Environmental Assessment and Finding of No Significant Impact

Boat Launch Ramp & Dock
Nondalton, Alaska
Six-Mile Lake

October 2011

Prepared by the U.S Army Corps of Engineers
Alaska District
for the
Denali Commission

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, as amended, the U.S. Army Corps of Engineers, Alaska District (Corps) and the Denali Commission have assessed the environmental effects of the following action:

Boat Launch Ramp & Dock
Six-Mile Lake
Nondalton, Alaska

This action has been evaluated for its effects on several significant resources, including fish and wildlife, wetlands, threatened or endangered species, marine resources, and cultural resources. No significant short-term or long-term adverse effects were identified.

This Corps action complies with the National Historic Preservation Act, the Endangered Species Act, the Clean Water Act, the Magnuson-Stevens Fishery Conservation and Management Act, and the National Environmental Policy Act. The completed environmental assessment supports the conclusion that the action does not constitute a major Federal action significantly affecting the quality of the human and natural environment. An environmental impact statement is therefore not necessary for the construction of a boat launch ramp and floating dock on Six-Mile Lake in Nondalton, Alaska.

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Tessa L. D. DeLong, MPA Date
Director of Programs
Denali Commission

Environmental Assessment

1.0 PURPOSE AND NEED OF REMEDIAL ACTION

1.1 Introduction

The Alaska District U.S. Army Corps of Engineers (Corps) Environmental Resources Section prepared this environmental assessment (EA) on behalf of the Denali Commission. The EA describes a proposed new boat launch ramp on Six-Mile Lake in Nondalton, Alaska, and discusses the potential environmental effects of that construction project.

1.2 Site Location

The proposed site for the boat launch ramp is on the western shore of Six-Mile Lake at the southwest corner of the community of Nondalton near the end of Hill Street. The project site is within Section 31 of Township 2 South, Range 32 West, of the Seward Meridian, at 59.9630°N, 154.8552°W. Lake Clark National Park and Preserve occupies much of the eastern shore of Six-Mile Lake opposite Nondalton and the project site.

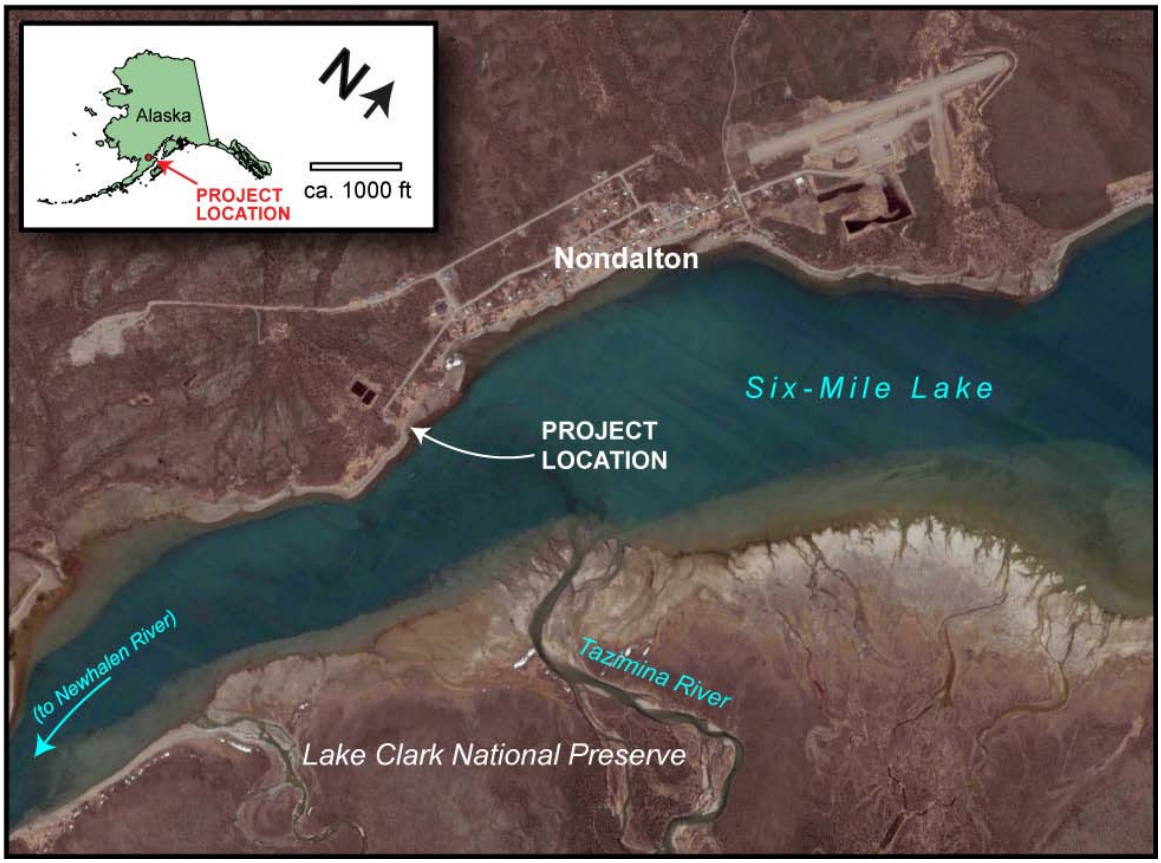

Figure 1. Vicinity of Nondalton and the boat ramp project site.

1.3 Need for Action

The residents of Nondalton rely on small boat access to Six-Mile Lake for subsistence and regional transportation. Currently, boats are launched at an unimproved gravel beach near the proposed project site or are simply launched and retrieved from the shoreline near individual lakefront dwellings. Such use at some locations along the shoreline has resulted in the breakdown of shore vegetation and erosion of sediment into the lake. A dedicated, hardened boat launch ramp would provide safer, more efficient access to the lake, and offer an alternative that should lessen the environmental impact of boat handling along the lake shoreline. The reduced need for shoreline storage of watercraft may also reduce the risk of lakeside fuel spills. A seasonal floating dock, proposed as an option to the ramp construction project, would further improve the safety and efficiency of loading and unloading small open watercraft.

2.0 ALTERNATIVES

The preferred alternative is a boat launch ramp constructed of fill and surfaced with 16-foot-wide pre-cast concrete planks, extending from a 100-foot-by-100-foot gravel staging area about 120 feet into the lake (figure 2). The existing vehicle trails would be widened into a gravel roadway connecting the staging area with the end of Hill Street. The lake bed around the base of the ramp would need to be smoothed and deepened, requiring the removal or displacement of 563 cubic yards of lakebed material. About 167 cubic yards of rock and gravel fill would be used to build the ramp structure (USACE 2011). Construction is expected to last about 60 days, and require an excavator or large backhoe, a bulldozer, and a compactor. Some of these pieces of heavy equipment may be available in Nondalton. Much of the fill material is expected to come from local sources, although the armor rock for the sides of the ramp may need to be transported in from outside the Nondalton area.

An optional feature of the preferred alternative (not shown on figure 2 or the preliminary plan drawings) is an 8-foot-wide, 200-foot-long boarding float, which would be removed and stored upland during the winter. During summer use, the boarding float would be moored alongside the ramp to five steel pilings that would be permanently driven into the lake bed. Under this option, the amount of lakebed material needing to be dredged would increase to 883 cubic yards, while the amount of rock and gravel fill used for the ramp would increase to 201 cubic yards (USACE 2011).

Under the “no-action alternative,” the ramp would not be built, and the current boat launching and landing arrangements would continue. The project impacts described below would not occur, but none of the benefits, either to the community or the environment, would be obtained.

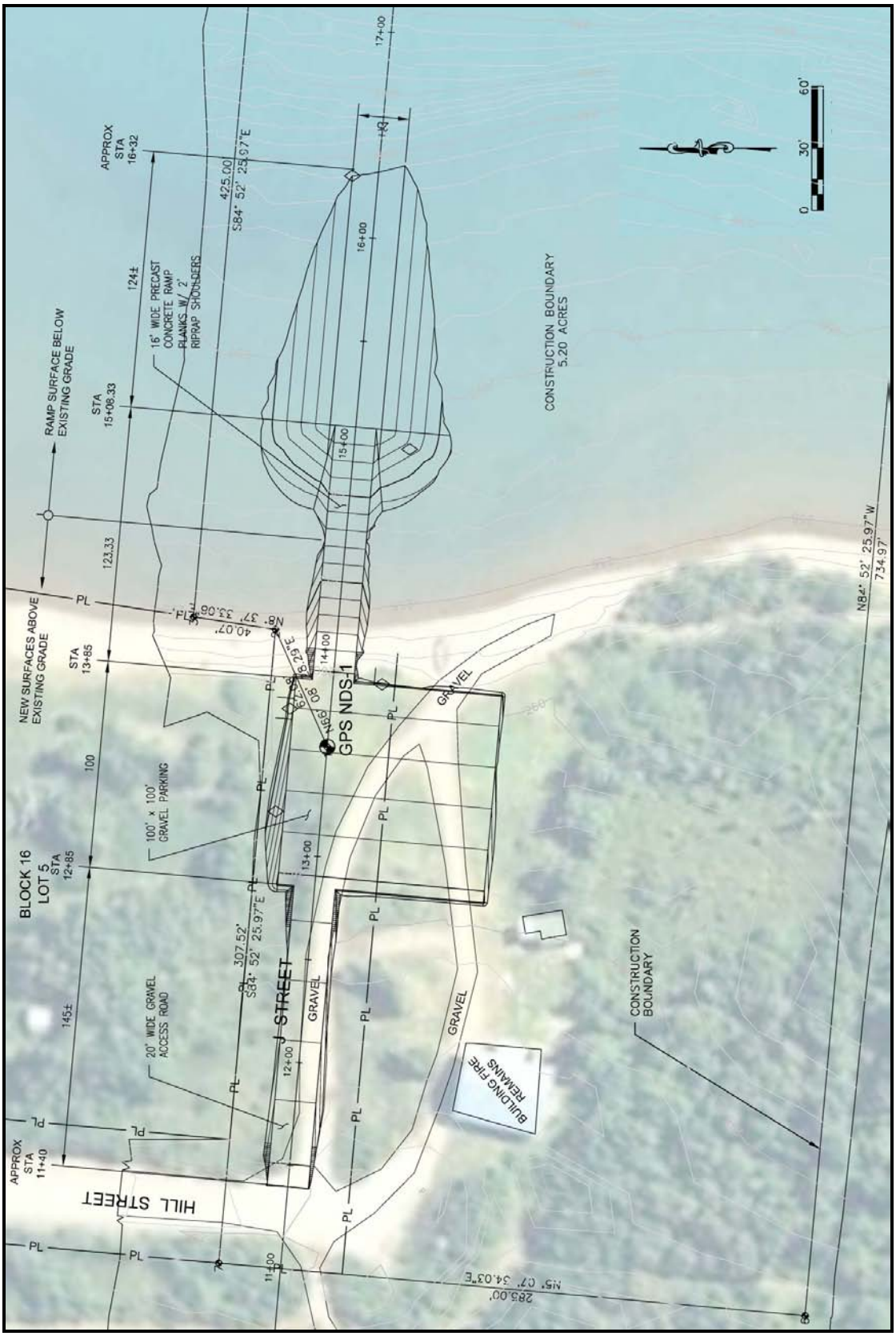

Figure 2. Plan of proposed boat launch ramp and parking lot (excerpted from USACE 2011).

3.0 AFFECTED ENVIRONMENT

3.1 Community

Nondalton is a community of about 164 people (2010 Census) on the shore of Six-Mile Lake, within the Lake and Peninsula Borough of southwest Alaska. The population is largely Native Alaskan and relies heavily on subsistence fishing and hunting. Most access to the community is by air or water. Bulk goods can be brought in by a road from Iliamna that reaches as far as the southeastern shore of Six-Mile Lake near the start of the Newhalen River. The goods must then be ferried across the lake to Nondalton by skiff or barge (ADCRA 2011).

3.2 Current Land Use

The upland portion of the proposed project site is currently used as an informal boat staging and launching site. The site has also been used to land barges. The broad, shallow beach south of the project site is used to access fish camps near the mouth of the Newhalen River. A home or similar structure existed on the south side of the gravel lot but has burned and collapsed. The city sewage lagoon is several hundred feet to the west of the site. The upland areas of the site are owned by the City of Nondalton, while shoreline and lake bottom below Ordinary High Water are owned by the State of Alaska.

3.3 Climate

Average summer temperatures at Nondalton range from 42 to 62 °F; winter temperatures average from 6 to 30 °F. Annual average rainfall is 26 inches, with 64 inches of snowfall (ADCRA 2011). Six-Mile Lake is frozen from November to mid-May, on average.

3.4 Topography, Soils, and Hydrology

Site soils will not be evaluated as part of this project. Rounded gravel is the dominant surface material visible along the beach and extending into the lake bed. The upland area and beach slope gradually into the lake. The land west of the project site slopes gradually up to a 1,500-foot ridge about 2 miles west of the lake.

Six-Mile Lake is part of a chain of hydraulically connected rivers and lakes running hundreds of miles through southwestern Alaska to the ocean. Six-Mile Lake receives inflow from the much larger Lake Clark to the north, and discharges into the Newhalen River, which in turn empties into Lake Iliamna. Lake Iliamna ultimately drains to Bristol Bay via the Kvitchak River.

3.5 Biological Resources

The upland project site contains scattered trees and stands of fireweed and other pioneer forbs cut through by two dirt vehicle paths leading from J Street to the lake shoreline. The woodlands nearby are a dense mix of birch, alder, and willow, with occasional black spruce. A belt of forbs and grasses runs between the beach and the lakefront tree line. No aquatic plants are established along the shoreline in that area, although such plants exist in shallows along less disturbed

Figure 3. View of the project site from the southwest in September 2009. The white objects are supersacks of soil from an unrelated project, staged at the site for removal by barge.

sections of the lake shoreline. The coarse gravel and wide seasonal water level fluctuations along the shallow beach may inhibit shoreline vegetation from becoming established (figure 3).

Arctic char and sockeye salmon are among the fish species found in Six-Mile Lake. Several sockeye carcasses were noted on the project site beach during a September 2009 site visit and are visible in figure 3 (ADFG 2011). Burbot and whitefish may also be present in the lake (NPS 2011). As discussed in Section 3.7, Six-Mile Lake hosts many transient fish headed for anadromous streams that empty into Lake Clark or Six-Mile Lake, including coho and king salmon.

Birds typical of the area include migratory waterfowl such as ducks, geese, swans, and loons. Raptors such as bald and golden eagles, osprey, northern goshawks, sharp-shinned hawks, and merlins are also in the area. No obvious raptor nesting trees or cliffs are present near the project site. Magpies, ravens, and other perching birds use the lakefront forest (NPS 2011).

A set of bear prints was seen in the shoreline gravel during a September 2009 site visit. Most large mammals would only be transient visitors to the project site because of hunting pressure and noise from the community, and the fact that better quality habitat is readily available nearby. Black bear, grizzly bear, and moose are the most likely large mammals to visit the project site. Nondalton is on the eastern edge of the range of the Mulchatna caribou herd, but caribou are more likely to migrate through the less-heavily vegetated hills west of Nondalton than along the

lakefront. Smaller mammals would include lynx, mink, and coyote, hunting snowshoe hare and voles in the grassy areas and broken forest along the lake (NPS 2011). Unlike those at Lake Iliamna, freshwater seals are not known to inhabit Six-Mile Lake.

3.5 Wetlands

The project site has not been formally delineated for wetlands, but based on vegetation types, appears to be uplands aside from the lake itself.

3.6 Threatened and Endangered Species

The Corps has reviewed information at the Alaska Region US Fish and Wildlife Service (USFWS) website on Endangered Species Act (ESA) consultation (USFWS 2011). Maps and supporting documentation provided by the USFWS indicate that no species listed as endangered or threatened under the ESA would be expected in the Nondalton or Six-Mile Lake area, and that no further consultation is needed.

3.7 Essential Fish Habitat and Anadromous Streams

The Alaska Department of Fish and Game (ADFG) lists Six-Mile Lake as an anadromous water body and assigned it the Anadromous Waters Code (AWC) 324-10-10150-2207-0020. The lake supports arctic char and provides rearing habitat for sockeye salmon (ADFG 2011). According to ADFG biologists, spawning of sockeye salmon has been documented in Six-Mile Lake (Harper 2011), although that information has not yet been incorporated into the anadromous waters database.

The lake provides a fish passageway between Lake Iliamna, the Newhalen River, and Lake Clark. Several catalogued anadromous streams, including the Tazimina River (AWC 324-10-10150-2207-3048, figure 1), discharge into Six-Mile Lake along the eastern shore and provide spawning habitat for sockeye salmon, as well as supporting arctic char, and coho and king salmon. The mouth of the Tazimina River is about one-half mile directly east across Six-Mile Lake from the proposed project site (ADFG 2011).

Because the lake has been identified as supporting Alaskan stocks of Pacific salmon, it is also designated as essential fish habitat (EFH) by the National Marine Fisheries Service (NMFS).

3.8 Cultural Resources

A historical gravesite is known to exist in a wooded area near the project site; its location will not be described in any further detail in this document. A Corps archaeologist investigated the site in 2010, accompanied by elders and representatives from Nondalton, and documented a Russian Orthodox-style wooden cross lying on a low mound. No signs of other graves were noted in the area, although a Nondalton elder stated that the mound may contain more than one grave (USACE 2010)

3.9 Air Quality

No information on local air quality is available. The low density of emission sources in the Nondalton area suggest generally good air quality, although the community's location in the lake

valley may make it prone to high particulate concentrations from wood smoke, particularly in the winter.

3.10 Noise

The noise levels at the site are generally low and considered comparable to similar residential and rural areas. The major source of noise would presumably be from motor vehicles such as watercraft, aircraft, and all-terrain vehicles.

4.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES

4.3.1 Current Land Use

The constructed boat ramp would improve the land's current use as a point-of-access to Six-Mile Lake and its resources. Some disruption of current use may occur during construction, as the movement of heavy machinery and staging of materials may limit public access to the beach during the brief construction period. The Corps would work with the City of Nondalton to ensure that the public is still able to access the beach and lakeside fish camps during the construction period.

The viewshed from Lake Clark National Park on the east side of Six-Mile Lake would not be significantly affected by the new boat ramp. The Nondalton townsite is readily visible from the east shore at present, and the relatively small and low-profile additional structures proposed would not cause a noticeable change in what park visitors see from the opposite shore of the lake.

4.3.2 Topography, Soils, and Hydrology

The project would not significantly alter the topography or patterns of overland water flow in the area.

4.3.3 Biological Resources

The proposed project would have no adverse effect on biological resources in the area and may provide some benefits by creating an alternative to launching boats from more vulnerable vegetated shoreline locations. The finished project would directly occupy less than one-half acre of combined uplands, beach, and lake-bottom habitat. The habitat that would be removed by the construction of the boat ramp appears to be neither unique nor of high-quality. The uplands habitat, where the new road and parking area would be constructed, has already been modified by the dirt roadways now connecting Hill Street with the beach. Most of the existing vegetation that would need to be removed consists of grass and brush along those roads, along with a limited number of trees (figure 2).

The Corps determines that the project would have no adverse effect on threatened or endangered species, due to its small scope and the absence of such species in the project area.

The finished ramp would occupy an area of lakebed of about 30 feet by 120 feet. The visible lakebed in this area appears to be a gently sloping, unvegetated expanse of the same rounded

gravel as seen on the beach. The shoreward half of the ramp would be above the grade of the existing lakebed, and may create a minor diversion of fish swimming close to shore.

Based on information provided by ADFG (Harper 2011), the Corps determines that the project, incorporating the ADFG's recommendations (section 5.0), would have no adverse effect on anadromous waterways or essential fish habitat.

4.3.4 Cultural Resources

The grave site discussed previously is well outside the proposed area of construction or brush-clearing and would not be impacted by the project. The finished project would neither improve nor impair access to that site. The Corps has determined that the project would have no adverse effect on any other cultural or historical resource.

4.3.5 Air Quality

Air quality may be affected during the project period due to the use of heavy equipment, vehicles, and generators. The Corps believes any poor air quality conditions caused by the project would be transient and highly localized and would dissipate entirely at the end of the project. The Corps and its contractors would comply with all applicable air quality regulations and policies of the landowner, local authorities, and the State and Federal governments.

4.3.6 Noise

The planned activities at the site and the movement of trucks and equipment into and out of the project along local roads would increase the levels of noise in nearby residential areas during several weeks of the working season. The nearest home to the construction site is about a quarter-mile away. If possible, the construction activities would be timed to minimize the amount of interference with the lives of the local residents. Individuals visiting Lake Clark National Park on the opposite shore of Six-Mile Lake may experience noise from the construction site. However, some level of construction and maintenance work using heavy equipment is frequently occurring at Nondalton, and the boat ramp construction would cause, at most, a short-term and incremental increase in the general level of noise and activity in the Nondalton area.

4.3.7 Coastal Zone Management

Alaska's coastal zone management program expired on 31 July 2011. Project proponents are no longer required to evaluate projects for consistency with enforceable standards of coastal management plans. Those plans do, however, offer useful criteria for evaluating projects in the coastal zone. Nondalton and Six-Mile Lake are within the Lake and Peninsula Borough Coastal Management District, and covered by the borough's coastal management plan (LPB 2007). The proposed project is consistent with the Enforceable Policies of that plan:

- The proposed use is water-dependent. The proposed structure would allow for multiple uses, is intended to help minimize duplicate boat launching locations, and would be designed and constructed to avoid adverse effects on coastal processes.

- The proposed project site is not in a designated subsistence use or recreational use area as

defined in the coastal management plan; however, the project is consistent with the coastal management plan's general goals of protecting and prioritizing subsistence and recreation uses.

- The project site is not in a designated natural hazard area but would be constructed in such a way as to minimize vegetation loss and limit the risk of erosion.

- The completed project would not create an obstruction to navigation.

4.3.8 Effects on Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires Federal agencies to identify and address any disproportionately high and adverse human health effects of its programs and activities on minority and low-income populations.

Nondalton's population is about 67 percent minority, and 48 percent below the poverty line. However, the boat launch ramp should be an asset to the community that improves access to the lake for all. The Corps does not foresee that construction of the launch ramp would create disproportionate adverse effects on the more vulnerable elements of the community.

4.3.9 Cumulative Effects

Federal law (40 CFR 651.16) requires that NEPA documents assess cumulative effects, which are the impact on the environment resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

The intent of the project is to provide a convenient, dedicated launching location that would consolidate, rather than expand, the number of boat launching sites along the lakeshore. No other similar water access projects are known to be in development at Nondalton. If local boaters begin to preferentially use the new boat launch ramp, it may cause an increase in traffic along Hill Street and a general increase in activity at the sparsely developed southwest end of the community. The presence of the new boat launch ramp may make nearby areas more attractive for home and business development.

4.3.10 Mitigation

The Corps and its contractors would follow best management practices and take other steps needed to minimize the proposed project's impact on the environment. The specific measures to be followed would be developed in detail during preparation of contract documents and project work plans, and included as stipulations to environmental permits. Management practices to be specified later are expected to include the minimization of sediment from construction entering lake waters, and the observance of work windows established by the ADFG (Section 5.0). In the Nondalton area, the U.S. Fish and Wildlife Service recommends that vegetation removal be performed before 1 May or after 15 July of each year to avoid destruction of bird eggs and nests and violations of the Migratory Bird Treaty Act (USFWS 2006).

5.0 Permits and Authorizations

The Corps has identified the following regulatory authorizations and permits for the project:

Clean Water Act (CWA) Section 404 authorization: The boat ramp construction would likely be authorized under Nationwide Permit (NWP) No. 36, "Boat Ramps." The use of this NWP for the project would require the District Commander to waive in writing the NWP's 50-cubic-yard limit on discharges (as allowed for in the NWP) and would require a Pre-Construction Notification. Dredging the lake bottom to clear the approach to the ramp and the optional installation of steel pilings would not be regulated by the Corps' Regulatory Division under CWA Section 404. Section 10 of the Rivers and Harbors Act does not apply, as Six-Mile Lake is not a navigable waterway (Lindamood 2011).

Alaska Department of Fish and Game (ADFG) Fish Habitat Permit: The Corps has coordinated the proposed project closely with the ADFG. The Fish Habitat Permit necessary for this project was pending at the time this EA was written, but ADFG has discussed with the Corps the stipulations likely to be included in the permit. To protect young salmon and eggs that may be developing in the area in the late winter and spring, and spawning salmon that may be transiting the area in the autumn, any pile-driving would be restricted to the period 30 May through 1 August. The ramp construction and dredging work would not be restricted to a specific period, but sediment control measures would be required to limit the spread of silt and degradation of lake water quality around the site (Harper 2011). The ADFG reserves the right to modify the pending permit or add new stipulations as the details of site access and construction are developed.

State Historical Preservation Officer Notification: The Corps has investigated the nearby grave site and determined that the proposed project would not adversely affect the site. The Corps is pursuing coordination of this project with the State Historical Preservation Officer (SHPO).

6.0 CONCLUSION

The proposed construction of a boat launch ramp at Nondalton, Alaska, as discussed in this document, would have some minor, largely controllable short-term impacts, but in the long term would help improve the overall quality of the human environment. This assessment supports the conclusion that the proposed project does not constitute a major Federal action significantly affecting the quality of the human environment; therefore, a finding of no significant impact will be prepared.

7.0 PREPARERS OF THIS DOCUMENT

This Environmental Assessment was prepared by Chris Floyd and Diane Walters of the Environmental Resources Section, Alaska District Corps of Engineers. The Corps of Engineers Project Manager is Melanie Peterson.

8.0 REFERENCES

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