

ENVIRONMENTAL ASSESSMENT

CONSERVATION EASEMENT EXCHANGE

LAKE CLARK NATIONAL PARK AND PRESERVE, ALASKA

October 2002



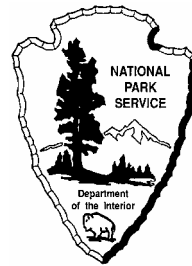
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1.0 PURPOSE AND NEED FOR ACTION

1.1 Purpose of Action

The National Park Service (NPS) is considering a land exchange along the north shore of Lake Clark in Lake Clark National Park and Preserve (figure 1 and appendix A). The owners of a 126.81-acre homestead and a 59.98-acre Native allotment wish to exchange about 40 acres of the homestead property, which was placed into a conservation easement in 1990, for about 53 acres of the contiguous Native allotment. The Nature Conservancy (TNC) acquired about 66 acres of the homestead in 1990 as a conservation easement and later transferred the land to the NPS (appendix B.) The conservation easement precludes any development on the affected lands. The NPS would retain about 26 acres of the original conservation easement, and the landowners would retain about 7 acres of the Native allotment. The NPS would acquire a net gain of 13 acres in the conservation easement, and the landowners would retain fee title to the best future potential building sites. The owners want parts of the conservation easement and the allotment to provide locations on headlands to build family residences along the shore of Lake Clark.

The NPS has obtained appraisals of the two properties to ensure the values of the lands to be exchanged are comparable and that public interest is well served.

This environmental assessment (EA) has been prepared to evaluate the environmental impacts of the proposal and alternatives and to inform the public, regulatory agencies, and other interested parties. The EA findings and public comment will form the basis for a decision by the NPS Alaska Regional Director regarding the land exchange. The NPS has analyzed alternatives and mitigating measures to minimize adverse environmental impacts to the park. This document has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and the regulations of the Council of Environmental Quality (40 CFR Part 1500).

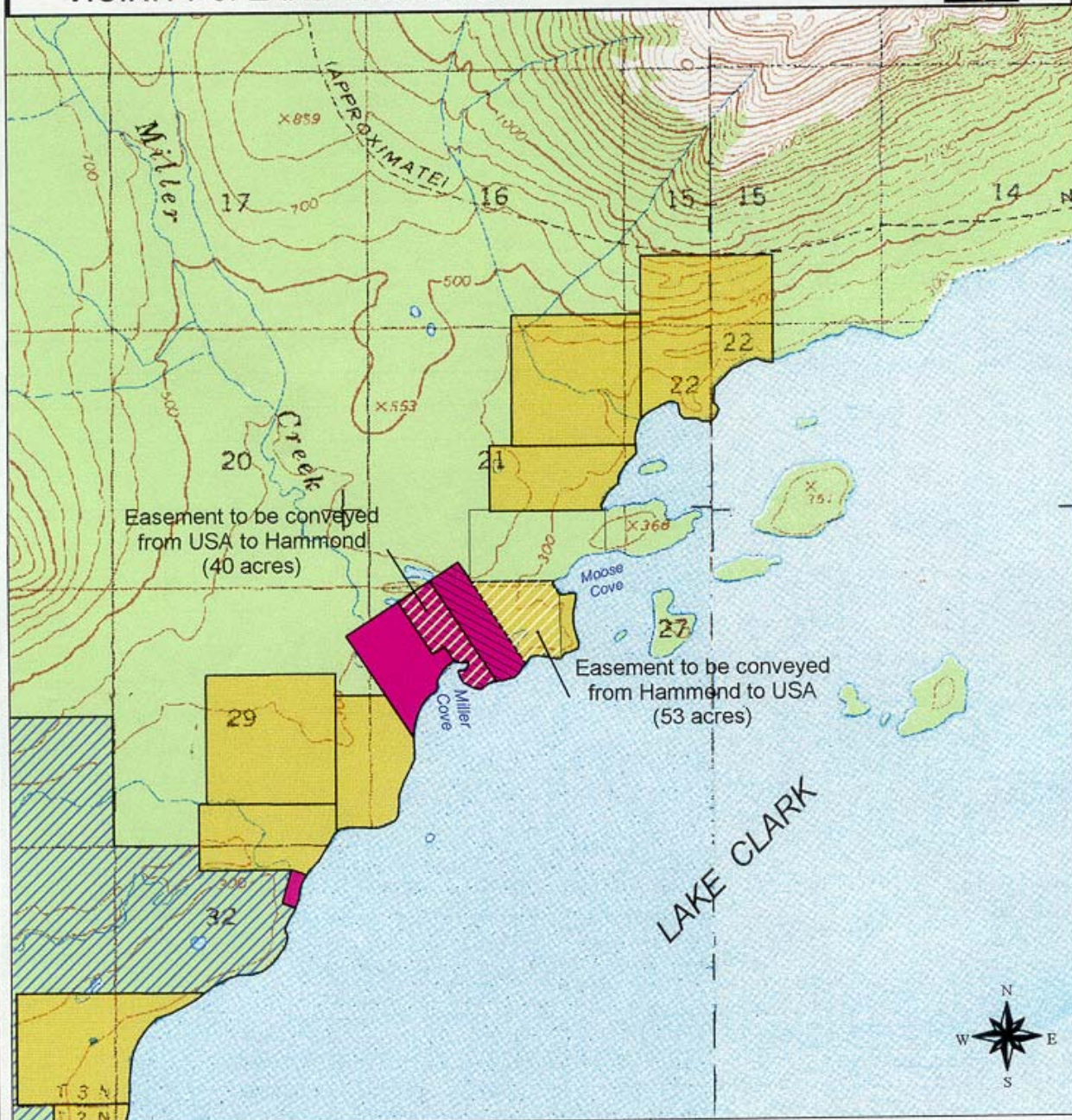
1.2 Need for Action

The owners of the homestead proposed to the NPS to exchange part of the existing conservation easement on the homestead for an equivalent conservation easement on part of their adjacent Native allotment. They want an optimum building site on the eastern side of Miller Cove and ownership of the entire shoreline of Miller Cove to ensure safe anchorage for their boats and floatplanes. They also prefer to retain headlands on about 7 acres of the allotment for their second and third choices of future building sites (appendix A). The conservation easement was created in 1990 to protect natural resources “in perpetuity” (appendix B). The owners and the NPS have discussed several options for the exchange over the past couple of years. The NPS must decide whether the proposed exchange meets the intent and public interests served by the original conservation easement.

Because the proposed land exchange would alter a conservation easement that was originally established about 10 years ago to last “in perpetuity” the precedent for changing such an agreement must be considered. Also, the exchange would likely lead to construction of buildings on the original conservation easement, so the exchange would lead to changes in the use of the

FIGURE 1

VICINITY of LAND EXCHANGE



land and environmental impacts. The NPS recognizes, however, a reasonable exchange that benefits all parties, despite the original agreement, should be given consideration. The NPS wants to encourage landowners to consider conservation easements, and the NPS wants landowners to know that better options for all parties could be considered in the future. Strict and rigid adherence to a conservation easement agreement could have a chilling effect on landowners considering future conservation easements.

1.3 Background

1.3.1 Related Legislation, Policy, and Plans

Section 201(7)(a) of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA) established Lake Clark National Park and Preserve for the following purposes, among others:

To protect the watershed necessary for perpetuation of the red salmon fishery in Bristol Bay; to maintain unimpaired the scenic beauty and quality of portions of the Alaska Range and Aleutian Range, including active volcanoes, glaciers, wild rivers, lakes, waterfalls, and alpine meadows in their natural state; and to protect habitat for and populations of fish and wildlife including but not limited to caribou, Dall sheep, brown/grizzly bears, bald eagles, and peregrine falcons.

Section 1302 of ANILCA authorizes the Secretary of the Interior to acquire by purchase, donation, exchange, or otherwise lands within the boundaries of a conservation system unit. An exchange would need to be on the basis of “equal value”, with the option of using cash to equalize values as needed, except if the parties agree and the exchange is in the public interest, the exchange could be made for other than equal value. (ANILCA 1302 (h)).

In December 1980 Congress amended existing tax law to define the purposes of conservation easements (P.L. 96-541). The purpose under which the subject conservation easement falls is “the protection of a relatively natural habitat of fish, wildlife, or plants or similar ecosystem” (26 USC 170 (h)(4) (A) (ii)). Furthermore the Act specifies “A contribution shall not be treated as exclusively for conservation purposes unless the conservation purposes are protected in perpetuity” (26 USC 170 (h) (5)(A)). The state of Alaska recognized the validity of conservation easements by enacting the Alaska Uniform Conservation Easement Act, AS 34.17.

The General Management Plan for Lake Clark National Park and Preserve indicates “On the ... shoreline of Lake Clark the NPS will examine a full range of options for protection, management, and use of existing nonfederal lands. Exchange will be given the highest priority for native allotment lands if suitable exchange lands can be found” (NPS 1984, p. 39).

The area of the proposed conservation easement exchange is not within the existing or NPS proposed wilderness areas (NPS 1988).

1.3.2 History of the Property

United States Survey (USS) 3423 describes the 126.81-acre homestead acquired by Mr. Jay S. Hammond on the north shore of Lake Clark near Miller Creek on August 27, 1958. USS 7511 describes two native allotment parcels on the west and east sides of this homestead. Bella Hammond acquired title to these two parcels in 1985, which cover a total of 139.96 acres. One of the parcels, lot 2 on the eastern side of the homestead, covers 59.98 acres and is part of the proposed land exchange.

In December 1990 Jay Hammond conveyed a conservation easement to TNC to protect the conservation values on about 66 acres of the homestead property in perpetuity. On June 3, 1992 the Nature Conservancy conveyed the conservation easement to the NPS (appendix B).

The purposes of the conservation easement are to “protect, preserve, enhance and restore in perpetuity the open space and significant natural values of the property and to prevent use of the Property for any purpose that ... would impair, degrade or interfere with those natural values.” The NPS has the rights “to identify, protect, preserve, enhance, and restore in perpetuity, the natural, ecological, scientific, wildlife, scenic and open space features and values of the Property.” The NPS has the right to enter upon the Property, with adequate notice to the landowner, to study and make scientific observations and to determine if the easement terms have been compromised. The NPS may make immediate entry to prevent damage to the conservation purposes of the Easement. Passive recreational uses by the Hammonds and their successors are allowed “including, but not limited to, hiking, picnicking, and bird-watching, which do not have a material adverse impact on the property.” The owners and their invitees are allowed “to continue fishing, hunting of waterfowl, and hunting and trapping of game animals for non-commercial purposes ... at levels which do not significantly reduce populations of fish and wildlife on the Property, nor have an adverse impact on the wildlife habitat condition” No construction of any sort, ground surface disturbance, harvesting of native vegetation or timber, dumping of fill, application of chemicals, or storage of equipment is allowed on the property.

Since the winter of 1999-2000, the owners have discussed with the NPS a possible exchange of the conservation easement for reasons described in sections 1.1 and 1.2. Several options were discussed. The NPS discussed the proposal with the Nature Conservancy and the owners and decided to order an appraisal of the subject properties, which cost would be shared by the NPS and the owner. The NPS ordered an appraisal, which found the parcels of land in the proposed exchange are within \$2,000 of value of each other. The conservation easement was estimated to be 95% of the total fee simple value of the land because the owners would retain minimal rights on the easement.

The NPS and owners discussed the proposed exchange on July 3, 2002. The NPS noted sensitive cultural resources would pass out of protective status with the exchange. The owners readily recognized this issue and agreed to convey appropriate protective covenants, including similar protections for cultural resources on the entire original homestead (appendix C.) The owners noted their boat dock is very near the boundary of the original conservation easement and wished to have it clearly within their fee simple property (figures 2 and 3.)

1.4 Issues and Impact Topics

1.4.1 Effects on Scenic Resources

The conservation easement exchange could lead to an increase in available residential construction along the north shore of Lake Clark, which could lead to degradation of the natural scenic quality of the area.

1.4.2 Effects on Wildlife/Habitat

The conservation easement exchange could lead to effects on protected habitat for wildlife in the area, particularly moose. Moose, brown bear, black bear, wolves, caribou, small mammals, and various bird species inhabit the area.

Figure 2. Hammond dock in Miller Cove.



Figure 3. Owners and visitor near conservation easement boundary in Miller Cove.



1.4.3 Effects on Vegetation and Wetlands

The conservation easement exchange could lead to the removal of vegetation and wetlands from part of the original conservation easement area from residential construction. Long-term protection of vegetation and wetlands would occur in a slightly greater area overall.

1.4.4 Effects on Private Property

A slightly reduced area of private property in fee simple would result, but the owner would retain more preferred building sites with the conservation easement exchange.

1.4.5 Effects on Cultural Resources

Cultural resources such as burial sites, Alaska Native birth locations, and remains of various prehistoric and historic structures could pass out of protective status with the land exchange, but conveyance of special covenants over the entire homestead could protect a larger area potentially containing cultural resources.

1.4.6 Effects on Park Management

The NPS strives to preserve the scenic, natural and cultural integrity of the Lake Clark area, but an identified prime building location would pass out of protective status. The NPS would obtain protection of the area on the south side of Moose Cove, which cove has been identified as a potential trailhead to the Telequana Historical Trail.

1.4.7 Effects on Natural Sounds

Construction of additional structures and residences in the area and the motorized transportation to and from this part of the lake could lead to impacts on the natural soundscape of the area.

1.4.8 Effects on Water Resources and Fish

The Lake Clark area was established in large measure to protect fish and their habitat. The proposed land exchange has no streams or beaches commonly used by spawning fish, and the property begins at the mean high water mark and extends above it. Nevertheless, water resources and fish could be affected indirectly by human activities on the adjacent uplands and waters for access to and from the property.

1.4.9 Cumulative Impacts

Protection of the south side of Moose Cove in addition to the recent acquisition of an allotment on the north side of Moose Cove would have a cumulative effect on public access and protection of natural resources within the legislated boundaries of Lake Clark National Park and Preserve.

1.4.10 Issues Considered but Dismissed from Further Consideration

No threatened or endangered species are known to occur on the subject property. The proposed conservation exchange would not result in disproportionately high direct or indirect adverse effects on any minority or low-income population or community pursuant to Executive Order 12898. Because there is no general public access on the existing or proposed conservation easement (the easement is primarily a scenic easement), there would be no impacts to subsistence uses in the area as evaluated in the ANILCA Section 810 subsistence evaluation (appendix D.)

1.5 Permits and Approvals Needed

The U.S. Department of the Interior Bureau of Indian Affairs (BIA) would need to review and approve the land exchange involving a Native allotment in restricted status.

1.6 Alternatives Considered but Dismissed from Further Consideration

The NPS and owners discussed the following options before the current offer was made:

- 1) Exchange all of the 59.98-acre Bella Hammond allotment for the existing 66-acre conservation easement;
- 2) Convey all of the 59.98 Bella Hammond allotment in fee simple for the return of the 66-acre conservation easement;
- 3) Convey some of the Bella Hammond allotment in fee simple for return of some or all of the current conservation easement;

These options are still possible, but the owners prefer their current offer or a minor variation of it.

2.0 DESCRIPTION OF THE ALTERNATIVES

2.1 Introduction

This chapter includes a description of the alternatives and a table summarizing the impacts of the alternatives. The no-action alternative (do not pursue a land exchange) and the proposed land exchange are described here. If the proposed land exchange is not consummated, based on public and agency comment, then other options described in section 1.6 could be considered in the future.

2.2 No-Action Alternative

The no-action alternative describes the status quo. The NPS and the landowners would not complete a land exchange involving an existing conservation easement on a private tract and a portion of the Bella Hammond Native allotment lot 2. The NPS would retain the conservation easement status on about 66 acres of the original Jay Hammond Homestead. Bella Hammond would retain ownership of her 59.98-acre native allotment lot 2. (See figure 1.)

2.3 Proposed Land Exchange (*Environmentally Preferred Alternative*)

The Hammonds proposed to exchange about 53 acres of the 59.98-acre Bella Hammond Native allotment lot 2 for about 40 acres of the original 66-acre conservation easement (figure 1.) The final conservation easement would be about 79 acres in area. The Hammonds would retain interest about 7 acres of the Bella Hammond allotment lot 2 in fee simple. The exchange of shoreline would be approximately equal at about 1,700 feet for the landowners and the NPS. They indicate their top three potential residence building sites (appendix A). The first priority is on the eastern side of Miller Cove in the existing conservation easement, and priorities 2 and 3 are on the eastern side of the Bella Hammond Allotment lot 2. The Hammonds agree to offer the NPS first right of refusal to purchase the remaining 7 acres should they decide to sell it.

2.4 Mitigating Measures

The land exchange would include covenants to protect cultural resources on the former conservation easement and on the entire original homestead (appendix C). These covenants include measures to protect or mitigate effects to cultural resources discovered during development on the property.

Table 1 – Comparison of the Impacts

Impact Topic\Alternative	Alt. 1 - No-Action	Alt. 2 - Proposed Exchange
Geology/Topography	Negligible impacts to land surface and beaches from likely construction of cabins and boat dock by Moose Cove on Bella Hammond allotment.	Negligible impacts to land surface from likely cabin construction in Miller Cove, but no new boat dock needed. Same length of shoreline protected.
Scenic Resources	No direct impacts to existing conservation easement area, but likely indirect effect on scenery from cabin construction on south side of Moose Cove.	Minor direct impacts to conservation easement area likely by Miller Cove, but dispersed impacts to scenery by Moose Cove less likely.
Soundscapes	No direct noise effects to conservation easement area, but indirect effects in Moose Cove area from cabin and dock construction and future motor access is likely.	A minor increase in noise at Miller Cove is likely from cabin construction and increased motor access, but less indirect affect in Moose Cove area is likely.
Water and Fish	Negligible impacts to water and fish would be dispersed at Miller Cove and Moose Cove.	Negligible impacts to water and fish would be concentrated in Miller Cove.
Wildlife/Habitat	No direct impacts to wildlife and habitat on the existing conservation easement, but more dispersed use in Moose Cove would lead to minor disturbance to wildlife by Moose Cove.	Minor impacts to wildlife habitat in the Miller Cove area, but an increase in wildlife habitat protection by Moose Cove.
Vegetation/Wetlands	No new impacts to vegetation or wetlands on the conservation easement and minor indirect impacts to upland vegetation on the allotment near Moose Cove is likely. Conservation easement continues to protect 60 acres.	Minor impacts to upland vegetation by Miller Cove, but no impacts to vegetation or wetlands by Moose Cove. A net 13 acres of vegetation would be added to protected status for a total of 73 acres.
Cultural Resources	No new impact to cultural resources on the conservation easement is likely.	Covenants would protect cultural resources on the former and new conservation easement and the entire Hammond Homestead for a net benefit to cultural resources
Land Use & Park Management	Developments on the shores of Lake Clark would likely be more dispersed between Miller Cove and Moose Cove.	Developments on the shores of Lake Clark would likely be more concentrated at Miller Cove.
Cumulative Effects	None, except likely additive impacts in Moose Cove from private cabins on Bella Hammond allotment and NPS public trailhead and cabins.	Negligible cumulative impacts with NPS public trailhead at Moose Cove but increased protection of cultural resources is a cumulative benefit.

3.0 AFFECTED ENVIRONMENT

3.1 Physical Environment

3.1.1 Geology/landforms

Lake Clark and its adjacent lands reside in the Lake Clark Pass and Moraines subsection of the Alaska Range Ecoregion. This area is characterized by ground till, moraine remnants, and outwash deltas. Topography of the subject parcels ranges from about 250 to 400 feet. Unlike the western end of Lake Clark, ancient shoreline ridges created by prehistoric lake levels are not readily apparent. Nevertheless, a terrace, probably related to an earlier lake level, exists inland of the homestead buildings. The topography is typified by small kettles, kames, and moraine remnants interspersed with low-lying areas created by collapse as glacial ice blocks melted. Today, these topographical depressions contain wetlands and bogs. Miller Creek drains into Lake Clark about 390 feet (125 meters) southwest of parcel A. None of the parcels being considered in the exchange includes the creek itself nor its associated riparian habitat. Miller Cove, bordering parcel A, provides a protected area to beach boats and floatplanes. The northeast corner of parcel B borders Moose Cove, also a protected area. The shoreline between is comprised of beach cobbles backed by forested banks and, in a few places, rocky ledges.

3.1.2 Scenery

Scenery in the proposal area is spectacular. The lakefront views are the most desirable and include Lake Clark, various islands, and snow-covered peaks reaching heights of 5,000 feet. Potential building sites all take advantage of these views. Non-lakefront scenery consists primarily of gently rolling forested terrain interspersed with marshy openings. Moose Cove, on the north side of the allotment considered for the land exchange, is planned as the gateway to the “Telaquana Trail”, a historic route that gives access to stunning scenery ranging from aquamarine lakes surrounded by precipitous mountains to narrow chasms carved by churning rivers.

3.1.3 Soundscape

A few residences occur on private lands along the north shore of the lake. Associated human activities, such as construction and generators, disrupt the natural soundscape. There is no road access to these properties. Motorboats and aircraft (floatplanes, ski planes and wheeled aircraft) produce transient noise. ATVs and snowmachines are in common use on private lands and along the lakeshore at periods of low water. Parcel C, located farthest from a residence, is most likely the least affected. Parcel A is closest to an existing airstrip (about 2,000 feet Southwest) and residence (about 500 feet southwest).

3.1.4 Water

The south boundaries of the land parcels border Lake Clark, the sixth largest lake in Alaska. The lake is long (41 miles), narrow (3.1 miles), and deep (average depth 350 feet). Separated from Lake Clark by a broad river delta to the northeast is the smaller, narrower Little Lake Clark, about 8 miles long. Miller Creek is located about 12 miles southwest from this junction of lakes along the northern shoreline of Lake Clark. The lake provides important spawning and rearing habitat for sockeye salmon. Water quality is generally considered excellent although turbidity due to glacial flour occurs during the summer.

3.2 Biological Environment

3.2.1 Wildlife

Large mammals, such as moose and bear, travel the Lake Clark shoreline. Caribou occasionally occur in the area. The full suite of furbearers and small mammals, such as red fox, wolves, lynx,

ermine, voles and shrews, occur throughout the area. Moose Cove, bordering parcel C, attracts moose with its sedge and willow forage. Moose also frequent the area during the winter, when deep snows drive them from higher ridges and foothills. Red squirrels and American marten inhabit the forested areas. Out of about 190 species of birds found in the park and preserve, about 50, primarily passerines, would be most likely to occur on the subject property. The mix of habitats on both parcels attracts nesting land birds, such as gray jays, warblers, chickadees, swallows, woodpeckers, sparrows, robins, and kinglets. Gulls and shorebirds commonly occur along the lakeshore. Spruce grouse nest in forested areas, while migrating waterfowl and shorebirds may use seasonally flooded kettles on both parcels. A few species of raptor (bald eagle, osprey, and merlin) nest along Lake Clark but no nests are known in the immediate area. The closest Bald eagle nest is located 5 miles east on the opposite shore of Lake Clark.

3.2.2 Fisheries

Lake Clark supports populations of Arctic grayling, lake trout, northern pike, whitefish, red salmon, and Dolly Varden. The Lake Clark watershed provides habitat for one of the most economically important salmon runs in Bristol Bay. Red salmon in the hundreds of thousands (in some years, in the millions) annually enter the lake to spawn in its tributaries. While beach-spawning red salmon also utilize shallow waters at various locations around the lake, no significant spawning aggregations are known to occur adjacent to the land parcels at Miller Creek or Moose Cove.

3.2.3 Threatened and Endangered Species

There are no listed threatened or endangered species known to occur on either parcel.

3.2.4 Vegetation

Vegetation is similar on all parcels. Well-drained soils near the lakeshore are forested with white spruce (*Picea glauca*) and birch (*Betula papyrifera*). There is a shrub component of willow (*Salix bebbiana*, *S. scouleriana*), alder (*Alnus crispa*), blueberry (*Vaccinium uliginosum*), red currant (*Ribes triste*), wood rose (*Rosa acicularis*), high-bush cranberry (*Viburnum edule*), and spirea (*Spirea beauverdiana*). Mosses, low-bush cranberry (*Vaccinium vitis-idaea*), bunchberry (*Cornus suecica*) and horsetail (*Equisetum spp.*) carpet the ground. Willows, alders, cottongrass (*Eriophorum sp.*) and sedges (*Carex sp.*) typify vegetation at Moose Cove, which is seasonally flooded as the lake swells with spring runoff. Low shrub/sedge tussock bogs, interspersed with patches of black spruce (*Picea mariana*) woodland and Labrador tea (*Ledum palustre*) occur in poorly drained areas toward the northern boundaries of both parcels. Common plants found in these communities include cottongrass (*Eriophorum vaginatum*), sedges, resin birch (*Betula glandulosa*), blueberry, bog cranberry (*Vaccinium oxycoccus*), cloudberry (*Rubus chamaemorus*), shrubby cinquefoil (*Potentilla fruticosa*) and Labrador tea. No rare plants are known to occur in this area.

3.2.5 Wetlands

The conservation easement part of the Hammond Homestead and Bella Hammond Allotment immediately east of the conservation easement contain four types of wetlands according to USFWS National Wetlands Inventory mapping of fall 2001. According to Cowardin et al. (1979) these are temporarily flooded lakeshores (L2-USA), seasonally flooded emergent moss-lichen depressions or shallow ponds (P-EM/ML-1C), seasonally flooded moss-lichen lowlands (P-ML-1C), and saturated scrub-shrub and needle-leaved lowlands (PSS4/1B). The temporarily flooded lakeshores are mostly unconsolidated rocky area, but some soft sediments are present at the heads of Miller Cove and Moose Cove. The seasonally flooded moss-lichen wetlands are dominated by mosses and lichens and probably some sedges like *Eriophorum ssp.*, bog cranberry, cloudberry,

Figure 4. Vicinity Wetlands



Figure 5. Aerial view of wetlands on Hammond Homestead and Bella Hammond Allotment.



Figure 6. Aerial view of wetlands at head of Moose Cove.



3.3 Social and Cultural Environment

3.3.1 Cultural Resources

Within the Hammond homestead along the Lake Clark shore northeast of the mouth Miller Creek are the remnants of an historic settlement including at least one Russian Orthodox grave, the remains of a steam bathhouse, and unidentified pit features. Other historic features are hidden by vegetation or were washed away by Miller Creek. These remains are culturally significant because they mark the location of Nan Qelah, an important fall hunting and trapping camp used by several Nondalton Dena'ina families. Gabriel and Was Trefon and Anton Balluta brought their families here during the 1920's through the early 1940's. From mid-November to early January the women and children would camp at Nan Qelah while the men and older boys hunted and trapped. A branch of the Telaquana trail used mostly for foot traffic begins at Nan Qelah. Dena'ina elder Andrew Balluta was born at Nan Qelah in 1930. Further to the east is the foundation of Was Trefon's cabin, and the remains of another unidentified cabin.

In 1952 Jay Hammond filed on a 126-acre homestead at Miller Creek and began construction of the homestead. During winter of 1964-65 the Hammond family lived at the homestead. Hammond was elected governor of Alaska in 1974, and while governor he and his family spent vacations at their homestead. Hammond was active in making improvements to their land including building a log home and support buildings, a bridge over Miller Creek, a garden, and a landing strip, which was built in 1995-96 (figure 7.) Miller Creek is now the full-time home of Hammond and his wife Bella.

Work in the garden on the Hammond Homestead produced a small collection of artifacts including some related to the Northern Archaic period which includes occupations as old as 7,500 years before present (BP). The garden is located on a high lake terrace well back from the current lake shore that was possibly the Lake Clark shoreline during the Northern Archaic occupation. This location can potentially yield unique archeological information for understanding the early prehistory of the Lake Clark region.

3.3.2 Land Use Pattern

The largest settlement on the shores of Lake Clark is Port Alsworth (population about 80-100), about 10 miles from Miller Creek on the south shore of the lake. Native village corporation lands rim the southwestern half of the lake. Nondalton, a Dena'ina Athabascan village of about 250 people, lies along the northern shore of Sixmile Lake, just downstream of Lake Clark. Kijik, once the Dena'ina population center of Lake Clark, lies about 3.2 miles southwest of the subject exchange lands. Nondalton people abandoned this site except for use as a spirit camp. The subject property lies within the boundaries of Lake Clark National Preserve. The boundaries of Lake Clark National Park begin at Portage Creek, about five miles northwest of Miller Creek along the lakeshore, and extend around the lake to the mouth of Tommy Creek, about four miles up the lake from Port Alsworth. The primary uses of the area include tourism and park recreation, sport fishing, sport hunting, and subsistence. Motorboats and floatplanes ply the waters of Lake Clark, of which the northeastern half is within the boundaries of the national park.

3.3.3 Park Management

The National Park Service is striving to maintain the natural scenic beauty and natural and cultural values of Lake Clark and the surrounding area. Specific to the subject area, the NPS is also attempting to identify and establish for recreational use the 50-mile Telaquana Historic Trail, which had trailheads at Kijik Village, Miller Creek, and near Portage Creek. One option for the modern-day trailhead is Moose Cove, which is shared by the Bella Hammond Native Allotment on the south and the NPS on the north (see figure 1.)

3.3.4 Wilderness

The Miller Creek/Moose Cove section of shoreline is outside the boundaries of eligible or designated wilderness. The Lake Clark Wilderness intersects the northern shore of Lake Clark about 10 miles northeast of Miller Creek and at the mouth of Tommy Creek along the southern shore, about 8 miles south-southeast of Miller Creek. Although Lake Clark retains much of its wilderness character, about 70% of the shoreline is privately owned or selected. Small residences, cabins, lodges, and about a dozen landing strips are dispersed around the lake.

Figure 7. Aerial View of Miller Cove with dock and homestead buildings.



4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Impacts of the No-Action Alternative

4.1.1 Impacts to Geology/Topography

The no-action alternative, with no change in land status from the present situation, would result in no direct impacts to the local geology or topography on the conservation easement. Indirect impacts would occur in the vicinity because the owners would not recover full ownership of the eastern end of Miller Cove and would likely select a future building site on the eastern side of the Bella Hammond Allotment. A building site would likely be cleared and leveled for construction of cabin or residence. A boat dock or boat landing site would likely be developed on the south side of Moose Cove for access to the building site(s).

Conclusion: The overall impacts to geology or topography from the no-action alternative would be negligible and would not result in the impairment of natural geological resources, purposes, or values of the park.

4.1.2 Impacts to Scenery

The direct impacts to the visual quality of the conservation easement would not be affected by the no-action alternative. The indirect affects could result in the construction of buildings on the Bella Hammond Allotment to the east. One or two structures in the woods on a bluff overlooking Lake Clark would have a minor impact on the scenic integrity of the area.

Conclusion: The no-action alternative would result in no direct impacts to the conservation easement area, but it would likely result in more dispersed development and a minor impact to the scenic integrity of this part of Lake Clark. The no-action alternative would not result in the impairment of the scenic attributes of this part of Lake Clark National Park and Preserve.

4.1.3 Impacts to Soundscapes

The no-action alternative would have little or no direct impact on the natural sounds on the existing conservation easement. No construction or development of roads or other facilities would be allowed on the conservation easement. The no-action alternative would likely lead to the development of a cabin or residence on the Bella Hammond Allotment with an attendant boat docking facility in Moose Cove. Intermittent noise impacts from construction, boat engines, and floatplanes are more likely to occur in the Moose Cove area under the no-action alternative, but they could also occur under the proposed exchange because this part of the Bella Hammond Allotment would be retained. The no-action alternative would likely lead to more dispersed human developments along this part of the north shore of Lake Clark. Though the total intermittent noise from mechanized human activity is not likely to increase overall with the no-action alternative, the total noise from human activities would likely be more dispersed at Miller Cove and Moose Cove.

Conclusion: The no-action alternative would have no direct impacts on the conservation easement and the indirect impacts would likely result in more dispersed human activities and mechanized noise at Moose Cove along the north shore of Lake Clark, but these impacts would be minor. The effects of the no-action alternative would not impair the natural quiet and serenity of this part of the park.

4.1.4 Impacts to Water and Fish

The no-action alternative would not result in any new direct impacts to water quality or quantity in Miller Creek, Lake Clark, or the groundwater. The lands and waters adjacent to and in the conservation easement would essentially remain as they are. Minor fuel spills would be likely to occur near the boat dock in Miller Cove. Indirectly, without the land exchange the owners would likely construct a new cabin or residence on the eastern side of the Bella Hammond Allotment. This would require a new boat and floatplane landing area in Moose Cove. Very small fuel spills could occur in the area where very little use has occurred in the past. Because there are few spawning or migrating fish along this part of the lake's shore, the indirect impacts to fish and water resources are thought to be negligible.

Conclusion: The no-action alternative would result in negligible impacts to water quality or quantity and fish in Miller Creek or Lake Clark, and there would be no impairment to natural water resources or fish and their purposes or values in the park.

4.1.5 Impacts to Wildlife and Habitat

The no-action alternative would not result in any direct impacts to wildlife or their habitat on the conservation easement. In the absence of the land exchange, a minor area of wildlife habitat would be lost on the Bella Hammond Allotment near Moose Cove from the likely development of a cabin or residence on the eastern side of the Bella Hammond allotment. The Moose Cove area is used year round by moose. Moose and other wildlife in the Moose Cove area would likely be disturbed by future habitation and travel to and from the cove.

Conclusion: The no-action alternative would result in no direct impacts to wildlife on the conservation easement and negligible to minor indirect impacts to wildlife, mostly moose, on the owners' Native allotment near Moose Cove. There would be no impairment to wildlife resources and values of the park.

4.1.6 Impacts to Vegetation and Wetlands

The no-action alternative would not result in any new direct impacts to vegetation or wetlands on the existing conservation easement. An indirect effect could be the likely construction of a cabin or residence on the Bella Hammond Allotment, resulting in the removal of white spruce and understory vegetation at the construction site. Access to the two likely construction sites on the Bella Hammond Allotment would not result in any impacts to wetlands because upland access from Moose Cove is available (see Figure 4).

Conclusion: The no-action alternative would result in no new impacts to vegetation or wetlands on the conservation easement and probable minor indirect impacts to vegetation on the adjacent Native allotment. There would be no impairment to vegetation or wetlands resources and values in this part of the park.

4.1.7 Impacts to Cultural Resources

The no-action alternative would not result in any new impacts to cultural resources on the existing conservation easement. Cache sites, cabin remains, and other potential unknown archeological sites (on a lake terrace above Lake Clark dating back to the Northern Archaic occupation of about 7,500 years ago) would not be disturbed on the 66 acres of the existing conservation easement because the easement precludes any ground disturbance. Most of the known historic and archeological sites in the exchange area (see part 3.2.1) are on the fee-simple part of the Hammond Homestead.

Conclusion: The no-action alternative would result in no impacts to cultural resources on the existing conservation easement, but cultural resources elsewhere on the Hammond Homestead would not be protected. This alternative would not result in the impairment of cultural resources and values in the park.

4.1.8 Impacts to Private Land and Park Management

The no-action alternative would leave the land ownership pattern as it is, and the NPS would continue to have access to the existing conservation easement to protect natural resources on that 66-acre parcel of land. The Hammonds would retain in fee simple 74 acres of the original Hammond Homestead and the 60-acre Bella Hammond Allotment 2 to the east of it. Other native allotments exist to the northeast and southwest of the Hammond Homestead area (figure 1.) National Park lands adjacent to the conservation easement are classified as national preserve; lands east of the land exchange area are classified as designated wilderness and as national park. These designations would not be affected by the land exchange.

The Hammonds would likely construct a residence or cabins on the Bella Hammond allotment on headlands near Moose Cove because the preferred location on the existing conservation easement near Miller Cove would not be available (see appendix A.) This likely development would expand the distribution of human developments in the area. with a goal of the NPS Lake Clark GMP to protect the scenic integrity of Lake Clark's shores, including the use of land exchanges for native allotments, where feasible. The developments on the Bella Hammond allotment would also lead to more frequent hiking across the easement and boating between Miller Cove and Moose Cove by the landowners. The owners would likely develop a dock on the south side of Moose Cove to facilitate construction and transportation to that part of the Bella Hammond Allotment.

Conclusion: The no-action alternative would result in no direct impacts on land use on the conservation easement and a minor indirect impact from the construction of dwellings on private lands near Moose Cove. The no-action alternative would result in negligible to minor impacts to park management and the goals set forth in the park's GMP.

4.1.9 Cumulative Impacts of the No-Action Alternative

Cumulative impacts are defined as the *incremental impacts* on the environment resulting from adding the action to other past, present, and reasonably foreseeable future actions (also referred to as regional actions), including those taken by both federal and nonfederal agencies, as well as actions undertaken by individuals. Cumulative impacts may result from singularly minor but collectively significant actions taking place over a period of time (CEQ Sec 1508.7).

Past, present, and reasonably foreseeable future actions in the vicinity of the Hammond Conservation Easement include the following for the no-action alternative:

- The Conservation Fund acquired and deeded to the NPS a tract of land on the north side of Moose Cove, where the NPS plans to establish a public trailhead and campsite for the Telaquana Trail on the north side of Moose Cove.

The above actions could result in a permanent loss of vegetation and wildlife habitat over a small area in close proximity to the conservation easement. An NPS plan for the Telaquana Trailhead in Moose Cove would add disturbance to Moose and other wildlife in the Moose Cove area, but this disturbance would be infrequent, seasonal (mostly summer use), and temporary. Regardless of these past, present, and reasonably foreseeable future actions, there would be no direct cumulative impacts to any of the selected impact topics on the conservation easement because no new actions are proposed would occur there under the no-action alternative. There would likely be minor

indirect cumulative impacts in the Moose Cove area to wildlife and the other resources because the owners would likely build structures in the area in addition to the NPS plans for the Telaquana Trailhead.

4.2 Impacts of the Proposed Conservation Easement Exchange

4.2.1 Impacts to Geology/Topography

The proposed conservation easement land exchange would likely result in a construction of a house or cabin on a small, rocky peninsula forming the south side of Miller Cove. The building site would likely be cleared and leveled for the future construction. A boat dock already exists in Miller Cove, so no new boat dock would likely be needed. Approximately the same length of shoreline would be off limits to construction activities in Moose Cove as would be open to construction activities under the proposed exchange.

Conclusion: The overall impacts to geology or topography from the proposed conservation easement exchange would be negligible and would not result in the impairment of natural geological or topographical resources, purposes, or values of the park.

4.2.2 Impacts to Scenery

The proposed conservation easement exchange could result in minor direct impacts to the visual quality of the conservation easement area with the development of a house or cabin on the point on the south side of Miller Cove. The owners have expressed a desire to concentrate all of their developments in the vicinity of Miller Creek and Miller Cove, rather than spread out farther around the lake. Concentrating buildings in the Miller Cove area of the north shore of Lake Clark would have less overall impact to scenic vistas than dispersing these developments to another nearby cove. The owners would retain 7 acres of the Bella Hammond allotment to the northeast of the exchange area for potential future building sites if needed, but these would be of lower priority than the Miller Cove location. Nevertheless, one or two building sites in the woods on bluffs overlooking Lake Clark would have a minor impact on the scenic integrity of the area.

Conclusion: The proposed conservation easement exchange would result in minor direct impacts to the conservation easement area and the scenic integrity of this part of Lake Clark. The conservation easement exchange would likely result in less or no dispersed development in the nearby Moose Cove area. The proposed action would not result in the impairment of the scenic attributes of this part of Lake Clark National Park and Preserve.

4.2.3 Impacts to Soundscapes

The proposed conservation easement exchange would result in minor direct impact on the natural sounds on the existing conservation easement. A home or cabin would likely be constructed on a point defining the southeast side of Miller Cove resulting in temporary noise during construction, and lower levels of noise during occupancy and access to the property in the future. The development of a cabin or two on the Bella Hammond allotment with an attendant boat docking facility in Moose Cove would become a lower priority and may not occur. Intermittent noise impacts from construction, boat engines, and floatplanes are more likely to occur in the Miller Cove area under the proposed alternative, but they could also occur in Moose Cove under the proposed exchange because 7 acres of the Bella Hammond Allotment would be retained.

Conclusion: The proposed conservation easement exchange would result in minor direct noise impacts on the conservation easement area and little or no noise impacts would likely result at

Moose Cove. The effects of the proposed exchange would not impair the natural quiet and serenity of this part of the park.

4.2.4 Impacts to Water and Fish

The proposed conservation easement exchange would not result in any measurable new direct or indirect impacts to water quality or quantity in Miller Creek, Lake Clark, or the groundwater. The waters and fish in the affected area would essentially remain as they are. The owners have no plans that would affect water or fish habitat in the area. A new house or cabin on the point south of Miller Cove would likely withdraw a minor amount of fresh water from Lake Clark or water would be piped over from Miller Creek. An increase in boat and floatplane access to Miller Cove could result in very small fuel spills. Less human activity would likely occur in the Moose Cove area under the proposed alternative.

Conclusion: The proposed conservation easement exchange would result in negligible impacts to water quality or quantity in Miller Creek or Lake Clark, and there would be no impairment to natural water or fish resources, purposes, or values of the park.

4.2.5 Impacts to Wildlife and Habitat

The proposed conservation easement exchange would result in a net gain of 13 acres of wildlife habitat into protected status and minor direct impacts to wildlife habitat on the original conservation easement. A small area would likely be cleared for construction of a house or cabin on the point defining the southeast side of Miller Cove. The NPS would obtain a conservation easement on most of the Moose Cove area, which is used year round by moose. Moose and other wildlife habitat in the Moose Cove area would be mostly protected from future developments. The owners could develop cabin sites on the 7 acres of headlands on the Bella Hammond Allotment near Moose Cove, but they are less likely to do so with the Miller Cove building site closer to the rest of their developments.

Conclusion: The proposed conservation easement exchange would result in minor direct impacts to wildlife on the conservation easement and minor protection of important moose habitat in Moose Cove on the Bella Hammond Native allotment. This alternative would not result in the impairment to wildlife resources and values of the park.

4.2.6 Impacts to Vegetation and Wetlands

The proposed conservation easement exchange would result in minor new direct impacts to vegetation on the existing conservation easement. A small area of white spruce/birch woods and understory vegetation would be removed for construction of a house or cabin on the southeast side of Miller Cove. There would be no direct impacts to wetlands on the conservation easement, and the exchange would result in a nearly equivalent area of wetlands protection under the terms of a conservation easement. A net 13 acres of vegetation would be protected with the land exchange because the NPS would receive 53 acres in trade for about 40 acres of the former conservation easement. The owners could construct structures on the Bella Hammond Allotment, resulting in the removal of additional white spruce and understory vegetation by Moose Cove, but they are less likely to do so with availability of the Miller Cove site.

Conclusion: The proposed conservation easement exchange would result in a net gain of 13 acres of vegetation and wetlands into protected status, minor new impacts to vegetation, and no impacts to wetlands on the conservation easement. There would be no impairment to vegetation or wetlands resources and values in this part of the park.

4.2.7 Impacts to Cultural Resources

The proposed conservation easement exchange would result in no or negligible impacts to cultural resources on the existing conservation easement and the exchange area because the owners agree to covenants to protect cultural resources on the entire Hammond Homestead in perpetuity. Most of the known historic and archeological sites in the exchange area (see part 3.2.1) are on the fee-simple part of the Hammond Homestead. Cache sites, cabin remains, known archeological sites, and other potential unknown archeological sites (on a lake terrace above Lake Clark dating back to the Northern Archaic occupation of about 7,500 years ago) would not be disturbed on the entire 140 acres of the Hammond Homestead. Though the original conservation easement did not specifically mention the protection of cultural resources as one of the purposes of the easement, cultural resources were effectively protected because the easement language precluded ground disturbance, buildings, roads, trails, and the storing of equipment and supplies on the easement. Historic and archeological resources that may occur on 53 acres of the Bella Hammond Allotment to become part of the conservation easement would also be protected because the conservation easement language would apply to this land. Effectively, the area of cultural resources protection would increase from 66 acres to 193 acres.

Conclusion: The proposed conservation easement exchange would result in no or negligible adverse impacts to cultural resources on the existing conservation easement because covenants to protect cultural resources across the entire Hammond Homestead would apply. The effective area of cultural resources protection would nearly triple under this alternative. This alternative would not result in the impairment of cultural resources and values in the park.

4.2.8 Impacts to Private Land and Park Management

The proposed conservation easement exchange would adjust the land ownership pattern between Miller Cove and Moose Cove on the north shore of Lake Clark. The owners would recover fee simple ownership of 40 acres of land around the eastern side of Miller Cove on the Hammond Homestead, minus the covenants to protect cultural resources. The NPS would retain the conservation easement on 26 acres of the easternmost part of the Hammond Homestead and gain another 53 acres into the easement from the adjacent Bella Hammond allotment. Other native allotments exist to the northeast and southwest of the Hammond Homestead area (see figure 1.) National Park lands adjacent to the conservation easement are classified as national preserve; lands about eight miles east of the land exchange area are classified as designated wilderness and as national park. These designations would not be affected by the land exchange.

The owners would likely construct a future residence or cabin on the point southeast of Miller Cove on the former conservation easement because this is the preferred building location near the homestead buildings and boat dock. Though the exchange would allow the owners to build on the next two preferred building sites on the Bella Hammond allotment near Moose Cove, these sites are of lower priority because they are farther away from the homestead and a new boat dock would likely be needed. As per the exchange agreement, the NPS would have the first right of refusal if the owners decide in the future to sell the remaining 7 acres of the Bella Hammond allotment near Moose Cove. The likely effect of the exchange would be to concentrate developments in the area around Miller Cove. The exchange would be consistent with the NPS Lake Clark GMP to protect the scenic integrity of Lake Clark's shores, including the use of land exchanges for native allotments, where feasible.

Conclusion: The proposed conservation land exchange would result in minor changes in the use of private land in the area and would be consistent with park management plans and goals.

4.2.9 Cumulative Impacts of the Proposed Land Exchange

The definition of cumulative impacts and past, present, and reasonably foreseeable future actions in the exchange area are provided in section 4.1.9 of this EA.

The proposed conservation easement exchange would likely result in the development of a cabin on a point defining the southeast side of Miller Cove, which would be cumulative with the landowners past developments in Miller Cove and NPS plans to develop a trail head on the north side of Moose Cove. The conservation easement exchange would still allow for development of cabins on 7 acres of the Bella Hammond allotment on the south side of Moose Cove, but this is less likely with the conservation exchange. The cumulative impacts to park scenery, soundscapes, water, fish, wildlife, vegetation, and wetlands would be negligible to minor under the proposed land exchange because impacts to these resources from the landowners' activities would likely be concentrated in the Miller Cove area. Cumulative impacts to these park resources from development of the NPS Telaquana trailhead on the north side of Moose Cove would be minor because the development footprint would be small, inconspicuous, and intermittently used or occupied. The NPS plans to develop a trailhead for the Telaquana Trail on the north side of Moose Cove would likely be separated and insulated from private residences in the area. The greatest cumulative impacts would occur during construction of a cabin or trailhead on the shores of Lake Clark, but these activities would be temporary. Slightly more boat and airplane traffic is likely to occur in the Miller Cove area, but considerably less would occur in the Moose Cove area. This would likely result in slightly less cumulative impacts to wildlife in the Moose Cove area. Cultural resources in the Hammond Homestead area would realize the greatest benefits because the owners would agree to covenants to protect archeological and historical resources on the entire Hammond Homestead under the conservation exchange. Cultural resources on a net 193 acres would be protected under the terms of the conservation easement exchange whereas no cultural resources were specifically recognized for protection in the former conservation easement.

Conclusion: The proposed conservation easement exchange would result in negligible to minor cumulative adverse impacts to park resources in the area and minor beneficial impacts to cultural resources through the extension of covenants to protect cultural resources in the exchange area. Cumulative impacts of past, present, and foreseeable future activities in the exchange area would not result in the impairment of any park resources or values.

5.0 CONSULTATION AND COORDINATION

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6.0 REFERENCES

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- U.S.D.I., NPS. 1988. Final Environmental Impact Statement Wilderness Recommendation, Lake Clark National Park and Preserve. NPS D-11A.
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APPENDIX A

Proposed conservation easement Exchange by Jay S. Hammond, April 14, 2001.

APPENDIX B

Grant of Conservation Easement from The Nature Conservancy to the National Park Service,
June 3, 1992.

APPENDIX C

Covenants to protect cultural resources on the Hammond Homestead, Lake Clark, Alaska.

APPENDIX D

ANILCA Section 810 Subsistence Evaluation.

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