

DRAFT AESTHETICS RESOURCES STUDY PLAN

Takatz Lake Hydroelectric Project, FERC No. 13234

Prepared by:

City and Borough of Sitka Electric Department

105 Jarvis St., Sitka AK, 99835

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INTRODUCTION and BACKGROUND

The City and Borough of Sitka Electric Department (City) holds a Preliminary Permit (Permit) from the Federal Energy Regulatory Commission (FERC, Commission) for the proposed Takatz Lake hydroelectric project (Project), FERC No. 13234-000-AK. Licensing the Project will proceed under steps required under various FERC regulations,

During Initial Consultation and Scoping, Project Stakeholders including Alaska state and federal resource agencies indicated concern for Project effects on scenic and aesthetics resources relative to construction activities and project features including the dam, reservoir inundation, powerhouse, and transmission line.

This study plan describes analyses proposed to quantify existing aesthetics resources and to evaluate potential project-related effects on those resources.

PROPOSED AESTHETICS RESOURCES STUDIES

GENERAL

Because the majority of potentially-affected aesthetics resources would be on lands managed by the US Department of Agriculture Forest Service (USFS) the aesthetics resources studies will be based primarily on methods and other requirements of the Tongass National Forest Land and Resource Management Plan (“Forest Plan”). The Forest Plan describes existing aesthetics resources within the various Land Use Designations (LUD’s) in the Project area, and specifies how aesthetics impacts will be assessed within these LUD’s.

PROJECT/STUDY AREA

The area potentially affected by the project is quite large, including three different river basins and extensive upland areas along the proposed transmission route. As shown in Figure 1, new construction in the Takatz River Basin would include a dam as much as 200 feet high at the outlet of Takatz Lake, a possibly visible power conduit and a

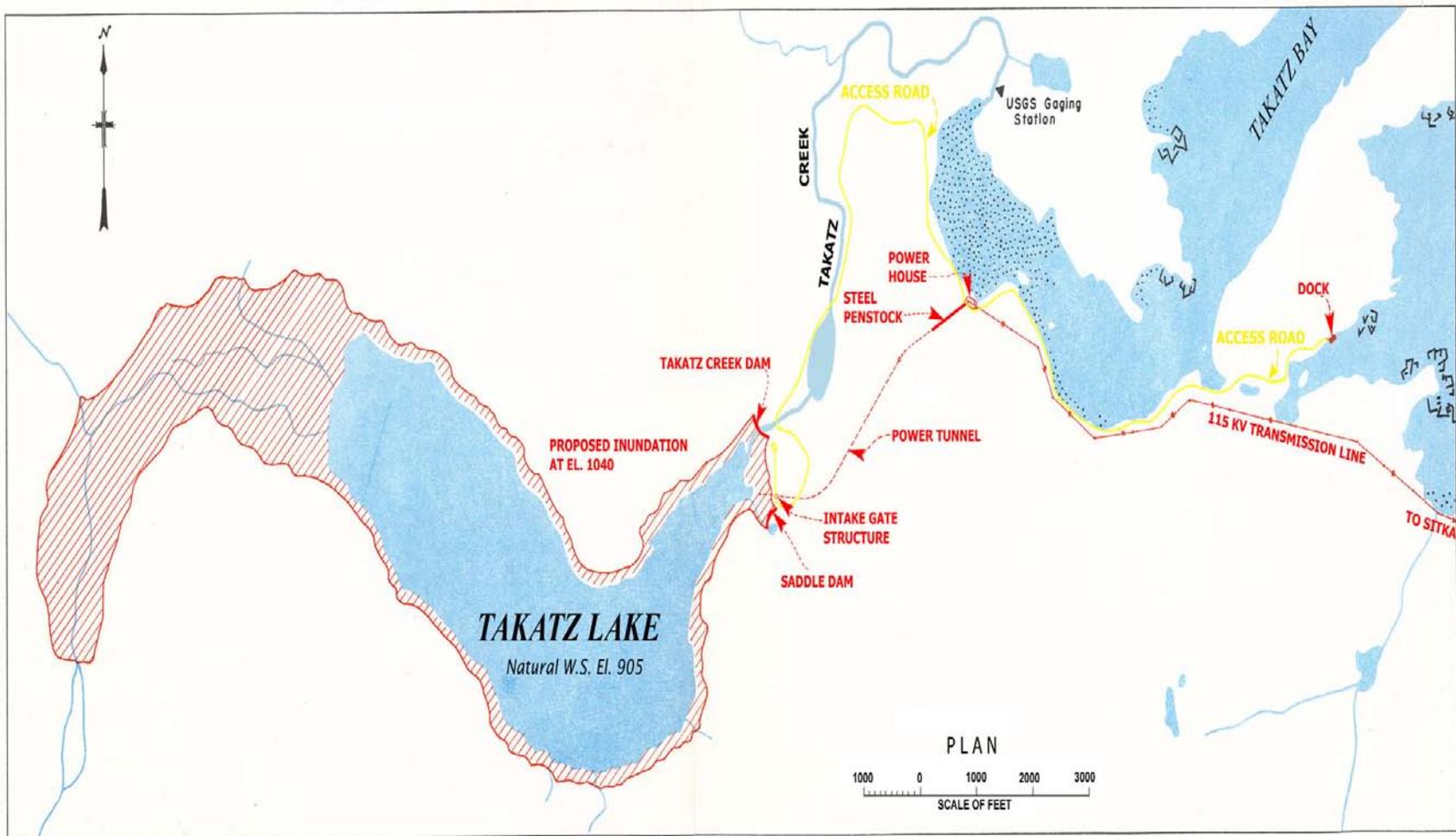


Figure 1. Takatz Lake Project Features.

powerhouse and switchyard. The dam would raise water levels sufficient to create significant additional inundation in Takatz Lake, depending on the final dam height selected. The power conduit would consist of an as yet undetermined length of above-ground penstock. Exact dimensions, materials and color of the penstock will be determined at least in part depending on results of scenic and aesthetics analysis.

There are currently two alternative transmission routes (Figure 2). The Marine Transmission Alternative (MTA) would consist of overhead and submarine segments routed from the switchyard into Chatham Strait and Baranof Bay continuing through Baranof Lake.

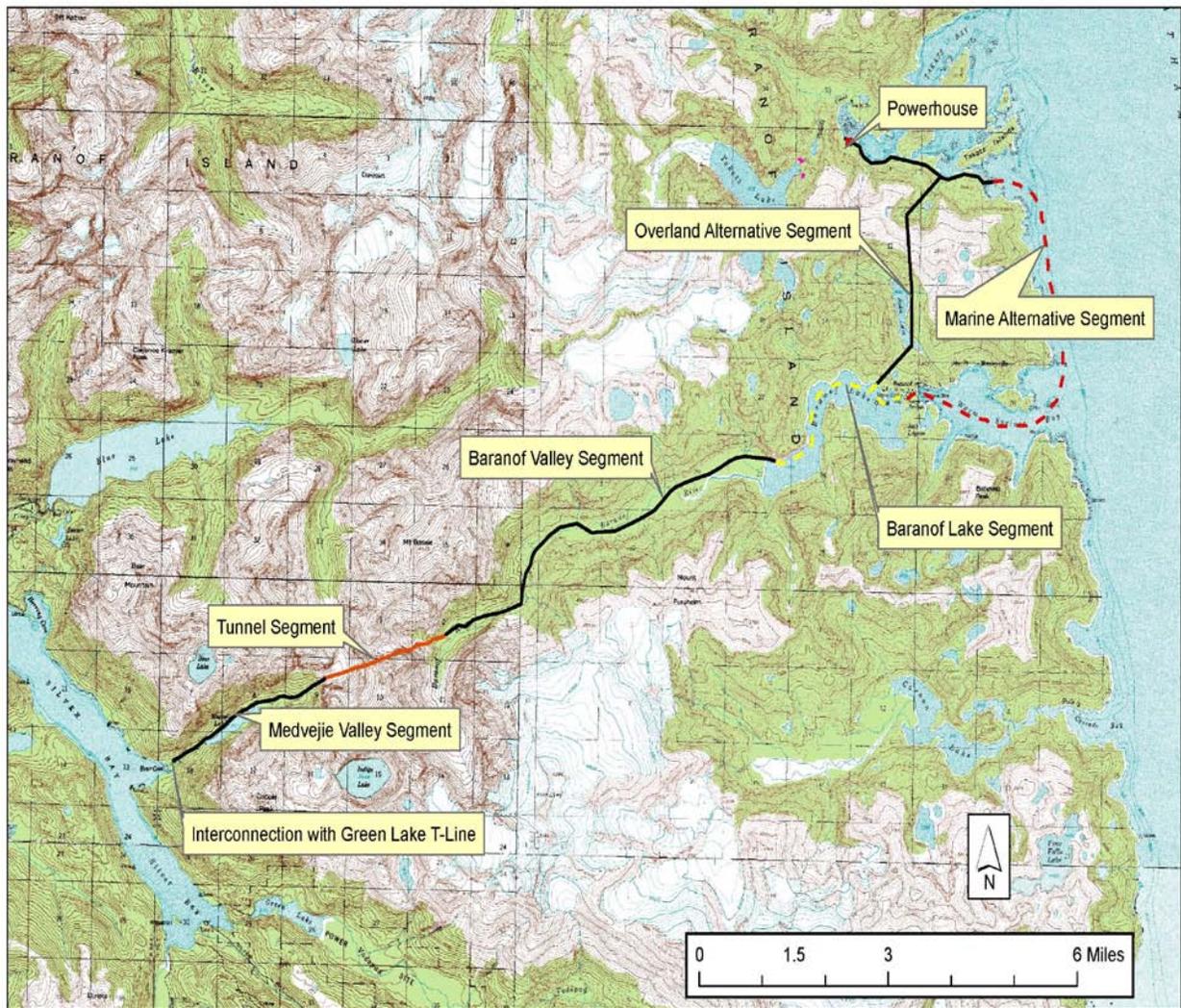


Figure 2. Takatz Lake Project Transmission Alternatives and Segment Terminology. (From USGS Sitka A-3, 1:63,360)

The Overland Transmission Alternative (OTA) would be routed from the switchyard overland to the shore of Baranof Lake without being routed through marine areas or the community of Baranof Warm Springs.

Along the Overland OTA, the transmission line would consist of a 69 kilovolt (kV) capacity overhead transmission line to the shore of Baranof Lake. The transmission line would continue underwater through Baranof Lake and would emerge near the confluence of the lake and Upper Baranof River. After emerging from the lake, the line would be either overhead or underground through the Upper Baranof River valley to a tunnel near the summit of the divide ridge in the Baranof mountains. Emerging from the western tunnel portal, the transmission line would continue overhead into the Medvejie River valley, past Medvejie Lake to the line's junction with the existing transmission line from the City's Green Lake hydroelectric project (See Figure 1).

The City has expressed its preference for the OTA over the MTA for economic, engineering and environmental reasons. We expect to focus resource studies on the OTA.

To evaluate this extensive area of potential scenic effect, aesthetics studies would be conducted in five major study areas:

Area 1, including all areas affected by the dam, reservoir inundation, the power conduit, powerhouse and switchyard;

Area 2, the Overland Transmission Segment area, including areas from the switchyard overland to the shore of Baranof Lake;

Area 3, the Upper Baranof Valley, including the Baranof Valley Transmission Segment, extending from the confluence of Baranof Lake with Upper Baranof River to the eastern portal of the proposed tunnel;

Area 4, the east and west tunnel portals; and

Area 5, the Medvejie River Basin, including the Medvejie Valley Segment and extending from the western tunnel portal through the Medvejie River valley, past Medvejie Lake to the proposed transmission line's interconnection with the existing Green Lake transmission line.

METHODS

Determination of LUD, VPRs and Use Areas

Effect on scenery in the various study areas will be analyzed based on the LUD's and Visual Priority Travel Routes and Use Areas (VPT's) in the various study areas. These factors are defined by the Forest Plan, which also designates specific Standards and Guidelines (S and G's) for scenic conditions, which help determine the kinds and levels

of scenic impacts which may be allowed in the various study areas. The applicable LUDs, VPT's and S and G's in each study area will be determined by review of the Forest Plan and through consultation with USFS, Sitka Ranger District before the final study design is determined.

Impact Analysis

The analysis of each study area will be based on quantitative and semi-quantitative comparisons between existing and with-project conditions within the various study areas.

The analysis of effects of changes in Takatz Lake levels will be done primarily with a photo comparison of existing lake levels to proposed lake levels using Photoshop software to render views from VPT's, as required by Forest Plan and from other viewpoints. These graphics will depict existing conditions at various natural lake levels vs. conditions with various lake level elevations related to different dam heights under consideration.

Analysis of the powerhouse and will be done using photo based rendering showing the potentially-affected area from both prescribed viewing points and from those most likely encountered by boaters in Takatz Bay using known cruising routes and anchorages. The renderings will be spatially based on plan and elevation view design drawings available at the time of the scenic analysis.

Analysis of the aesthetics effects along the transmission line segments will be conducted on a segment-by-segment basis to analyze the various transmission types and alternative routes selected in the areas. As with analysis of other features, transmission line analyses may be based on photo renderings of existing conditions along with renderings showing various transmission pole designs and placements. Results of these aesthetics evaluations may be used to assist selection of pole characteristics and placement especially within scenically sensitive areas.

REPORTING

The Takatz Lake Expansion Aesthetics Resources Report will include sections on:

Objectives

Descriptions and Locations of proposed project and study areas

Analysis of each study area including:

- Potentially affected areas in acres;
- LUD's of the various study areas;
- Visual Priority Travel Routes and Use Areas within the study areas;
- Evaluation of each study area for conformance with applicable Standards and Guidelines in the Forest Plan

- Impacts, based on photo renderings and other methods;

STUDY AND REPORT SCHEDULE

The aesthetics resources studies should commence during summer, 2010 and, because of the extent of the project, continue through fall, 2011. Activities in 2010 will focus on selection of a qualified scenic and aesthetics contractor who will, in association with City representatives, consult with USFS on details of the applicable LUD's, VPR's and Standards and Guidelines. A reconnaissance trip to the area will probably be conducted in 2010.

Most field work, photo interpretation, impact analysis and report writing will be conducted in 2011. This will allow project engineers to develop a more refined and assured project design with to interact with the scenic specialist.

A report documenting 2010 activities will be available in early 2011 and the draft Aesthetics Resources report will be available in fall, 2011.