
SCOPING DOCUMENT 1
TAKATZ LAKE HYDROELECTRIC PROJECT



ALASKA

PROJECT NO. 13234-001

**Prepared for the
Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Licensing
Washington, D.C.**

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ACRONYMS AND ABBREVIATIONS

ac-ft	acre-feet
ALP	Alternative Licensing Process
Alaska DEC	Alaska Department of Environmental Conservation
Alaska DF&G	Alaska Department of Fish and Game
Alaska DOT&PF	Alaska Department of Transportation & Public Facilities
Alaska DNR	Alaska Department of Natural Resources
APE	Area of Potential Effect
City	City and Borough of Sitka Electric Department
cfs	cubic feet per second
Commission or FERC	Federal Energy Regulatory Commission
EA	environmental assessment
EIS	environmental impact statement
Forest Service	U.S. Forest Service
FPA	Federal Power Act
FWS	U.S. Fish and Wildlife Service
GWh	gigawatt-hours
MW	megawatt
MWh	megawatt-hours
mgd	million gallons per day
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NGO	non-governmental organizations
PAD	Pre-Application Document
PDEA	preliminary draft environmental assessment
SD1	Scoping Document 1
SD2	Scoping Document 2
Takatz Lake Project or project	Takatz Lake Hydroelectric Project

SCOPING DOCUMENT 1

Takatz Lake Hydroelectric Project, No. 13234-001

1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA),¹ may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On March 20, 2009, the City and Borough of Sitka Electric Department (City) filed a Pre-Application Document (PAD) and Notice of Intent to seek an original license for the 27.6-megawatt (MW) Takatz Lake Hydroelectric Project (Takatz Lake Project or project).²

The Takatz Lake Project would be located on Takatz Lake approximately 20 miles east of the City of Sitka, Alaska, on the east side of Baranof Island (Figure 1). The project would occupy federal lands within the Tongass National Forest, administered by the U.S. Forest Service. A new concrete dam and secondary saddle dam would raise the elevation of Takatz Lake 200 feet, providing an active storage capacity of 82,000 acre-feet. An approximately 2,800-foot-long tunnel and a 1,000-foot-long penstock would discharge the lake flows into a 4,000 square foot powerhouse, with two 18,600 horsepower (hp) Francis turbines on the shore of Takatz Bay that would provide an estimated 97,100 gigawatt-hours (GWh) of firm energy each year. A more detailed description of the key project facilities is provided in section 3.0.

The National Environmental Policy Act (NEPA) of 1969,³ the Commission's regulations, and other applicable laws require the Commission to independently evaluate the environmental effects of issuing an original license for the Takatz Lake Project as proposed, and to consider reasonable alternatives to the City's proposal. Although Commission staff intends to prepare a draft and final environmental assessment (EA),

¹16 U.S.C. § 791(a)-825(r).

²On September 19, 2008, the Commission issued a Preliminary Permit (permit) to the City to study the feasibility of developing a hydroelectric project on the Takatz Lake. The permit provides the City protection under the FPA from competitive applications while conducting the studies and processes necessary to complete an application for license. In its Notice of Intent, the City expects to file the license application with the Commission by September 2011.

³National Environmental Policy Act of 1969, as amended (Pub. L. 91-190. 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, §4(b), September 13, 1982).

there is a possibility that an Environmental Impact Statement (EIS) will be required. The EA will describe and evaluate the probable effects, including any site-specific and cumulative effects, of the proposed action and alternatives.

Takatz Lake Project Background & Licensing Process to Date

Since the Preliminary Permit was issued on September 19, 2008, the licensing process for the Takatz Lake Project includes the following activities:

- Distribution of a PAD describing the project, the licensing process and preliminary environmental information, on March 20, 2009. The PAD contains descriptions of existing resources, expected impacts and possible environmental studies, as known at the time of writing, and is a source of background information.
- Submission to the Commission and consulting agencies of a request to utilize the Alternative Licensing Procedures (ALP). The ALP is a process for licensing which allows the applicant to prepare a preliminary draft environmental assessment (PDEA), in lieu of an Exhibit E, as part of the license application. Subsequently, the use of the ALP process was approved by the Commission on April 28, 2009.

All documents, meeting minutes, and submissions from these early licensing activities are available from the City. The exact name, business address and phone number of each person authorized to act as agents for the applicant are:

James E. Dinley, Municipal Administrator
City and Borough of Sitka
100 Lincoln Street
Sitka, AK 99835
Phone: 907-747-1808
E-mail: jimdinley@cityofsitka.com

Christopher Brewton, Utility Director
City and Borough of Sitka, Electric Department
105 Jarvis Street
Sitka, AK 99835
Phone: 907-747-1870
E-mail: chrisb@cityofsitka.com

All questions, comments, or correspondence related to the licensing for the project should be directed to Christopher Brewton at the above address and filed with the

Commission. Changes in this contact information will be notified directly to all interested parties and through announcements in a local newspaper.

The schedule shown in table 1 demonstrates completed and prospective actions leading to a final license application to the Commission for a license to construct, operate, and maintain the Takatz Lake Project.

Table 1. Process Plan and Schedule

<u>Activity</u>	<u>Schedule</u>
<u>PAD/NOI/ALP Request</u>	<u>March 20, 2009</u>
<u>FERC approves use of ALP</u>	<u>April 28, 2009</u>
<u>Scoping Document 1 issued</u>	<u>September 4, 2009</u>
<u>Scoping</u>	<u>October 7 & 8, 2009</u>
<u>Scoping Document 2</u>	<u>January 2010</u>
<u>Study Planning</u>	<u>Fall, 2009, Spring, 2010</u>
<u>Study Execution</u>	<u>2009-2011</u>
<u>Engineering Studies</u>	<u>2009-2011</u>
<u>Draft License Application (DLA) to Stakeholders</u>	<u>Spring, 2011</u>
<u>Stakeholders and Indian Tribes Comment on DLA</u>	<u>Spring-Summer 2011</u>
<u>Final License Application filed with FERC</u>	<u>August 31, 2011</u>

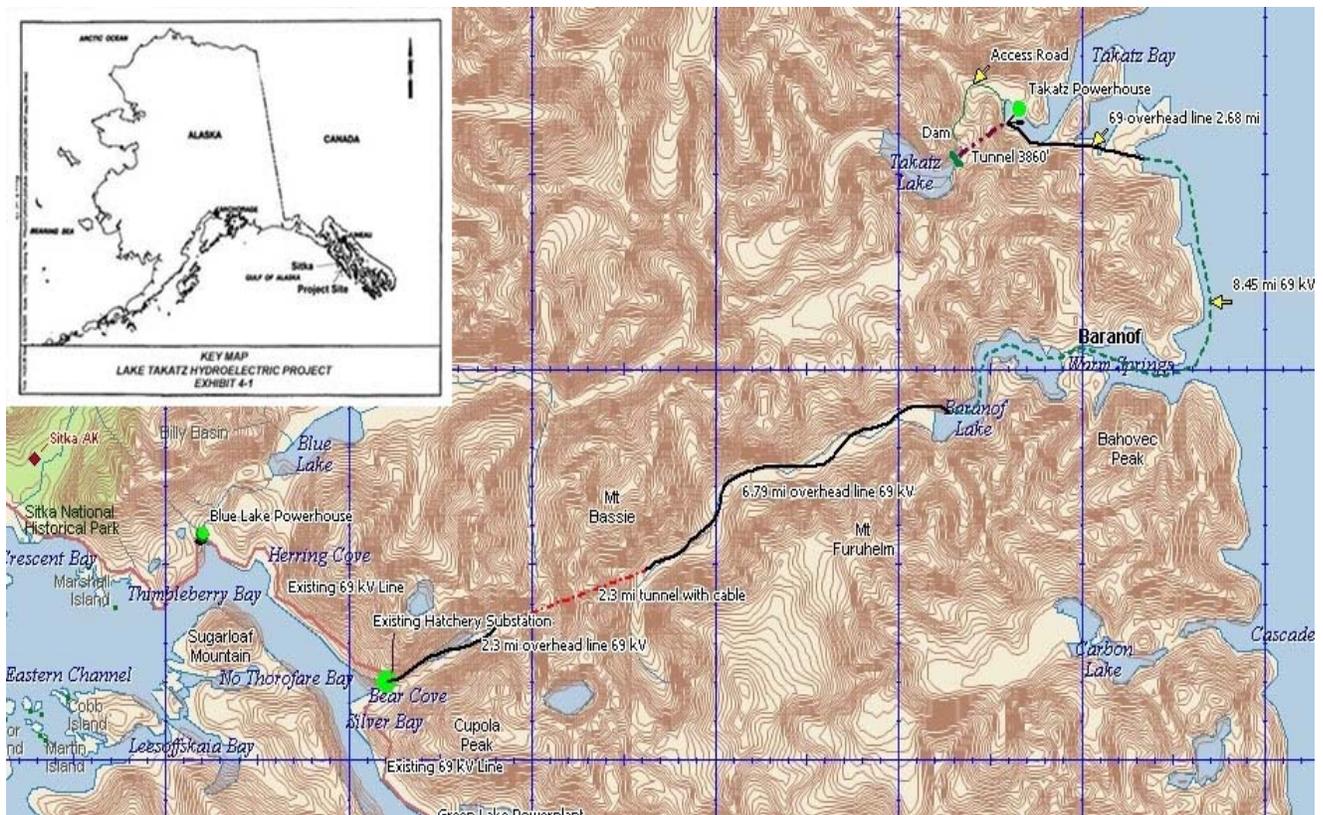


Figure 1. Location of the Takatz Lake Project (Source: City and Borough of Sitka Electric Department, PAD, 2009)

2.0 SCOPING

This Scoping Document 1 (SD1) is intended to advise all participants as to the proposed scope of the EA and to seek additional information pertinent to this analysis. This document contains: (1) a description of the scoping process; (2) a description of the proposed action and alternatives; (3) a preliminary identification of environmental issues and proposed studies; (4) a request for comments and information; (5) a proposed EA outline; and (6) a preliminary list of comprehensive plans which would be applicable to the project.

2.1 Purposes of Scoping

Scoping is the process used to identify issues, concerns, and opportunities for enhancement or mitigation associated with a proposed action. According to NEPA, the process should be conducted early in the planning stage of the project. Under the ALP, the applicant conducts Scoping in collaboration with Commission staff to fulfill the FERC's NEPA responsibilities. The purposes of the scoping process are as follows:

- invite participation of federal, state and local resource agencies, Indian tribes, non-governmental organizations (NGOs), and the public to identify significant environmental and socioeconomic issues related to the proposed project;
- determine the resource issues, depth of analysis, and significance of issues to be addressed in the EA;
- identify how the project would or would not contribute to cumulative effects in the project area;
- identify reasonable alternatives to the proposed action that should be evaluated in the EA;
- solicit, from participants, available information on the resources at issue, including existing information and study needs; and
- determine the resource areas and potential issues that do not require detailed analysis during review of the project.

2.2 Comments, Scoping Meetings, and Site Visit

Throughout the ALP there will be several opportunities for the resource agencies, Indian tribes, NGOs, and the public to provide input. These opportunities occur:

- during the public scoping process and study plan meetings, when we solicit oral and written comments regarding scoping of the issues and analysis for the EA;
- in response to comments on the PDEA and draft license application;
- in response to the Commission's ready for environmental analysis notice; and
- after issuance of the Commission's EA when we solicit written comments on the EA.

In addition to written comments solicited by this SD1, we will hold two public scoping meetings and a site visit. A daytime meeting will focus on concerns of the resource agencies, NGO's, and Indian tribes, and an evening meeting will focus on receiving input from the public. We invite all interested agencies, Indian tribes, NGOs, and individuals to attend one or all of the meetings and the site visit to assist us in

identifying the scope of environmental issues that should be analyzed in the EA. The times and locations of the meetings and site visit are as follows:

Daytime Scoping Meeting

Date and Time: Wednesday, October 7, 2009, 1:00 p.m. - 4:00 p.m. (Alaska ST)
Location: 4th Floor, Room 443-445, Federal Building,
709 West 9th Street
Juneau, AK 99801
Phone Number: (907) 586-7646

Evening Scoping Meeting

Date and Time: Thursday, October 8, 2009, 7:00 p.m. – 10:00 p.m. (Alaska ST)
Location: Centennial Hall,
Harrigan Centennial Hall
330 Harbor Drive
Sitka, AK 99835
Phone Number: (907) 747-3225

Site Visit

Date and Time: Thursday, October 8, 2009, 8:30 a.m. (Alaska ST)
Location: Takatz Lake Hydroelectric Project is located approximately 20 miles east of the City of Sitka, on the east side of Baranof Island.

Please notify Christopher Brewton at (907) 747-1870 or at chrisb@cityofsitka.com by October 2, 2009, if you plan to attend the site visit.

The scoping meetings will be recorded by a court reporter, and all statements (verbal and written) will become part of the Commission's public record for the project. Before each meeting, all individuals who attend, especially those who intend to make statements, will be asked to sign in and clearly identify themselves for the record. Interested parties who choose not to speak or who are unable to attend the scoping meetings may provide written comments and information to the Commission as described in section 6.0. These meetings are posted on the Commission's calendar located on the internet at <http://www.ferc.gov/EventCalendar/EventsList.aspx>, along with other related information.

Meeting participants should come prepared to discuss their issues and/or concerns as they pertain to the licensing of the Takatz Lake Project. It is advised that participants review the PAD in preparation for the scoping meetings. Copies of the PAD are available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website (<http://www.ferc.gov>), using the "eLibrary" link. Enter the docket number, P-13234, to access the documents. For assistance, contact FERC Online Support at FERCONlineSupport@ferc.gov or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. A copy of the PAD is also available for inspection and reproduction at the following address: City and Borough of Sitka Electric Department, 105 Jarvis Street, Sitka, Alaska, 99835.

The City and Commission staff will visit the site of the proposed project on Thursday, October 8, 2009, at 8:30 a.m. To attend the site visit, meet at the City of Sitka's Electric Department at 105 Jarvis Street, Sitka, Alaska 99835. Anyone with questions about the site visit should contact Christopher Brewton at (907) 747-1870 or chrisb@cityofsitka.com.

Following the scoping meetings and comment period, all issues raised will be reviewed and decisions made as to the level of analysis needed. If preliminary analysis indicates that any issues presented in this scoping document have little potential for causing significant effects, the issue(s) will be identified and the reasons for not providing a more detailed analysis will be given in the PDEA. We will revise this SD1, if necessary, to reflect comments received during the comment period. If we receive no substantive comments and no revisions to the SD1 are necessary, participants will be notified by letter. The information in the PDEA along with other information developed for the license application will serve as the basis for the Commission's EA.

3.0 PROPOSED ACTION AND ALTERNATIVES

In accordance with NEPA, the environmental analysis will consider the following alternatives, at a minimum: (1) the no-action alternative, (2) the applicant's proposed action, and (3) alternatives to the proposed action.

3.1 The City's Proposed Action

3.1.1 Proposed Project Facilities

In its PAD, the City cites the proposed project design for the Takatz Lake Project and other supporting data from a report by the U.S. Department of Interior and Alaska Power Administration (APA), entitled *Plan for Development for Takatz Creek Project*,

Alaska dated January, 1968. The City's current design is the same as what is proposed by the APA.

Because exact locations of project features, particularly transmission facilities, are speculative at this time, no project boundary is shown. The project boundary will be initially proposed to extend about 100 feet from both the proposed reservoir shoreline and from all proposed project facilities.

Reservoir

Takatz Lake is located approximately 4,000 feet upstream of the mouth of Takatz Creek (Figure 2), which flows into Chatham Strait by way of Takatz Bay on the eastern shore of Baranof Island. Natural existing water surface of Takatz Lake is at approximately 905⁴ and lake volume is estimated to be about 62,000 acre-feet (ac-ft). The proposed dam would increase reservoir volume to approximately 124,000 ac-ft, or an increase in active capacity of approximately 82,000 ac-ft. Surface area of Takatz Lake would increase from about 378 acres to approximately 740 acres as a result of the proposed impoundment.

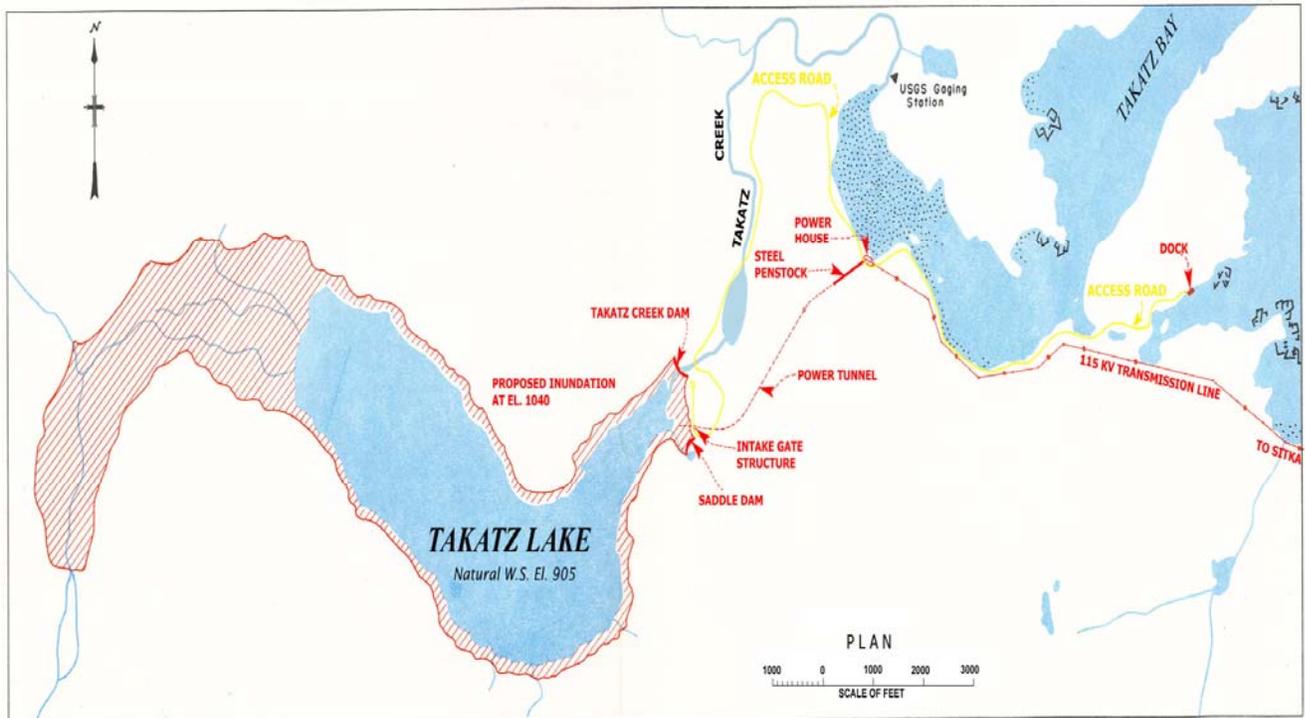


Figure 2. Project facilities for the Takatz Lake Project (Source: City and Borough of

⁴ Elevations are provided in feet above mean low sea level.

Sitka Electric Department, PAD, 2009).

Dam

The Takatz Creek dam would be located on Takatz Creek just downstream of the existing outlet of Takatz Lake. The Takatz Creek dam would be 200-foot-high primary concrete arch dam with spillway at elevation 1,040 and dam crest at elevation 1,052. A secondary dam, the “Saddle Dam” would be approximately 30 feet high and would be located south and east of the primary dam.

Intake/Power Tunnel/Penstock

Water would be withdrawn through a gate structure intake into an approximately 2,800-foot-long, 6.5-foot-wide by 7-foot-high modified horseshoe tunnel. The tunnel’s downstream portal would connect to a 72-inch-diameter, 1,000-foot-long steel penstock leading to the powerhouse. The net operating head of the project would be about 1,000 feet.

Powerhouse, Switchyard and Tailrace

A surface powerhouse approximately 4,000 square feet in area would be constructed at sea-level near Takatz Bay. The powerhouse would house two 18,600 hp Francis turbines, driving two 13.8 megawatt (MW) generators. A switchyard would be located near the powerhouse. The powerhouse tailrace would provide an average of about 166 cubic feet per second (cfs) discharge into the tidewater of Takatz Bay.

The total installed capacity of the project would be 27.6 megawatts (MW), depending on final design. The APA study said that 2 impulse-type turbine generators of approximately equal capacity would be installed. The high operating head suggests such generators, but exact turbine type will be determined during further feasibility studies. The Takatz Lake project configuration is expected to produce 97,100 megawatt-hours (MWh) of firm annual energy and 9,800 MWh of non-firm energy for a total average capability of 106,900 MWh of generation each year.

Transmission Facilities

Power generated by the project would be transmitted by a new 21-mile-long transmission line designed for 115 kV or whatever regional transmission voltage is established, but energized initially at 69 kV.

The transmission line would consist of a combination of overhead, underground

and submarine segments. Exact transmission type and routing will be determined based on further field investigations and feasibility studies due to the high avalanche hazards along the route.

The proposed transmission line would be of submarine construction from Takatz Bay, into Chatham Straight and then Warm Springs Bay. A substation would be constructed at Baranof Warm Springs to supply power to the community. From Baranof Warm Springs the transmission line would follow either a combined overhead and underground route around Baranof Lake or an underwater route on the lake bottom, depending on avalanche hazards and road construction. Once beyond Baranof Lake, the transmission line would continue up the Upper Baranof River valley, overhead, to an undetermined point at which it would follow a 2-mile-long tunnel passing north of Indigo Lake and south of Mount Bassie. The tunnel would daylight in the Medvejie Valley and would continue either buried or overhead down the Medvejie Lake valley to interconnect with the existing 69 kV transmission system connecting the Blue Lake and Green Lake Projects to the City of Sitka Electric Department service area (See figure 1).

3.1.2 Proposed Project Access

Generating Facilities

Access for construction and long-term operation and maintenance of the project generating facilities would be via floatplane, helicopter and boat. A gravel-surfaced access and maintenance road would lead to Takatz Lake and the project features from a dock to be constructed on Takatz Bay. Access to construction sites for transmission facilities near Baranof Lake would also be via floatplane or boat, and staging would be provided by a dock in Warm Springs Bay.

Transmission Line

The transmission line construction west from Baranof Warm Springs may be accessed by a road which would connect Baranof Warm Springs with the Green Lake road at the Northern Southeast Regional Aquaculture Association (NSRAA) Medvejie hatchery. The road would facilitate construction of the transmission facilities. The approximately 2-mile-long tunnel would also house the transmission line in the road right-of-way.

3.1.3 Proposed Project Operations

The project would supplement energy generated by Sitka's two primary hydroelectric projects, the Blue Lake Project (FERC No. 2230) and Green Lake Project (FERC No. 2818). The City operates these projects to meet base and peaking load

requirements within the Sitka Service area. Currently, the Blue Lake Project generates base-load energy and Green Lake provides peaking capacity. The Takatz Lake Project would be used to meet base load or peaking load depending on reservoir management and frequency control. In any case, generation would be optimized by following a rule curve reflecting seasonal inflow, spill capacity and drawdown limitations. Final project and system load configuration will be determined in further feasibility studies.

The project would be an unmanned facility. Operation would be monitored and controlled from the existing Blue Lake Control Center via a SCADA system. Maintenance personnel would visit the plant approximately monthly, providing routine equipment maintenance.

3.1.4 Proposed Environmental Measures

The city has not identified specific measures to protect and enhance environmental resources of the project area at this time. However, the City proposes to conduct several studies that will analyze the project's impact on various resource areas. See section 5.0 of this document for a description of the proposed studies.

3.2 Alternatives to the Proposed Action

The EA will consider and analyze all recommendations for operation or facility modifications, as well as for protection, mitigation, and enhancement measures identified by Commission staff, resource agencies, Indian tribes, NGO's, and the public.

3.3 No Action

Under the no-action alternative, the Commission would deny a license for the proposed Takatz Lake Project. The project would not be built and there would be no change to the existing environment. We use this alternative to establish baseline environmental conditions for comparison with other alternatives.

4.0 SCOPE OF CUMULATIVE EFFECTS AND RESOURCE ISSUES

4.1 Cumulative Effects

According to the Council on Environmental Quality's regulations for implementing NEPA (50 C.F.R. 1508.7), a cumulative effect is the effect on the environment that results from the incremental effect of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal)

or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

Based on information in the PAD and preliminary staff analysis, we have not identified any resources that would be cumulatively affected by the proposed construction and operation of the project.

4.2 Resource Issues

In this section, we present a preliminary list of environmental issues to be addressed in the EA. We have identified these issues, which are listed by resource area, by reviewing the PAD and the Commission's record for the proposed Takatz Lake Project. This list is not intended to be exhaustive or final, but contains those issues raised to date that could have substantial effects. After the scoping process is complete, we will review the list and determine the appropriate level of analysis needed to address each issue in the EA.

4.2.1 Geologic and Soils Resources

- Effect of project construction and operations on geology and soils resources.
- Effects of project construction and operation on existing mineral claims and mining areas.
- Effects of transmission line construction on geology and soil resources.

4.2.2 Water Quantity and Quality

- Effects of project construction on erosion, sedimentation, and turbidity levels of Takatz Lake, Takatz Creek, and Takatz Bay.
- Effects of accidental releases of fuels, lubricants, and other wastes from construction equipment and machinery on Takatz Lake, Takatz Creek, and Takatz Bay water quality.
- Effects of project operations on changes to water temperature, dissolved oxygen, and total dissolved gas levels of Takatz Lake and Takatz Creek.

4.2.3 Aquatic Resources

- Effects of project construction and operation (e.g., sedimentation, disturbance, modification) on physical habitat of Takatz Lake, Takatz Creek and Takatz Bay.
- Effects of project operation and water level fluctuations on fish species and habitats in Takatz Lake.
- Effects of project operation, including alterations to existing flow regime, on fish species and aquatic habitats of Takatz Creek.
- Effects of transmission line construction on fish communities in Takatz Bay, Chatham Straight, Warm Springs Bay, Baranof Lake and Baranof Creek.

4.2.4 Terrestrial Resources

- Effects of human access, blasting, excavation and other construction activities on wildlife.
- Effects of habitat loss and alteration from construction of dams, power tunnel, penstock, powerhouse, switchyard, transmission line, access roads, and appurtenant facilities on wildlife and plant species, with particular emphasis on Forest Service sensitive species and state-listed species.
- Effects of noise, improved access from project access roads, and increased human presence on wildlife, with particular emphasis on Forest Service sensitive species and state-listed species.
- Effects of project construction and operation on the control and spread of noxious weeds.
- Effects of new substations and transmission line on the potential for raptor electrocutions and collisions.

4.2.5 Threatened and Endangered Species

- Effects of project construction and operation on federally listed threatened Steller sea lion, and endangered humpback whale.

4.2.6 Recreation Resources and Land Use

- Any need for recreation facilities and public access within the project boundary to meet current or future (over the term of a license) recreation demand, including barrier-free access and the need for and benefit of interpretive opportunities (such as interpretive signs) at the project.
- The Effect of construction and operation of a transmission line and future transportation corridor issues.

4.2.7 Aesthetic Resources

- The effect of project construction, facilities, and operation on the aesthetic values of the project area.
- Effects of construction noise to residence and visitors within the project area, particularly within the Warm Springs Bay vicinity.

4.2.8 Cultural Resources

- Effects of project construction and operation on the project's defined area of potential effects (APE).
- Effects of project construction and operation on historic and archeological resources that are listed or considered eligible for inclusion in the National Register of Historic Properties.
- Effects of project construction and operation on properties of traditional religious and cultural importance to an Indian tribe.
- Effects of project construction and operation on subsistence resources (hunting, fishing, and gathering) and associated areas.

4.2.9 Socioeconomics

- Effects of project construction and operation on local, tribal, and regional economies.

4.2.10 Developmental Resources

- Effects of any recommended environmental measures on project generation and economics.
- Effects of project construction, operation, and maintenance on the project's economics.

5.0 POTENTIAL STUDIES

The City's proposed studies are summarized in the following table:

Table 2. The City's Potential Studies. (Source: City and Borough of Sitka Electric Department, PAD, 2009)

Resource Area and Issue	Summary of Proposed Study
Geologic and Soil Resources	
Geotechnical study	Conduct a query with the U.S. Bureau of Land Management for any mineral claims prior to building any structures or otherwise blocking access to potentially valuable deposits.
Water Quality and Quantity	
Water quantity study	Study will include hydrologic studies of streamflow in the potentially affected streams and seasonal lake levels in potentially affected lakes. These studies may be based on field data or data synthesized from comparison with measured data in nearby basins.
Water quality study	Study will focus on characterization of the temperature, dissolved oxygen, dissolved solids and clarity (turbidity) of waters affected by the project. These water parameters are measured either continuously or periodically (seasonally, daily or weekly), using modern equipment capable of high accuracy and reliability. Water quality surveys will be conducted on Takatz Lake, Takatz Creek, Baranof Lake and Baranof Creek.
Aquatic Resources	
Aquatic resource studies	Studies include conducting baseline surveys of fish species, their habitats and general life histories in potentially-affected Takatz Lake, Takatz Creek, Takatz Bay, Chatham Straight, Warm Spring Bay,

	Baranof Lake, and Baranof Creek. Study plans for these surveys will be developed in consultation with Alaska state and federal resource agencies, including Alaska Department of Fish and Game (Alaska DF&G), Alaska Department of Environmental Conservation (Alaska DEC), U.S. Forest Service (Forest Service), National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (FWS).
	Takat Lake and Creek: Takatz Lake and Takatz Creek fisheries studies may include, but not be limited to lake and tributary observations and various capture techniques to determine the fish species present and their relative abundance.
	Baranof Lake and Baranof Creek: Baranof Lake and Baranof Creek fisheries studies may include, but not be limited to lake and tributary observations and various capture techniques to determine the fish species present and their relative abundance.
	Marine Areas: Studies in these areas will seek to generally determine the distribution and abundance of resident and anadromous marine fish species, and to the extent possible, of marine invertebrate and botanical resources in areas potentially-affected by the project's submarine transmission line.
Terrestrial Resources	
Wildlife study	The study consists of wildlife surveys during the licensing period. All wildlife-related study plans will be developed in association with Alaska state and federal resource agencies, including Forest Service, Alaska DF&G, FWS, NGO's, and tribes. Typically wildlife surveys include: 1) ground surveys to determine large mammal habitat utilization and food habits; 2) small mammal trapping, to determine distribution and relative abundance of small mammals; and 3) general visual observations of birds, bird calling and other forms of documentation.
Botanical study	The study consists of baseline surveys for potentially-affected botanical resources, according to study plans approved by the Forest Service, Alaska DF&G and perhaps other agencies. Typically, baseline plan surveys include: 1) aerial inventories of vegetative type, primarily from existing imagery; 2) foot surveys, to ground-truth the aerial inventories; 3) a preliminary jurisdictional determination, to determine location,

	type, function and extent of wetlands, uplands, and water of the US in the project area; and 4) prior to construction, the City will conduct sensitive plant surveys according to Forest Service prescriptions in potentially-affected areas delineated in the project final design.
Threatened and Endangered Species	
No studies proposed.	
Recreation Resources and Land Use	
No studies proposed	
Aesthetic Resources	
Aesthetic resource study	The City will research existing aesthetic resource information including existing Forest Service plans to distinguish aesthetic impacts in the various potentially-affected areas. Viewshed analysis may be required to evaluate effects in different areas. All constructed project features will be evaluated relative to Forest Service and other stakeholder prescriptions for maintenance of aesthetic values from various viewing points.
Cultural Resources	
Cultural resource study	The City intends to inventory cultural resources in an APE to document the existence of cultural resources within areas which might be affected by project-related construction, road building or other ground disturbance. These surveys will be in two stages: Stage 1 will be less-intensive reconnaissance surveys designed to define the direct and indirect impact area of the project and the potential of the areas for containing sites. Stage 2 surveys will be conducted in those areas identified in the Stage 1 surveys as having a reasonable likelihood of containing sites. The scope of all surveys work will be determined in consultation with the Alaska State Historic Preservation Office, the Forest Service, affected tribes, and other stakeholders.
Socioeconomic	
No studies proposed.	

6.0 INFORMATION REQUESTED

We are asking federal, state, and local resource agencies, Indian tribes, NGOs, and the public to forward to the Commission any information that will assist us in conducting an accurate and thorough analysis of the project-specific and cumulative effects associated with the proposed Takatz Lake Project. The types of information requested include, but are not limited to:

- information, quantitative data, or professional opinions that may help define the geographic and temporal scope of the analysis (both site-specific and cumulative effects), and that helps identify significant environmental issues;
- identification of, and information from, any other EA, EIS, or similar environmental study (previous, on-going, or planned) relevant to the proposed project;
- existing information and any data that would help to describe the past and present actions and effects of the project and other developmental activities on environmental and socioeconomic resources;
- information that would help characterize the existing environmental conditions and habitats;
- the identification of any federal, state, or local resource plans, and any future project proposals in the affected resource area (e.g., proposals to construct or operate water treatment facilities, recreation areas, water diversions, timber harvest activities, or fish management programs), along with any implementation schedules;
- documentation that the proposed project would or would not contribute to cumulative adverse or beneficial effects on any resources. Documentation can include, but need not be limited to, how the project would interact with other projects in the area and other developmental activities; study results; resource management policies; and reports from federal and state agencies, local agencies, Indian tribes, NGOs, and the public; and
- documentation showing why any resources should be excluded from further study or consideration.

Any additional information, comments on the SD1, and additional study requests should be submitted in writing to the Commission no later than **December 8, 2009**. All

documents should clearly identify “*Takatz Lake Hydroelectric Project No. 13234-001*” on the first page. File all documents with:

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

All filings sent to the Secretary of the Commission should contain an original and eight copies. Failure to file an original and eight copies may result in appropriate staff not receiving the benefit of your comments in a timely manner. Scoping comments may be filed electronically via the Internet in lieu of paper. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission’s web site (<http://www.ferc.gov/docs-filing/ferconline.asp>) under the “e-Filing” link. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. The Commission strongly encourages electronic filings.

Register online at <http://www.ferc.gov/docs-filing/esubscription.asp> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support.

In addition, there is a “Quick Comment” option available, which is an easy method for interested persons to submit text only comments on a project. The Quick-Comment User Guide can be viewed at <http://www.ferc.gov/docs-filing/efiling/quick-comment-guide.pdf>. Quick Comment does not require a FERC eRegistration account; however, you will be asked to provide a valid email address. All comments submitted under either eFiling or the Quick Comment option are placed in the public record for the specified docket.

Any questions concerning the scoping meetings or how to file information, or comments with the Commission should be directed to Joseph Adamson at (202) 502-8085 or joseph.adamson@ferc.gov.

Additional information about the Commission’s licensing process and the Takatz Lake Project may be obtained from the Commission’s website www.ferc.gov.

7.0 EA PREPARATION SCHEDULE

At this time, we anticipate the need to prepare a draft and final EA. The draft EA will be sent to all persons and entities on the Commission’s service and mailing lists for the Takatz Lake Project. The EA will include our recommendations for operating

procedures, as well as environmental protection and enhancement measures that should be part of any license issued by the Commission. All recipients will then have 30 days to review the EA and file written comments with the Commission. All comments on the draft EA filed with the Commission will be considered in preparation of the final EA.

The major milestones, including those for preparing the EA, are as follows:⁵

<u>Major Milestone</u>	<u>Target Date</u>
Scoping Meetings	October 2009
License Application Filed	August 31, 2011
Ready for Environmental Analysis Notice Issued	November 2011
Deadline for Filing Comments, Recommendations and Agency Terms and Conditions/Prescriptions	December 2011
Draft EA Issued	May 2012
Comments on Draft EA Due	July 2012
Final EA Issued	September 2012

If Commission staff determines that there is a need for additional information or additional studies, the issuance of the Ready for Environmental Analysis notice could be delayed. If this occurs, all subsequent milestones would be delayed by the time allowed for the City to respond to the Commission's request.

8.0 PROPOSED EA OUTLINE

The preliminary outline for the Takatz Lake Project EA is as follows:

TABLE OF CONTENTS
LIST OF APPENDICES
LIST OF FIGURES
LIST OF TABLES
ACRONYMS AND ABBREVIATIONS
EXECUTIVE SUMMARY

- 1.0 INTRODUCTION
 - 1.1 Application
 - 1.2 Purpose of Action and Need for Power

⁵ This schedule assumes that a draft and final EA would be prepared. If a draft and final EIS is prepared the target dates for comments on the draft EIS and deadline for filing modified agency recommendations may need to be revised.

- 1.3 Statutory and Regulatory Requirements
 - 1.3.1 Federal Power Act
 - 1.3.1.1 Section 18 Fishway Prescriptions
 - 1.3.1.2 Section 4(e) Conditions
 - 1.3.1.3 Section 10(j) Recommendations
 - 1.3.2 Clean Water Act
 - 1.3.3 Endangered Species Act
 - 1.3.4 Coastal Zone Management Act
 - 1.3.5 National Historic Preservation Act
 - 1.3.6 Magnuson-Stevens Fishery Conservation and Management Act
- 1.4 Public Review and Comment
 - 1.4.1 Scoping
 - 1.4.2 Interventions
 - 1.4.3 Comments on the Application
 - 1.4.4 Comments on Draft EA
- 2.0 PROPOSED ACTION AND ALTERNATIVES
 - 2.1 No-action Alternative
 - 2.2 Proposed Action
 - 2.2.1 Proposed Project Facilities
 - 2.2.2 Project Safety
 - 2.2.2 Proposed Project Operation
 - 2.2.3 Proposed Environmental Measures
 - 2.2.4 Modifications to Applicant’s Proposal—Mandatory Conditions
 - 2.3 Staff Alternative
 - 2.4 Staff Alternative with Mandatory Conditions
 - 2.5 Alternatives Considered but Eliminated from Detailed Study
- 3.0 ENVIRONMENTAL ANALYSIS
 - 3.1 General Description of the River Basin
 - 3.2 Scope of Cumulative Effects Analysis
 - 3.2.1 Geographic Scope
 - 3.2.2 Temporal Scope
 - 3.3 Proposed Action and Action Alternatives
 - 3.3.1 Geologic and Soil Resources
 - 3.3.2 Aquatic Resources
 - 3.3.3 Terrestrial Resources
 - 3.3.4 Threatened and Endangered Species
 - 3.3.5 Recreation and Land Use
 - 3.3.6 Cultural Resources
 - 3.3.7 Aesthetic Resources
 - 3.3.8 Socioeconomics
 - 3.4 No-action Alternative
- 4.0 DEVELOPMENTAL ANALYSIS

- 4.1 Power and Economic Benefits of the Project
- 4.2 Cost of Environmental Measures
- 4.3 Comparison of Alternatives
- 5.0 CONCLUSIONS AND RECOMMENDATIONS
 - 5.1 Comparison of Effects of Proposed Action and Alternatives
 - 5.2 Comprehensive Development and Recommended Alternative
 - 5.3 Unavoidable Adverse Effects
 - 5.4 Recommendations of Fish and Wildlife Agencies
 - 5.5 Consistency with Comprehensive Plans
- 6.0 FINDING OF NO SIGNIFICANT IMPACT (OR OF SIGNIFICANT IMPACT)
- 7.0 LITERATURE CITED
- 8.0 LIST OF PREPARERS
- APPENDICES

9.0 COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA, 16 U.S.C. section 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. We have a preliminarily identified and reviewed the plans listed below that may be relevant to the proposed Takatz Lake Project. Agencies are requested to review this list and inform the Commission staff of any changes. If there are other comprehensive plans that should be considered for this list that are not on file with the Commission, or if there are more recent versions of the plans already listed, they can be filed for consideration with the Commission according to 18 C.F.R. 2.19 of the Commission's regulations. Please follow the instructions for filing a plan at <http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf>.

Alaska

- Alaska Department of Fish and Game. 1989. Northwest area plan for state lands. Fairbanks, Alaska. February 1989.
- Alaska Department of Fish and Game. 1998. Catalog of waters important for spawning, rearing or migration of anadromous fishes. November 1998. Juneau, Alaska.
- Alaska Department of Fish and Game. 1998. Atlas to the catalog of waters important for spawning, rearing or migration of anadromous fishes. November 1998. Juneau, Alaska.

- Alaska Department of Natural Resources. 2004. Alaska's Outdoor Legacy: Statewide Comprehensive Outdoor Recreation Plan (SCORP), 2004-2009. Juneau, Alaska. July 2004.

Federal

- Forest Service. 2008. Tongass National Forest land and resource management plan. Department of Agriculture, Ketchikan, Alaska. January 2008.
- U.S. Fish and Wildlife Service. Undated. Fisheries USA: the recreational fisheries policy of the U.S. Fish and Wildlife Service. Washington, D.C.

10.0 FERC OFFICIAL MAILING LIST

If you want to receive future mailings for this project and you did not receive notice of these meetings from the Commission, please send your request by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Room 1A, Washington, DC 20426. All written requests to be added to the Commission's mailing list must clearly identify the following on the first page: "*Takatz Lake Hydroelectric Project NO. 13234-001.*" You may use the same method to remove your name from the Commission's mailing list for this project.

Also, please notify the City if you would like to be placed on their Distribution List for this project.

Register online at <http://www.ferc.gov/esubscribenow.htm> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free (806) 208-3676, or for TTY, (202) 502-8659.