



Forest Service Natural Resources & Environment Briefing Paper

Date: October 25, 2016

Topic: Sweetheart Lake Hydroelectric Project, Tongass National Forest.

Issue: The Alaska Region seeks approval to make the National Environmental Policy Act decision and to issue a special use authorization to Juneau Hydropower, Inc. for the use and occupancy of National Forest System lands within the Taku-Snettisham Inventoried Roadless Area occupied by the proposed Sweetheart Lake Hydroelectric Project.

Summary/Key Points:

- On May 29, 2014, Juneau Hydropower, Inc. filed an application for a major original license with the Federal Energy Regulatory Commission (FERC) (Project No. P-13563) for a 19.8-megawatt storage hydropower facility. The proposed project would be located on Sweetheart Lake and Sweetheart Creek in the City and Borough of Juneau, Alaska.
- On October 29, 2015, FERC noticed the availability of the Draft Environmental Impact Statement (EIS).
- On December 24, 2015, the Forest Service filed comments on the Draft EIS and final Federal Power Act Section 4(e) terms and conditions.
- On May 31, 2016, FERC noticed the availability of the Final EIS for the project. The staff alternative includes all Forest Service final 4(e) terms and conditions.
- On July 29, 2016, the Forest Service advised FERC that the Final EIS was generally adequate in disclosing project effects to National Forest System lands and resources.
- The proposed project would occupy 2,054 acres of federal lands within the Taku-Snettisham Inventoried Roadless Area (IRA) (#302). The Taku-Snettisham IRA contains 661,162 acres total.
- The proposed project boundary would also include 131.18 acres of tideland and submerged lands of the state of Alaska.
- Construction of the project would raise Lower Sweetheart Lake from a water surface elevation of 551 feet and a surface area of 1,414 acres to a new maximum water surface elevation of 636 feet and surface area of 1,702 acres.
- The following new facilities would be located in the IRA: approximately 580', 10.5' wide access road (0.14 acres); a 280' wide, 111' high roller-compacted concrete dam with a 125' wide overflow spillway; a 525' long, 10' high, 10' wide arched reservoir outlet tunnel; a 9,612' long, 15' wide, 15' high underground power tunnel; three 160' long, 7' to 9' diameter buried penstocks; a 160' long, 60' wide, 30' powerhouse; a 541' long, 30' to 90' wide rock tailrace with a fish exclusion structure; a 15,400' segment of the overhead 138-kilovolt (kV) transmission line traversing the Snettisham Peninsula; a 22,000 square foot fenced switchyard; a 25' long, 5' wide, 4' deep salmon smolt re-entry pool; a 4,225-square foot caretaker's facility; a 4,800' long, 12.47-kV service transmission line and communication cable extending from the powerhouse to the dock and caretaker's facility; a 10,000' long, 12.47-kV service transmission line and communication cable extending from the powerhouse to the dam site; a 400 square foot shelter at the dam site; and appurtenant facilities.
- On September 8, 2016, FERC issued the order for an original license, with a 50-year term, for the project.

Background: The 2008 Forest Plan land use designation (LUD) for most of the proposed project is Semi-Remote Recreation. Some segments of the proposed route of the transmission line would be located on land with Timber Production and Old-Growth LUDs. There are no viable alternatives to project construction that will not affect the IRA. Agency final 4(e) terms and conditions include a requirement to obtain a special use permit for the construction of the project and for the occupancy and use provided under the FERC license. Juneau Hydropower, Inc. seeks to begin construction once the license ordered is issued. Construction activities will take about two years to complete.

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