Appendix A

ANCSA and ANILCA Text

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ANCSA Section 17(b)

ANILCA Title VII, XI, and XII

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ANCSA Section 17(b)

Sec. 17(b)(1) The Planning Commission shall identify public easements across lands selected by Village Corporations and the Regional Corporations and at periodic points along the courses of major waterways which are reasonably necessary to guarantee international treaty obligations, a full right of public use and access for recreation, hunting, transportation, utilities, docks, and other such public uses as the Planning Commission determines to be important.

(2) In identifying public easements the Planning Commission shall consult with appropriate State and Federal agencies, shall review proposed transportation plans, and shall receive and review statements and recommendations from interested organizations and individuals on the need for and proposed location of public easements: Provided, That any valid existing right recognized by this Act shall continue to have whatever right of access as is now provided for under existing law and this subsection shall not operate in any way to diminish or limit such right of access.

(3) Prior to granting any patent under this Act to the Village Corporation and Regional Corporations, the Secretary shall consult with the State and the Planning Commission and shall reserve such public easements as he determines are necessary.

Source: http://www.blm.gov/ak/st/en/prog/lands_realty/17b_easements/17b_ancsa.html

ANILCA TITLE VIII

SUBSISTENCE MANAGEMENT AND USE FINDINGS

FINDINGS

§801. The Congress finds and declares that--

(1) the continuation of the opportunity for subsistence uses by rural residents of Alaska, including both Natives and non-Natives, on the public lands and by Alaska Natives on Native lands is essential to Native physical, economic, traditional, and cultural existence and to non-Native physical, economic, traditional, and social existence;

(2) the situation in Alaska is unique in that, in most cases, no practical alternative means are available to replace the food supplies and other items gathered from fish and wildlife which supply rural residents dependent on subsistence uses;

(3) continuation of the opportunity for subsistence uses of resources on public and other lands in Alaska is threatened by the increasing population of Alaska, with resultant pressure on subsistence resources, by sudden decline in the populations of some wildlife species which are crucial subsistence resources, by increased accessibility of remote areas containing subsistence resources, and by taking of fish and wildlife in a manner inconsistent with recognized principles of fish and wildlife management;

(4) in order to fulfill the policies and purposes of the Alaska Native Claims Settlement Act and as a matter of equity, it is necessary for the Congress to invoke its constitutional authority over Native affairs and its constitutional authority under the property clause and the commerce clause to protect and provide the opportunity for continued subsistence uses on the public lands by Native and non-Native rural residents; and

(5) the national interest in the proper regulation, protection and conservation of fish and wildlife on the public lands in Alaska and the continuation of the opportunity for a subsistence way of life by residents of rural Alaska require that an administrative structure be established for the purpose of enabling rural residents who have personal knowledge of local conditions and requirements to have a meaningful role in the management of fish and wildlife and of subsistence uses on the public lands in Alaska.

POLICY

§802. It is hereby declared to be the policy of Congress that--

(1) consistent with sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands; consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for each unit established, designated, or expanded by or pursuant to Titles II through VII of this Act, the purpose of this title is to provide the opportunity for rural residents engaged in a subsistence way of life to do so;

(2) nonwasteful subsistence uses of fish and wildlife and other renewable resources shall be the priority consumptive uses of all such resources on the public lands of Alaska when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population, the taking of such population for nonwasteful subsistence uses shall be given preference on the public lands over other consumptive uses; and

(3) except as otherwise provided by this Act or other Federal laws, Federal land managing agencies, in managing subsistence activities on the public lands and in protecting the continued viability of all wild renewable resources in Alaska, shall cooperate with adjacent landowners and land managers, including Native Corporations, appropriate State and Federal agencies and other nations.

DEFINITIONS

§803. As used in this Act, the term "subsistence uses" means the customary and traditional uses by rural Alaska residents of wild renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade. For the purposes of this section, the term--

(1) "family" means all persons related by blood, marriage, or adoption, or any person living within the household on a permanent basis; and

(2) "barter" means the exchange of fish or wildlife or their parts, taken for subsistence uses--

(A) for other fish or game or their parts; or

(B) for other food or for nonedible items other than money if the exchange is of a limited and noncommercial nature.

PREFERENCE FOR SUBSISTENCE USE

§804. Except as otherwise provided in this Act and other Federal laws, the taking on public lands of fish and wildlife for nonwasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes. Whenever it is necessary to restrict the taking of populations of fish and wildlife on such lands for subsistence uses in order to protect the continued viability of such populations, or to continue such uses, such priority shall be implemented through appropriate limitations based on the application of the following criteria:

(1) customary and direct dependence upon the populations as the mainstay of livelihood;

(2) local residency; and

(3) the availability of alternative resources.

LOCAL AND REGIONAL PARTICIPATION

§805. (a) Except as otherwise provided in subsection (d) of this section, one year after the date of enactment of this Act, the Secretary in consultation with the State shall establish--

(1) at least six Alaska subsistence resource regions which taken together, include all public lands. The number and boundaries of the regions shall be sufficient to assure that regional differences in subsistence uses are adequately accommodated;

(2) such local advisory committees within each region as he finds necessary at such time as he may determine, after notice and hearing, that the existing State fish and game advisory committees do not adequately perform the functions of the local committee system set forth in paragraph (3)(D)(iv) of this subsection; and

(3) a regional advisory council in each subsistence resource region. Each regional advisory council shall be composed of residents of the region and shall have the following authority:

(A) the review and evaluation of proposals for regulations policies, management plans, and other matters relating to subsistence uses of fish and wildlife within the region;

(B) the provision of a forum for the expression of opinions and recommendations by persons interested in any matter related to the subsistence uses of fish and wildlife within the region;

(C) the encouragement of local and regional participation pursuant to the provisions of this title in the decision making process affecting the taking of fish and wildlife on the public lands within the region for subsistence uses;

(D) the preparation of an annual report to the Secretary which shall contain--

(i) an identification of current and anticipated subsistence uses of fish and wildlife populations within the region;

(ii) an evaluation of current and anticipated subsistence needs for fish and wildlife populations within the region;

(iii) a recommended strategy for the management of fish and wildlife populations within the region to accommodate such subsistence uses and needs; and

(iv) recommendations concerning policies, standards guidelines, and regulations to implement the strategy. The State fish and game advisory committees or such local advisory committees as the Secretary may establish pursuant to paragraph (2) of this subsection may provide advice to and assist, the regional advisory councils in carrying out the functions set forth in this paragraph.

(b) The Secretary shall assign adequate qualified staff to the regional advisory councils and make timely distribution of all available relevant technical and scientific support data to the regional advisory councils and the State fish and game advisory committees or such local advisory committees as the Secretary may establish pursuant to paragraph (2) of subsection (a).

(c) The Secretary, in performing his monitoring responsibility pursuant to §806 and in the exercise of his closure and other administrative authority over the public lands, shall consider the report and recommendations of the regional advisory councils concerning the taking of fish and wildlife on the public lands within their respective regions for subsistence uses. The Secretary may choose not to follow any recommendation which he determines is not supported by substantial evidence, violates recognized principles of fish and wildlife conservation, or would be detrimental to the satisfaction of subsistence needs. If a recommendation is not adopted by the Secretary, he shall set forth the factual basis and the reasons for his decision.

(d) The Secretary shall not implement subsections (a), (b), and (c) of this section if within one year from the date of enactment of this Act the State enacts and implements laws of general applicability which are consistent with, and which provide for the definition, preference and participation specified in, §§803, 804, and 805, such laws unless and until repealed, shall supersede such sections insofar as such sections govern State responsibility pursuant to this title for the taking of fish and wildlife on the public lands for subsistence uses Laws establishing a system of local advisory committees and regional advisory councils consistent with §805 shall provide that the State rule making authority shall consider the advice and recommendations of the regional councils concerning the taking of fish and wildlife populations on public lands within their respective regions for subsistence uses. The regional councils may present recommendations, and the evidence upon which such recommendations are based to the State rule making authority during the course of the administrative proceedings of such authority. The State rule making authority may choose not to follow any recommendation which it determines is not supported by substantial evidence presented during the course of its administrative proceedings, violates recognized principles of fish and wildlife conservation or would be

detrimental to the satisfaction of rural subsistence needs. If a recommendation is not adopted by the State rule making authority, such authority shall set forth the factual basis and the reasons for its decision.

(e)(1) The Secretary shall reimburse the State, from funds appropriated to the Department of the Interior for such purposes, for reasonable costs relating to the establishment and operation of the regional advisory councils established by the State in accordance with subsection (d) and the operation of the State fish and game advisory committees so long as such committees are not superseded by the Secretary pursuant to paragraph (2) of subsection (a). Such reimbursement may not exceed 50 per centum of such costs in any fiscal year. Such costs shall be verified in a statement which the Secretary determines to be adequate and accurate. Sums paid under this subsection shall be in addition to any grants, payments, or other sums to which the State is entitled from appropriations to the Department of the Interior.

(2) Total payments to the State under this subsection shall not exceed the sum of $5,000,000 in any one fiscal year. The Secretary shall advise the Congress at least once in every five years as to whether or not the maximum payments specified in this subsection are adequate to ensure the effectiveness of the program established by the State to provide the preference for subsistence uses of fish and wildlife set forth in §804.

FEDERAL MONITORING

§806. The Secretary shall monitor the provisions by the State of the subsistence preference set forth in §804 and shall advise the State and the Committee on Interior and Insular Affairs and on Merchant Marine and Fisheries of the House of Representatives and the Committees on Energy and Natural Resources and Environment and Public Works of the Senate annually and at such other times as he deems necessary of his views on the effectiveness of the implementation of this title including the State's provision of such preference, any exercise of his closure or other administrative authority to protect subsistence resources or uses, the views of the State, and any recommendations he may have.

JUDICIAL ENFORCEMENT

§807. (a) Local residents and other persons and organizations aggrieved a failure of the State or the Federal Government to provide for the priority for subsistence uses set forth in §804 (or with respect to the State as set forth in a State law of general applicability if the State has fulfilled the requirements of §805(d)) may, upon exhaustion of any State or Federal (as appropriate) administrative remedies which may be available, file a civil action in the United States District Court for the District of Alaska to require such actions to be taken as are necessary to provide for the priority. In a civil action filed against the State, the Secretary may be joined as a party to such action. The court may grant preliminary injunctive relief in any civil action if the granting of such relief is appropriate under the facts upon which the action is based. No order granting preliminary relief shall be issued until after an opportunity for hearing. In a civil action filed against the State, the court shall provide relief, other than preliminary relief, by directing the State to submit regulations which satisfy the requirements of §804 when approved by the court, such regulations shall be incorporated as part of the final judicial order, and such order shall be valid only for such period of time as normally provided by State law for the regulations at issue. Local residents and other persons and organizations who are prevailing parties in an action filed pursuant to this section shall be awarded their costs and attorney's fees.

(b) A civil action filed pursuant to this section shall be assigned for hearing at the earliest possible date, shall take precedence over other matters pending on the docket of the United States district court at that time, and shall be expedited in every way by such court and any appellate court.

(c) This section is the sole Federal judicial remedy created by this title for local residents and other residents who, and organizations which, are aggrieved by a failure of the State to provide for the priority of subsistence uses set forth in §804.

PARK AND PARK MONUMENT SUBSISTENCE RESOURCE COMMISSIONS

§808. (a) Within one year from the date of enactment of this Act the Secretary and the Governor shall each appoint three members to a subsistence resources commission for each national park or park monument within which subsistence uses are permitted by this Act. The regional advisory council established pursuant to §805 which has jurisdiction within the area in which the park or park monument is located shall appoint three members to the commission each of whom is a member of either the regional advisory council or a local advisory committee within the region and also engages in subsistence uses within the park or park monument. Within eighteen months from the date of enactment of this Act, each commission shall devise and recommend to the Secretary and the Governor a program for subsistence hunting within the park or park monument. Such program shall be prepared using technical information and other pertinent data assembled or produced by necessary field studies or investigations conducted jointly or separately by the technical and administrative personnel of the State and the Department of Interior, information submitted by, and after consultation with the appropriate local advisory committees and regional advisory councils, and any testimony received in a public hearing or hearings held by the commission prior to preparation of the plan at a convenient location or locations in the vicinity of the park or park monument. Each year thereafter. the commission, after consultation with the appropriate local committees and regional councils, considering all relevant data and holding one or more additional hearings in the vicinity of the park or park monument, shall make recommendations to the Secretary and the Governor for any changes in the program or its implementation which the commission deems necessary.

(b) The Secretary shall promptly implement title program and recommendations submitted to him by each commission unless he finds in writing that such program or recommendations violates recognized principles of wildlife conservation, threatens the conservation of healthy populations of wildlife in the park or park monument, is contrary to the purposes for which the park or park monument is established, or would be detrimental to the satisfaction of subsistence needs of local residents. Upon notification by the Governor, the Secretary shall take no action on a submission of a commission for sixty days during which period he shall consider any proposed changes in the program or recommendations submitted by the commission which the Governor provides him.

(c) Pending the implementation of a program under subsection (a) of this section, the Secretary shall permit subsistence uses by local residents in accordance with the provisions of this title and other applicable Federal and State law.

COOPERATIVE AGREEMENTS

§809. The Secretary may enter into cooperative agreements or otherwise cooperate with other Federal agencies, the State. Native Corporations, other appropriate persons and organizations, and acting through the Secretary of State, other nations to effectuate the purposes and policies of this title.

SUBSISTENCE AND LAND USE DECISIONS

§810. (a) In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives

which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation,]ease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency--

(1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to §805;

(2) gives notice of, and holds, a hearing in the vicinity of the area involved; and

(3) determines that--

(A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands,

(B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and

(C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

(b) If the Secretary is required to prepare an environmental impact statement pursuant to §102(2)(C) of the National Environmental Policy Act, he shall provide the notice and hearing and include the findings required by subsection (a) as part of such environmental impact statement.

(c) Nothing herein shall be construed to prohibit or impair the ability of the State or any Native Corporation to make land selections and receive land conveyances pursuant to the Alaska Statehood Act or the Alaska Native Claims Settlement Act.

(d) After compliance with the procedural requirements of this section and other applicable law, the head of the appropriate Federal agency may manage or dispose of public lands under his primary jurisdiction for any of those uses or purposes authorized by this Act or other law.

ACCESS

§811. (a) The Secretary shall ensure that rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands.

(b) Notwithstanding any other provision of this Act or other law the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subJect to reasonable regulation.

RESEARCH

§812. The Secretary, in cooperation with the State and other appropriate Federal agencies, shall undertake research on fish and wildlife and subsistence uses on the public lands, seek data from, consult with and make use of, the special knowledge of local residents engaged in subsistence uses; and make the results of such research available to the State, the local and regional councils established by the Secretary or State pursuant to §805, and other appropriate persons and organizations.

PERIODIC REPORTS

§813. Within four years after the date of enactment of this Act and within every three-year period thereafter, the Secretary, in consultation with the Secretary of Agriculture, shall prepare and submit a report to the President of the Senate and the Speaker of the House of Representatives on the implementation of this title. The report shall include--

(1) an evaluation of the results of the monitoring undertaken by the Secretary as required by §806;

(2) the status of fish and wildlife populations on public lands that are subject to subsistence uses;

(3) a description of the nature and extent of subsistence uses and other uses of fish and wildlife on the public lands;

(4) the role of subsistence uses in the economy and culture of rural Alaska;

(5) comments on the Secretary's report by the State, the local advisory councils and regional advisory councils established by the Secretary or the State pursuant to §805, and other appropriate persons and organizations;

(6) a description of those actions taken, or which may need to be taken in the future, to permit the opportunity for continuation of activities relating to subsistence uses on the public lands;

(7) such other recommendations the Secretary deems appropriate. A notice of the report shall be published in the Federal Register and the report shall be made available to the public.

REGULATIONS

§814. The Secretary shall prescribe such regulations as are necessary and appropriate to carry out his responsibilities under this title.

LIMITATIONS, SAVINGS CLAUSES

§815. Nothing in this title shall be construed as--

(1) granting any property right in any fish or wildlife or other resource of the public lands or as permitting the level of subsistence uses of fish and wildlife within a conservation system unit to be inconsistent with the conservation of healthy populations, and within a national park or monument to be inconsistent with the conservation of natural and healthy populations, of fish and wildlife. No privilege which may be granted by the State to any individual with respect to subsistence uses may be assigned to any other individual;

(2) permitting any subsistence use of fish and wildlife on any portion of the public lands (whether or not within any conservation system unit) which was permanently closed to such uses on January 1, 1978, or enlarging or diminishing the Secretary's authority to manipulate habitat on any portion of the public lands;

(3) authorizing a restriction on the taking of fish and wildlife for nonsubsistence uses on the public lands (other than national parks and park monuments) unless necessary for the conservation of healthy populations of fish and wildlife, for the reasons set forth in §816, to continue subsistence uses of such populations, or pursuant to other applicable law; or

(4) modifying or repealing the provisions of any Federal law governing the conservation or protection of fish and wildlife, including the National Wildlife Refuge System Administration Act of 1966 (80 Stat. 927- 16 U.S.C. 668dd-jj), the National Park Service Organic Act (39 Stat. 535, 16

U.S.C. 1, 2, 3, 4), the Fur Seal Act of 1966 (80 Stat. 1091, 16 U.S.C. 1187), the Endangered Species Act of 1973 (87 Stat. 884 16 U.S.C. 1531-1543), the Marine Mammal Protection Act of 1972 (86 Stat. 1027; 16 U.S.C. 1361-1407), the Act entitled "An Act for the Protection of the Bald Eagle", approved June 8, 1940 (54 Stat. 250; 16 U.S.C. 742a-754), the Migratory Bird Treaty Act (40 Stat. 755;16 U.S.C. 703-711), the Federal Aid in Wildlife Restoration Act (50 Stat. 917- 16 U.S.C. 669-669i), the Fishery Conservation and Management Act of 1976 (90 Stat. 331;16 U.S.C. 1801-1882), the Federal Aid in Fish Restoration Act (64 Stat. 430; 16 U.S.C. 777-777K), or ally amendments to any one or more of such Acts.

CLOSURE TO SUBSISTENCE USES

§816. (a) All national parks and park monuments in Alaska shall be closed to the taking of wildlife except for subsistence uses to the extent specifically permitted by this Act. Subsistence uses and sport fishing shall be authorized in such areas by the Secretary and carried out in accordance with the requirements of this title and other applicable laws of the United States and the State of Alaska.

(b) Except as specifically provided otherwise by this section, nothing in this title is intended to enlarge or diminish the authority of the Secretary to designate areas where, and establish periods when, no taking of fish and wildlife shall be permitted on the public lands for reasons of public safety, administration, or to assure the continued viability of a particular fish or wildlife population. Notwithstanding any other provision of tins Act or other law, the Secretary, after consultation with the State and adequate notice and public hearing may temporarily close any public lands (including those within any conservation system unit), or any portion thereof, to subsistence uses of a particular fish or wildlife population only if necessary for reasons of public safety, administration, or to assure the continued viability of such population. If the Secretary determines that an emergency situation exists and that extraordinary measures must be taken for public safety or to assure the continued viability of a particular fish or wildlife population, the Secretary may immediately close the public lands, or any portion thereof, to the subsistence uses of such population and shall publish the reasons justifying the closure in the Federal Register. Such emergency closure shall be effective when made, shall not extend for a period exceeding sixty days, and may not subsequently be extended unless the Secretary affirmatively establishes, after notice and public hearing, that such closure should he extended.

ANILCA TITLE XI

TRANSPORTATION AND UTILITY SYSTEMS IN AND ACROSS, AND ACCESS INTO, CONSERVATION SYSTEM UNITS

FINDINGS

§1101. Congress finds that--

(a) Alaska's transportation and utility network is largely undeveloped and the future needs for transportation and utility systems in Alaska would best be identified and provided for through an orderly, continuous decision making process involving the State and Federal Governments and the public;

(b) the existing authorities to approve or disapprove application for transportation and utility systems through public lands in Alaska are diverse, dissimilar, and, in some cases, absent; and

(c) to minimize the adverse impacts of siting transportation and utility systems within units established or expanded by this Act and to insure the effectiveness of the decision making process, a single comprehensive statutory authority for the approval or disapproval of applications for such systems must be provided in this Act.

DEFINITIONS

§1102. For purposes of this title--

(1) The term "applicable law" means any law of general applicability (other than this title) under which any Federal department or agency has jurisdiction to grant any authorization (including but not limited to, any right-of-way, permit, license, lease, or certificate) without which a transportation or utility system cannot, in whole or in part, be established or operated.

(2) The term "applicant" means any public or private person, including, but not limited to, any Federal department or agency.

(3) The term "Federal agency" means any Federal department or agency that has any function or duty under applicable law.

(4)(A) The term "transportation or utility system" means any type of system described in subparagraph (B) if any portion of the route of the system will be within any conservation system unit, national recreation area, or national conservation area in the State (and the system is not one that the department or agency having jurisdiction over the unit or area is establishing incident to its management of the unit or area).

(B) The types of systems to which subparagraph (A) applies are as follows:

(i) Canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other systems for the transportation of water.

(ii) Pipelines and other systems for the transportation of liquids other than water, including oil, natural gas, synthetic liquid and gaseous fuels, and any refined product produced therefrom.

(iii) Pipelines, slurry and emulsion systems and conveyor belts for the transportation of solid materials.

(iv) Systems for the transmission and distribution of electric energy.

(v) Systems for transmission or reception of radio, television telephone, telegraph, and other electronic signals, and other means of communication.

(vi) Improved rights-of-way for snow machines, air cushion vehicles, and other all-terrain vehicles.

(vii) Roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation.

Any system described in this subparagraph includes such related structures and facilities (both temporary and permanent) along the route of the system as may be minimally necessary for the construction, operation, and maintenance of the system. Such related structures and facilities shall be described in the application required by §1104, and shall be approved or disapproved in accordance with the procedures set forth in this title.

EFFECT OF TITLE

§1103. Except as specifically provided for in this title, applicable law shall apply with respect to the authorization and administration of transportation or utility systems.

PROCEDURAL REQUIREMENTS

§1104. (a) IN GENERAL.--Notwithstanding any provision of applicable law, no action by any Federal agency under applicable law with respect to the approval or disapproval of the authorization, in whole or in part, of any transportation or utility system shall have any force or effect unless the provisions of this section are complied with.

(b)(1) CONSOLIDATED APPLICATIONS.--Within one hundred and eighty days after the date of enactment of this Act, the Secretary, the Secretary of Agriculture, and the Secretary of Transportation, in consultation with the heads of other appropriate Federal agencies shall jointly prescribe and publish a consolidated application form to be used for applying for the approval of each type of transportation or utility system. Each such application form shall be designed to elicit such information as may be necessary to meet the requirements of this title and the applicable law with respect to the type of system concerned.

(2) For purposes of this section, the heads of all appropriate Federal agencies, including the Secretary of Transportation, shall share decision-making responsibility in the case of any transportation or utility system described in §1102(4)(B)(ii), (iii), or (vii); but with respect to any such system for which he does not have programmatic responsibility, the Secretary of Transportation shall provide to the other Federal agencies concerned such planning and other assistance as may be appropriate.

(c) FILING.--Each applicant for the approval of any transportation or utility system shall file on the same day an application with each appropriate Federal agency. The applicant shall utilize the consolidated form prescribed under subsection (b) for the type of transportation or utility system concerned.

(d) AGENCY NOTICE.--(1) Within sixty days after the receipt of an application filed pursuant to subsection (c), the head of each Federal agency with whom the application was filed shall inform the applicant in writing that, on its face--

(A) the application appears to contain the information required by this title and applicable law insofar as that agency is concerned; or

(B) the application does not contain such information.

(2) Any notice provided under paragraph (1)(B) shall specify what additional information the applicant must provide. If the applicant provides additional information, the head of the Federal agency must inform the applicant in writing, within thirty days after receipt of such information, whether the information is sufficient.

(e) ENVIRONMENTAL IMPACT STATEMENT.--The draft of any environmental impact statement required under the National Environmental Policy Act of 1969 in connection with any application filed under this section shall be completed, within nine months from the date of filing, by the head of the Federal agency assigned lead responsibility for the statement. Any such statement shall be jointly prepared by all Federal agencies with which the application was filed under subsection (c). The final environmental impact statement shall be completed within one year from the date of such filing. Such nine-month and one-year periods may be extended for good cause by the Federal agency head assigned lead responsibility for the preparation of such statement if he determines that additional time is necessary for such preparation, notifies the applicant in writing of such determination and publishes notice of such determination, together with the reasons therefor, in the Federal Register. The provisions of §304 of the Federal Land Policy and Management Act of 1976 shall apply to each environmental impact statement under this subsection in the same manner as such provisions apply to applications relating to the public lands referred to in such §304. The Federal agency assigned lead responsibility shall, in conjunction with such other Federal agencies before which the application is pending, hold public hearings in the District of Columbia and an appropriate location in the State on each draft joint environmental impact statement and the views expressed therein shall be considered by all Federal agencies concerned before publication of the final joint environmental impact statement.

(f) OTHER VIEWS.--During both the nine-month period, and the succeeding three-month period plus any extension thereof provided for in subsection (e), the heads of the Federal agencies concerned shall solicit and consider the views of other Federal departments and agencies, the Alaska Land Use Council, the State, affected units of local government in the State, and affected corporations formed pursuant to the Alaska Native Claims Settlement Act, and, after public notice, shall receive and consider statements and recommendations regarding the application submitted by interested individuals and organizations.

(g) AGENCY DECISION.--(1) Within four months after the final environmental impact statement, is published in accordance with subsection (e) with respect to any transportation or utility system each Federal agency shall make a decision to approve or disapprove in accordance with applicable law, each authorization that applies with respect to the system and that is within the jurisdiction of that agency.

(2) The head of each Federal agency, in making a decision referred to in paragraph (1), shall consider, and make detailed findings supported by substantial evidence, with respect to--

(A) the need for, and economic feasibility of, the transportation or utility system;

(B) alternative routes and modes of access, including a determination with respect to whether there is any economically feasible and prudent alternative to the routing of the system through or within a conservation system unit, national recreation area, or national conservation area and,

if not, whether there are alternative routes or modes which would result in fewer or less severe adverse impacts upon the conservation system unit;

(C) the feasibility and impacts of including different transportation or utility systems in the same area;

(D) short- and long-term social, economic, and environmental impacts of national, State, or local significance, including impacts on fish and wildlife and their habitat, and on rural, traditional lifestyles;

(E) the impacts, if any, on the national security interests of the United States, that may result from approval or denial of the application for a transportation or utility system;

(F) any impacts that would affect the purposes for which the Federal unit or area concerned was established;

(G) measures which should be instituted to avoid or minimize negative impacts; and

(H) the short- and long-term public values which may be adversely affected by approval of the transportation or utility system versus the short- and long-term public benefits which may accrue from such approval.

STANDARDS FOR GRANTING CERTAIN AUTHORIZATIONS

§1105. In any case in which there is no applicable law with respect to a transportation or utility system, the head of the Federal agency concerned shall, within four months after the date of filing of any final Environmental Impact Statement, make recommendations for purposes of §1106(b), to grant such authorizations as may be necessary to establish such system, in whole or in part, within the conservation system unit concerned if he determines that--

(1) such system would be compatible with the purposes for which the unit was established; and

(2) there is no economically feasible and prudent alternative route for the system.

AGENCY, PRESIDENTIAL, AND CONGRESSIONAL ACTIONS

§1106. (a)(1) AGENCY ACTION IN CASES OTHER THAN THOSE INVOLVING SECTION 1105 OR WILDERNESS AREAS.--In the case of any application for the approval of any transportation or utility system to which §1105 does not apply or that does not occupy, use, or traverse any area within the National Wilderness Preservation System, if, in compliance with §1104--

(A) each Federal agency concerned decides to approve each authorization within its jurisdiction with respect to that system then the system shall be deemed to be approved and each such agency shall promptly issue, in accordance with applicable law, such rights-of-way, permits, licenses leases, certificates, or other authorizations as are necessary with respect to the establishment of the system; or

(B) one or more Federal agencies decide to disapprove any authorization within its jurisdiction with respect, to that system then the system shall be deemed to be disapproved and the applicant for the system may appeal the disapproval to the President.

(2) If an applicant appeals under paragraph (1)(B), the President, within four months after receiving the appeal shall decide whether to approve or deny the application. The President shall approve the application if he finds, after consideration of the factors set forth in §1104(g)(2), that such approval would be in the public interest and that (1) such system would be compatible with the purposes for which the unit was established; and (2) there is no economically feasible

and prudent alternative route for the system. In making a decision, the President shall consider any environmental impact statement prepared pursuant to §1104(e), comments of the public and Federal agencies received during the preparation of such statement, and the findings and recommendations, if any, of each Federal agency that rendered a decision with respect to the application. The President's decision to approve or deny the application shall be published in the Federal Register, together with a statement of the reasons for his determination.

(3) If the President approves an application under paragraph (2), each Federal agency concerned shall promptly issue, in accordance with applicable law, such rights-of-way, permits, licenses, leases certificates, or other authorizations as are necessary with respect to the establishment of the system.

(4) If the President denies an application under paragraph (2), the applicant shall be deemed to have exhausted his administrative remedies and may file suit in any appropriate Federal court to challenge such decision.

(b) AGENCY ACTION IN CASES INVOLVING SECTION 1105 OR WILDERNESS AREAS.--(1) In the case of any application for the approval of transportation or utility system to which §1105 applies or that proposes to occupy, use, or traverse any area within the National Wilderness Preservation System, each Federal agency concerned shall promptly submit to the President notification whether the agency tentatively approved or disapproved each authorization within its jurisdiction that applies with respect to the system. Such notification shall be accompanied by a statement of the reasons and findings supporting the agency position.

(2) within four months after receiving all notification referred to in paragraph (1) and after considering such notifications, any environmental impact statement prepared pursuant to §1104(e), and the comments of the public and Federal agencies received during the preparation of such Statement, the President shall decide whether or not the application for the system concerned should be approved. If the President denies an application the applicant shall be deemed to have exhausted his administrative remedies, and may file suit in any appropriate Federal court to challenge such decision. If the President approves the application, he shall submit to Congress his recommendation for approval of the transportation or utility system covered, whereupon the Congress shall consider the application as provided in subsection (c). The President shall include with his recommendation to Congress--

(A) the application which is the subject of his recommendation;

(B) a report setting forth in detail the relevant factual background and the reasons for his findings and recommendation;

(C) the joint environmental impact statement;

(D) a statement of the conditions and stipulations which would govern the use of the system if approved by the Congress.

(c) CONGRESSIONAL APPROVAL.--(1) No application for any transportation or utility system with respect to which the President makes a recommendation for approval under subsection (b) shall be approved unless the Senate and House of Representatives approve a resolution described in paragraph (4) within the first period of one hundred and twenty calendar days of continuous session of the Congress beginning on the date after the date of receipt by the Senate and House of Representatives of such recommendation.

(2) For purposes of this subsection--

(A) continuity of session of the Congress is broken only by an adjournment sine die; and

(B) the days on which either House is not in session because of an adjournment of more than three days to a day certain are excluded in the computation of the one-hundred-and-twenty-day calendar period.

(3) This subsection is enacted by the Congress--

(A) as an exercise of the rule making power of each House of the Congress respectively, but applicable only with respect to the procedure to be followed in the House in the case of resolutions described by paragraph (6) of this subsection; and it supersedes other rules only to the extent that it is inconsistent therewith; and

(B) with full recognition of the constitutional right of either House to change the rules (so far as those relate to the procedure of that House) at any time, in the same manner and to the same extent as in the case of any other rule of such House.

(4) For the purposes of this subsection, the term "resolution" means a joint resolution, the resolving clause of which is as follows: "That the House of Representatives and Senate approve the application for (triple tab under title XI of the Alaska National Interest Lands Conservation Act submitted by the President to the Congress on the first blank space therein to be filled in with the appropriate transportation or utility system and the second blank therein to be filled with the date on which the President submits the application to the House of Representatives and the Senate.

(5) Except as otherwise provided in this subsection, the provisions of §8(d) of the Alaska Natural Gas Transportation Act shall apply to the consideration of the resolution.

(6) After an application for a transportation or utility system has been approved under subsection 1106(a), the appropriate Federal agencies shall issue appropriate authorizations in accordance with applicable law. In any case in which an application for a transportation or utility system has been approved pursuant to §1106(b) the appropriate Federal agencies shall issue appropriate authorizations in accordance with title V of the Federal Lands Policy Management Act or other applicable law. After issuance pursuant to this subsection, the appropriate land managing agency shall administer the right-of-way in accordance with relevant management authorities of the land managing agency and title V of the Federal Lands Policy Management Act.

RIGHTS-OF-WAY TERMS AND CONDITIONS

§1107. (a) TERMS AND CONDITIONS.--The Secretary, or the Secretary of Agriculture where national forest wilderness is involved shall include in any right-of-way issued pursuant to an application under this title, terms and conditions which shall include, but not be limited to--

(1) requirements to insure that, to the maximum extent feasible the right-of-way is used in a manner compatible with the purposes for which the affected conservation system unit, national recreation area, or national conservation area was established or is managed;

(2) requirements for restoration, revegatation, and curtailment of erosion of the surface of the land;

(3) requirements to insure that activities in connection with the right-of-way will not violate applicable air and water quality standards and related facility siting standards established pursuant to law;

(4) requirements, including the minimum necessary width, designed to control or prevent--

(A) damage to the environment (including damage to fish and wildlife habitat);

(B) damage to public or private property; and

(C) hazards to public health and safety;

(5) requirements to protect the interests of individuals living in the general area of the right-of-way who rely on the fish, wildlife and biotic resources of the area for subsistence purposes; and

(6) requirements to employ measures to avoid or minimize adverse environmental, social or economic impacts.

(b) WILD AND SCENIC RIVERS SYSTEM.--Any transportation or utility system approved pursuant to this title which occupies, uses, or traverses any area within the boundaries of a unit of the National Wild and Scenic Rivers System shall be subject to such conditions as may be necessary to assure that the stream flow of, and transportation on, such river are not interfered with or impeded, and that the transportation or utility system is located and constructed in an environmentally sound manner.

(c) PIPELINE RIGHTS-OF-WAYS.--In the case of a pipeline described in §28(a) of the Minerals Leasing Act of 1920, a right-of-way issued pursuant to this title shall be issued in the same manner as a right-of-way is granted under §28, and the provisions of subsections (c) through (j), (l) through (q), and (u) through (y) of such §28 shall apply to rights-of-way issued pursuant to this title.

INJUNCTIVE RELIEF

§1108. No court shall have jurisdiction to grant any injunctive relief lasting longer than ninety days against any action pursuant to this title except in conjunction with a final judgment entered in a case involving an action pursuant to this title.

VALID EXISTING RIGHTS

§1109. Nothing in this title shall be construed to adversely affect any valid existing right of access.

SPECIAL ACCESS AND ACCESS TO INHOLDINGS

§1110. (a) Notwithstanding any other provision of this Act or other law, the Secretary shall permit, on conservation system units national recreation areas, and national conservation areas, and those public lands designated as wilderness study, the use of snowmachines (during periods of adequate snow cover, or frozen river conditions in the case of wild and scenic rivers), motorboats, airplanes, and non-motorized surface transportation methods for traditional activities (where such activities are permitted by this Act or other law) and for travel to and from villages and homesites. Such use shall be subject to reasonable regulations by the Secretary to protect the natural and other values of the conservation system units, national recreation areas, and national conservation areas, and shall not be prohibited unless, after notice and hearing in the vicinity of the affected unit or area, the Secretary finds that such use would be detrimental to the resource values of the unit or area. Nothing in this section shall be construed as prohibiting the use of other methods of transportation for such travel and activities on conservation system lands where such use is permitted by this Act or other law.

(b) Notwithstanding any other provisions of this Act or other law, in any case in which State owned or privately owned land, including subsurface rights of such owners underlying public lands, or a valid mining claim or other valid occupancy is within or is effectively surrounded by one or more conservation system units, national recreation areas, national conservation areas, or those public lands designated as wilderness study, the State or private owner or occupier shall be given by the Secretary such rights as may be necessary to assure adequate and feasible access for economic and other purposes to the concerned land by such State or private owner or

occupier and their successors in interest. Such rights shall be subject to reasonable regulations issued by the Secretary to protect the natural and other values of such lands.

TEMPORARY ACCESS

§1111. (a) IN GENERAL.--Notwithstanding any other provision of this Act or other law the Secretary shall authorize and permit temporary access by the State or a private landowner to or across any conservation system unit, national recreation area, national conservation area, the National Petroleum Reserve Alaska or those public lands designated as wilderness study or managed to maintain the wilderness character or potential thereof, in order to permit the State or private landowner access to its land for purposes of survey geophysical, exploratory, or other temporary uses thereof whenever he determines such access will not result in permanent harm to the resources of such unit, area, Reserve or lands.

(b) STIPULATIONS AND CONDITIONS.--In providing temporary access pursuant to subsection (a), the Secretary may include such stipulations and conditions he deems necessary to insure that the private use of public lands is accomplished in a manner that is not inconsistent with the purposes for which the public lands are reserved and which insures that no permanent harm will result to the resources of the unit, area, Reserve or lands.

NORTH SLOPE HAUL ROAD

§1112. (a) IN GENERAL.--So long as that section of the North Slope Haul Road referred to in subsection (c) is closed to public use, but not including regulated local traffic north of the Yukon River, regulated industrial traffic and regulated high occupancy buses, such regulation to occur under State law, except that the Secretary, after consultation with the Secretary of Transportation, and the Governor of Alaska shall agree on the number of vehicles and seasonality of use, such section shall be free from any and all restrictions contained in title 23, United States Code, as amended or supplemented, or in any regulations thereunder. Prior to executing an agreement pursuant to this subsection, the Secretary and the Governor of Alaska shall consult with the head of any unit of local government which encompasses lands located adjacent to the route of the North Slope Haul Road. The State of Alaska shall have the authority to limit access, impose restrictions and impose tolls, notwithstanding any provision of Federal law.

(b) RELEASE.--The removal of restrictions shall not be conditioned upon repayment by the State of Alaska to the Treasurer of the United States of any Federal-aid highway funds paid on account of the section of highway described in subsection (c), and the obligation of the State of Alaska to repay these amounts is hereby released so long as the road remains closed as set forth in subsection (a).

(c) APPLICATION OF SECTION.--The provisions of this section shall apply to that section of the North Slope Haul Road, which extends from the southern terminus of the Yukon River Bridge to the northern terminus of the Road at Prudhoe Bay.

STIKINE RIVER REGION

§1113. Congress finds that there is a need to study the effect of Government and this Act upon the ability of the Government of Canada to obtain access in the Stikine River region of southeast Alaska. Accordingly, within five years from the date of enactment of this Act, the President shall consult with the Government of Canada and shall submit a report to the Congress containing his findings and recommendations concerning the need, if any, to provide for such access. Such report shall include, among other things, an analysis of the need may result from various forms of access including, but not limited to, a road along the Stikine and Iskut Rivers, or other alternative routes should such access be permitted.

ANILCA TITLE XIII

ADMINISTRATIVE PROVISIONS

MANAGEMENT PLANS

§1301. (a) Within five years from the date of enactment of this Act, the Secretary shall develop and transmit to the appropriate Committees of the Congress a conservation and management plan for each of the units of the National Park System established or to which additions are made by this Act.

(b) NATIONAL PARK SERVICE PLAN REQUIREMENTS.--Each plan for a unit established, redesignated, or expanded by Title II shall identify management practices which will carry out the policies of this Act and will accomplish the purposes for which the concerned National Park System unit was established or expanded and shall include at least the following:

(1) Maps indicating areas of particular importance as to wilderness, natural, historical, wildlife, cultural, archeological, paleotological, geological, recreational, and similar resources and also indicating the areas into which such unit will be divided for administrative purposes.

(2) A description of the programs and methods that will be employed to manage fish and wildlife resources and habitats, cultural, geological, recreational, and wilderness resources, and how each conservation system unit will contribute to overall resources management goals of that region. Such programs should include research, protection, restoration, development, and interpretation as appropriate.

(3) A description of any areas of potential or proposed development, indicating types of visitor services and facilities to be provided, the estimated costs of such services and facilities, and whether or not such services and facilities could and should be provided outside the boundaries of such unit.

(4) A plan for access to, and circulation within, such unit, indicating the type and location of transportation routes and facilities, if any.

(5) A description of the programs and methods which the Secretary plans to use for the purposes of (A) encouraging the recognition and protection of the culture and history of the individuals residing, on the date of the enactment of this Act, in such unit and areas in the vicinity of such unit, and (B) providing and encouraging employment of such individuals.

(6) A plan for acquiring land with respect to such unit including proposed modifications in the boundaries of such unit.

(7) A description (A) of privately owned areas, if any, which are within such unit, (B) of activities carried out in, or proposed for such areas, (C) of the present and potential effects of such activities on such unit, (D) of the purposes for which such areas are used, and (E) of methods (such as cooperative agreements and issuance or enforcement of regulations) of controlling the use of such activities to carry out the policies of this Act and the purposes for which such unit is established or expanded.

(8) A plan indicating the relationship between the management of such unit and activities being carried out in, or proposed for, surrounding areas and also indicating cooperative agreements which could and should be entered into for the purpose of improving such management.

(c) CONSIDERATION OF FACTORS.--In developing, preparing, and revising a plan under this section the Secretary shall take into consideration at least the following factors:

(1) The specific purposes for which the concerned conservation system unit was established or expanded.

(2) Protection and preservation of the ecological, environmental, wildlife, cultural, historical, archeological, geological, recreational, wilderness, and scenic character of the concerned unit and of areas in the vicinity of such unit.

(3) Providing opportunities for Alaska Natives residing in the concerned unit and areas adjacent to such unit to continue performing in such unit activities which they have traditionally or historically performed in such unit.

(4) Activities being carried out in areas adjacent to, or surrounded by, the concerned unit.

(d) HEARING AND PARTICIPATION.--In developing, preparing, and revising a plan under this section the Secretary shall hold at least one public hearing in the vicinity of the concerned conservation unit, hold at least one public hearing in a metropolitan area of Alaska, and, to the extent practicable, permit the following persons to participate in the development, preparation, and revision of such plan:

(1) The Alaska Land Use Council and officials of Federal agencies whose activities will be significantly affected by implementation of such plan.

(2) Officials of the State and of political subdivisions of the State whose activities will be significantly affected by implementation of such plan.

(3) Officials of Native Corporations which will be significantly affected by implementation of such plan.

(4) Concerned local, State, and National organizations and interested individuals.

LAND ACQUISITION AUTHORITY

§1302. (a) GENERAL AUTHORITY.--Except as provided in subsections (b) and (c) of this section, the Secretary is authorized, consistent with other applicable law in order to carry out the purposes of this Act, to acquire by purchase, donation, exchange, or otherwise any lands within the boundaries of any conservation system unit other than National Forest Wilderness.

(b) RESTRICTIONS.--Lands located within the boundaries of a conservation system unit which are owned by--

(A) the State or a political subdivision of the State;

(B) a Native Corporation or Native Group which has Natives as a majority of its stockholders;

(C) the actual occupant of a tract, title to the surface estate of which was on, before, or after the date of enactment of this Act conveyed to such occupant pursuant to §14(c)(1) and §149(h)(5) of the Alaska Native Claims Settlement Act, unless the Secretary determines that the tract is no longer occupied for the purpose described in §14(c)(1) or §14(h)(5) for which the tract was conveyed and that activities on the tract are or will be detrimental to the purposes of the unit in which the tract is located; or

(D) a spouse or lineal descendant of the actual occupant of a tract described in subparagraph (C), unless the Secretary determines that activities on the tract are or will be detrimental to the purposes of the unit in which the tract is located--

may not be acquired by the Secretary without the consent of the owner.

(c) EXCHANGES.--Lands located within the boundaries of a conservation system unit (other than National Forest Wilderness) which are owned by persons or entities other than those described in subsection (b) of this section shall not be acquired by the Secretary without the consent of the owner unless prior to final judgment on the value of the acquired land, the owner, after being offered appropriate land of similar characteristics and like value (if such land is available from public lands located outside the boundaries of any conservation system unit), chooses not to accept the exchange. In identifying public lands for exchange pursuant to this subsection, the Secretary shall consult with the Alaska Land Use Council.

(d) IMPROVED PROPERTY.--No improved property shall be acquired under subsection (a) without the consent of the owner unless the Secretary first determines that such acquisition is necessary to the purposes for which the concerned conservation system unit was established or expanded.

(e) RETAINED RIGHTS.--The owner of an improved property on the for himself, his heirs and assigns, a right of use and occupancy of the improved property for noncommercial residential or recreational purposes, as the case may be, for a definite term of not more than twenty-five years, or in lieu thereof, for a term ending at the death of the owner or the death of his spouse, whichever is later. The owner shall elect the term to be reserved. Unless the property is wholly or partially donated, the Secretary shall pay to the owner the fair market value of the owner's interest in the property on the date of its acquisition, less the fair market value on that date of the right retained by the owner. A right retained by the owner pursuant to this section shall be subject to termination by the Secretary upon his determination that such right is being exercised in a manner inconsistent with the purposes of this Act, and it shall terminate by operation of law upon notification by the Secretary to the holder of the right of such determination and tendering to him the amount equal to the fair market value of that portion which remains unexpired.

(f) DEFINITION.--For the purposes of this section, the term "Improved property" means--

(1) a detached single family dwelling, the construction of which was begun before January 1, 1980 (hereinafter referred to as the "dwelling"), together with the land on which the dwelling is situated to the extent that such land--

(A) is in the same ownership as the dwelling or is Federal land on which entry was legal and proper, and

(B) is designated by the Secretary to be necessary for the enjoyment of the dwelling for the sole purpose of noncommercial residential use, together with any structures necessary to the dwelling which are situated on the land so designated, or

(2) property developed for noncommercial recreational uses together with any structures accessory thereto which were so used on or before January 1, 1980, to the extent that entry onto such property was legal and proper.

In determining when and to what extent a property is to be considered an "improved property", the Secretary shall take into consideration the manner of use of such buildings and lands prior to January 1 1980, and shall designate such lands as are reasonably necessary for the continued enjoyment of the property in the same manner and to the same extent as existed before such date.

(g) CONSIDERATION OF HARDSHIP.--The Secretary shall give prompt and careful consideration to any offer made by the owner of any property within a ConserVation system unit to sell such. property. if such owner notifies the Secretary that the continued ownership is causing, or would result in, undue hardship.

(h) EXCHANGE AUTHORITY.--Notwithstanding any other provision of law, in acquiring lands for the purposes of this Act, the Secretary is authorized to exchange lands (including lands within conservation system units and within the National Forest System) or interests therein (including Native selection rights) with the corporations organized by the Native Groups, Village Corporations, Regional Corporations, and the Urban Corporations, and other municipalities and corporations or individuals, the State (acting free of the restrictions of §6(i) of the Alaska Statehood Act), or any Federal agency. Exchanges shall be on the basis of equal value, and either party to the exchange may pay or accept cash in order to equalize the value of the property exchanged, except that if the parties agree to an exchange and the Secretary determines it is in the public interest, such exchanges may be made for other than equal value.

(i)(1) The Secretary is authorized to acquire by donation or exchange, lands (A) which are contiguous to any conservation system unit established or expanded by this Act, and (B) which are owned or validly selected by the State of Alaska.

(2) Any such lands so acquired shall become a part of such conservation system unit.

USE OF CABINS AND OTHER SITES OF OCCUPANCY ON CONSERVATION SYSTEM UNITS

§1303. (a) IMPROVED PROPERTY ON NATIONAL PARK SYSTEM LANDS.--

(1) On public lands within the boundaries of any unit of the National Park System created or enlarged by this Act, cabins or other structures existing prior to December 18, 1973, may be occupied and used by the claimant to these structures pursuant to a renewable, nontransferable permit. Such use and occupancy shall be for terms of five years each: Provided, That the claimant of the structure by application:

(A) Reasonably demonstrates by affidavit, bill of sale or other documentation, proof of possessory interest or right of occupancy in the cabin or structure;

(B) Submits a sketch or photograph of the cabin or structure and a map showing its geographic location;

(C) Agrees to vacate the cabin and to remove all personal property from the cabin or structure upon expiration of the permit; and

(D) Acknowledges in the permit that the applicant has no interest in the real property on which the cabin or structure is located.

(2) On public lands within the boundaries of any unit of the National Park System created or enlarged by this Act, cabins or other structures, the occupancy or use of which commenced between December 18, 1973, and December 1, 1978, may be used and occupied by the claimant of such structure pursuant to a nontransferable, nonrenewable permit. Such use and occupancy shall be for a maximum term of one year: Provided, however, That the claimant, by application:

(A) Reasonably demonstrates by affidavit, bill of sale, or other documentation proof of possessory interest or right of occupancy in the cabin or structure;

(B) Submits a sketch or photograph of the cabin or structure and a map showing its geographic location;

(C) Agrees to vacate the cabin or structure and to remove all personal property from it upon expiration of the permit; and

(D) Acknowledges in the permit that the applicant has no legal interest in the real property on which the cabin or structure is located.

The Secretary may, on a case by case basis, subject to reasonable regulations, extend such permit term beyond one year for such reasons as the Secretary deems equitable and just.

(3) Cabins or other structures not under permit as specified herein shall be used only for official government business: Provided, however, That during emergencies involving the safety of human life or where designated for public use by the Secretary, these cabins may be used by the general public.

(4) The Secretary may issue a permit under such conditions as he may prescribe for the temporary use, occupancy, construction and maintenance of new cabins or other structures if he determines that the use is necessary to reasonably accommodate subsistence uses or is otherwise authorized by law.

(b) IMPROVED PROPERTY ON OTHER UNITS OR AREAS ESTABLISHED OR EXPANDED BY THIS ACT.--The following conditions shall apply regarding the construction, use and occupancy of cabins and related structures on Federal lands within conservation system units or areas not provided for in subsection (a) of this section:

(1) The construction of new cabins is prohibited except as may be authorized pursuant to a nontransferable, five-year special use permit issued by the Secretary. Such special use permit shall only be issued upon a determination that the proposed use construction, and maintenance of a cabin is compatible with the purposes for which the unit or area was established and that the use of the cabin is either directly related to the administration of the unit or area or is necessary to provide for a continuation of an ongoing activity or use otherwise allowed within the unit or area where the permit applicant has no reasonable alternative site for constructing a cabin. No special use permit shall be issued to authorize the construction of a cabin for private recreational use.

(2) Traditional and customary uses of existing cabins and related structures on Federal lands within a unit or area may be and allowed to continue in accordance with a nontransferable, renewable five-year special use permit issued by the Secretary. Such special use permit shall be issued only upon a determination that the traditional and customary uses are compatible with the purposes for which the unit or area was established. No special use permits shall be issued to authorize the use of an existing cabin constructed for private recreational use.

(3) No special use permit shall be issued under subsections (b)(1) or (2) unless the permit applicant:

(A) In the case of existing cabins or structures, reasonably demonstrates by affidavit, bill of sale or other documentation, proof of possessory interests or right of occupancy in the cabin or structure;

(B) Submits a sketch or photograph of the existing or proposed cabin or structure and a map showing its geographic location;

(C) Agrees to vacate the cabin or structure and remove within a reasonable time period established by the Secretary, all personal property from it upon nonrenewal or revocation of the permit; and

(D) Acknowledges in the permit application that the applicant has no interest in the real property on which the cabin or structure is located or will be constructed.

(4) The United States shall retain ownership of all new cabins and related structures on Federal lands within a unit or area specified in this subsection, and no proprietary rights or privileges shall be conveyed through the issuance of the special use permit authorized by paragraphs (1) or (2) of this subsection. Cabins or other structures not under permit shall be used only for official Government business: Provided, however, That during emergencies involving the safety of

human life or where designated for public use by the unit or area manager, such cabins may be used by the general public.

(c) PERMITS TO BE RENEWED FOR LIFE OF CLAIMANT AND IMMEDIATE FAMILY.--

(1) Whenever issuance of a nontransferable renewable five year special use permit is authorized by subsections (a) or (b) of this section, said permit shall be renewed every five years until the death of the last immediate family member of the claimant residing in the cabin or structure, or unless the Secretary has revoked the special use permit in accordance with the criteria established in this section.

(2) Notwithstanding any other provision of this section, the Secretary, after notice and hearing, may revoke a permit provided for in this section if he determines, on the basis of substantial evidence in the administrative record as a whole, that the use under the permit is causing or may cause significant detriment to the principal purposes for which the unit was established.

(d) EXISTING CABIN LEASES OR PERMITS.--Nothing in this Act shall preclude the renewal or continuation of valid leases or permits in effect on the date of enactment of this Act for cabins, homesites, or similar structures on Federal lands. Unless the Secretary, or in the case of national forest lands, the Secretary of Agriculture, issues specific findings following notice and an opportunity for the leaseholder or permittee to respond, that renewal or continuation of such valid permit or lease constitutes a direct threat to or a significant impairment to the purposes for which a conservation system unit was established (in the case of a structure located within a conservation system unit) or the public domain or national forest (in case of a structure located outside conservation system units), he shall renew such valid leases or permits upon their expiration in accordance with the provisions of the original lease or permit, subject to such reasonable regulations as he may prescribe. Subject to the provisions of the original lease or permit, nothing in this Act or subsection shall necessarily preclude the appropriate Secretary from transferring such a lease or permit to another person at the election or death of the original permittee or leasee.

ARCHEOLOGICAL AND PALEONTOLOGICAL SITES

§1304. Notwithstanding any acreage or boundary limitations contained in this Act with respect to the Cape Krusenstern National Monument, the Bering Land Bridge National Preserve, the Yukon-Charley Rivers National Preserve, and the Kobuk Valley National Park, the Secretary may designate Federal lands or he may acquire by purchase with the consent of the owner, donation, or exchange any significant archeological or paleontological site in Alaska located outside of the boundaries of such areas and containing resources which are closely associated with any such area. If any such site is so designated or acquired, it shall be included in and managed as part of such area. Not more than seven thousand five hundred acres of land may be designated or acquired under this section for inclusion in any single area. Before designation or acquisition of any property in excess of one hundred acres under the provisions of this section, the Secretary shall--

(1) submit notice of such proposed designation or acquisition to the appropriate committees of the Congress; and

(2) publish notice of such proposed designation or acquisition in the Federal Register.

COOPERATIVE INFORMATION/EDUCATION CENTERS

§1305. The Secretary is authorized in consultation with other Federal agencies, to investigate and plan for an information and education center for visitors to Alaska on not to exceed one thousand acres of Federal land at a site adjacent to the Alaska Highway, and to investigate

and plan for similar centers in Anchorage and Fairbanks, Alaska. For the purposes of this investigation, the Secretary shall seek participation in the program planning and/or operation of such centers from appropriate agencies of the State of Alaska, and he is authorized to accept contributions of funds, personnel, and planning and program assistance from such State agencies, other Federal agencies, and Native representatives. The Secretary of Agriculture is authorized to investigate and plan for, in a similar manner, an information and education center for visitors to Alaska in either Juneau, Ketchikan, or Sitka, Alaska. No information center shall be developed pursuant to investigations and plans conducted under authority of this section unless and until such development is specifically authorized by Congress.

ADMINISTRATIVE SITES AND VISITOR FACILITIES

§1306. (a) ESTABLISHMENT.--In conformity with the conservation and management plans prepared for each unit and the purposes of assuring the preservation, protection, and proper management of any conservation system unit, the Secretary may establish sites and visitor facilities--

(1) within the unit, if compatible with the purposes for which the unit is established, expanded, or designated by this Act, and the other provisions of this Act, or

(2) outside the boundaries of, and in the vicinity of the unit. To the extent practicable and desirable, the Secretary shall attempt to locate such sites and facilities on Native lands in the vicinity of the unit.

(b) AUTHORITIES OF SECRETARY.--For the purpose of establishing administrative sites and visitor facilities under subsection (a)--

(1) the Secretary and the head of the Federal agency having primary authority over the administration of any Federal land which the Secretary determines is suitable for use in carrying out such purpose may enter into agreements permitting the Secretary to use such land for such purposes;

(2) notwithstanding any other provision of law, the Secretary under such terms and conditions as he determines are reasonable, may lease or acquire by purchase, donation, exchange, or any other method (except condemnation) real property (other than Federal land), office space, housing, and other necessary facilities which the Secretary determines to be suitable for carrying out such purposes; and

(3) the Secretary may construct, operate, and maintain such permanent and temporary buildings and facilities as he deems appropriate on land which is within, or in the vicinity of, any conservation system unit and with respect to which the Secretary has acquired authority under this subsection to use the property for the purpose of establishing an administrative site or visitor facility under subsection (a), except that the Secretary may not begin construction of buildings and facilities on land not owned by the United States until the owner of such land has entered into an agreement with the Secretary, the terms of which assure the continued use of such buildings and facilities in furtherance of the purposes of this Act.

REVENUE-PRODUCING VISITOR SERVICES

§1307. (a) CONTINUATION OF EXISTING VISITOR SERVICES.--Notwithstanding any other provision of law, the Secretary, under such terms and conditions as he determines are reasonable, shall permit any persons who, on or before January 1, 1979, were engaged in adequately providing any type of visitor service within any area established as or added to a conservation system unit to continue providing such type of service and similar types of visitor

services within such area if such service or services are consistent with the purposes for which such unit is established or expanded.

(b) PREFERENCE.--Notwithstanding provisions of law other than those contained in subsection (a), in selecting persons to provide (and in contracting for the provision of) any type of visitor service for any conservation system unit, except sport fishing and hunting guiding activities, the Secretary--

(1) shall give preference to the Native Corporation which the Secretary determines is most directly affected by the establishment or expansion of such unit by or under the provisions of this Act;

(2) shall give preference to persons whom he determines, by rule, are local residents; and

(3) shall, consistent with the provisions of this section, offer to Cook Inlet Region, Incorporated, in cooperation with Village Corporations within the Cook Inlet Region when appropriate, the right of first refusal to provide new revenue producing visitor services within the Kenai National Moose Range or that portion of the Lake Clark National Park and Preserve within the boundaries of the Cook Inlet Region that right to remain open for a period of ninety days as agreed to in paragraph VIII of the document referred to in §12 of the Act of January 2, 1976 (Public Law 94-204).

(c) DEFINITION.--As used in this section, the term "visitor service" means any service made available for a fee or charge to persons who visit a conservation system unit, including such services as providing food, accommodations, transportation, tours, and guides excepting the guiding of sport hunting and fishing. Nothing in this Act shall limit or affect the authority of the Federal Government or the State of Alaska to license and regulate transportation services.

LOCAL HIRE

§1308. (a) PROGRAM.--After consultation with the Office of Personnel Management, the Secretary shall establish a program under which any individual who, by reason of having lived or worked in or near a conservation system unit, has special knowledge or expertise concerning the natural or cultural resources of such unit and the management thereof (as determined by the Secretary) shall be considered for selection for any position within such unit without regard to--

(1) any provision of the civil service laws or regulations thereunder which require minimum periods of formal training or experience,

(2) any such provision which provides an employment preference to any other class of applicant in such selection, and

(3) any numerical limitation on personnel otherwise applicable.

Individuals appointed under this subsection shall not be taken into account in applying any personnel limitation described in paragraph (3).

(b) REPORTS.--The Secretary shall from time to time prepare and submit to the Congress reports indicating the actions taken in carrying out the provisions of subsection (a) of this section together with any recommendations for legislation in furtherance of the purposes of this section.

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK

§1309. The second sentence of subsection (b)(1) of the first section of the Act entitled "An Act to authorize the Secretary of the Interior to establish the Klondike Gold Rush National Historical Park in the States of Alaska and Washington, and for other purposes", approved June 30, 1976

(90 Stat. 717), is amended to read as follows: "Lands or interests in lands owned by the State of Alaska or any political subdivision thereof may be acquired only by donation or exchange, and notwithstanding the provisions of subsection 6(i) of the Act of July 7, 1958 (72 Stat. 339, 342), commonly known as the Alaska Statehood Act, the State may include the minerals in any such transaction."

NAVIGATION AIDS AND OTHER FACILITIES

§1310 (a) EXISTING FACILITIES.--Within conservation system units established or expanded by this Act, reasonable access to, and operation and maintenance of, existing air and water navigation aids communications sites and related facilities and existing facilities for weather, climate, and fisheries research and monitoring shall be permitted in accordance with the laws and regulations applicable to units of such systems, as appropriate. Reasonable access to and operation and maintenance of facilities for national defense purposes and related air and water navigation aids within or adjacent to such areas shall continue in accordance with the laws and regulations governing such facilities notwithstanding any other provision of this Act. Nothing in the Wilderness Act shall be deemed to prohibit such access, operation and maintenance within wilderness areas designated by this Act.

(b) NEW FACILITIES.--The establishment, operation, and maintenance within any conservation system unit of new air and water navigation aids and related facilities, facilities for national defense purposes, and related air and water navigation aids, and facilities for weather, climate, and fisheries research and monitoring shall be permitted but only (1) after consultation with the Secretary or the Secretary of Agriculture, as appropriate, by the head of the Federal department or agency undertaking such establishment, operation, or maintenance, and (2) in accordance with such terms and conditions as may be mutually agreed in order to minimize the adverse effects of such activities within such unit.

SCENIC HIGHWAY STUDY

§1311. (a) WITHDRAWAL.--Subject to valid existing rights, all public lands within an area, the centerline of which is the centerline of the Parks Highway from the entrance to Denali National Park to the Talkeetna junction which is one hundred and thirty-six miles south of Cantwell, the Denali Highway between Cantwell and Paxson, the Richardson Highway and Edgerton Highway between Paxson and Chitina, and the existing road between Chitina and McCarthy (as those highways and road are depicted on the official maps of the department of transportation of the State of Alaska) and the boundaries of which are parallel to the centerline and one mile distant therefrom on either side, are hereby withdrawn from all forms of entry or appropriation under the mining laws and from operation of the mineral leasing laws of the United States. Nothing in this section shall be construed to preclude minor road realignment minor road improvement, or the extraction of gravel for such purposes from lands withdrawn or affected by the study mandated herein.

(b) STUDY.--During the three-year period beginning on the date of enactment of this Act, the Secretary shall study the desirability of establishing a Denali Scenic Highway to consist of all or part of the lands described in subsection (a) of this section. In conducting the studies, the Secretary, through a study team which includes representatives of the Secretary of Transportation, the National Park Service, the Bureau of Land Management, the State, and of each Regional Corporation within whose area of operation the lands described in subsection (a) are located, shall consider the scenic and recreational values of the lands withdrawn under this section, the importance of providing protection to those values, the desirability of providing a symbolic and actual physical connection between the national parks in south central Alaska, and the desirability of enhancing the experience of persons traveling between those parks by motor vehicles. Members of the study team who are not Federal employees shall receive from

the Secretary per diem (in lieu of expenses) and travel allowances at the rates provided for employees of the Bureau of Indian Affairs in Alaska in grade GS-15.

(c) COOPERATION NOTICE: HEARINGS.--In conducting the studies required by this section, the Secretary shall cooperate with the State and shall consult with each Village Corporation within whose area of operation lands described in this section are located and to the maximum extent practicable with the owner of any lands adjoining the lands described in subsection (a) concerning the desirability of establishing a Denali Scenic Highway. The Secretary, through the National Park Service, shall also give such public notice of the study as he deems appropriate, including at least publication in a newspaper or newspapers having general circulation in the area or areas of the lands described in subsection (a), and shall hold a public hearing or hearings at one or more locations convenient to the areas affected.

(d) REPORT.--Within three years after the date of enactment of this Act, the Secretary shall report to the President the results of the studies carried out pursuant to this section together with his recommendation as to whether the scenic highway studied should be established and, if his recommendation is to establish the scenic highway, the lands described in subsection (a) which should be included therein. Such report shall include the views and recommendations of all members of the study team. The President shall advise the President of the Senate and the Speaker of the House of Representatives of his recommendations and those of the Governor of Alaska with respect to creation of the scenic highways, together with maps thereof, a definition of boundaries thereof, an estimate of costs, recommendations on administration, and proposed legislation to create such a scenic highway, if creation of one is recommended.

(e) PERIOD OF WITHDRAWAL.--The lands withdrawn under subsection (a) of this section shall remain withdrawn until such time as the Congress acts on the President's recommendation, but not to exceed two years after the recommendation is transmitted to the Congress.

ADMINISTRATION OF THE WHITE MOUNTAINS NATIONAL RECREATION AREA

§1312. (a) The White Mountains National Recreation Area established by this Act shall be administered by the Secretary in order to provide for public outdoor recreation use and enjoyment and for the conservation of the scenic, scientific, historic, fish and wildlife and other values contributing to public enjoyment of such area Except as otherwise provided in this Act, the Secretary shall administer the recreation area in a manner which in his judgment will best provide for (1) public outdoor recreation benefits; (2) conservation of scenic, scientific, historic, fish and wildlife, and other values contributing to public enjoyment; and (3) such management, utilization, and disposal of natural resources and the continuation of such existing uses and developments as will promote, or are compatible with, or do not significantly impair public recreation and conservation of the scenic, scientific, historic, fish and wildlife, or other values contributing to public enjoyment. In administering the recreation area, the Secretary may utilize such statutory authorities available to him for the conservation and management of natural resources as he deems appropriate for recreation and preservation purposes and for resource development compatible therewith.

(b) The lands within the recreation area, subject to valid existing rights, are hereby withdrawn from State selection under the Alaska Statehood Act or other law, and from location, entry, and patent under the United States mining laws. The Secretary under such removal reasonable regulations as he deems appropriate, may permit the removal of the nonleasable minerals from lands or interests in lands within the recreation area in the manner described by §10 of the Act of August 4, 1939, as amended (43 U.S.C. 387), and he may permit the removal of leasable minerals from lands or interests in lands within the recreation areas in accordance with the mineral leasing laws, if he finds that such disposition would not have significant adverse effects on the administration of the recreation areas.

(c) All receipts derived from permits and leases issued on lands or interest in lands within the recreation area under the mineral leasing laws shall be disposed of as provided in such laws; and receipts from the disposition of nonleasable minerals within the recreation area shall be disposed of in the same manner as moneys received from the sale of public lands.

ADMINISTRATION OF NATIONAL PRESERVES

§1313. A National Preserve in Alaska shall be administered and managed as a unit of the National Park System in the same manner as a national park except as otherwise provided in this Act and except that the taking of fish and wildlife for sport purposes and subsistence uses, and trapping shall be allowed in a national preserve under applicable State and Federal law and regulation. Consistent with the provisions of §816, within national preserves the Secretary may designate zones where and periods when no hunting, fishing, trapping, or entry may be permitted for reasons of public safety, administration, floral and faunal protection, or public use and enjoyment. Except in emergencies, any regulations prescribing such restrictions relating to hunting, fishing, or trapping shall be put into effect only after consultation with the appropriate State agency having responsibility over hunting, fishing, and trapping activities.

TAKING OF FISH AND WILDLIFE

§1314. (a) Nothing in this Act is intended to enlarge or diminish the responsibility and authority of the State of Alaska for management of fish and wildlife on the public lands except as may be provided in Title VIII of this Act, or to amend the Alaska constitution.

(b) Except as specifically provided otherwise by this Act, nothing in this Act is intended to enlarge or diminish the responsibility and authority of the Secretary over the management of the public lands.

(c) The taking of fish and wildlife in all conservation system units; and in national conservation areas, national recreation areas, and national forests, shall be carried out in accordance with the provisions of this Act and other applicable State and Federal law. Those areas designated as national parks or national park system monuments in the State shall be closed to the taking of fish and wildlife, except that--

(1) notwithstanding any other provision of this Act, the Secretary shall administer those units of the National Park System and those additions to existing units, established by this Act and which permit subsistence uses, to provide an opportunity for the continuance of such uses by local rural residents; and

(2) fishing shall be permitted by the Secretary in accordance with the provisions of this Act and other applicable State and Federal law.

WILDERNESS MANAGEMENT

§1315. (a) APPLICATION ONLY TO ALASKA.--The provisions of this section are enacted in recognition of the unique conditions in Alaska. Nothing in this section shall be construed to expand, diminish, or modify the provisions of the Wilderness Act or the application or interpretation of such provisions with respect to lands outside of Alaska.

(b) AQUACULTURE.--In accordance with the goal of restoring and maintaining fish production in the State of Alaska to optimum sustained yield levels and in a manner which adequately assures protection, preservation, enhancement, and rehabilitation of the wilderness resource, the Secretary of Agriculture may permit fishery research, management, enhancement, and rehabilitation activities within national forest wilderness and national forest wilderness study areas designated by this Act. Subject to reasonable regulations permanent improvements

and facilities such as fishways, fish weirs, fish ladders, fish hatcheries, spawning channels, stream clearance, egg planting, and other accepted means of maintaining, enhancing, and rehabilitating fish stocks may be permitted by the Secretary to achieve this objective. Any fish hatchery, fishpass or other aquaculture facility authorized for any such area shall be constructed, managed, and operated in a manner that minimizes adverse impacts on the wilderness character of the area. Developments for any such activities shall involve those facilities essential to these operations and shall be constructed in such rustic manner as to blend into the natural character of the area. Reasonable access solely for the purposes of this subsection, including temporary use of motorized equipment, shall be permitted in furtherance of research, management, rehabilitation and enhancement activities subject to reasonable regulations as the Secretary deems desirable to maintain the wilderness character, water quality, and fish and wildlife values of the area.

(c) EXISTING CABINS.--Previously existing public use cabins within wilderness designated by this Act, may be permitted to continue and may be maintained or replaced subject to such restrictions as the Secretary deems necessary to preserve the wilderness character of the area.

(d) NEW CABINS.--Within wilderness areas designated by this Act the Secretary or the Secretary of Agriculture as appropriate, is authorized to construct and maintain a limited number of new public use cabins and shelters if such cabins and shelters are necessary for the proteCtion of the public health and safety. All such cabins or shelters shall be constructed of materials which blend and are compatible with the immediate and surrounding wilderness landscape. The Secretary or the Secretary of Agriculture, as appropriate, shall notify the House Committee on Interior and Insular Affairs and the Senate Committee on Energy and Natural Resources of his intention to remove an existing or construct a new public use cabin or shelter.

(e) TIMBER CONTRACTS.--The Secretary of Agriculture is hereby directed to modify any existing national forest timber sale contracts applying to lands designated by this Act as wilderness by substituting, to the extent practicable, timber on the other national forest lands approximately equal in volume, species, grade, and accessibility for timber or relevant lands within such units.

(f) BEACH LOG SALVAGE.--Within National Forest wilderness and national forest monuments designated by this Act, the Secretary of Agriculture may permit or otherwise regulate the recovery and salvage of logs from coastlines.

ALLOWED USES

§1316. (a) On all public lands where the taking of fish and wildlife is permitted in accordance with the provisions of this Act or other applicable State and Federal law the Secretary shall permit subject to reasonable regulation to insure compatibility, the continuance of existing uses, and the future establishment, and use, of temporary campsites, tent platforms, shelters, and other temporary facilities and equipment directly and necessarily related to such activities. Such facilities and equipment shall be constructed, used, and maintained in a manner consistent with the protection of the area in which they are located. All new facilities shall be constructed of materials which blend with, and are compatible with, the immediately surrounding landscape. Upon termination of such activities and uses (but not upon regular or seasonal cessation), such structures or facilities shall, upon written request, be removed from the area by the permittee.

(b) Notwithstanding the foregoing provisions, the Secretary may determine, after adequate notice, that the establishment and use of such new facilities or equipment would constitute a significant expansion of existing facilities or uses which would be detrimental to the purposes for which the affected conservation system unit was established, including the wilderness character of any wilderness area within such unit, and may thereupon deny such proposed use or establishment.

GENERAL WILDERNESS REVIEW PROVISION

§1317. (a) Within five years from the date of enactment of this Act, the Secretary shall, in accordance with the provisions of §3(d) of the Wilderness Act relating to public notice, public hearings, and review by State and other agencies, review, as to their suitability or nonsuitability for preservation as wilderness, all lands within units of the National Park System and units of the National Wildlife Refuge System in Alaska not designated as wilderness by this Act and report his findings to the President.

(b) The Secretary shall conduct his review, and the President shall advise the United States Senate and House of Representatives of his in accordance with the provisions of §3(c) and §(d) of the Wilderness Act. The President shall advise the Congress of his recommendations with respect to such areas within seven years from the date of enactment of this Act.

(c) Nothing in this section shall be construed as affecting the administration of any unit of the National Park System or unit of National Wildlife Refuge System in accordance with this Act or other applicable provisions of law unless and until Congress provides otherwise by taking action on any Presidential recommendation made pursuant to subsection (b) of this section.

STATEWIDE CULTURAL ASSISTANCE PROGRAM

§1318. In furtherance of the national policy set forth in the first section of the Act entitled "An Act to provide for the preservation of historic American sites, buildings, objects, and antiquities of national significance, and for other purposes", approved August 21, 1935 (49 Stat. 666), and in furtherance of the need to protect and interpret for the public benefit cultural and archeological resources and objects of national significance relating to prehistoric and historic human use and occupation of lands and waters in Alaska, the Secretary may, upon the application of a Native Corporation or Native Group provide advice, assistance, and technical expertise to the applicant in the preservation, display, and interpretation of cultural resources without regard as to whether title to such resources is in the United States Such assistance may include making available personnel to assist m the planning, design, and operation of buildings, facilities and interpretive displays for the public and personnel to train individuals in the identification, recovery, preservation, demonstration, and management of cultural resources.

EFFECT ON EXISTING RIGHTS

§1319. Nothing in this Act shall be construed as limiting or restricting the power and authority of the United States or--

(1) as affecting in any way any law governing appropriation or use of, or Federal right to, water on lands within the State of Alaska;

(2) as expanding or diminishing Federal or State jurisdiction, responsibility, interests, or rights in water resources development or control; or

(3) as superseding, modifying, or repealing, except as specifically set forth in this Act, existing laws applicable to the various Federal agencies which are authorized to develop or participate in the development of water resources or to exercise licensing or regulatory functions in relation thereto.

BUREAU OF LAND MANAGEMENT LAND REVIEWS

§1320. Notwithstanding any other provision of law, §603 of the Federal Land Policy and Management Act of 1976 shall not apply to any lands in Alaska. However, in carrying out his duties under §201 and §202 of such Act and other applicable laws, the Secretary may identify areas in Alaska which he determines are suitable as wilderness and may, from time to time,

make recommendations to the Congress for inclusion of any such areas in the National Wilderness Preservation System, pursuant to the provisions of the Wilderness Act. In the absence of congressional action relating to any such recommendation of the Secretary, the Bureau of Land Management shall manage all such areas which are within its jurisdiction in accordance with the applicable land use plans and applicable provisions of law.

AUTHORIZATION FOR APPROPRIATION

§1321. (a) There are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act for fiscal years beginning after the fiscal year 1980. No authority to enter into contracts or to make payments or to expend previously appropriated funds under this Act shall be effective except to the extent or in such amounts as are provided in advance in appropriation Acts.

EFFECT ON PRIOR WITHDRAWALS

§1322. (a) The withdrawals and reservations of the public lands made by Public Land Orders No. 5653 of November 16, 1978, 5654 of November 17, 1978, Public Land Orders numbered 5696 through 5711 inclusive of February 12, 1980, Federal Register Documents No. 34051, of December 5, 1978 and No. 79-17803 of June 8, 1979 and Proclamations No. 4611 through 4627, inclusive, of December 1, 1978 were promulgated to protect these lands from selection, appropriation, or disposition prior to the enactment of this Act. As to all lands not within the boundaries established by this Act of any conservation system unit, national conservation area, national recreation area, or national forest addition, the aforesaid withdrawals and reservations are hereby rescinded on the effective date of this Act, and such lands shall be managed by the Secretary pursuant to the Federal Land Policy and Management Act of 1976, or in the case of lands within a national forest, by the Secretary of Agriculture pursuant to the laws applicable to the national forests, unless otherwise specified by this Act. As to the Federal lands which are within the aforesaid boundaries, the aforesaid withdrawals and reservations are, on the effective date of this Act, hereby rescinded and superseded by the withdrawals and reservations made by this Act. Notwithstanding any provision to the contrary contained in any law, the Federal lands within the aforesaid boundaries established by this Act shall not be deemed available for selection, appropriation, or disposition except as expressly provided by this Act.

(b) This section shall become effective upon the relinquishment by the State of Alaska of selections made on November 14, 1978, pursuant to the Alaska Statehood Act which are located within the boundaries of conservation system units, national conservation areas, national recreation areas, and forest additions, established, designated, or expanded by this Act.

ACCESS

§1323. (a) Notwithstanding any other provision of law, and subject to such terms and conditions as the Secretary of Agriculture may prescribe, the Secretary shall provide such access to nonfederally owned land within the boundaries of the National Forest System as the Secretary deems adequate to secure to the owner the reasonable use and enjoyment thereof: Provided, That such owner comply with rules and regulations applicable to ingress and egress to or from the National Forest System.

(b) Notwithstanding any other provision of law, and subject to such terms and conditions as the Secretary of the Interior may prescribe, the Secretary shall provide such access to nonfederally owned land surrounded by public lands managed by the Secretary under the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701-82) as the Secretary deems adequate to secure to the owner the reasonable use and enjoyment thereof: Provided, That such owner comply with rules and regulations applicable to access across public lands.

YUKON FLATS NATIONAL WILDLIFE REFUGE AGRICULTURAL USE

§1324. Nothing in this Act or other existing law shall be construed as necessarily prohibiting or mandating the development of agricultural potential within the Yukon Flats National Wildlife Refuge pursuant to existing law. The permissibility of such development shall be determined by the Secretary on a case-by-case basis under existing law. Any such development permitted within the Yukon Flats National Wildlife Refuge shall be designed and conducted in such a manner as to minimize to the maximum extent possible any adverse effects of the natural values of the unit.

TERROR LAKE HYDROELECTRIC PROJECT IN KODIAK NATIONAL WILDLIFE REFUGE

§1325. Nothing in this Act or the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd) shall be construed as necessarily prohibiting or mandating the construction of the Terror Lake Hydroelectric Project within the Kodiak National Wildlife Refuge. The permissibility of such development shall be determined by the Secretary on a case-by-case basis under existing law.

FUTURE EXECUTIVE ACTIONS

§1326. (a) No future executive branch action which withdraws more than five thousand acres, in the aggregate, of public lands within the State of Alaska shall be effective except by compliance with this subsection. To the extent authorized by existing law, the President or the Secretary may withdraw public lands in the State of Alaska exceeding five thousand acres in the aggregate, which withdrawal shall not become effective until notice is provided in the Federal Register and to both Houses of Congress. Such withdrawal shall terminate unless Congress passes a joint resolution of approval within one year after the notice of such withdrawal has been submitted to Congress.

(b) No further studies of Federal lands in the State of Alaska for the single purpose of considering the establishment of a conservation system unit, national recreation area, national conservation areas or for related or similar purposes shall be conducted unless authorized by this Act or further Act of Congress.

ALASKA GAS PIPELINE

§1327. Nothing in this Act shall be construed as imposing any additional requirements in connection with the construction and operation of the transportation system designated by the President and approved by the Congress pursuant to the Alaska Natural Gas Transportation Act of 1976 (Public Law 94-586; 90 Stat. 2903), or as imposing any limitations upon the authority of the Secretary concerning such system.

PUBLIC LAND ENTRIES IN ALASKA

§1328. (a)(1) Subject to valid existing rights, all applications made pursuant to the Acts of June 1, 1938 (52 Stat. 609), May 3, 1927 (44 Stat. 1364), May 14, 1898 (30 Stat. 413), and March 3, 1891 (26 Stat. 1097), which were filed with the Department of the Interior within the time provided by applicable law, and which describe land in Alaska that was available for entry under the aforementioned statutes when such entry occurred, are hereby approved on the one hundred and eightieth day following the effective date of this Act except where provided otherwise by paragraph (3) or (4) of this subsection, or where the land description of the entry must be adjusted pursuant to subsection (b) of this section, in which cases approval pursuant to the terms of this subsection shall be effective at the time the adjustment becomes final.

(2) Where an application describes land within the boundaries of a unit of the National Park System or a unit of the National Wildlife Refuge System, or a unit of the National Wilderness Preservation System in the Tongass or Chugach National Forests established before the effective date of this Act or by this Act, and the described land was not withdrawn pursuant to §11(a)(1) of the Alaska Native Claims Settlement Act, or where an application describes land which has been patented or deeded to the State of Alaska or which on or before the date of entry was validly selected by tentatively approved, patented, deeded or confirmed to the State of Alaska pursuant to applicable law and was not withdrawn pursuant to §11(a)(1)(A) of the Alaska Native Claims Settlement Act from those lands made available for selection by §11(a)(2) of the Act by any Native Village certified as eligible pursuant to §11(b) of such Act, paragraph (1) of this subsection and subsection (c) of this section shall not apply and the application shall be adjudicated pursuant to the requirements of the Acts referred to in §1328(a)(1) hereof, the Alaska Native Claims Settlement Act and other applicable law.

(3) Paragraph (1) of this subsection and subsection (c) shall not apply and the application shall be adjudicated pursuant to the requirements of the Acts referred to in §1328(a)(1) hereof, if on or before the one hundred and eightieth day following the effective date of the Act--

(A) a Native Corporation files a protest with the Secretary of the Interior (the Secretary) stating that the applicant is not entitled to the land described in the application, and said land is withdrawn for selection by the corporation pursuant to the Alaska Native Claims Settlement Act; or

(B) the State of Alaska files a protest with the Secretary stating that the land described in the application is necessary for access to lands owned by the United States, the State of Alaska, or a political subdivision of the State of Alaska, to resources located thereon, or to a public body of water regularly employed for transportation purposes, and the protest states with specificity the facts upon which the conclusions concerning access are based and that no reasonable alternatives for access exist; or

(C) a person or entity files a protest with the Secretary stating that the applicant is not entitled to the land described in the application and that said land is the situs of improvements claimed by the person or entity; or

(D) the State of Alaska files a protest with the Secretary respecting an entry which was made prior to a valid selection tentative approval, patent, deed, or confirmation to the State of Alaska pursuant to applicable law; or

(E) regarding public land entries within units of the National Wildlife Refuge System established or expanded in this Act, any such entry not properly made under applicable law, or not the subject of an application filed within the time required by applicable law, or not properly maintained thereafter under applicable law shall be adjudicated pursuant to the Act under which the entry was made.

(4) Paragraph (1) of this subsection and subsection (c) shall not apply to any application which was knowingly and voluntarily relinquished by the applicant.

(b) An applicant may amend the land description contained in his or her application if said description designates land other than that which the applicant intended to claim at the time of application and if the description as amended describes the land originally intended to be claimed. If the application is amended, this section shall operate to approve the application or to require its adjudication, as the case may be, with reference to the amended land description only: Provided, That the Secretary shall notify the State of Alaska and all interested parties, as shown by the records of the Department of the Interior of the intended correction of the entry's location, and any such party shall have until the one hundred and eightieth day following the effective date of this Act or sixty days following mailing of the notice, whichever is later, to file

with the Department of the Interior a protest as provided in subsection (a)(3) of this section, which protest, if timely, shall be deemed filed within one hundred and eighty days of the effective date of this Act notwithstanding the actual date of filing: Provided further, That the Secretary may require that all applications designating land in a specific area be amended, if at all, prior to a date certain which date shall be calculated to allow for orderly adoption of a plan or survey for the specified area, and the Secretary shall mail notification of the final date for amendment to each affected applicant, and shall provide such other notice as the Secretary deems appropriate, at least sixty days prior to said date: Provided further, That no application may be amended for location following adoption of a final plan of survey which includes the location of the entry as described in the application or its location as desired by amendment.

(c) Where the land described in application (or such an application as adjusted or amended pursuant to subsection (b) or (c) of this section), was on that date withdrawn, reserved, or classified for powersite or power-project purposes, notwithstanding such withdrawal, reservation, or classification the described land shall be deemed vacant, unappropriated, and unreserved within the meaning of the Acts referred to in §1328(a)(1) hereof, and, as such, shall be subject to adjudication or approval pursuant to the terms of this section: Provided, however, That if the described land is included as part of a project licensed under part I of the Federal Power Act of June 10, 1920 (41 Stat. 24), as amended, or is presently utilized for purposes of generating or transmitting electrical power or for any other project authorized by Act of Congress, the foregoing provision shall not apply and the application shall be adjudicated pursuant to the appropriate Act: Provided further, That where the applicant commenced occupancy of the land after its withdrawal or classification for powersite purposes, the entry shall be made subject to the right of reentry provided the United States by §24 of the Federal Power Act, as amended: Provided further, That any right of reentry reserved in a patent pursuant to this section shall expire twenty years after the effective date of this Act if at that time the land involved is not subject to a license or an application for a license under part I of the Federal Power Act, as amended, or actually utilized or being developed for a purpose authorized by that Act, as amended or other Act of Congress.

(d) Prior to issuing a patent for an entry subject to this section, the Secretary shall identify and adjudicate any record entry or application for title to land described in the application other than the and Alaska Native Claims Settlement Act, the Alaska Statehood Act, or the Act of May 17, 1906, as amended, which entry or application claims land also described in the application, and shall determine whether such entry or application represents a valid existing right to which the application is subject. Nothing in this section shall be construed to affect rights, if any, acquired by actual use of the described land prior to its withdrawal or classification, as affecting National Forest lands.

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Alaska Federal Lands

Long Range Transportation Plan

Appendix B

Visitation Trends Technical Report

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Alaska Federal Lands Long Range Transportation Plan

Trends Technical Report

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October 2011

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1. Executive Summary

This report identifies long-term trends that may affect visitation and access to Federal public lands in Alaska. Trends considered in this report include economics, tourism, population, policy, and travel mode specific developments. The following assertions are trends that may influence use and management of Alaska Federal public lands:

- Cruise ship travel to Alaska by out-of-state visitors remains the dominant mode of access/departure to and from the state (Figure 5). Those Federal public lands that are accessed by cruise ships receive the greatest number of visits (Figure 1). Changes in cruise ship visitation may impact visits and use on other Federal public lands.
- Given the general trend of increasing cruise ship travel (Figure 5 and Figure 7) and the characteristics of travel intra-communities by cruise ship visitors (Table 3), Federal public lands that are popular destinations for trains and motor coaches/buses could experience continued increased visitation from cruise trip visitors that employ multimodal conveyances for packaged trip planning.
- Data suggests that when economic conditions decline, cruise ship visitation decreases while road and ferry travel increase modestly. Federal public land visitation data supports this assertion as Federal public land units characterized by cruise ship visitation fell during the recent economic declines, while Federal public land units that are accessible primarily by road and those located remotely off the road and cruise ship system in the south part of the state exhibited a modest increase in visitation.
- Trends in the modes used to access Federal public lands parallel the trends and dynamics discussed for out-of-state travel to Alaska.
- Given the current geographic composition of domestic travelers to Alaska, population projections suggest an increase of about 20 percent from 2010 to 2030.
- Out-of-state visitors are known to visit numerous communities during their travel to and throughout Alaska (Table 4). Many of these communities are located near Federal public land units (Figure 9 and Table 5). Units that are near communities frequently visited by out-of-state visitors have high seasonal levels of visitation and are likely to be more susceptible to changes in out-of-state travel to Alaska.
- Generally, new roads proposed by the Alaska Department of Transportation and Public Facilities (ADOT&PF) will influence but not dramatically affect Federal public land access, as a whole. The Bureau of Land Management (BLM) and Fish and Wildlife Service (FWS) face the greatest potential for change in access as potential "roads to resources" projects (for example, the roads to: Nome, Umiat, and to the Ambler District) may cross BLM, FWS, and NPS lands.

2. Introduction

The purpose of this report is to identify trends that may affect visitation and use of Federal public lands in Alaska. This report supports the development of a joint Alaska Federal Land Management Agency (FLMA) Long Range Transportation Plan (LRTP) as well as individual FLMA regional LRTPs. This report is the result of a partnership consisting of National Park Service (NPS); U.S. Fish and Wildlife Service (FWS); U.S. Department of Agriculture, Forest Service (FS); BLM; Alaska Department of Transportation and Public Facilities (ADOT&PF); and the Federal Highway Administration (FHWA), Federal Lands Highway Division (FLHD).

This report considers trends in economics, population, and policy as they pertain to access to Federal public lands.

2.1 Assumptions

This report recognizes that identifying and projecting trends in visitation and use of Federal public lands is immensely complex. It is assumed that the dynamics of visitation and use is the result of numerous variables and circumstances. For the purposes of this report and the FLMA-LRTP, visitation and use is framed in terms that can be quantified using available datasets, and in terms of data that can be reasonably projected into the LRTP's 2030 horizon year. Topics that undoubtedly influence visitation levels to some degree, but do not drastically alter the character of visitation or are not readily projected (such as international exchange rates, fuel prices, airfare, etc) are omitted from this report. This report recognizes broad trends in visitation and use over a long period of time. Circumstances that cause short-term fluctuations are referenced anecdotally, if at all.

2.2 FLMA Clusters

As described in the FLMA-LRTP, access to Alaska Federal public lands is characterized by different users including out-of-state visitors, subsistence users, through travelers, commercial users, and in-state residents who are involved in recreation and other uses. Visitation levels to Federal public lands vary significantly throughout the state and are heavily influenced by geography and connectivity to the greater statewide transportation system. Data indicates that FLMA units accessed by heavily traveled statewide or regional transportation systems such as roads, ferries, and the railroad have higher levels of visitation. Figure 1 indicates that the highest levels of visitation among FLMAs are in units accessed by non-FLMA transportation systems. Because of the relationships between access, geography, and visitation, this report clusters units by these shared characteristics in order to make generalizations about the impact of statewide trends on Federal public lands. FLMA units are clustered into four categories as indicated in Figure 2. The cluster categories are defined by the following characteristics:

- **Remote North Units**. These FLMA units are characterized by their northern geography, the lack of connectivity to the statewide road system, and isolation from commercial modes of transportation. The primary modes of access to these units are diverse and can range from airplane, ship, snowmobile, off-highway vehicle, or by foot or train. Modes used to access remote north units vary seasonally. . Where the primary summer mode of access is plane and river boat, primary winter travel is by snowmobile. Remote north units generally have low levels of visitation.

- **Remote South Units**. Like remote north units, remote south Federal public lands are characterized by their geography, lack of connectivity, low visitation levels, and varied primary modes of access.

- **Road Units**. Road units are characterized by high volumes of visitor and user access by automobiles and busses. These units are generally located near major ADOT&PF roads. Visitation levels are generally high in these units.

- **Cruise Ship Units**. These units are characterized by high visitation levels and users whose access originates from cruise ships or ferries. Visitation levels are generally high in these units, although in some cases travelers on cruise ships may actually never step foot on land within a Federal public unit.

Figure 1
Visitation by Cluster Category

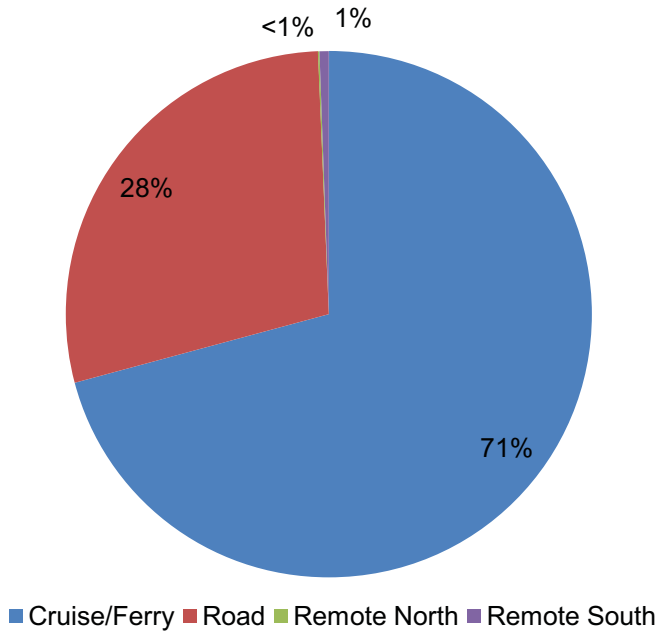
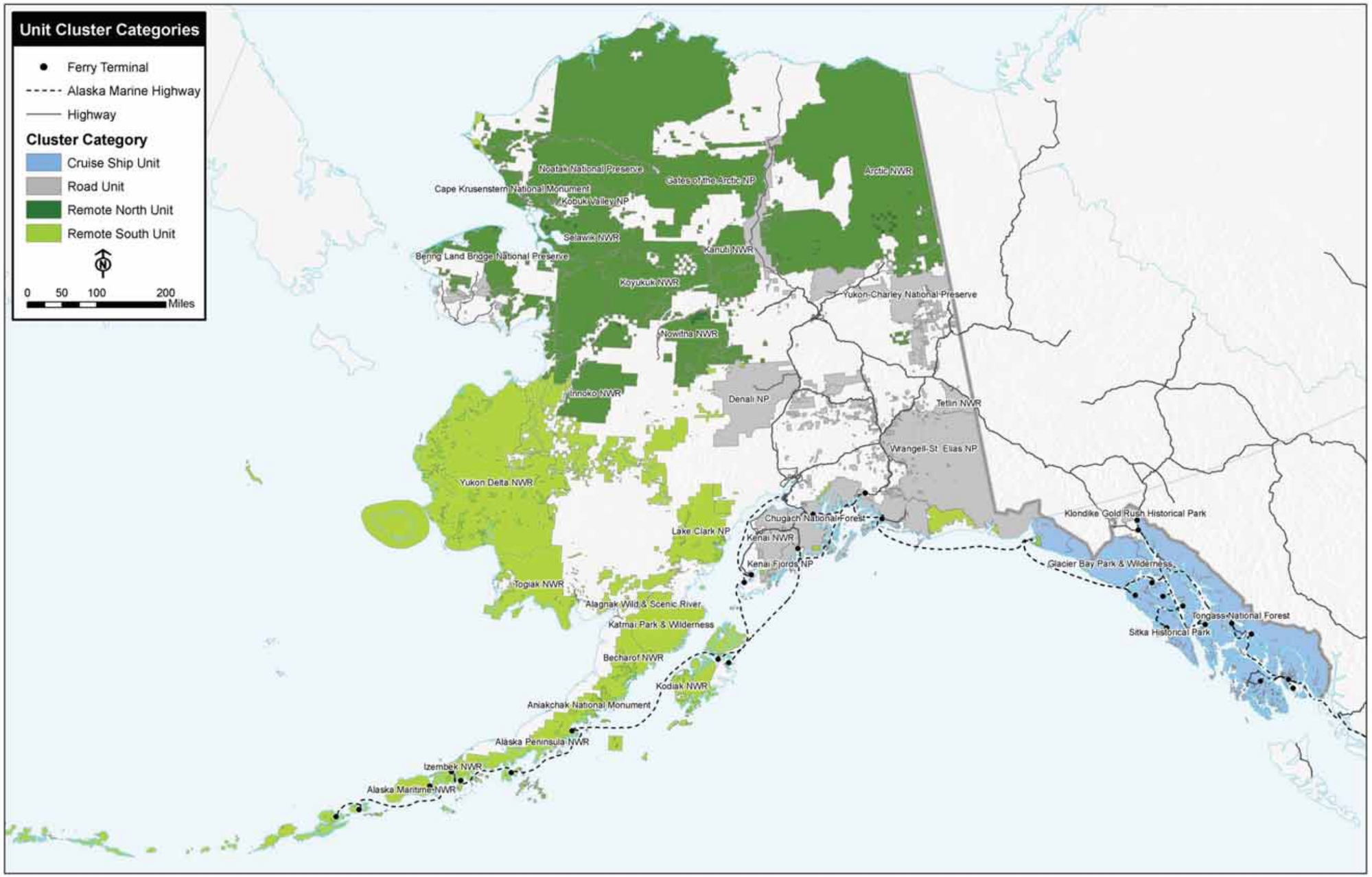


Figure 2
FLMA Unit Clusters



3. Visitation

For the purposes of this report, the term *out-of-state visitation* describes non-resident travel within Alaska. When describing Federal public lands access, *visitation* describes both out-of-state non-resident and in-state resident recreation access. Other types of access such as subsistence, commercial, or through-travel are typically described as *use*.

Visitation vs. Use
Access to FLMA units typically falls within two categories, "visitation" and "use." Although formal definitions of "visitation" vary among FLMAs, the concept generally describes non-resident or resident recreational trips, whereas the term "use" as utilized in this document, generally describes subsistence activities, through travel, or commercial activities.

3.1 Out-of-State Visits

Out-of-state travelers account for the majority of Alaska Federal public land visits. Accordingly, trends in out-of-state visits have, and will continue to have, significant impacts on the levels of visitation and use experienced by many Alaska Federal public land units. The dynamics of visitation, economics, and demographics; travel modes; travel destinations; and population levels both today and in the future will therefore affect the access to Alaska Federal public lands as well as agency land management strategies. These dynamics are discussed in sections 3.1.1 through 3.1.4.

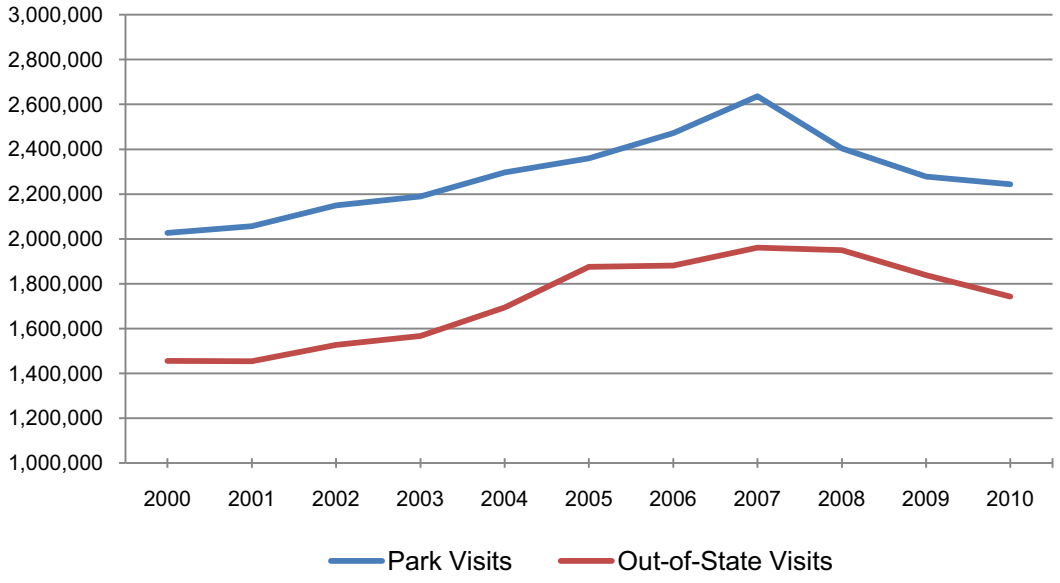
3.1.1 Visitation, Economics, and Demographics

Data suggests that out-of-state visitation trends correlate with visits to Federal public lands and that visitation trends generally correlate with economic trends. Similarities in out-of-state visitation and Federal public land visitation trends are pronounced, as illustrated in Figure 3. The chart illustrates Alaska NPS visits as an indicator of Federal public lands visitation trends and out-of-state visitation data provided by the Alaska Office of Tourism Development. NPS data is used because NPS tracks unit level visitation annually back to 2000. Similarities between the data include a parallel trend in visitation from 2000 to 2010. The data shows an increase in both out-of-state and Federal public land visitation to 2007, then visitation declined into 2010.

The parallel between visitation and economic conditions is illustrated in Figure 4. Using U.S. Bureau of Labor Statistics data on unemployment as an indicator of economic condition, trends in unemployment from 1997 to 2010 are similar to those for out-of-state visitation during those same years.

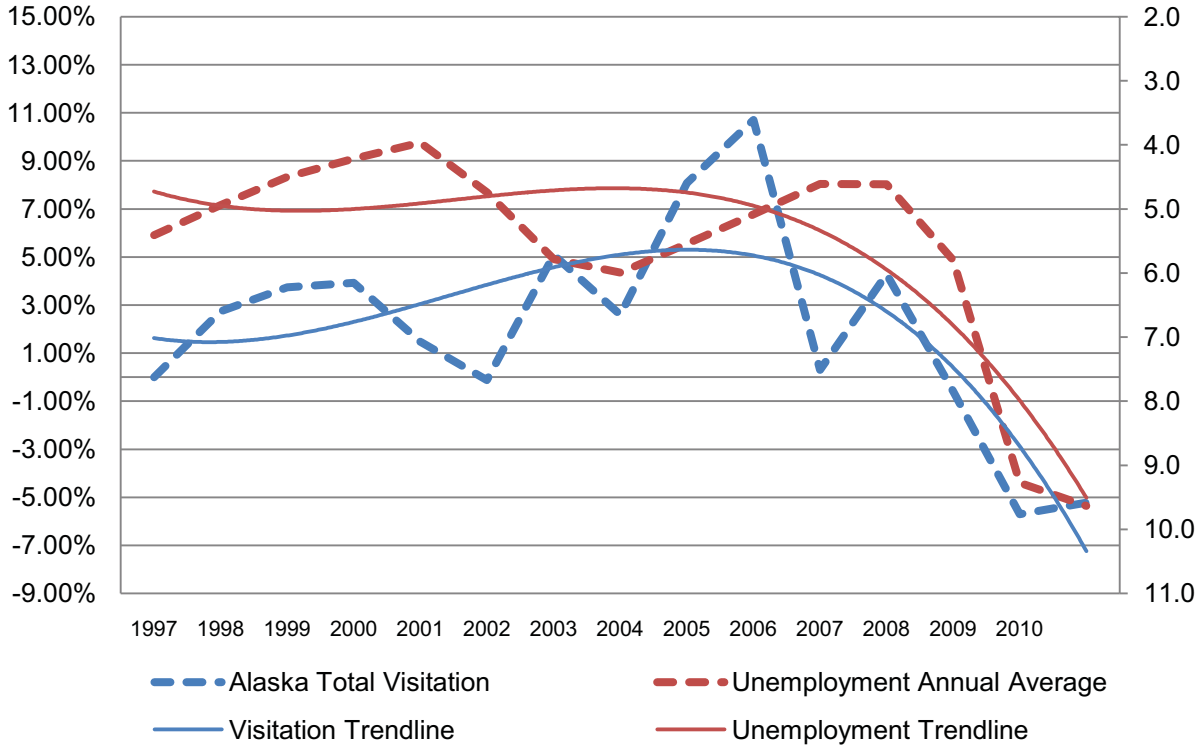
Data also suggests that visitation and population trends are also associated. The visitation estimates illustrated in Figure 3 indicate that visits increased 11 percent from 2000 to 2010. This total is similar to the 10 percent nation-wide population increase estimated by the U.S. Census Bureau for those same years. This connection of population and visitation is important as it is the basis for visitation projections discussed in 3.1.4.

Figure 3
Out-of-State and Parks Visitation (2000 to 2010)



Source: Alaska Visitor Statistics Program, National Park Service

Figure 4
Out-of-State Visitation and Unemployment (1997 to 2010)



Source: Alaska Visitor Statistics Program, National Park Service

This technical report therefore assumes that trends in out-of-state visitation, Federal public land visitation, economic conditions, and population are not only related but that population and economic conditions influence out-of-state visitation levels.

The relationship of age demographics and visitation is discussed in section 3.1.2 as age demonstrates a closer connection to travel modes and destinations than levels of total visitation.

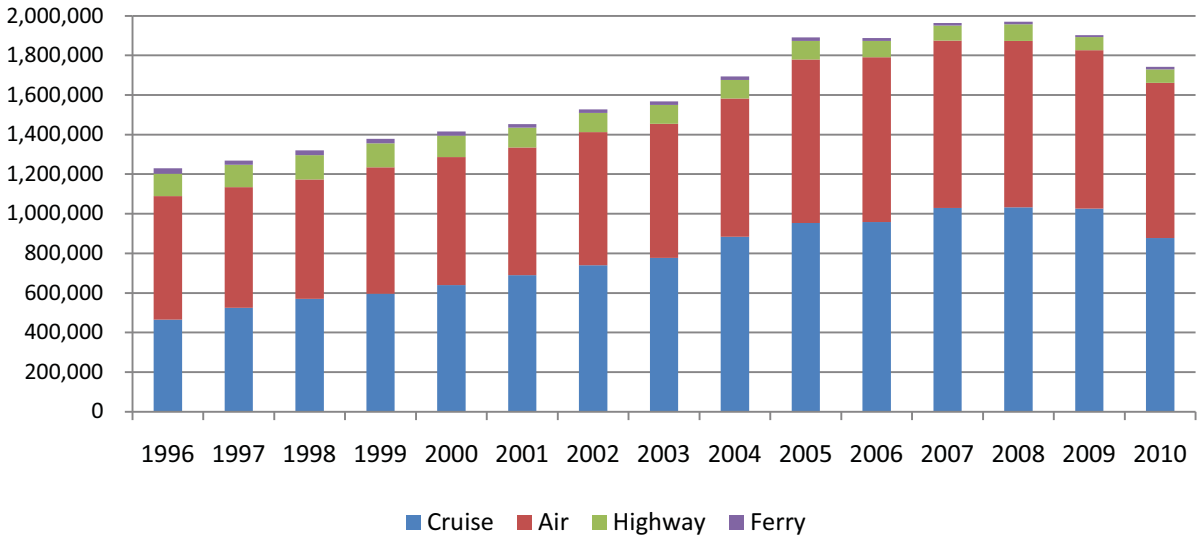
3.1.2 Modes of Travel

Modes of travel are discussed in two categories: travel to Alaska and travel within Alaska. Modes of travel are influencing factors in which Federal public lands are accessed and how they are accessed. Understanding travel modes also helps explain how changes in out-of-state travel to Alaska affects visitation to Federal public lands of various types.

Travel to Alaska

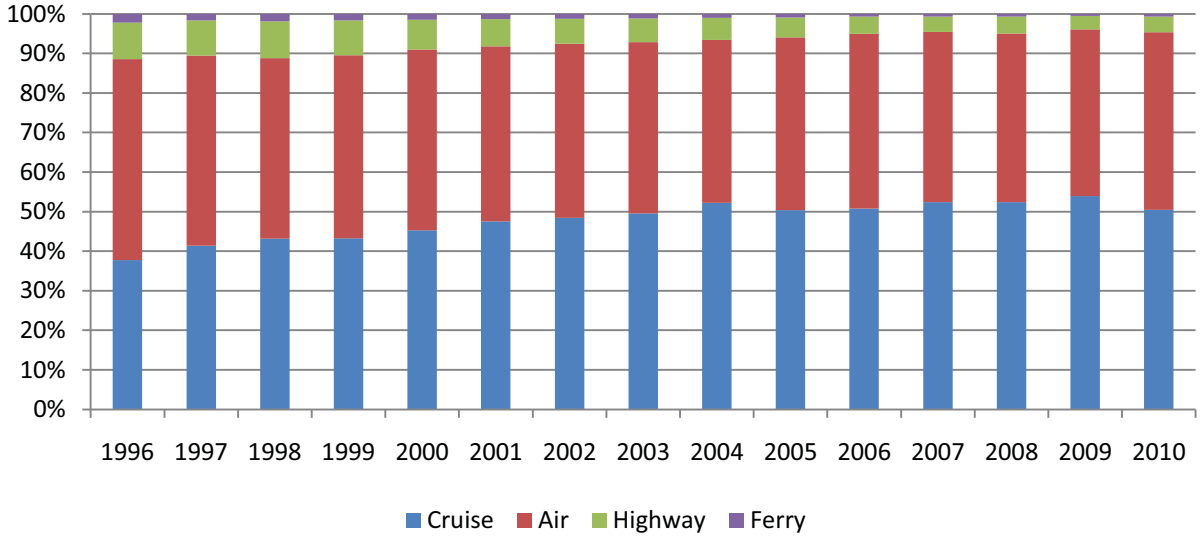
Out-of-state travelers to Alaska typically arrive and depart by air, ferry, highway, or cruise ship. Over the past decade, cruise ship travel has increased dramatically whereas highway and ferry travel has steadily slowed, and is currently declining. Commercial aircraft remains a dominant mode of travel, and has increased its share of the travel market over the past decade. Figure 5 shows the steady increase in visitation since 2000, and decline beginning in 2009, by travel mode. Figure 6 and Figure 7 illustrate the relative change in these travel modes from 2000 to 2010 including the dramatic growth of cruise ship travel. Although the increase in cruise ship visits is a prevailing trend, the dynamics of cruise ship travel in relationship to ferry and highway during recent years suggests that during economic downturns, ferry and highway travel increases as cruise ship travel wanes. Nevertheless, the general increase of cruise ship travel has had considerable visitation impacts to Federal public lands that have direct access located near ports, or that allow cruise ships to maneuver and stage sightseeing activities in close proximity to Federal public lands (such as Glacier Bay National Park and Preserve). As previously illustrated in Figure 1, FLMA units served by cruise ship and ferries receive the highest level of visitation.

Figure 5
Out-of-State Visitation by Mode (1996 to 2010)



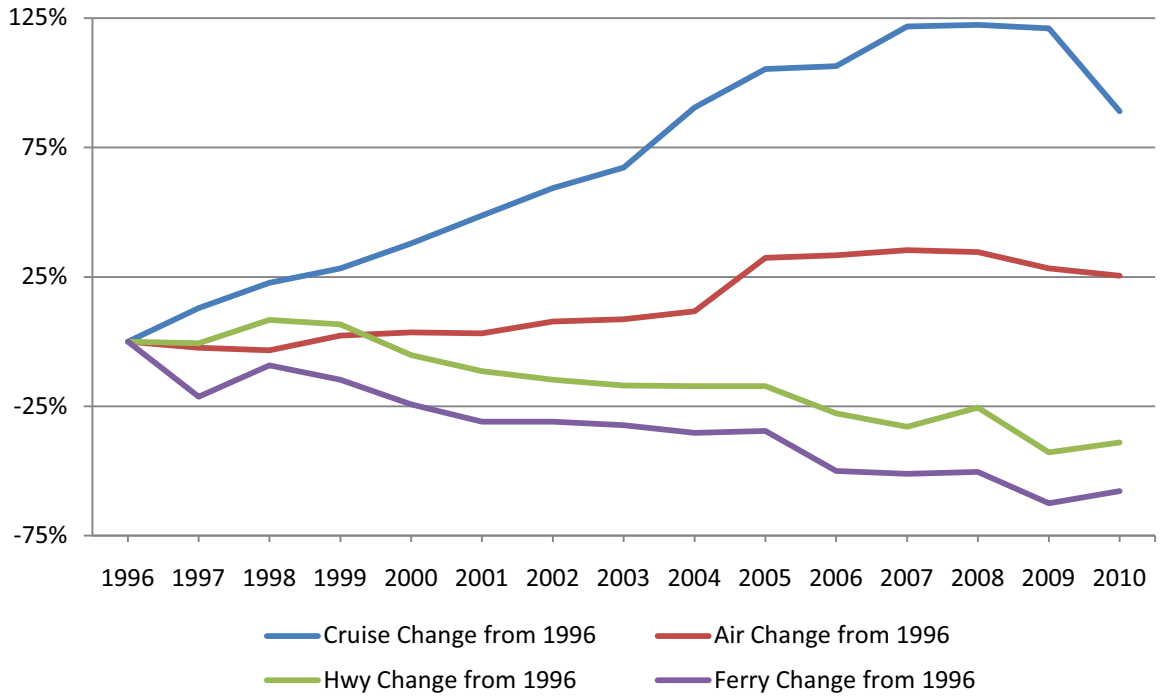
Source: Alaska Visitor Statistics Program

Figure 6
Out-of-State Visitation by Percent of Mode of Transport (1996 to 2010)



Source: Alaska Visitor Statistics Program

Figure 7
Change in Visitation Mode Since 1996

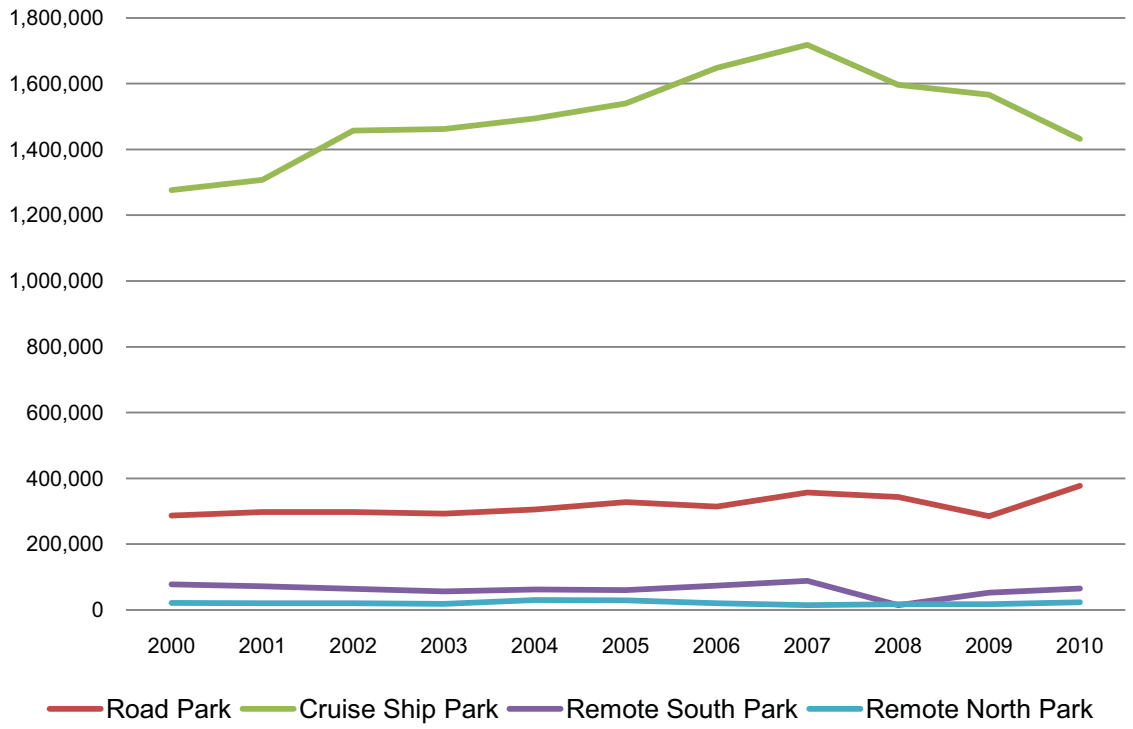


Source: Alaska Visitor Statistics Program

Trends in the modes used to access Federal public lands parallel the trends and dynamics discussed for out-of-state travel to Alaska. As illustrated in Figure 7, and previously in Figure 1, cruise ships are the prevailing mode of travel to Alaska, and as illustrated in Figure 8, are also the most prominent mode of access to Federal public lands. Cruise ship travel has grown over the past decade, only to experience slight declines in recent years. Similarly, recent increases in remote south and road FLMA unit access follow the recent upward movement in the use of highways and ferries as identified in Figure 5 and Figure 7.

These relationships suggest that when out-of-state cruise ship arrival/departure visitation to Alaska declines, road and ferry out-of-state visitation arrival/departure increases modestly as a percent of the travel market. This results in increased trips to road and remote south FLMA units, and decreased visits to cruise ship FLMA units. The decline in cruise ship visits coincides with recent economic downturns. The information suggests that when economic conditions decline, cruise ship travel falls while road and ferry travel increases modestly. FLMA visitation data supports this assertion as visitation to cruise ship units fell during the recent economic downturn while road unit visitation increased modestly.

Figure 8
Visitation by Cluster Sample* (2000 to 2010)



Source: NPS Public Use Statistics Office
** NPS visitation data is used as an indicator of use and visitation of FLMA clusters. This data was selected because it includes annual samples, and includes both recreational and non-recreational access of parks. Aggregated to cluster categories, it is believed that this data is a suitable indicator for the general up and down trends in trips to FLMA clusters of various types.*

The general upward trend in cruise ship visits coincides with changes in travel demographics. As indicated in Table 1, travel has increased for visitors 45 years or older while decreasing in travelers under the age of 45 from 1993 to 2006. Data suggests that more mature visitors use cruise ships, ferry, and highway over air travel, as indicated in Table 2. Given the rise of cruise ship travel as indicated in Figure 7 and the shift in travel demographic away from younger to mature travelers (as indicated Table 1) and the seeming preference of cruise ship travel, FLMA units which are accessed by cruise ships may see changes in traveler volume and demographic if these trends continue. Information about how and where cruise ship visitors travel is discussed in section 3.1.3.

Table 1
Alaska Visitor Age Trends, 1993 to 2006

Age	1993	2006
Under 18	6%	6%
18 to 24	5%	3%
25 to 34	11%	7%
35 to 44	16%	10%
45 to 54	19%	22%
55 to 64	19%	**28%**
65 and older	**25%**	23%

Source: Alaska Visitor Statistics Program, 1993, 2007.

Table 2
Age by Transportation Market, 2006

Age	All Visitors	Air	Cruise	Highway/Ferry
Under 18	6%	7%	6%	7%
18 to 24	3%	5%	2%	4%
25 to 34	7%	10%	6%	7%
35 to 44	10%	15%	8%	9%
45 to 54	22%	22%	23%	15%
55 to 64	**28%**	**23%**	**31%**	24%
65 and older	23%	18%	25%	**33%**
Average age	51.6	48	53.3	52.5

Source: Alaska Visitor Statistics Program, 2007.

Travel Modes within Alaska

Out-of-state visitor travel within Alaska also varies greatly. According to Alaska Visitor Statistics Program data, visitors who arrive in Alaska via cruise ship typically stay in one community. Of those who travel beyond one community, travel within the state is primarily by bus and train; visitors who arrive and depart via air travel are more likely to use rental vehicles; and highway/ferry travelers are the most mobile as only 8 percent remain in one community, and typically travel by personal vehicle, personal recreational vehicle (RV), and ferry. Table 3 summarizes the modes of travel used by out-of-state visitors to move within Alaska. Modes used to travel from one community to the next are organized by Alaska entry/departure travel market.

Given the trend of rising cruise ship travel previously established (Figure 5 and Figure 7) and the characteristics of between community travel by cruise ship visitors (Table 3), Federal public land units that are popular destinations for trains and motor coach/bus could experience continued increases of cruise trip travelers.

Table 3
Visitor Travel Mode Between Communities (2006)

	All Visitors (%)	Air* (%)	Cruise Ships* (%)	Highway/Ferry* (%)
Motor coach/bus	26	9	38	2
Train	19	9	25	5
Rental vehicle	14	34	4	9
Air	12	25	5	8
Personal vehicle	9	22	0.4	30
State ferry	3	4	1	25
Rental RV	2	4	<1	5
Personal RV	2	1	<1	26
Remained in one Community	40	19	55	8
Don't know/refused	1	<1	1	7

Source: Alaska Visitor Statistics Program, 2007.
Multiple answer survey – totals will not be 100%
** "Air" = Visitors that entered and existed via air travel; "Cruise" = Visitors that either entered or exited Alaska via cruise ship; "Highway/Ferry" = Visitors that either entered or exited Alaska by highway or ferry.*

3.1.3 Destinations

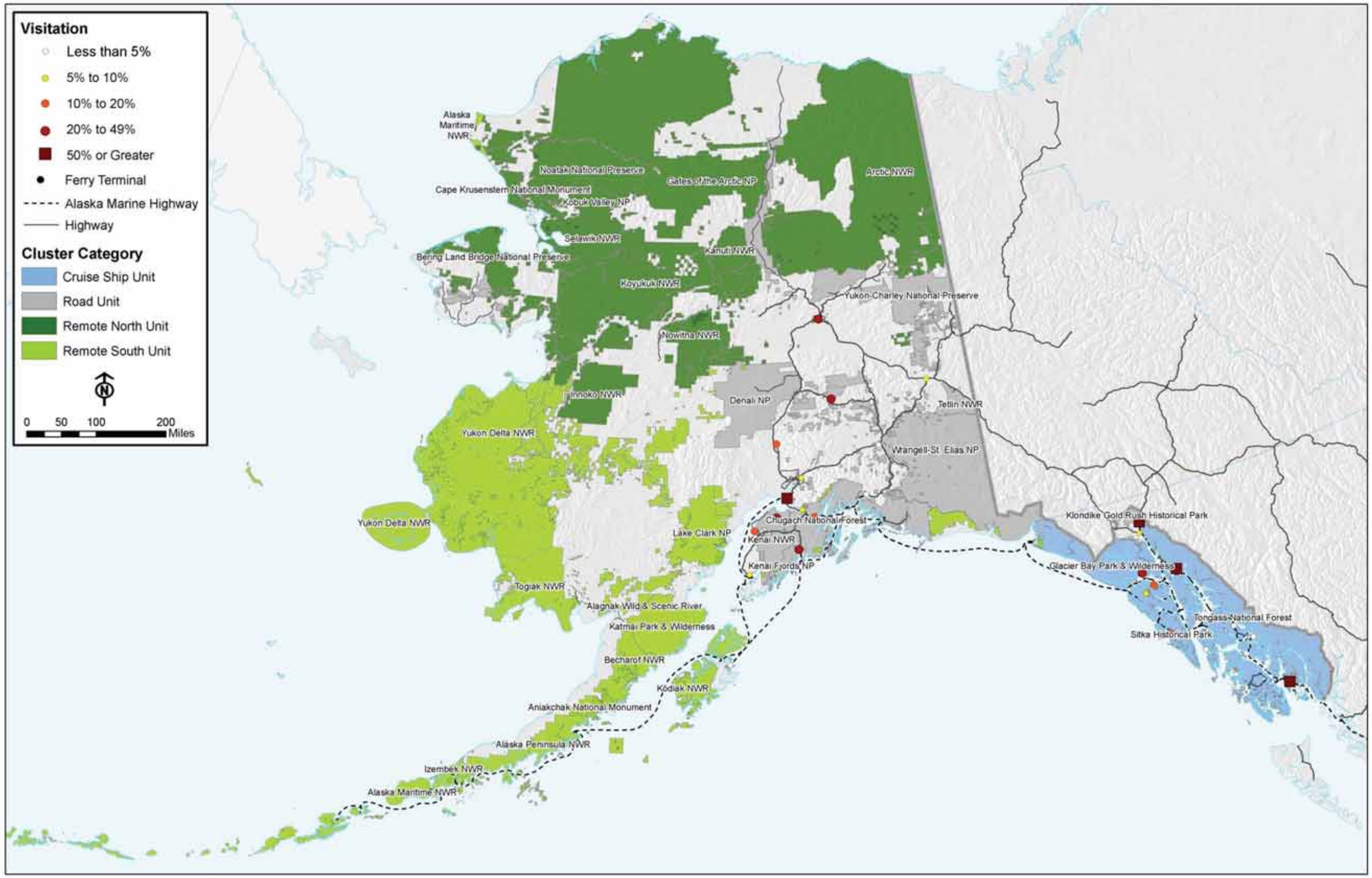
According to the Alaska Visitor Statistics Program, destinations visited by out-of-state visitors vary by frequency of visitation and geography. Table 4 summarizes the communities visited by out-of-state visitors. The table includes both the number of out-of-state visits each community received in 2006 and the percentage of total out-of-state visits. Figure 2 illustrates the Alaska Visitor Statistics Program data spatially, and in relationship to the FLMA cluster units. To identify proximity of these destination communities to Federal public land units, Table 5 categorizes the distances of Federal public lands near destination communities. Access to Federal public lands by way of in-state travel by out-of-state visitors is therefore most likely in units that are close to destination communities receiving high levels of visits. In Table 5, destination communities are sorted in descending order of visitation. Federal public land units that are close to destination communities are denoted by shorter distances. The table indicates that Klondike Gold Rush National Park, for example, is less than one mile from Skagway, which receives 53 percent (871,000 visits) of out-of-state visitors. The relationship suggests that visitation levels at units near popular out-of-state destination communities are more susceptible to changes in rates of out-of-state travel to Alaska based on Alaska Visitor Statistics Program data. This assertion is supported by Klondike Gold Rush National Park annual visitation data which is exceedingly high (nearly 800,000 in 2010), and follows the same 2000 to 2007 increase, and slight decline into 2010 as is exhibited by visitation illustrated in Figure 3.

Table 4
Out-of-State Visitor Destinations (2006)

Destination	2006 Visits	Percentage of Visits to Alaska
Total Visitation	1,630,000	
Juneau	1,034,000	63%
Ketchikan	871,000	53%
Skagway	865,000	53%
Anchorage	814,000	50%
Denali	450,000	28%
Kenai Peninsula	439,000	27%
Glacier Bay/Gustavus	437,000	27%
Fairbanks	385,000	24%
Seward	341,000	21%
Sitka	286,000	18%
Whittier	232,000	14%
Talkeetna	207,000	13%
Hoonah/Icy Strait Point	176,000	11%
Kenai/Soldotna	173,000	11%
Homer	153,000	9%
Palmer/Wasilla	139,000	9%
Girdwood/Alyeska	135,000	8%
Haines	124,000	8%
Prince William Sound	106,000	6%
Portage	98,000	6%
Other Southeast	93,000	6%
Tok	80,000	5%
Other Kenai Peninsula	77,000	5%
Other Southcentral	73,000	4%
Glennallen	69,000	4%
Valdez	67,000	4%
Other Interior	62,000	4%
Other Far North	41,000	3%
Other Southwest	38,000	2%
Wrangell	34,000	2%
Petersburg	29,000	2%
Kodiak	20,000	1%
Prince of Wales Island	15,000	1%
Nome	11,000	1%

Source: Alaska Visitor Statistics Program, 2007.

Figure 9
2006 Out-of-State Visitor Destinations



Source: Alaska Visitor Statistics Program

Table 5
Out-of-State Visitor Destination Proximity to FLMA Units

Community	Juneau	Ketchikan	Skagway	Anchorage	Denali	Kenai Peninsula	Gustavus	Fairbanks	Seward	Sitka	Whittier	Talkeetna	Hoonah	Kenai	Homer	Palmer	Girdwood	Haines	Prince William Sound	Portage	Tok	Glennallen	Valdez	Wrangell	Petersburg	Kodiak	Prince Of Wales Island	Nome
2006 Visits (1,000s)	1,034	871	865	814	450	439	437	385	341	286	232	207	176	173	153	139	135	124	106	98	80	69	67	34	29	20	15	11
Bureau of Land Management Units																												
	BLM units are dispersed, see Figure 9 for locations																											
Fish and Wildlife Service Units																												
Alaska Maritime									10-15	10-15				25-50	5-10				25-50							<1	25-50	10-15
Alaska Peninsula																												
Arctic																												
Becharof																												
Innoko																												
Izembek																												
Kanuti																												
Kenai				15-20		<1			10-15		25-50			5-10	15-20	25-50	15-20											
Kodiak																										20-25		
Koyukuk																												
Nowitna																												
Selawik																												
Tetlin																					20-25							
Togiak																												
Yukon Delta																												
National Park Service Units																												
Alagnak																												
Aniakchak																												
Bering Land Bridge																												
Cape Krusenstern																												
Denali					20-25																							
Gates of the Arctic																												
Glacier Bay	25-50		25-50				1-5						15-20					10-15		25-50								
Katmai																												
Kenai Fjords						25-50			1-5		25-50			25-50	20-25		25-50											
Klondike Gold Rush			<1															15-20										
Kobuk Valley																												
Lake Clark														25-50	25-50													
Noatak																												
Sitka										<1																		
Wrangell-St. Elias																					25-50	1-5	25-50					
Yukon-Charley																												
Forest Service Units																												
Chugach				15-20		10-15			1-5		<1			25-50		25-50	1-5		1-5				1-5					
Tongass	1-5	<1	1-5				1-5			<1			<1					1-5		<1				<1	1-5		<1	

Source: Alaska Visitor Statistics Program
Values represent distance ranges in miles.

3.1.4 Projections

As discussed in sections 3.1 and 3.2, visitation is influenced by numerous factors, each with several levels of nuance and unknowns, and each with the potential to impact how many people visit Federal public lands in Alaska, and where. For the purpose of this report, future visitation will be projected from demographic considerations using U.S. Census data.

Using U.S. Census population projections, combined with 2006 Alaska Visitor Statistics Bureau data on regional domestic travel to Alaska, it is projected that about 1.4 million U.S. visitors will reach Alaska in 2030,an increase of about 21 percent above 2010 levels. Table 6 illustrates the regional distribution of these visits for 2010, U.S. Census projections grouped by Alaska Visitor Statistics Programs specified regions, and the resulting visitation projections. Ultimately, increased out-of-state travel to Alaska will also increase travel between communities, and to FLMA units.

Table 6
2030 Domestic Alaska Visitation Projections

U.S. Regional Travel Market	2010 U.S. Visits to Alaska	% U.S. 2006 Visits	2010 to 2030 Projection	Projected 2030 U.S. Visitation to Alaska
Western	633,000	53%	28%	808,000
Midwestern	316,500	27%	4%	330,000
Southern	217,000	18%	26%	274,000
Eastern	21,540	2%	5%	23,000
Total	**1,188,040**			**1,435,000**

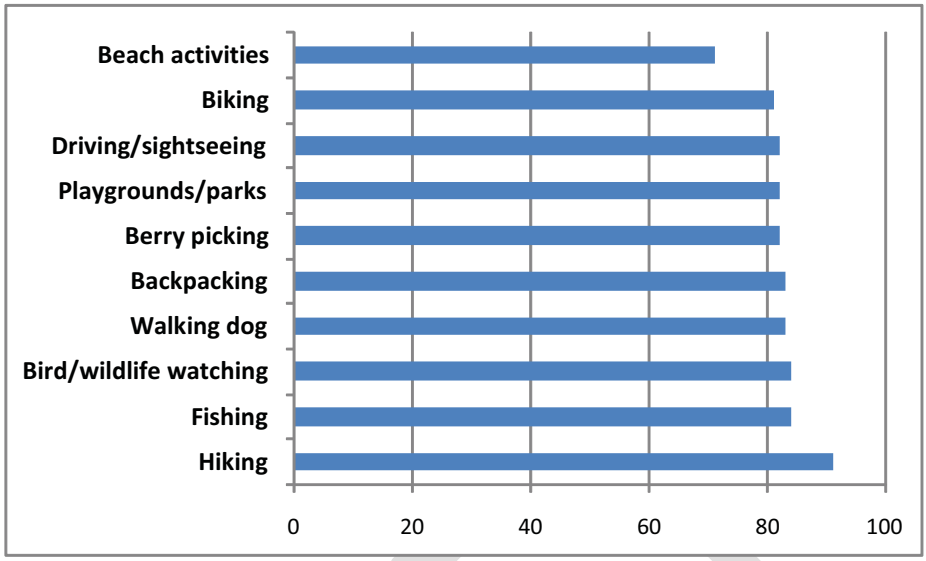
3.2 In-State Travel, Visitation, and Use

In-state travel to Alaska Federal public lands is complex both in terms of the diversity of users as well as an inability to quantify access and trends using readily available data sources. In-state Federal public land access is therefore discussed in terms of the three primary purposes of in-state access: recreation, travel, and subsistence.

3.2.1 Recreation

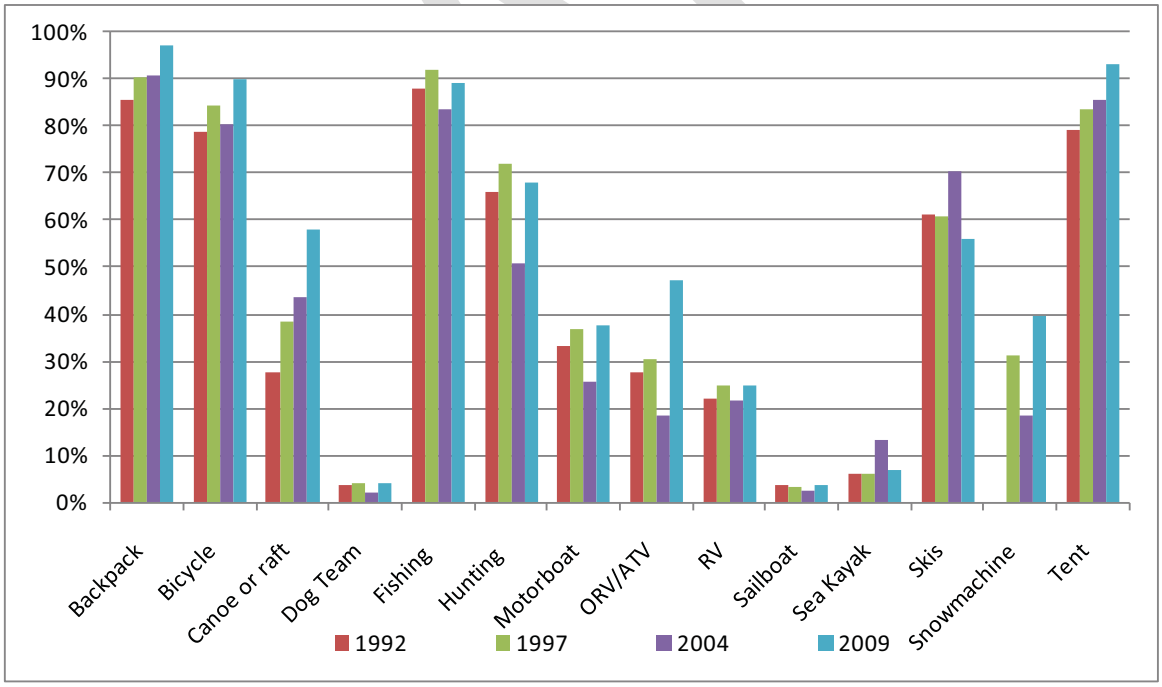
The Alaska Department of National Resources indicates that 96 percent of all in-state respondents to a recent survey believe that outdoor recreation is important or very important to their lifestyle. The study also surveyed Alaska residents to determine preferences and opinions about outdoor activities. Figure 10 summarizes the ten most popular activities as documented in the study of Alaska residents. These preferences are consistent with recreational equipment ownership patterns as determined by the Alaska Department of National Resources *Statewide Comprehensive Outdoor Recreation Plan* (SCORP), and illustrated in Figure 11.

Figure 10
Top Ten Outdoor Activities of Alaska Residents, Percentage of Participation



Source: Alaska Department of National Resources, 2009 SCORP.

Figure 11
Percentage of Outdoor Equipment Ownership of Survey Respondents, 1992–2009



Source: Alaska Department of National Resources, 2009 SCORP.

Data on trip taking by Alaska residents, rates of visitation to public lands and recreation sites, use of snow machines and ATVs for recreation or non-recreational travel, subsistence activities, and

air travel for recreational and other purposes does not exist. A recent survey of air taxi operators did not return meaningful results.

3.2.2 Travel

In Alaska, Federal public lands that are bisected by roads and winter travel trails are most commonly accessed for through travel purposes. Such travel occurs on both Federal and non-Federal owned transportation assets. This is especially true in southeast Alaska where, for example, an absence of roads creates a unique situation where FS routes serve the role traditionally performed by county roads and provide access to and from communities and subdivisions. Data on through travel by Alaska residents does not exist.

Travel through Federal public lands by residents is expected to keep in pace with population levels and the travel rates anticipated by ADOT&PF.

3.2.3 Subsistence

As described in the FLMA LRTP, subsistence access to Federal public lands is unique to Alaska. Subsistence users are sometimes afforded modes of access not permitted for the general public. As more Alaska federal lands define traditional travel modes, modes of subsistence access become more formalized.

3.2.4 Projections

As is the case in section 3.1.4, projected changes in travel by residents and subsistence users is expected to generally follow changes in population levels. Although fuel prices, economic conditions, and other factors are certain to causes periodic shifts in travel, the 2030 year horizon for the LRTP allows for very broad assumptions. This report therefore assumes that the level of in-state/resident travel generally increases and decreases in parallel with population levels. The U.S. Census Bureau forecasts that Alaska's population will increase 25 percent from 2010 to 2030. This report assumes that in-state/resident travel to and through FLMA lands will increase at that same pace.

4. State of Alaska Policies and Projects

The following foreseeable State of Alaska policies and programs could potentially affect access to Federal public lands. Generally, new roads proposed by ADOT&PF summarized below will influence but not dramatically affect Federal public land access as a whole. BLM and FWS face the greatest potential for change in access as roads to resources (road to Nome, road to Umiat, and Ambler District in particular) cross BLM and national wildlife refuge lands. Impacts to Federal public lands will be reported throughout environmental review processes or each respective project.

4.1 Roads to Resources

"Roads to resources" projects are being developed to reduce the cost of living for various communities, promote mineral development, foster oil and gas development, and provide access to the National Petroleum Reserve Alaska. The following roads to resources projects are currently under consideration by the State of Alaska.

4.1.1 Road to Nome

The proposed road to Nome would provide greater community access to statewide ADOT&PF road networks and natural resources in the western portion of the state. The preferred road to Nome generally follows the Yukon River and passes near the Koyukuk and Innoko National Wildlife Refuges. Preliminary planning, route selection, and cost analysis have been completed. Reconnaissance and preliminary design for the project awaits funding. The project would bring opportunities for increased road access to Federal public lands along the proposed corridor.

4.1.2 Ambler Mining District Access

The purpose of an Ambler Mining District access road is to link the area to the Dalton Highway and other ADOT&PF road networks. The proposed corridor originates at the Dalton Highway and Prospect Creek, and extends west to Ambler, which is in close proximity to Kobuk Valley National Park, and Selawik National Wildlife Refuge. To the north, the corridor may pass near or possibly through a narrow portion of Gates of the Arctic National Park and Preserve and near Noatak National Preserve. To the south are Kanuti, Koyukuk, and Selawik National Wildlife Refuges. At this time, the project awaits scoping and preliminary design funding. The project would bring opportunities for increased road access to Federal public lands along the proposed corridor.

4.1.3 Road to Umiat

The purpose of this road is to link Umiat and the Gubik oil/gas fields to the ADOT&PF road network and provide access to the National Petroleum Reserve. Umiat is situated on the west bank of the Colville River, 75 miles west of the Dalton Highway. BLM lands could be included in the corridor. The next project phase is the preparation of an environmental impact statement.

4.2 Roads Connecting Communities

The State of Alaska is also interested in supporting community desires for greater transportation access. The current lack of inter-community transportation infrastructure is just one reason why thorough planning and consideration is needed. Projects proposed would generally reduce travel times, increase ease of travel, and reduce travel costs. The following proposals are considered roads connecting communities' projects:

- The proposed King Cove–Cold Bay road, if approved, would connect King Cove to the Cold Bay Airport, providing a land transportation link between the two communities (Izembek NWR)
- A Kake-Petersburg road would connect Kake to surrounding communities and provide a future option for an Alaska Marine Highway System access to Kake and Juneau (Tongass National Forest)
- The proposed "road to Juneau" would extend Glacier Highway north, along the east side of the Lynn Canal , to the Katzehin River. From there ferries would connect to Haines and Skagway (Tognass National Forest, Klondike Gold Rush Historic Site)
- The recently completed Ketchikan–Metlakatla road connects the community of Metlakatla on the western edge of Annette Island to the northern end of the island. A ferry will soon connect Annette Bay to Saxman and the Ketchikan road system (Tongass National Forest)

5. Modal Trends

Trends that are unique to particular modes of travel can influence the numbers and destinations of future travelers. The following developments and foreseeable changes in travel modes could potentially change travel to and through Alaska federal lands.

5.1 Highways

The main Alaska highways that are used by visitors and residents to access Federal public lands are the most fully developed highways in the State. These routes have been steadily improved by ADOT&PF to bring the network up to width, grade, and the present day design standards. Currently, the Parks, Seward, and Glenn Highways either meet or are near meeting current standards. Such improvements will continue to make travel to Federal public lands (particularly road units) safer and reduce delays.

5.2 Cruise Ships

The most significant change in Alaska marine transportation in over the past 25 years has been the increase in vessel capacity and visitation frequency. From 1990 to 2008, both the number of vessels visiting southeast Alaska and the number of passengers per vessel increased. These changes have intensified spikes in visitation at many cruise ship units when ships arrive. As indicated in Chapter 3, cruise ship travel is expected to remain a dominant mode of visitor travel in Alaska.

5.3 Ferries

As illustrated in Figure 2, the Alaska Marine Highway provides service to 30 communities in Alaska as well as, Prince Rupert, British Columbia, Canada, and Bellingham, Washington. Many of the communities in Alaska are not otherwise connected to a road network. *Let's Get Moving 2030* indicates that Alaska Marine Highway carries about 300,000 passengers and 100,000 vehicles each year by ferry. Although numbers of passengers and vehicles have been increasing in recent years, usage is still below the peak reached in the early 1990s. As indicated in chapter 3, the general increase in ferry use coincides with recent economic downturns and the increase of road vehicle travel. It is not known how ferry use will change when economic conditions improve throughout the U.S. and aboard. Projected investments could influence ferry travel to Federal public lands such as the new ferry dock at Gustavus near Glacier Bay National Park in 2010. Other key issues for the ferry system include replacement of older vessels and reconciling growing gaps between costs and revenues.

5.4 Aviation

As discussed in the FLMA LRTP, reliance on aviation is prominent in Alaska. The commercial aviation industry and personal aircraft is heavily relied upon to access remote areas of Federal public lands. Changes in the economics and level of service provided by Alaska commercial

flying services would have significant effects on transportation to and within remote Federal public lands.

5.5 The Alaska Railroad

The Alaska Railroad has been a key part of Alaska's development since the completion of its existing configuration in 1923. Currently, the State-owned railroad has two line expansion projects underway. One expansion is the construction of a spur line from the Houston mainline to Port MacKenzie, the growing port facility on the west side of the Knik Arm of Cook Inlet, near Anchorage. The spur will be 33 miles.

The second expansion proposed is a rail line between North Pole and Delta Junction. The project would add approximately 80 miles of new rail line connecting the existing Eielson Branch rail line at the Chena River Overflow Structure to a point near Delta Junction. The proposed line would provide freight and potentially passenger rail services serving commercial interests and communities in or near the project corridor. The projects could potentially increase access to Federal public lands along the proposed lines.

5.6 Off-Road Vehicles

In Alaska, various modes of transportation utilize trails for travel and recreation purposes. These modes include snow machines, ATVs, dog teams, bicycles, and others. Many areas (remote areas in particular) depend on off-road vehicles for work, transportation, subsistence, and recreation. Because of potential for resource damage, off-road vehicle use is often prohibited off established trails, roads, and designated routes—with the exception of BLM lands where, at this time, these vehicles are allowed on undesignated routes. In some cases, subsistence users are exempt from off-road vehicle exclusions when such modes of travel have been determined to be traditional.

Important trends in off-road vehicle technology coupled with increased demands for access are pressuring development of roads and trails further into some Federal public lands that were previously inaccessible. New vehicle technology is improving gas mileage, range, and power thereby increasing the ability for travel to occur further off established road and trail systems.

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Alaska Federal Lands
Long Range Transportation Plan

Appendix C

Climate Change Technical Report

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Alaska Federal Lands Long Range Transportation Plan

Climate Change Technical Report

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1. Introduction

Federal land management agencies (FLMAs) in Alaska are responsible for resources and infrastructure that will be impacted by climate change. As climate change issues are likely to affect how FLMAs manage resources and infrastructure, it is appropriate for FLMA long-range planning efforts to anticipate and plan for an appropriate array of management options. This technical report is compiled to achieve this end, and to support the *Alaska Federal Lands Long Range Transportation Plan*, which is currently under development. Core participants in the planning effort include the Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (FWS), National Park Service (NPS), and the U.S. Forest Service (USFS), with essential support from Alaska Department of Transportation and Public Facilities (ADOT&PF) and the Federal Highway Administration (FHWA)–Western Federal Lands Highway Division (WFL).

This FLMA *Climate Change Technical Report* documents:

- FLMA directives and executive orders on climate change
- Threats to transportation infrastructure from climate change
- Department and agency adaptation strategies for climate change
- FLMA recommended mitigation strategies for climate change

1.1 Planning for Change

Climate change planning as it pertains to FLMA transportation infrastructure falls within two categories: adaptation strategies and mitigation strategies. Adaption strategies focus on preparing for forecasted environmental changes such as thawing permafrost, rising temperatures, and retreating sea ice. Adaptation strategies also provide an opportunity to revisit the way business is conducted and to improve existing policies and practices, including those that increase vulnerability, in order to ensure a more sustainable future (White House Council on Environmental Quality, 2010). In contrast, mitigation strategies focus on how to reduce or sequester greenhouse gas (GHG) emissions (i.e., slow the progress of climate change or create more carbon sinks).

1.2 Climate Change and Transportation Infrastructure

Traditionally, transportation infrastructure is designed for a regionally-appropriate range of weather and climate while still accounting for a reasonable range of extremes. Changes to these extremes or significant shifts over prolonged periods in the recognized ranges of weather and climate, however, can stress infrastructure beyond the parameters for which they were designed. Impacts may vary by transportation asset, condition of the infrastructure (deteriorated roads may be more susceptible to precipitation changes), and the number and strength of the redundancies built into each part of the system (such as the availability of alternate routes) (National Research

Council, 2008). Such climate change related threats to transportation infrastructure are especially relevant in Alaska where science and observation show that climate change is accelerating and the impacts of which are felt most prominently in the high latitudes, particularly the Arctic (Zufelt et al., 2009). The state is experiencing the effects of climate change through retreating sea ice, thawing permafrost, and warmer Arctic summers (SNAP, 2008). Alaskan public infrastructure at risk of damage includes roads, runways, and water and sewer systems (Karl et al., 2009) as well as ice roads (Hassol, 2004).

1.3 Federal Leadership in Environmental, Energy, and Economic Performance

On October 5, 2009, President Obama signed the Federal Leadership in Environmental, Energy, and Economic Performance Executive Order (Executive Order 13514) requiring each Federal agency to develop, implement, and annually update an integrated Strategic Sustainability Performance Plan. Each plan must include an evaluation of Federal agency climate change risks and vulnerabilities to manage the effects of climate change on an agency's operations and mission. The executive order also requires that agencies actively participate in an interagency Climate Change Adaptation Task Force and "develop approaches through which the policies and practices of the agencies can be made compatible with and reinforce that strategy."

1.4 Department-Wide Directives

Several department level climate change directives influence how agencies address climate change in their planning and management processes. The following directives for the Department of the Interior (DOI) influence BLM, FWS, and NPS climate change efforts.

Secretarial Order 3226 Amendment No. 1: Climate Change and the Department of Interior

The order was signed on January 16, 2009, by former Secretary Kempthorne, replacing the original order from January 2001. This amended order lists a number of directives intended to mainstream the consideration of climate change projections and impacts across the DOI's operations and responsibilities, including requiring bureaus and offices to:

> Consider and analyze potential climate change impacts when undertaking long-range planning exercises, setting priorities for scientific research and investigations, and/or when making major decisions affecting DOI resources; and Review all existing programs, facilities, boundaries, policies, and authorities under the respective bureau or office to identify potential impacts of climate change on the bureau's or office's areas of responsibility and to recommend a set of response actions; and Use Adaptive Management: The U.S. Department of the Interior Technical Guide as a framework for managing natural resources.

Secretarial Order 3289: Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources

Secretarial Order 3289 was signed September 14, 2009, and amended February 22, 2010. The order established the Energy and Climate Change Council within the Office of the Secretary to

coordinate the development of an integrated strategy across DOI agencies and bureaus to respond to the impacts of climate change on tribes and on the land, water, ocean, fish and wildlife, and cultural heritage resources that the DOI manages.

DOI and U.S. Department of Commerce Memorandum of Understanding

DOI Secretary Salazar and U.S. Department of Commerce Secretary Locke signed a memorandum of understanding in August 2010 to coordinate and cooperate on climate related activities involving science, services, mitigation, adaptation, education, and communication. The memorandum of understanding provides a framework to build upon existing partnerships that bring together the DOI's best available climate science and services to develop adaptation strategies and decisions to manage America's oceans, coasts, Great Lakes, and public lands. The agreement draws on national and regional programs and partnerships of each DOI agency, including the emerging Climate Science Centers and Landscape Conservation Cooperatives, National Oceanic and Atmospheric Administration's climate science and services, Regional Integrated Sciences and Assessments program, and Regional Climate Centers.

USDA Climate Change Science Plan

The U.S. Department of Agriculture (USDA) Climate Change Science Plan (the Science Plan) provides a guide for clear and consistent consideration of current and potential investments in climate change science activities. The Science Plan presents an overview of the critical questions facing the USDA agencies as they relate to climate change and offers a framework for assessing priorities to ensure consistency with the department's role in the U.S. Global Change Research Program and related efforts. The document identifies important roles and responsibilities for USDA agencies and areas of need and dependency wherein USDA agencies are reliant on other programs for cooperation.

2. Transportation Infrastructure Impacts

Federal and State agencies recognize that changes in climate will impact transportation systems. The U.S. Global Change Research Program states:

> Climate affects the design, construction, safety, operations, and maintenance of transportation infrastructure and systems. The prospect of a changing climate raises critical questions regarding how alterations in temperature, precipitation, storm events, and other aspects of the climate could affect the nation's roads, airports, rail, transit systems, pipelines, ports, and waterways (2008).

Because of the dynamics of climate change in high latitudes, particularly the Arctic, Alaska transportation facilities generally face greater risk of climate change related degradation. Additional challenges are present in Alaska compared to other states, as the transportation system is less likely to have redundant elements (for example, less redundancy describes areas where only one road links a location to others). Alaska faces other unique threats such as the stability of frozen ground or ice roads. These facilities could become less reliable and available

for shorter portions of the year, isolating communities and interfering with connectivity to certain areas. Because climate change related threats to transportation infrastructure takes many forms, ADOT&PF has identified several interrelated threat areas (Coffey, 2010):

- Increasing temperatures
- Warming and melting permafrost
- Increased storm frequencies and intensity
- Increased variation in precipitation
- Increased coastal erosion
- Increased river and shore erosion
- Sea level rise
- More freeze-thaw cycles

Trends in melting sea ice are being observed for potential opportunities to increase ship travel through northern passages.

Source: USFS

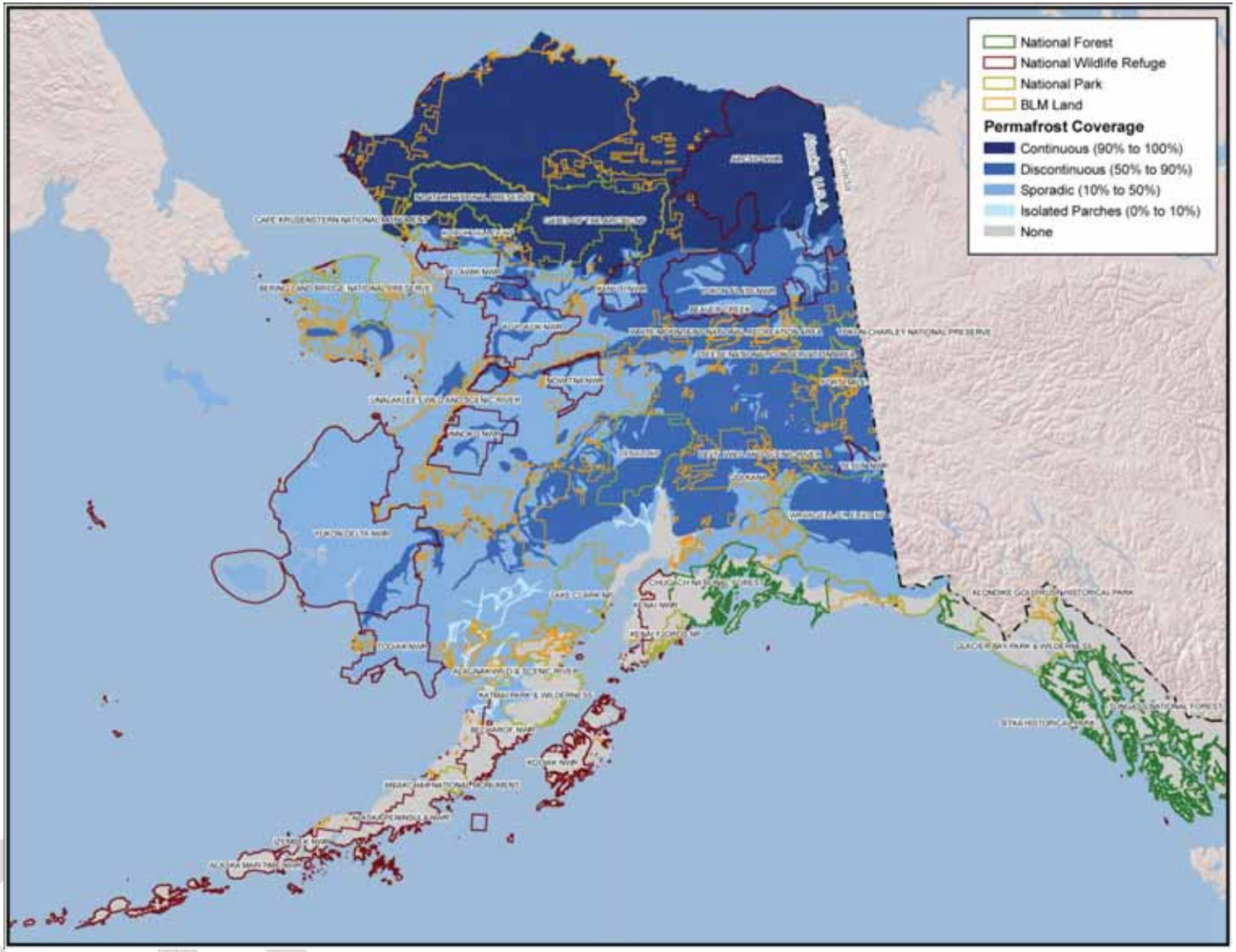
As many of these threats are interrelated, this report discusses climate change impacts to transportation infrastructure in terms of the threat vector, or means by which transportation assets are potentially damaged. These threat vectors are primarily thawing permafrost and erosion.

2.1 Thawing Permafrost

According to Smith and Levasseur, "Warming and thawing permafrost foundations are the most serious climate change consequence to land and air transportation services in Alaska" (2008). The seriousness of the threat is compounded in that permafrost is widespread throughout Alaska as illustrated in Figure 1. Thawing permafrost threatens transportation infrastructure through erosion, landslides, and sinking of the ground surface. ADOT&PF estimates that its northern region currently spends over $10 million annually in maintenance and operations due to melting permafrost alone (Coffey, 2010). As permafrost has significant impacts on the condition of transportation facilities, warming trends have the potential to increase the intensity of facility degradation in the following ways:

- Increased highway and airport surface distress, asphalt softening, and traffic-related damage and rutting (see Figure 2)
- Increased active layer detachments (slope sloughing and failures)
- A need to build thicker embankments over permafrost to prevent the underlying ground from thawing
- Relocation or reconstruction of some public buildings if their foundations thaw
- Frozen ground or ice roads become less reliable and available for shorter portions of the year

Figure 1
Alaska Permafrost Coverage



Source: U.S. Geological Survey (USGS) EROS Alaska Field Office (Permafrost Data), 1996

Figure 2
Pavement Surface Distress

Dalton Highway, Frost Heaves

Alaska Highway, Damage and Rutting

Glenn Highway, Distress

Elliott Highway, Pavement Rutting

Photographs courtesy of ADOT&PF

2.2 Erosion

Erosion related to climate change falls into two categories: coastal and river. Coastal erosion can accelerate when shorelines are exposed due to melting sea ice, increased storm and wave activity, and/or rising sea levels. Transportation infrastructure in close proximity to coastal areas could face increased risks due to climate change in the future. Like coastal erosion, river erosion can damage structural integrity or accelerate the degradation process of transportation infrastructure condition, as shown on Figure 3. Warming has a particular effect on river based shoreline erosion due to increased intensity of thaw period and the resulting surges of stream activity, and even flooding. Increased storm frequency and precipitation levels can also accelerate stream bank erosion. ADOT&PF expects to encounter increased debris flows, avalanches, and floods due to changes in precipitation in the future (Coffey, 2010).

Figure 3
Erosion

Coastal Erosion on Nome Council Road
(ADOT&PF)

Erosion
(ADOT&PF)

Photographs courtesy of ADOT&PF

In 2009, the U.S. Army Corps of Engineers (USACE) published the *Alaska Baseline Erosion Assessment, Study Findings and Technical Report*. The assessment identifies communities facing erosion risks, and categorizes communities based on the severity of the risk. The assessment serves as a baseline for erosion risks and indentifies communities which should be monitored for future erosion issues. The USACE report defines three risk severity categories:

- **Priority Action Communities**
  These communities report serious erosion that is threatening the viability of the community, or, in some cases, significant resources are being expended to minimize those threats. The erosion issues in these communities warrant immediate and substantial Federal, State, or other intervention. Appropriate responses to erosion in priority action communities are actions needed to decrease erosion-related risks and impacts to acceptable levels. In some cases, the action is relocation of structures; in others, a structural fix is more reasonable. In some communities, not enough is known about the situation to justify suggesting anything other than sending a team to the community for further investigation (p. 4-1).

- **Monitor Conditions Communities**
  These communities generally have reported significant impacts related to erosion but the impacts are not likely to affect the current viability of the community. The erosion issue may warrant Federal, State, or other intervention in these communities. Communities in this category should be monitored and actions to prevent current erosion problem from becoming worse is considered prudent. Because these communities have erosion problems (not of extreme magnitude), these communities should monitor erosion actively and bring new information to the attention of local, State, or Federal officials if the situation warrants (p. 4-9).

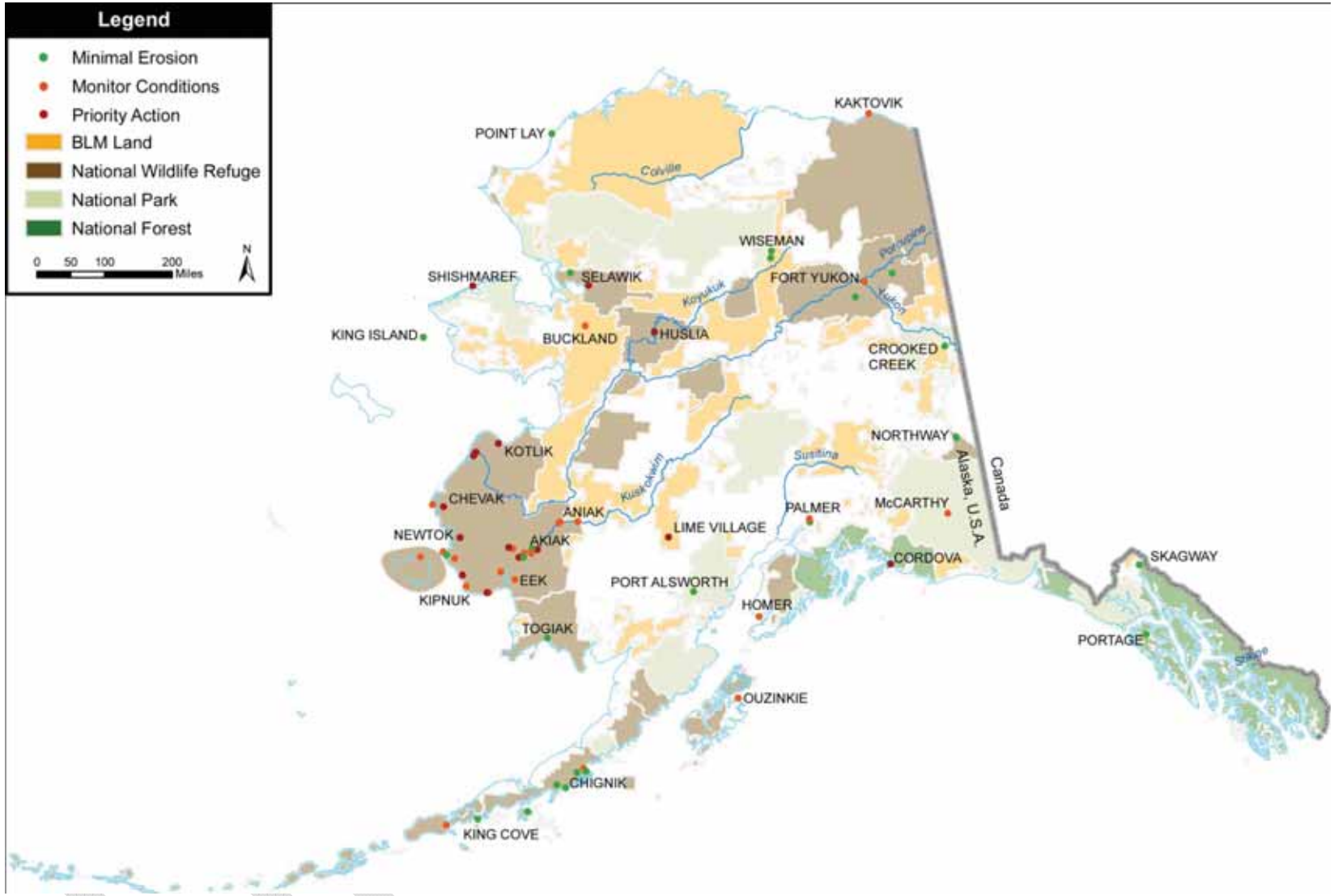
- **Minimal Erosion Communities**
  Communities in this category have reported erosion impacts that are not serious and are not currently affecting the viability of the community. At this time, erosion does not appear to warrant Federal, State, or other intervention for these communities as there is little threat of erosion-related damage. Unless the situation changes significantly, no action is deemed necessary for this community to address erosion. The community, however, may be experiencing problems from other natural hazards, such as flooding, that could lead to erosion problems in the future (p. 4-13).

The assessment designates 26 communities as "priority action communities"—indicating that they should be considered for immediate action by either initiating an evaluation of potential solutions or continuing with ongoing efforts to manage erosion. Sixty-nine communities where erosion problems are present, but not significant enough to require immediate action, are designated "monitor conditions communities." Eighty-three communities where minimal erosion-related damages were reported or would not be expected in the foreseeable future were designated "minimal erosion communities."

There are 63 communities that warranted erosion assessment in, or within 5 miles of, an FLMA unit. Of these 63 communities, there are 15 priority action communities, 24 monitor condition communities, and 24 minimal erosion communities. These communities and FLMA units are identified in

Figure 4 and Table 1. If forces that cause erosion are expected to increase or intensify in the future, these communities indicate inhabited areas in or near FLMA units that could potentially experience increasing threats to transportation infrastructure due to erosion. It is important to note that FLMAs are not responsible for transportation infrastructure outside of their respective boundaries. Furthermore, the scope of the USACE study is limited to inhabited communities. Results of the study therefore exclude uninhabited areas that may be at risk of erosion.

Figure 4
FLMA Community* Erosion Risk



Source: U.S. Army Corps of Engineers, Alaska Baseline Erosion Assessment (2009)
** Communities in, or within 5 miles of an FLMA boundary*

Table 1
FLMA Community* Erosion Risk

Neighboring FLMA	Unit/Park Name	Community Name	Community Erosion Status
BLM		Buckland	Monitor Conditions
BLM		Circle View	Monitor Conditions
BLM		Coldfoot	Minimal Erosion
BLM		Crooked Creek	Minimal Erosion
BLM		Homer	Monitor Conditions
BLM		Lime Village	Priority Action
BLM		Palmer	Minimal Erosion
BLM		Wiseman	Minimal Erosion
FWS	Alaska Maritime	False Pass	Monitor Conditions
FWS	Alaska Maritime	King Island	Minimal Erosion
FWS	Alaska Maritime	Ouzinkie	Monitor Conditions
FWS	Alaska Maritime	Point Lay	Minimal Erosion
FWS	Alaska Maritime	Sand Point	Minimal Erosion
FWS	Alaska Maritime	Shishmaref	Priority Action
FWS	Alaska Peninsula	Chignik	Minimal Erosion
FWS	Alaska Peninsula	Chignik Lagoon	Monitor Conditions
FWS	Alaska Peninsula	Chignik Lake	Minimal Erosion
FWS	Alaska Peninsula	Ivanof Bay	Minimal Erosion
FWS	Alaska Peninsula	King Cove	Minimal Erosion
FWS	Alaska Peninsula	Perryville	Minimal Erosion
FWS	Arctic	Birch Creek	Minimal Erosion
FWS	Arctic	Chalkyitsik	Minimal Erosion
FWS	Arctic	Fort Yukon	Monitor Conditions
FWS	Arctic	Kaktovik	Monitor Conditions
FWS	Koyukuk	Huslia	Priority Action
FWS	Selawik	Noorvik	Minimal Erosion
FWS	Selawik	Selawik	Priority Action
FWS	Tetlin	Northway	Minimal Erosion
FWS	Tetlin	Northway Indian Village	Minimal Erosion
FWS	Togiak	Togiak	Minimal Erosion
FWS	Yukon Delta	Akiachak	Minimal Erosion
FWS	Yukon Delta	Akiak	Priority Action
FWS	Yukon Delta	Alakanuk	Priority Action
FWS	Yukon Delta	Aniak	Monitor Conditions
FWS	Yukon Delta	Atmautluak	Monitor Conditions
FWS	Yukon Delta	Bethel	Monitor Conditions
FWS	Yukon Delta	Chefornak	Priority Action
FWS	Yukon Delta	Chevak	Priority Action
FWS	Yukon Delta	Eek	Monitor Conditions
FWS	Yukon Delta	Emmonak	Priority Action
FWS	Yukon Delta	Hooper Bay	Monitor Conditions
FWS	Yukon Delta	Kipnuk	Monitor Conditions
FWS	Yukon Delta	Kongiganak (Site)	Monitor Conditions
FWS	Yukon Delta	Kotlik	Priority Action
FWS	Yukon Delta	Kwethluk	Monitor Conditions
FWS	Yukon Delta	Kwigillingok	Priority Action
FWS	Yukon Delta	Lower Kalskag	Monitor Conditions
FWS	Yukon Delta	Mekoryuk	Monitor Conditions

Table 1
FLMA Community* Erosion Risk

Neighboring FLMA	Unit/Park Name	Community Name	Community Erosion Status
FWS	Yukon Delta	Napakiak	Priority Action
FWS	Yukon Delta	Napaskiak	Minimal Erosion
FWS	Yukon Delta	Newtok	Priority Action
FWS	Yukon Delta	Nightmute	Monitor Conditions
FWS	Yukon Delta	Nunapitchuk	Priority Action
FWS	Yukon Delta	Oscarville	Monitor Conditions
FWS	Yukon Delta	Toksook Bay	Minimal Erosion
FWS	Yukon Delta	Tuntutuliak	Monitor Conditions
FWS	Yukon Delta	Tununak	Monitor Conditions
FWS	Yukon Delta	Upper Kalskag	Monitor Conditions
NPS	Klondike Gold Rush	Skagway	Minimal Erosion
NPS	Lake Clark	Port Alsworth	Minimal Erosion
NPS	Wrangell-St. Elias	McCarthy	Monitor Conditions
USFS	Chugach National Forest	Cordova	Priority Action
USFS	Chugach National Forest	Portage	Minimal Erosion

Source: USACE Alaska Baseline Erosion Assessment (2009)
** Communities in, or within 5 miles of an FLMA boundary. FLMAs are not responsible for transportation infrastructure outside of their respective boundaries.*

3. Adaptation

Adaptation is the adjustment of natural or human systems to a new or changing environment by capitalizing on opportunities and/or moderating negative effects (White House Council on Environmental Quality, 2010). Adaptation is a course of action that adjusts to predicted change. Federal departments and agencies are responding to climate change through numerous adaptation initiatives; these efforts are discussed in this chapter.

Adaptation vs. Mitigation

Adaption strategies focus on preparing for environmental changes.

Mitigation strategies focus on how to reduce or sequester GHG emissions.

3.1 Department-Wide Adaptation Efforts

Several Federal department-wide adaptation efforts are underway to help agencies prepare for climate change in their planning and management processes. The following department-wide adaptation efforts are underway for Alaska FLMA DOI agencies (BLM, FWS, and NPS) as well as U.S. Department of Agriculture (USDA) agencies (USFS) and the U.S. Department of Transportation (USDOT).

DOI Climate Science Centers

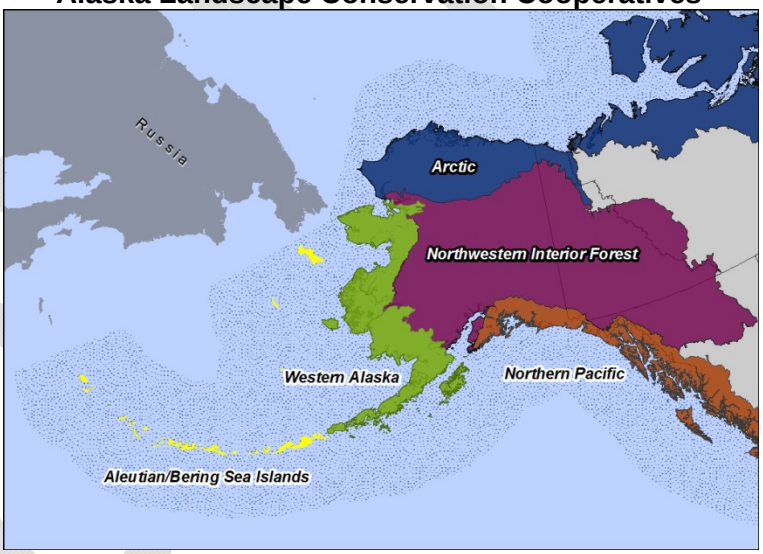
The DOI is working with the U.S. Geological Survey (USGS) to broaden the current USGS Wildlife and Climate Center scope to include an additional eight regional DOI centers. These centers provide climate change impact data and tools to support managers and other partners responsible for managing the department resources. Basic climate change impact science is

provided by the Climate Science Centers to the Landscape Conservation Cooperatives (LCCs) within their respective regions, based primarily on the priorities defined by the LCCs, including physical and biological research, ecological forecasting, and multi-scale modeling. The Alaska Climate Science Center was dedicated in February of 2011. The center is the first of eight regional climate science centers throughout the nation.

DOI LCCs provide applied-science and adaptive management services within DOI and are comprised of land, water, wildlife, cultural resource managers, and other interested public and private organizations. The goal is for LCCs to support integrated resource management approaches for both public and private lands that address climate change mitigation and adaptation efforts.

As illustrated in Figure 5, five LCCs overlap Alaska's boarders. These LCCs include the Aleutians and Bering Sea Islands, Arctic, North Pacific, Northwest Interior Forest, and Western Alaska. The cooperatives are in a various stages of development. Arctic is an active LCC whereas the Western Alaska and North Pacific are in pilot LCC phases. Both the Aleutians and Bering Sea Islands and Northwestern Interior Forest are still in the early stages of initiation.

Figure 5
Alaska Landscape Conservation Cooperatives



Source: FWS

DOI Adaptive Management Technical Guide

The DOI Adaptive Management Technical Guide was issued in March 2007 and provides technical guidance for using adaptive management in decision making. The guide includes case studies to demonstrate how adaptive management can be applied successfully.

USDOT Center for Climate Change and Environmental Forecasting Strategic Plan

USDOT established the Center for Climate Change and Environmental Forecasting in 1999. The Center has become the focal point within USDOT for information and technical expertise on transportation and climate change as well as its work coordinating research, policies, and actions. The strategic plan focuses on greenhouse gas emission reductions as well as adaptation to climate change impacts. The plan also includes short- and long-term actions in areas such as research and planning. Long-term actions include research to "understand how more extreme temperatures may affect transportation operations and infrastructure, and what steps should be taken to avoid or mitigate those potential affects." Short-term actions include the development of the Transportation Climate Change Clearinghouse, which is now available.

USDOT Transportation and Climate Change Clearinghouse

The Climate Change Clearinghouse website (http://climate.dot.gov/index.html) provides mitigation strategies as well as resources to identify potential impacts of climate change on transportation infrastructure. The website also highlights local planning efforts and approaches for integrating climate change considerations such as adaptation into transportation decision making.

USDA Strategic Plan for 2010-1015

The USDA strategic plan includes a number of goals related to climate change. For example, the Plan sets a departmental goal to "Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources." (USDA, 2010)

USDA Climate Change Program Office

The Climate Change Program Office (CCPO) operates within the Office of the Chief Economist and functions as the department-wide coordinator of agriculture, rural, and forestry-related global change programs and policy issues facing the USDA. The CCPO ensures that the USDA is a source of objective analytical assessments of climate change effects and proposed adaptation strategies. The CCPO is also responsible for coordinating activities with other Federal agencies, interacting with the legislative branch on climate change issues affecting agriculture and forestry, and representing USDA on United States delegations to international climate change discussions. Adaptation focused efforts include coordinating inquiries specific to the economic impacts of climate change and potential costs of adaptation.

4. Agency Specific Adaptation Efforts

In addition to involvement in department-wide adaptation efforts, FLMAs have begun climate change adaption related efforts of their own. These FLMA adaptation efforts are discussed in the following sections.

4.1 Bureau of Land Management

The BLM is undertaking two connected initiatives to understand, anticipate, and respond to the effects of climate change on the public lands. These initiatives are rapid ecoregional assessments (REAs) and a landscape approach for managing public lands. At present, REAs are being prepared and landscape management approaches are under development.

The purpose of these initiatives is to help BLM managers and public land stakeholders understand environmental conditions and trends from a broader landscape perspective, and to use this information to inform, focus, and coordinate management efforts on-the-ground. The REAs and proposed landscape approach offer ways to integrate the BLM's conservation, restoration, and development programs in a cohesive manner. These efforts will help BLM meet important public land principles regarding energy, climate change, and other environmental challenges.

In addition to developing strategies for adapting to climate change, the BLM is working to mitigate climate change by reducing greenhouse gas emissions. This is being accomplished in three ways: (1) by siting and developing renewable energy on public lands in an environmentally responsible manner; (2) by exploring the potential to sequester carbon dioxide in geologic formations beneath public lands; and (3) by designing and retrofitting BLM facilities to conserve energy. Together, the BLM's climate change adaptation and mitigation efforts provide a constructive framework for addressing climate change and the environmental challenges.

The BLM's Proposed Landscape Approach

The BLM's proposed landscape approach builds on land management concepts and experiences that have been evolving for nearly three decades. BLM managers recognized in the early 1980's that western forests and rangelands were beset by widespread wildfires and weed and insect infestations that could no longer be managed effectively by local offices alone, or through traditional management practices. Scientists, land managers, and stakeholders have been working since that time to understand a wide range of impacts, develop shared strategies, and implement collaborative management efforts. These collective experiences and partnerships are the underpinning of BLM's proposed landscape approach.

The BLM's proposed landscape approach consists of five interconnected components. The five components provide a framework for integrating science and management. The five components are:

1. Rapid Ecoregional Assessments: REAs synthesize the best available information about resource conditions and trends within an ecoregion. The assessments map areas of high ecological value, including important wildlife habitats and corridors, and gauge their potential risks from climate change, wildfires, invasive species, energy development, and urban growth. REAs also map areas that have high energy development potential, and relatively low ecological value, which could be best-suited for siting future energy development. In addition, REAs establish landscape-scale baseline ecological data to gauge the effect and effectiveness of future management actions. Ecoregions are large landscapes defined by their ecological characteristics. In Alaska an REA has been initiated in the Seward Peninsula-Nulato Hills-Kotzebue Lowlands.

2. Ecoregional Direction: Ecoregional direction uses the results of the REAs combined with input from BLM staff, partner agencies, stakeholders, and Tribes, to identify key management priorities for the public lands within an ecoregion. Ecoregional direction identifies areas for conservation and development including key areas for conserving wildlife habitats, migration corridors, and areas for potential energy development and transmission. Ecoregional direction provides a blueprint for coordinating and implementing these priorities at the BLM's state and field-office levels.

   The BLM, with the assistance of the Udall Foundation's U.S. Institute for Environmental Conflict Resolution, is currently discussing the landscape approach with management partners and public land stakeholders to develop a "lessons learned" product from past landscape-level management efforts. This information will be used to craft ecoregional direction that can most effectively foster and guide successful collaborative management actions.

3. Field Implementation: Field implementation describes how management priorities and strategies identified in ecoregional direction are put into practice. This is accomplished by: amending the BLM's land use plans, where necessary; revising and implementing mitigation measures for authorized land uses, including best management practices; implementing proposed projects and treatments; monitoring; and developing budgets that focus and share management resources.

4. Monitoring for Adaptive Management - AIM Strategy: BLM considers consistent, high-quality monitoring information essential for practicing adaptive management. The BLM is modernizing its monitoring and mapping programs to meet this information requirement. The BLM's Assessment, Inventory, and Monitoring (AIM) Strategy is to standardize data collection and retrieval so information is comparable over time, and can be readily accessed and shared. The goal of the AIM Strategy is to provide the information needed to understand resource conditions and trends, and to evaluate and refine implementation actions. In addition, the BLM is implementing its Geospatial Services Strategic Plan, which will provide the high-quality mapping products needed to develop and support resource management strategies and decisions.

5. Science Integration: Science informs sound land management decision-making. The DOI is establishing eight regional climate science centers (CSC) to provide scientific information and tools to help land managers anticipate, monitor, and adapt to climate change impacts. Other climate science research is also conducted regularly on public lands, in cooperation with universities and state and Federal agencies. The landscape approach is being designed to more closely link all related science research with public land management issues and needs, and to more fully integrate science information into resource planning and decision-making.

Resource Management Plans

Resource management plans (RMPs) provide the basis for actions and allowed uses on BLM lands. RMPs are prepared for defined planning area boundaries. RMPs are periodically evaluated to determine if management decisions contained within them are still current and adequate. Where changing conditions (such as the Federal listing of a wildlife or plant species) and/or demands on the public lands have resulted in inadequate management decisions, RMPs are either revised or amended. BLM's Ten Year Planning Project Schedule includes 12 Alaskan RMPs that are to be completed by 2018.

4.2 U.S. Fish and Wildlife Service

FWS defines their adaptation strategy as a collaborative framework (among major conservation interests such as local governments, States, tribes, conservation organizations, Federal agencies, industry, and private landowners) that "identifies and defines principles and methods to maintain key terrestrial, freshwater and marine ecosystems and functions needed to sustain fish, wildlife and plant resources in the face of accelerating climate change." From this charge, the National Fish and Wildlife Climate Adaptation Strategy was initiated to focus on climate change adaptation (Cruce and Holsinger, 2010). The following plans and programs further support FWS climate change adaption efforts.

U.S. Fish and Wildlife Service Climate Change Strategic Plan

The FWS Strategic Plan identifies key goals and objectives for the agency centered around three areas: adaptation, mitigation, and engagement. Key adaptation goals include efforts to create climate science centers (CSCs) and LCCs as well as development of an official FWS adaptation strategy to, over a 5-year period, conduct habitat vulnerability assessments and incorporating climate change into agency activities and decisions. The draft supplemental, "Appendix: 5-Year Action Plan for Implementing the Climate Change Strategic Plan," details the specific actions FWS will take during the next 5 years to achieve each of the goals and objectives.

FWS Landscape Conservation Cooperatives

LCCs seek to identify best practices, connect efforts, identify gaps, and avoid duplication in efforts to support sustainable landscapes. At the core of each LCC are scientific and technical staff that operate under the direction of a steering committee consisting of resource-management representatives. LCC steering committees include representatives from governmental entities (Federal, State, tribal and local), as well as non-governmental organizations that wish to contribute to the joint effort. The FWS invites all Federal, State, tribal, local government and non-governmental management organizations to become partners in LLC development. The five LCCs are shown in Figure 5.

Other planned LCC-related actions are:

- Facilitate development of a National Fish and Wildlife Climate Adaptation Strategy to be the conservation community's shared blueprint to guide wildlife adaptation partnerships over the next 50-100 years.
- Help create a National Biological Inventory and Monitoring Partnership that facilitates a more strategic and cohesive use of the conservation community's monitoring resources. The partnership will generate empirical data needed to track climate change effects on the distribution and abundance of fish, wildlife and their habitats; model predicted population and habitat change; and help determine if goals are being achieved.
- Build regional and field technical capacity by working with partners to provide cutting edge science and information LCCs. LCCs will be the primary vehicle through which the FWS, other Federal bureaus, and FWS partners acquire and apply the best climate change science to biological planning and conservation design for fish and wildlife management.
- Deliver conservation to the most climate-vulnerable species through various activities, including but not limited to identifying priority water needs, addressing habitat fragmentation, managing genetic resources, reducing non-climate stressors, and other resource management actions.
- Inform stakeholders on wildlife conservation issues related to energy development and energy policy and help facilitate development of renewable energy sources in a manner

that helps conserve species and avoids or minimizes significant impacts to sensitive fish, wildlife, and plant species.

National and Regional Climate Change Websites

The FWS maintains a climate change website with access to six regional climate change sites (including Alaska), resources and information, as well as updates on the FWS's climate change and adaptation strategies, and links to FWS and other resources.

Climate Change Learning Center

The FWS National Conservation Training Center is in the process of modifying training opportunities for FWS staff to increase their knowledge of climate science and climate change as it relates to resource management; providing new landscape-scale approaches to planning, design, delivery, monitoring and research, as well as new tools for managers. The program's website provides webinars, courses, workshops and other National Conservation Training Center training opportunities.

Sea Level Affecting Marshes Model

Sea Level Affecting Marshes Model (SLAMM) is a browser-based application that allows the public to view simulations of sea level rise from the SLAMM model output, and helps people understand the potential impacts of climate change on sea levels. The FWS is able to determine potential effects of sea level rise on coastal refuges and use results to help develop refuge and landscape scale adaptation strategies and revising refuge conservation plans.

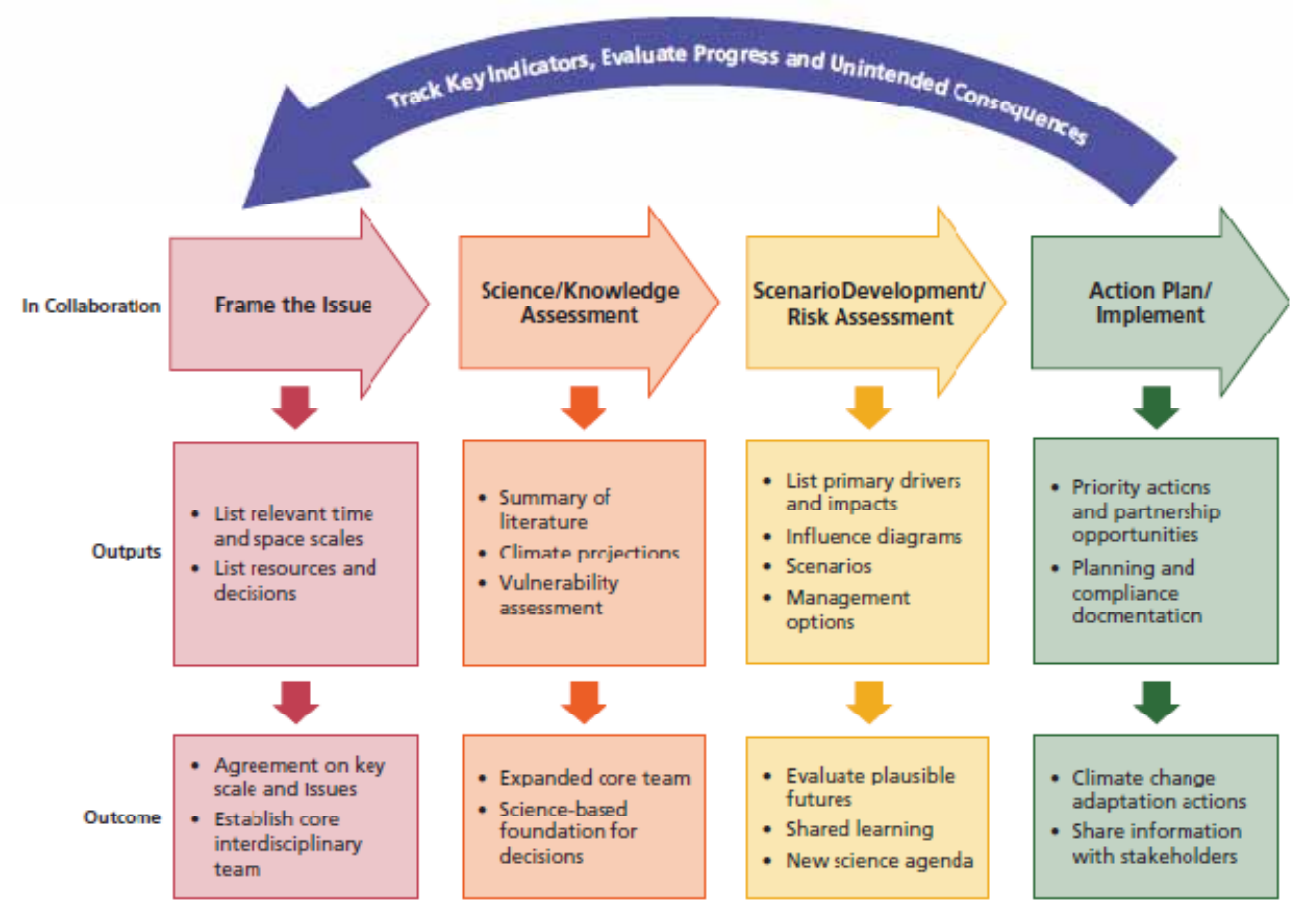
4.3 National Park Service

The NPS released its *Climate Change Response Strategy* in September 2010. The report details long and short-term actions in four major areas including mitigation, adaptation, science and communication, as described in Table 2. The report proposes an adaptation planning framework (illustrated in Figure 6) which incorporates current knowledge with tools designed to explore future uncertainty. With an increased focus on adaptive management and scenario planning, the NPS will be better equipped make climate-change-related decisions. To support this and other climate change efforts, the NPS also created a Climate Change Coordinator position, created six ad-hoc working groups—Legal and Policy, Planning, Science, Resource Stewardship, Greenhouse Gas Emission and Sustainable Operations, and Communication—to explore key goals and strategic actions that need to be addressed at park, regional, and national levels, and has held a series of regional and interagency workshops to explore climate change impacts and coping strategies and to develop action plans. The following plans and programs support NPS climate change efforts including adaption.

Table 2
NPS Climate Change Response Strategy Components

Strategy	Description
Science	Conduct scientific research and vulnerability assessments necessary to support NPS adaptation, mitigation, and communication efforts. Collaborate with scientific agencies and institutions to meet the specific needs of management as it confronts the challenges of climate change. Learn from and apply the best available climate change science.
Mitigation	Reduce the carbon footprint of the NPS. Promote energy efficient practices, such as alternative transportation. Enhance carbon sequestration as one of many ecosystem services. Integrate mitigation into all business practices, planning, and the NPS culture.
Adaptation	Develop the adaptive capacity for managing natural and cultural resources and infrastructure under a changing climate. Inventory resources at risk and conduct vulnerability assessments. Prioritize and implement actions, and monitor the results. Explore scenarios, associated risks, and possible management options. Integrate climate change impacts into facilities management.
Communication	Provide effective communication about climate change and impacts to the public. Train park staff and managers in the science of climate change and decision tools for coping with change. Lead by example.

Figure 6
NPS Adaptation Planning Framework



Source: NPS Climate Change Response Strategy (2010)

Climate Change Response Program

To preserve the health of parks in the face of global climate change, NPS leadership created the Climate Change Response Program (CCRP) led by a Climate Change Response Steering Committee representing parks, regions, managers, and subject-matter experts. The CCRP website provides basic science information as it pertains to parks. Information on the effects of climate change for 32 regions is available on the CCRP website and is based on NPS defined "eco-regions." The program focuses on climate change policy and planning in the programmatic areas of science, adaptation, mitigation, and education/communication. The program seeks to accomplish climate change objectives through a systems-based management approach, cooperation across jurisdictional boundaries, greater emphasis on partnerships, multi-agency collaboration, and increased use of interdisciplinary teams. The four core programmatic areas are:

- **Science.** Conduct scientific research and vulnerability assessments necessary to support NPS adaptation, mitigation, and communication efforts. Collaborate with scientific agencies and institutions to meet the specific needs of management as it confronts the challenges of climate change. Learn from and apply the best available climate change science.
- **Adaptation**. Develop the adaptive capacity for managing natural and cultural resources and infrastructure under a changing climate. Inventory resources at risk and conduct vulnerability assessments. Prioritize and implement actions, and monitor the results. Explore scenarios, associated risks, and possible management options. Integrate climate change impacts into facilities management.
- **Mitigation.** Reduce the carbon footprint of the NPS. Promote energy efficient practices, such as alternative transportation. Enhance carbon sequestration as one of many ecosystem services. Integrate mitigation into all business practices, planning, and the NPS culture.
- **Education/Communication.** Provide effective communication about climate change and impacts to the public. Train park staff and managers in the science of climate change and decision tools for coping with change. Lead by example.

NPS Sustainable Operations & Climate Change Branch

The Sustainable Operations and Climate Change Branch (SOCC) of NPS tracks and reports the bureau's energy and water performance. SOCC collects data to track performance in meeting federal energy mandates and NPS sustainability goals. The SOCC uses a customized web-based database called the energy management data reporting system (EMDRS) to collect energy data from the field on an annual basis. Energy metrics tracked in EMDRS are directly aligned to those listed on DOE's annual energy management data report template.

Climate Friendly Parks Program

The Climate Friendly Parks program provides parks with the tools and resources to address climate change mitigation. The program offers national parks comprehensive support to address climate change both within park boundaries and surrounding communities. The program also helps individual parks reduce their climate pollution, offers special public education programs about global warming affects on parks, and helps inspire visitors to embrace climate change mitigation strategies like using clean energy, reducing waste, and making smart transportation choices. Becoming a Climate Friendly Park entails completing an application, developing a GHG emission inventory, and writing an action plan. To maintain climate friendly park status, member parks are required to adopt and follow its action plan as well as monitor progress and report results.

Kenai Fjords is one such Climate Friendly Park. In 2006, Kenai Fjords National Park's GHG emissions totaled 297 metric tons of carbon equivalent (MTCE). The total includes emissions

calculated from park operations, residents/visitors, and concessioner operations. The largest emission sector for Kenai Fjords National Park is transportation, which accounts for over 79 percent of the park's total MTCE. Kenai Fjords National Park aims to reduce GHG emissions by 40 percent from 2006 levels by the year 2015 by implementing emission mitigation actions identified in the park's action plan.

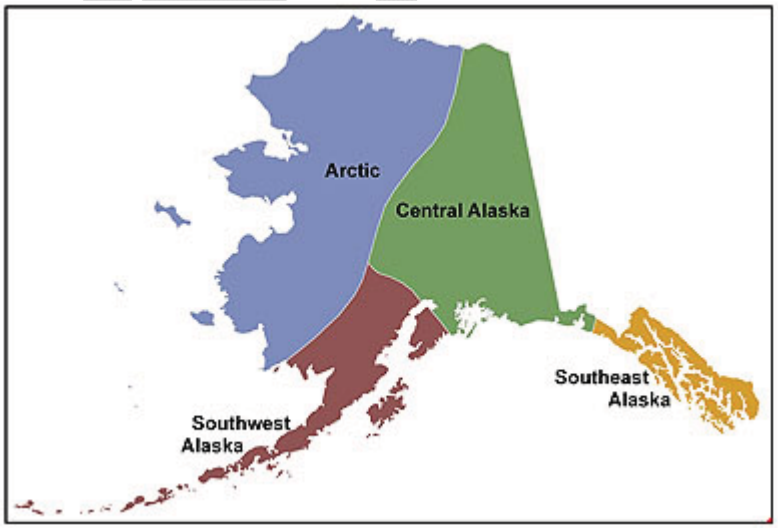
Adaptation and Scenario Planning

As identified in Figure 6, adaptation and scenario planning is one of the four CCRP areas that help manage uncertainty around future climate and potential impacts to our nation's parks. Adaptation goals are provided with recommended management actions by NPS, including "Incorporate climate change consideration and responses in all levels of the NPS planning framework" (Cruce and Holsinger, 2010).

Inventory and Monitoring Program

To facilitate collaboration, information sharing, and economies of scale in inventory and monitoring, the NPS has organized more than 270 parks with significant natural resources into 32 eco-regional networks to conduct expanded inventory and monitoring activities. As illustrated in Figure 7, there are four eco-regional networks in Alaska including: Central Alaska, Arctic, Southwest Alaska, and Southeast Alaska. Two primary goals of the program are to inventory natural resources under NPS stewardship and to establish park ecosystem baseline conditions. The program also works towards informing decisions through data through analysis, synthesis, and modeling (Cruce and Holsinger, 2010). The following describes inventory and monitoring efforts by eco-regional networks in Alaska.

Figure 7
NPS Eco-Regional Networks



Source: NPS

Central Alaska Eco-Regional Network

The Central Alaska Network spans 443 miles from north to south, 448 miles from east to west and includes a variety of ecosystems from coastal rainforest to dry interior boreal forest. Due to the large distances and landforms the network includes, climate is variable across the network. Therefore, any future change in climate may be very different over the span of the network. For interior Alaska portions of the network, scientists predict that more precipitation will be offset by warmer temperatures and drier conditions. In contrast, scientists believe climate change will mean a wetter and warmer climate in the coastal areas of Wrangell-St. Elias. Regardless of how the climate changes over the next decades, the monitoring program of the Central Alaska Network has been developed with the ability to measure the resulting change in its ecosystems and detect change in climatic drivers. The Central Alaska Network is structured to measure change across multiple spatial scales, multiple time scales and from low to high in the food chains of network ecosystems. Some key vital signs include monitoring climate, vegetation, animals, and aquatic resources such as shallow lakes and streams. (http://www.nature.nps.gov/climatechange/docs/CAKN_CC.pdf)

Arctic Network Eco-Regional Network

The NPS Arctic Network is designing programs in Bering Land Bridge National Preserve, Cape Krusenstern National Monument, Gates of the Arctic National Park and Preserve, Kobuk Valley National Park and Noatak National Preserve to monitor various ecosystem components including the deposition of contaminants, coastal erosion, permafrost extent, water quality and aquatic systems, wildlife, vegetation, and terrestrial processes such as wildland fire patterns that are likely to be altered by climate change. For the five national park units in the Arctic Network, scientists are predicting that the average temperature may rise 10°F by 2080 and that winter temperatures will increase more than summer temperatures. Predicted increases in precipitation are not expected to keep pace with the increases in evaporation caused by the warmer temperatures.

Southwest Alaska Eco-Regional Network

Mean annual winter temperatures in Southwest Alaska Network parks hover near the freezing point. Therefore, small increases in temperature will likely have impacts on snow pack, winter survival of moose, and hydrologic factors that govern these landscapes. Specific vital signs have been created by Southwest Alaska to identify and inform managers and the public about how climate change is impacting park ecosystems. Vital signs include monitoring weather and climate, glacial extent, landscape processes, vegetation, moose, surface hydrology and freshwater chemistry, and marine coastline.

Southeast Alaska Eco-Regional Network

The southeast region is largely defined by water in the forms of humidity, mist, rain, snow, glaciers, ice fields, icebergs, rivers, estuaries, bays, and open ocean. Changes in the amount, timing and form of water delivered to parks in the Southeast Alaska Network will affect plants, wildlife, and landforms. The Southeast Alaska Network comprises of Glacier Bay National Park

and Preserve, Klondike Gold Rush National Historical Park, and Sitka National Historical Park. Southeast Alaska Network is monitoring glaciers, water quality and quantity, physical oceanography and ocean acidification.

Landscape Conservation Cooperative (LCC)

NPS is actively engaged in Department of the Interior LCCs. The five cooperatives in Alaska provide applied-science and adaptive management services within DOI and are comprised of land, water, wildlife, cultural resource managers, and other interested public and private organizations. The goal is for LCCs to support integrated resource management approaches for both public and private lands that address climate change mitigation and adaptation efforts.

The Climate Leadership in Parks (CLIP) Tool

Through a partnership with the EPA, NPS developed the climate leadership in parks (CLIP) tool to help parks measure and strategize reducing carbon footprints. The CLIP tool consists of two modules. CLIP module 1 is an inventory tool, which allows parks to measure GHG emissions. The module measures emissions resulting from solid waste, wastewater treatment, park vehicles, electricity use, and visitors and other sources of GHG emissions. CLIP module 2 is an action plan. With the module, parks can set emission reduction targets, and then compare activities or actions that will help them reach reduction targets. For instance, parks can calculate the cost and carbon savings of changing incandescent light bulbs to compact fluorescent light bulbs, or converting part of their fleet to alternative fuel or hybrid vehicles. As parks select actions to take, the tool calculates progress towards a park's targets.

4.4 U.S. Forest Service

In keeping with the research goals of the U.S. Climate Change Science Program, the USFS Research and Development agenda helps define climate change policy and sets best management practices for forests. The fundamental research focus of the USFS *Global Change Research Strategy* is to increase understanding of forest, woodland, and grassland ecosystems so that they can be managed in a way that sustains and provides ecosystem services for future generations (Solomon et al., 2009). In Alaska, the USFS manages two National Forests, totaling more than 22 million acres, which is the largest regional total in the nation.

Global Change Research Strategy

The USFS approach to adaptation is to affect ecosystem processes by altering growth, composition, and structure to better withstand environmental stresses associated with changing climate, pests, pollutants, storms, and unnaturally severe wildfire. As climatic stress increases in the future, plant and animal population adaptations may need to be facilitated so that species and ecosystems are capable of establishing and maturing under new climate regimes without catastrophic failure. For example, reducing tree densities can enhance the water and nutrients available to remaining trees. Altering species composition and managing for uneven-age forests also increase tree resistance to pests, reduce the spread of wildfire, and enhance resistance to

pollutants such as ozone and sulfur dioxide. The USFS recognizes that some species and ecosystems may require intensive management actions to maintain viability or resilience. Other species may require reduction of current stressors, and still others may require less intensive management to sustain the production of the values and services that healthy forests provide (Solomon et al., 2009).

Roadmap for Responding to Climate Change

To work towards the USFS goal of making the Nation's national forests more resilient to climate change, the agency published the *Roadmap for Responding to Climate Change* (2010). The roadmap provides a vision for integrating land management, science, outreach, and sustainable operations. The document focus on three types of initiatives: (1) assessing current risks, vulnerabilities, policies, and gaps in knowledge; (2) engaging partners in seeking solutions and learning from as well as educating the public and employees on climate change issues; and (3) managing for resilience, in ecosystems as well as in human communities, through adaptation, mitigation, and sustainable consumption strategies. USFS has also developed a Performance Scorecard to measure its progress in moving toward these goals. The scorecard addresses agency capacity, partnerships, adaptation, and mitigation. It includes development of capacity to incorporate climate change adaptation into USFS operations.

A New Vision for the U.S. Forest Service

In August 2009 Secretary Vilsack outlined a new vision for USFS based on restoration to combat the threats of fire, drought, pests, and disease. Through ecological restoration, the key functions and processes of healthy ecosystems are repaired to make them better adapted to the stresses exacerbated by climate change. The vision includes an "all lands" approach that does not stop at the boundary of a national forest or grassland, but calls for the integration of forest restoration efforts across property boundaries. The USFS and other USDA agencies are charged with expanding efforts to work with partners to sustain Federal, State, tribal, county, municipal, and private forests and grasslands, and to emphasize economic opportunities for rural communities.

Forest Service Global Change Research Strategy

In 2009, Forest Service Research and Development released its *2009-2019 Global Change Research Strategy*. The fundamental research focus of the Strategy is to increase understanding of forest, woodland, and grassland ecosystems so that they can be managed in ways that sustain and provide ecosystem services for future generations. The Strategy balances research across a range of management, science, and science delivery actions aimed at developing adaptation and mitigation approaches to sustain healthy ecosystems. The document focuses on four elements:

- Research to enhance ecosystem sustainability (adaptation)
- Research to increase carbon sequestration (mitigation)
- Research to provide decision support
- Shared research needs for infrastructure, scientific collaboration, and science delivery.

Climate Change Strategic Framework

In 2008, the USFS produced *A Strategic Framework for Responding to Climate Change* which is the basis for its subsequent climate change Roadmap, Scorecard, and other agency initiatives. Given impacts to forests and grasslands such as wildfires, pest infestations, drought, water supply issues and sea-level rise, the framework document calls for the consideration of climate change across agency planning and actions. Additionally, the document calls for facilitated adaptation measures to help forests and grasslands adapt to environmental stresses and to help maintain ecosystem services. Major adaptation components of the document include ecological restoration as well as research and development.

Climate Change Advisor's Office

The Climate Change Advisor was appointed to lead USFS efforts to manage forests and watersheds in the face of climate change, represent the agency in climate change matters with partners, and coordinate climate change activities and communication within the agency. The Climate Change Advisor's Office works to bring climate change knowledge into agency planning and actions, and improve the agency's response to climate change through existing national programs as to avoid creating a separate program. The Climate Change Advisor's Office oversees the development and implementation of the National Roadmap and Scorecard. *Engaging a Climate Ready Agency* is an internal newsletter published by the Climate Change Advisor's Office monthly.

Research Stations

USFS research stations provide national coverage for regional research, scientific information, and tools that can be used by managers and policymakers to address climate change impacts to forests and rangelands. Research on the possible impacts of climate change on forests and the development of adaptation strategies has been carried out by USFS for the last 20 years. During that time, assessments of climate change, and its impact and subsequent consequences to natural resource management, have been the focus of continuous research efforts. Considerable effort is being put into understanding how vegetation, water, and wildlife are expected to respond to a changing climate so that adaptive management strategies can be developed. USFS research also contributes to the research goals of the U.S. Climate Change Science Program.

Climate Change Resource Center

The CCRC is a USFS reference website (www.fs.fed.us/ccrc) for resource managers and decision-makers who need information and tools to address climate change in planning and project implementation. The CCRC addresses the resource manager's question, "What can I do about climate change?" by providing information about basic climate sciences and compiling knowledge resources and support for adaptation and mitigation strategies. The site offers educational information, including basic science modules that explain climate and climate impacts, decision-support models, maps, simulations, case studies, and toolkits. The site is a joint project of the USFS research stations and the Environmental Threat Assessment Centers. The

website also provides a summary of department-level climate change actions, both mitigation and adaptation, and access to updates on key initiatives such as the LCCs and CSC.

5. Mitigation

Mitigation is an intervention to attempt to reduce the alleged causes of changes in climate as expressed by the IPCC 4th Assessment Report Summary for Policymakers (2007), such as through reducing the GHG emissions into the atmosphere (White House Council on Environmental Quality, 2010). Mitigation strategies focus on how to slow the progress of climate change and how to change the long term conditions. In Alaska, mitigation efforts could be characterized by reducing the sources of GHGs or by increasing carbon sinks to offset the GHGs.

5.1 Bureau of Land Management

The BLM is working to mitigate climate change by reducing greenhouse gas emissions in three ways. First, BLM is citing and developing renewable energy on public lands in an environmentally responsible manner. Second, BLM is exploring the potential to sequester carbon dioxide in geologic formations beneath public lands. Finally, BLM is designing and retrofitting their facilities to conserve energy in addition to adopting more sustainable practices such as teleconferencing and maintaining fuel efficient fleets.

5.2 U.S. Fish and Wildlife Service

The FWS has three main objectives when it comes to mitigation. First, they are reducing the carbon footprint of its facilities, vehicles, and workforce to become carbon neutral by 2020. FWS is also developing expertise in biological carbon sequestration—sequestering GHGs in plant biomass, while also creating or restoring priority native fish and wildlife habitats—and fostering efforts to sequester carbon on lands it manages. Finally, FWS is facilitating habitat conservation through carbon sequestration at the international level. By working with international partners and stakeholders to help reduce deforestation rates in key areas, such as tropical forests, FWS will help preserve areas critical to biodiversity conservation and support GHG mitigation.

5.3 National Park Service

As documented in the NPS *Climate Change Response Strategy* (2010), mitigation efforts are addressed in three main goal areas and their corresponding objectives. Goal 9 in the strategy is to substantially reduce the National Park System's carbon footprint from 2008 levels by 2016 through aggressive commitment to environmentally preferable operations. Goal 9's objectives are:

- Objective 9.1: Implement a service wide 2008 baseline inventory of greenhouse gas emissions that accounts for all National Park System activities within the parks and NPS activities outside the parks.

- Objective 9.2: Develop Climate Friendly Action Plans so that every park, park concession, and administrative office promotes energy and water conservation; supports alternative transportation, infrastructure, programs, and policies; and eliminates waste.
- Objective 9.3: Participate in the DOI's Carbon Footprint Project to develop and implement a unified GHG emission reduction program.
- Objective 9.4: Support the development and application of renewable energy and the use of renewable energy technology in a manner consistent with the NPS mission.
- Objective 9.5: Investigate the effectiveness, applications, and verification for using carbon offset programs in NPS operations and visitor recreation.

Goal 10 plans to integrate climate change mitigation into NPS business practices. Goal 10's objectives are:

- Objective 10.1: Identify and evaluate GHG reduction options in general management plans and other planning and environmental compliance documents and processes.
- Objective 10.2: Mandate integration of greenhouse gas reduction strategies that are consistent with NPS resource stewardship responsibilities into current operational practices. This will include all new construction, renovations, and the rehabilitation of historic buildings when it can be accomplished in conformance with the Secretary of Interior's Standards for the Treatment of Historic Properties.
- Objective 10.3: Integrate GHG reduction into Environmental Management Systems, procurement, design and construction contracts, and new commercial services contracts and agreements.

Goal 11 seeks to promote biological carbon sequestration as a function of healthy ecosystems. Goal 11's objective is:

- Objective 11.1: Leverage participation in the DOI Carbon Storage Project to evaluate the science, develop policies, provide technical guidance, and promote best management practices for carbon sequestration where it is consistent with NPS policies and mission.

5.4 U.S. Forest Service

The USFS *Global Change Research Strategy* outlines mitigation research aimed at reducing atmospheric carbon dioxide concentration by increasing the amount of carbon dioxide removed from the atmosphere by U.S. forest and grassland ecosystems. Transferring biomass out of forests and into wood products is critical to enhancing continued carbon sequestration into forests. Relative to other materials, wood requires less fossil fuel in harvest and production processes. Sustainably managed forest and range resources can replace fossil fuels with fuels derived from biomass, which use carbon already present in the global carbon cycle, rather than

obtaining new carbon from fossil fuels. Forestry and genetic research is also helping to increase growth and enhance sustainability. Avoiding deforestation and preserving forests also plays a strategic role in USFS mitigation efforts (Solomon et al., 2009).

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Alaska Federal Lands
Long Range Transportation Plan

Appendix D

FLMA Unit Contacts

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Organization	Organization Details	Unit	Contact Information			
			Name	Address	Email	Phone
ADOT&PF Southeast Region						
ADOT&PF		Southeast Region	Rob Campbell	4111 Aviation Avenue, Anchorage, AK 99519	rob.campbell@alaska.gov	(907) 269-0770
BLM	BLM	Ring of Fire RMP	Gary Reimer, District Manager	Anchorage District Office, 4700 BLM Road, Anchorage, AK 99507	Gary_Reimer@blm.gov	(907) 267-1205
NPS	Park & Wilderness	Glacier Bay	Susan Boudreau, Park Superintendent	Glacier Bay National Park and Preserve, 1 Park Rd, P.O. Box 140, Gustavus, AK 99826	susan_boudreau@nps.gov	(907) 697-2230
NPS	National Historical Park	Klondike Gold Rush	Susan Boudreau, Superintendent	Klondike Gold Rush National Historical Park, P.O. Box 517, Skagway, Alaska 99840	susan_boudreau@nps.gov	(907) 983-2921
NPS	National Historical Park	Sitka	Randy Larson, Superintendent	Sitka National Historical Park, 103 Monastery Street, Sitka, AK 99835	randy_y_larson@nps.gov	(907) 747-6281
USFS	National Forest	Tongass National Forest	Forrest Cole, Forest Supervisor	Tongass National Forest, Federal Building, 648 Mission Street, Ketchikan, AK 99901	tongass_webmaster@fs.fed.us	(907) 225-3101
NPS	National Park	Wrangell-St. Elias	Meg Jensen, Superintendent	Wrangell-St. Elias National Park & Preserve, P.O. Box 439, Copper Center, AK 99573	meg_jensen@nps.gov	(907) 822-5234
ADOT&PF Central Region						
ADOT&PF		Central Region	Al Clough	6860 Glacier Highway, Juneau, AK 99801	al.clough@alaska.gov	(907) 465-1762
FWS	FWS	Alaska Maritime	Steve Delehanty, Refuge Manager	95 Sterling Highway, Suite 1 MS 505, Homer, Alaska 99603	alaskamaritime@fws.gov	(907) 235-6546
FWS	FWS	Alaska Peninsula	Bill Schaff, Refuge Manager	P. O. Box 277; 4 Bear Road, King Salmon, Alaska 99613	akpeninsula@fws.gov	(907) 246-3339
NPS	National Wild & Scenic River	Alagnak Wild River	Ralph Moore, Superintendent	#1 King Salmon Mall, P.O. Box 245, King Salmon, Alaska 99613	Ralph_Moore@nps.gov	(907) 246-3305
NPS	National Monument	Aniakchak	Ralph Moore, Superintendent	#1 King Salmon Mall, P.O. Box 245, King Salmon, Alaska 99614	Ralph_Moore@nps.gov	(907) 246-3306
FWS	FWS	Becharof	Bill Schaff, Refuge Manager	P. O. Box 277; 4 Bear Road, King Salmon, Alaska 99613	becharof@fws.gov	(907) 246-3339
USFS	National Forest	Chugach National Forest	Terri Marceron, Forest Supervisor	Supervisor's Office, 3301 C Street, Anchorage, Alaska 99503	tmarceron@fs.fed.us	(907) 743-9500
NPS	National Park	Denali	Paul R. Anderson, Superintendent	Denali National Park, P.O. Box 9, Denali Park, AK 99755-0009	paul_r_anderson@nps.gov	(907) 683-2294
FWS	FWS	Innoko	Bo Sloan, Refuge Manager	40 Tonzona Avenue , Box 69 MS 549, McGrath, Alaska 99627-0069	innoko@fws.gov	(907) 524-3251
FWS	FWS	Izembek	Nancy Hoffman, Refuge Manager	P.O. Box 127 MS 515, Cold Bay, Alaska 99571-0127	izembek@fws.gov	(907) 532-2445
FWS	FWS	Kenai	Andy Loranger, Refuge Manager	Ski Hill Road, P. O. Box 2139 MS 519, Soldotna, Alaska 99669-2139	kenai@fws.gov	(907) 262-7021
FWS	FWS	Kodiak	Gary Wheeler, Refuge Manager	1390 Buskin River Road MS 559, Kodiak, Alaska 99615	kodiak@fws.gov	(907) 487-2600
NPS	Park & Preserve	Katmai	Ralph Moore, Superintendent	P.O. Box 7, King Salmon, AK 99613	ralph_moore@nps.gov	(907) 246-3305
NPS	National Park	Kenai Fjords	Jeff Mow, Superintendent	P.O. Box 1727, Seward, Alaska 99664	jeff_mow@nps.gov	(907) 422-0500
NPS	National Park	Lake Clark	Joel Hard, Superintendent	240 West 5th Avenue, Suite 236, Anchorage, AK 99501	joel_hard@nps.gov	(907) 644-3626
FWS	FWS	Togiak	Paul Liedberg, Refuge Manager	P.O. Box 270 MS 569, Dillingham, Alaska 99576	togiak@fws.gov	(907) 842-1063

Organization	Organization Details	Unit	Contact Information			
			Name	Address	Email	Phone
FWS	FWS	Yukon Delta	Gene Peltola, Refuge Manager	807 Chief Eddie Hoffman Road, P. O. Box 346 MS 535, Bethel, Alaska 99559	yukondelta_refuge@fws.gov	(907)543-3151
BLM	BLM	Bay RMP	Gary Reimer, District Manager	Anchorage District Office, 4700 BLM Road, Anchorage, AK 99507	Gary_Reimer@blm.gov	(907) 267-1205
BLM	BLM	Southwest	Gary Reimer, District Manager	Anchorage District Office, 4700 BLM Road, Anchorage, AK 99507	Gary_Reimer@blm.gov	(907) 267-1205
BLM	BLM	East Alaska RMP	Elijah Waters, (Acting) Field Manager	Anchorage District Office, 4700 BLM Road, Anchorage, AK 99506	Elijah_Waters@blm.gov	(907) 822-3217
BLM	BLM	Ring of Fire RMP	Gary Reimer, District Manager	Anchorage District Office, 4700 BLM Road, Anchorage, AK 99507	Gary_Reimer@blm.gov	(907) 267-1205
ADOT&PF Northern Region						
ADOT&PF		Northern Region	Steve Titus	2301 Peger Road, MS-2550, Fairbanks, AK 99709	steve.titus@alaska.gov	(907) 451-2210
BLM	BLM	Northwest NPRA	Bob Schneider, District Manager	Fairbanks District Office, 1150 University Avenue, Fairbanks, AK 99709	Bob_Schneider@blm.gov	(907) 474-2200
BLM	BLM	Northeast NPRA				
BLM	BLM	Utility Corridor RMP				
BLM	BLM	Kobuk-Seward RMP	Gary Reimer, District Manager	Anchorage District Office, 4700 BLM Road, Anchorage, AK 99507	Gary_Reimer@blm.gov	(907) 267-1205
BLM	BLM	Eastern Interior RMP	Bob Schneider, District Manager	Fairbanks District Office, 1150 University Avenue, Fairbanks, AK 99710	Bob_Schneider@blm.gov	(907) 474-2201
BLM	BLM	Central Yukon RMP				
BLM	BLM	Fort Wainwright/ Fort Greely RMP				
BLM	BLM	Ring of Fire RMP	Gary Reimer, District Manager	Anchorage District Office, 4700 BLM Road, Anchorage, AK 99507	Gary_Reimer@blm.gov	(907) 267-1205
BLM	BLM	East Alaska RMP	Elijah Waters, (Acting) Glennallen Field Manager	Anchorage District Office, 4700 BLM Road, Anchorage, AK 99506	Elijah_Waters@blm.gov	(907) 822-3217
BLM	BLM	White Mountains National Recreation Area	Bob Schneider, District Manager	Fairbanks District Office, 1150 University Avenue, Fairbanks, AK 99712	Bob_Schneider@blm.gov	(907) 474-2203
BLM	BLM	Unalakleet Wild and Scenic River				
BLM	BLM	Steese National Conservation Area				
BLM	BLM	Gulkana				
BLM	BLM	Fortymile				
BLM	BLM	Delta Wild and Scenic River				
BLM	BLM	Birch Creek				
BLM	BLM	Beaver Creek				
FWS	FWS	Arctic	Richard Voss, Refuge Manager	101 12th Avenue, Room 236, Fairbanks, Alaska 99701	arctic_refuge@fws.gov	(907) 456-0250
NPS	National Preserve	Bering Land Bridge	Jeanette Pomrenke, Superintendent	P.O. Box 220, Nome, Alaska 99762	jeanette_pomrenke@nps.gov	(907) 443-2522
NPS	National Monument	Cape Krusenstern	Mary McBurney, Acting Superintendent	P.O. Box 1029, Kotzebue, Alaska 99752	mary_mcburney@nps.gov	(907) 442-3890
USFS	National Forest	Chugach National Forest	Terri Marceron, Forest Supervisor	Supervisor's Office, 3301 C Street, Anchorage, Alaska 99503	tmarceron@fs.fed.us	(907) 743-9500

Organization	Organization Details	Unit	Contact Information			
			Name	Address	Email	Phone
NPS	National Park	Denali	Paul R. Anderson, Superintendent	Denali National Park, P.O. Box 9, Denali Park, AK 99755-0009	paul_r_anderson@nps.gov	(907) 683-2294
NPS	National Park	Gates of the Arctic	Zachary Richter, Park Ranger	Bettles Ranger Station (Field Operations), P.O. Box 30, Bettles, AK 99726	Zachary_Richter@nps.gov	(907) 692-6105
FWS	FWS	Kanuti	Mike Spindler, Refuge Manager	101 12th Avenue; MS 555, Room 262, Fairbanks , Alaska 99701	kanuti_refuge@fws.gov	(907) 456-0329
FWS	FWS	Koyukuk	Kenton Moos, Refuge Manager	101 Front Street, P.O. Box 287 MS 525, Galena, Alaska 99741-0287	r7kynwr@fws.gov	(907) 656-1231
NPS	National Park	Kobuk Valley	Mary McBurney, Acting Superintendent	P.O. Box 1029, Kotzebue, Alaska 99752	mary_mcburney@nps.gov	(907) 442-3890
FWS	FWS	Nowitna	Kenton Moos, Refuge Manager	101 Front Street, P.O. Box 287 MS 525, Galena, Alaska 99741-0287	r7kynwr@fws.gov	(907) 656-1231
NPS	National Preserve	Noatak	Mary McBurney, Acting Superintendent	P.O. Box 1029, Kotzebue, Alaska 99752	mary_mcburney@nps.gov	(907) 442-3890
FWS	FWS	Selawik	LeeAnne Ayres, Refuge Manager	160 2nd Avenue, P. O. Box 270 MS 565, Kotzebue, Alaska 99752	selawik@fws.gov	(907) 442-3799
FWS	FWS	Tetlin	Ryan Mollnow, Refuge Manager	P. O. Box 779 MS 529, Tok, Alaska 99780	tetlin@fws.gov	(907) 883-5312
NPS	National Park	Wrangell-St. Elias	Meg Jensen, Superintendent	Wrangell-St. Elias National Park & Preserve, P.O. Box 439, Copper Center, AK 99573	meg_jensen@nps.gov	(907) 822-5234
NPS	National Preserve	Yukon-Charley	Greg Dudgeon, Superintendent	4175 Geist Road, Fairbanks, Alaska 99709-3420	greg_dudgeon@nps.gov	(907) 457-5752
FWS	FWS	Yukon Delta	Gene Peltola, Refuge Manager	807 Chief Eddie Hoffman Road, P. O. Box 346 MS 535, Bethel, Alaska 99559	yukondelta_refuge@fws.gov	(907)543-3151
FWS	FWS	Innoko	Bo Sloan, Refuge Manager	40 Tonzona Avenue , Box 69 MS 549, McGrath, Alaska 99627-0069	innoko@fws.gov	(907) 524-3251