

STATE OF ALASKA

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Robin West, Refuge Manager
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Dear Mr. West:

The State of Alaska (State) reviewed the Draft Revised Comprehensive Conservation Plan and Environmental Impact Statement (Plan) for the Kenai National Wildlife Refuge (Refuge). This letter represents the consolidated views of State agencies. With road access, backcountry recreational facilities and opportunities, abundant wilderness, and diverse and healthy fish and wildlife resources, the Kenai Refuge is the most visited refuge in Alaska. All this leads to tremendous opportunities and challenges for the US Fish and Wildlife Service (Service). Compared to other Alaska refuges, the Kenai Refuge faces a greater number and complexity of issues. Our comments are correspondingly extensive. We commend the Anchorage planning office, particularly Rob Campellone, for his efforts to coordinate competing priorities and interests, both internal and external to the Service. The State does not agree with all parts of the proposed action; but we acknowledge the hard work that this document represents.

The State has the following serious concerns:

- Portrayal of opportunities for oil and gas leasing is misleading and incomplete;
- The Title XI provision in the Alaska National Interest Lands Conservation Act (ANILCA) for transportation and utility systems is incorrectly portrayed;
- Retention of airplane closures on all but 45 lakes within the Kenai Wilderness is not adequately justified in light of the increasing trumpeter swan population.
- Unilateral wildlife management proposals are inconsistent with State objectives and state/federal protocols.

The State supports:

- Fire Management – We support the proposed management direction because it provides sufficient discretion to use both prescribed and wildland fire to achieve land and resource management objectives.
- Chickaloon Flats – We support the Refuge's intent to increase safe and practical access for aircraft in the Chickaloon Flats area.
- Sterling Highway Rest Stop – We support development of a formal rest stop at Milepost 62 of the Sterling Highway in cooperation with the Alaska Department of Transportation and Public Facilities.

We also have substantive comments and constructive suggestions on other issues, including:

- Non-guided Public Use on the Upper Kenai River
- Snowmachine Access
- Research Natural Areas
- Post Oil and Gas land use decisions
- Allocation of Management Categories

Finally, this letter contains a number of technical comments that either support our general comments above or address other stand alone issues.

Deviations from Regional Management Policies and Guidelines

We understand that the Kenai Refuge has a number of unique circumstances that warrant refuge-specific deviations from the regional Management Policies and Guidelines developed for all national wildlife refuges in Alaska. While many of these modifications are justified, or do not impact overall content, others lack the required justification, trigger state jurisdictional concerns, and/or are misleading or inaccurate. The State urges a more rigorous adherence to the regional guidelines to maintain their integrity. Our two most important issues are addressed below, although additional substantive concerns are included in the technical comments.

Oil and Gas Leasing

The portrayal of opportunities for oil and gas leasing is misleading and incomplete. We recognize refuge-specific information provided on page C-36, Section 1.3.15.2 was included in an attempt to reflect current refuge-specific direction; however, essential direction contained in law, policy, and the regional guidelines is conspicuously absent. The missing information, based on ANILCA Section 1008 and Service policy (RW-2), summarizes the high standards that must still be met for this activity to occur on refuge lands. We urge reinstating the following text, without modification, within the Appendix:

Oil and gas leasing may be allowed only in Intensive management areas. Oil and gas leasing will not be authorized until completion of the following:

- *An assessment of potential*
- *A national interest determination*
- *A refuge compatibility determination, where applicable*
- *A comprehensive conservation plan amendment*

We are aware of the summary (page 3-17, 3.2.4.8) of refuge-specific information relative to a 1999 Compatibility Determination (CD), which found oil and gas exploration and development to be incompatible with the purposes of the Refuge. While we understand the rationale for including refuge-specific information, it should be presented within the complete context of ANILCA and Service policy. We understand the justification for withholding the regional direction may be based, in part, on an assumption that the first three bulleted criteria above have been satisfied. First, we disagree that the Refuge has satisfied these criteria, as follows:

- **Assessment of Potential:** A Bureau of Land Management (BLM) study of the Refuge in 2004, though intended for inclusion in the CCP, as mandated by Sections 1008 and 304(g) of ANILCA, was limited in scope to active oil and gas leases and not the resources of the Refuge as a whole. The limited scope may have resulted in an insufficient assessment of the Refuge's potential.
- **National Interest Determination:** The “national interest determination” referenced in the CD is comprised of excerpts from another document which appears to have been developed for an entirely different purpose. The original document, entitled “Energy Security: A Report to the President of the United States” (1987), describes the national interest for the entire nation, not specifically the Kenai Refuge, or even Alaska as a whole. Furthermore, conditions at the time were characterized by more primitive technologies, very low oil prices, and substantially different national production and consumption rates. It is very likely, were the Kenai Refuge specifically evaluated under current or relatively recent industry scenarios (which are vastly different from 1987); resulting conclusions would be quite different.
- **Compatibility:** One determination of incompatibility does not preclude future determinations or reassessments of use. Uses can be reassessed upon new information, or if technological advances and stipulations are considered to reestablish and/or ensure compatibility.

Secondly, even if the Refuge thinks these criteria have been satisfied, that does not constitute sufficient justification to ignore their existence. Regardless of the Service's views on these requirements, we again strongly urge the Refuge to reinstate the baseline background information, with references and justification, as appropriate, for current refuge management.

Transportation and Utility Systems in Minimal Management

The proposed direction (Appendix C Table on page C-59) that in Minimal management transportation and utility systems (TUS) are “*not allowed subject to the provisions of ANILCA Title XI*” is a substantive revision of the regional policies and guidelines. This language is inconsistent with the Alaska National Interest Lands Conservation Act (ANILCA). Specific language and guidelines developed for the entire Alaska Region appropriately clarify provisions in Title XI of ANILCA that provide for authorization of these facilities on all national wildlife refuge lands in Alaska. Any proposal for a TUS must follow the unique process defined in 43 CFR Part 36, without regard to the affected discretionary land management categories. An initial Minimal management designation cannot preclude consideration of a proposed TUS. For these reasons, we urge the direction provided for Minimal management revert to the following language mutually agreed to by the Regional Office and the State: “*May be authorized; would require a plan amendment.*”

Airplane Access to Lakes Located in Designated Wilderness

Retaining airplane closures on all but 45 lakes within 1.3 million acres of Wilderness (as proposed under the preferred alternative) is not adequately justified in the draft Plan. The full extent of the closures is no longer necessary. Throughout the plan revision process we have advocated for a reasonable, modest increase in airplane access opportunities, based primarily on

the substantial recovery of trumpeter swans. We therefore appreciate the draft Plan includes alternatives that consider such additional airplane access. We strongly urge the Service select a final alternative that allows some additional access for aircraft subject to quantifiable, scientifically supported information. In this context, within the range of alternatives, the State favors Alternative D (fourteen additional lakes), although even Alternative C (four additional lakes) would provide welcome additional access opportunities without risk to trumpeter swan populations and other refuge resources and values. Given the increasing trumpeter swan population on the Refuge and throughout Alaska, the extent of the closures is no longer necessary to meet regional or range-wide goals for the Pacific Coast population of trumpeter swans. We are not advocating for a wholesale revocation of all closures; rather we seek a limited number of specific openings to enhance recreational opportunities for the public. See our technical comments for further discussion concerning trumpeter swans.

Opening select additional lakes is also consistent with the closure regulations at 50 CFR 36.42, which requires “*management considerations necessary to ensure that the activity or area is being managed in a manner compatible with the purposes*” of the Refuge. Unique to the Kenai Refuge is the purpose to provide opportunities for fish and wildlife-oriented recreation. Reopening selected additional lakes will serve both the Refuge’s recreation purpose **and** its conservation purpose, while retaining (even enhancing) opportunities for primitive recreation. Recreation includes hunting, one of the priority wildlife-dependent uses of the Refuge System. In light of the trumpeter swan recovery, opportunities for hunting are now unnecessarily restricted.

We understand the rationale for the original aircraft closures included incidental reference to protection of wilderness values, and the Refuge’s interest in this objective appears to have increased over time. Opening a selected number of additional lakes remains consistent with this objective, since the vast majority of lakes in wilderness will remain closed under all alternatives. It is also consistent with ANILCA Section 1110(a), which authorizes aircraft use in designated wilderness. Furthermore, opening a select number of lakes increases the ability of the public to use and enjoy portions of the Wilderness Area that are otherwise very difficult to reach.

Reexamining current management and effects is also consistent with Adaptive Management as provided in the 620 FW 1, Habitat Management Practices. Section 1.14 B provides that the Service, “*Use adaptive management to modify management strategies and prescriptions, as necessary, and to achieve habitat goals and objectives.*”

Early in this planning process the Alaska Department of Fish and Game (ADF&G) proposed the Refuge conduct studies to determine the effects of aircraft use on trumpeter swans to improve guidance for management of aircraft (see page 2-3, third issue). The Refuge eliminated this and other proposals from consideration as “*impractical, unfeasible and too expensive to implement*” (page 2-2). Given the emphasis on the lake closures, which have major impacts on public access, we again recommend initiating long term cooperative studies to discern why certain lakes and streams are or are not used by nesting swans. In addition, we are willing to cooperate with the Service Migratory Bird Management Office to find the necessary funding and conduct surveys. Better understanding of these relationships will help the Refuge fine-tune management actions and achieve an appropriate balance between resource protection and public use.

Lastly, while outside the scope of this planning process, we request reconsideration of 50 CFR 36.39(ii), which has resulted in an expanding closure as the population of trumpeter swans increases. This regulation currently prohibits the operation of aircraft on lakes (with some notable exceptions) with nesting or brooding trumpeter swans from May 1 to September 30. Based on data contained in the North American Trumpeter Swan Survey and in the swan data collected by the Refuge for the last 50 years, we believe that the increasing cost to the public in terms of lost recreational and hunting opportunities are not justified. Consistent with Refuge purposes and the priority wildlife-dependent recreational uses such as hunting and fishing, the Refuge can increase aircraft access opportunities while protecting trumpeter swan populations. We request a full evaluation of the need for this regulation during the next revision process to reassess the balance between the conservation of swans and public access and use.

Wildlife Management

The State has three primary concerns with wildlife management direction in the draft Plan. First, the Refuge proposes harvest levels for several species of wildlife that are out-of-step with ADF&G and Board of Game established harvest levels. This unilateral intent is not consistent with the Master Memorandum of Understanding (MMOU) signed by ADF&G and the Service. Second, the Service inappropriately portrays wolverine, red fox, and marten as being species in decline. This portrayal does not consider the regional ecosystem context, interspecies competition, or long-term changes in habitat. Finally, the draft Plan makes an effort to portray several species, such as marten and red fox, as either subspecies or exhibiting subspecies traits. Much of the supporting information cited in the draft Plan is anecdotal, outdated, and/or is not supported by more recent advances in genetic analysis. In fact, for species once considered subspecies on the Kenai – such as brown bear, black bear and wolverine – genetic testing demonstrates they are not subspecies, but part of regional populations. Thus the draft Plan seems to be relying on artificial or unsupported assumptions of “rare” populations or unique subspecies. We are concerned the Refuge staff’s approach may be motivated by a desire to justify acting independently of the State’s longstanding management practices and decision-making processes. Once again, this apparent strategy runs counter to the MMOU.

Under the MMOU, the Service recognizes ADF&G has the primary responsibility for managing fish and resident wildlife populations, while ADF&G recognizes the Service is responsible for management of Service lands, and the conservation of the fish and wildlife resources on these lands. These responsibilities have long been mutually respected throughout the Alaska region and the resulting Service/ADF&G relationship has worked well to conserve wildlife populations for the benefit of the public. To address disagreement, the MMOU avoids granting unilateral authority over all fish and wildlife to either signatory. The MMOU states the Service agrees to adopt refuge management plans that are in substantial agreement with ADF&G’s management plans unless they are formally determined to be incompatible with Refuge purposes. Thus a process is available for the Service to propose alternative management direction to ADF&G and the Alaska Board of Game if the Service formally finds such action necessary.

The draft Plan documents the need and process for cooperation and coordination with the State concerning the management of fish and wildlife; however, some of the actions noted above, and further illustrated in our technical comments, demonstrate a lack of follow-through on those

assurances. We request review our technical comments and revision of the draft Plan to achieve better alignment with the intent of the MMOU, including working with ADF&G on ecosystem management across management boundaries.

Non-guided Public Use on the Upper Kenai River

Since the draft Plan was released in May 2008, the Alaska Division of Parks and Outdoor Recreation issued a Request for Proposals for a recreational use study to be conducted for the Kenai River Special Management Area (KRSMA). This new study aims to provide information for the entire river needed by resource agencies to move forward with management actions, especially since the information available to date was gathered over 15 years ago. In keeping with the multi-agency management approach contained in the May, 1997 Upper Kenai River Cooperative Management Plan; the December, 1997 Memorandum of Understanding; and the State's Kenai River Comprehensive Management Plan; we recommend the Service continue to work collaboratively with the State and the USDA Forest Service in the identification and resolution of Kenai River issues, including fishing opportunity on the Upper Kenai River. If fisheries issues arise through the subsequent public process, the Alaska Board of Fisheries would be an appropriate implementing entity, consistent with the MMOU between the Service and ADF&G. Seeking solutions to issues concerning crowding and fisheries is exceptionally complicated and potentially very controversial in the Cook Inlet Region. Investing the time and effort in a cooperative process will maximize best buy-in by the many affected stakeholders.

If the Refuge wishes to maintain the management objective (page 2-87) following public review of the CCP, we urge the Service to work with partner agencies, including the state, in the identification of issues and management actions that affect non-guided use of the Upper Kenai River, consistent with the commitment contained in the letter to Deputy Commissioner Ken Taylor for a public process with all interested agencies and stakeholders. Regardless of the timing and venue of such efforts, the following will be important considerations:

- What user types are currently on the river, and in what proportion?
- How will non-guided use restrictions affect these various use types?
- What users are likely to be displaced, and what would be the projected impacts of such displacement on the management and sustainability of other fish and fisheries in South Central Alaska?
- How will subsistence fisheries be affected?
- How much of the issue is "crowding" and how much can be attributed to competition for resources? Understanding this distinction is key to finding the right solutions.

Snowmachine Access

We encourage the final Plan include the option of zoning (see Alternatives C and D on page 2-107) to provide flexibility to open and close portions of the Refuge to snowmachine use instead of having to open and close the entire Refuge at the same time. We understand that such flexibility needs to be used judiciously to facilitate public understanding and enforcement; however, there will be times and places where different prescriptions are appropriate. Denali National Park has used this approach successfully for many years.

Within the Goals and Objectives, we also recommend including the study of snowmachine use impacts in the Caribou Hills, as recommended in the Compatibility Determination for Snowmachine Use. The study recommended in the CD is both more comprehensive and more specific than Objective 9.4 on page 2-146. We appreciate the CD commits to working with the State on the study design, and if necessary on implementation measures, and we request including these commitments in the Plan.

Research Natural Areas

We question the need to retain the Research Natural Area (RNA) units, especially the 830,000-acre Andrew Simons unit located within designated Wilderness, where protections associated with RNAs appear to be redundant. No prescription in the Service's decades-old RNA policy provides as much protection as the Wilderness designation, and certain uses allowed by the policy would be prohibited by the Wilderness Act. In addition, some of the directives associated with RNAs are also inconsistent with ANILCA and the Refuge Improvement Act. For example, the RNA policy directs that certain public uses must be prohibited for interfering with the research aspects of the unit, while these uses are otherwise protected in Alaska Refuges by statute and cannot be administratively restricted. We question the remaining applicability and justification for these designations, particularly since the boundaries are unclear, the specific reasons for designation are not articulated, and to date, it appears these units have not been used for their designated RNA purposes.

If the Service feels these RNAs still provide opportunities not already present or possible in these areas, we request the above issues be addressed in the Plan or, perhaps more appropriately, in a subsequent step-down plan as required in the national policy ("*Use of each natural area will be governed by a natural area management plan...*" 8 RM 10.8H). At a minimum, we request all discussions of RNAs (including Appendix C) clarify how ANILCA provisions and other statutes affect this national policy guidance. We also request the Plan clarify why these designations are still considered necessary, provide maps, and describe the location and boundaries.

Post Oil and Gas Development Land Use Decisions

We appreciate consideration of increased recreational opportunities in the range of alternatives. However, because use of the oil and gas fields is likely to continue past the life of this planning document, and because of the broad nature of the CCP, we strongly recommend the Service instead conduct a subsequent step-down-plan(s) with full public review for units as they near the end of operations so that specific proposals and decisions are based on contemporary public use and input, rather than those that are fifteen or more years past. Regardless of when such land use prescriptions are addressed, we request consideration of the following:

Swanson River Unit

- Retain part of the existing infrastructure to develop into an historical interpretative site.
- Facilitate public use opportunities such as the development of public use campgrounds and allowing bicycle use described in the preferred alternative.

Beaver Creek Unit

- Facilitate public use opportunities such as development of a campground, primitive camping areas and allowing bicycle use.

Mystery Creek Unit

- Support improving the access road to facilitate public access. Continue to allow public vehicle, pedestrian, horse, snowmachine and bicycle use.
- Public use registration required in Alternatives B and C was not analyzed for impacts to user groups in Chapter 4, Environmental Consequences. If the Refuge wishes to pursue this management action, the final EIS must include this analysis.

Allocation of Management Categories

We understand the value of eliminating the Traditional management category in favor of regional consistency in use of management categories among Alaska refuges. We are concerned, however, about some of the resulting conversions to Minimal management. While Minimal management is generally appropriate for areas away from or not anticipating the need for roads, facilities, or more elaborate infrastructure (such as in the vicinity of Tustumena Lake), Minimal management is less appropriate for areas with extensive existing infrastructure and higher public use levels, such as near Skilak Lake, adjacent to the Swanson Lake-Swan Creek Road area and possibly the Mystery Creek area. Such areas would be better managed under the Moderate management category, allowing the Refuge greater flexibility in the management of lands near developed areas when the need arises. This is particularly relevant to the Skilak Lake area where most of the lands are currently in the Intensive or Moderate land management category and such an action would complement rather than complicate future management of the overall area. Within the range of alternatives, this interest in greater management flexibility appears to be best represented by the allocation of management categories in Alternative B.

Technical Comments

Airplane Access to Lakes Located in Designated Wilderness

The lake closures within Wilderness were originally implemented in the mid-1980s almost exclusively to protect nesting and brooding trumpeter swans, which were less abundant on the Kenai Peninsula at that time. Since 1985, swan populations have increased on the Peninsula from 188 total swans with 46 in pairs in 1985 to 565 total swans with 141 in pairs in 2005 (The 2005 North American Trumpeter Swan Survey, USFWS). Notably, during this same time period, trumpeter swans increased throughout their entire range, including areas of Alaska without restrictions on aircraft landings, from approximately 9,400 to 23,000 swans. We recognize that swan populations can show reduced reproductive success in areas with high levels of human disturbance; however, we are aware of no data in the draft Plan or elsewhere that specifically attributes the population increases to the lake closures.

Providing additional aircraft access on lakes with little historical use by swans would allow public uses that have negligible impacts and allow for some growth in swan use. For example, of the 239 lakes on the Peninsula used by trumpeter swans, less than 15% have been used for nesting in 10 or more of the last 50 years (since 1957). In addition, 86% of these lakes have

recorded no breeding swans in at least 40 of the past 50 years. Given the minor increase in access that is advocated, and the unlikely potential to impact the range wide population of swans, an increase in landings is very reasonable.

Consistent with our general wildlife-related comments, we are also concerned the Refuge seems to be characterizing trumpeter swans that reproduce on the Kenai Refuge as a unique population, not part of a range-wide population. We are not aware of any morphological, genetic, or behavior basis for such an assumption. The Service and the Pacific Flyway states do not recognize subpopulations for management purposes. Additionally, a recent broad scale genetics study of trumpeter swans in Alaska and the western states (Oyler-McCance, et al. 2006) indicates a high degree of homogeneity across Alaska and the Yukon with some indication of a historic genetic bottleneck for the entire population. Only slight differences were noted for swans on the Kenai Peninsula and Copper River Delta. The Kenai Refuge is not a unique ecosystem on the Peninsula with its own populations and goals.

We are also concerned about the validity of some of the assumptions about airplane use and corresponding impacts. For example, page 4-134 notes: *“The anticipated increase in population growth and an aging population for Anchorage and the Kenai Peninsula over the life of the Plan would result in a corresponding increase in airplane ownership and recreational use within the Refuge.”* The document provides no substantial evidence for this statement. The growing cost of airplanes, insurance, and fuel may have an unrecognized damping influence on airplane use. We are also concerned about statements in Chapters 3 and 4 which appear to be speculative, anecdotal, and/or offered as fact without supporting documentation. Examples are provided below. Collectively, these statements refer to aircraft access in an unnecessarily negative context. We suggest removing or re-wording such statements to provide a more balanced assessment of both the positive and negative affects associated with airplane use.

Page 3-52, 3.3.6.6 Exotic, Invasive and Injurious Flora: We recognize the potential to introduce aquatic invasive species via floatplanes; however, because there are no known problems to date, either in the Refuge, Lake Hood, or in other likely source lakes, we request some clarification about the actual likelihood and scale of expected impacts.

Page 3-93, Human Disturbance of Trumpeter Swans, second paragraph on page: Given the lack of evidence regarding the effect of aircraft closures on swan populations, we request revision of the last sentence: *“Recent aerial surveys indicate that as many as 50 pairs may be using the Refuge, although this increase is not necessarily attributable to aircraft restrictions.”*

Page 3-93, Human Disturbance of Trumpeter Swans, third paragraph on page: It is difficult to evaluate the basis for the statement that trumpeter swan nesting pairs have not increased off the Refuge. It may be that swans are utilizing all the available lakes off the Refuge and have been for some time, or that observations are not as readily documented. Human disturbance or associated domestic animals may also be a cause. As with the above comment, it remains speculative to assert any cause for increases or decreases without reliable studies.

Page 3-121, 3.4.4.3, Airplane Landing Areas: This section claims the Refuge receives *“a tremendous amount of airplane use,”* but admits that *“precise estimates for total aircraft using*

the Refuge do not exist.” No reliable data or estimates of use are provided to support the implication that aircraft use is “*commonly accepted*” to be increasing concurrently with the annual Kenai Peninsula population increase of 2.5%. The assertion seems to be based on the number of aircraft registered in Anchorage and its proximity to the Kenai Peninsula. We question basing management prescriptions on such unsupported assumptions and analysis.

Page 3-165, 3.5.5.2, first paragraph, last sentence: We request this sentence be revised as follows: “*Small planes are an important means of access to remote portions of the Refuge, yet their use may ~~significantly threaten~~ also diminish opportunities for solitude.” Such a revision would be consistent with the more balanced assumption about small airplanes presented on page 4-142, second bullet from the bottom of the page.*

Page 4-133, General Assumptions, first bullet: The reference to 580 lakes susceptible to aircraft use *within the Refuge* is only partially relevant to a discussion of air access *in designated Wilderness* by inappropriately providing a Refuge-wide context. Of more importance in the wilderness context are the number of these lakes within the 1.3 million-acre Wilderness (this information is not provided), and the fact that only forty-six of the Wilderness lakes are currently open to airplanes by regulation, subject to additional restrictions related to trumpeter swan nesting and brooding. The discussion of impacts should focus only on lakes within Wilderness, which may substantially alter some of the analysis and conclusions. This comment also applies to pages 4-140 thru 4-142.

Page 4-134, General Assumptions, second bullet on page: As previously noted, the assumption of increased air access is not substantiated in any manner. We request its removal unless substantiated, and the analysis revised as appropriate.

Page 4-135, Alternatives C and D: The language describes lakes that would be re-opened as “... *pristine and free from the impacts*” associated with airplane or human use. This implies that these lakes currently and historically received essentially no use. Managing for no public use to keep areas free from assumed impacts is unnecessarily restrictive and inconsistent with ANILCA Section 1110(a) and the Refuge Improvement Act. This approach to public use in Wilderness areas further demonstrates that the rationale for closures needs to be reevaluated.

Concerning the discussion in Alternative C regarding re-opening airplane access to the unnamed lake near Goat Lake, the analysis of potential impacts to the surrounding area appears substantially overstated. There is no evidence that the number of, or activities by, people using the entire 20-square mile area would generate the stated impacts. Under this alternative, we expect few additional people would visit the area and the majority of airplane access would most likely take place during August to November (goat hunting season). We also question the projection that the few additional people accessing the area by airplane would have “*adverse, major impacts*” to the vegetation within the entire 20-square mile area. Site-specific impacts could range from minor to major at a local scale depending on intensity (as is shown to be the case in other alternatives (see page 4-109, 4.3.7.2), but widespread intense use cannot reasonably be expected here. (This comment also applies to Alternative D.)

Finally, the Alternative C discussion projects that areas would be “*damaged by newly created dispersed campsites*” in sensitive alpine habitat. Dispersed camping is generally seen as a positive influence on physical impacts in lightly-used habitat by spreading out use. We question there would be enough evidence of *dispersed* camping to assert even medium-term resource damage. Alternatively, the Refuge could designate and perhaps harden selected campsite(s) to provide for recreational use with minimal off-site impacts.

Pages 4-136 thru 4-140, Wildlife Consequences: The analysis throughout this section has several examples of the use of the word “*would*,” which inappropriately implies a definitive impact, when “*could*” is probably more accurate or reasonable. For example, Alternative A states with certainty that aquatic and terrestrial wildlife *would* show signs of disturbance from aircraft access. Also, if these projected signs of disturbance are mostly short-term displacement of an occasional individual animal, it may not merit recognition in this context.

Pages 4-140 thru 4-142, Recreation Consequences: Consistent with our comments for page 4-133, a more balanced analysis would equally assess the impacts of openings and closures on all user groups. The current analysis does not always do this. For example, the analysis indicates opening lakes to airplane access provides beneficial, long-term impacts for recreational airplane users and major adverse impacts to those who walk in. However, the analysis also indicates that a closure to airplanes would only cause negligible impacts to airplane users given that there are hundreds of other lakes open for airplane access in the Refuge. First, this ignores that, in actuality, there are only forty-six lakes open to airplane use in Wilderness. Second, using the same logic, it could be readily assumed that impacts to pedestrians would also be negligible, as they also have hundreds of other lakes available in the Refuge for their use. The discussion also assumes or implies all pedestrians have a very limited tolerance for airplanes in designated Wilderness and would have a very negative experience if they encountered an airplane. It is equally plausible that encountering an occasional airplane could have little or no negative impacts on their experience. It may even facilitate aspects of their wilderness experience. To fairly assess the impacts, the analysis needs to either acknowledge that only one perspective is being analyzed or present a more balanced approach with regard to impacted user groups.

Page 4-141, Alternative A, Recreation Consequences: As noted in our general comments, the assumptions concerning inevitable and automatic increases in airplane use because of increasing populations is not supported.

Page 4-158, Section 4.3.11.3, last bulleted assumption: While floatplanes are recognized as potential sources of invasive species, incidents have not, to our knowledge, been documented in Alaska. Similar to bulleted assumptions on pages 4-134 and 4-151, we request “*will*” be replaced with “*may*.”

Wildlife Management

Page 2-119, Objective 2.8: For reasons explained in the revised rationale below, the Refuge may not be able to implement the objective as written. We request revision as follows:

Caribou populations will be maintained at or below two caribou per square kilometer over the next 10 years (2014).—The 2003 Caribou Management Plan (maintaining the caribou population at or

below two caribou per square kilometer) will be reviewed in cooperation with ADF&G and the Chugach National Forest and, if necessary, revised to meet new understandings of caribou dispersal and utilization of additional habitat throughout the peninsula.

Rational: Since the initial reintroduction of 15 caribou from the Nelchina herd to the Refuge in 1965, the caribou population has increased to more than 1,100 individuals in four herds. Recent observations of caribou on nunataks in the Harding Ice Field and in a large group near Exit Glacier suggest that caribou are continuing to disperse over the peninsula. The carrying capacity of available habitat on the peninsula is unknown. ~~However,~~—The 2003 Caribou Management Plan, developed by the Refuge, ADF&G, and the Chugach National Forest, specifically caps desired caribou population densities at 2 caribou per km² to prevent degradation of alpine tundra. However, because of the continued dispersal of caribou to new areas, the partner agencies will review the data and revise the plan, if necessary. ~~This objective and/or management plan may be revised by the partner agencies based on new data or analysis.~~

Page 2-120 and 2-121, Objective 2.11: ADF&G already has current monitoring programs for the management of these species implemented in cooperation with other agencies. These programs monitor population trends and health of wolves, wolverine, and brown and black bears on the Peninsula, including “statistically-rigorous survey designs” for wolverine as discussed in Golden, H.N., Christ, A.M. & Solomon, E.K. 2007: Spatiotemporal analysis of wolverine *Gulo gulo* harvest in Alaska. – Wild. Biol. 13 (Suppl. 2): 68-75. ADF&G welcomes cooperative efforts by the Service and others in refining methods used to estimate wildlife populations.

Page 2-120, Objective 2.9: Consistent with our major concerns about following MMOU protocols, the Service has not determined that ADF&G’s management of Dall sheep and mountain goat is incompatible with Refuge purposes. We therefore request removal of the Refuge’s specific population objective. We offer the following revision that respects the Service’s interest in maintaining wildlife populations in their natural diversity within the context of ADF&G’s current management.

The Refuge will manage habitat and monitor Dall sheep and mountain goats in cooperation with ADF&G, Chugach National Forest, and Kenai Fjords National Park so that variations in population trends are adequately noted and to maintain their natural diversity while allowing for wildlife dependent opportunities, including a sustainable harvest (where allowed) through a regulated hunting program managed by the Alaska Board of Game. In addition, the Refuge will work cooperatively with partner agencies to ensure that a peninsula-wide survey is completed every three years.

Page 2-125, Objective 3.6: We request this objective and rationale clarify what are trust, harvested, and indicator species. It may be more appropriate to divide this objective into two: one that focuses on trust species (waterfowl, endangered species) and another focusing on habitat management and monitoring fish and wildlife in cooperation with ADF&G, consistent with the MMOU. Note “indicator species” also occurs in Objective 3-12.

The rationale also indicates that “...data from several surveys have neither been rigorously analyzed nor have standard protocols been established.” We do not agree with this statement; although it is not completely clear what is meant by “rigorously analyzed” or “standard

protocols.” Is there a recognized standard in literature or Service policy direction that provides guidance or is this the professional opinion of staff?

Page 3-55, 3.3.7.2 Species of Special Concern: We request the Plan note what defines a species of special interest, how this was determined, and the criteria used to determine rare or threatened with extirpation. These labels may have far reaching effects, including possible threatened or endangered species listings; thus the use and purpose of these terms should be clearly defined.

Page 3-55, Red Fox and Marten: Concerns regarding the status of these species were outlined in our April 15, 2007 comments on the Draft Compatibility Determinations. The discussion is also not consistent with the status of marten and red fox as presented in objective 2.14.

Page 3-55, Wolverine: The proper reference for wolverine here is *Gulo gulo luscus*. The bullet indicates declining harvest and population estimates. Only one population estimate has been conducted for wolverine on the Kenai Peninsula (Golden, et. al.). It is not possible to identify either an increasing or decreasing trend in a population using only one population estimate. Harvest of wolverine on the Kenai Peninsula has shown no decline for the last 45 years. Although wolverine harvest generally declined between 1996 and 2002, it rebounded to an annual average of 20.5 for 2003-2006. The total annual average harvest from 1984-2006 was 19.6 wolverine.

Page 3-63, Brown Bear, first paragraph: We request this section note that there is not an official population estimate for brown bears on the Kenai Peninsula and any population estimate should be used with caution. The 2001 Conservation Assessment of the Kenai Peninsula Brown Bear specifically noted that “*Data specific to the Kenai Peninsula brown bear population are limited and estimates of [the finite rate of increase] should be interpreted with caution.*” Del Frate 1999 noted that “*We believe the population is stable or may be slightly increasing.*” Both Del Frate and the Conservation Assessment are dated and new data should be analyzed before any population estimates are provided. According to ADF&G, the brown bear population on the Kenai Peninsula is healthy and sustainable. (Personal communication with Jeff Selinger, August 2008). In addition, we request this section also address conservation concerns raised by the Service and the State at the April-May 2007 Federal Subsistence Board meeting and in other interagency discussions about the status of bear populations in the face of recently authorized harvests by the federal Board.

Page 3-64, Section 3.3.7.3, Brown Bear: We request using the second full paragraph to conclude this section to provide a more accurate presentation of the findings of the Conservation Assessment. We also note, the current text is virtually identical to narrative in the Assessment (Section 3.1.6, Population Parameters, page 22) and we therefore request a quote. Also see the comment below for page 3-88.

Page 3-69, Red Fox, first paragraph: See our general comments regarding red fox being “*rare*” on the refuge. ADF&G frequently receives reports of red fox in the Caribou Hills and up Fox Creek. We request this information be noted.

Page 3-70, Wolverine, first paragraph, first sentence: The discussion that wolverine are uncommon is not consistent with recently conducted surveys or harvest data. See earlier referenced study concerning wolverine as well as Golden, et. al, 2007a. Golden shows that the wolverine population and their harvest are sustainable on the Peninsula, including on the Refuge. ADF&G is engaged in ongoing research to increase knowledge of these animals.

Page 3-70, Wolverine, first paragraph, last sentence: ADF&G sealing records do not suggest what wolverine populations are doing on the Tustumena benchlands, in the Fox River valley, or elsewhere on the Kenai Peninsula, since the comparison of populations from the limited harvest data is not possible in this instance. For the period 1984-2005 harvests averaged one wolverine per year in GMU 15A, two per year in GMU 15B and four per year in GMU 15C. The total annual average harvest from 1984-2006 for the entire Kenai Peninsula was 19.6 wolverine.

Page 3-70, Wolverine, fourth paragraph: The discussion of harvest in this paragraph needs further explanation and additional detail using the complete data set. While the data set does show harvests ranged from a reported high of 48 in 1971 to a low of six in 2003, it does not represent a steady and continuing decline as implied in the text. Harvests since 2003 have been higher than six. It would also be useful to note that harvest figures from 1961 to 1968 were from bounty records and sealing records were started in 1961. (From 1953 to 1968, a \$15 bounty was provided to stimulate harvest.) Additionally, significant changes in trapping regulations and snowmachine use were implemented in 1986 that also changed historic trapping practices within the refuge and may have altered harvest of all furbearers, including wolverine.

Page 3-73, Marten: The subspecies status for Kenai marten is based on a subjective assessment of six specimens collected over 100 years ago. The subspecies designation has likely persisted in literature since 1903 because there has been no study to properly assess them. A genetic based assessment would likely refute the subspecies designation, much as it has for wolverine (see previous discussion) and for brown and black bears on the Peninsula. The paragraph is not technically incorrect in its current discussion based on the established data but it would be helpful to acknowledge that there is room for a better understanding of the situation. If concerns about the taxonomy of marten exist we recommend the development of an objective to determine their status, particularly before any additional restrictive management actions are taken. Sampling specimens for such a study could be taken from marten brought to ADF&G for sealing.

Page 3-88, Status of Brown Bear Populations, first paragraph, last sentence and section conclusions: The conclusion in the first paragraph, which drives the entire discussion, does not accurately portray the conclusion reached in the Conservation Assessment. We request revision since the data presented appear to be almost entirely from the Assessment and differing conclusions cannot be otherwise substantiated. We request using the concluding paragraph from page 22, of Section 3.1.6, Population Parameters of the Assessment for the conclusion for this section. This section (as shown below) was used previously in Section 3.3.7.3 of the Plan, but it makes an appropriate conclusion here as well.

It is difficult to characterize the health of the Kenai Peninsula brown bear population at this time. The calculated finite rate of population increase indicates neither an increase or a decrease, whereas demographic information (survivorship data and the female age distribution) indicates the possibility

that reproductive females have a low recruitment into the Kenai brown bear population. This is an area that warrants continued research and monitoring.

Page 3-141, Trapping: The reference to the ratio of local to non-local trappers in the second half of the second sentence is not relevant to management of trapping on the refuge. Without context or justification, this type of information is potentially misleading. We therefore request it be removed. The comparison of the trapping harvest from the previous 5 years with the 44 year average is also misleading without noting Refuge regulations significantly altered traditional trapping methods and access on the refuge, which affected harvest rates and participation. We request this important context be included in this section.

Page 3-93, first paragraph on page: *“Lakes once used by nesting trumpeter swans but no longer within the current Refuge boundaries....”* Whether or not these lakes are still within refuge boundaries is not necessarily relevant. We request clarifying whether they still serve as suitable habitat for trumpeter swans.

Page 3-53, 3.3.6.7, last full paragraph on page, last two sentences: The last attempt at reintroducing caribou to the Caribou Hills in April 1986 consisted of a nominal number of caribou (16) originally from the Nelchina Herd. It has been shown that some of these caribou dispersed from the Caribou Hills some 20 miles to the north of the Fox River area soon after their reintroduction for unknown reasons. That winter (1985/86) the Refuge was never open to snowmachine use due to inadequate snow cover and was not open again until January 1987, presumably after the small number of animals had long since dispersed. Caribou from the release dispersed widely, with reports of individuals moving closer to human-settled areas of Homer and Ninilchik, and one case of a dispersal to Wolf Creek south of Hope. No attempts were made at the time by either ADF&G or the Service to determine why the caribou moved. Snowmachine influences as a cause for dispersal or avoidance are equally as likely as habitat, the lack of predictability associated with the small number of caribou released, or predators. The Kenai Lowlands Caribou Herd is currently located in a densely human populated area within the Kenai-Soldotna city limits, in the presence of intensive snowmachine use, roads, and automobiles. Caribou can also be found north of Anchorage near Eureka, another area with heavy snowmachine use. We therefore request the following revision to clarify that several factors need to be considered:

Also, while the Caribou Hills may have been important to caribou historically, animals that have been re-introduced to the Kenai Peninsula in the 1960’s and 1980’s, including an attempt directly into the Caribou Hills, have not successfully re-established populations in the Caribou Hills. While there is no direct evidence that caribou avoided the Caribou Hills because of snowmachine use, it could be a possible factor and should be investigated along with others such as available habitat, climate change issues and presence of predators.

Page 3-73, Marten, last paragraph on page: Please provide a citation to support *“trapping records from the late 1890’s indicate that marten may have been more widespread and numerous than they are now.”* ADF&G is not aware of a source that supports marten ever being abundant on the western side of the Kenai. We appreciate the Refuge’s thorough discussion concerning marten on the Kenai Peninsula and specifically the Refuge itself, but we retain significant concerns about inferences within this document that assert marten on the Kenai

Peninsula are a distinct subspecies. As noted above, this assertion is based on six specimens collected 105 years ago as reported in Elliot (1903). While Elliot may have complied to the standard of the day, it is very unlikely that the designation of marten as a distinct subspecies would hold up under 21st Century evaluation, including genetic/DNA evaluation. Other species such as brown and black bear and wolverine were once thought to be separate subspecies distinct to the Kenai Peninsula but their evaluation using modern techniques has refuted that designation. It is likely that such a review of marten would provide the same results. Our primary concern is that there may be attempts to manage marten on the Refuge as a distinct subspecies rather than as a species present on the entire Peninsula and limited on the Refuge due to issues such as habitat or climate.

Page 4-66: Chapter Four's discussions of consequences to wildlife sometimes confuse impacts to individual animals with wildlife populations as a whole. This is only appropriate when the cumulative effects of impacts to multiple individual animals reaches a level where broader affects may be detected at a regional or refuge-wide population scale. General statements about wildlife impacts should be tied to population-level effects. See the following page-specific comments for examples of this problem:

- Page 4-66, Mystery Creek Unit, Public Use During the Life of the Project, third sentence
- Pages 4-96 to 4-98, Ski Hill Road, *Wildlife Consequences*
- Pages 4-136 to 4-140, Airplane Access, *Wildlife Consequences*
- Pages 4-163 and 4-164, Snowmachine Use, Alternative A, *Wildlife Consequences*

Page 4-163, "Wildlife presence" Indicator: We request the final Plan specify which species or types of animals are under consideration as indicators, or the inclusion of selection criteria. More importantly, we request the final Plan commit to working cooperatively with state wildlife managers on evaluating and selecting the actual indicator species.

Fisheries Management

Page 2-114, Objective 1.17: A stock assessment program to estimate sustainable yield for the lake trout fishery at Hidden Lake is also a priority for ADF&G and will likely occur within the next five years. The Service would be a welcome cooperator on this research project. The current data concerning this population of lake trout suggest that it was over exploited for several years. Regulatory changes were implemented by the Alaska Board of Fisheries in the 1990s and again in 2008 to reduce harvest. The current bag and possession limit is one fish. Additionally, this section should address recent authorizations for harvest by the Federal Subsistence Board that may cause renewed conservation issues for lake trout management.

Page 2-116, Objective 1.22: Marine derived nutrients can be used to measure historic salmon production mainly from salmon producing drainages that contain lakes. The value of this objective would be enhanced if marine derived nutrient analysis would incorporate methods to estimate salmon productivity as well as terrestrial input.

Page 2-116, Objective 1.23: We request the objective be revised as follows to reflect that the research portion is already underway by ADF&G with the welcome cooperation of the Service. This includes an ongoing genetics stock identification project. Strategies for early-run Kenai

Chinook salmon management already exist in Chapter 57 of the Alaska Administrative Code and are reviewed and/or modified during each Alaska Board of Fisheries Upper Cook Inlet meeting.

Objective 1.23: Biological Inventories: Within four years of funding, work with ADF&G in their ongoing study (genetics stock identification) to assess populations of early-run Chinook salmon in the Kenai River.

Additionally, we request removal of the 5th sentence in the rationale. The harvest of early-run Chinook takes place in the mainstem Kenai River after July 1, which is why the slot-limit of early-run Chinook above the Soldotna Bridge extends through July 15. As written, this sentence incorrectly implies that any harvest of early run Chinook is problematic.

Page 3-102, 3.3.8.11, third paragraph: All stream crossings and culverts located in anadromous streams, including their installation, construction and maintenance, must be permitted by ADF&G’s Habitat Division. Please note this requirement in the plan, where appropriate, possibly either in this section or in Chapter 6, Implementation and Monitoring, 5.2 (page 6-27).

Page 3-135, Section 3.4.6.1, Fishing, first paragraph: We request this discussion include more recent user information showing the actual long term trend of use (measured in angler days) on both the Kenai River and the Kenai Peninsula. Use does appear to have increased from 1981 through 1995 on both the Kenai River and the Kenai Peninsula as discussed. However 1995 seems to have been a peak year of use for both areas referenced (about 377,000 for Kenai River and 1,043,000 for the Kenai Peninsula). Since 1995 use on the Kenai River and Kenai Peninsula has remained relatively the same or decreased (388,000 in 2005 and 329,000 in 2006 on the Kenai River and 813,000 in 2005 and 732,000 in 2006 for the Kenai Peninsula). (Data presented here is from the Statewide Harvest Survey, available from ADF&G). Without this additional information the discussion implies a dramatically increasing use trend, which may not be the case. Further discussion and analysis of the issue is necessary. In addition to angler days, the discussion needs to address harvests and uses authorized in 2007 for federal subsistence fishing of sensitive lake trout, rainbow trout, and steelhead stocks in the Kenai and Kasilof rivers.

Snowmachine Access

Page 3-123, 3.4.4.4, first paragraph on page: We request this brief history of snowmachine openings and closures mention the ANILCA 1110(a) snowmobile authorization and include the following sentence derived from the final Kenai Snowmobile CD: *“The definition of “traditional activities” under Section 1110(a) of ANILCA has not been defined for the Kenai Refuge.”* (From top of page 4 in CD.)

Page 3-123, last paragraph on page: The anecdotal information in this paragraph is misleading, especially the statement that *“Conservatively, 10,000 to 15,000 miles of snowmobile tracks may be laid on a single winter day.”* First, there will be a few days (e.g., a sunny Saturday following a recent snowfall) when many miles of new trail will be created (much of it over old trail); but simply multiplying a theoretical maximum by another theoretical maximum exaggerates the projected cumulative use compared to what actually occurs on a sustained daily basis. Second, the numbers provided in this paragraph imply that most miles of snowmachine travel are over untracked snow – which is often not accurate. Some users, especially families with small

children, hunters and trappers make round trips and tend to stick to common trails. Families may be limited by factors including riding ability, machine limitations (i.e., short track), or the ability to maneuver with multiple persons on one machine. Hunters and trappers may be interested in facilitated access for a specific purpose (i.e. checking traps or access to known hunting areas). Many set a track early and continue to use the same trail throughout the season. Other than recognizing a general increase in snowmachine use (as discussed in the next paragraph), we urge deletion of the specific reference to the 1994 manager’s report.

Page 3-127, second paragraph on page: We request the units of measurement in the text match the study data. Figure 3-25 on page 3-127 refers to “*detections*” or passes, while the text sometimes refers to “*snowmachines.*” Since many, if not most, snowmachine trips are round trip, using these data to imply actual numbers of snowmachines at given time is inappropriate.

Page 4-161, 4.3.12.1, Biological Environment, Alternative A (Vegetation): The first sentence states this alternative “...*would have adverse, medium to long-term impacts...*” First, we recommend inclusion of the modifier *site-specific* for this summary statement. A reference to *site-specific* impacts occurs later in the paragraph but it is unclear if this only applies to areas with inadequate snow cover. Second, we request changing “*would*” to “*could*” since there is little more than anecdotal information about snowmachine impacts on the Refuge. These comments also apply to corresponding discussions in the other alternatives. We also recommend a caveat (perhaps a new fourth sentence) that in light of the lack of Refuge-specific impact data, this analysis is based on general Refuge observations and studies in other areas.

Page 4-162, last sentence in first partial paragraph: We request a more relevant statement consistent with the context, such as: “*Impacts resulting from such dispersed activity would be less intense, but more widespread, than repeated use along existing trails.*”

Page 4-162, Alternative B (Vegetation): The variations among the alternatives are not adequately explained in this analysis. Impacts of snowmachine use across the board are labeled as “*similar*” and acknowledged differences are not adequately addressed. For example, it is inaccurate to say that Alternative B would have *similar* impacts as Alternative A, especially since the rest of the sentence discusses studies and potential management actions that would presumably reduce these impacts. Impacts would indeed be *similar* while studies were underway, but the situation could change substantially, perhaps leading to fewer long-term impacts. Since both Alternative B and the Preferred Alternative (E) rely on these studies and subsequent management actions as distinguishing features, these components of the proposal need greater recognition in the context of this chapter, even though they are admittedly speculative and theoretical. (Alternative D, by contrast, does a better job of summarizing the distinguishing features of this alternative.) To assist in revising this discussion of Vegetation for Alternatives B and E, the following suggested language is one way to address our concern: “*Until studies are completed and appropriate management actions taken, the impacts would be similar to Alternative A; however, long-term impacts are likely to be reduced as a result of mitigation measures implemented following the studies.*” This comment also applies to page 4-164, Alternative B (Wildlife); page 4-165, Alternative E (Wildlife); page 4-166, Alternative B (Recreation); page 4-168, Alternative E (Recreation); and page 4-169, Alternative B; and page 4-170, Alternative E (Wilderness Values).

Page 4-163, Alternative A (Wildlife): As with the Vegetation analysis, we are concerned about use of the word “*would*” in the first summary sentence. We do not see evidence at this time that indicates wildlife populations are threatened by snowmachine use. We acknowledge that increased use *could*, over time, have adverse impacts; but this is sufficiently speculative that using a definitive word such as “*would*” is inappropriate in this context. The paragraph also sometimes confuses impacts on individual animals with population impacts in general. For example, the fourth sentence would be more accurate if phrased “*At the site-specific scale, impacts could be major on individual animals when and where snowmachine-wildlife encounters occur.*” General statements about wildlife impacts should be tied to population-level effects. Certainly not all such encounters have negative consequences, nor are *encounters* defined. In the next sentence, we recommend simply deleting the word “*would*” to indicate these are examples of impacts, not that encounters always result in these impacts. In the following sentence regarding small mammals, we request changing “*would*” to “*could*” to avoid implying that passage of snowmachines always results in their mortality.

We also question the prominent billing of “*intentional harassment*” as an impact topic. As written the discussion implies such harassment is commonplace, which is unnecessarily inflammatory. Such occurrences are incidental at best and are illegal under both federal and state regulations, and therefore a law enforcement issue. We recommend rephrasing as follows: “*...impacts would result from unintentional disturbance due to snowmachine use or occasionally from illegal intentional harassment.*” In addition, the impacts noted in the last sentence at the bottom of the page are also not substantiated by source data in Affected Environment; therefore, we request changing “*would*” to “*could*” or deleting the sentence.

Page 4-164, Alternative A (Wildlife): The last sentence under Alternative A communicates a bias in favor of primitive (non-motorized) means of access. We found relatively few references to possible impacts of non-motorized activities on wildlife, even though skiers and dog mushers, for example, can also disturb wildlife. While non-motorized disturbances may not reach a level of population impacts, the absence of discussion compared to the detailed accounting of possible impacts from motorized forms of access that are also of less-than-population-scale affects.

Page 4-164, Snowmachine Use, last paragraph of Alternative A (Wildlife): This section notes: “*...beneficial, long-term impacts on wildlife would be expected due to management prescriptions that do not allow snowmachine use...*” Drawing this type of generalized conclusion is premature before recommended studies are initiated.

Page 4-166, 4.3.12.2, Human Environment, Alternative A: Generally, this impact analysis regarding recreation appears to be oriented primarily around the negative impacts that snowmachines have on non-motorized visitors, implying an assumption that snowmachine visitors have less value than non-motorized visitors. This section does not address that snowmachines provide beneficial recreational access to portions of the Refuge that would otherwise be inaccessible for many Refuge visitors. For example, Alternative A on page 4-166 says “*major impacts would be expected at the refuge-wide scale when inadequate snow conditions exist and snowmachine use is not allowed.*” Does this mean major **adverse** impacts to snowmachine travelers who can’t get to favored riding areas, or major **beneficial** impacts to non-

motorized travelers, some of whom prefer to avoid snowmachines? The subsequent sentence, which also inappropriately combines wilderness values with recreation, illustrated the Refuge is orienting the analysis only from the perspective of the non-motorized visitor. Also, there is no recognition in this analysis that at least some snowmachine users value wilderness attributes in the same way as those accessing the Refuge by airplane (see first assumption on pages 4-142 and 4-158).

Use of “*recreation opportunity settings*” is also confusing. They are broadly defined on page 4-165 and elsewhere in Chapter 4, but how they apply in the context of the impact analysis is not clear. If recreation opportunity settings are used to measure and document how the Plan provides for a diversity of recreational experiences, this is not explicit. Also, if 63% of the Refuge is open to snowmachine use only with adequate snow cover, this means at least 37% of the Refuge is closed at any given point in time, providing ample opportunity for those seeking non-motorized winter recreation.

Page 4-166, Alternative A, second paragraph, last sentence: The TRAF_X study apparently referenced here is used inappropriately in this context. These data were gathered on groomed trails off-Refuge and cannot be presumed to apply to trails on Refuge lands. It is also inappropriate to take site-specific trailhead data (even if it were on the Refuge) and extrapolate that to an entire “*popular use area (e.g. Caribou Hills).*” The current assertion does not recognize that snowmachine use obviously disperses as it moves farther into the Refuge.

Page 4-167, Alternative C, second paragraph, third sentence: We request the following revision: “*When snowmachine use is allowed, visitors at popular use areas (e.g., Caribou Hills) may encounter other snowmachine users...throughout the day.*” To imply that all such users would always have these encounters is clearly not true, especially over such a broad area and across an entire season.

Additional Chronological Comments

Page 2-33, Mystery Creek Road and Pipeline Corridor: This section states that bicycles will be allowed 2 months longer than vehicles, which is not currently allowed under 50 CFR 36.39. We would conceptually support a revision of this regulation during the implementation phase.

Page 2-33, Ski Hill Road: The Refuge cannot implement much of the intended management direction unless and until the Refuge acquires jurisdiction over the road. To address this comment, we suggest revising the first sentence of the Ski Hill Road management direction as follows: “*The Refuge would assume management and maintenance of the Ski Hill Road upon transfer from the State to the Service.*” This comment also applies to Alternative C (page 2-50), Alternative D (page 2-67) and Alternative E (page 2-85). Correspondingly, for page 2-101 on Table 2-12, we recommend starting the summary descriptions of Alternatives C & D with “*Management and maintenance conducted by the Service.*”

Page 2-86, Trail Maintenance and Planning: We suggest noting that Refuge decisions about new trails will be consistent with the intent of the Kenai Peninsula Brown Bear Conservation

Strategy (see page 12, Hiking Trails and Trail Management). Finally, we request clarification that the assessment will include public involvement. See also our comment for page 2-101.

Page 2-88, Airplane Access to Chickaloon Flats: We support the Refuge's intent to increase safe and practical access for aircraft in the Chickaloon Flats area. Current designated landing areas are inadequate and poorly sited to provide for safe and reasonable access desired by the flying public to support outdoor recreational activities. We will be interested in reviewing public comments from those familiar with the area regarding any additional information concerning landing areas and the mapped boundary. If the proposed landing areas do not provide the desired access for aircraft and/or if additional adjustments prove necessary in the future, we recommend that they be further discussed during the proposed update of the Chickaloon Flats Management Agreement. We also suggest the Plan clarify the term "unvegetated" and define it to mean generally free of vegetation except for occasional grasses or sedges. Clarification of the intended enforcement standard may also help users who need to make judgment calls from the air. Depending on the intent, the term "*generally unvegetated*" may be more realistic.

Page 2-97, Use of Fire as a Management Tool: On this issue, we support selection of the preferred alternative on the basis that it provides sufficient discretion to use both prescribed and wildland fire to achieve management objectives. Regarding wildland fire, the Alaska Wildland Fire Coordinating Group is updating the Alaska Interagency Wildland Fire Management Plan (AIWFMP) to similarly reflect more recent policy, increase management flexibility, and provide better implementation direction. We also appreciate recognition of the roles of climate change and deliberate alteration of natural processes through means such as fire suppression in influencing wildlife distribution, including both range expansions and reductions (pages 3-49 and 3-50). Such long-term and often unpredictable changes raise questions about selective application of Service policy emphasizing present and historic levels of diversity. We appreciate that the Refuge recognizes this dilemma and find the discussion particularly enlightened. We also support the intent to manage forest fuels to facilitate protection of adjacent private lands and refuge structures. These measures provide more latitude to manage wildland fires to meet land and resource objectives while minimizing concerns about public safety and property loss.

Page 2-101, Trail Maintenance and Planning: We trust the preferred alternative intends to consider the construction of new trails in the needs assessment referenced under Alternative A. If so – and we support such an intent – we request the final preferred alternative clarify this by adding the first sentence from Alternative A. This comment also applies to page 2-86.

Page 2-105, Middle Kenai River: We understand the intent to work with stakeholders concerning management of the Middle Kenai River. Many of the issues are similar to those of the Upper Kenai River, including concerns for crowding, habitat impacts, and levels of guided use. As the Refuge develops this planning process we request consideration of the specific impacts that may occur with displacement of anglers to other areas of South Central, including the Kenai Peninsula, and for the sustainability of affected fish and fisheries resources. We also request that, consistent with the intent of the MMOU, the process utilize the State's regulatory system to the greatest extent possible and to coordinate efforts with KRSMA where applicable.

Page 2-109, 2.2.1 Refuge Purpose (i): Because the State and other agencies have management authorities that may affect the Refuge, we request this section include the following paragraph, which is from the Kanuti CCP, page 2-19, fifth paragraph:

Cooperation with State and Federal agencies and other organizations is a critical component to successfully meeting most of the objectives listed below. This cooperation can take a variety of forms, ranging from reviewing and revising study plans and reports to cooperating on data collection and report completion.

Page 2-109, Objective 1.1: We recommend reviewing the current sampling plots to ensure that they are providing useable data. It is possible that the Swanson River site may be impacted by legal hunting and may not be providing representative results.

Page 2-114, Objective 1.18: In addition to the Long-Term Ecological Monitoring Program (LTEMP) process, we encourage the Refuge to utilize already existing data sets. Generally, fish distributions are less or more diverse than can be detected through the described LTEMP strategy. Extensive data relative to the presence of anadromous fish is readily available in the State of Alaska Anadromous Fish Catalog.

Page 2-113, Objective 1.12: Please update the rationale for this objective based on more recent information. The Upper Kenai River is no longer a catch and release fishery for rainbow trout. Since 2005, a very conservative harvest opportunity of one fish per day at less than 16 inches is allowed. The current levels of harvest (fish caught and retained) are low relative to abundance, but the most recent catch (fish caught but released) estimates exceed 100,000. Changes in fisheries and data acquired in recent studies by the federal subsistence program should also be reflected, as well as harvests on sensitive stocks authorized by the federal subsistence program. The last population assessment was conducted by ADF&G in 2001 and current information is desired to gauge the effects of the new conservative harvest regulations. Conducting such a project, as outlined in the objective, is a priority of ADF&G and will likely occur within the next five years. As on other fishery-related research projects, ADF&G would welcome the cooperation of the Service. We request the rationale recognize the study will likely be a cooperative effort led by ADF&G.

Page 2-117, Objective 2.2: We appreciate the reference to “*cooperative*” efforts, though we are unsure what “*unilateral*” means in this context. If understood correctly, we suggest that “*unilateral*” be changed to “*independent*” for tone purposes. Also, we suggest providing more meaningful targets for long term guidance, for example – restoring 100 feet of river bank per year. We also request expanding this objective to cooperatively address management of human waste, particularly from the Russian River to Jim’s Landing, where human waste and associated impacts (i.e., toilet paper) are common. There are no waste facilities to address the extensive amount of use at this popular fishing area. We recognize it is more difficult to install a waste facility in designated Wilderness and in the presence of archaeological sites; however, the state departments of Natural Resources and Environmental Conservation would like to work cooperatively with the Refuge to address the issue.

Page 2-117, Objective 2.1, Rationale: ANILCA 303(4)(b) states “*The purposes for which the Kenai National Wildlife Refuge is established and shall be managed, include...*” We therefore recommend this revision: “*The Refuge’s ~~primary~~ purposes include is...*”.

Page 2-123, Objectives 3.1: For scientific clarity, we recommend the following revision: “*Continue and expand research on abnormal wood frogs to understand the potential cause(s) of their abnormalities until the cause of their abnormalities is identified.*” It may not be realistic to assume an exact cause will be identified.

Page 2-124, Objective 3.2: We recommend a similar revision: “*Continue and expand research on bill anomalies found in local bird populations to understand the potential cause(s) of their abnormalities until the cause of their abnormalities is identified.*”

Page 2-124, Objective 3.4, and last sentence of Rationale: While we do not question the basic intent of this objective, “*ensuring*” that ecological integrity “*is not compromised*” may be unrealistic. We recommend an alternative such as “*protecting the ecological integrity.*”

Page 2-137, Objective 6.2.7: Because of the differing responsibilities of the land and wildlife management agencies in the area and the potential for this objective to result in land use changes, we recommend the Refuge invite the participation of other interested agencies.

Page 2-140, Objective 7.8: Inclusion of the term “*wilderness safety topics*” seems to imply that the only safety to be discussed would be that of safety in designated Wilderness; it may be more appropriate to accommodate all aspects of off-road safety, such as “*backcountry safety.*”

Page 2-149, Table 2-13, Habitat Management (Mechanical Treatment): The restrictions referenced in the “*Comments*” column are not explained in the previous column. We suggest the column for the action alternatives note that modifications will no longer be made to facilitate increases in target wildlife populations (assuming that is the potential restriction).

Page 2-157, Table 2-13, Helicopter Air Taxis: We request adding the word “*generally*” before “*not allowed*” to account for possible mandated exceptions (such as search and rescue) as described in more detail in 1.3.11.3 on page C-28.

Page 3-4, second full sentence, top of the page: The acreage listed for state-selected lands as well as Figure 3.1 may be incorrect. In particular, approximately 3,400 of the state-selected acres noted on the map were rejected. Also additional state selections in the Refuge are not highlighted (e.g., S006N011W). We understand that changes in land status occur frequently; however, we recommend including the most current information in the final Plan.

Page 3-145 through 3-146, 3.4.6.6 Subsistence: We request modification of the third sentence to recognize the State also provides a subsistence harvest: “*The Federal subsistence program began in 1990 and since has evolved to ~~include the regulation of most subsistence harvest of both~~ provide opportunities for subsistence use of fish and wildlife on Federal public lands in Alaska for qualified rural residents in addition to the State’s provisions for subsistence on all lands except designated non-subsistence use areas.*” The discussions on federal subsistence

permits and harvests of fish also needs to be updated since the 2008 fisheries data already available shows significant increases in both participation and harvests of sensitive fish stocks.

Page 3-157, Opportunities for Primitive Recreation, second sentence: This unit is not in designated Wilderness nor closed by regulation to all motorized access. We recommend rephrasing a portion of this sentence as follows: “...various forms of motorized access to this unit is are either not authorized nor logistically feasible or limited by terrain.”

Page 3-97 thru 3-99, 3.3.8.8: Chronic wasting disease, West Nile Virus, and Hantavirus appear unlikely to seriously threaten the Refuge, therefore this level of detail is unnecessary and misleading. We recommend confining the section to the opening paragraph on page 3-97, which provides an effective and contextually-appropriate summary for the Kenai region.

Chapter Four, General Comment: We are concerned about overuse of “*would*” when “*could*” is often more appropriate. Much of the analysis is, by definition, speculative to varying degrees. “*Would*” conveys a highly definitive conclusion and should therefore be used more judiciously in projecting outcomes. Perhaps some internal criteria could be developed for more appropriate usage of *would* and *could*. We have itemized some more notable examples (e.g., on pages 4-161 and 4-163) but we suggest a more comprehensive reevaluation throughout the chapter, especially since some of these discussions may be used in subsequent NEPA documents in the future.

Pages 4-21 to 4-43, Swanson River Oil and Gas Unit: For Swanson River Oil and Gas Units, analysis of activities *during the life of the project* need to be limited to management strategies within the jurisdiction of the Service and actions proposed in the alternatives. For example, instead of focusing on impacts of existing projects and infrastructure, the discussion on exploration, development and production needs to focus on refuge management of these activities, such as leasing and annual project reviews. By comparison, the discussions that address restoration efforts during the life of the project are a good example of management actions within the scope of the plan that are appropriately addressed. This comment also applies to the discussion of the Swanson River Unit on pages 4-43 to 4-51, and corresponding discussions of Beaver Creek.

Page 4-34, Alternative B, second paragraph: Please recognize there will be major adverse long-term impacts to *overall* recreation access from removal and restoration of all roads and no trail development. Even though primitive recreation will benefit, there are more opportunities for that type of recreation Refuge-wide than other types. This also applies to page 4-34, Alternative C, second paragraph; page 4-49, Beaver Creek, Alternative C; and page 4-49, Beaver Creek, Alternative B.

Pages 4-71 through 4-75, Alternatives B, C and E: We request the analyses for impacts to recreation need to address the addition of a registration requirement, as on page 4-83, Alternative C, Public Use During the Life of the Project, first paragraph, last sentence (wilderness values).

Page 4-72, Alternative B, Public Use During the Life of the Project, last sentence of top carryover paragraph: This assessment makes or implies unconfirmed assumptions. Please clarify that:

- not all horseback, pedestrian or bicycle users avoid areas with limited motorized use;
- bicycles do not always disturb horseback and pedestrian users;
- an increase in public vehicular use of 1 month and 14 miles will not necessarily result in a substantial displacement of non-motorized users.

Page 6-3, 6.2.10 Skilak Wildlife Recreation Area Management Plan: This section states there are no plans to revise the Skilak plan at this time. Yet at the 2007 Board of Game meeting that implemented the Skilak area youth firearm hunt, the Service committed to considering cooperative evaluation of the youth hunt and the Board’s opening additional hunting opportunities, either through an expanded youth hunt or with additional adult firearm use – if requested by the public during the review of this draft Plan. We therefore request referencing the intent to work cooperatively with ADF&G to evaluate last year’s youth hunt and consider working with the Board of Game in providing additional hunting opportunity, consistent with the Refuge Improvement Act’s direction to provide priority wildlife-dependent recreation.

Appendix C-14, 1.3.6.4, first paragraph, first sentence; and, last paragraph, second to last sentence: Two substantive words were deleted from this language, which was carefully crafted by the Regional Office to be mutually acceptable to both the Service and the State. We urge these words be reinserted into the final Plan, as shown.

1st sentence: *Where the United States holds title to submerged lands beneath waters within the Kenai National Wildlife Refuge (Refuge), the Service has jurisdiction over certain activities on the water.*

2nd to last sentence: *Where waterbodies are non-navigable within these ANILCA additions, the Service has management authority over most activities on water where adjacent uplands are federally owned (Refuge lands.)*

The Service does not have absolute jurisdiction on all activities on water bodies within the refuge as implied, even where submerged lands are federally owned. For example, even when the bed of the waterbody is not state-owned, regulations under ADF&G and the Department of Environmental Conservation still apply.

Appendix C-46 through C-59, first footnote: We do not object to the intent of this footnote, but we do object to the wording. The original footnote from the Regional Management Direction was carefully crafted and eventually accepted by both the State and the Service as “*subject to a minimum requirements analysis.*” The substantive modification to this wording in the Kenai Plan (“*All activities in designated Wilderness will be subject to a minimum requirements analysis*”) is misleading, at best. For example, use of “*All activities*” may lead readers to incorrectly believe that literally all activities need a minimum requirements analysis, including public activities. Furthermore, there is no Refuge-specific rationale for this language modification. We urge that the final Plan revert to the original, mutually acceptable wording.

Appendix D, Draft Proposed Regulations: We appreciate presentation of possible regulations to illustrate how some of the proposed management direction will ultimately be implemented. With one exception, below, we will wait to comment on the specifics when actual proposed regulations are available. In the meantime, we request that Chapter 6: Implementation and

Monitoring explain that regulations are part of the implementation effort and will undergo a formal public review separate from and subsequent to completion of the Plan. We also suggest removing the preliminary draft regulations from the final Plan unless they are at least updated to reflect the final decisions in the Plan. If not updated, then we request that they not appear in the final Plan to avoid confusion.

Appendix D, (xiii) Natural Resource Collection: We appreciate the intent of this regulation; however, amending 50 CFR 36 to allow these uses by regulation is unnecessary, except for limits on antler collection. Recreational activities on wildlife refuges in Alaska are authorized as long as they are compatible with refuge purposes, according to both the Refuge Improvement Act and 50 CFR 36.31. In August of 1994, the Refuge made a compatibility determination regarding the personal collection of natural resources, including berry picking, finding it compatible. Other refuges, such as Kanuti, Innoko, Izembek, Togiak, Koyukuk/Nowitna, and Kodiak, have also approved this use subject to a compatibility determination alone (and, in some cases, inclusion in their CCP). We recommend the Refuge adhere to this same approach, using approval through the compatibility determination process, which would maintain a statewide consistency for authorizing compatible public use.

As noted above, the only facet of this regulation that may be interpreted as requiring an amendment to 50 CFR 36 is the stipulation that only “*eight naturally-shed moose or caribou antlers*” are allowed annually per person, because this is a regulation that limits a compatible public use. No additional action is needed because edible plant collection is unlimited under 50 CFR 36.31(a), and determined to be compatible subject to public notice pursuant to 50 CFR 25.31. Therefore, the Refuge may be unnecessarily developing a regulation where none is needed and setting an inappropriate precedent that other refuges may feel compelled to follow. If the Service believes that a regulation is preferable, then we recommend a regional rule to avoid casting doubt on the compatibility approach used by other refuges. We also request that the rule clarify the general applicability of 50 CFR 36.31(a) to avoid expansion of this regulatory approach to other compatible recreational uses on Alaska refuges.

Appendix E 1.3, Claimed RS 2477 Rights-of-Way: Please update this appendix to be consistent with the revised regional Management Policies and Guidelines.

Thank you for your consideration of these comments. Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Sally Gibert". The signature is written in a cursive, flowing style.

Sally Gibert
ANILCA Program Coordinator