



United States  
Department of  
Agriculture

Forest  
Service

Alaska Region

P.O. Box 21628  
Juneau, AK 99802-1628

File Code: 2770

Date: December 15, 2010

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

### Comments on Pre-Application Document

#### Sweetheart Lake Hydroelectric Project, P-13563-001

Dear Ms. Bose:

Thank you for the opportunity to review the Pre-Application Document (PAD) and to comment on the Sweetheart Lake Hydroelectric Project.

This project is located within the Tongass National Forest boundary in the Alaska Region. Our comments are related to National Forest System lands and interests within the project boundary. Our comments and the service list are enclosed.

We look forward to working with FERC and Juneau Hydro, Inc. to ensure the needs of the public are addressed. If you have any questions regarding this submittal, please contact Barbara Stanley, Alaska Region Energy Coordinator at (907) 228-6262 or [bstanley@fs.fed.us](mailto:bstanley@fs.fed.us).



Ms. Kimberly D. Bose

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Sincerely,

*/s/ Beth G. Pendleton*  
BETH G. PENDLETON  
Regional Forester

Enclosures (2)

cc: Duff Mitchell  
Juneau Hydropower  
Inc.

## Forest Service Comments on the Pre-Application Document for the Sweetheart Lake Hydroelectric Project, FERC No. 13563

### Archeology

To comply with Section 106 of the National Historic Preservation Act, the proponent must consider a project's potential to affect historic properties. There has been little archaeological survey in the proposed project area to identify sites. Areas that fall within the high sensitivity zone for the presence of historic properties will need to be inventoried with site evaluations and determinations of eligibility and effect completed for all sites discovered.

Portions of the project area fall within the high sensitivity zone for the presence of cultural resources. The Alaska Region Programmatic Agreement Appendix C identifies the high sensitivity areas for the presence of cultural resources to include:

- all land between lower low water and 100 feet in elevation above mean high water, with no consideration of slope,
- areas of former lode and placer mining activity,
- lakes and stream systems containing anadromous fish runs, including a focus on barrier falls location in such systems.

In addition to archaeological inventories, the proponent will need to consult with culturally affiliated Tribes, Corporations and Certified Local Governments regarding the presence and significance of sites or traditional cultural properties. The State Historic Preservation Officer has oversight responsibilities to ensure that federal agencies comply with the National Historic Preservation Act and we are required to consult with them regarding the agency's determinations of eligibility and effect to all historic properties.

### Scenery

What will be the scenic effect of the dam, penstock, powerhouse, and associated access road as viewed from Port Snettisham and Gilbert Bay? The project improvements and structures should be designed to remain visually subordinate to the characteristic landscape and to blend, to the extent feasible, with the natural setting.

## Fish

Several populations of fish are likely to be affected by the proposed project. For the purposes of this project, we have identified three distinct classifications of fish potentially affected by the proposed project. These classifications are:

- 1) Resident fish in Lower Sweetheart Lake. Lower Sweetheart Lake above the falls contains naturally reproducing populations of rainbow trout and Dolly Varden. The rainbow trout are believed to be of a stocked origin but are now self-sustaining. The Dolly Varden are believed to be native.
  
- 2) Naturally reproducing anadromous fish in Sweetheart Creek below the falls. Sweetheart Creek below the falls contains spawning habitat for known populations of anadromous pink and chum salmon, and may also receive runs of anadromous Dolly Varden, sea-run cutthroat trout, and silver salmon.
  
- 3) Hatchery produced sockeye salmon runs. Sweetheart Lake is stocked annually with 500,000 sockeye salmon fry by DIPAC in conjunction with the Alaska Department of Fish and Game. These fry rear in Sweetheart Lake for 2-3 years before out-migrating down Sweetheart Creek, over the falls, and out through Gilbert Bay. These fish return to Lower Sweetheart Creek as adults, where they provide a popular personal-use fishery for many residents of Juneau. Sweetheart Creek sockeye salmon are not naturally reproducing and congregate below a large barrier falls on Lower Sweetheart Creek which prohibits re-entry into the lake. The several pools below the barrier are popular for the personal-use fishery.

### Resident Fish in Lower Sweetheart Lake

Little is known about the life histories of resident fish in Lower Sweetheart Lake. A study which documents population sizes, spawning times and spawning locations would be helpful in addressing potential impacts of the hydro plant on the fishery. In tributaries utilized by spawning fish, surveys should be conducted to locate prime spawning

habitat and estimate a range of lake levels at which these areas are accessible. Because the lake level will be raised, the lower reaches of important spawning tributaries will likely become inundated by the reservoir. This will almost certainly have negative effects on resident fish populations. It is unlikely that the lake level would ever become too low for fish to access their spawning streams, as new lake levels will fluctuate between 569 and 629 feet elevation and remain above the natural elevation of 544 feet. However, de-watering is always a concern in reservoir systems and lake levels should not be reduced below this point. The proposed project should not significantly restrict reproduction of resident fish either by inundation of a majority of adequate spawning areas, or conversely by lowering lake levels so that tributaries may not be accessible. Additionally, proper screening should be installed to prevent resident fish from entering the penstock and being transported through the turbines.

#### Naturally Reproducing Fish Below the Falls

The proposed project could have significant effects on naturally reproducing anadromous fish in Sweetheart Creek below the falls. A thorough study should be conducted which documents population sizes and species of anadromous fish in Sweetheart Creek, as well as surveys of available spawning and rearing habitat, and continuous stream flow and stream temperature measurements. If the powerhouse discharge is located below the upstream barrier to anadromous migration, lower stream flows may inhibit navigation of falls and rapids by anadromous fish and critical pools may be left in a de-watered state. This may eliminate potential spawning habitat. Additionally, if stream temperature is altered in either direction it will likely affect the thermal cues or spawning behavior of anadromous fish. It is recommended that stream flows and temperatures in Sweetheart Creek below the barrier falls be left to mimic the natural regime as much as possible so as not to alter the reproduction of Sweetheart Creek fish.

#### Hatchery Produced Sockeye Salmon Runs

The personal-use sockeye salmon fishery in Sweetheart Creek is popular with Juneau residents. Currently, fishing is limited to three or four deep pools located between the intertidal zone and the barrier falls. The upper pools are preferred by many due to an increased proportion of sockeye salmon to other salmon species. Depending on flow alterations and discharge location, these pools could be de-watered and fishing

opportunities may be reduced. It is recommended that flows below the barrier falls in lower Sweetheart Creek be left to mimic the natural regime as much as possible so as not to negatively affect this popular fishery.

In all cases, if negative impacts cannot be avoided, mitigation measures will be recommended to provide improvements to fisheries which are equal to or greater than anticipated reductions. We understand that the proponent wants to provide a fish passage system which is said to provide safer outmigration for sockeye salmon smolts and thus may increase returns of sockeye salmon to Sweetheart Creek. However, if fishing locations are eliminated, the overall fishery may still suffer.

## Hydrology

1. Stream Discharge
  - i. Quantify changes in the hydraulic capacity to maintain stream channel morphology
  - ii. Determine what the impact of "peaking" operations or other changes in natural flow patterns will be on reservoir and stream vegetation, fisheries, and stream banks
  - iii. How will applicants ensure a "mandatory compensation flow to support downstream aquatic life" if needed?
2. Water Quality
  - a. Water Temperature
    - i. Quantify fluctuations in daily water temperature. Are they within the range of temperature tolerance to aquatic flora and fauna found growing in these streams?
  - b. Oxygen levels
    - i. Likely not a factor, but may need to quantify O<sub>2</sub> levels during times of lake drawdown and the effect it may have on flora and fauna.
  - c. Sedimentation
    - i. Address potential sedimentation in project streams during construction activities and long term expectations of changed regimes.
  - d. Fuel spills
    - i. Ensure adequate protection as per state and federal regulations.
  - e. Erosion

- i. Quantify potential erosion impacts of lake drawdown on lake littoral zone, and subsequent access to habitat on inlet streams (risk of head cutting).

### 3. Application of Best Management Practices

Describe BMPs that will be used to minimize erosion and maintain water quality during construction & maintenance of all facilities (dam, penstock, power house, access roads, etc).

#### Wildlife

The following wildlife related issues and concerns should be addressed in the Sweetheart Lake Hydroelectric Project Environmental Analysis. Studies sufficient to address these questions should be completed during the information gathering phase.

All Federally threatened, endangered, and proposed species and their critical habitats; US Forest Service R10 sensitive species; US Forest Service Tongass NF management indicator species (MIS); and migratory birds will need to be addressed in the environmental analysis. Sufficient information (including surveys where required or otherwise appropriate) should be gathered to determine the likelihood of species presence, seasonal distribution, and the presence of suitable habitat for these species, in order to conduct the effects analysis for the project.

The following species are known to occur in the area or have been issues in similar projects in the past. Concerns include habitat modification as well as disturbance during construction and maintenance activities (e.g., helicopter flights).

- Mountain goats – They are known to inhabit the project area and habitat is abundant in the area. The Tongass NF Forest Plan has a guideline to avoid building facilities within 1 mile of goat winter and kidding habitat. Studies should be conducted to identify goat distribution and habitat, particularly in the winter and spring.
- Bears – Lower Sweetheart Creek, below the barrier, is an important area for bears foraging on salmon. Studies should identify which specific sites and dates are important for bears, how these might change with reduced flows from the stream, and various potential locations of the tailrace. Also, important areas away from the creek (e.g., trails, bedding areas) should be mapped to help analyze how to minimize human/bear interactions during construction and

operation (a TLMP S&G).

- There are historic bald eagle nests in the area, but the surveys are old. Surveys to identify current nests are needed. The project should incorporate the APLIC standards and design recommendations (APLIC 2006) for raptor mitigation.
- Marbled murrelets - ADF&G has done some recent surveys in the area and found Port Snettisham to be an important area for murrelets. It would be good to identify important foraging areas or flyways along the proposed transmission line routes to help identify potential mitigations or alternatives. Upland transmission line construction would likely impact nesting habitat. Consider surveys of the proposed route for nesting murrelets.
- Goshawks – Protocol surveys for goshawks will be required to meet TLMP S&Gs.
- Waterfowl – Identify wetlands that receive significant waterfowl or shorebird use during fall/winter/spring concentrations or nesting, brood rearing, or molting habitats. This is necessary so that facilities and concentrated human activities can be located as far from known nesting and concentration areas as possible (TLMP S&G).
- Marine mammals – Survey and document marine mammal use of Gilbert Bay and Port Snettisham sufficient to meet the needs for environmental analyses.
- Access – Identify how this project may affect changes in hunting/trapping pressure on wildlife species as a result of this action.
- Subsistence - Pages 55 and 65 of the PAD mention that the project is located in an ADF&G designated non-subsistence area. This is not applicable to Federally-managed lands. All rural residents with a positive Customary and Traditional Use Determination (varies by resource) are eligible to harvest subsistence resources on Federal lands.
- The project boundary as drawn may not make sense from a wildlife analysis standpoint. In other words, it will not likely encompass the impact area for animals using the project area. For example, bears using the stream may utilize a much larger area, particularly at the stream mouth area. Birds utilizing the estuary could be disturbed by project activities, especially during winter.

#### Reference:

Avian Power Line Interaction Committee (APLIC). 2006. Suggested practices for avian protection on power lines: The state of the art in 2006. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C. and Sacramento, CA.

#### Recreation & Recreation-Related Special Uses

The following recreation related issues and concerns should be addressed in the Sweetheart Lake Hydroelectric Project Environmental Analysis. Studies sufficient to address these questions should be completed during the information gathering phase.

How will the proposal affect the dispersed recreation in this area? Recreationists include: deer, waterfowl, bear, and goat hunters; sport fishers; backcountry hikers, photographers, kayakers, campers and sightseers. How will the proposed project affect the landing of aircraft on the lake? How will it affect the boat anchorage in Gilbert Bay (day use and overnight use)? What will be the effects upon the scenery, soundscape, and darkness?

A number of outfitter-guides operate within and adjacent to the project area. Please provide these individuals an opportunity to comment as to how outfitting & guiding activities may be affected by the proposed project. Contact information for these operators is available upon request from the Juneau Ranger District – phone Jenn Berger or Jim Case at 907.586.8800.

The majority of the people using this area for recreation reach their National Forest via boat transportation. How will their anchorages be affected? How will the scenery be affected from anchorages and travel ways? Will there be increased flows of freshwater in the winter? Will there be more ice in the bay in the winter which will hamper boat access? Will there be effects on boating from access limits placed around the proposed facilities for security, safety, and liability? Will there be effects upon boaters by light or noise from the facilities?

How will the proposal change the existing Recreation Opportunity Spectrum classes?

Will there be light or sound pollution from the project noticeable from Port Snettisham?

## Soils

The main soils resource concerns for this project are slope stability, erosion control, and impacts to wetlands.

Areas that are impacted by this project will need to have a slope stability investigation preformed. Mitigation measures need to be implemented in areas that are determined to have a high risk of slope failure due to the project's activities.

Is the geologic material at proposed sites for dams, diversions, spillways, tunnels, etc. stable enough to support these structures?

An erosion control plan needs to be developed for the project. Erosion control measures need to be implemented in any area of the project where soil is exposed.

A wetland delineation needs to be completed for the project area. Appropriate permits need to be obtained from the U.S. Army Corps of Engineers for portions of the project which will impact wetlands.

#### Botany - Sensitive, Rare and Invasive Plants

A pre-field review and field surveys will be required to determine the presence of sensitive, rare, or invasive plants within the project area.

Chapter 4 of the Forest Plan Amendment provides direction of analysis of sensitive, rare and invasive plants. Consult pages 4-22, 4-41, and 4-42. Specific direction for pre-field review, field surveys and NEPA analysis may be found in Guidance for Preparing a Botany Resource Report, Tongass National Forest (Dillman and Krosse 2009) (Appendix A). Guidance for preparing a biological evaluation for sensitive plants may be found in Appendix B.

The first level of consideration for botanical resources is the Region 10 Sensitive Plant species. Following is a list of known and suspected habitat types that may support sensitive and rare plants within the Sweetheart Lake project area:

- coniferous forest
- mixed conifer/deciduous forest
- forest edge
- tall shrublands
- rocky areas, rocky outcrops, ridge tops,
- cliffs
- scree, talus
- riparian areas ,stream banks, waterfalls
- lake margins
- estuaries
- moist-wet meadows
- upper beach meadows

#### Sensitive Plants:

Region 10 has a total of 19 listed sensitive plant species. Of the 19 listed for the Region, several are known or suspected to occur within the Juneau Ranger District, and thus the project area. These sensitive plants that correspond to the above habitat types that may occur in the project area are listed below.

Botrychium spathulatum- Human disturbance/historic well drained, maritime beach, upper beach meadow, well drained open areas, alpine/subalpine, calcareous. Known on Kruzof Island and w Chichagof Island.	Lobaria amplissima- Beach/old-growth forest ecotone influenced by large bodies of ocean and coastal fog. Known on Mitkof, Kuiu, Baranof, and Prince of Wales Islands, Misty Fiords NM, and Yakutat.
Botrychium tunux- Human disturbance/historic well drained, maritime beach, upper beach meadow, well drained open areas, alpine/subalpine, calcareous. This species is known in Yakutat, Dall Island, ne & w Chichagof Island.	Papaver alboroseum- Alpine and subalpine, well drained open areas, dry meadows. Known on Seward & Glacier Ranger Districts on the Chugach NF, and east side of Juneau Icefields in British Columbia.
Botrychium yaaxudakeit_ Human disturbance/historic well drained, maritime beach, upper beach meadow, well drained open areas, calcareous. Known in Yakutat, Glacier Bay, Inian Is (Hoonah RD), and Haines.	Piperia unalascensis- Open forest, streamside/riverbank, bog, heath, ultramafic. Known from Duke Is., n Chichagof Is. (Doolth Mt.), Gravina Is., Baranof Is (Red Bluff Bay), Prince of Wales Is. (Rio Roberts).
Cochlearia sessilifolia- Maritime beach. Suspected in on the TNF; may have been found on Northern Prince of Wales Island (specimens currently being identified by experts)	Romanzoffia unalascensis- Forest edge, streamsides, rock faces. Known on Heceta Island, near Bering Glacier and Sitka.
Cypripedium montanum- In upper beach meadow/forest ecotone. Known just north of the mouth of Endicott River, Chilkat Peninsula, in the Haines area, Glacier Bay, the Stikine R., and Etolin Is.	Sidalcea hendersonii- Estuarine meadow/forest ecotone. Known in Howard Bay; the only known population in Alaska.
Tanacetum bipinnatum subsp. huronense- Upper beach meadow. Known on Shelikof Bay on Kruzof Is., Sitka RD.	

The following sensitive species are known to occur nearby, but outside the project area. Particular attention to possible occurrences of these species in the project area may be warranted.

- Sidalcea hendersonii- In the meadow/forest ecotone of the estuary at the head of Howard Bay, approx. 54 miles northwest of the Project area; the only known population in Alaska.
- Cypripedium montanum- In upper beach meadow/forest ecotone just north of the mouth of Endicott River, approx. 83 miles north-northwest of the project area. Also known in the Haines area, Glacier Bay, the Stikine R., and Etolin Is.

- Botrychium tunux- Among rocks and gravel in alpine, ridge north of Greens Creek Mine, north Admiralty Is., approx. 30 miles west- northwest of the project area. Also known on Dall Island, ne & w Chichagof Island.

#### Rare Plants:

A rare plant on the Tongass National Forest is defined as a plant that:

1. Is on the Alaska Natural Heritage Program (ANHP) Rare Vascular Plant Tracking List that are known or suspected to occur on the Tongass (ANHP, 2008), is considered S1 and S2 in State ranking (some S3 are considered). Plants currently designated as sensitive for the Tongass National Forest are also on the ANHP rare plant list.
2. Is proposed upon consultation and agreement among Tongass ecologists, District botanists, and the Region 10 botanist because of rarity on the Tongass (i.e. plants with range edges or disjunct populations on the Tongass but not yet given a state ranking on the ANHP list).
3. Has population viability concerns on the Tongass, but is not on the sensitive plant list.
4. Has been or is being raised as an issue because of rarity or conservation concerns (through the NEPA process).

The list of rare plants is dynamic; plants may be dropped when they are found to be more abundant than previously thought, or plants may be added if they are newly discovered in the state or on the Forest. Plants may also be added or dropped as their taxonomic status changes. Generally, the Tongass rare plant list is based on the ANHP rare plant tracking list. The USFS and other agencies contribute rare plant occurrence information to the ANHP for database inclusion and contribution to the ranking process for rare taxa. The plants considered sensitive on the Tongass are also on the ANHP plant tracking list. The most recent list of rare plants for Alaska is found at -

[http://aknhp.uaa.alaska.edu/botany/Botany\\_tracking\\_page.htm](http://aknhp.uaa.alaska.edu/botany/Botany_tracking_page.htm)

A list of rare plants that are known or suspected to occur in the project area should be developed by the project's field botanist as part of the pre-field review process. As mentioned above, the target rare plant list for this project can be derived in part from the Alaska Natural Heritage Program tracking list, as well as other literature. The target list of rare plants that are known or suspected to occur on the Juneau Ranger District should be added to the target list of plants to include during the prefield review and to focus surveys for during field work. Since botanical surveys are comprehensive, a plant species checklist is required that documents all flora found during surveys. Therefore, any plant found in the project area that is new to Alaska or to the Tongass that is not

currently on the state rare plant list may also be analyzed in the resource report for the project.

#### Invasive Plants:

Invasive plant surveys will be completed for the project, documenting any non-native plant species within the proposed action alternative for the project. If invasive plants are found during rare plant surveys, they are documented according to the most current inventory protocols available. Prevention measures for invasive plants will follow Forest direction found under FSM 2000 - NATIONAL FOREST RESOURCE MANAGEMENT, Chapter 2080 - NOXIOUS WEED MANAGEMENT, Tongass National Forest Supplement - R10 TNF – 2000-2007-1.

- If invasive plants are found near rare or sensitive plants, their possible effects to the plant's viability or their habitat will be assessed.
- A risk assessment will be performed for the project and its likelihood of spreading invasive plants. This direction is found in the above mentioned FSM 2080 R10 TNF 2000-2007-1.

#### Summary of botanical information needs for the project:

1. A thorough prefield review will be required to identify the scope of field surveys needed for this project.
  - a. Prefield review process will include assessment of known and suspected sensitive, rare and invasive plants within the project area.
  - b. List of potential species will be based on R10 sensitive plant list (see sensitive plant section above), AKNHP list of rare plants known or suspected to occur within the Juneau Ranger District and within known habitats of the project area (see ANHP rare plant tracking list, S1 and S2 species), and all non-native plants.
2. Field surveys are required and recommended to be performed during the months of late June to late August in order to identify all of the species indicated above that could potentially occur within the project area. These should include deltas around the lake, the rocky area around the falls, open areas along the creek, beach meadow and upper beach fringe, and estuary bordering the mouth of the creek and in the bay where activities will occur.
  - a. Surveys will follow USFS protocols, including use of standardized survey and element occurrence (rare, sensitive and invasive plant locations) data sheets.
3. Analysis of data will follow Guidance for Botany Resource Reports (Dillman and Krosse, 2009) and Guidance of Tongass National Forest-Guidance for Biological Evaluations - Sensitive Plants (Dillman and Krosse 2009).

Comments on NOTICE OF INTENT (NOI) PRE-APPLICATION DOCUMENT (PAD) REQUEST TO USE ALTERNATIVE LICENSING PROCEDURES (ALP) - SWEETHEART LAKE HYDROELECTRIC PROJECT FERC No. 13563:

Botanical Resources – This section only describes the general characteristics of the vegetation and mentioned T&E species. Typically, this section should be more specific to the sensitive, rare and invasive plant populations within the project area. Thus, the information provided above.

Regarding this paragraph: “In the USFS Shoreline-Based Recreation Carrying Capacity Analysis 2001 for the Port Snettisham area: No rare or sensitive taxa were found after the completion of two surveys that covered 0.5 miles of shoreline.<sup>38</sup>”

- The R10 sensitive plant list was updated in 2009 and the project mentioned did not analyze the sensitive species from the updated list. Also, this project did not include surveys, for the most part, and is suitable only as background information for the current project.

References:

AKNHP. 2008. Alaska Natural Heritage Program Vascular Plant Tracking List. ([http://aknhp.uaa.alaska.edu/Botany\\_tracking\\_page.htm](http://aknhp.uaa.alaska.edu/Botany_tracking_page.htm)) Alaska Natural Heritage Program 2008. Rare Vascular Plant Tracking List. (07 Nov 2007)

USDA Forest Service – Karen L. Dillman and Patricia Krosse. 2009. Guidance of Tongass National Forest-Guidance for Biological Evaluations - Sensitive Plants. 10 pp.

USDA Forest Service – Karen L. Dillman and Patricia Krosse. 2009. Guidance for Preparing a Botany Resource Report Tongass National Forest. 20 pp.

Lands/Minerals

Any on-the-ground site investigations/studies (including non-ground-disturbing activities) that take place on National Forest System lands or roads will require authorization by a special use permit from the U.S. Forest Service prior to beginning work.

The Minerals issues and concerns are as follows:

1. A thorough investigation will be needed as to the occurrence of existing mining claims in the project area (the identification of existing claims and claimant

ownership will aid in the avoidance of conflicts regarding access to mineral rights)

2. A Mineral Potential Report may be necessary to identify mineral resources that may be affected by the hydropower withdrawal. The format and content of a Mineral Potential Report may vary, but the report is generally prepared by Certified Geologist/Mineral Examiner, Professional Mining Engineers, or Mining Geologists. The report should emphasize locatable mining claimants, historical prospects, and mineral potential.
3. Forest Service Manual (FSM) 2803 contains policy direction with respect to management of mineral resources on the Forest.
4. Tongass Land and Resource Management Plan Standards and Guidelines MG2 parts I-VII contains relevant guidance regarding minerals standards which must be met.
5. An in-depth geology survey should be accomplished, so that structure and bedrock are fully understood.
6. A thorough geotechnical study should be undertaken.
7. Potential sources of mineral materials should be identified and located. These are common variety of sand, gravel, stone, or similar materials which may be used in the construction and development of the proposed project. Once identified, the use of these materials may require sale through a Mineral Materials contract. Mineral Material sites will be developed according to CFR 228 C, FSM 2850, and Tongass Land and Resource Management Plan Standards and Guidelines MG2 V.
8. Once all rock types present are known, a geochemical study should be undertaken so that acid generating potential of the potential source rock for construction materials (roads, dams, berms, etc), as well as rock which will be disturbed but not used, is fully understood. This will help to avoid an encounter with acid rock drainage in the future. This may not be necessary if no rock types are discovered which are likely to contain acid-producing components (usually sulfides).
9. Identification of potential leaseable resources present (oil and gas or geothermal). The Mineral Potential report will identify the possibility of those resources.

Minerals References:

<http://akmining.info/>

<http://sdms.ak.blm.gov/isdms/imf.jsp?site=sdms>

- 36 CFR 228 C

- Forest Service Manual 2850

- Tongass Land and Resource Management Plan; Chapter 4 Standards and Guidelines; MG2

## Global Climate Change

How does this project address the projected changes associated with global climate change?

## Land Management Plan Direction

How does the proposal align or conflict with Forest Plan Land Use Designations (LUDs) contained within the project area?

The proposed project is in an area designated for Semi-Remote Recreation. The goals for this LUD are:

- To provide predominantly natural or natural appearing settings for semi-primitive types of recreation and tourism and for occasional enclaves of concentrated recreation and tourism facilities.
- To provide opportunities for a moderate degree of independence, closeness to nature, and self-reliance in environments requiring challenging motorized or non-motorized forms of transportation.

The Desired Condition for the Semi-Remote Recreation LUD is:

- Areas in the Semi-Remote Recreation LUD are characterized by generally unmodified natural environments. Ecological processes and natural conditions are only minimally affected by past or current human uses or activities. Users have the opportunity to experience a moderate degree of independence, closeness to nature, solitude, and remoteness, with some areas offering motorized opportunities and others non-motorized opportunities (except for the traditional uses of boats, aircraft, and snowmachines). Interactions between users are infrequent. Facilities and structures may be minimal or occasionally may be larger in scale, but will be rustic in appearance, or in harmony with the natural setting.

This LUD represents a Transportation and Utility System (TUS) "window" and does allow for the future designation and location of Transportation and Utility sites; however, as

previously noted, project improvements and structures should remain visually subordinate to the characteristic landscape and blend, to the extent feasible, with the natural setting. Refer to the Forest Plan for the complete Standards and Guidelines that are applicable to the Semi-Remote Recreation LUD.

#### Roadless Area Conservation

The Sweetheart Lake project area is within an Inventoried Roadless Area, as identified in the set of maps contained in the November 2000 EIS for the Roadless Area Conservation Rule. The Secretary of Agriculture has reserved the authority to approve or disapprove the construction and reconstruction of roads and the cutting, sale, or removal of timber within the roadless areas. Based on current direction, the Forest Service will need to request approval from the Secretary before preparing the 4(e) terms and conditions for inclusion in the license and/or before approving any project plans that involve road construction or timber harvest/sale/removal within the project area. It is important that Juneau Hydropower Inc. stay informed about this issue; the Forest Service will share additional information as it becomes available.

#### Other Comments

What effect will snow avalanches and landslides have upon the proposed facilities?

The project area, as delineated on the BLM Master Title Plat, seems unusually large (22,780 acres) and includes Upper Sweetheart Lake. Do you plan to develop project structures/improvements at Upper Sweetheart Lake in the future? If so, please describe this future development in detail. Otherwise, it may be advisable to reduce the project area to include only those lands that would be impacted by the Sweetheart Lake project. It appears that a large area of NFS lands may be unnecessarily encumbered by this hydropower withdrawal. A reduction in the size of the project area might help focus the recommended field studies and would result in a reduced land use rental fee after licensing.

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

IN THE MATTER OF COMMENTS )  
ON THE PRE-APPLICATION )  
DOCUMENT FOR THE )  
SWEETHEART LAKE )  
HYDROELECTRIC PROJECT )

Project Number: P-13563-001

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have served the U.S.D.A. Forest Service's comments on the Pre-Application Document by electronic filing, with the Federal Energy Regulatory Commission, at [www.ferc.gov](http://www.ferc.gov), and a copy of said documents by electronic mail to the following listed parties:

Party	Primary Person or Counsel of Record to be Served	Other Contact to be Served
Juneau Hydropower, Inc.	Duff Mitchell, Business Manager Juneau Hydropower, Inc. PO Box 22775 Juneau, ALASKA 99802 duff.mitchell@juneauhydro.com	
National Marine Fisheries Service	Susan Walker Marine Resources Specialist National Marine Fisheries Service PO Box 21668 Juneau, ALASKA 99802-1668 UNITED STATES susan.walker@noaa.gov	Thomas Meyer General Counsel NOAA General Counsel PO Box 21109 Juneau, ALASKA 99801 tom.gcak.meyer@noaa.gov
U.S. Fish and Wildlife Service	Richard Enriquez Juneau Fish and Wildlife Field Office U.S. Fish and Wildlife Service 3000 Vintage Blvd., Suite 201 Juneau, ALASKA 99801-7100 Richard_Enriquez@fws.gov	
United States Department of Agriculture	Dawn M Collinsworth Office of the General Counsel U.S. Department of Agriculture PO Box 21628 Juneau, ALASKA 99802-1628 UNITED STATES Dawn.Collinsworth@ogc.usda.gov	Marti Marshall, District Ranger Juneau Ranger District Tongass National Forest 8510 Mendenhall Loop Road Juneau, Alaska 99801-8041 mmarshall01@fs.fed.us

United States Department of Agriculture	Roger Birk Alaska Region - Public Services PO Box 21628 Juneau, ALASKA 99802-1628 rbirk@fs.fed.us	

Dated this 15th day of December 2010

/s/ Barbara A. Stanley

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Document Content(s)

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