

Tongass National Forest Craig Ranger District

North Fork Lake Dam Environmental Assessment

Purpose and Need for Action

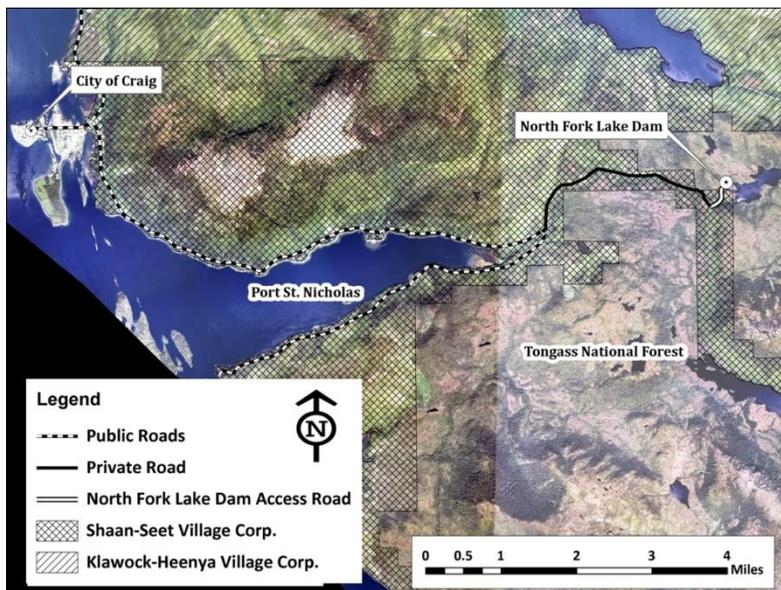
The purpose of this project is to authorize the City of Craig to increase water storage in North Fork Lake to meet current and future water supply demand by the City of Craig. This action is needed because water usage by fish processing and hatchery facilities in Craig is projected to increase and the existing structure capacity has the potential to fall below the minimums required to supply water for the City of Craig. An existing special use permit will be amended and re-issued for a term of 20 years.

This action is consistent with the goals and objectives outlined in the 2008 Forest Plan (USDA Forest Service, 2008, pp. 3-51). North Fork Lake is within a land use designation (LUD) identified as Municipal Watershed. The goal of the Municipal Watershed LUD is to maintain the watershed as a municipal water supply reserve.



Proposed Action

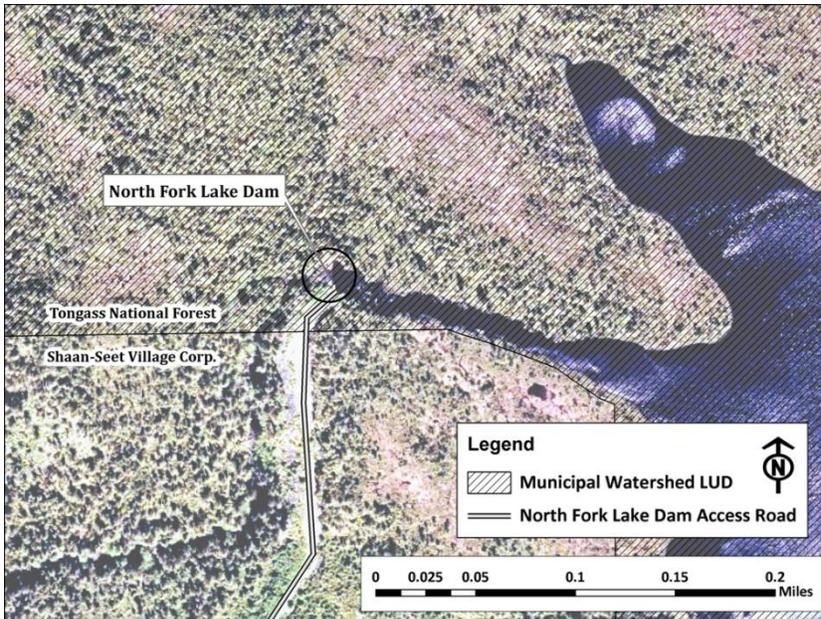
The Forest Service proposes to authorize the City of Craig to increase the available volume of water storage in North Fork Lake by raising the height of the existing concrete dam by six feet, impounding up to an additional 242 million gallons of water, in response to an application from the City of Craig. The maximum proposed extension will increase the area of North Fork Lake from the current 104 acres to approximately 143 acres, thereby inundating 39 acres of surrounding shoreline. The North Fork Lake impoundment is the year round water source for the City of Craig. Water is transported to the water treatment plant via an existing pipeline.



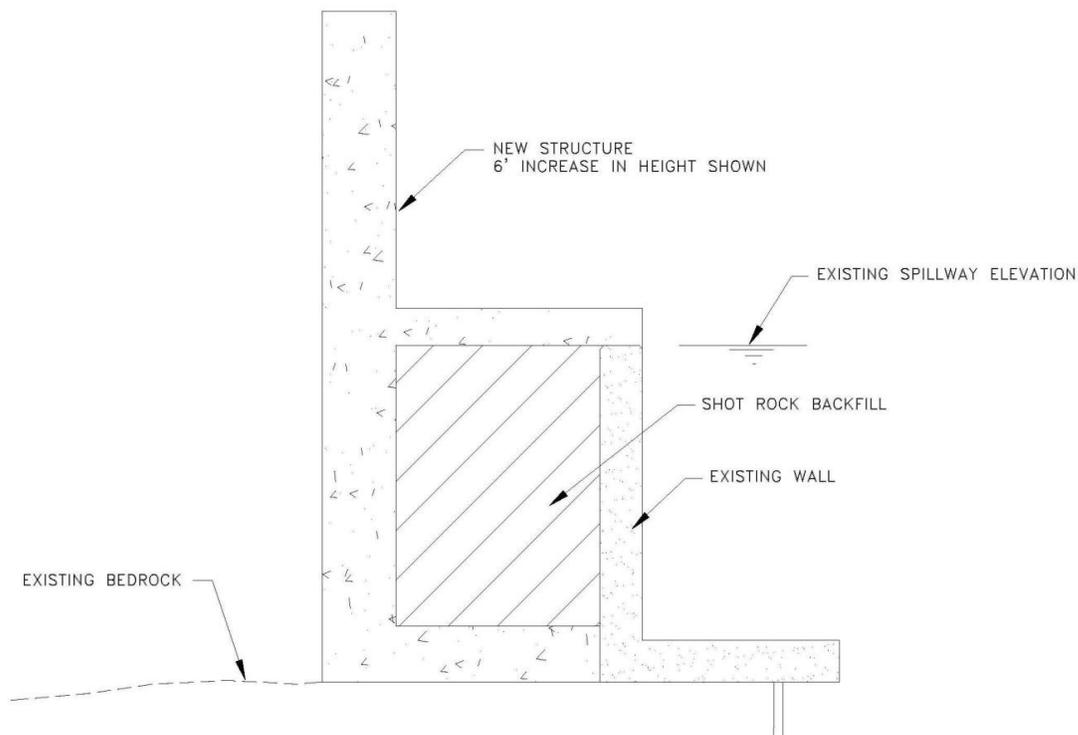
The project area is located approximately 10 miles east of the City of Craig and is within the Craig Ranger District, Tongass National Forest, Alaska, in Sections 11-12, Township 74 South, Range 82 East, Copper River Meridian. North Fork Lake is the source of the north fork of Port St. Nicholas River.

North Fork Lake Dam Environmental Assessment

The dam is located on National Forest System land at the outlet on the lake's west side. A 1,750 foot spur road leads from an existing private road to the dam. Approximately 4.5 miles of 12-inch diameter pipeline runs adjacent to the existing private road and supplies water to the treatment plant at mile 5.2 of the Port St. Nicholas Road. Land along the pipeline and roadway to the dam is owned by Shaan Seet Inc. The City of Craig has an easement for access to the lake, which is restricted by a locked gate at the base of the private road.



The proposed project would eliminate the wood riser board and construct a new structure immediately below the dam. The two structures would be tied together like a crib style dam.



A special use permit will be issued upon final approval of the design and operating plan for construction and maintenance of the dam. The operating plan will include any necessary mitigation required to minimize impacts to the public water supply during the construction phase of this project.

Note: *There were no issues identified by the public, agencies or Tribes and since there were no issues, this EA only analyzes the proposed action per Forest Service Handbook 1909.15, Section 41.22.*

Environmental Consequences

The existing 2-foot concrete control structure was constructed in 1988, and was modified in 1990 by adding a 1-foot wooden riser to meet the City of Craig's growing need for water. The dam has been inspected regularly by Forest Service personnel with no defects noted.

Since 1988, there have been no public concerns raised or detrimental environmental effects from the proposed activity observed or reported. Increasing the dam by six feet will increase the area of the lake from 104 acres (5.7% of the Craig Municipal Watershed LUD) to 142.9 acres (7.8% of the Craig Municipal Watershed LUD). Only those resources determined to potentially be effected by the proposed action are analyzed below.

Aquatics: Approximately 26% of existing Dolly Varden spawning habitat of North Fork Lake will be submerged. However, as the lake levels increase, new spawning habitat will be formed, and additional lake area will increase Dolly Varden rearing habitat.

Essential Fish Habitat and Threatened, Endangered, and Sensitive aquatic species are absent from the project area. While the St. Nicholas river system is productive spawning and rearing habitat for coho, pink, and chum salmon and steelhead trout, these anadromous species are unable to reach the North Fork Lake project site due to the presence of high falls in the lower reaches of the river system. No EFH therefore exists in the project area. Any immediate effects of erosion, sediments, and contamination resulting from dam construction on downstream water quality will be short lived and minor and mitigation measures will be addressed in an approved operating plan prior to issuance of a special use permit.

The inundation of up to 39 acres of lakeshore vegetation will have some effect on water quality. Allowing all existing vegetation in the inundation zone to remain and subsequently decompose will likely result in increased biological oxygen demand (BOD) and total organic carbon (TOC). Increased BOD will decrease lake and discharge stream dissolved oxygen, while increased TOC will lead to higher disinfection byproduct concentrations in drinking water, potentially affecting human health. The City of Craig is responsible for compliance with the Safe Drinking Water Act and monitors the concentration levels of disinfection byproducts daily to prevent reaching levels harmful to the population of Craig. Alaska Department of Environmental Conservation regulations require municipalities to test and report drinking water quality on a scheduled basis.

Soils and Wetlands: Approximately 39 acres of mostly non-forested and scrub-shrub forested evergreen wetlands will be inundated, converting terrestrial wetlands to seasonally flooded wetlands. Following implementation the complexity of the shoreline soils and vegetation will be similar to what it is today, but the seasonal flooding of about 4 acres of riparian spruce and alder will result in standing dead vegetation for several years, primarily at the head of the lake near the inlet stream. The conversion of 39 acres of terrestrial wetlands to seasonally flooded wetlands represents approximately 2.1% percent of Craig Municipal Watershed LUD.

Endangered Species Act of 1973: A biological evaluation has been completed for this project which indicates that no federally listed threatened or endangered species of plants or animals will be affected by this activity.

Sensitive Plants: This project will not affect any known rare or sensitive plants, and little habitat will be directly or indirectly affected. While it is possible that undetected individuals may be impacted, due to the small footprint of the proposed project and the marginal suitable habitat, this project is not likely to affect the viability of any rare or sensitive plants, nor cause a trend toward federal listing.

National Historic Preservation Act of 1966: The Forest Service program for compliance with the National Historic Preservation Act includes locating, inventorying and nominating all cultural sites that may be directly or indirectly affected by scheduled activities. This activity has been reviewed by a

qualified archeologist and a determination has been made that no known cultural resources are present in or adjacent to the project area. The results will be reported in the annual report to State Historic Preservation Office in accordance to the existing MOU.

ANILCA Section 810 & 811, Subsistence Evaluation and Finding: This project has been evaluated to determine potential effects on subsistence opportunities and resources. There is no documented or reported subsistence use that would be restricted as a result of this decision. This action would not result in a significant possibility of a significant restriction of subsistence use of wildlife, fish, or other foods.

Cumulative Effects:

The boundary for cumulative effects analysis is the Municipal Watershed LUD, which consists of 1,830 acres. The timeframe is 25 years, which reflects the length of time the existing dam has been in place and estimates the amount of time before the size of the impoundment may need to be reviewed. This project does not appreciably contribute to cumulative effects for any of the above resources when considered among the other past, present and reasonably foreseeable projects in the analysis area. Since this project is located within a Municipal Watershed LUD, no future projects unrelated to impoundment are anticipated.

Agencies and Persons Consulted

- Government-to-government consultation letters were sent to local tribes and Regional Corporations on January 26, 2012.
- Public scoping letters were mailed to 36 individuals and organizations on February 21, 2012, including:
 - ✓ Alaska Department of Fish and Game
 - ✓ Alaska Department of Air and Water Quality
 - ✓ Alaska Division of Government Coordination
- One comment was received from the public, questioning the need for the project. The need for the project is documented in a feasibility study conducted for the City of Craig in 2011.
- A legal notice seeking public comments was published in the Ketchikan Daily News on March 28, 2012.
- Shannon Morgan, Army Corps of Engineers

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