



Izembek

National Wildlife Refuge

Land Exchange/Road Corridor

Draft Environmental Impact Statement

Appendix D ANILCA Section 810
Analysis of Subsistence Impacts



APPENDIX D
ANILCA Section 810 Analysis of Subsistence Impacts

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ANILCA Section 810 Analysis of Subsistence Impacts

The U.S. Fish and Wildlife Service (Service), acting for the Secretary of Interior, is required by Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA) to evaluate the effects on subsistence uses and needs in determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands on National Wildlife Refuges in Alaska. The evaluation of effects of the Proposed Action and alternatives identified in the *Izembek National Wildlife Refuge Land Exchange/Road Corridor Environmental Impact Statement* (Land Exchange EIS) on subsistence uses and needs is documented below. If this evaluation concludes with a finding that the Proposed Action or its alternatives would result in a significant restriction to subsistence uses and needs, and we wish to proceed, we must initiate further procedural requirements of Section 810.

The Service is considering a proposal to exchange certain lands within the Izembek National Wildlife Refuge (Refuge) for lands owned by the State of Alaska and the King Cove Corporation. The purpose of the exchange, as identified in the *Omnibus Public Land Management Act of 2009* (Public Law 111-11, Title VI, Subtitle E) (the Act), is to enable construction and operation of a road between the communities of King Cove and Cold Bay, Alaska that would provide King Cove residents with road access to the Cold Bay airport for health and safety purposes.

In the Act, Congress directed the Secretary of the Interior to prepare an Environmental Impact Statement (EIS) in accordance with the terms of the Act, as well as the *National Environmental Policy Act* (NEPA) of 1969, as amended (42 USC 4321 et. seq.), and its implementing regulations (40 CFR parts 1500-1508). Congress specified that the EIS must analyze the land exchange, potential road construction and operation, and a specific road corridor through the Izembek National Wildlife Refuge and the Izembek Wilderness that is to be identified in consultation with the State of Alaska, the City of King Cove, and the Agdaagux Tribe of King Cove (Section 6402(b)(2)). Upon completion of the EIS, the Secretary of Interior will determine whether or not the proposed land exchange is in the public interest.

Congress identified the federal and non-federal lands involved in the exchange and provided guidance regarding the administration of the exchanged lands (Sections 6401 and 6404).

- Approximately 206 acres of federal land (surface and subsurface estate) of the Izembek National Wildlife Refuge would be conveyed to the State under the land exchange. The boundary of the Izembek Wilderness would be modified to exclude the land exchanged for the road corridor. (The specific lands to be exchanged for the road corridor were not identified in the Act; two road corridor alternatives are evaluated in this EIS.)
- Approximately 1,600 acres (surface and subsurface estate) in the Alaska Maritime National Wildlife Refuge on Sitkinak Island, which is withdrawn for use by the U.S. Coast Guard, would be transferred to the State.
- Approximately 43,093 acres of land (surface and subsurface estate) owned by the State of Alaska adjacent to the North Creek and Pavlof Units of the Alaska Peninsula National Wildlife Refuge, would be conveyed to the United States (U.S.) and added to the Izembek Wilderness or the Alaska Peninsula National Wildlife Refuge as wilderness.

- Approximately 13,300 acres of land owned by King Cove Corporation (surface estate), located near Mortensens Lagoon and the mouth of Kinzarof Lagoon, would be conveyed to the U.S. and added to the Izembek National Wildlife Refuge. The exchange includes 5,430 acres in Izembek Wilderness on the east side of Cold Bay for which the King Cove Corporation would relinquish its selection under the Alaska Native Claims Settlement Act.

The Act directed that the exchange could not be finalized before the parcel of State land located in Kinzarof Lagoon had been designated as part of the State of Alaska's Izembek State Game Refuge. The Alaska Legislature passed and the Governor signed the *Izembek State Game Refuge Land Exchange Bill* into law (HB 210 Chapter 119 SLA 10) satisfying this requirement (see Section 1.6.3.1 of this EIS).

Chapters 3 and 4 of the Land Exchange EIS provide a detailed description of both the affected environment of the Izembek National Wildlife Refuge area and the potential for adverse effects to subsistence of the alternatives. This analysis uses the detailed information presented in the Land Exchange EIS to evaluate the potential impacts to subsistence pursuant to Section 810(a) of ANILCA.

1.1 Subsistence Evaluation Factors

Section 810(a) of ANILCA requires that an evaluation of subsistence uses and needs be completed for any Federal determination to “withdraw, reserve, lease, or otherwise permit the use, occupancy or disposition of public lands.” As such, an evaluation of potential impacts to subsistence under ANILCA Section 810 must be completed for the Land Exchange EIS. ANILCA requires that this evaluation include findings on three specific issues:

- The effect of such use, occupancy, or disposition on subsistence uses and needs;
- The availability of other lands for the purpose sought to be achieved; and
- Other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes (16 United States Code [USC] Section 3120).

The evaluation and findings required by ANILCA Section 810 for each of the five alternatives in the Land Exchange EIS (including the No Action alternative and the cumulative case are considered in this ANILCA Section 810 analysis.

A finding that the proposed land exchange and associated road or other alternatives may significantly restrict subsistence uses imposes additional requirements, including provisions for notices to the State and appropriate regional and local subsistence committees, a hearing in the vicinity of the area involved, the making of a determination as required by Section 810(a)(3), or prohibition of the action. If a determination is made it shall show that:

- Such a significant restriction of subsistence uses is necessary, and consistent with sound management principles for the utilization of the public lands;

- The proposed activity would involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition; and
- Reasonable steps would be taken to minimize adverse effects upon subsistence uses and resources resulting from such actions.

To determine if a significant restriction of subsistence uses and needs may result from any one of the alternatives discussed in this EIS, including their cumulative effects, the following three factors in particular are considered:

- A reduction in subsistence uses due to factors such as direct impacts on the resource, adverse impacts on habitat, or increased competition for the resources;
- A reduction in the subsistence uses due to changes in availability of resources caused by an alteration in their distribution, migration, or location; and
- A reduction in subsistence uses due to limitations on the access to harvestable resources such as physical or legal barriers.

A significant restriction to subsistence may occur in at least two instances: (1) when an action substantially may reduce populations or their availability to subsistence users, and (2) when an action may substantially limit access by subsistence users to resources. Chapter 3 (Affected Environment) of the Land Exchange EIS provides information regarding areas and resources important for subsistence use, and the degree of dependence of affected villages on different subsistence resource populations. Chapter 4 (Environmental Consequences) provides an analysis of the effects on subsistence under each alternative, and was used to determine whether the action would cause a significant restriction to subsistence. The information contained in the Land Exchange EIS is the primary data used in this analysis.

A subsistence evaluation and findings under ANILCA Section 810 also must include a cumulative impacts analysis. Section 1.2, below, begins with an evaluation and finding for each of the five alternatives discussed in the Land Exchange EIS. Finally, the cumulative case, as discussed in Chapter 4 of the Land Exchange EIS (Environmental Consequences), is evaluated. This approach helps the reader to separate the subsistence restrictions that would potentially be caused by activities proposed under the five alternatives from those that would potentially be caused by past, present, and future activities that could occur, or have already occurred in the surrounding area.

When analyzing the effects of the five alternatives, the analysis includes all villages associated with the proposed land exchange: King Cove, Cold Bay, False Pass, Nelson Lagoon, and Sand Point.

1.2 ANILCA 810(a) Evaluations and Findings for the Five Alternatives and the Cumulative Case

The following evaluations are based on information relating to the environmental and subsistence consequences of the five alternatives described in Chapter 2 of the EIS. These include a no action alternative, 2 alternatives in which the land exchange and associated road corridors are reviewed, and 2 alternatives which would not require the land exchange and other marine modes of transportation would be considered. The subsistence impacts of each

alternative are analyzed in Chapter 4, including review of the cumulative case. The evaluations and findings focus on potential impacts to the subsistence resources themselves and access that relates to subsistence use.

Subsistence activities and uses could be directly and indirectly affected by the proposed land exchange and associated road corridors or marine transportation options. Direct effects, which are “caused by the action and occur at the same time and place” (40 Code of Federal Regulations [CFR] 1508.8), on subsistence uses would result from changes in resource availability, access, or competition. Indirect effects include subsistence users’ response to direct effects, contamination concerns, and changes in culturally significant activities associated with subsistence practices. These include harvesting, processing, transferring knowledge, autonomy, traditional diet, and integrity of culturally significant places. Indirect effects on subsistence users also could result from indirect effects on resources, such as responses to potential habitat fragmentation, disturbance, or changes in movement patterns.

1.2.1 Evaluation and Findings for the Alternative 1 – No Action

Under Alternative 1, the Service would not enter into a land exchange with King Cove Corporation and the State of Alaska for the purpose of constructing a road between King Cove and Cold Bay, Alaska. Current modes of transportation between the cities of King Cove and Cold Bay would continue to operate. These include:

- **Air:** Regularly scheduled commercial air flights between the cities of King Cove and Cold Bay. The Coast Guard would continue to provide occasional medical evacuations via helicopter when Coast Guard assets are in the vicinity and not committed to other assignments.
- **Marine:** Personal transit and medevac transport by local fishing vessels between the cities of King Cove and Cold Bay. The Alaska Marine Highway System would continue to provide ferry service between the communities of King Cove and Cold Bay approximately twice a month as part of the Southwest Alaska and Aleutian Chain schedule. The Cold Bay dock would not be modified and a harbor would not be constructed.
- **Hovercraft:** The hovercraft service provided by the Aleutians East Borough from Lenard Harbor to the City of Cold Bay hovercraft site was suspended in November 2010. Since operations began in 2007, there have been issues with operability and reliable service from Lenard Harbor. Operation costs have significantly exceeded revenue generated by operations, requiring a substantial subsidy by the Aleutians East Borough. Upon completion of the permitted road from the City of King Cove to the northeast corner of Cold Bay and the construction of a new hovercraft terminal facility, the

As the Draft EIS was approaching completion, the Aleutians East Borough sent the Service a letter stating that they will not resume hovercraft service in the foreseeable future. Due to the timing of the letter, we are unable to restructure the analysis of consequences to reflect this change in the No Action alternative in the Draft EIS. While the Borough does not plan to operate the hovercraft, all other aspects of the No Action alternative remain the same. The Final EIS will reflect this change and other changes that are made in response to public comments.

Aleutians East Borough plans to attempt to reinstitute hovercraft service between the new Northeast Hovercraft Terminal and the Cross Wind Cove Terminal. The estimated completion date of the permitted road and terminal facility is in the latter part of 2012. Scheduled hovercraft service is planned to be 3 days per week during the months of April through October with no scheduled hovercraft service during winter months.

1.2.1.1 Evaluation of the Effect of Such Use, Occupancy or Disposition on Subsistence Uses and Needs

Under Alternative 1 – No Action (for which a full analysis is presented in Section 4.2.3.7), no land exchange would occur in the Izembek National Wildlife Refuge. Ownership and management of lands would remain the same, and no road corridor across the Izembek National Wildlife Refuge would become available. Existing marine and aircraft-based modes of transportation between the communities of King Cove and Cold Bay would continue. No direct or indirect impacts on subsistence uses and needs in the project area villages would result from this alternative.

1.2.1.2 Evaluation of the Availability of Other Lands for the Land Exchange and Associated Roads

In contrast to the No Action alternative, Alternatives 2 and 3 propose a land exchange and 2 different road corridors to provide for the purpose and need of safe and reliable transportation between the communities of King Cove and Cold Bay primarily to address health and safety.

1.2.1.3 Evaluation of Other Alternatives that would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes

In addition to the No Action alternative, Alternatives 4 and 5, reviewed in subsequent sections of this Appendix, would rely on marine transportation, and would not require a land exchange. These alternatives would eliminate the use, occupancy, or disposition of federal public lands needed for subsistence purposes.

1.2.1.4 Findings

Under Alternative 1, the existing conditions would include improved access by road to subsistence resources in the northeast corner of Cold Bay. No reasonably foreseeable future actions would affect subsistence in the project area. Implementation of Alternative 1 would not contribute to cumulative effects on subsistence resources, access to subsistence resources, or competition for subsistence resources. As a result, this alternative is not expected to contribute to cumulative effects on subsistence resources or harvest patterns. Alternative 1 would have no cumulative effect on subsistence resources or activity.

In summary, implementation of Alternative 1 would not significantly restrict subsistence uses.

1.2.2 Alternative 2 – Land Exchange and Southern Road Alignment

Alternative 2 proposes a land exchange between the federal government, State of Alaska, and King Cove Corporation, as described in the Proposed Action (Section 1.2). Legal descriptions for exchange parcels are provided in Appendix B and an overview of parcels proposed for

exchange is presented in Section 2.4.6. The estimated amount of federal land exchanged in this alternative for the road corridor would be 201 acres.

As a result of the proposed land exchanges that would be implemented under this alternative, approximately 52,583 acres of former state and Corporation owned lands would be placed under federal management subject to the provisions of ANILCA Title XIII, providing a priority for harvesting subsistence resources to rural residents from the communities of King Cove, Cold Bay, False Pass, Akutan and Sand Point. However, as the federal caribou season is currently closed due to low caribou populations, and competition from non-rural residents for the harvest of brown bear, moose and furbearers, is minimal, the beneficial effect of this action would be negligible.

The southern road alignment (Figure 2-2) would originate at the terminus of the King Cove Access Road (currently under construction) in the vicinity of the Northeast Hovercraft Terminal. The initial 6 miles are co-located with the central alignment (Alternative 3). At a point 6 miles north of the Northeast Hovercraft Terminal, the southern alignment would depart from the central alignment in a westerly direction, and stay south of the ridge line that separates the watersheds of the Kinzarof and Izembek lagoons. The road corridor would generally be located approximately ½ mile to 1 mile north of Kinzarof Lagoon (Figure 2-2). At about 12.4 miles from the start, the southern alignment would again be co-located with the central alignment and follow Outpost Trail (which transitions to Outpost Road) in a southwesterly direction to a point just north of Blinn Lake. At that point, the southern alignment would depart from the central alignment, following an existing primitive road for approximately 1.4 miles around the east and south side of Blinn Lake to intersect with Outer Marker Road (Figure 2-2). The route would continue south along Outer Marker Road to its intersection with St. Louis Road, and then follow St. Louis Road to terminate at the refuge/state boundary.

Under this alternative, the Service would execute an administrative boundary adjustment in the vicinity of Blinn Lake in accord with ANILCA Section 103(b). An area that is currently designated as Alaska Peninsula National Wildlife Refuge, but administered by Izembek National Wildlife Refuge, would become part of Izembek National Wildlife Refuge.

Agencies consulted in the development of this alternative include the Alaska Department of Natural Resources, Alaska Department of Fish and Game, Alaska Department of Transportation and Public Facilities, the Service, Agdaagux Tribe, Aleutians East Borough, and City of King Cove.

1.2.2.1 Evaluation of the Effect of Such Use, Occupancy or Disposition on Subsistence Uses and Needs

Under Alternative 2, the southern road alignment, direct impacts would occur to subsistence resources as a result of construction of the 18.5-mile single lane gravel road segment from the Northeast Hovercraft Terminal to the state boundary north of the community of Cold Bay. Approximately 6.0 miles of road construction on the western portion of the alignment would include existing roads and trails. Construction of the road under this alternative would likely extend over 2 seasons. The road construction could occur between May and November, with specific construction windows dictated by permit stipulations and mitigation requirements. During construction, subsistence resources (waterfowl and caribou) could potentially be

displaced by the presence of heavy equipment and construction noises. Salmon could be temporarily displaced during culvert placement. The scale of the proposed road is such that a small workforce, assumed to include local hires as much as possible, would not be expected to bring a new permanent workforce to the region. The proposed road construction would not be expected to increase competition for subsistence resources; however, construction activities are likely to displace subsistence users during the construction period.

Access to subsistence resources for harvest could be limited during construction to protect public safety. However, mitigation measures could allow for specific days to be established when construction activities are limited to allow for subsistence harvests. Alternatively, a safety guard could be used to ensure safe access to resources during construction.

Under this alternative, operation and maintenance of the road could result in displacement of subsistence resources, and reduced availability for subsistence harvest (less abundant and dislocation of resources) in this area for residents of the King Cove, Cold Bay, False Pass, and Sand Point communities. Road traffic and increased use of the area could displace subsistence resources such as caribou and waterfowl. The displacement of these subsistence resources could have a negative impact to the concentrated subsistence use areas for caribou and waterfowl, which are known to be used by residents of the King Cove, Cold Bay, False Pass, and Sand Point communities. A barrier is required by the Act to be installed along the length of the roadway on both sides to prevent vehicles from accessing the Izembek National Wildlife Refuge and Izembek Wilderness lands adjacent to the road. Two barrier types are being analyzed for this project: a chain barrier and a bollard barrier. The barriers could alter the movement of caribou within the project area and this could result in changes in subsistence harvest areas. It is likely that subsistence harvest areas would see only slight alteration. There would not be a noticeable change in rates of harvest to an extent that would make resources unavailable for harvest.

During the operation of the road, increased competition for resources from non-subsistence users (sport hunters) who could now also more easily access the area via the road could occur. Waterfowl hunting by residents of the cities of King Cove and Cold Bay and by non-local waterfowl hunters could increase. Kinzarof Lagoon is known as a concentrated subsistence use area for waterfowl harvesting by residents of King Cove, False Pass, and Sand Point. At present, subsistence access to this area includes boat, foot, snowmachines, or other surface transportation means traditionally used; however, the barriers along the proposed road would restrict use of vehicles. If increased harvest by sport hunters occurs, waterfowl and caribou subsistence harvests by local residents could be negatively impacted.

Implementation of Alternative 2 would result in impacts to subsistence resources that include displacement of resources, increased competition for resources, and improved access to subsistence use areas. These impacts would be of low to medium intensity, long-term duration, and local to regional extent, and affecting resources that are common to important in context. The resources that are important in context include the migratory waterfowl and wetlands/habitat values of Kinzarof Lagoon. The summary impacts on subsistence uses of implementing Alternative 2, including construction, operation, and maintenance would be negligible to minor.

1.2.2.2 Evaluation of the Availability of Other Lands for the Land Exchange and Associated Roads

Alternative 3, reviewed below, represents a road corridor occupying other lands, although these too, are federal public lands, within the Izembek National Wildlife Refuge. Given the topography and land status, there is no potential road corridor between King Cove and Cold Bay that would avoid federal public lands currently used for subsistence purposes.

1.2.2.3 Evaluation of Other Alternatives that would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes

In addition to the No Action alternative which requires no land, Alternatives 4 and 5, reviewed in other sections of this Appendix, would rely on marine transportation, without a land exchange. These alternatives would eliminate the use, occupancy, or disposition of federal public lands needed for subsistence purposes.

1.2.2.4 Findings

No reasonably foreseeable future actions would affect subsistence in the project area. Implementation of Alternative 2 would contribute little to cumulative effects on subsistence resources, access to subsistence resources, or competition for subsistence resource as subsistence activities are unlikely to increase above present levels. As a result, the project components of this alternative are not expected to contribute to cumulative effects on subsistence resources or harvest patterns.

In summary, implementation of Alternative 2 would have negligible to minor direct and indirect impacts on subsistence uses, and would not contribute to cumulative effects on subsistence resources or harvest patterns. No significant restriction to subsistence uses would occur under Alternative 2.

1.2.3 Alternative 3 – Land Exchange and Central Road Alignment

Alternative 3 proposes a land exchange between the federal government, State of Alaska, and King Cove Corporation, as described in the Proposed Action (Section 1.2). Legal descriptions for exchange parcels are provided in Appendix B and an overview of parcels proposed for exchange is presented in Section 2.4.6. The estimated amount of federal land exchanged in this alternative from Izembek National Wildlife Refuge would be 227 acres, including 152 acres in Izembek Wilderness, assuming a 100-foot corridor width.

As a result of the proposed land exchanges that would be implemented under this alternative, approximately 52,583 acres of former state and Corporation owned lands would be placed under federal management subject to the provisions of ANILCA Title XIII, providing a priority for harvesting subsistence resources to rural residents from the communities of King Cove, Cold Bay, False Pass, Akutan and Sand Point. However, as the federal caribou season is currently closed due to low caribou populations, and competition from non-rural residents for the harvest of brown bear, moose and furbearers, is minimal, the beneficial effect of this action would be negligible.

The central road alignment (Figure 2-3) would originate at the terminus of the King Cove Access Road (currently under construction) in the vicinity of the Northeast Hovercraft Terminal. The initial 6 miles would be co-located with the southern alignment (Alternative 2). At a point 6 miles north of the Northeast Hovercraft Terminal, the central alignment would depart from the southern alignment and wind north and then westerly through steep hills and around lakes of the isthmus divide to Outpost Trail. The alignment would be co-located with the southern alignment, along Outpost Trail (which transitions to Outpost Road) to an intersection north of Blinn Lake. The central alignment would depart from the southern alignment north of Blinn Lake, continuing along Outpost Road to intersect with Outer Marker Road to the west of Blinn Lake. The route would continue south along Outer Marker Road to intersect with St. Louis Road, terminating at the refuge/state boundary.

Under this alternative, the Service would execute an administrative boundary adjustment in the vicinity of Blinn Lake in accord with ANILCA Section 103(b). An area that is currently designated as Alaska Peninsula National Wildlife Refuge, but administered by Izembek National Wildlife Refuge, would become part of Izembek National Wildlife Refuge.

Agencies consulted in the development of this alternative included U.S. Geological Survey, National Park Service, Alaska Department of Natural Resources, Alaska Department of Fish and Game, the Service, Agdaagux Tribe, Aleutians East Borough, and City of King Cove.

1.2.3.1 Evaluation of the Effect of Such Use, Occupancy or Disposition on Subsistence Uses and Needs

Alternative 3, the central road alignment, was designed to avoid or minimize impacts to wetlands and high value habitat for breeding, nesting, and migrating waterbirds, and to reduce disturbance or impacts to species and habitat in both Izembek and Kinzarof Lagoons, while also considering land mammal (caribou, bear, furbearers) movement and habitat values of the isthmus. This alignment seeks to minimize impacts to wetland and lake-dependent resources, by avoiding or minimizing stream crossings. As a result, direct effects to these subsistence resources would be lessened and the effects from construction activities to subsistence would be similar to Alternative 2, discussed above. The scale of the proposed road is such that a small workforce, assumed to include local hires as possible, would not be expected to bring a new permanent workforce to the region. The proposed road construction would not be expected to increase competition for subsistence resources.

The effects from construction and operation of the central road alignment would be the similar to those of Alternative 2, the southern road alignment, discussed above. Operation and maintenance of the road could result in displacement of subsistence resources, and reduced availability for subsistence harvest (less abundant and dislocation of resources) in this area for residents of the King Cove, Cold Bay, False Pass, and Sand Point communities. Road traffic and increased use of the area could displace subsistence resources such as caribou and waterfowl. The displacement of these subsistence resources could have a negative impact to the concentrated subsistence use areas for caribou and waterfowl, which are known to be used by residents of the King Cove, Cold Bay, False Pass, and Sand Point communities. A barrier is required by the Act to be installed along the length of the roadway on both sides to prevent vehicles from accessing the Izembek National Wildlife Refuge and Izembek Wilderness lands

adjacent to the road. Two barrier types are being analyzed for this project: a chain barrier and a bollard barrier. The barriers could alter the movement of caribou within the project area and this could result in changes in subsistence harvest areas. It is likely that subsistence harvest areas would see only slight alteration. There would not be a noticeable change in rates of harvest to an extent that would make resources unavailable for harvest.

During the operation of the road, increased competition for resources from non-subsistence users (sport hunters) who could now also more easily access the area via the road could occur. Waterfowl hunting by residents of the cities of King Cove and Cold Bay and by non-local waterfowl hunters could increase. Kinzarof Lagoon is known as a concentrated subsistence use area for waterfowl harvesting by residents of King Cove, False Pass, and Sand Point. At present, subsistence access to this area includes boat, foot, snowmachines, or other surface transportation means traditionally used; however the barriers along the proposed road would restrict use of vehicles. If increased harvest by sport hunters occurs, waterfowl and caribou subsistence harvests by local residents could be negatively impacted.

Implementation of Alternative 3 would result in impacts to subsistence resources that include displacement of resources, increased competition for resources, and improved access to subsistence use areas. These impacts would be of low to medium intensity, long-term duration, and local to regional extent, and affecting resources that are common to important in context. The resources that are important in context include the migratory waterfowl and wetlands/habitat values of Kinzarof Lagoon. The summary impacts on subsistence uses of implementing Alternative 3, including construction, operation, and maintenance, would be negligible to minor.

1.2.3.2 Evaluation of the Availability of Other Lands for the Land Exchange and Associated Roads

Alternative 2, reviewed above, represents a road corridor occupying other lands, although these too, are federal public lands within the Izembek National Wildlife Refuge. Given the topography and land status, there is no potential road corridor between King Cove and Cold Bay that would avoid federal public lands currently used for subsistence purposes.

1.2.3.3 Evaluation of Other Alternatives that would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes

In addition to the No Action alternative which requires no land, Alternatives 4 and 5, reviewed in other sections of this Appendix, would rely on marine transportation, without a land exchange. These alternatives would eliminate the use, occupancy, or disposition of federal public lands needed for subsistence purposes.

1.2.3.4 Findings

No reasonably foreseeable future actions would affect subsistence in the project area. Implementation of Alternative 3 would contribute little to cumulative effects on subsistence resources, access to subsistence resources, or competition for subsistence resource as subsistence activities are unlikely to increase above present levels. As a result, the project components of this alternative are not expected to contribute to cumulative effects on subsistence resources or harvest patterns.

In summary, implementation of Alternative 3 would have negligible to minor direct and indirect impacts on subsistence uses, and would make a negligible contribution to cumulative effects on subsistence resources or harvest patterns. No significant restriction to subsistence uses would occur under Alternative 3.

1.2.4 Alternative 4 –Hovercraft Operations from the Northeast Hovercraft Terminal to Cross Wind Cove (Six days per Week)

Alternative 4 (see Figure 2-10) is the Proposed Action in the 2003 EIS. This alternative, as proposed in the 2003 EIS, has not been fully implemented to date. However, actions authorized by the Record of Decision are ongoing. Continued activities for development of the access road and the hovercraft terminal at the northeast side of Cold Bay were contracted in 2011 for construction in 2012. The alternative considered in this EIS would not require further construction activities; the alternative will consider operations of the hovercraft, as described in the 2003 EIS, for service 6 days per week between the northeast corner of Cold Bay and the hovercraft terminal in Cross Wind Cove.

As the Draft EIS was approaching completion, the Aleutians East Borough sent the Service a letter stating that they will not resume hovercraft service in the foreseeable future. Alternative 4 does not assume that the Borough is the operator of this alternative, only that the existing hovercraft would be used. All other aspects of the alternative remain the same. The Final EIS will reflect this change and other changes that are made in response to public comments.

1.2.4.1 Evaluation of the Effect of Such Use, Occupancy or Disposition on Subsistence Uses and Needs

Under Alternative 4, no construction, and therefore no impacts to subsistence, would occur.

The hovercraft terminals would be operated in subsistence use areas for waterfowl, salmon, and other marine fish. The hovercraft would transit between the Northeast Hovercraft Terminal and Cross Wind Cove on the west side of Cold Bay. Neither terminal would be located in a concentrated waterfowl subsistence use area. Operation of the hovercraft could displace subsistence resources in a limited area, thus affecting resource availability to subsistence harvesters in the immediate area of the terminal. Bird, marine, and terrestrial subsistence resources could be displaced temporarily in the vicinity of the operating hovercraft. Increases in transportation activities along the access road to the Northeast Hovercraft Terminal are considered part of the existing conditions, as noted in the analysis of Alternative 1. Under Alternative 4, the hovercraft would operate 6 days per week throughout the year, rather than 3 days a week April through October, and so some increase in traffic to the hovercraft terminal would occur, and this could result in a minor addition to effects on resource availability (resource displacement or contamination concerns). Road maintenance activities would be limited to snow removal and grading and are unlikely to displace subsistence resources longer than the duration of the specific maintenance activity.

For the purposes of this analysis, it is assumed that operation of the hovercraft and maintenance of the associated roads to the terminals would be performed by residents of the Aleutians East Borough and nearby communities. Implementation of more frequent hovercraft operations under Alternative 4 is not expected to result in an increase in commercial and sport harvest to such an

extent that subsistence uses by community residents of King Cove, Cold Bay, False Pass, and Sand Point would be restricted.

Under Alternative 4, access to subsistence resources would not be restricted and could be positively affected by operation and maintenance of road access to the Northeast Hovercraft Terminal year round. Alternative 4 would provide opportunities for continued subsistence uses by local residents of the King Cove, Cold Bay, False Pass and Sand Point communities. Road access to the Northeast Hovercraft Terminal was described as an existing condition under Alternative 1, so no change in road access results from Alternative 4.

Impacts to subsistence from more frequent operation of the hovercraft and year round road access to the Northeast Hovercraft Terminal would include displacement of subsistence resources, and increased subsistence uses in that area. Impacts would be of low intensity, long term in duration, local to regional in extent and affect resources that are common in context. The summary impact of operation and maintenance activities to subsistence under Alternative 4 would be considered negligible.

1.2.4.2 Evaluation of the Availability of Other Lands for the Land Exchange and Associated Roads

As a maritime mode of transportation, Alternative 4 requires no land exchange and no new occupancy of lands used for subsistence purposes.

1.2.4.3 Evaluation of Other Alternatives that would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes

In addition to the No Action alternative which requires no land, Alternative 5, reviewed in another section of this Appendix, would rely on marine transportation, without a land exchange. These alternatives would eliminate the use, occupancy, or disposition of federal public lands needed for subsistence purposes.

1.2.4.4 Findings

No reasonably foreseeable future actions would affect subsistence in the project area. Implementation of Alternative 4 would contribute little to cumulative effects on subsistence resources, access to subsistence resources, or competition for subsistence resource as subsistence activities are unlikely to increase above present levels. As a result, the project components of this alternative are not expected to contribute to cumulative effects on subsistence resources or harvest patterns.

In summary, implementation of Alternative 4 would have negligible direct and indirect impacts on subsistence uses, and would make a negligible contribution to cumulative effects on subsistence resources or harvest patterns. No significant restriction to subsistence uses would occur under Alternative 4.

1.2.5 Alternative 5 – Lenard Harbor Ferry with Cold Bay Dock Improvement

Alternative 5 would use a ferry to travel 14 miles between a terminal in Lenard Harbor and a substantially modified Cold Bay dock (see Figure 2-11). This alternative is similar to an alternative that was analyzed in the 2003 EIS, with the exception of project elements that have

been permitted or constructed to date, including the access road to the site, a terminal building with associated utility infrastructure, and a parking area.

1.2.5.1 Evaluation of the Effect of Such Use, Occupancy or Disposition on Subsistence Uses and Needs

Alternative 5 would require the construction of a ferry dock and terminal at Lenard Harbor near King Cove. Lenard Harbor is known as an area of concentrated harvest for subsistence marine fishing (crabbing) by users of the communities of King Cove and False Pass. Lenard Harbor terminal construction and related transportation activity would locally displace subsistence resources occasionally when present during construction. This could in turn affect resource availability to subsistence harvesters in the immediate areas of the Lenard Harbor ferry dock and terminal during construction activities.

Modifications to the existing Cold Bay dock would include adding a wave barrier, vehicle ramp system, and a pedestrian walkway. This area near the Cold Bay dock is used for marine invertebrate gathering and salmon fishing. During construction, subsistence harvest of waterfowl, salmon fishing, and marine invertebrate gathering could be disturbed as some resources (waterfowl) could be displaced by the presence of heavy equipment and construction noises.

Access to subsistence resources for harvest could be limited during construction to protect public safety. However, mitigation measures could allow for specific days to be established when construction activities are limited to allow subsistence harvest, or a safety guard could be used to ensure safe access to resources during construction. Displacement of subsistence resources would be temporary and could occur intermittently for the duration of construction activities (1 to 2 years) at both ferry terminals.

Under Alternative 5, a new ferry would provide year round service between Lenard Harbor and the Cold Bay dock, with the trip originating in Lenard Harbor. Ferry service would include 1 round trip per day, 6 days per week, throughout the year. The ferry would be operated within concentrated subsistence use areas for waterfowl, salmon, and crab in Lenard Bay. During operation, the ferry would transit through a waterfowl concentration area near Delta Point and Nurse Lagoon on the western side of Cold Bay. If icebreaking is required during ferry operation, displacement of subsistence resources (marine mammals) may result if they are present during icebreaking activities. Icebreaking activities are likely to be infrequent and the impact of disturbance to subsistence resources would be considered local and short term (temporary) for the length of this activity. The effect of Alternative 5 on competition for subsistence resources would be similar to those described for Alternative 4, namely minor increased uses due to improved access.

Access to subsistence resources under this alternative for residents of the communities of King Cove, Cold Bay, False Pass, and Sand Point would be the same as described for Alternative 1 and Alternative 4. Since road access to Lenard Harbor is part of the existing conditions, Alternative 5 would not establish new access to this location. During operation of the ferry, the placement of crab pots by subsistence users would need to consider the travel routes and terminal facility in Lenard Harbor. A ferry would likely pass over crab pot buoys and leave buoys undisturbed.

Impacts to subsistence would include displacement of subsistence resources, and increased subsistence uses. Impacts would be of low intensity, long term in duration, local to regional in extent, and affect resources that are common to important in context. The summary impact of construction, operation and maintenance activities to subsistence under Alternative 5 would be considered negligible.

1.2.5.2 Evaluation of the Availability of Other Lands for the Land Exchange and Associated Roads

As a maritime mode of transportation, Alternative 5 requires no land exchange and no new occupancy of lands used for subsistence purposes.

1.2.5.3 Evaluation of Other Alternatives that would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes

In addition to the No Action alternative which requires no land, Alternative 4 reviewed in another section of this Appendix, would rely on marine transportation, without a land exchange. These alternatives would eliminate the use, occupancy, or disposition of federal public lands needed for subsistence purposes.

1.2.5.4 Findings

No reasonably foreseeable future actions would affect subsistence in the project area. Implementation of Alternative 5 would contribute little to cumulative effects on subsistence resources, access to subsistence resources, or competition for subsistence resource as subsistence activities are unlikely to increase above present levels. As a result, the project components of this alternative are not expected to contribute to cumulative effects on subsistence resources or harvest patterns.

Implementation of Alternative 5 would have negligible to minor direct and indirect effects on subsistence; this alternative is not expected to contribute to cumulative effects on subsistence. No significant restriction to subsistence would occur under Alternative 5.

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