horse Trail, Hanson's/Browns' Lake Horse Trail, and Pollard's Horse Trail) also receive hiking and backpacking use in addition to pack animal access to remote areas of the Refuge. Finally, many less formal routes have become established as well-used hiking and packing "trails" such as the Funny River wood cutting area route and trails near Glacier Creek and Indian Creek. Many hikers also strike out cross country choosing to hike without the benefit of established routes.

Over 50 miles of maintained hiking trails exist on the Refuge with a near equal amount of established routes that receive only occasional maintenance. Of the maintained routes, front country trails receive the first attention. Refuge crews remove downed trees, replace walkways or rustic bridges, and address wash-out or flood damage, and similar issues. Refuge trails are generally maintained at fairly primitive levels with basic informational signs and safety standards, but many have steep and uneven terrain, narrow and brushy sections, and are not developed with amenities. The Refuge is closed to the use of ATVs and similar motorized uses; use of trails by non-motorized wheeled vehicles is also prohibited by current regulation. These standards and restrictions allow for a less maintained trail system that serves well for walking and packing, but would not be suitable for vehicle use.

Skiing and snowshoeing occurs in winter on many Refuge trails and routes, as well as in non-designated and undeveloped portions of the Refuge. The most popular areas are the Nordic ski trails developed (three routes plus the Keen-Eye and Centennial Trails) at the Refuge headquarters near Soldotna. These trails are generally groomed for use after a good snow fall and are popular with families living in the local area.

Bicycling is limited to Refuge roads otherwise open to licensed highway vehicles and is most common on Mystery Creek Road in the Fall, and near camping areas along Skilak Loop Road.

Horses and other pack animals are commonly used to access the high country between Skilak and Tustumena Lakes via the Hanson/Brown's Lake Horse Trail located near the end of Funny River Road and Pollard's Horse Trail near Kasilof and Tustumena Lake. Other trails and routes see occasional horse use in particular the gravel roads located within the Beaver Creek and Swanson River Oil and Gas Fields during moose hunting season. These areas are industrial use areas closed to public vehicular access; however, people may access the areas via horses or by foot.

Dog sledding occurs via permit on established trails maintained by the Kenai Peninsula Dog Sledding Association near the Soldotna Airport, via an occasionally issued special use permit for a special event, and for general recreation, subsistence, or training on other Refuge roads, trails, and routes during winter. The Mystery Creek Road and ENSTAR pipeline right-of-way corridor are especially popular for winter dog mushing.

Non-motorized boats and canoes are used in many places on the Refuge for recreation, commercial ventures, and backcountry access. The most popular areas on the Refuge include the two established canoe system routes (Swanson River and Swan Lake) covering over 100 miles of lakes and portages (with canoes and a few kayaks being used), and the Upper Kenai River (where both private and commercial boaters use primarily drift boats or inflatable rafts for fishing and/or scenic trips). Less than 20 permits are authorized for the Upper Kenai River (between the Russian River and Skilak Lake) for scenic rafting businesses. Since such permits are limited by policy, future vacancies for the permits will be filled via a competitive bid process consistent with regulations. These businesses primarily offer day trips and take thousands of visitors a year through the Kenai River Canyon to view wildlife and Refuge scenery. Other areas of considerable use include the Upper Kasilof River (used primarily by drift boats for fishing), sailing by small craft on Skilak or Tustumena Lake, canoeing on road-side lakes and in the lower Moose River, and the packing in of small rafts and float tubes for fishing at remote lakes.

Hiking, canoeing, and other traditional non-motorized travel means are critically important to the use and enjoyment of the Refuge and support many other uses, including fish and wildlife-oriented recreation. Many non-motorized uses are also recognized under ANILCA and are specifically protected, subject to reasonable regulation.

Availability of Resources: Management of basic access and transport methods by the public is integrated into the larger public use management program at the Refuge and requires no specific attention to resource needs since no new uses are being proposed. The program elements, however, can be substantial in terms of administering permits, maintaining trails, and similar management needs. Should resources become more limited, the uses described within this evaluation would continue, but could be impacted by corresponding limits in service (permits, information availability, etc.) as well as decreased maintenance of related facilities.

Anticipated Impacts of the Use: Many of the uses described here are elements of other uses described in other compatibility determination, such as boating to fish, canoeing to camp, hiking to view wildlife, etc. None-the-less, because of the magnitude of the use levels described here, there are also impacts associated with the uses that are not described elsewhere.

All of the uses described have the potential to disturb wildlife; some may damage habitat. Trails and routes require the removal or trampling of vegetation. Poor design or misuse of trails can result in erosion and other impacts in adjacent areas in addition to the pathway itself. Trails and routes attract public use which can result in increased levels of wildfire, litter, vandalism, and illegal take of wildlife. Horses and other pack animals can do significant damage to soft trails with their hooves, can damage trees if tied to them, can trample vegetation and dig pits where tethered for extended periods, and can transmit illness from fecal matter entering streams that are use for drinking water. Additionally, invasive species of plants can erupt in areas from seeds deposited from fecal matter or from hay and other feeds transported into the areas. The use of dog teams can disturb moose and other wildlife which can result in injury or death (to both dogs and wildlife). Invasive species control is also a concern with dogs from parasites and the use of straw for bedding and insulation.

Overall, the impacts of the described use are considered relatively minor given the size and use levels of the Refuge; however, regulations are in place to address the most serious concerns, and ongoing monitoring of levels of use and associated impacts is warranted.

Public Review and Comment: This compatibility determination has been prepared while revising the Refuge's Comprehensive Conservation Plan and Environmental Impact Statement.

Future revisions can be accomplished outside of this planning process if deemed necessary and would be completed with public notice and involvement. Legal notice of the draft compatibility determination was published in the Anchorage Daily News and the Kenai Peninsula Clarion on February 25, 2007 which initiated a 45-day public comment period. The notice was also posted on a bulletin board at the Refuge headquarters for the same time period, made available starting February 28, 2007 on a list server fws-akrefugecompatibility@lists.fws.gov to 137 addresses, and made available on the Regional Refuge Planning web site at http://alaska.fws.gov/nwr/planning/completed.htm.

Comments on some or all of the (15) compatibility determinations were received from: The State of Alaska, The Wilderness Society, The National Wildlife Refuge Association, Friends of Kenai National Wildlife Refuge, Alaska Trappers Association, Defenders of Wildlife, Kenai Field Office (FWS), and The Humane Society of the United States.

Defenders of Wildlife expressed concern that there were no stipulations included to ensure compatibility that were directed at preventing or mitigating the introduction and spread of invasive plant species. We appreciate these proactive comments. While invasive species have not yet become a significant problem on Kenai NWR we have completed preliminary surveys and documented several problem areas. Additionally, we are developing goals and objectives specific to this issue as part of the planning process and working collaboratively with the U.S. Forest Service on future regulations to limit the use of hay and straw on the Refuge to that which has been certified weed free. We will continue to develop guidance and regulations as necessary to combat this threat to Refuge resources. Defenders also suggested that a group size of 12, rather than 15, would be more acceptable for managing public use in the canoe systems. While we agree that larger groups can have more impact to trails and camping areas, and increase disturbance to wildlife and other Refuge users, large group sizes of more than 5 or 6 are very rare. There would be little to be gained by adjusting current Refuge regulations to reduce group sizes at this point in time; however, crowding and impacts within the canoes systems will continue to be evaluated and adjustments, including reconsideration of maximum allowable group size, can be done in the future if necessary.

Determination (check one below):

Use is Not Compatible

X Use is Compatible With Following Stipulations

Stipulations Necessary to Ensure Compatibility: General and Refuge specific regulations are in place that prohibits related uses that may harm Refuge resources, such as water skiing and use of bicycles off maintained roads open to the public. Party size is limited by regulation (no more than 15 without a permit) within the designated canoe systems to limit crowding and minimize disturbance to wildlife and impacts to camping areas. Emergency, temporary, and permanent closure authority exists that provides for restrictions or closures of areas because of resource damage or safety concerns. This includes restrictions or closures of trails to horses or other livestock to prevent trail damage. All commercial uses (like guides or outfitters using horses, rafts, canoes, etc.) and all organized events (like a dog sled race or snowshoeing contest) require special use permits and each proposed use will be evaluated for potential impacts to Refuge

resources. Such permits are discretionary and will not be issued if the proposed use has resource impacts that cannot be acceptably mitigated through specific permit stipulations.

Justification: The uses described are considered to be largely benign. No significant impact is currently occurring or believed to likely occur in the near future to Refuge resources solely based on these uses and use levels. Adequate regulations and regulatory processes exist to properly manage the uses within the foreseeable future.

| Signature (Refuge Manager): | /s/ Robin L. West 6/13/07 |
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| | Signature and Date |
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| Concurrence (Regional Chief): | /s/ Todd J. Logan 8/14/07 |
| | Signature and Date |
| Mandatory 10-year Re-evaluation Date: 8/14/17 | |