
National Park Service
U.S. Department of the Interior

Lake Clark National Park and Preserve
Alaska



**Management of Off-Road Vehicles at Silver Salmon Creek
in Lake Clark National Park
Environmental Assessment
October 2010**



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Note to Reviewers

If you wish to comment on this document, you may mail comments to:

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You may also comment online. Go to <http://parkplanning.nps.gov> to retrieve this document and provide comments electronically. You may also send comments to Joel_Hard@nps.gov.

Cover Photo: Typical ORV trail at Silver Salmon Creek

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PURPOSE AND NEED

The National Park Service (NPS) is considering authorizing off-road vehicle (ORV) use on existing trails in the Silver Salmon Creek (SSC) area of Lake Clark National Park for inholder travel (Figure 1: Silver Salmon Creek Area). The purpose of the project is to meet inholder travel needs while protecting park resources and values.

Thirteen landowners currently use ORVs at SSC. Owners of private parcels travel to visit one another and often coordinate access, recreation and business support in their daily operations. Two individuals are federally qualified subsistence users in addition to operating a commercial business. Some landowners access their private parcel directly from the Cook Inlet beach outside the Park boundary; however, alternative access across park lands is often needed during high tides and inclement weather to reach private parcels from aircraft landing areas along the beach. Two landowners who also access their private parcels from Silver Salmon Lakes have applied to the NPS for a Right-of-Way Certificate of Access (RWCA). None of the land owners have been issued an authorization to operate ORVs on park lands. NPS needs to ensure landowner use of ORVs is consistent with existing laws and regulations.

Much of the existing trail network is no longer needed or required by landowners. NPS needs to ensure that impacts to park resources from ORV use are minimized and that if trails are no longer needed that those portions of the park can return to natural conditions.

Drawing a distinction between uses and users in this small enclave is impractical. Considering the unique “community” nature of SSC private parcels, this environmental assessment provides a programmatic review necessary to authorize adequate and feasible access without undertaking costly, repetitive and independent reviews.

This environmental assessment (EA) analyzes a no-action alternative and one alternative for authorizing ORV use on existing trails. The EA has been prepared in accordance with the National Environmental Policy Act of 1969 and regulations promulgated by the Council of Environmental Quality in Title 40 of the Code of Federal Regulations (CFR).

Background

The SSC area is a small community on the coast of Lake Clark National Park and Preserve. It lies within the park, but outside of designated Wilderness. SSC is remote and accessible only by aircraft and boat. Within this small area there are 13 private parcels.

Though ORV use other than that necessary for reasonable access to subsistence resources is generally prohibited in LACL, the 1982 Lake Clark General Management Plan failed to recognize legitimate ANILCA access requirements for land owners who were not qualified subsistence users. Before and after the park was established, ORV use at SSC included such access activities and now includes the transport of commercial clients from the beach to the lodges and to access Silver Salmon Creek and Johnson River fishing and bear viewing sites. A single access point/trail is not possible as tides, beach condition and winds dictate which access is used at any given time. Equipment and supplies are moved by ORVs to households

and lodges from beach landing areas from three existing access points/trails, running from the beach to the uplands. When beach conditions are not favorable, lodge owners and their guests land at Silver Salmon Lakes and use ORVs for transportation from the lakes to private property.

Two of the landowners operate sportfishing and bear viewing businesses. The park manages commercial activities at SSC through Commercial Use Authorizations (CUAs). While these authorizations recognize that ORVs have been used for decades in the community to support inholder activities, no permits have been issued for such use and no trails have been designated.

Two individuals are federally qualified subsistence users and engage in a low level of timber harvesting. Ten private parcels are used as seasonal residences or recreational sites by the landowners. In addition, Southcentral Foundation, a nonprofit organization under Cook Inlet Region, Inc., maintains a camp in SSC that is used as a recreational and educational site for Foundation supporters.



Primary Access Trail at Silver Salmon Creek

The existing trail network was created before the park was established to provide residents with needed access from various landing areas on the beach to their home sites, while serving as corridors for resident travel from homes and businesses to visit, fish, view bears, and for other incidental uses.

In response to increased pressures on resources, the NPS enhanced its presence at SSC to protect important park resources and assure visitors an opportunity for a safe and favorable park experience. A ranger station was

built adjacent to one central beach landing area. This facility provides a base for park employees to monitor impacts to fish and wildlife habitat and to provide critical information, guidance, and emergency response. Best practice guidelines were established in 2004 and community meetings were held that resulted in voluntary non-use of unsustainable trails that paralleled Silver Salmon and Sergeant Creeks in order to protect fish and wildlife habitat.

The NPS and landowners informally agreed that only necessary trails would be used and that use of other trails would be discontinued. On the north side of Silver Salmon Creek, necessary trails included one from the “inside beach” (where the two lodges operate) to the “outside beach” where the planes land. This was deemed important to the on-going viability and success of the lodges in that guests and supplies landing ¼ to ½ mile away could gain relative easy access to the accommodations. Another was the inside beach trail from the lodges toward

the Johnson River, which traverses the tidal flats adjacent to the wooded tree-line and continues approximately 2.5 miles north. A short trail off this Johnson River route, called the “high tide crossing” connects the main trail to the outside beach. During high tides of 16 feet or greater, the usual path to the outside beach cannot be crossed because of a tidal slough, so the alternate route becomes necessary at times.

The other main route traverses the north inside beach from the lodges to Silver Salmon Creek itself. This is a ¼ mile long path that is outside of the tidally affected marsh area and exists within a brush and small tree zone. The importance of this trail has been to gain access to the creek for fishing, transporting sport fishing parties, removing retained fish from the creek when bears are present, moving supplies to the lodges when delivered by boat, and for the local Park Ranger to gain access to the north side of the creek, as well as access by other landowners on the south side of the creek.



Silver Salmon Creek area

Because of the tidally affected landscape and fluctuating intensity of the tides, the charter boat(s) at use at Silver Salmon Creek Lodge require an anchored position along the creek system. There is a short spur trail off the main route to the creek that is used to off load supplies and people from the moored charter boat.

On the south side of the creek, a ¼ mile trail goes from Silver

Salmon Creek, past the ranger station, to the outer beach where landowners access clam beds and additional bear viewing opportunities. This trail is used by south beach landholders to access the creek or gain access to the north side. Sometimes chartered aircraft drop off guests at this point.

Park Purposes and Significance

The purpose of Lake Clark National Park and Preserve is to protect a region of dynamic geologic and ecological processes that create scenic mountain landscapes, unaltered watersheds supporting Bristol Bay red salmon, and habitats for wilderness dependent populations of fish and wildlife, vital to 10,000 years of human history.

Specifically, section 201 of the Alaska National Interest Lands Conservation Act (ANILCA) states that the park shall be managed 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 the Aleutian Range, including active volcanoes, glaciers, wild rivers, lakes, waterfalls, and alpine meadows in their natural state;
- to protect habitat for and populations of fish and wildlife including but not limited to caribou, Dall's sheep, brown/grizzly bears, bald eagles, and peregrine falcons.

The park's 2009 Foundation Statement identifies the following statements of significance. Lake Clark National Park and Preserve:

- protects extraordinary mountain landscapes dominated by two active volcanoes and cradles a system of turquoise-hued lakes and free-flowing rivers that epitomize Alaska's scenic beauty.
- protects a complex mosaic of landforms and ecosystems that continue to evolve from dynamic tectonic, volcanic, glacial, and climatic processes.
- protects critical spawning and rearing habitat at the headwaters of the world's most productive red (sockeye) salmon fishery.
- protects vast, undisturbed landscapes of coastal areas, mountain ranges, tundra, foothills, and lake regions that support a full complement of fish and wildlife species.
- protects a tapestry of cultural places woven from 10,000 years of human occupancy that is vital to the cultural and spiritual continuance of the Dena'ina culture.
- protects resources and provides opportunities for local rural residents to engage in the harvesting activities necessary to support a subsistence way of life.
- manages one of the largest wilderness areas in the United States providing visitors with superlative opportunities for solitude and self-reliance.

Legal Context

The 1916 Organic Act directed the Secretary of the Interior and the NPS to manage units of the national park system to:

“...conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” (16 U.S.C. 1.)

For all planning processes in the park system, the Organic Act provides a fundamental standard for management – that park resources should remain “unimpaired” for the enjoyment of future generations.

The Redwood National Park Expansion Act of 1978 (16 USC §§ 1-1a, 92 Statute 166) amends the Organic Act and clarifies the importance Congress placed on protecting park resources such that:

The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.

ANILCA Section 811 [16 USC § 3121(b)]. This section provides for continued access to public lands for subsistence use. Specifically, it states that “. . . rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on public lands” and “Notwithstanding any other provision of this Act or other law, the Secretary [of Interior] shall permit on the public lands appropriate use for subsistence purposes of snowmachines, motorboats and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulations.”

ANILCA Section 1110(b) provides for access to inholdings:

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 valid mining claim or other valid occupancy is within or effectively surrounded by one or more conservation system units, national recreation 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.

Procedures to provide access to private parcels within conservation system units (LACL in this case), are set forth in 43 CFR 36.10. The regulation at 43 CFR 36.10(b) states:

It is the purpose of this section to ensure adequate and feasible access across areas for any person who has a valid inholding. A right-of-way permit for access to an inholding pursuant to this section is required only when this part does not provide for adequate and feasible access without a right-of-way permit.

The regulation at Title 43 CFR 36.10(e)(1) states:

... the federal agency shall specify in a ROW permit the route(s) and method(s) across the area(s) desired by the applicant, unless it is determined that:

- (i) The route or method of access would cause significant adverse impacts on natural or other values of the area and adequate and feasible access otherwise exists; or
- (ii) The route or method of access would jeopardize public health and safety and adequate and feasible access otherwise exists; or

(iii) The route or method of access is inconsistent with the management plans for the area or purposes for which the area was established and adequate and feasible access otherwise exists; or

(iv) The method is unnecessary to accomplish the applicants land use objective.

36 CFR 13.46 states: "...the use of snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses is permitted within park areas except at those times and in those areas restricted or closed by the Superintendent."

43 CFR 36.11(g)(2) states: "The appropriate Federal agency is authorized to issue permits for the use of ORVs on existing ORV trails located in areas (other than in areas designated as part of the National Wilderness Preservation System) upon a finding that such ORV use would be compatible with the purposes and values for which the area was established. The appropriate Federal agency shall include in any permit such stipulations and conditions as are necessary for the protection of those purposes and values."

LACL's 1982 General Management Plan states that, "The use of off-road vehicles for other than subsistence activities is prohibited on federal lands within the park and preserve, and rental of these vehicles for recreational use on nonfederal lands will not be encouraged."

The park's GMP management concept relies on the private sector and Native Corporations to provide a variety of services and accommodations for appropriate visitor uses in the park and preserve. The Environmental Assessment for the Lake Clark National Park and Preserve GMP (1984), described:

"overnight visitors, other than those camping, currently stay at 11 lodges located on private lands...two are on the Cook Inlet...It is expected the lodges will increase the size of their facilities as visits rise..."

Against this background of existing use, the NPS plan for visitor access, circulation, and use of Lake Clark is as follows:

- Existing traditional patterns and means of access and circulation will be maintained...
- The National Park Service will seek to perpetuate the existing style of visitor use at Lake Clark..."

Issues

Issues and impact topics form the basis for environmental analysis. A brief rationale is provided for each issue or topic that is analyzed in the environmental consequences section of this EA.

Soils, Vegetation, and Wetlands: Authorizing ORV use on 3.4 miles of existing trails would continue to have direct impacts to vegetation/wetlands which include compaction of soils, reduction in plant cover, simplification of the vegetation structure, and alteration of the habitat for plant growth. ORV use on existing trails could further the expansion of invasive plant species.

Not authorizing ORV use on 6 miles of existing trails would allow natural soil development and regrowth of upland and wetland vegetation.

An NPS Wetlands Statement of Findings is not necessary because under Alternatives 2 no new ORV trails would be developed.

Water Quality and Fish: Repeated ORV crossing of Silver Salmon Creek could increase stream bank erosion, turbidity, and sedimentation in this stream. Repeated vehicle crossing of Silver Salmon Creek could degrade fish habitat through loss of stream bank vegetation, stream bank erosion, and increased turbidity and sedimentation. The physical act of driving through the stream gravels could potentially affect sensitive life stages of fish (e.g., salmon eggs, juvenile salmon).

Brown Bears: ORV use could affect brown bear behavior by disturbing and displacing individuals in the Silver Salmon Creek area. The area is renowned for high quality brown bear habitat.

Not authorizing ORV use on 6 miles of trails would allow natural regrowth of upland and wetland vegetation thus improving wildlife habitat.

Visitor Experience: ORV use could affect natural, aesthetic, and scenic values from continued use or recovery of ORV trails. The number of ORVs as well as the noise generated by ORVs could affect visitor's perception of solitude and crowding and their overall national park experience. ORVs could affect brown bear viewing, either by facilitating access to brown bear viewing opportunities or by degrading the opportunity by scaring away brown bears or creating a crowded and unnatural backdrop against which bears are viewed. ORV use could also affect visitor experience by either facilitating or hindering transportation for visitors who are guests at the commercial lodges at Silver Salmon Creek.

Socioeconomic Values: The level to which ORV use is authorized could affect local businesses and visitor services.

Issues Eliminated from Further Consideration

Air Quality: No measurable effect to ambient air quality would likely occur from ORV use, especially at current levels. Exhaust emissions produced by ORVs used at SSC would have a negligible effect on the area's air quality because of low ORV use levels.

Wildlife: At least nine terrestrial mammal species (brown bear, black bear, moose, red fox, wolves, cinereus shrew, montane shrew, meadow jumping mouse, northern red-backed vole, and

meadow vole) have been documented in the SSC area. There has been no indication that any other wildlife species other than brown bears could be affected by actions proposed in this document. Level of impact to wildlife relates to their habitat needs and the footprint of impacts (trails). While brown bears are the most prominent species in the SSC area (as well as being listed in the park's enabling legislation), the other large mammals are not directly associated with the habitat that the trails traverse so impacts would be minimal and localized. The small mammals that occur in the SSC area are common species that occur in a fairly broad range of habitats, so the ORV trails have very localized impacts which should be considered acceptable.

Floodplain: Alternatives in this EA would not have any measurable effect on floodplains or floodplain values in the area.

Threatened and Endangered Species: No threatened or endangered species are known to occur in the area, except the migratory spectacled and Steller's eiders. These species, however, would be unaffected by alternatives in this EA because they use the area in winter when the community is essentially vacant and shut down. In compliance with the ESA, the NPS conducted an informal Section 7 consultation with the US Fish and Wildlife Service (USFWS). The USFWS concluded that the proposed action would not likely affect the spectacled or Steller's eiders (April 14, 2005 letter from USFWS).

Wilderness: The Silver Salmon Creek area is not located in designated wilderness or lands deemed eligible for wilderness designation.

Cultural Resources: Trails are part of the cultural landscape at SSC as articulated in the history of use. Archeological surveys to date have produced negative results, and many existing trails would have no impact as they were established on recent beach deposits. Cultural resources are not likely to be affected by continued ORV use.

Subsistence: Currently, there are two qualified subsistence users at SSC. An ANILCA Section 810 Evaluation is included in Appendix A. No effects on subsistence resources or uses would be expected.

Environmental Justice: Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. This project would not result in significant changes in the socioeconomic environment of the area, and therefore is expected to have no direct or indirect impacts to minority or low-income populations or communities.

Permits and Approvals Needed to Implement Project

Permits and approvals needed to implement the action are summarized below.

Concurrence from the State Historic Preservation Officer will be required for any determinations of effect on eligible historic properties.

The NPS would submit a Consistency Determination to the State of Alaska, Department of Natural Resources, Office of Project Management and Permitting, to request concurrence that this project is consistent to the maximum extent practicable with the enforceable standards of the Alaska Coastal Management Program (Appendix B). The NPS would apply for appropriate permits identified during the review process.

A Title 42 Fish Habitat Permit from the State of Alaska, Department of Natural Resources, Office of Habitat Management and Permitting would be required for the trail crossing Silver Salmon Creek, an anadromous stream. Stream fords are an activity which requires a Fish Habitat Permit.

DESCRIPTION OF ALTERNATIVES

Actions proposed in this EA apply only to NPS-managed lands.

Alternative 1: No Action

Under the No Action Alternative, the NPS would not undertake any new actions to manage ORV use. Landowners would continue to use ORVs for a multitude of purposes and there would be no formal restriction of location, pattern, and volume of ORV use. Information about existing conditions can be found in the Background and Affected Environment sections.

Alternative 2: NPS Preferred Alternative

ORV use by SSC landowners would be allowed on 3.4 miles of existing ORV trails. ORV use would not be authorized on 6 miles of existing trails (Figure 2: Map of Alternative 2). ORV use would be limited to only local residents and non-paying guests.

ORV use by federally qualified subsistence users would be allowed on an additional 0.9 miles of existing trail.

The NPS would issue a RWCA for two trails from Silver Salmon Lakes to private property; each RWCA would cover one trail (Figure 2: Map of Alternative 2). The total length of these trails is 0.42 miles. The RWCAs would authorize each applicant to use and maintain the trail. NPS would issue the RWCAs under the authority of ANILCA 1110(b) and its implementing regulations at 43 CFR 36.10. A RWCA permits access; it does not convey property rights. The trails would consist of a ten (10) foot wide travel surface and two five (5) foot wide brushing strips on either side. The brushing strips allow for trimming vegetation that bends into the travel surface.

All trails addressed in this EA would be inventoried, assessed and periodically maintained. The NPS would work with the landowners to develop an annual trail maintenance plan. Landowners would be responsible for maintenance activities with NPS oversight and assistance.

It is not anticipated that any additional access rights would be needed; however, if an inholder wished to pursue additional rights of access they may apply for a RWCA in accordance with 43 CFR 36.10.

Permit stipulations that would regulate volume and pattern of ORV use are listed below.

Proposed Permit Stipulations for Landowners other than Southcentral Foundation and who do not have a Commercial Use Authorization

- Operation of ORVs will be permitted only on the trails identified in each permit. Use of the trail colored yellow on the map is permitted only by federally qualified subsistence users. [An ORV is any motorized off-highway vehicle traveling on four or more low-pressure tires, having a seat to be straddled by the operator and a handlebar for steering control. It also includes a motorized off-highway vehicle having four or more low pressure tires, designed with side-by-side seats, seatbelts, steering wheel, and optional cab, brush cage, or ROPS.] The landowner shall obtain prior approval from the Superintendent before operating any other vehicle including pick-up trucks, dump trucks, and heavy equipment.
- ORVs will be operated at speeds not exceeding 15 mph.
- A wildlife and ORV orientation will be required of all ORV users.
- The number of ORVs operating at any one time on designated trails is limited to three per permit holder.

Proposed Permit Stipulations for Holders of Commercial Use Authorizations

- Operation of ORVs will be permitted only on the trails identified in each permit. Use of the trail colored yellow on the map is permitted only by federally qualified subsistence users. [An ORV is any motorized off-highway vehicle traveling on four or more low-pressure tires, having a seat to be straddled by the operator and a handlebar for steering control. It also includes a motorized off-highway vehicle having four or more low pressure tires, designed with side-by-side seats, seatbelts, steering wheel, and optional cab, brush cage, or ROPS.] The landowner shall obtain prior approval from the Superintendent before operating any other vehicle including pick-up trucks, dump trucks, and heavy equipment.
- A wildlife and ORV orientation will be required of all ORV users.
- The number of ORVs operating at any one time on designated trails is limited to five per permit holder.
- Group size will be limited to 10 including guides. Groups will be supported by no more than 2 ORVs and trailers per group.
- Rental of ORVs is prohibited in CUA activities.
- Operation of ORVs by paying Lodge clients is prohibited.
- No more than one group from your Lodge may park at the Silver Salmon Creek crossing or within ¼ mile of that crossing at the same time.
- Commercial use of ORVs involving clients will be permitted only between 6am – 10pm.
- ORVs will be operated at speeds not exceeding 15 mph.

- ORV use will be monitored. If resource disturbance becomes a problem, additional ORV stipulations will be implemented.

Proposed Permit Stipulations for Southcentral Foundation

- Operation of ORVs will be permitted only on the trails identified in each permit. Use of the trail colored yellow on the map is permitted only by federally qualified subsistence users. [An ORV is any motorized off-highway vehicle traveling on four or more low-pressure tires, having a seat to be straddled by the operator and a handlebar for steering control. It also includes a motorized off-highway vehicle having four or more low pressure tires, designed with side-by-side seats, seatbelts, steering wheel, and optional cab, brush cage, or ROPS.] The landowner shall obtain prior approval from the Superintendent before operating any other vehicle including pick-up trucks, dump trucks, and heavy equipment.
- A wildlife and ORV orientation will be required of all ORV users.
- The number of ORVs operating at any one time on designated trails is limited to three per permit holder.
- Group size will be limited to 10 including chaperones/SCF employees.
- Operation of ORVs by guests is prohibited.
- No more than one group from Southcentral Foundation may park at the Silver Salmon Creek crossing or within ¼ mile of that crossing at the same time.
- Use of ORVs will be permitted only between 6am – 10pm.
- ORVs will be operated at speeds not exceeding 15 mph.
- ORV use will be monitored. If resource disturbance becomes a problem, additional ORV stipulations will be implemented.

Permit Stipulations for the two RWCA's would include the following:

- Operation of ORVs will be permitted only on the trails identified in the RWCA.
- Only the private property owner and his or her guests are authorized to use motorized vehicles on the ORV trail authorized by the RWCA.
- ORVs will be operated at speeds not exceeding 15 mph.
- The trail will consist of a ten (10) foot wide travel surface. NPS will encourage the landowner to maintain a travel surface less than 10 feet where practical.
- Vehicles that are brought in from places outside the Silver Salmon Creek area will be brought in clean and free of invasive species.

Mitigating Measures

Cultural Resources: If cultural resources are discovered during trail maintenance activities, work would be halted at the discovery site, the discovery would be protected and the Lake Clark Superintendent or Chief of Cultural Resources would be notified. The site would be evaluated for eligibility for the National Register of Historic Places. Appropriate action would be taken to avoid adverse effects to any eligible cultural properties.

Fish Habitat: NPS will consult with Alaska Department of Fish and Game to discuss ways it can mitigate impacts to fish habitat from the ORV crossing on Silver Salmon Creek.

Vegetation: NPS will periodically survey for invasive plant species the 6 miles of trails that are proposed to re-vegetate under Alternative 2.

Environmentally Preferred Alternative

The Environmentally Preferred Alternative is the alternative that will promote the national environmental policy expressed in the NEPA section 101(b) of the NPS DO-12 Handbook and Director's Order (NPS, 2005a). The Environmentally Preferred Alternative is the action which results in the least damage to the biological resources and environment while protecting, preserving, and enhancing the historic, cultural, and natural resources.

Alternative 2 is the Environmentally Preferred Alternative. Alternative 2 would provide more environmental protection than Alternative 1 by eliminating ORV impacts to soils and vegetation (crushing plants, scarring trees, exposing roots, and spreading invasive plant species), brown bears, visitor experience, and socioeconomics on 6 miles of existing trails. Natural, aesthetic, and scenic values would be enhanced by allowing approximately 6 miles of trails to recover to a natural condition. Authorized ORV users would be permitted on 3.4 miles of existing hardened trails. Limits on the number of ORVs that could be operated at one time as well as spatial separation requirements would reduce the amount of noise generated by ORVs and the visual impact of machines in a natural setting. Reducing crowds would provide a more natural backdrop against which bears are viewed.

Alternatives Considered but Dismissed from Further Consideration

Address each type of use separately. NPS could have elected to address ORV use to access private parcels, travel between private parcels, access to subsistence activities, and to support commercial activities separately; however, since the landowners at SSC use ORVs for multiple purposes, NPS finds it more efficient to conduct one planning process that addresses all purposes and types of ORV use at once. Issuing one permit that addresses all of their ORV needs reduces the regulatory burden on the landowners.

Authorize ORV use on inner beach trail to Johnson River for all purposes instead of for subsistence purposes only. ORV use of the inner beach trail to the Johnson River is considered in the no-action alternative. Due to the relatively poor condition of this trail segment and other considerations listed below, Alternative 2 included ORV use for subsistence purposes only. The reduction in ORV trail use would lessen the physical impacts to this trail segment. By keeping this trail section largely non-motorized, NPS would provide a non-motorized bear viewing opportunity for visitors who choose to walk. It would also protect additional habitat for bears that are more sensitive to ORVs.

Authorize ORV use on all existing trails. NPS rejected this alternative because ORV use on 10 miles of trails would unnecessarily impact park resource values since much of the existing trail network is no longer needed or required by landowners. NPS needs to ensure that impacts to

park resources from ORV use are minimized and that if trails are no longer needed that those portions of the park can return to natural conditions. It was by common consensus in the early 1990's that landowners in the general area agreed that unchecked, unrestricted ORV use in the area was potentially damaging to the lifestyle of the residents and to the value of the land itself. In 2004 the NPS and landowners informally agreed that only necessary trails would be used and that use of other trails would be discontinued.

AFFECTED ENVIRONMENT

Soils, Vegetation, and Wetlands

The Silver Salmon Creek ORV trail network extends along a .4 mile wide or less corridor upland of the beach line from approximately one mile south of the Silver Salmon Creek Ranger Station to the Johnson River. Currently there are 10 miles of ORV trails in the Silver Salmon Creek area that are on NPS land. Landowners have voluntarily agreed to use only about 4 miles of these trails and to let the others recover. Existing trails traverse grass and salt marsh vegetation in the area. The trails average about six feet wide, with surface vegetation and topsoil damage evident from years of use. The Background section of this EA contains additional descriptions of existing trails.

Water Quality and Fish

Silver Salmon Creek originates in Silver Salmon Lake. Total length of the stream is approximately 1.5 miles. In the intertidal area the stream's maximum width is about 200 feet. Above the intertidal area the width decreases to 30-50 feet. Average depth in this area is 2-3 feet depending on rainfall and seasonal variation.

Coho salmon are the target species for sport fishing and catch and release is a common practice. The harvest of few pink salmon and Dolly Varden is reported in some years. Known fish species occurring in Silver Salmon Creek include coho salmon *Oncorhynchus kisutch*, chum salmon *Oncorhynchus keta*, pink salmon *Oncorhynchus gorbuscha*, sockeye salmon *Oncorhynchus nerka*, Dolly Varden *Salvelinus malma*, threespine stickleback *Gasterosteus aculeatus* and starry flounder *Platichthys stellatus* (ADFG 2009a, Dan Young, NPS, personal communication). Although current information on the status of these species is limited, coho salmon are the most abundant and support an active sport fishery during August and September. Annual sportfish harvests of coho salmon at Silver Salmon Creek, estimated using the ADFG mail-in Statewide Harvest Survey, average 1,409 coho salmon and range from 942 to 2,269 fish (ADFG 2009b).

The total number of creek crossing observations in 2009 was 163 round-trips (which translates into 326 actual occurrences of an ATV ridden across Silver Salmon Creek). This is a 25% decrease from 2008, in which 218 crossings were observed, and a 42% decrease from the observed 279 crossings recorded in 2007.

Brown Bears

The Silver Salmon Creek area is one of nine important salt marsh areas along the 200-kilometer Cook Inlet coast of the park, which provides critical foraging habitat for coastal brown bears (Bennett 1996). The largest salt marsh areas and greatest density of coastal brown bears are found near the heads of Tuxedni and Chinitna Bays. Brown bear densities (bears/km²) were 7.1 at Glacier Spit Marsh in Chinitna Bay, 5.2 at on the south side of Tuxedni Bay, and 0.8 at Silver Salmon Creek. Salt marsh habitat provides extremely important forage for coastal brown bears from May until August, when silver salmon appear in the local streams.

The brown bear population at SSC is considered natural and healthy. The local population of brown bears has grown over the years and is generally believed to have become more tolerant of the presence of people and ORVs. Bears that are less tolerant of people and ORVs remain farther from SSC. Based on preliminary data collected during the silver salmon run of August-September 2007, by NPS staff, bears at SSC appear to be moderately active during late afternoon and early evening, and most active late evening into the dark hours of the night.

Visitor Experience

Visitors come to SSC primarily for sportfishing, bear viewing and photography. Most visitors are associated with a commercial enterprise. The activities supported by limited ORV use contribute substantially to the experiences and helpful education of visitors and serve the NPS in building understanding and a meaningful conservation ethic in visitors.



SSC visitors viewing brown bears

The typical procedure for lodge clients wishing to see and photograph bears is to ride in a trailer attached to an ORV that is driven by a guide. They approach a bear or bears slowly, disembark from the trailer and approach somewhat closer on foot. No viewing platforms are required. Visitors move into the habitat of the bears, hoping to witness them in their natural state, whether they are feeding on grasses, digging clams or chasing fish in the creek.

A strong coho salmon run attracts anglers to the area in the last half of the summer. Silver Salmon Creek is closed to salmon fishing within ½ mile of the outlet of Silver Salmon Lake and the lake itself is closed to salmon fishing. Some floatplanes land in the lake where people fish for Dolly Varden. Lodge clients wishing to fish ride in a trailer attached to an ORV that is driven by a guide. They are transported to and from fishing sites in this manner.

Park staff estimate the number of visitor use days at Silver Salmon Creek between May and September. From 2002 to 2006, visitors to SSC, including guided and unguided, increased from approximately 1,000 to 2,500. The breakdown is as follows:

	Years							
	2002	2003	2004	2005	2006	2007	2008	2009
Alaska Homestead Lodge	168	203	659	668	595	478	405	247
CIRI/Southcentral Foundation	150	278	311	202	255	203	258	194
Private/Other	256	305	453	381	281	307	340	354
Silver Salmon Creek Lodge	449	610	888	826	799	1094	1066	828
Total	1023	1396	2311	2077	1930	2082	2069	1623

Interviews conducted in 2005 found that NPS staff and stakeholders are increasingly concerned about impacts due to growing numbers of visitors at SSC. Demonstrable impacts from increased visitation included compromised quality of life/experience for residents and visitors due to the number of people at SSC and associated activity.

Socioeconomics

Commercialized support of sport fishing and bear-viewing activities became part of the Silver Salmon Creek visitor composition since at least the mid 1970s with the subdivision of the Munger homestead and with the establishment of the Silver Salmon Creek Lodge in 1978. With the establishment of Lake Clark National Park and Preserve and elimination of sport hunting within the park, changing economics provided additional opportunities that targeted sportfish guiding and commercialized brown bear viewing on the park coast. Another lodge was established by inholders to provide additional guided visitor services. Commercial activities were encouraged and approved by park management and later authorized under Commercial Use Authorization (CUAs).

Approximately 17 Incidental Business Permit (IBP) holders use this area as part of their business operations. To meet the growing demand for bear viewing and/or sport fishing opportunities, the two on-site lodges began offering day visits: charter boat trips to SSC are becoming more frequent, and helicopter operators are transporting anglers on state land below mean high tide.

ENVIRONMENTAL CONSEQUENCES

Impacts identified for each issue are based on the intensity, duration, and extent of the impact. Summary impact levels are characterized as negligible, minor, moderate, or major. Impact level thresholds are defined in the following table.

Negligible	Minor	Moderate	Major
Effects would tend to be low intensity, temporary, and would not affect unique resources.	Effects would tend to be low intensity and short duration, but common resources may sustain medium intensity and long-term effects.	Effects on common resources would tend to be medium to high intensity and long-term, while important and unique resources would tend to be affected by medium to low intensity and short-term to temporary impacts, respectively.	Effects would tend to be medium to high intensity, long-term to permanent, and affect important to unique resources.
Impairment occurs when a resource no longer fulfills the specific purposes in the enabling legislation or its role in maintaining the park's natural integrity.			

Alternative 1: No Action Alternative

Impacts to Soils, Vegetation, and Wetlands

ORVs can alter or affect drainages and wetlands in ways that can change runoff patterns and amounts. Physical impact of tire treads can strip surface vegetation and compact soils resulting in less porous soils, incised trails (ditching), and reduced infiltration capacity. Incised trails entrain surface flow and enhance runoff effectiveness (Meyer, 2002). Moreover, they can compromise wetland structure and function by channeling water from surrounding landforms. A low level of these types of impacts could occur under this alternative if there is no restriction on operation of ORVs and no coordinated plan to maintain sustainable trails. However, most existing trails are in fair or good condition so the level of impact would be low.

Under the no-action alternative, the continued use of vehicles on all of the trails throughout the SSC area would keep out or depress vegetation on the existing trails. Along some trails, the impacts to wetland and upland vegetation would enlarge because parts of trails would continue to be widened or relocated due to ORV traffic abrading vegetation (leaves, branches, stems, roots) and surface soils.

This alternative would create adverse impacts to soils and vegetation because landowners would continue to use ORVs for a multitude of purposes and there would be no formal restriction of location, pattern, and volume of ORV use. While there is currently an informal voluntary agreement to not use many of the trails, it is not a binding agreement. Under this alternative, ORV use has potential to compact soils, crush plants, scar trees, expose roots, and spread invasive plant species if they are driven on unsustainable trails or if ORV use creates new trails.

Cumulative Impacts: Thirteen private parcels in the SSC area, 10.3 miles of ORV trails, and a ranger cabin exist in the project area. Vegetation and soils were disturbed when the trails were

constructed, during development on private parcels, and during construction of a ranger cabin. These developments collectively created a moderate adverse impact to vegetation and soils by removing vegetation and soils from the footprint of these developments. The contribution of impacts from this alternative would be very small because the access pattern and trails have already been established. The cumulative impact of this alternative plus the impact of past, present, and reasonably foreseeable actions would be moderate.

Conclusion: This alternative would create minor adverse impacts to soils, vegetation, and wetlands from unregulated use of ORVs on 10.3 miles of existing trails in the SSC area. Vegetation and soils near existing trails would be affected when users widen trails to avoid unsustainable sections. The impact from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Impacts to Water Quality and Fish

ORV passage can directly affect water quality by increasing erosion, suspension (turbidity,) and deposition of fine sediment, and/or leakage of petroleum products and other fluids from ORVs at stream crossings. Fine sediments suspended in water create turbidity, which is a quantifiable water quality characteristic affecting aquatic biota. Hydrocarbon or other fluid contaminants are often washed directly from ORVs and can be directly injected into water through submerged exhaust. Heavy metals and nitrogen oxides accumulate along ATV trails and may be mobilized to aquatic systems during precipitation events (Trumbulak and Frissell, 2000). The size and volume of receiving waters (the “dilution factor”) in comparison with input quantities of sediment or contaminants is a major determinant of the level of the effect. In the situation that would exist under this alternative, sediments and contaminants would likely be diluted to undetectable levels.

Physical impacts to fish and habitat can occur through direct physical contact during vehicle passage or by ORV stream crossing associated wave wash and stranding of individual fish. ORV passage can also re-suspend and entrain sediments which are often flushed downstream to more indirectly impact biota and habitat. ORV effects on fish occur primarily at and downstream of stream crossings. ORVs would not be likely to impose population level effects on fish. The most noticeable impact would likely be from ORV crossings of Silver Salmon Creek which would generate some small amount of turbidity and downstream sediment deposition. When ORVs cross Silver Salmon Creek, disturbed or re-suspended sediments would continue to be transported for short distances (meters or tens of meters) downstream where they could accumulate in pools or along channel margins where current slows. Immediate, initial effects would occur primarily within a relatively well defined, localized reach within perhaps meters or tens of meters of each crossing (Rinella and Bogan, 2003). Direct mortality, habitat loss, and loss of habitat functionality would affect only a miniscule component of populations and available habitats.

Cumulative Impacts: The existing 10.3 miles of ORV trails creates minor adverse impacts to water quality and fish because one trail crosses Silver Salmon Creek. ORVs crossing the creek can increase turbidity at the crossing. Erosion and sedimentation rates were likely greatest

during initial trail development. During heavy rains, large amounts of suspended sediment enter the system from the nearby exposed mountain. Stream discharge, and consequently turbidity, rises and falls rapidly with these storms. These impacts create minor adverse impacts to water quality and fish. The contribution of impacts from this alternative would be minor. The cumulative impact of this alternative plus the impact of past, present, and reasonably foreseeable actions would be minor.

Conclusion: This alternative would create minor adverse impacts to water quality and fish. ORV crossings of Silver Salmon Creek would likely generate some small amount of turbidity and downstream sediment deposition, but ORVs crossing at a single stream crossing would not have noticeable effects on fish populations. The impact from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Impacts to Brown Bears

While it is unlikely that brown bear populations would not be considered natural and healthy due to actions in this alternative, individual brown bears would be negatively impacted because there would be no restrictions on the pattern and volume of ORV use, and no restrictions on where ORVs can be operated. ORVs driven at high speeds would displace some bears, and ORVs driven during nighttime hours when bears are most active would disrupt their feeding patterns.

Cumulative Impacts: Thirteen private parcels in the SSC area, 10.3 miles of ORV trails, and a ranger cabin exist in the project area. These actions created minor adverse impacts to brown bears by instituting human developments that can alter bear behavior and displace bears with a low tolerance for human activity, and by removing bear habitat by constructing trails and buildings. The contribution of impacts from this alternative would be very small. The cumulative impact of this alternative plus the impact of past, present, and reasonably foreseeable actions would be minor.

Conclusion: This alternative would create minor adverse impacts to brown bears because use of ORVs under this alternative could alter the natural behavior of some brown bears in the SSC area. The impact from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Impacts to Visitor Experience

This alternative would create positive impacts to visitor experience by allowing visitors to access properties at SSC with ORVs and to facilitate access to sportfishing, bear viewing, and photography. ORVs would continue to be used for access and to support commercial activities, which would allow visitors to comfortably get themselves and their luggage to and from the lodges.

Alternatively, visitor experience would be diminished due to degraded natural, aesthetic, and scenic values. Under this alternative ORV trails could proliferate, scarring the landscape. There would be no limits on the number of ORVs that can be operated at one time and no requirements for spatial separation. This could create noise disturbances that degrade the visitor experience and groups of ORVs could create an unnatural backdrop against which bears are viewed. This would diminish the visitor's perception of solitude, and would tend to degrade their overall national park experience.

Since this alternative would have negative impacts on brown bears (see above), this alternative would also degrade the visitor opportunity to view bears if bears are more likely to be scared away.

Cumulative Impacts: There is a moderate benefit to visitor use and experience from creation of lodges in the area to support visitor use, by creation of ORV trails to facilitate transportation, and by a ranger cabin to ensure a greater NPS presence focused on improving the quality of the visitor experience and improving visitor safety. There is a concurrent minor negative impact from increases in ORV use and developments which can detract from a quality NPS bear viewing and fishing experience. This alternative would contribute minor adverse impacts. On balance, the cumulative impact of this alternative plus the impact of past, present, and reasonably foreseeable actions would include both moderate adverse and moderate beneficial impacts.

Conclusion: This alternative would create minor adverse impacts to visitor experience by diminishing natural, aesthetic, and scenic values. The impact from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Impacts to Socioeconomics

Since the commercial lodges depend on ORVs to transport guests and supplies to and from the lodges, and to take guests to bear viewing areas that encompass up to 5 miles of coastline, lodges would continue to benefit by using ORVs to support commercial activities. Lodges could suffer however, if the visitor experience is degraded (see above) and SSC is no longer perceived as a place to have a quality national park experience.

Cumulative Impacts: There is a moderate benefit to socioeconomics from creation of lodges in the area to support visitor use, by creation of ORV trails to facilitate transportation, and by a ranger cabin to ensure a greater NPS presence focused on improving the quality of the visitor experience and improving visitor safety. This alternative would contribute minor adverse impacts to socioeconomics. On balance, the beneficial cumulative impact of this alternative plus the impact of past, present, and reasonably foreseeable actions would be minor.

Conclusion: This alternative would create minor adverse impacts to socioeconomics. The impact from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Alternative 2: NPS Preferred Alternative

Impacts to Soils, Vegetation, and Wetlands

Authorizing ORV use on 4.72 miles of existing trails would create a beneficial impact to soils and vegetation because 6 miles of trails that have been developed and used in the past would officially be closed to ORV use and allowed to recover. Under this alternative ORVs would only be permitted on existing trails that are generally in good condition and have a gravel surface. An annual maintenance plan would be developed to ensure that trails remain in good condition. Actions in this alternative would greatly reduce impacts to soils and vegetation such as compacting soils, crushing plants, scarring trees, exposing roots, and spreading invasive plant species because use of ORVs would be limited to a small area and ORVs would be required to stay on hardened trails. If trails are in good condition we can assume that braiding from users avoiding rutted or muddy sections would not occur.

Cumulative Impacts: Thirteen private parcels in the SSC area, 10.3 miles of ORV trails, and a ranger cabin exist in the project area. Vegetation and soils were disturbed when the trails were constructed, during development on private parcels, and during construction of a ranger cabin. These developments collectively created a moderate adverse impact to vegetation and soils by removing vegetation and soils from the footprint of these developments. The continued use of 4.72 miles of existing trail would result in minor impacts. The reduction of 6 miles of existing trail would have beneficial impacts to soils, vegetation, and wetlands. The cumulative adverse impact of this alternative plus the impact of past, present, and reasonably foreseeable actions would be minor to moderate.

Conclusion: This alternative would create beneficial impacts to soils, vegetation, and wetlands by eliminating 6 miles of trails. Allowing ORV use on 4.72 miles of existing trails, maintaining trails in good condition, and regulating volume of ORV use would create minor adverse impacts. The impact from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Impacts to Water Quality and Fish

Impacts to water quality and fish would be the same as for Alternative 1 except that by regulating the volume of ORV use, there may be slightly fewer ORV crossings of Silver Salmon Creek than would occur under Alternative 1. Under this alternative volume of ORV use would be regulated by allowing only landowners and non-paying guests to operate ORVs on designated trails, establishing group size limits, and limiting the number of vehicles that can be operated at one time. In the situation that would exist under this alternative, sediments and contaminants would likely be diluted to undetectable levels.

Cumulative Impacts: The existing 10.3 miles of ORV trails creates minor adverse impacts to water quality and fish because one trail crosses Silver Salmon Creek. ORVs crossing the creek can increase turbidity at the crossing. Erosion and sedimentation rates were likely greatest

during initial trail development. During heavy rains, large amounts of suspended sediment enter the system from the nearby exposed mountain. Stream discharge, and consequently turbidity, rises and falls rapidly with these storms. These impacts create minor adverse impacts to water quality and fish. The contribution of impacts from this alternative would be minor. Actions from this alternative plus past, present, and reasonably foreseeable actions would create minor adverse impacts.

Conclusion: This alternative would create minor adverse impacts to water quality and fish. ORV crossings of Silver Salmon Creek would likely generate some small amount of turbidity and downstream sediment deposition, but ORVs crossing at a single stream crossing would not have noticeable effects on fish populations. The impact from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Impacts to Brown Bears

This alternative would create beneficial impacts to brown bears by limiting the area in which ORVs can be operated and by establishing quiet hours between 10pm and 6am for commercial use of ORVs involving lodge guests. Since NPS data indicate that bears at SSC are most active late evening into the dark hours of the night, these actions would enhance bears' access to habitat, particularly for bears that have a lower tolerance for people and ORVs. Establishing a speed limit would also reduce impacts to bears because ORVs traveling at low speeds are less likely to surprise or frighten bears than ORVs traveling at high speeds.

Cumulative Impacts: Thirteen private parcels in the SSC area, 10.3 miles of ORV trails, and a ranger cabin exist in the project area. These actions created minor adverse impacts to brown bears by instituting human developments that can tend to change bear behavior and displace bears with a low tolerance for human activity, and by removing bear habitat by constructing trails and buildings. This alternative would contribute minor beneficial impacts. The adverse cumulative impact of this alternative plus the impact of past, present, and reasonably foreseeable actions would be minor.

Conclusion: This alternative would create minor beneficial impacts to brown bears because use of ORVs under this alternative would be regulated and ORV use would occur only on 4.72 miles of existing trails. The impact from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Impacts to Visitor Experience

This alternative would create positive impacts to visitor experience by allowing visitors to access properties at SSC with ORVs and to facilitate access to sportfishing, bear viewing, and photography. Authorizing use of ORVs on the 4.72 miles of trails necessary for access and commercial activities would allow visitors to comfortably get themselves and their luggage to and from the lodges.

Natural, aesthetic, and scenic values would be enhanced by allowing approximately 6 miles of trails to recover to a natural condition. Limits on the number of ORVs that can be operated at one time as well as spatial separation requirements would reduce the amount of noise generated by ORVs and the visual impact of machines in a natural setting. Reducing crowds would provide a more natural backdrop against which bears are viewed. These things would positively affect visitor's perception of solitude and reduce the feeling of crowding, and would tend to enhance their overall national park experience.

Since this alternative would have positive impacts on brown bears (see above), this alternative would also enhance the visitor opportunity to view bears if bears are less likely to be scared away.

Cumulative Impacts: There is a moderate benefit to visitor use and experience from creation of lodges in the area to support visitor use, by creation of ORV trails to facilitate transportation, and by a ranger cabin to ensure a greater NPS presence focused on improving the quality of the visitor experience and improving visitor safety. There is a concurrent minor negative impact from increases in ORV use and developments which can detract from a quality NPS bear viewing and fishing experience. This alternative would contribute minor beneficial impacts. On balance, this alternative plus the impact of past, present, and reasonably foreseeable actions would create a minor to moderate beneficial cumulative impact.

Conclusion: This alternative would create minor beneficial impacts to visitor experience. The impact from this alternative would not result in an impairment of park resources that fulfill specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

Impacts to Socioeconomics

Since the commercial lodges depend on ORVs to transport guests and supplies to and from the lodges, and to take guests to bear viewing areas that encompass up to 5 miles of coastline, this alternative would provide positive impacts to the socioeconomic environment of the lodges because they would be able to use ORVs to access their property, conduct business activities, and access the most critical bear viewing and fishing sites. This alternative, by enhancing the opportunity for a quality experience, would contribute to the desirability of SSC as a visitor destination. This would create a positive impact to lodges operating at SSC.

Cumulative Impacts: There is a moderate benefit to socioeconomics from creation of lodges in the area to support visitor use, by creation of ORV trails to facilitate transportation, and by a ranger cabin to ensure a greater NPS presence focused on improving the quality of the visitor experience and improving visitor safety. This alternative would contribute minor beneficial impacts to socioeconomics. On balance, this alternative plus the impact of past, present, and reasonably foreseeable actions would create moderate beneficial cumulative impacts.

Conclusion: This alternative would create minor beneficial impacts to socioeconomics. The impact from this alternative would not result in an impairment of park resources that fulfill

specific purposes identified in legislation establishing the park or key to the natural or cultural integrity of the park.

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Appendix A

ANILCA SECTION 810(A) Summary of Evaluations and Findings Management of Off-Road Vehicles at Silver Salmon Creek Lake Clark National Park and Preserve

I. Introduction

This evaluation was prepared to comply with Title VIII, Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA). It summarizes the evaluation of potential restrictions to subsistence activities that could result from designating existing trails for ORV use in the Silver Salmon Creek (SSC) area of Lake Clark National Park (LACL).

The National Park Service is considering authorizing ORV use on existing trails in the SSC area for inholder travel.

Thirteen landowners currently use ORVs at SSC. Inholders travel to visit one another and often coordinate access, recreation and business support in their daily operations. Two individuals are federally qualified subsistence users in addition to operating a commercial business. Some landowners access their private parcels directly from the Cook Inlet beach outside the Park boundary; however, alternative access across park lands is often needed during high tides and inclement weather to reach private parcels from aircraft landing areas along the beach. None of the land owners have been issued an authorization to operate ORVs on park lands.

II. Lake Clark National Park and Preserve

The purposes for which Lake Clark National Park and Preserve (LACL) were created are found in the language of the 1980 Alaska National Interest Lands Conservation Act (ANILCA, Pub. L. 96-487). As a unit of the National Park System, Lake Clark National Park and Preserve shall be administered to:

- protect the watershed necessary for the perpetuation of the red salmon fishery in Bristol Bay;
- 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
- 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.

III. The Evaluation Process

Section 810(a) of ANILCA states: "In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands . . . the head of the Federal agency . . . over such lands . . . 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, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be affected 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 Section 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 would involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps would be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions."

IV. Proposed Action on Federal Land

Lake Clark National Park and Preserve proposes to authorize ORV use on existing trails in the SSC area of for inholder travel. The Description of Alternatives section of the EA describes each alternative considered in detail. The following is a brief summary of each alternative.

Under the No Action Alternative, the NPS would not undertake any new actions to manage ORV use. Landowners would continue to use ORVs for a multitude of purposes and there would be no formal restriction of location, pattern, and volume of ORV use. Information about existing conditions can be found in the Background and Affected Environment sections.

The proposed action is Alternative 2. Under this alternative ORV use would be allowed only by landowners and non-paying guests on 3.4 miles of existing ORV trails.

The NPS would issue a RWCA for two trails from Silver Salmon Lakes to private property; each RWCA would cover one trail. The total length of these trails is 0.42 miles. ORV use by federally qualified subsistence users would be allowed on an additional 0.9 miles of trail. Trails are shown on Figure 2.

V. The Affected Environment Relative to Subsistence Use

Two individuals are federally qualified subsistence users and engage in a low level of timber harvesting near the Johnson River.

VI. Subsistence Uses and Needs Evaluation

To determine the potential impacts on subsistence activities from designating existing trails for ORV use, three evaluation criteria were analyzed relative to existing subsistence resources:

1. The potential to reduce subsistence fish and wildlife populations by (a) reductions in number, (b) redistribution of subsistence resources, or (c) habitat losses;
2. The potential effect on subsistence fisher or hunter access;
3. The potential to increase fisher or hunter competition for subsistence resources.

1. The potential to reduce populations

In all alternatives considered in this analysis, there is minimal potential to reduce numbers of or redistribute fish and wildlife populations, or reduce habitat for subsistence fish and wildlife populations because the project area (which is approximately 10 miles by .4 miles) is not presently used for subsistence hunting, fishing, or trapping.

2. Restriction of Access

Alternative 1 (No Action Alternative). Local residents would be able to access timber resources as they have in the past so residents would spend the same amount of time and effort accessing timber resources as they do now. This alternative is not expected to significantly restrict access to subsistence resources.

Alternative 2 (NPS Preferred Alternative). Local residents would be able to access timber resources as they have in the past so residents would spend the same amount of time and effort accessing timber resources as they do now. This alternative is not expected to significantly restrict access to subsistence resources.

3. Increase in Competition

The overall potential for increased competition between resource users is nonexistent in both alternatives because the total number of subsistence firewood harvesters would not be likely to increase because of any actions described in this environmental assessment.

VII. Availability of Other Lands

This document addresses designating existing trails for ORV use in the SSC area, not creating new or alternative trails or routes. ORVs can be used throughout the year to transport subsistence users to woodcutting areas adjacent to the Johnson River.

VIII. Alternatives Considered

This analysis has evaluated two alternatives: Alternative 1, to maintain the status quo; and Alternative 2, to authorize SSC landowners to use ORVs on 4.72 miles of existing trails.

IX. Findings

This analysis concludes that the proposed action as described in Alternative 2 would not result in a significant restriction of subsistence uses.

Appendix B

Alaska Coastal Management Program (ACMP) Consistency Determination for the Management of Off-Road Vehicles at Silver Salmon Creek Lake Clark National Preserve

The State of Alaska has an approved coastal zone management program, the Alaska Coastal Management Program (ACMP) which includes regulations in Title 11, Chapter 112 of the Alaska Administrative Code (11 AAC 112). The Alaska Department of Natural Resource's Office of Project Management & Permitting (OPMP) coordinates review of federal consistency determinations as per 11 AAC 110. The Alaska Coastal Policy Council promulgates standards in the ACMP in chapter 112 of Title 11 (11 ACC 112). CZMA Federal Consistency Regulations (15 CFR 930.35(b)) state that consistency determinations include an evaluation of the relevant policies set forth in the ACMP and applicable district programs.

The National Park Service (NPS) is proposing a management plan for off-road vehicles (ORVs) at Silver Salmon Creek for Lake Clark National Preserve (T. 2. S., R. 20. W.). Lands in the project area fall within the coastal zone of the State of Alaska and the Kenai Peninsula Borough (ACMP "Coastal Zone Boundaries of Alaska" Map #92 for Lake Clark). The project area is federal land managed by the National Park Service and by definition is outside the state's coastal zone.

This project would authorize and regulate the use of off-road vehicles for inholder activities on specific existing trails at Silver Salmon Creek in Lake Clark National Park.

A detailed description of the Lake Clark National Park Management of Off-Road Vehicles at Silver Salmon Creek Plan is provided in the attached environmental assessment. Alternative 2 is the NPS preferred alternative.

The following section details the NPS's Consistency Determination analysis by which it was determined that the Off-Road Vehicle Use Plan would not affect any coastal use or resource. In determining effects, the NPS followed 15 CFR 930.33(a)(1) and has included an evaluation of the relevant enforceable policies of the ACMP and the Kenai Peninsula Borough District. State standards included for analysis are coastal development; coastal access; timber harvest; subsistence; habitats; air, land, and water quality; and historic, prehistoric, and archaeological resources. The project would be located on lands under federal jurisdiction, which are outside the coastal zone.

11 A.A.C. 112.200. Coastal development Standard

- (a) In planning for and approving development in or adjacent to coastal waters, districts and state agencies shall manage coastal land and water uses in such a manner that those uses that are economically or physically dependent on a coastal location are given higher priority when compared to uses that do not economically or physically require a coastal location.

- (b) District and state agencies shall give, in the following order, priority to
 - (1) water-dependent uses and activities;
 - (2) water-related uses and activities; and
 - (3) uses and activities which are neither water-dependent nor water-related for which there is no practicable inland alternative to meet the public need for the use or activity.
- (c) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with the standards contained in **33 C.F.R. Parts 320-323**, revised as of July 1, 2003.

Analysis: The NPS Preferred Alternative (Alternative 2) would authorize ORV use by the 13 landowners at SSC on 4.72 miles of existing trails. No new trails would be developed. The authorization of ORV use at SSC in Lake Clark National Preserve is not water-related. There is no inland alternative because the existing trails connect private private parcels to landing areas on the beach.

11 A.A.C. 112.220. Coastal access

Standard

District and state agencies shall ensure that projects maintain and, where appropriate, increase public access to, from, and along coastal water.

Analysis: Alternative 2 would authorize ORV use on 4.72 miles of existing trails at SSC for inholder access to private property and for other purposes. No facilities or structures would be built that would impede access to tidelands. Actions described in this plan would not negatively affect public access to, from, and along coastal water.

11 A.A.C. 112.270. Subsistence

Standard

- (a) A project within a subsistence use area designated by the department or under **11 A.A.C. 114.250(g)** must avoid or minimize impacts to subsistence uses of coastal resources.
- (b) For a project within a subsistence use area designated under **11 A.A.C. 114.250(g)**, the applicant shall submit an analysis or evaluation of reasonably foreseeable adverse impacts of the project on subsistence use as part of
 - (1) a consistency review packet submitted under **11 A.A.C. 110.215**; and
 - (2) a consistency evaluation under **15 C.F.R. 930.39**, **15 C.F.R. 930.58**, or **15 C.F.R. 930.76**.
- (c) Repealed 10/29/2004, **Register 172**.
- (d) Except in nonsubsistence areas identified under **A.S. 16.05.258**, the department may, after consultation with the appropriate district, federally recognized Indian tribes, Native corporations, and other appropriate persons or groups, designate areas in which a subsistence use is an important use of coastal resources as demonstrated by local usage.
- (e) For purposes of this section, “federally recognized Indian tribe,” “local usage,” and “Native corporation” have the meanings given in **11 A.A.C. 114.990**.

Analysis: The Silver Salmon Creek area is in Lake Clark National Park and is open to subsistence uses under ANILCA Title VIII. The NPS is responsible for managing subsistence

in the Park. The NPS has prepared an ANILCA section 810 evaluation and has determined that the plan would not cause a significant restriction of subsistence uses.

11 A.A.C. 112.300. Habitats

Standard

- (a) Habitats in the coastal area which are subject to the program are
 - (1) offshore areas;
 - (2) estuaries;
 - (3) wetlands;
 - (4) tideflats;
 - (5) rocky islands and seacliffs;
 - (6) barrier islands and lagoons;
 - (7) exposed high energy coasts;
 - (8) rivers, streams and lakes and the active floodplains and riparian management areas of those rivers, stream and lakes; and
 - (9) important habitat.
- (b) The following standards apply to the management of the habitats identified in (a) of this section:
 - (1) offshore areas must be managed to avoid, minimize or mitigate significant adverse impacts to competing uses such as commercial, recreational or subsistence fishing, to the extent that those uses are determined to be in competition with the proposed use;
 - (2) estuaries must be managed to avoid, minimize or mitigate significant adverse impacts to
 - (A) adequate water flow and natural water circulation patterns; and
 - (B) competing uses such as commercial, recreational or subsistence fishing, to the extent that those uses are determined to be in competition with the proposed use;
 - (3) wetlands must be managed to avoid, minimize or mitigate significant adverse impacts to water flow and natural drainage patterns;
 - (4) tideflats must be managed to avoid, minimize or mitigate significant adverse impacts to
 - (A) water flow and natural drainage patterns; and
 - (B) competing uses such as commercial, recreational or subsistence uses, to the extent that those uses are determined to be in competition with the proposed use;
 - (5) rocky islands and sea cliffs must be managed to
 - (A) avoid, minimize or mitigate significant adverse impacts to habitat used by coastal species; and
 - (B) avoid the introduction of competing or destructive species and predators;
 - (6) barrier islands and lagoons must be managed to avoid, minimize or mitigate significant impacts
 - (A) to flows of sediments and water;
 - (B) from the alteration or redirection of wave energy or marine currents that would lead to the filling in of lagoons or the erosion of barrier islands; and

- (C) from activities that would decrease the use of barrier islands by coastal species, including polar bears and nesting birds;
- (7) exposed high-energy coasts must be managed to avoid, minimize or mitigate significant adverse impacts
 - (A) to the mix and transport of sediments; and
 - (B) from redirection of transport processes and wave energy;
- (8) rivers, streams and lakes must be managed to avoid, minimize or mitigate significant adverse impacts to
 - (A) natural water flow;
 - (B) active floodplains; and
 - (C) natural vegetation within riparian management areas; and
- (9) important habitat
 - (A) designated under **11 A.A.C. 114.250(h)** must be managed for the special productivity of the habitat in accordance with district enforceable policies adopted under **11 A.A.C. 114.270(g)**; or
 - (B) identified under (c)(1)(B) or (C) of this section must be managed to avoid, minimize or mitigate significant adverse impacts to the special productivity of the habitat.
- (c) For purposes of this section,
 - (1) “important habitat” means habitats listed in (a)(1)-(8) of this section and other habitat in the coastal area that are
 - (A) designated under **11 A.A.C. 114.250(h)**;
 - (B) identified by the department as a habitat
 - (i) the use of which has a direct and significant impact on coastal water; and
 - (ii) that is shown by written scientific evidence to be biologically and significantly productive; or
 - (C) identified as state game refuges, state game sanctuaries, state range areas or fish and game critical habitat under **A.S. 16.20**;
 - (2) “riparian management area” means the area along or around a waterbody within the following distances, measured from the outermost extent of the ordinary high water mark of the waterbody:
 - (A) for the braided portions of a river or stream, 500 feet on either side of the waterbody;
 - (B) for split channel portions of a river or stream, 200 feet on either side of the waterbody;
 - (C) for single channel portions of a river or stream, 100 feet on either side of the waterbody;
 - (D) for a lake, 100 feet of the waterbody.

Analysis: The NPS Preferred Alternative (Alternative 2) would authorize ORV use on 4.72 miles of existing trails. No new trails would be developed. Authorizing ORV use on 4.72 miles of existing trails would create a beneficial impact to soils and vegetation because approximately 6 miles of trails that have been developed and used in the past would officially be closed to ORV use and allowed to recover. Alternative 2 would reduce or eliminate impacts to soils and vegetation such as compacting soils, crushing plants, scarring trees, exposing

roots, and spreading invasive plant species because use of ORVs would be limited to a small area and ORVs would be required to stay on hardened trails. NPS will periodically survey for invasive plant species the 6 miles of trails that are proposed to re-vegetate under Alternative 2.

No adverse affects to the coastal zone are anticipated to occur under any alternative in this plan. Alternatives in this EA would not have any measurable effect on floodplains or floodplain values in the area.

The State of Alaska has the authority to issue an anadromous stream crossing permit to the Silver Salmon Creek community, which it has each year. Silver salmon are abundant in the area's creeks and ORV use across Silver Salmon Creek may increase sedimentation, potentially affecting turbidity very close to the stream crossing. Direct mortality, habitat loss, and loss of habitat functionality would affect only a miniscule component of populations and available habitats. NPS will consult with Alaska Department of Fish and Game to discuss ways it can mitigate impacts to fish habitat from the ORV crossing on Silver Salmon Creek.

11 A.A.C. 112.310. Air, Land & Water Quality

Standard

Notwithstanding any other provision of this chapter, the statutes and regulations of the Department of Environmental Conservation with respect to the protection of air, land, and water quality, identified in **A.S. 46.40.040(b)** are incorporated into the program and, as administered by that department, constitute the exclusive components of the program with respect to those purposes.

Analysis: The NPS Preferred Alternative (Alternative 2) would authorize ORV use on 4.72 miles of existing trails. No new trails would be developed. No other lands would be affected. ORV operation would not affect air or water quality in the surrounding area. Exhaust emissions produced by ORVs would have a negligible effect on the area's air quality because of low ORV use levels. Impacts to water quality are expected to be minimal given low levels of ORV use.

11 A.A.C. 112.320. Historic, Prehistoric, and Archeological Resources

Standard

- (a) The department will designate areas of the coastal zone that are important to the study, understanding or illustration of national, state or local history or prehistory, including natural process.
- (b) A project within an area designated under (a) of this section shall comply with the applicable requirements of **A.S. 41.35.010 – 41.35.240** and **11 A.A.C. 16.010 – 11 A.A.C. 16.900**.

Analysis: The alternatives proposed in this plan will not expand disturbance into areas not already disturbed by ORV use. Cultural resources are not likely to be affected by continued ORV use. If cultural resources are discovered during trail maintenance activities, work would be halted at the discovery site, the discovery would be protected and the Lake Clark

Superintendent or Chief of Cultural Resources would be notified. The site would be evaluated for eligibility for the National Register of Historic Places. Appropriate action would be taken to avoid adverse effects to any eligible cultural properties.

Enforceable Policies of the Kenai Peninsula Borough that apply to the Silver Salmon Creek project are described below.

3.3 Public Access. An applicant shall detail in the project application how legal public access routes to coastal water bodies, lakeshores and riverfronts will be protected from adverse physical impacts as a result of public use, where practicable.

Analysis: *See analysis of 11 A.A.C. 112.220. Coastal access.*

CONSISTENCY DETERMINATION: Based on the above information the National Park Service finds that the Lake Clark National Park Management of Off-Road Vehicles at Silver Salmon Creek Plan is consistent to the maximum extent practicable with the enforceable standards of the Alaska Coastal Management Program.

Appendix C: Superintendent's Evaluation for Compatibility

Conservation Unit: Lake Clark National Park and Preserve

Date established: 12/2/80

Establishing Authority: Alaska National Interest Lands Conservation Act

Purpose(s) for which Established:

“To protect the watershed necessary for the 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.”

NPS Proposed Action

The National Park Service is considering authorizing ORV use on 3.4 miles of existing trails in the SSC area by the owners of private lands in the area. Only the 13 existing landowners would receive a permit. ORV use by federally qualified subsistence users would be allowed under the same permit on an additional 0.9 miles of trail. Trails are shown on Figure 2. ORV use would be limited to landowners and non-paying guests.

These trails would be inventoried, assessed and periodically maintained. The NPS would work with the landowners to develop an annual trail maintenance plan. Landowners would be responsible for maintenance activities with NPS oversight and assistance.

The following stipulations would apply:

Proposed Permit Stipulations for Landowners other than Southcentral Foundation and who do not have a Commercial Use Authorization

- Operation of ORVs will be permitted only on the trails identified in each permit. Use of the trail colored yellow on the map is permitted only by federally qualified subsistence users. [An ORV is any motorized off-highway vehicle traveling on four or more low-pressure tires, having a seat to be straddled by the operator and a handlebar for steering control. It also includes a motorized off-highway vehicle having four or more low pressure tires, designed with side-by-side seats, seatbelts, steering wheel, and optional cab, brush cage, or ROPS.] The landowner shall obtain prior approval from the Superintendent before operating any other vehicle including pick-up trucks, dump trucks, and heavy equipment.
- ORVs will be operated at speeds not exceeding 15 mph.
- A wildlife and ORV orientation will be required of all ORV users.

- The number of ORVs operating at any one time on designated trails is limited to three per permit holder.

Proposed Permit Stipulations for Holders of Commercial Use Authorizations

- Operation of ORVs will be permitted only on the trails identified in each permit. Use of the trail colored yellow on the map is permitted only by federally qualified subsistence users. [An ORV is any motorized off-highway vehicle traveling on four or more low-pressure tires, having a seat to be straddled by the operator and a handlebar for steering control. It also includes a motorized off-highway vehicle having four or more low pressure tires, designed with side-by-side seats, seatbelts, steering wheel, and optional cab, brush cage, or ROPS.] The landowner shall obtain prior approval from the Superintendent before operating any other vehicle including pick-up trucks, dump trucks, and heavy equipment.
- A wildlife and ORV orientation will be required of all ORV users.
- The number of ORVs operating at any one time on designated trails is limited to five per permit holder.
- Group size will be limited to 10 including guides. Groups will be supported by no more than 2 ORVs and trailers per group.
- Rental of ORVs is prohibited in CUA activities.
- Operation of ORVs by paying Lodge clients is prohibited.
- No more than one group from your Lodge may park at the Silver Salmon Creek crossing or within ¼ mile of that crossing at the same time.
- Commercial use of ORVs involving clients will be permitted only between 6am – 10pm.
- ORVs will be operated at speeds not exceeding 15 mph.
- ORV use will be monitored. If resource disturbance becomes a problem, additional ORV stipulations will be implemented.

Proposed Permit Stipulations for Southcentral Foundation

- Operation of ORVs will be permitted only on the trails identified in each permit. Use of the trail colored yellow on the map is permitted only by federally qualified subsistence users. [An ORV is any motorized off-highway vehicle traveling on four or more low-pressure tires, having a seat to be straddled by the operator and a handlebar for steering control. It also includes a motorized off-highway vehicle having four or more low pressure tires, designed with side-by-side seats, seatbelts, steering wheel, and optional cab, brush cage, or ROPS.] The landowner shall obtain prior approval from the Superintendent before operating any other vehicle including pick-up trucks, dump trucks, and heavy equipment.
- A wildlife and ORV orientation will be required of all ORV users.
- The number of ORVs operating at any one time on designated trails is limited to three per permit holder.
- Group size will be limited to 10 including chaperones/SCF employees.
- Operation of ORVs by guests is prohibited.
- No more than one group from Southcentral Foundation may park at the Silver Salmon Creek crossing or within ¼ mile of that crossing at the same time.

- Use of ORVs will be permitted only between 6am – 10pm.
- ORVs will be operated at speeds not exceeding 15 mph.
- ORV use will be monitored. If resource disturbance becomes a problem, additional ORV stipulations will be implemented.

History of ORV Access and Use

Various commercial uses of the Silver Salmon Creek area occurred long before the park was established. Cannery operations reached the west side of Cook Inlet in 1900 and in 1919 the Surf Packing Company built a cannery in Snug Harbor just north of Silver Salmon Creek¹. This was the only remaining cannery on the west side after 1930. Other uses included clamming, salting, operation of commercial fishing set net sites, and guided hunting as well as commercial lumbering, subsistence fishing, hunting and trapping. By the 1950s, oil and gas exploration and production brought further economic and demographic change accompanied by enhanced transportation systems and a growing recreational fishing and hunting industry².

Transportation to support these activities occurred by light aircraft and boat. As permanent camps were developed motorized surface transportation along the shoreline between sites became common. While the following photograph was taken at Polly Creek at Tuxedni Bay just north of Silver Salmon, it reflects one of the commercial uses that enlisted motorized surface transportation on West Cook Inlet near Silver Salmon Creek as early as 1923 and well before the establishment of the park.



Lone Clammer @ 1923 Dorothy Fribrock collection³

¹ Snug Harbor Cannery, Ringsmuth, 2005, pp26

² West Cook Inlet Ethnographic Overview and Assessment for Lake Clark National Park and Preserve, Stanek, Fall and Holen, 2006, pp 82

As early as the 1930s, heavy equipment was used at the Wilbur Morris sawmill near Red Glacier just south of Silver Salmon Creek, where in 1942, Morris was permitted to cut 1 million board feet of spruce and 10,500 linear feet of timber for various piling stock. Morris stayed until about 1960, but his operation was never large enough to significantly or visually change the landscape.⁴

As of 1981, 60 commercial salmon setnet sites operated from land bases between Chinitna Bay and Polly Creek and commercial clamming operations involved over 100 people near Polly Creek and the Crescent River⁵. Motorized surface transportation along the shoreline to support these fishing sites was not uncommon. The Lake Clark National Park and Preserve General Management Plan recognized such uses, stating “local residents traditionally used snowmobiles, and off-road vehicles with four wheel drive or tracks do not venture far from the limited road networks around villages. Small three-wheel scooters are often used in summer and other seasons” (Lake Clark GMP page 61).

As commercial clamming and salmon fishing waned, other commercial uses evolved in the entrepreneurial spirit of West Cook Inlet. In 1975 homesteaders Robert and Mary Haeg used heavy equipment and ORVs, first three wheelers and later four wheelers, to provide necessary support for their Chinitna Bay home site and commercial fishing activities, such as net transport and pulling, fish hauling and other uses. They later equipped themselves to provide bear viewing visitor services.

Commercialized support of sport fishing and bear-viewing activities have been part of the Silver Salmon Creek visitor composition since at least the mid 1970s with the subdivision of the Munger homestead and with the establishment of the Silver Salmon Creek Lodge, by Ken Grimes in 1978. Heavy equipment and ORVs were employed to support many home sites as well as lodge activities.⁶ With the establishment of Lake Clark National Park and Preserve and elimination of sport or general hunting within the park, changing economics provided additional opportunities that targeted sportfishing and commercialized brown bear viewing on the park coast.

David Coray purchased the Silver Salmon Creek Lodge in 1983 and expanded the services to include brown bear observations and photography, sea-kayaking, boat tours of the coast of Lake Clark National Park, bird watching and tent camping, with a current capacity for 16 guests at one time. James Isaak began taking in guests at his Homestead Lodge, with a stated capacity of 12. Commercial activities were encouraged and approved by park management⁷ and later authorized under Commercial Use Authorization (CUAs).

During the 1980s, 1990s and early 2000s, ORV use continued on limited existing trails to support inholder access and appropriate activities.

4 Historic Structures within Lake Clark National Park and Preserve, Hoagland, 1982, pp 14-15

5 Lake Clark GMP/DCP 1982 pp.63

6 Personal communication with David Coray, 2008

7 Lake Clark GMP/DCP, 1982, pp 22



Fifteen Three-Wheelers at Silver Salmon Creek @ 1983 Dave Coray collection

Prior to the widespread availability of ORVs, motorized vehicles in the Silver Salmon Creek area consisted of old tractors and army jeeps. With the advent of smaller, more mobile all-terrain vehicles (3 wheelers) coupled with the lucrative commercial salmon set-netting efforts, the area saw a rapid increase in ORV use, with perhaps a dozen in use by 1977 and over 20 by 1983. They were used for a variety of purposes, but most importantly for accessing fishing nets on the outside beach, transporting fish to airplanes for shipment, transporting lodge guests to local streams and boats, and for visits between local landowners. With single-axle trailers being towed behind, landowners at Silver Salmon quickly realized the labor and cost saving elements of employing these motorized vehicles in their efforts to live in a remote area.

ORVs were capable of moving over tidal flats, grassy meadows and crude trails in the woods with relative ease. In the 1970's the area was managed by the Bureau of Land Management and no restrictions were imposed on ORV use. Established, hardened trails were formed between fishing camps and the one lodge. Detours were often added if an existing trail was muddy and within a few short years, a patchwork of ORV trails covered the entire stretch of coastline from Johnson River south to Red River.

It was by common consensus in the early 1990's that landowners in the general area agreed that unchecked, unrestricted ORV use in the area was potentially damaging to the lifestyle of the residents and to the value of the land itself. In response to increased pressures on resources, the NPS enhanced its presence at SSC to protect important park resources and assure visitors an opportunity for a safe and favorable park experience. A ranger station was built adjacent to one central beach landing area. This facility provides a base for park employees to monitor impacts to fish and wildlife habitat and to provide information, guidance, and emergency response. Best practice guidelines were established in 2004 and community meetings were held in 2006 that resulted in voluntary non-use of unsustainable trails that paralleled Silver Salmon and Sergeant Creeks in order to protect fish and wildlife habitat. The NPS and

landowners informally agreed that only necessary trails would be used and that use of other trails would be discontinued.

Regulatory Pathway

43CFR 36.11 g(2) states:

The appropriate Federal agency is authorized to issue permits for the use of ORVs on existing ORV trails located in areas (other than in areas designated as part of the National Wilderness Preservation System) upon a finding that such ORV use would be compatible with the purposes and values for which the area was established. The appropriate Federal agency shall include in any permit such stipulations and conditions as are necessary for the protection of those purposes and values.

43CFR 36.11 g(2) would allow the National Park Service to authorize ORV use on 3.4 miles of existing trails in the SSC area for inholder travel if such ORV use is determined to be compatible with the purposes and values for which the area was established.

Criteria for Evaluating Compatibility

2006 NPS Management Policies Section 1.4.6 declares that “park resources and values” include the park’s scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals; appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them; the park’s role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and any additional attributes encompassed by the specific values and purposes for which the park was established.

2006 NPS Management Policies Section 1.4.7.1 states:

Virtually every form of human activity that takes place within a park has some degree of effect on park resources or values, but that does not mean the impact is unacceptable or that a particular use must be disallowed. Therefore, for the purposes of these policies, unacceptable impacts are impacts that, individually or cumulatively, would:

- be inconsistent with a park’s purposes or values, or
- impede the attainment of a park’s desired future conditions for natural and cultural resources as identified through the park’s planning process, or

- create an unsafe or unhealthful environment for visitors or employees, or
- diminish opportunities for current or future generations to enjoy, learn about, or be inspired by park resources or values, or
- unreasonably interfere with
 - park programs or activities, or
 - an appropriate use, or
 - the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park, or
 - NPS concessioner or contractor operations or services.

The general definition for compatible is “capable of existing or performing in harmonious, agreeable, or congenial combination.” It seems that impacts from uses that are “compatible” should be lower than impacts that simply rise above “unacceptable.” Nonetheless, the criteria for “unacceptable impacts” listed in 2006 NPS Management Policies offer a starting point since there are no criteria in policy for what constitutes “compatibility.”

Evaluation of Compatibility

Actions proposed in the LACL Management of Off-Road Vehicles at Silver Salmon Creek Plan would essentially limit the volume of ORV use and would stipulate that ORVs be operated in ways that protect the purposes and values for which the park was established. NPS would issue only a limited number of permits in order to ensure use does not exceed existing levels and thus continues to be compatible. Under this scenario, ORV use would be compatible with park purposes and values, based on the following evaluation:

- Vegetation and Soils. NPS would authorize ORV use only on existing trails that are located to minimize damage to soils, watersheds, vegetation, and other resources of the public lands. NPS conducted a trail condition assessment on existing trails at SSC. NPS would only authorize ORV use on trails that are generally in good or excellent condition. An annual maintenance plan will be developed to ensure that trails remain in good condition. Authorizing ORV use on 3.4 miles of existing trails will create a beneficial impact to soils and vegetation because the 6 miles of trails that have been developed and used in the past will officially be closed to ORV use and allowed to recover. These actions will reduce or eliminate impacts to soils and vegetation such as compacting soils, crushing plants, scarring trees, exposing roots, and spreading invasive plant species because use of ORVs would be limited to a small area and ORVs would be required to stay on hardened trails.
- Wildlife and Wildlife Habitat. Trails are located to minimize harassment of wildlife or significant disruption of wildlife habitats. NPS rangers have not observed significant changes in bear behavior at existing patterns and levels of ORV use. NPS has not detected a measurable impact to salmon from ORV crossings at SSC. The proposed action will create beneficial impacts to brown bears by limiting the area in which ORVs can be operated and by establishing quiet hours between 10pm and 6am for commercial use of ORVs involving lodge guests. Since NPS data indicate that bears at SSC are

most active late evening into the dark hours of the night, these actions will enhance bears' access to habitat, particularly for bears that have a lower tolerance for people and ORVs. Establishing a speed limit will also reduce impacts to bears because ORVs traveling at low speeds are less likely to surprise or frighten bears than ORVs traveling at high speeds. In addition, the commercial activities supported by limited ORV use contribute substantially to the education of visitors and serve the NPS in building understanding and a meaningful conservation ethic in visitors. Educated visitors tend to act more responsibly around bears, which positively contributes to the protection of brown bears at SSC.

- Visitor Experience and Quality of Life for Landowners. Trails are located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors. Some landowners have complained about the level of ORV use and feel that it detracts from a quality visitor and landowner experience due to noise and presence of motorized equipment. NPS believes that stipulations regarding the operation of ORVs at levels described in the proposed action can mitigate this concern. Limits on the number of ORVs that can be operated at one time as well as spatial separation requirements will reduce the amount of noise generated by ORVs and the visual impact of machines in a natural setting. Reducing crowds will provide a more natural backdrop against which bears are viewed. These things will positively affect visitor's perception of solitude and reduce the feeling of crowding, and will tend to enhance their overall national park experience. The proposed action will create positive impacts to visitor experience by allowing visitors to access properties at SSC with ORVs and to facilitate access to sportfishing, bear viewing, and photography. Authorizing use of ORVs on the 3.4 miles of trails necessary for access and commercial activities will allow visitors to comfortably get themselves and their luggage to and from the lodges. Since strict management of ORV use would be compatible with the protection of brown bear habitat and populations, it will also protect the visitor opportunity to view bears if bears are less likely to be scared away from the use of ORVs.
- Wilderness. Trails are not located in officially designated Wilderness Areas or Primitive Areas, and the SSC area was purposefully excluded from wilderness designation. In 1979, the Committee on Energy and Natural Resources, United States Senate, recognized land use potentials for Lake Clark after it was designated a National Monument and while it was being considered for park status. The Committee said, "Lake Clark National Park/Preserve has some of the best potential for recreation in the State, because of its easy access from Anchorage. The designation as wilderness of the mountainous core area and some of the key lowland areas ensures that there will be a balance between higher density recreation on the fringes of the area and high quality wilderness public use in the heart of the park and preserve." The Silver Salmon Creek area was not ultimately designated Wilderness, recognizing its current development, considerable private parcels and neighboring Native corporation lands.

- Natural, Aesthetic, or Scenic Values. Patterns and levels of ORV use as described in the proposed action will not adversely affect the Park's natural, aesthetic, or scenic values. Natural, aesthetic, and scenic values will be enhanced by allowing 6 miles of trails to recover to a natural condition. Limits on the number of ORVs that can be operated at one time as well as spatial separation requirements will reduce the amount of noise generated by ORVs and the visual impact of machines in a natural setting. Reducing crowds will provide a more natural backdrop against which bears are viewed. These things will positively affect visitor's perception of solitude and reduce the feeling of crowding, and will tend to enhance their overall national park experience.

In addition nothing in the proposed action will constitute an unacceptable impact as defined in 2006 NPS Management Policies Section 1.4.7.1. ORV use as it's described in the proposed action will also be compatible with all resources and values listed in Section 1.4.6 as well as those identified in the park's enabling legislation that are not specifically described above. Compatibility of ORV use with those resources and values, such as cultural landscapes and ethnographic resources, is not described in detail because the proposed action will simply not impact to those resources and values.

Finding

In general, ORVs have the potential to have significant negative impacts on brown bear behavior and habitat, salmon viability, and visitor experience, all of which are important values of the park; therefore, NPS has determined that only levels and patterns of ORV use described in the proposed action, including accompanying permit stipulations, are compatible with park resource values. NPS will proceed very cautiously when considering additional levels or different patterns of ORV use which could affect these important resources and values. NPS will issue only a limited number of permits in order to ensure use remains at or below existing levels and thus continues to be compatible. Impacts from ORV use at levels greater than those described in the proposed action, or under more relaxed stipulations than those described in the proposed action, would not be acceptable.

The determination that ORV use at SSC is compatible with park resource values is based on the fact that current levels of use comport with historic levels of use. Local businesses have grown from commercial operations that pre-date the park. It is based on two commercial operators operating at current levels and under permit stipulations described in the Environmental Assessment. The incorporation of ORVs into commercial enterprises preceded the establishment of the park and since the early 1980s has not grown significantly due to the high cost of transporting equipment to this rural region and the high costs of fuel. The number of landowners has also remained fairly consistent from the late 1970's to the present day. ORV use will occur only on a limited number of sustainable trails, and stipulations on ORV use will mitigate adverse impacts to park resources and values including wildlife and the visitor experience. Currently, wildlife densities remain very high and resource impacts are very low. NPS expects this to continue under the level and pattern of ORV use described in the proposed action. If NPS receives requests for additional use, NPS would have to do a new determination which may or may not find that a higher level of use is compatible.

Approval:

Superintendent, Lake Clark National Park and Preserve

Date

Review and Concurrence:

Regional Director, Alaska Region

Date