

FIFTH SIX-MONTH PROGRESS REPORT

For the Period September, 2010 through February, 2011

TAKATZ LAKE HYDROELECTRIC PROJECT

FERC No. 13234-000

City and Borough of Sitka Electric Department

February, 2011

This report documents licensing activities for the Takatz Lake Hydroelectric Project (“Project”) during the Period September, 2010 through February, 2011. Biannual progress reports are required by Federal Energy Regulatory Commission (FERC) letter issuing a Preliminary Permit (“Permit”) for the Project, dated September 19, 2008.

PROJECT BACKGROUND and CONTACT INFORMATION

The Project would be an approximately 27 megawatt (MW) installation located on the east shore of Baranof Island, near Sitka, Alaska. Details of the proposal are in the Permit Application, filed with the Commission on June 3, 2008.

The exact name, business address and contact numbers of the person authorized to act as agent for the Licensee is:

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PROGRESS DURING the FIFTH REPORTING PERIOD

Progress during this reporting period included study planning, logistical efforts to enable field studies, and 2010 field work. The following sections document progress accomplished this period.

STUDY PLANNING

During this reporting period, the CBS prepared the Final Scenery Resources Study Plan which was filed with the Commission on February 3, 2011. With this plan, CBS has completed study planning for wildlife and scenery resource studies and is in the process of finalizing study plans for fisheries and cultural resources.

RESOURCE STUDIES

LOGISTICS and ACCESS

Much of the 2010 field effort was devoted to developing ways of accessing the various study areas in the Takatz, Baranof and Medvejie River Basins. Researchers found little established access, particularly in the Takatz basin where there were no developed trails or campsites.

All access to the Takatz and Baranof study sites was by float plane across Baranof Island and by foot to Takatz, Baranof and Sadie Lakes. On Takatz Lake, researchers had to deliver an aluminum skiff and outboard motor to the lake. On Baranof Lake, researchers used a US Forest Service skiff and carried a CBS-owned inflatable raft and motors to the lake.

As noted in Figure 1 and Figure 2, the Takatz Bay base camp established for 2010 field studies is rudimentary at best. There are many logistical challenges with completing field work for the Project. This is indeed a remote area and ensuring the safety of project personnel is of paramount importance.

Transportation access to the project site is via boat or small aircraft. For the 2010 field season approximately 49 flights were conducted to the Project site. Transportation of the small skiff to Takatz Lake and site investigation of the proposed Overland Transmission Line Alternative was accomplished with a chartered helicopter service.



Figure 1. Takatz Lake Base Camp



Figure 2. Takatz Lake Base Camp with Electric Fence for Bear Protection

In the Baranof basin, workers stayed in a private cabin in the community of Baranof Warmsprings.

Access into the Medvejie River basin was via the Green Lake road and short hike to lake, skiff and pack raft were used for traveling to end of lake.

FIELD STUDIES

Wildlife Resources Studies

The following is a summary of the wildlife field work completed this period:

Literature Search

- Harvest data was obtained from ADF&G.
- GIS data for mapping was obtained from ADF&G, USFS, Aerometric (LIDAR), and other sources.
- Historical documents and photos were obtained from online sources.

Foot Surveys

Foot surveys were completed in all subareas of the project area except the upper valley areas of Medvejie and Baranof Lakes and the tunnel areas of the Baranof-Medvejie valleys and Takatz, Sadie Lakes.

Boat Surveys

Two boat surveys were completed in Medvejie, Baranof, and Takatz Lakes; one boat survey was completed in Sadie Lake.

Beaver Surveys

Beaver surveys were completed in conjunction with other survey activities in Baranof and Takatz Lake drainages. Extensive beaver activity is present along Baranof and Takatz Rivers.

Small Mammal Surveys

Small mammal surveys were completed in Baranof and Takatz Lake areas. Root vole populations were at unusually high levels in most areas, as other areas on Baranof Island. Deer mice and shrews were also present.

Amphibians

Amphibians were surveyed in conjunction with foot and boat surveys in Baranof, Sadie, and Takatz watersheds. Adult and tadpole stages were found for Boreal Toads.

Goshawk Broadcast Surveys

Surveys for goshawks were conducted, along with foot surveys, in all subareas of the project area except the upper valley areas of Medvejie and Baranof Lakes and the tunnel areas of Baranof-Medvejie valleys and Takatz, Sadie Lakes. There were no confirmed sightings of goshawks.

Owl Broadcast Surveys

Broadcast surveys for owls were completed on Baranof and Takatz Lakes. Two species of owls were observed in the Baranof Lake area - Western screech owl and Saw-whet owl.

Aerial Surveys

While specific aerial surveys were not done, each time flights were taken to and from field sites; video and still photography footage was gathered along with corresponding GPS tracks. A total of 49 flights were completed in 2010.

Threatened and Endangered (T&E) Species

No T&E wildlife species were observed during the 2010 field season.

Joint ADF&G/City of Sitka Electric Department Mountain Goat Monitoring Studies.

The City and the Alaska Department of Fish and Game (ADF&G) reached agreement to jointly participate in a mountain goat tagging study. The study would be funded by the City and ADF&G to study: 1) direct impacts of the proposed inundation area for the Blue Lake Project (FERC No. 2230) Expansion; and 2) cumulative effects arising from development of both the Blue Lake Expansion and the Takatz Lake projects.

The Tagging Studies made a successful debut the summer of 2010 with the successful capture and tagging of 12 goats on Baranof Island by ADF&G biologists. ADF&G reports all 12 goats appear to be active with data acquisition devices working properly.

A report of this study may be found at the following link to the ADF&G publication, Alaska Fish and Wildlife News, November 2010 edition.

<http://www.adfg.alaska.gov/index.cfm?adfg=wildlifeneews.archive>

ADF&G plans to continue tagging studies with the goal of tagging 12-18 goats, predominately on the east side of Baranof Island, during the 2011 field season.

Aquatic Resources Studies

Aquatic resources studies were conducted in Takatz, Baranof and Medvejie River basins and in Sadie Lake in 2010, as described in the following:

Takatz River Basin

Studies were concentrated in the Takatz Basin to document presence or absence of fish in three primary areas: Upper Takatz Creek (upstream of Takatz Lake), Takatz Lake; and Lower Takatz Creek (downstream of the lake and into tidewater, depending on tide level).

Lower Takatz Creek Salmon Surveys

A total of 22 Salmon Surveys were conducted beginning in late June. All salmon were observed below the falls located just above tidewater.

In addition, researchers emplaced five temperature loggers and conducted three substrate surveys in the stream reach that contained the majority of salmon spawning.

Chum and pink salmon were the only species observed. The peak chum salmon count (315 fish) occurred on August 13th and the peak pink salmon count (2284 fish) occurred on September 4th.

Lower Takatz Creek Resident Surveys and Trapping

In the reaches upstream of the passage barrier, Dolly Varden char were the only species observed or captured (a total of 2322 Dolly Varden were captured in traps). The extent of resident fish distribution Lower Takatz Creek and its major tributaries was also determined. Snorkel surveys were conducted throughout this area to observe fish habitat distribution and utilization. Habitat type and major features were noted using GPS and map locations.

Upper Takatz Creek, Takatz Lake

Intensive visual observation and fish trapping in the lower reaches of Upper Takatz Creek and Takatz Lake indicated no evidence of fish of any species.

Sadie Lake

A water quality data logger was installed near the outlet and fish researchers interviewed recreationers familiar with the system.

Baranof Lake and Inflow Tributaries

Work at Baranof Lake consisted of review of existing studies and literature and early foot and snorkel surveys to document spawning areas, primarily for cutthroat trout. Temperature loggers were emplaced in inflow tributaries and the lake surface. Limited trapping was conducted to document rearing trout in a beaver area adjacent to the main inlet.

Medvejie Drainage

Work in the Medvejie drainage consisted primarily of documenting presence and limits of anadromous and resident fish. A total of 997 Dolly Varden were captured and sampled with methods similar to those described above for Lower Takatz Creek.

Cultural Resources Studies

Cultural resource surveys were conducted in areas of Lower Takatz Creek and Takatz Bay by Paleo-Logics of Wrangell, Alaska. Shovel tests and soil probes were conducted throughout the area, documenting thin soil layers characteristic of forested wetland soil development. The soil tests and probes were negative for cultural indicators.

Proposed Powerhouse Site

Near the south-end of the powerhouse site were two dilapidated, 12 ft x 12 ft tent platforms (Figure 3). The platforms were located in a fairly open muskeg area where numerous small trees were cut to support the 2x4 joists and plywood. The age and type of trash observed in the area suggests the platforms may date to 1965-66 when test cores were drilled in the project area by the Bureau of Reclamation. No additional structures were observed, and this site is not considered eligible for listing to the National Register of Historic Places ("Register").



Figure 3. Powerhouse Site - Deteriorated Tent Platforms.

Takatz Creek Area Survey

The mouth of Takatz Creek as well as the flats would normally be considered high probability areas, however, other than what is believed to be an abandoned streamflow gauging station from the 1951-1960 period (not considered eligible for listing on the Register) no cultural remains were found.

Final Scenery Study Plan

On February 3, 2011, the City distributed a final study plan for scenery resources. A draft of this plan had been distributed to Stakeholders on August 24, 2010 and comments were received from USFS. These comments were incorporated without dispute in the final study plan prior to distribution to Stakeholders and filing with the Commission.

LIDAR and Other Mapping Surveys

The CBS contracted for additional LIDAR data for the Baranof Valley transmission corridor and Alternative Overland Transmission corridor which was flown and acquired in August 2010 with the processed information provided to the City in October 2010.

The CBS contracted for high resolution satellite imagery of the project area and this data was processed and posted on the City GIS webpage in December 2010.

Engineering Studies

Overland Alternative Transmission Segment

The Final Takatz Overhead Transmission Line Alternative Feasibility Report was completed on February 10, 2011 and filed with the Commission on February 14, 2011.

Requests for Proposals (RFP's) for Recreation, Scenery Resources

On February 4, 2011, the CBS posted on the City and Borough of Sitka's webpage an RFP for professional services to conduct the Recreation Resource Studies with a bid opening date of March 4, 2011.

On February 9, 2011, the CBS posted on the City and Borough of Sitka's webpage an RFP for professional services to conduct the Scenery Resource Studies with a bid opening date of March 9, 2011.

ITEMS to be COMPLETED DURING NEXT 6-MONTH REPORTING PERIOD

STUDY PLANS

Draft and Final Study Plans will be issued this period for Botanical and Recreation resources.

ENGINEERING STUDIES

A design and feasibility study of the proposed overhead transmission line will be completed for the transmission corridor from the head of Baranof Lake to the existing transmission line in the Medvejie Valley. This proposed line will follow the Transportation Utility System (TUS) as identified in the 2008 Tongass National Forest Land and Resource Management Plan.

A Project Capacity Report will be generated to confirm reservoir storage and installed MW capacity that is appropriate for the generating facilities. A scope will also be developed for the Phased Development Feasibility study.

FIELD SURVEYS

Cultural Resources

- Complete the Area 1 Takatz Lake survey which includes the Takatz Lake inundation area and the alpine overhead transmission route from Takatz Bay to Baranof Lake.
- Begin the Area 2 survey upon completion of Area 1 work.
- Complete and submit the final report for the Area 1 survey and Area 2 if all the fieldwork has been completed.

Fisheries

- Continue baseline fish distribution, timing and abundance studies.
- Perform baseline habitat analysis and mapping, particularly for the Lower Takatz Creek Study Area.
- Update and ground truth USFS Stream Channel Class Designations utilizing new LiDAR data.
- Add additional stations to temperature monitoring studies as required.

Wildlife

- Continue general wildlife studies (foot, boat, and aerial surveys) in the entire project area.
- Map the goat wintering areas – thru field observations and radio collar data.
- Map the beaver use areas – dams, ponds, and food caches.

Aesthetics

- Consult with USFS to work out details of applicable Standards and Guidelines.
- Conduct a reconnaissance trip to the study area.

Recreation

- Begin surveying the study area based on specifications created and agreed upon in the final study plan.

Additional Permits

A State of Alaska Cultural Resources Permit may be required for additional study areas that are outside conveyed municipal entitlement lands in the project area.

STATE OF ALASKA COASTAL ZONE MANAGEMENT ACT CONSISTENCY DETERMINATION

The Alaska Coastal Management Program (ACMP) is subject to a “sunset” provision which will permanently terminate the ACMP on July 1, 2011 unless the Alaska State Legislature passes legislation to extend it. The CBS General Assembly approved Resolution No. 2010-35 on December 28, 2010 supporting legislation to extend the ACMP to enable effective coastal community participation.

Christopher Brewton, Utility Director
City and Borough of Sitka Electric Department

Cc: Takatz Project Stakeholder list.
Joe Adamson, FERC