

**From:** Karen A Oleary [<mailto:kaoleary@fs.fed.us>]  
**Sent:** Wednesday, July 01, 2009 5:09 PM  
**To:** McLarnon, Paul  
**Cc:** Zubeck, Brad; Weigner, Heidi; Steve Gilbert; Bethard, Todd  
**Subject:** RE: Grant Lake - Falls Creek special use permit

Hi Paul,

To follow up on my phone call to you last week, here's an executed copy of the special use permit. If you have any questions, let me know.

++++  
Karen O'Leary  
Chugach National Forest  
3301 "C" Street Suite 300  
Anchorage, AK 99503-3998  
office: (907)743-9542, fax: (907)743-9492  
Seward office: (907)224-4110, fax: (907)224-3268  
email: [kaoleary@fs.fed.us](mailto:kaoleary@fs.fed.us)  
++++

"McLarnon, Paul" <[Paul.McLarnon@hdrinc.com](mailto:Paul.McLarnon@hdrinc.com)>

06/22/2009 10:45 AM

To Karen A Oleary <[kaoleary@fs.fed.us](mailto:kaoleary@fs.fed.us)>, "Weigner, Heidi"  
<[Heidi.Weigner@hdrinc.com](mailto:Heidi.Weigner@hdrinc.com)>

cc Steve Gilbert <[SteveG@enxco.com](mailto:SteveG@enxco.com)>, "Bethard, Todd"  
<[Todd.Bethard@hdrinc.com](mailto:Todd.Bethard@hdrinc.com)>, "Zubeck, Brad"  
<[BZubeck@HomerElectric.com](mailto:BZubeck@HomerElectric.com)>

Subject RE: Grant Lake - Falls Creek special use permit

Hi Karen,

Attached is the signature page for the Grant Lake and Falls Creek Special Use Permit, which has been signed by KHL. If you have any questions please let me know otherwise we will look for the final permit to be sent out in the near future.

Paul

**From:** Karen A Oleary [<mailto:kaoleary@fs.fed.us>]  
**Sent:** Friday, June 12, 2009 5:58 PM  
**To:** McLarnon, Paul; Weigner, Heidi  
**Subject:** Grant Lake - Falls Creek special use permit

Hi Paul/Heidi -

Attached is the special use permit to conduct investigative studies at Grant Lake and Falls Creek. Please review the permit and sign it where indicated. The permit is issued to Kenai Hydro since they hold the FERC preliminary permit. Whoever signs the special use permit should be authorized to sign documents

for Kenai Hydro. You can fax the signature page to me at 743-9492, or scan and email it to me. I'll return a fully executed copy to you.

Also attached is the bill for the land use rental fees. Please send a copy of the bill along with your payment to the Los Angeles address shown on the bill.

Please give me a call if you have any questions.

+++++

Karen O'Leary

Chugach National Forest

3301 "C" Street Suite 300

Anchorage, AK 99503-3998

office: (907)743-9542, fax: (907)743-9492

Seward office: (907)224-4110, fax: (907)224-3268

email: [kaoleary@fs.fed.us](mailto:kaoleary@fs.fed.us)

+++++[attachment "KHL USFS SUP FS 2700 30 06.pdf" deleted by Karen A O'Leary/R10/USDAFS]

Authorization ID: SEW457  
Contact ID: KENAI HYDRO LLC  
Expiration Date: 12/31/2013  
Use Code: 413

FS-2700-4 (03/06)  
OMB 0596-0082

**U.S. DEPARTMENT OF AGRICULTURE**  
**Forest Service**  
**SPECIAL USE PERMIT**  
**AUTHORITY:**  
**ORGANIC ADMINISTRATION ACT June 4, 1897**

Kenai Hydro, LLC of 6921 Howard Ave, , ANCHORAGE, AK 99504 (hereinafter called the Holder) is hereby authorized to use or occupy National Forest System lands, to use subject to the conditions set out below, on the Chugach National Forest or  unit of the National Forest System.

This permit covers 2 acres, and/or 0 miles and is described as: Sec. 8, T. 4 N., R. 1 E., SEWARD MERIDIAN, Sec. 21, T. 4 N., R. 1 E., SEWARD MERIDIAN, Sec. 20, T. 4 N., R. 1 E., SEWARD MERIDIAN, Sec. 17, T. 4 N., R. 1 E., SEWARD MERIDIAN, Sec. 16, T. 4 N., R. 1 E., SEWARD MERIDIAN, Sec. 5, T. 4 N., R. 1 E., SEWARD MERIDIAN, Sec. 3, T. 4 N., R. 1 E., SEWARD MERIDIAN, Sec. 2, T. 4 N., R. 1 E., SEWARD MERIDIAN, Sec. 1, T. 4 N., R. 1 E., SEWARD MERIDIAN, Sec. 36, T. 5 N., R. 1 E., SEWARD MERIDIAN, Sec. 35, T. 5 N., R. 1 E., SEWARD MERIDIAN, Sec. 34, T. 5 N., R. 1 E., SEWARD MERIDIAN, Sec. 33, T. 5 N., R. 1 E., SEWARD MERIDIAN, Sec. 26, T. 5 N., R. 1 E., SEWARD MERIDIAN, Sec. 32, T. 5 N., R. 1 E., SEWARD MERIDIAN, Sec. 29, T. 5 N., R. 1 E., SEWARD MERIDIAN, Sec. 28, T. 5 N., R. 1 E., SEWARD MERIDIAN, Sec. 27, T. 5 N., R. 1 E., SEWARD MERIDIAN , , as shown on the location map attached to and made a part of this permit, and is issued for the purpose of:

**conducting investigative studies related to the Grant Lake/Grant Creek/Falls Creek hydroelectric proposals. The proposals received preliminary permits from FERC on October 7, 2008 ( projects P-13212 and P-13211)**

**Studies include fish presence, aquatic macroinvertebrate sampling, fish habitat mapping, water quality sampling, stream discharge measurements, wildlife observations, wetland and vegetation surveys, and cultural resource surveys. Permit area includes National Forest System lands surrounding Grant Lake and Falls Creek as shown in Exhibit A.**

**Access is by foot or small boat.**  
**Ground disturbing activities are not authorized.**

The above described or defined area shall be referred to herein as the "permit area".

**TERMS AND CONDITIONS**

**I. AUTHORITY AND GENERAL TERMS OF THE PERMIT**

A. Authority. This permit is issued pursuant to the authorities enumerated at Title 36, Code of Federal Regulations, Section 251 Subpart B, as amended. This permit, and the activities or use authorized, shall be subject to the terms and conditions of the Secretary's regulations and any subsequent amendment to them.

B. Authorized Officer. The authorized officer is the Forest Supervisor or a delegated subordinate officer.

C. License. This permit is a license for the use of federally owned land and does not grant any permanent, possessory interest in real property, nor shall this permit constitute a contract for purposes of the Contract Disputes Act of 1978 (41 U.S.C. 611). Loss of the privileges granted by this permit by revocation, termination, or suspension is not compensable to the holder.

D. Amendment. This permit may be amended in whole or in part by the Forest Service when, at the discretion of the authorized officer, such action is deemed necessary or desirable to incorporate new terms, conditions, and stipulations as may be required by law, regulation, land management plans, or other management decisions.

E. Existing Rights. This permit is subject to all valid rights and claims of third parties. The United States is not liable to the holder for the exercise of any such right or claim.

F. Nonexclusive Use and Public Access. Unless expressly provided for in additional terms, use of the permit area is not exclusive. The Forest Service reserves the right to use or allow others to use any part of the permit area, including roads, for any purpose, provided, such use does not materially interfere with the holder's authorized use. A final determination of conflicting uses is reserved to the Forest Service.

G. Forest Service Right of Entry and Inspection. The Forest Service has the right of unrestricted access of the permitted area or facility to ensure compliance with laws, regulations, and ordinances and the terms and conditions of this permit.

H. Assignability. This permit is not assignable or transferable. If the holder through death, voluntary sale or transfer, enforcement of contract, foreclosure, or other valid legal proceeding ceases to be the owner of the improvements, this permit shall terminate.

I. Permit Limitations. Nothing in this permit allows or implies permission to build or maintain any structure or facility, or to conduct any activity unless specifically provided for in this permit. Any use not specifically identified in this permit must be approved by the authorized officer in the form of a new permit or permit amendment.

## **II. TENURE AND ISSUANCE OF A NEW PERMIT**

A. Expiration at the End of the Authorized Period. This permit will expire at midnight on 12/31/2013. Expiration shall occur by operation of law and shall not require notice, any decision document, or any environmental analysis or other documentation.



B. Minimum Use or Occupancy of the Permit Area. Use or occupancy of the permit area shall be exercised at least 2 days each year, unless otherwise authorized in writing under additional terms of this permit.

C. Notification to Authorized Officer. If the holder desires issuance of a new permit after expiration, the holder shall notify the authorized officer in writing not less than six (6) months prior to the expiration date of this permit.

D. Conditions for Issuance of a New Permit. At the expiration or termination of an existing permit, a new permit may be issued to the holder of the previous permit or to a new holder subject to the following conditions:

1. The authorized use is compatible with the land use allocation in the Forest Land and Resource Management Plan.
2. The permit area is being used for the purposes previously authorized.
3. The permit area is being operated and maintained in accordance with the provisions of the permit.
4. The holder has shown previous good faith compliance with the terms and conditions of all prior or other existing permits, and has not engaged in any activity or transaction contrary to Federal contracts, permits laws, or regulations.

E. Discretion of Forest Service. Notwithstanding any provisions of any prior or other permit, the authorized officer may prescribe new terms, conditions, and stipulations when a new permit is issued. The decision whether to issue a new permit to a holder or successor in interest is at the absolute discretion of the Forest Service.

F. Construction. Any construction authorized by this permit may commence by N/A and shall be completed by N/A. If construction is not completed within the prescribed time, this permit may be revoked or suspended.

### III. RESPONSIBILITIES OF THE HOLDER

A. Compliance with Laws, Regulations, and other Legal Requirements. The holder shall comply with all applicable Federal, State, and local laws, regulations, and standards, including but not limited to, the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq., the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601 et seq., and other relevant environmental laws, as well as public health and safety laws and other laws relating to the siting, construction, operation, and maintenance of any facility, improvement, or equipment on the property.

B. Plans. Plans for development, layout, construction, reconstruction, or alteration of improvements on the permit area, as well as revisions of such plans, must be prepared by a qualified individual acceptable to the authorized officer and shall be approved in writing prior to

commencement of work. The holder may be required to furnish as-built plans, maps, or surveys, or other similar information, upon completion of construction.

C. Maintenance. The holder shall maintain the improvements and permit area to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the authorized officer and consistent with other provisions of this authorization. If requested, the holder shall comply with inspection requirements deemed appropriate by the authorized officer.

D. Hazard Analysis. The holder has a continuing responsibility to identify all hazardous conditions on the permit area which would affect the improvements, resources, or pose a risk of injury to individuals. Any non-emergency actions to abate such hazards shall be performed after consultation with the authorized officer. In emergency situations, the holder shall notify the authorized officer of its actions as soon as possible, but not more than 48 hours, after such actions have been taken.

E. Change of Address. The holder shall immediately notify the authorized officer of a change in address.

F. Change in Ownership. This permit is not assignable and terminates upon change of ownership of the improvements or control of the business entity. The holder shall immediately notify the authorized officer when a change in ownership or control of business entity is pending. Notification by the present holder and potential owner shall be executed using Form SF-299 Application for Transportation and Utility Systems and Facilities of Federal Lands, or Form FS-2700-3a, Holder Initiated Revocation of Existing Authorization, Request for a Special Use Permit. Upon receipt of the proper documentation, the authorized officer may issue a permit to the party who acquires ownership of, or a controlling interest in, the improvements or business entity.

#### **IV. LIABILITY**

For purposes of this section, "holder" includes the holder's heirs, assigns, agents, employees, and contractors.

A. The holder assumes all risk of loss to the authorized improvements.

B. The holder shall indemnify, defend, and hold the United States harmless for any violations incurred under any such laws and regulations or for judgments, claims, or demands assessed against the United States in connection with the holder's use or occupancy of the property. The holder's indemnification of the United States shall include any loss by personal injury, loss of life or damage to property in connection with the occupancy or use of the property during the term of this permit. Indemnification shall include, but is not limited to, the value of resources damaged or destroyed; the costs of restoration, cleanup, or other mitigation; fire suppression or other types of abatement costs; third party claims and judgments; and all administrative, interest, and other legal costs. This paragraph shall survive the termination or revocation of this authorization, regardless of cause.

C. The holder has an affirmative duty to protect from damage the land, property, and interests of the United States.

D. In the event of any breach of the conditions of this authorization by the holder, the authorized officer may, on reasonable notice, cure the breach for the account at the expense of the holder. If the Forest Service at any time pays any sum of money or does any act which will require payment of money, or incurs any expense, including reasonable attorney's fees, in instituting, prosecuting, and/or defending any action or proceeding to enforce the United States rights hereunder, the sum or sums so paid by the United States, with all interests, costs and damages shall, at the election of the Forest Service, be deemed to be additional fees hereunder and shall be due from the holder to the Forest Service on the first day of the month following such election.

E. With respect to roads, the holder shall be proportionally liable for damages to all roads and trails of the United States open to public use caused by the holder's use to the same extent as provided above, except that liability shall not include reasonable and ordinary wear and tear.

F. The Forest Service has no duty to inspect the permit area or to warn of hazards and, if the Forest Service does inspect the permit area, it shall incur no additional duty nor liability for identified or non-identified hazards. This covenant may be enforced by the United States in a court of competent jurisdiction.

## **V. TERMINATION, REVOCATION, AND SUSPENSION**

A. General. For purposes of this permit, "termination", "revocation", and "suspension" refer to the cessation of uses and privileges under the permit.

"Termination" refers to the cessation of the permit under its own terms without the necessity for any decision or action by the authorized officer. Termination occurs automatically when, by the terms of the permit, a fixed or agreed upon condition, event, or time occurs. For example, the permit terminates at expiration. Terminations are not appealable.

"Revocation" refers to an action by the authorized officer to end the permit because of noncompliance with any of the prescribed terms, or for reasons in the public interest. Revocations are appealable.

"Suspension" refers to a revocation which is temporary and the privileges may be restored upon the occurrence of prescribed actions or conditions. Suspensions are appealable.

B. Revocation or Suspension. The Forest Service may suspend or revoke this permit in whole or part for:

1. Noncompliance with Federal, State, or local laws and regulations.
2. Noncompliance with the terms and conditions of this permit.
3. Reasons in the public interest.
4. Abandonment or other failure of the holder to otherwise exercise the privileges granted.

C. Opportunity to Take Corrective Action. Prior to revocation or suspension for cause pursuant to Section V (B), the authorized officer shall give the holder written notice of the grounds for each action and a reasonable time, not to exceed 90 days, to complete the corrective action prescribed by the authorized officer.

D. Removal of Improvements. Prior to abandonment of the improvements or within a reasonable time following revocation or termination of this authorization, the holder shall prepare, for approval by the authorized officer, an abandonment plan for the permit area. The abandonment plan shall address removal of improvements and restoration of the permit area and prescribed time frames for these actions. If the holder fails to remove the improvements or restore the site within the prescribed time period, they become the property of the United States and may be sold, destroyed or otherwise disposed of without any liability to the United States. However, the holder shall remain liable for all cost associated with their removal, including costs of sale and impoundment, cleanup, and restoration of the site.

## VI. FEES

A. Termination for Nonpayment. This permit shall automatically terminate without the necessity of prior notice when land use rental fees are 90 calendar days from the due date in arrears.

B. The holder shall pay an annual fee of **two hundred dollars (\$200) for the period from permit issuance to December 31, 2009** and thereafter annually on January 1, **two hundred dollars (\$200)** : Provided, charges for this use shall be made or readjusted whenever necessary to place the charges on a basis commensurate with the fair market value of the authorized use.

C. Payment Due Date. The payment due date shall be the close of business on **January 1** of each calendar year payment is due. Payments in the form of a check, draft, or money order are payable to USDA, Forest Service. Payments shall be credited on the date received by the designated Forest Service collection officer or deposit location. If the due date for the fee or fee calculation statement falls on a non-workday, the charges shall not apply until the close of business on the next workday.

D. Late Payment Interest, Administrative Costs and Penalties Pursuant to 31 U.S.C. 3717, et seq., interest shall be charged on any fee amount not paid within 30 days from the date the fee or fee calculation financial statement specified in this authorization becomes due. The rate of interest assessed shall be the higher of the rate of the current value of funds to the U.S. Treasury (i.e., Treasury tax and loan account rate), as prescribed and published by the Secretary of the Treasury in the Federal Register and the Treasury Fiscal Requirements Manual Bulletins annually or quarterly or at the Prompt Payment Act rate. Interest on the principal shall accrue from the date the fee or fee calculation financial statement is due.

In the event the account becomes delinquent, administrative costs to cover processing and handling of the delinquency will be assessed.

A penalty of 6 percent per annum shall be assessed on the total amount delinquent in excess of 90 days and shall accrue from the same date on which interest charges begin to accrue.

Payments will be credited on the date received by the designated collection officer or deposit location. If the due date for the fee or fee calculation statement falls on a non-workday, the charges shall not apply until the close of business on the next workday.

Disputed fees are due and payable by the due date. No appeal of fees will be considered by the Forest Service without full payment of the disputed amount. Adjustments, if necessary, will be made in accordance with settlement terms or the appeal decision.

If the fees become delinquent, the Forest Service will:

Liquidate any security or collateral provided by the authorization.

If no security or collateral is provided, the authorization will terminate and the holder will be responsible for delinquent fees as well as any other costs of restoring the site to its original condition including hazardous waste cleanup.

Upon termination or revocation of the authorization, delinquent fees and other charges associated with the authorization will be subject to all rights and remedies afforded the United States pursuant to 31 U.S.C. 3711 *et seq.* Delinquencies may be subject to any or all of the following conditions:

Administrative offset of payments due the holder from the Forest Service.

Delinquencies in excess of 60 days shall be referred to United States Department of Treasury for appropriate collection action as provided by 31 U.S.C. 3711 (g), (1).

The Secretary of the Treasury may offset an amount due the debtor for any delinquency as provided by 31 U.S.C. 3720, *et seq.*)

## **VII. OTHER PROVISIONS**

A. Members of Congress. No Member of or Delegate to Congress or Resident Commissioner shall benefit from this permit either directly or indirectly, except when the authorized use provides a general benefit to a corporation.

B. Appeals and Remedies. Any discretionary decisions or determinations by the authorized officer are subject to the appeal regulations at 36 CFR 251, Subpart C, or revisions thereto.

C. Superior Clauses. In the event of any conflict between any of the preceding printed clauses or any provision thereof and any of the following clauses or any provision thereof, the preceding printed clauses shall control.

D. Archaeological-Paleontological Discoveries (R10-X106).

**(1) For authorizations where ground disturbing activities are not permitted.**

Items of historic, prehistoric, or paleontological value are protected under various Federal laws, including the Antiquities Act of 1906 (16 U.S.C. 433), the Archaeological Resource Protection Act of 1979 (16 U.S.C. 47033) as amended, and Federal regulations. If historic, prehistoric, or paleontological objects or sites are discovered during activities under this permit, the holder is responsible for assuring that those objects or sites are not disturbed during the course of the activities of the holder or the holder's clients. The holder must notify the Forest Service of such discovery at the earliest opportunity. Failure to comply with this clause may result in criminal prosecution of the holder for violation of a Federal law or regulation.

**(2) For authorizations where ground disturbing activities are permitted:**

Items of historic, prehistoric, or paleontological value are protected under various Federal laws, including the Antiquities Act of 1906 (16 U.S.C. 433), the Archaeological Resource Protection Act of 1979 (16 U.S.C. 47033) as amended, and Federal regulations. If historic, prehistoric, or paleontological objects or sites are discovered during ground disturbing activities under this permit, the holder must cease such activities in the vicinity of the discovery. The holder is responsible for protecting the objects or sites from further disturbance until the Forest Service is notified. The holder must not resume activities in the area of the objects or sites until written approval from the Forest Supervisor is given. Failure to comply with this clause may result in criminal prosecution of the holder for violation of a Federal law or regulation.

This permit is accepted subject to the conditions set out above.


HOLDER NAME:

Kenai Hydro, LLC

U.S. DEPARTMENT OF AGRICULTURE

Forest Service

By:   
(Holder Signature)

By:   
(Authorized Officer Signature)

By: Steven Gilbert, Manager Title: Travis Moseley, Seward District Ranger  
(Holder Signature) (Name and Title)

Date: June 18, 2009  
28

Date: 6/24/09

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average 1 hour per response.

including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.

# EXHIBIT A



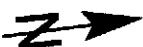
## KENAI HYDRO

FIGURE 1

### GRANT LAKE LAND STATUS

#### Legend

- Project Area
- Lakes
- Rivers
- Glaciers
- Easement
- Mental Health Trust
- Management Agreement
- Permit/L ease
- Municipal Entitlement
- Alaska Railroad
- Chugach National Forest
- State



Date: 07 April 2009  
 Author: HDR Alaska  
 Sources: ADNIR, USFS

**HDR**



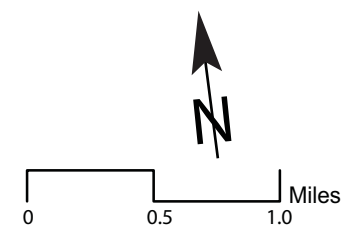
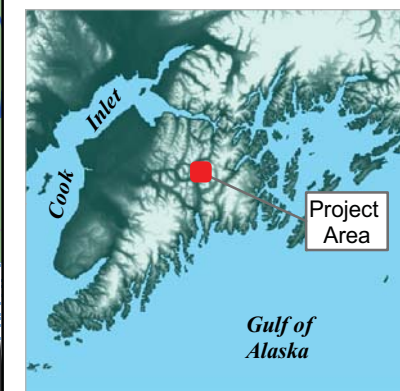
# KENAI HYDRO

FIGURE 1

## GRANT LAKE LAND STATUS

### Legend

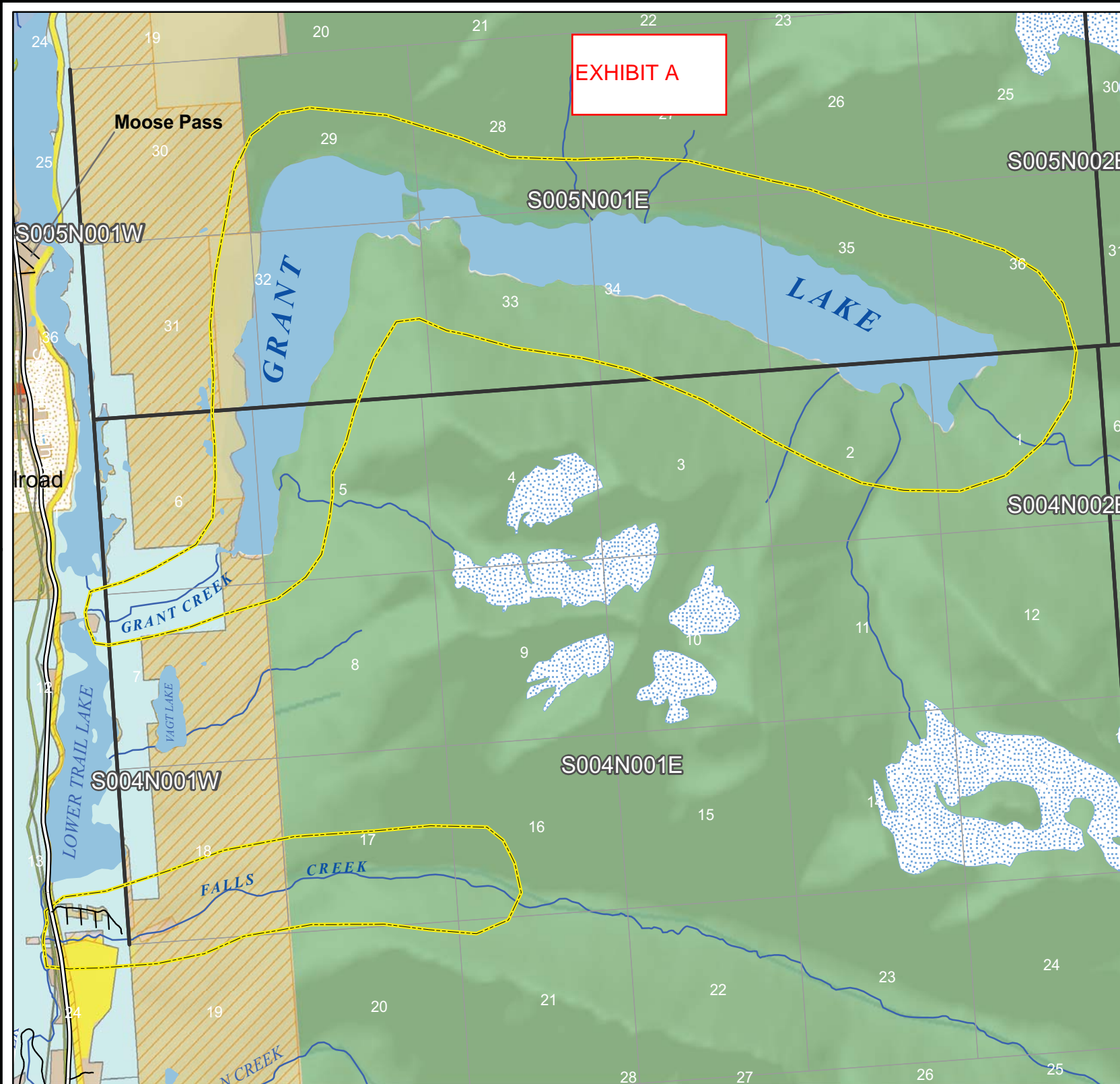
- Project Area
- Lakes
- Rivers
- Easement
- Mental Health Trust
- Management Agreement
- Permit/Lease
- Municipal Entitlement
- Alaska Railroad
- Chugach National Forest
- State



Date: 07 April 2009  
Author: HDR Alaska  
Sources: ADNR, USFS

**HDR**

EXHIBIT A



**Kenai Hydro, LLC**  
2525 C Street, Suite 500  
Anchorage, AK 99503

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6 August 2009

Ms. Kimberly Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street NE  
Washington, DC 20426

FILED ELECTRONICALLY

**Subject:** Grant Lake/Grant Creek (FERC Project No. 13212) and Falls Creek (FERC Project No. 13211) Notice of Intent and Pre-Application Document and Request to Use the Traditional Licensing Process

Dear Ms. Bose,

Kenai Hydro, LLC (KHL) is pleased to submit its Notice of Intent (NOI) and Pre- Application Document (PAD) for the Grant Lake/Grant Creek (Project No. 13212) and Falls Creek (Project No. 13211) combined "Grant Lake/Falls Creek Project" (Project). The proposed Project would be located near the community of Moose Pass, Alaska (pop. 206), approximately 25 miles north of Seward, Alaska (pop. 3,016), and just east of the Seward Highway (State Route 9). The proposed Project location is in the Kenai Peninsula Borough.

In conjunction with this filing, KHL is requesting that the Commission designate it as the Commission's non-federal representative for the purposes of consultation, pursuant to Section 7 of the Endangered Species Act and the joint agency regulations thereunder at 50 CFR Part 402, Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act and the implementing regulations at 50 CFR 600.920 and Section 106 of the National Historic Preservation Act and the implementing regulations at 50 CFR § 600.920.

This submittal is being electronically filed with the Commission. As required, two courtesy copies are being mailed, simultaneously, to the Commission.

In accordance with 18 CFR § 4.32, we are also submitting copies of this NOI and PAD to the entities on the attached Distribution List (if paper copy service is required), or notifying entities by email (or mail if email is unavailable) that the NOI and PAD are available for download on the licensing website, [www.kenaihydro.com](http://www.kenaihydro.com). The entities include those resource agencies, Indian tribes, Native corporations, Native villages, non-governmental organizations, and members of the public that have participated in KHL's pre-formal consultation or have otherwise been identified as having potential interest in the licensing proceedings by KHL. Also pursuant to the Commission's regulations, a notice was published in local newspapers (Anchorage Daily News, Peninsula Clarion, Seward Phoenix Log, and the Homer News) on or prior to the filing date of this letter. The public portions of the PAD will be made available at our licensing website, [www.kenaihydro.com](http://www.kenaihydro.com), and copies are available for review at Kenai Hydro, LLC offices in Kenai and Anchorage, Alaska, as well as at public sites near the proposed Project location, the Moose Pass Public Library and the Cooper Landing Community Library.

Also included within this NOI is KHL's request to the Commission for authorization to use the Traditional Licensing Process (TLP). Beginning in late 2008 after FERC issued preliminary permits for the proposed Grant Lake/Grant Creek Project and Falls Creek Project, KHL conducted an outreach effort regarding its pre-formal study efforts, and its desire to use a TLP for this Project. Documentation of these efforts, along with a proposed communications protocol for future consultation efforts proposed while using the TLP, is located in the PAD.

Interested organizations and members of the public can file comments regarding KHL's request to utilize the TLP directly with FERC and copied to KHL within 30 days of the filing date of this request, and should reference the Grant Lake/Falls Creek Hydroelectric Project (FERC No. 13211/13212).

If you have any questions regarding this filing please contact Steve Gilbert ([SteveG@enxco.com](mailto:SteveG@enxco.com) or 907-333-0810).

Sincerely,

A handwritten signature in black ink that reads "Steven Gilbert". The signature is written in a cursive style with a large, stylized "S" and "G".

Steve Gilbert  
Manager, Kenai Hydro, LLC

cc: Joe Adamson, FERC  
FERC Office of Energy Projects (OEP Room 61-02)  
FERC Office of General Counsel-Energy Projects (OGC-EP Room 101-56)  
Distribution List

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Kenai Hydro, LLC

Project No. 13211/13212

**NOTICE OF INTENT OF KENAI HYDRO, LLC TO FILE AN APPLICATION FOR AN  
ORIGINAL LICENSE FOR THE GRANT LAKE/FALLS CREEK HYDROELECTRIC  
PROJECT (FERC NO. 13211/13212) AND REQUEST TO USE THE TRADITIONAL  
LICENSING PROCESS**

Pursuant to 18 CFR § 5.5, Kenai Hydro, LLC (KHL) hereby notifies the Federal Energy Regulatory Commission (Commission) of its intent to file an application for an original license for the Grant Lake/Falls Creek Hydroelectric Project (Project No. 13211/13212).

Simultaneously KHL is filing its Pre-Application Document (PAD) with the Commission. KHL proposes to license the Project utilizing a Traditional Licensing Process (TLP), following the accompanying communications protocol as included in the PAD.

KHL requests that all correspondence and service of documents related to this notification and subsequent proceedings be addressed to:

Steve Gilbert  
Manager  
Kenai Hydro, LLC  
6921 Howard Ave.  
Anchorage, Alaska 99504  
907-333-0810  
[SteveG@enxco.com](mailto:SteveG@enxco.com)

Brad Zubeck  
Project Engineer  
Kenai Hydro, LLC  
280 Airport Way  
Kenai, Alaska 99611  
907-335-6204  
[BZubeck@HomerElectric.com](mailto:BZubeck@HomerElectric.com)

With a copy sent to:  
Jenna Borovansky  
Long View Associates, Inc.  
P.O. Box 3844  
Coeur d'Alene, ID 83816  
Or by email to [comments@kenaihydro.com](mailto:comments@kenaihydro.com)

The following information is provided consistent with the regulations of 18 CFR § 5.5.

**Applicant's name and address:**

Kenai Hydro, LLC  
6921 Howard Ave.  
Anchorage, Alaska 99504

**Project number:**

P-13211/P-13212

**License expiration date, if any:**

Not applicable. Project does not possess a license and involves the construction of new facilities.

**An unequivocal statement of the applicant's intention to file an original license:**

Kenai Hydro, LLC unequivocally intends to file an application for an original license for this proposed project.

**Type of principal project works licensed, if any, such as dam and reservoir, powerhouse, or transmission lines:**

Not applicable. This is a NOI for an unconstructed project.

**Project location by state, county and stream, and when appropriate, by city or nearby city:**

**State:** Alaska

**County:** Kenai Peninsula Borough

**Stream:** Grant Creek, Grant Lake, and Falls Creek

**City:** The proposed Grant Lake/Falls Creek Hydroelectric Project would be located near the community of Moose Pass, Alaska (pop. 206), approximately 25 miles north of Seward, Alaska (pop. 3,016), just east of the Seward Highway (State Route 9).

**Installed plant capacity (if any):**

Not applicable. Proposed installed capacity is 4.5 megawatts.

**Names and addresses of:**

- (1) Every county in which any part of the project is located, and in which any federal facility that is used by the project is located:**

Kenai Peninsula Borough

- (2) Every city, town, or similar local political subdivision:**

- i. In which any part of the project is to be located and any federal facility that is or is to be used by the project is located, or**
- ii. That has a population of 5,000 or more people and is located within 15 miles of the proposed project dam,**

There are no cities, towns, or subdivisions with population sizes of 5,000 or more within 15 miles of the proposed Project.

**(3) Every irrigation district, drainage district, or similar special purpose political subdivision:**

- i. In which any part of the project is located and any federal facility that is or is proposed to be used by the project is located, or
- ii. That owns, operates, maintains, or uses any project facility or any federal facility that is or is proposed to be used by the project; and

None

**(4) Every other political subdivision in the general area of the project that there is reason to believe would be likely to be interested in, or affected by, the notification; and**

None

**(5) Affected Indian tribes.**

The following Indian tribes were identified by Kenai Hydro, LLC through consultation efforts as having potential interests with the Project region. Additional tribes that were contacted, but have not identified an interest in the area to date are identified in the PAD and related consultation documentation.

Kenaitze Indian Tribe

Salamatof Native Association

**Request to Use the Traditional Licensing Process**

KHL is requesting Commission approval to use the Traditional Licensing Process (TLP). The regulations in 18 CFR § 5.3 require that an application for authorization to use the TLP include justification for the request and any existing written comments on the potential applicant's proposal and a response thereto.

The proposed Grant Lake/Falls Creek Project is a new, relatively small (4.5 MW) conventional hydropower project. As proposed the Project would affect flows in less than one mile of Grant Creek and less than two miles of Falls Creek and would change water levels in existing Grant Lake. The overall footprint of the proposed Project is a relatively small geographic area. The licensing process should be scaled appropriately to the potential impacts of the proposed Project and size of the proposed Project area. Based on feedback received from an outreach effort to agencies and other interested stakeholders and its own evaluation of the ILP, KHL believes that a TLP, enhanced by a number of provisions designed to address specific concerns identified in its outreach efforts, is the preferred process for the pre-filing consultation and study efforts for the Project. The following information addresses the specific considerations found in 18 CFR § 5.3(c)(1)(ii):

**A. Likelihood of timely license issuance**

Unlike a relicensing effort for an existing project, there is no regulatory deadline for the filing of the license application for the Project. Instead KHL must effectively manage the schedule of its licensing, studies and engineering/design efforts to allow the Project to be constructed and power brought on line in an expeditious and cost effective fashion. Flexibility in the regulatory requirements is necessary to allow KHL, in consultation with agencies and other stakeholders, to make adjustments to the timeframes of various components of the licensing process to best utilize available time prior to expiration of the preliminary permit. This flexibility is lacking in the ILP, which is generally designed to complete pre-filing consultation within the window of time from the NOI to the expiration of an existing license. The TLP and communications protocol proposed by KHL for the Project allows for this flexibility, and acknowledges the need to take advantage of the relatively short windows of time for field work in the Project area, while still allowing for timely filing of a license application.

**B. Complexity of the resource issues**

As noted in the PAD, there is some existing resource information available for the study area. In addition, KHL has initiated reconnaissance level studies, and developed these study plans in consultation with agencies and stakeholders. Grant Creek, where the Project generating facilities will be located, is approximately one mile in length from the lake outlet to its mouth. Similarly, the potentially impacted portion of Falls Creek is approximately 1.4 miles long. Due to the limited geographic scope of the potential Project impacts, a relatively straight forward study program is envisioned to generate the needed information to support the development of the license application. A complete list of identified resource issues and how these would be addressed in the study program is included in Section 5 of the PAD.

**C. Level of anticipated controversy**

A significant level of public interest is anticipated during the pre-filing consultation period. During the outreach effort conducted by KHL regarding the use of the TLP and preliminary study efforts, agencies and other stakeholders have identified the need for significant public and agency involvement in the study program to develop the information needed for impact assessment as well as to provide the baseline for evaluating post-construction protection, mitigation and enhancement measures that may be required. Concerns have been expressed regarding the ability of agencies and stakeholders to meet the strict timeframes of the ILP. KHL believes that the flexibility that will be available in the TLP for making adjustments to review time frames, when appropriate, while not endangering the overall project schedule and effective use of available field time, will provide an important tool for making engagement in the study program and license application development as effective as possible. While KHL understands that there is significant public interest in the Project and that there are some parties who do not support hydroelectric power development in the area overall, consultation to date has not indicated that the study program or impact assessment itself will be controversial or overly complex.



**D. Relative cost of the traditional process compared to the integrated process**

KHL anticipates that it will continue to engage agencies and other stakeholders in a consultation process and conduct a comprehensive study program under either licensing process. However, substantial efficiencies are expected from utilizing the TLP with the communications protocol that is proposed due to the flexibility that will exist for KHL, in consultation with agencies and other stakeholders, to make adjustments to deadlines and timeframes where possible to accommodate differences among resource areas and study proposals. The TLP allows KHL and stakeholders to focus on gathering and reviewing field data in the most efficient manner during the short study seasons available in Alaska, rather than being tied to the strict timelines of the ILP. Thus, in terms of effective use of available time, KHL believes that the TLP provides advantages over the ILP that will allow for a more efficient study program, and a timely license application filing. KHL anticipates realizing some cost savings utilizing the TLP as proposed, given the relatively straight forward anticipated study program, and the ongoing reconnaissance study efforts and pre-filing consultation already occurring that allow for public and agency consultation without the significant process related time burden of the ILP.

**E. The amount of available information and potential for significant disputes over studies**

Some resource information is available for the Project area from studies conducted in the 1980s, with some additional, updated information available from resource agencies. KHL plans to take full advantage of this information in designing its study program, and is currently conducting reconnaissance level data collection in Grant Lake, Grant Creek, and Falls Creek. It is KHL's intent to conduct its pre-filing consultation in a manner that addresses and resolves, to the extent possible, any differences of opinion with regard to the design and implementation of the study program. Due to the relatively small geographic area of impact, needed field information can be collected in a relatively short amount of time. Given the productive exchange and agreement from agencies and stakeholders to date on the reconnaissance level studies and the collective understanding of the relative scope of potential impacts that need to be studied, KHL does not anticipate significant disputes over studies.

**F. Other factors believed by the applicant to be pertinent**

KHL has made an effort to consult with those agencies, tribes, native corporations, and non-governmental organizations who have been actively involved in the process to date regarding the proposed Project, and its desire to utilize the TLP. Documentation of the public meetings, conference calls and other communications is included in the PAD.

As part of its outreach efforts, KHL drafted a proposed communications protocol to guide its interactions with agencies and other stakeholders under its proposal to use the TLP. The protocol was distributed to agencies and other stakeholders actively involved to date via email on July 13, 2009. Attachment A includes correspondence and a list of parties who were solicited for preliminary comment on use of the TLP; these parties are a subset of the full distribution list that is attached. Several comments were received from additional parties on KHL's proposal to use the TLP and draft communications protocol, and preliminary comments from the Alaska Department of Fish and Game were provided. These comments are included as Attachment B.



KHL understands that there is public interest in the proposed Project area and that there are some parties who do not support hydroelectric power development in the area overall. KHL believes that use of the TLP as outlined above, allowing for consultation per the consultation protocol outlined in the PAD, will provide for the most effective process for engaging interested parties and agencies in analysis of the proposed Project.

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Kenai River Special Management  
Area Advisory Board  
PO Box 1247  
Soldotna, AK 99669  
kenairivcenter@borough.kenai.ak.us

Ann Rappoport\*\*  
USFWS  
605 W. 4<sup>th</sup> Suite G61  
Anchorage, AK 99501

NOTE: Notice of PAD filing and its availability at [www.kenaihydro.com](http://www.kenaihydro.com) was sent via email to all parties on the distribution list above, if an email address is available. Parties that are on the FERC Service or Mailing List who requested a paper copy of filings are marked (\*\*), and service was completed as requested. Parties that do not have an email address, but have expressed interest in the Project were mailed a letter via the US Postal Service informing them of the availability of the PAD, and are marked (+).



### **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list in this proceeding in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure.

Dated at Anchorage, Alaska this 6th day of August 2009.

A handwritten signature in black ink that reads "Steven Gilbert". The signature is fluid and cursive, with the first name "Steven" and last name "Gilbert" clearly distinguishable.

Steven Gilbert  
Manager  
Kenai Hydro, LLC  
6921 Howard Ave.  
Anchorage, AK 99504  
907-333-0810

**ATTACHMENT A: Email Soliciting Comments on Request to Use TLP and  
Communications Protocol**



**Zubeck, Brad**

**From:** Zubeck, Brad  
**Sent:** Monday, July 13, 2009 11:17 AM  
**Subject:** Request for Comments on Proposed Communications Protocol  
**Attachments:** Grant\_Falls\_Communication\_Protocol07-09-09.pdf  
**Bcc:** jborovansky@longviewassociates.com; spadula@longviewassociates.com; Zubeck, Brad; dave.c.casey@usace.army.mil; mcooney@arctic.net; gfandrei@ciaanet.org; jim.ferguson@alaska.gov; ricky@kenairiversportfishing.com; jjh@seward.net; lynnda\_kahn@fws.gov; lee.mckinley@alaska.gov; north.phil@epamail.epa.gov; douglas\_palmer@fws.gov; gary.prokosch@alaska.gov; ronaklo@att.net; robert@kenaiwatershed.org; rspangler@fs.fed.us; ejohansen@fs.fed.us; wamacfarlane@fs.fed.us; thomas.cappiello@alaska.gov; susan.walker@noaa.gov; kimberly.sager@alaska.gov; jason.kent@hdrinc.com; paul.mclarnon@hdrinc.com; jason.mouw@alaska.gov; jack.sinclair@alaska.gov; dawn.germain@ogc.usda.gov; rbirk@fs.fed.us; kenailake@arctic.net; kaoleary@fs.fed.us; btrefon@kenaitze.org; Dwight Kramer (dwimar@gci.net); 'montesfishing@alaska.net'; Penny L. Carty (info@salamatof.com); O'Donnell, Melinda J (DNR); Steve Gilbert

**TO:** Grant Lake/Grant Creek and Falls Creek Hydroelectric Project Stakeholders

**SUBJECT:** Proposed Communications Protocol and Use of the Traditional Licensing Process

In January 2009, Kenai Hydro, LLC (Kenai Hydro) met with stakeholders to introduce the Grant Lake/Grant Creek and Falls Creek proposed Hydroelectric Projects (Project). During those meetings, Kenai Hydro proposed a timeline for license filing and use of the Traditional Licensing Process (TLP). Subsequently, we have met on several occasions with interested stakeholders to discuss 2009 reconnaissance data needs for fish and aquatics, hydrology, and the instream flow studies, in order to inform the formal study process that will begin once the Pre-Application Document (PAD) is filed with FERC in early August. In conjunction with the PAD filing, Kenai Hydro will be requesting FERC approval for use of the TLP. Absent approval of the TLP, Kenai Hydro will proceed with consultation through FERC's default process, the Integrated Licensing Process (ILP).

Kenai Hydro believes that the TLP will provide the most efficient process for public and agency review of studies and licensing documents, while still allowing for timely filing of a license application for the Grant Lake/Grant Creek and Falls Creek combined Project. The TLP allows for flexibility in review timelines not afforded by the ILP that Kenai Hydro believes will benefit all parties involved in the review and development of the Project. In order to address concerns and questions expressed by stakeholders, in particular in regard to public participation and opportunities for agency review and involvement in the issue identification and study development phases of the TLP, Kenai Hydro has developed a proposed communications protocol to be included with the PAD and request for TLP.

We understand that the TLP has a mechanism, described in §4.38(e)(4), to enhance the TLP with ILP elements that could address these concerns. This provision allows for a potential licensee to request that FERC incorporate into pre-filing consultation elements of the ILP provided for under 18 CFR 5, *et. seq.* Kenai Hydro is willing to request that FERC include additional consultation requirements as discussed in the attached communications protocol.

We would appreciate your review and feedback on this protocol, and an indication of your preference for either the TLP or ILP. Comments received by July 23 will be incorporated into the PAD filing with FERC in early August. You will also have a formal opportunity to comment on use of the TLP with FERC for 30-days following filing of the PAD and Notice of Intent to file a license application. Thanks in advance for your attention and response to this request.

Sincerely,  
 Brad Zubeck

Project Engineer  
 Kenai Hydro, LLC

Homer Electric Association, Inc. - Kenai Office  
 Tel: 907-335-6204  
 Fax: 907-335-6213

7/13/2009

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**From:** Zubeck, Brad [BZubeck@HomerElectric.com]  
**Sent:** Tuesday, July 14, 2009 5:44 PM  
**To:** Valerie Connor (valerie@akcenter.org)  
**Cc:** Jenna Borovansky  
**Subject:** RE: PAD  
**Attachments:** Grant\_Falls\_Communication\_Protocol07-09-09.pdf

Hi Valerie,

Thanks for your interest in providing feedback on our draft communications protocol for use with the TLP. I am attaching a copy of the document for your review along with a copy of the text from the email that was sent out yesterday (pasted below). Please note that we are asking for these early, informal comments by July 23<sup>rd</sup>. If for some reason you are unable to provide early comments to us by the 23<sup>rd</sup>, you will have another formal 30-day opportunity to comment with FERC following Kenai Hydro's filing of the NOI & PAD. All stakeholders on the email list will be provided notice via email when the PAD and request to utilize the TLP is filed with FERC and available for download.

I am sorry if you were surprised by Kenai Hydro, LLC's intent to file the NOI & PAD in August and our preference to use the TLP. Our schedule and license process preference remains unchanged from that communicated to you in our earliest information packet distributed in January 2009. Our website also provides information on our intent to utilize the TLP.

I look forward to receiving your comments. Thanks!

Regards,  
Brad Zubeck

TO: Grant Lake/Grant Creek and Falls Creek Hydroelectric Project Stakeholders

SUBJECT: Proposed Communications Protocol and Use of the Traditional Licensing Process

In January 2009, Kenai Hydro, LLC (Kenai Hydro) met with stakeholders to introduce the Grant Lake/Grant Creek and Falls Creek proposed Hydroelectric Projects (Project). During those meetings, Kenai Hydro proposed a timeline for license filing and use of the Traditional Licensing Process (TLP). Subsequently, we have met on several occasions with interested stakeholders to discuss 2009 reconnaissance data needs for fish and aquatics, hydrology, and the instream flow studies, in order to inform the formal study process that will begin once the Pre-Application Document (PAD) is filed with FERC in early August. In conjunction with the PAD filing, Kenai Hydro will be requesting FERC approval for use of the TLP. Absent approval of the TLP, Kenai Hydro will proceed with consultation through FERC's default process, the Integrated Licensing Process (ILP).

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We would appreciate your review and feedback on this protocol, and an indication of your preference for either the TLP or ILP. Comments received by July 23 will be incorporated into the PAD filing with FERC in early August. You will also have a formal opportunity to comment on use of the TLP with FERC for 30-days following filing of the PAD and Notice of Intent to file a license application. Thanks in advance for your attention and response to this request.

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**From:** Valerie Connor [mailto:[valerie@akcenter.org](mailto:valerie@akcenter.org)]  
**Sent:** Tuesday, July 14, 2009 2:24 PM  
**To:** Zubeck, Brad  
**Subject:** PAD

Hello Brad,

I have heard that HEA is planning on filing their PAD and request for the TLP licensing process in early August. I have not received any notice about this and it is absent on the Kenai Hydro website. I believe it is a significant enough step that all stakeholders should be advised of your intent. I've written to Jenna asking her to update the website and send an alert out to all those who have signed up.

Thank you,

*Valerie Connor*  
*Forest Conservation Director*  
*Alaska Center for the Environment*  
*807 G Street, Suite 100*  
*Anchorage, Alaska 99501*  
*(907)274-3632\*\*\* NEW PHONE NUMBER*  
[valerie@akcenter.org](mailto:valerie@akcenter.org)

## Kenai Hydro, LLC Draft Communications Protocol

For Stakeholder Review (July 9, 2009)

Kenai Hydro, LLC was issued two preliminary permits effective October 1, 2008 to investigate hydropower projects at Grant Lake/Grant Creek (FERC Project No. 13211) and Falls Creek (FERC Project No. 13212). This Pre-Application Document describes a combined Grant Lake/Falls Creek Hydroelectric Project that includes a proposed Grant Lake/Grant Creek development, and a Falls Creek development to divert water from Falls Creek to supplement generation capacity at the Grant Lake/Grant Creek development.

## 1 PROCESS PLAN, SCHEDULE, AND COMMUNICATION PROTOCOL

### 1.1. Overview of Licensing Approach and Early Consultation

In conjunction with its Notice of Intent (NOI) to file for a new license, Kenai Hydro, LLC is seeking FERC approval to use the Traditional Licensing Process (TLP) for the licensing of the Grant Lake/Falls Creek Hydroelectric Project (Project) in order to complete pre-filing consultation and file a license application within the timeframes of the preliminary permits issued by FERC. KHL initiated informal consultation with potentially interested parties with an outreach effort that began in 2008. KHL is initiating formal consultation with issuance of the NOI and this Preliminary Application Document (PAD). The TLP, if approved, will require a Joint Meeting with the agencies, Tribes and public and will provide opportunities for the Participants to provide comments on the PAD and to make study requests.

### 1.2. Process Plan and Schedule

Table 2.2-1 summarizes milestones in the TLP along with dates pursuant to timelines identified in 18 CFR § 4.38. In the interest of offering a site visit during the field season, prior to study design feedback from agencies and interested parties, KHL has proposed a site visit prior to the FERC required timeframe, and requests of the Commission that this site visit serve as the required opportunity for a site visit. In addition agencies were apprised of field schedules between June and September 2009, and were offered the opportunity to join field crews in the proposed Project area.

**Table 2.2-1. Milestones, responsible parties, and proposed dates for pre-licensing activities, assuming approval of the TLP.**

<b>Pre-Filing Milestone</b>	<b>Responsible Party</b>	<b>Date [Required Timeframe]</b>
Initiate informal consultation with agencies, non-governmental organizations and public	KHL	Fall 2008

Kenai Hydro, LLC

DRAFT

<b>Pre-Filing Milestone</b>	<b>Responsible Party</b>	<b>Date [Required Timeframe]</b>
Informational Meeting	KHL	January 21, 2009
Fish, Instream Flow, Hydrology, and Water Quality Workgroup Meeting	KHL	March 24, 2009
Instream Flow Technical Workgroup Meeting	KHL	April 21, 2009
Instream Flow Technical Workgroup Meeting	KHL	May 19, 2009
Instream Flow Technical Workgroup Conference Call	KHL	July 17, 2009
File NOI and PAD with FERC and distribute (via email notice) to appropriate Federal, state, and interstate resource agencies, Indian tribes, local governments and members of the public likely to be interested in the proceeding	KHL	August 4, 2009
Conduct Tribal meeting(s)	FERC	September 2, 2009 [within 30-days of the NOI]
Comments on use of the TLP	Interested Parties, Agencies, and Tribes	September 2, 2009 [within 30-days of the NOI and request to use TLP]
Instream Flow Technical Workgroup Meeting and Agency Site Visit	KHL	September 22-24, 2009
Commission issues decision on use of TLP	FERC	October 5, 2009 [within 60-days of NOI and request to use TLP]
Consultation with agencies and Tribes to schedule a joint meeting	KHL	October 5 – November 3, 2009 [within 30-days of TLP decision]
Advance notice to FERC of Joint meeting	KHL	November 4, 2009 [at least 15-days prior to Joint Meeting]
Hold Joint Meeting with agencies and Tribes	KHL	November 19 – 30, 2009 [between 30 and 60 days of TLP decision]
Parties provide study determinations and	Interested	November 30, 2009 – January 28,



<b>Pre-Filing Milestone</b>	<b>Responsible Party</b>	<b>Date [Required Timeframe]</b>
information requests	Parties, Agencies, and Tribes	2010 [Within 60-days of Joint meeting, unless extension is granted upon request of agencies]
<i>Dispute resolution steps (if necessary)</i>	<i>KHL, interested parties, FERC</i>	<i>January 29 – April 13, 2010</i>
Additional Study Plan Development and Review Meetings Proposed by Kenai Hydro to gain agency feedback during the study implementation phase, and timeframes and meeting dates will be agreed to by agencies and KHL according to the consultation protocol outlined below. <b>[Draft Schedule]</b>		
Provide technical memorandum outlining 2009 reconnaissance study results and proposed draft study plans	KHL	January 2010 and follow-up as needed
Proposed Meeting to discuss 2010 study plans	KHL	April 14 – April 16, 2010
Issue 2010 Study Plans for Agency review	KHL	May 8-12, 2010
Conduct Studies per Study Plans and provide periodic agency updates as agreed	KHL	May 2010 – January 2011 (or later as agreed in Study Plans)
Issue Draft License Application	KHL	May 3, 2011
Submit Final License Application	KHL	September 29, 2011
Expiration of Preliminary Permit	KHL	September 30, 2011

### 1.3. Communications and Document Distribution

This Communication Protocol (Protocol) is intended to facilitate communication and cooperation among KHL, federal and state agencies, Indian tribes, native corporations other interested organizations and members of the public (collectively, Participants) during the preparation of KHL's Application for Original License for the Project. This Protocol is structured based on the assumption that FERC will approve the use of the Traditional Licensing Process (TLP) for the pre-filing consultation period for the Project. Given KHL's understanding based on its outreach efforts that agencies and others are concerned with the rigid timeframes and deadlines of the Integrated Licensing Process (ILP) it believes that the TLP, as modified by the provisions

outlined below, would be the most effective process for completing the necessary pre-filing work while providing for meaningful participation by agencies and other interested organizations.

KHL conducted a successful pre-formal consultation with agencies and other interested stakeholders regarding informal study efforts in 2009. These efforts included face to face meetings, conference calls and field visits, where scheduling of interactions and review periods were worked out in a collaborative fashion. As a result of this collective effort, draft study plans were developed, reviewed, comments provided and revised plans issued in an efficient and effective fashion. KHL hopes to emulate this success utilizing the modified TLP for the formal licensing consultation.

Should the TLP not be approved for use, KHL will continue with consultation utilizing the default ILP and follow the applicable regulations.

This Protocol will govern communications among all Participants and provide public access to information regarding the consultation activities related to the licensing of the Project. The Protocol also applies to communications made by contractors or consultants on behalf of KHL or any of the Participants. This Protocol does not apply to communications solely between Participants, or to any Participant's internal communications.

#### **1.3.1. Participation in the Licensing Process**

The licensing process for the Project is open to the general public and interested parties are encouraged to participate. A contact list, compiled by KHL, will be maintained to identify those agencies, organizations, individuals or groups that have been identified as interested parties or who have requested to be included as Participants. The contact list will be used to provide notice of any public meetings, as well as notice of the availability of information for public review. The contact list will be updated periodically by KHL and inactive Participants will be asked annually to re-affirm their interest in participating in the process.

In response to concerns with the TLP identified by agencies and other interested parties, KHL proposes to supplement the TLP process with additional consultation steps to provide an enhanced level of engagement and transparency. These enhancements include:

- Working with agencies and other stakeholders on the scheduling of meetings and conference calls,
- Providing opportunities for the review of draft study plans and study reports and addressing those comments in final plans/reports,
- Allowing for more than the minimum 30 days for review of significant documents when possible without jeopardizing the overall project schedule.

To the extent possible KHL is committed to working with agencies and other Participants to identify opportunities to make adjustments to timeframes throughout the pre-filing period. Given that this licensing effort will occur within a TLP, these decisions regarding adjustments to timeframes can be made by KHL in coordination with Participants.

### **1.3.2. Maintenance of the Public Reference File**

KHL has developed and will maintain a public reference file at KHL's offices. The public reference file will include copies of all written correspondence (including e-mails), documentation of phone conversations, meeting notices, agendas and summaries, study plans, study reports, status reports, and other documents developed during consultation or submitted for inclusion in the public reference file. All documents in the public reference file will be submitted to FERC as part of the formal licensing record.

KHL will also maintain a website ([www.kenaihydro.com](http://www.kenaihydro.com)) for access to key documents developed during the course of the licensing consultation, such as the PAD and NOI, meeting notices, meeting summaries, study plans and study reports. The licensing website will also have an information library that allows stakeholders to access relevant information that KHL has gathered through its due diligence process.

For the duration of the licensing proceeding KHL will also make available to the public for inspection in a form that is readily accessible, reviewable and reproducible during regular business hours, the PAD, materials referenced in the PAD and other information that will make up the complete application for license, including all exhibits, appendices, and any amendments, pleadings, supplementary or additional information, or correspondence filed by KHL with the Commission in connection with the application.

### **1.3.3. Meetings**

KHL shall be responsible for scheduling all consultation meetings involving KHL and Participants. For the meeting specified in 18 CFR Section 4.38(b)(3), KHL will provide the required notice in appropriate locale and other forums. KHL will solicit input from Participants on meeting agendas and objectives and will seek to locate meetings to facilitate Participant attendance to most effectively accomplish those objectives.

KHL will notify all Participants of meetings scheduled by KHL at least 30 days prior to the meeting date. This notification may be made in writing, via fax, via email, or by telephone conversation. Under special circumstances, KHL may hold a meeting with less than 30 days notice.

KHL shall propose the meeting agenda and will strive to provide a written meeting agenda to all Participants at least two weeks prior to a scheduled meeting. Participants may submit comments on the agenda to KHL up to one week before the scheduled meeting. KHL will address any

proposed changes to the agenda and will distribute a final agenda at the meeting. In addition, the agenda may be modified at the beginning of the meeting.

KHL and all Participants will endeavor to make available all documents and other information necessary to prepare for a consultation meeting at least two weeks prior to the scheduled meeting. In the alternative, materials can be provided at the meeting.

#### **1.3.4. Documentation**

All of the documentation requirements described below apply to substantive communications regarding the licensing of the Project; communications related to procedural matters (e.g., responding to inquiries regarding meeting scheduling) are not subject to the same documentation requirements.

##### *Meeting Summaries*

KHL will be primarily responsible for providing a written summary of the matters addressed at all meetings involving KHL and Participants. A draft meeting summary will be distributed to all meeting attendees within 15 days of the meeting. Any corrections to the draft meeting summary should be submitted to KHL within 15 days. KHL will finalize the meeting summary within 30 days after receiving corrections. If no corrections are submitted, the meeting summary will become final 30 days after the date of the meeting. Final meeting summaries will be posted on the licensing website.

##### *Oral Communications*

Any oral communication (i.e., telephone conversations) between KHL and any Participant regarding any substantive aspect of the Project licensing shall be documented in writing by KHL and included in the public reference file, with a copy provided to those participating in the oral communication.

##### *Technical Documents*

A variety of technical documents will be produced during the course of licensing consultation, including the Preliminary Application Document (PAD), study plans, study reports, and draft and final license applications. Whenever comments are solicited on documents, review periods will be established and communicated to Participants. Review periods will typically be 30 days, unless longer periods are required by FERC regulations (e.g., 90 day comment period on the draft application). Participants will strive to provide comments to KHL within the timeframes specified for comment periods. KHL will consider adjusting comment periods, making them either longer or shorter, to better utilize available time within the course of pre-filing consultation, without jeopardizing the overall project schedule. Any such adjustments will be made with the concurrence of the Participants.

Kenai Hydro, LLC

DRAFT

*Written Correspondence*

Any written correspondence (including e-mails) regarding the licensing of the Project between KHL and Participants will become part of the public reference file.

All written correspondence should be sent to KHL at the following address:

Kenai Hydro, LLC  
Attn: Steve Gilbert  
2525 C Street  
Suite 500  
Anchorage, AK 99503

With a copy sent to:  
Jenna Borovansky  
Long View Associates, Inc.  
P.O. Box 3844  
Coeur d'Alene, ID 83816

Or by email: [SteveG@enxco.com](mailto:SteveG@enxco.com) and [jborovansky@longviewassociates.com](mailto:jborovansky@longviewassociates.com)

**1.3.5. Distribution of Licensing Documentation**

Distribution of licensing documents will be accomplished primarily by email notice and availability on the KHL web-site ([www.kenaihydro.com](http://www.kenaihydro.com)). If a Participant has indicated a preference to receive hard-copy mailings, KHL will send paper documents through regular mail. A Participant may also request to receive a paper copy of any specific licensing document by contacting Jenna Borovansky at [jborovansky@longviewassociates.com](mailto:jborovansky@longviewassociates.com). Fees in accordance with regulations may apply.

In addition to distribution to all Participants, all licensing documents will be posted on the licensing website ([www.kenaihydro.com](http://www.kenaihydro.com)). Distribution of licensing documents (aside from brief letters, notices, etc.) will include a copy of the distribution list.

**1.4. Revisions to the Communications Protocol**

This protocol may be revised at any time upon general agreement of KHL and the Participants.

**1.5. Duration of the Communication Protocol**

This Communications Protocol will remain in effect until FERC notices that the License Application is accepted for filing.

**ATTACHMENT B: Comments Received on KHL's Request to Use the TLP and  
Communications Protocol**



-----Original Message-----

From: Jason Aigeldinger [mailto:jasonaigeldinger@mac.com]

Sent: Friday, July 17, 2009 10:23 PM

To: SteveG@enxco.com; Zubeck, Brad

Subject: In regards to your FERC permitting of hydro projects on Grant Lake and Falls Creek,

Project Manager Gilbert and Project Engineer Zubeck, In regards to your FERC permitting of hydro projects on Grant Lake and Falls Creek, I strongly feel that public input should be allowed before these projects go any further. I do not support the use of the TLP or the communications protocol proposed by HEA/KHL.

Thank you,

Jason Aigeldinger



2009-07-21TLPcomment\_I Pri II

From: Louis Pri II [mailto:potato@arctic.net]  
Sent: Tuesday, July 21, 2009 11:25 AM  
To: Contact\_us  
Subject: Contact Form information from Homer Website - Reg.

Inquiry and Request Form

Name:  
Louis Pri II  
E-mail:  
potato@arctic.net  
Phone #:  
907-288-5723  
Date:  
7-21-09  
City of Residence:  
Moose Pass  
Account #:

Comments / Questions:

To whom it may concern, With regards to the future hydro project for the Trail Lake/ Kenai Lake drainage area. I, as a resident of the Moose Pass area and user of the National Forests that surround us am opposed to the current project proposal. I do not support use of the TLP or the communications protocol proposed by HEA/KHL. Please take heart in the voices of our community and not exploit our dwindling natural resources. Thank You, Louis Pri II

---

**From:** jason aigeldinger [mailto:jasonaigeldinger@mac.com]  
**Sent:** Wednesday, July 22, 2009 8:07 PM  
**To:** Zubeck, Brad  
**Subject:** Re: Comments on Proposed Communications Protocol

To Kenai Hydro, LLC Brad Zubeck,  
In regards to the use of the TLP licensing process for Grant Lake and Falls Creek;  
We do not support the use of TLP or the use of the communications protocol listed by HEA and KHL.

On Jul 13, 2009, at 11:16 AM, Zubeck, Brad wrote:

TO: Grant Lake/Grant Creek and Falls Creek Hydroelectric Project Stakeholders  
SUBJECT: Proposed Communications Protocol and Use of the Traditional Licensing Process

In January 2009, Kenai Hydro, LLC (Kenai Hydro) met with stakeholders to introduce the Grant Lake/Grant Creek and Falls Creek proposed Hydroelectric Projects (Project). During those meetings, Kenai Hydro proposed a timeline for license filing and use of the Traditional Licensing Process (TLP). Subsequently, we have met on several occasions with interested stakeholders to discuss 2009 reconnaissance data needs for fish and aquatics, hydrology, and the instream flow studies, in order to inform the formal study process that will begin once the Pre-Application Document (PAD) is filed with FERC in early August. In conjunction with the PAD filing, Kenai Hydro will be requesting FERC approval for use of the TLP. Absent approval of the TLP, Kenai Hydro will proceed with consultation through FERC's default process, the Integrated Licensing Process (ILP).

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We understand that the TLP has a mechanism, described in §4.38(e)(4), to enhance the TLP with ILP elements that could address these concerns. This provision allows for a potential licensee to request that FERC incorporate into pre-filing consultation elements of the ILP provided for under 18 CFR 5, *et. seq.* Kenai Hydro is willing to request that FERC include additional consultation requirements as discussed in the attached communications protocol.

---

**From:** Laura Aigeldinger [mailto:berungia@yahoo.com]  
**Sent:** Wednesday, July 22, 2009 8:56 PM  
**To:** Zubeck, Brad  
**Subject:** Re: Fwd: Request for Comments on Proposed Communications Protocol

To Kenai Hydro, LLC Brad Zubeck,  
In regards to the use of the TLP licensing process for Grant Lake and Falls Creek;  
I do not support the use of TLP or the use of the communications protocol listed by  
HEA and KHL.  
thank you for the opportunity to comment.  
Laura Aigeldinger

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**From:** "Zubeck, Brad" <[BZubeck@HomerElectric.com](mailto:BZubeck@HomerElectric.com)>  
**Date:** July 13, 2009 11:16:55 AM GMT-08:00  
**To:** Undisclosed recipients:;  
**Subject:** Request for Comments on Proposed Communications Protocol

TO: Grant Lake/Grant Creek and Falls Creek Hydroelectric Project Stakeholders

SUBJECT: Proposed Communications Protocol and Use of the Traditional Licensing Process

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# FOCL

Established in 1996

Friends of Cooper Landing, Inc.  
P.O. Box 815  
Cooper Landing, Alaska 99572-0815

907-595-2129  
kenailake@arctic.net

July 22, 2009

Kenai Hydro, LLC  
Attn: Steve Gilbert  
2525 C Street, Suite 500  
Anchorage, Alaska 99503

Subject: Comments on proposed Communications Protocol and use of the TLP,  
relative to Grant Lake and Creek, and Falls Creek Hydropower Proposals

Dear Mr. Gilbert:

The Friends of Cooper Landing are very disappointed that Kenai Hydro LLC, Homer Electric Association, and CIRI have announced the intention to proceed with plans to dam, divert, and otherwise develop Grant Lake and Creek, and Falls Creek. These are 2 of 5 miniscule, seasonal hydropower projects proposed on tributaries of the Kenai River.

Industrializing the natural state of the Kenai River and its surroundings is contrary to two decades of protective public policy we have helped to establish and enforce. The irreversible impacts of new dams are tipping points that will degrade this river like so many American rivers. Is it even realistic to believe the public will tolerate the huge costs of these proposals? The integrity of our world class Kenai River is much too important to be compromised.

Sincerely,



Robert L. Baldwin  
President

cc: Long View Associates

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**From:** Zubeck, Brad [BZubeck@HomerElectric.com]  
**Sent:** Tuesday, July 28, 2009 10:01 AM  
**To:** Ferguson, Jim M (DFG)  
**Cc:** Maclean, Scott H (DFG); Klein, Joseph P (DFG)  
**Subject:** RE: Request for Comments on Proposed Communications Protocol

Hi Jim,

Thanks for the note and your thoughts. We'll look for your comments during the formal comment period.

I am not aware of FERC's determination on the Chakachamna licensing process. I'll take some time to research it today. Thanks for making note of it.

Except for the rigid schedule, I would be content with the ILP process. Thanks for your participation in our earlier efforts to shape baseline studies. If we end up using the ILP, I am sure that these early efforts will have helped us tremendously.

Best wishes to you for a successful transition into "retirement" as a consultant, and to Scott as he assumes your Hydropower Coordinator position. I look forward to working with you both. I am out of town this week, but will try to give you both a call next week.

Regards,  
Brad Zubeck

---

**From:** Ferguson, Jim M (DFG) [mailto:jim.ferguson@alaska.gov]  
**Sent:** Tuesday, July 28, 2009 8:37 AM  
**To:** Zubeck, Brad  
**Cc:** Maclean, Scott H (DFG); Klein, Joseph P (DFG)  
**Subject:** RE: Request for Comments on Proposed Communications Protocol

Brad:

I wanted you to know that I am aware of your request. Currently, I am transitioning out of the Hydropower Coordinator position, and Scott Maclean is transitioning in. Therefore, we may not be able to respond formally to you until mid-August, or after the PAD is released. FYI, Scott will be the Hydropower Coordinator effective August 4<sup>th</sup>. I will be staying on in a part-time advisory capacity for the next year.

I also wondered if you might be reconsidering your request in light of FERC's recent determination on the Chakachamna licensing process. If so, please let us know.

Granted, this project has high public interest, as well as important fisheries resources in the project area. However, the project is a relatively small and simple design as hydro projects go and, based on my experience, I feel that either the ALP or the ILP would probably work well in this case. The ILP has tight time lines, especially regarding study planning. However, as you know, we have made some progress on probably the most time-intensive study plans, the instream flow and fisheries/fish habitat studies. That progress could make ILP approach feasible to the agencies.

Food for thought, anyway. I'd be happy to discuss this with you over the phone any time you'd like. I'd like to get Scott in on the conversation, so if you'd like to talk I'd prefer to set a time when both of us can be on the line.

Regards,

Jim

---

Jim Ferguson, PhD  
Statewide Hydropower Coordinator  
Alaska Department of Fish and Game  
Sport Fish Division - RTS  
333 Raspberry Road  
Anchorage, AK 99518-1565  
907-267-2312 Fax: 267-2422



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**From:** Zubeck, Brad [mailto:BZubeck@HomerElectric.com]  
**Sent:** Monday, July 13, 2009 11:17 AM  
**Subject:** Request for Comments on Proposed Communications Protocol

**TO:** Grant Lake/Grant Creek and Falls Creek Hydroelectric Project Stakeholders

**SUBJECT:** Proposed Communications Protocol and Use of the Traditional Licensing Process

In January 2009, Kenai Hydro, LLC (Kenai Hydro) met with stakeholders to introduce the Grant Lake/Grant Creek and Falls Creek proposed Hydroelectric Projects (Project). During those meetings, Kenai Hydro proposed a timeline for license filing and use of the Traditional Licensing Process (TLP). Subsequently, we have met on several occasions with interested stakeholders to discuss 2009 reconnaissance data needs for fish and aquatics, hydrology, and the instream flow studies, in order to inform the formal study process that will begin once the Pre-Application Document (PAD) is filed with FERC in early August. In conjunction with the PAD filing, Kenai Hydro will be requesting FERC approval for use of the TLP. Absent approval of the TLP, Kenai Hydro will proceed with consultation through FERC's default process, the Integrated Licensing Process (ILP).

Kenai Hydro believes that the TLP will provide the most efficient process for public and agency review of studies and licensing documents, while still allowing for timely filing of a license application for the Grant Lake/Grant Creek and Falls Creek combined Project. The TLP allows for flexibility in review timelines not afforded by the ILP that Kenai Hydro believes will benefit all parties involved in the review and development of the Project. In order to address concerns and questions expressed by stakeholders, in particular in regard to public participation and opportunities for agency review and involvement in the issue identification and study development phases of the TLP, Kenai Hydro has developed a proposed communications protocol to be included with the PAD and request for TLP.

We understand that the TLP has a mechanism, described in §4.38(e)(4), to enhance the TLP with ILP elements that could address these concerns. This provision allows for a potential licensee to request that FERC incorporate into pre-filing consultation elements of the ILP provided for under 18 CFR 5, *et. seq.* Kenai Hydro is willing to request that FERC include additional consultation requirements as discussed in the attached communications protocol.



# Pre-Application Document

## Grant Lake/Grant Creek and Falls Creek Project (FERC No. 13211 and 13212)



Photo Credit: HDR, Alaska, Inc.

**Kenai Hydro, LLC**

**August 2009**





**TABLE OF CONTENTS**

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Table of Contents .....                                         | i   |
| List of Tables .....                                            | vi  |
| List of Figures .....                                           | vii |
| 1 Executive Summary .....                                       | 1   |
| 2 Process Plan, schedule, and communication protocol.....       | 1   |
| 2.1. Overview of Licensing Approach and Early Consultation..... | 1   |
| 2.2. Process Plan and Schedule .....                            | 2   |
| 2.3. Communications and Document Distribution .....             | 4   |
| 2.3.1. Participation in the Licensing Process.....              | 5   |
| 2.3.2. Maintenance of the Public Reference File.....            | 6   |
| 2.3.3. Meetings .....                                           | 6   |
| 2.3.4. Documentation .....                                      | 7   |
| 2.3.5. Distribution of Licensing Documentation .....            | 8   |
| 2.4. Revisions to the Communications Protocol.....              | 8   |
| 2.5. Duration of the Communication Protocol .....               | 8   |
| 3 Project locations, facilities, and operations .....           | 9   |
| 3.1. Authorized Agents for the Applicant .....                  | 9   |
| 3.2. Project Location .....                                     | 9   |
| 3.2.1. Grant Lake and Grant Creek Development .....             | 11  |
| 3.2.2. Falls Creek Development .....                            | 11  |
| 3.3. Proposed Project Facilities .....                          | 11  |
| 3.3.1. Summary of Project Features .....                        | 12  |
| 3.3.2. Proposed Project Boundary .....                          | 16  |
| 3.3.3. Proposed Construction and Development Schedule.....      | 16  |
| 3.4. Project Operations .....                                   | 17  |
| 3.4.1. Proposed Project Operations .....                        | 17  |
| 3.4.2. Project Capacity and Production .....                    | 19  |
| 3.4.3. Summary of Project Generation .....                      | 20  |
| 4 Description of existing environment and resource impacts..... | 20  |

*PRE-APPLICATION DOCUMENT*

---

|                                                                                |    |
|--------------------------------------------------------------------------------|----|
| 4.1. Summary .....                                                             | 20 |
| 4.2. Basin Overview .....                                                      | 21 |
| 4.2.1. Description of the Grant Lake, Grant Creek, and Falls Creek Basin ..... | 21 |
| 4.2.2. Land and Water Uses .....                                               | 22 |
| 4.3. Geology and Soils .....                                                   | 25 |
| 4.3.1. Introduction .....                                                      | 25 |
| 4.3.2. Geology .....                                                           | 25 |
| 4.3.3. Glacial Features .....                                                  | 30 |
| 4.3.4. Mining and Mineral Resources .....                                      | 33 |
| 4.3.5. Project Site Geology .....                                              | 33 |
| 4.3.6. Seismic and Volcanic Activity .....                                     | 33 |
| 4.3.7. Soils .....                                                             | 41 |
| 4.3.8. Glacial Activity .....                                                  | 43 |
| 4.3.9. Lake Shoreline and Streambanks .....                                    | 43 |
| 4.3.10. Potential Adverse Impacts .....                                        | 46 |
| 4.3.11. Proposed Protection, Mitigation, and Enhancement Measures .....        | 46 |
| 4.4. Water Resources .....                                                     | 47 |
| 4.4.1. Introduction .....                                                      | 47 |
| 4.4.2. Drainage Basin Hydrology .....                                          | 47 |
| 4.4.3. Project Streamflow Data .....                                           | 53 |
| 4.4.4. Water Quality .....                                                     | 53 |
| 4.4.5. Existing and Proposed Water Uses .....                                  | 60 |
| 4.4.6. Potential Adverse Impacts .....                                         | 60 |
| 4.4.7. Proposed Protection, Mitigation, and Enhancement Measures .....         | 61 |
| 4.5. Fish and Aquatic Resources .....                                          | 61 |
| 4.5.1. Introduction .....                                                      | 61 |
| 4.5.2. Existing Fish and Aquatic Communities .....                             | 61 |
| 4.5.3. Threatened and Endangered Species .....                                 | 69 |
| 4.5.4. Federally Designated Habitat .....                                      | 69 |
| 4.5.5. Potential Adverse Impacts .....                                         | 70 |
| 4.5.6. Proposed Protection, Mitigation, and Enhancement Measures .....         | 71 |
| 4.6. Wildlife and Botanical Resources .....                                    | 71 |
| 4.6.1. Introduction .....                                                      | 71 |
| 4.6.2. Wildlife .....                                                          | 72 |

*PRE-APPLICATION DOCUMENT*

---

|         |                                                                                                 |     |
|---------|-------------------------------------------------------------------------------------------------|-----|
| 4.6.3.  | Botanical.....                                                                                  | 84  |
| 4.6.4.  | Potential Adverse Impacts.....                                                                  | 89  |
| 4.6.5.  | Proposed Protection, Mitigation, and Enhancement Measures .....                                 | 91  |
| 4.7.    | Wetlands, Riparian, and Littoral Habitat.....                                                   | 91  |
| 4.7.1.  | Introduction .....                                                                              | 91  |
| 4.7.2.  | Potential Adverse Impacts.....                                                                  | 99  |
| 4.7.3.  | Proposed Protection, Mitigation, and Enhancement Measures .....                                 | 100 |
| 4.8.    | Recreation and Land Use.....                                                                    | 100 |
| 4.8.1.  | Introduction .....                                                                              | 100 |
| 4.8.2.  | Current Recreational Use of the Project Vicinity and Region.....                                | 101 |
| 4.8.3.  | Shoreline Buffer Zones and Adjoining Land Use .....                                             | 102 |
| 4.8.4.  | Recreation-Related Goals and Needs Identified in Agency Management Plans..                      | 102 |
| 4.8.5.  | Designated Scenic and Protected River Segments .....                                            | 107 |
| 4.8.6.  | National Trails System and Wilderness Area Lands in the Region.....                             | 107 |
| 4.8.7.  | Recreation Areas in the Project Vicinity .....                                                  | 107 |
| 4.8.8.  | Non-Recreational Land-Uses and Management.....                                                  | 108 |
| 4.8.9.  | Potential Adverse Impacts.....                                                                  | 108 |
| 4.8.10. | Proposed Protection, Mitigation, and Enhancement Measures .....                                 | 108 |
| 4.9.    | Aesthetic/Visual Resources .....                                                                | 108 |
| 4.9.1.  | Existing Aesthetic/Visual Resource Conditions.....                                              | 109 |
| 4.9.2.  | Potential Adverse Impacts.....                                                                  | 109 |
| 4.9.3.  | Proposed Protection, Mitigation, and Enhancement Measures .....                                 | 109 |
| 4.10.   | Cultural Resources .....                                                                        | 109 |
| 4.10.1. | Introduction .....                                                                              | 109 |
| 4.10.2. | Applicable Laws and Regulations.....                                                            | 110 |
| 4.10.3. | Area of Potential Affect.....                                                                   | 110 |
| 4.10.4. | Identification of Historic Properties and Archaeological Sites in the Project<br>Vicinity ..... | 110 |
| 4.10.5. | Potential Adverse Impacts.....                                                                  | 110 |
| 4.10.6. | Existing Discovery Measures .....                                                               | 110 |
| 4.10.7. | Affected Tribes.....                                                                            | 111 |
| 4.10.8. | Proposed Protection, Mitigation, and Enhancement Measures .....                                 | 112 |
| 4.11.   | Socioeconomic Resources.....                                                                    | 112 |
| 4.11.1. | Introduction .....                                                                              | 112 |

*PRE-APPLICATION DOCUMENT*

---

|         |                                                                 |     |
|---------|-----------------------------------------------------------------|-----|
| 4.11.2. | Land Use and Real Estate.....                                   | 114 |
| 4.11.3. | Demographics.....                                               | 117 |
| 4.11.4. | Industry and Employment .....                                   | 119 |
| 4.11.5. | Public Sector.....                                              | 120 |
| 4.11.6. | Electricity .....                                               | 122 |
| 4.11.7. | Potential Adverse Impacts.....                                  | 122 |
| 4.11.8. | Proposed Protection, Mitigation, and Enhancement Measures ..... | 122 |
| 4.12.   | Tribal Resources .....                                          | 122 |
| 5       | Preliminary Issues and Studies List.....                        | 122 |
| 5.1.    | Introduction .....                                              | 122 |
| 5.2.    | Grant Lake/Falls Creek Study List.....                          | 124 |
| 5.3.    | Geology and Soils .....                                         | 125 |
| 5.3.1.  | Proposed Study Topics.....                                      | 125 |
| 5.3.2.  | Relevant Plans .....                                            | 125 |
| 5.4.    | Water Resources.....                                            | 125 |
| 5.4.1.  | Proposed Study Topics.....                                      | 126 |
| 5.4.2.  | Relevant Plans .....                                            | 126 |
| 5.5.    | Fish and Aquatic Resources .....                                | 126 |
| 5.5.1.  | Proposed Study Topics.....                                      | 127 |
| 5.5.2.  | Relevant Plans .....                                            | 127 |
| 5.6.    | Wildlife and Botanical Resources .....                          | 128 |
| 5.6.1.  | Proposed Study Topics.....                                      | 128 |
| 5.6.2.  | Relevant Plans .....                                            | 129 |
| 5.7.    | Recreation and Land Use.....                                    | 130 |
| 5.7.1.  | Proposed Study Topics.....                                      | 130 |
| 5.7.2.  | Relevant Plans .....                                            | 130 |
| 5.8.    | Aesthetic/Visual Resources .....                                | 131 |
| 5.8.1.  | Proposed Study Topics.....                                      | 131 |
| 5.8.2.  | Relevant Plans .....                                            | 131 |
| 5.9.    | Cultural Resources .....                                        | 132 |
| 5.9.1.  | Proposed Study Topics.....                                      | 132 |
| 5.9.2.  | Relevant Plans .....                                            | 132 |
| 5.10.   | Socioeconomic Resources.....                                    | 132 |

*PRE-APPLICATION DOCUMENT*

---

5.10.1. Proposed Study Topics..... 133

5.10.2. Relevant Plans ..... 133

5.11.Tribal Resources ..... 133

5.11.1. Relevant Plans ..... 133

6 Summary of Contacts ..... 133

6.1.Introduction ..... 133

6.2.Summary of Outreach Efforts and Contacts..... 134

7 References ..... 134

Appendix 1: Large Scale Figures

Appendix 2: Conceptual Drawings of Proposed Project Facilities

Appendix 3: Summary of Consultation

**LIST OF TABLES**

|                                                                                                                                                                                       |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Table 2.2-1. Milestones, responsible parties, and proposed dates for pre-licensing activities, assuming approval of the TLP. ....                                                     | 3   |
| Table 3.3-1. Summary of proposed Project features.....                                                                                                                                | 13  |
| Table 4.3-1. Potential Project impacts to geology and soil resources. ....                                                                                                            | 46  |
| Table 4.4-1. 2008 instantaneous flow measurements collected by HDR October to December 2008.....                                                                                      | 50  |
| Table 4.4-2. Falls Creek scale factors (determined by APA 1984) used to simulate flow of Falls Creek from stream flow data collected at Grant Creek. ....                             | 51  |
| Table 4.4-3. Temperature comparisons of Grant Lake, Grant Creek, and Falls Creek (Source: APA 1984). ....                                                                             | 56  |
| Table 4.4-4. Trace metals data collected in 1982. ....                                                                                                                                | 59  |
| Table 4.4-5. Potential Project impacts on water resources. ....                                                                                                                       | 61  |
| Table 4.5-1. Number of adult salmon observed in lower Grant Creek during intermittent foot surveys (1952-1982) and weir counts (1985-1988). ....                                      | 65  |
| Table 4.6-1. Management indicator species, species of special interest, and general habitat types located on the Kenai Peninsula area of the Chugach National Forest (USFS 2005)..... | 84  |
| Table 4.6-2. Potential Project impacts to wildlife and botanical resources .....                                                                                                      | 90  |
| Table 4.7-1. Potential Project impacts related to wetland resources. ....                                                                                                             | 99  |
| Table 4.8-1. Recreation activity and access information for Game Management Subunit 7 (ADNR 2009b). ....                                                                              | 101 |
| Table 4.11-1. Land Ownership in the Kenai Peninsula Borough (KPB 2005).....                                                                                                           | 115 |
| Table 4.11-2. Population growth in the Kenai Peninsula Borough (KPB 2008).....                                                                                                        | 117 |
| Table 4.11-3. Income and occupations in Kenai Peninsula Borough (ADCRA 2009; 2000 U.S. Census Data).....                                                                              | 118 |
| Table 4.11-4. Employment in the Kenai Peninsula Borough (ADCRA 2009, 2000 U.S. Census Data).....                                                                                      | 119 |
| Table 4.11-5. Kenai Peninsula Borough revenues (ADCRA 2009).....                                                                                                                      | 121 |
| Table 4.11-6. Kenai Peninsula Borough Expenditures (ADCRA 2009). ....                                                                                                                 | 121 |

## LIST OF FIGURES

|                                                                                                                                                                                                                                                                                                                                                             |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Figure 3.2-1. Proposed Project facilities and land ownership. ....                                                                                                                                                                                                                                                                                          | 10 |
| Figure 3.4-1. Estimated Grant Lake elevations with proposed Project operations.....                                                                                                                                                                                                                                                                         | 18 |
| Figure 3.4-2. Estimated average monthly flows in Grant Creek downstream of the<br>proposed powerhouse location. ....                                                                                                                                                                                                                                        | 19 |
| Figure 3.4-3. Grant Lake estimated average monthly generation.....                                                                                                                                                                                                                                                                                          | 20 |
| Figure 4.2-1. Land status, ownership, water rights, and mineral claims in the Project<br>vicinity.....                                                                                                                                                                                                                                                      | 24 |
| Figure 4.3-1. Generalized geologic map of south-central Alaska, from Bradley et al.<br>(2003).....                                                                                                                                                                                                                                                          | 27 |
| Figure 4.3-2. Tectonic setting of southern Alaska and Cook Inlet Basin showing<br>subduction of Pacific plate and Yakutat microplate. Insert on lower right shows<br>Southern Block outlined in yellow. Figure prepared by J. Willis, University of Utah<br>(cited in Bruhn 2006).....                                                                      | 28 |
| Figure 4.3-3. Map of southern Alaska showing the distribution of the Chugach terrane<br>accretionary complex (dark grey) relative to its crystalline backstop (Border Ranges<br>Fault – BRF) and to the east, the Yahutat block(light grey), which collided with North<br>American in late Neogene (Pavlis and Roeske [in press] cited in Pavlis 2006)..... | 29 |
| Figure 4.3-4. Major geologic features and unconsolidated surficial deposits in the Project<br>vicinity (APA 1984). ....                                                                                                                                                                                                                                     | 31 |
| Figure 4.3-5. Geologic features and unconsolidated surficial deposits near the proposed<br>Project site (APA 1984).....                                                                                                                                                                                                                                     | 32 |
| Figure 4.3-6. Generalized structure map of Cook Inlet Basin showing folds within the<br>basin and the regional faults along the basin borders (Bruhn 2006). P.J. Haeussler<br>compilation. ....                                                                                                                                                             | 35 |
| Figure 4.3-7. Historically active Alaskan volcanoes, locations 2, 3, 4, and 5 are nearest to<br>the Project site (McGimsey et al. 1994). ....                                                                                                                                                                                                               | 36 |
| Figure 4.3-8. The region of the 1964 Prince William Sound earthquake (Freymueller<br>2006). The rupture area of the 1964 earthquake zone is shown in the bold line. The<br>thinner lines indicate the approximate limits of the two asperities that released most of<br>the moment in the earthquake.....                                                   | 37 |
| Figure 4.3-9. Coseismic displacements during the 1964 M9.2 earthquake (Suito et al. [in<br>prep] cited in Freymueller 2006).....                                                                                                                                                                                                                            | 38 |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Figure 4.3-10. Major regional groups of surficial deposits in Alaska (cited in Gough et al. 1988).....                                                                                                                                                                                                                                                                                                                                                                     | 42 |
| Figure 4.3- 11. Grant Lake, lower basin looking south toward the outlet for Grant Creek (HDR 2008a). ....                                                                                                                                                                                                                                                                                                                                                                  | 44 |
| Figure 4.3-12. Grant Lake, upper basin looking east toward the inlet for Inlet Creek (HDR 2008a). Channel and island between the upper portion and lower portion of the lake is in the foreground. ....                                                                                                                                                                                                                                                                    | 45 |
| Figure 4.4-1. Mean monthly discharge at Grant Creek. Average annual flow (for period of record 1947-1958, from USGS gage #5246000) is shown as a solid horizontal line (193 cfs).....                                                                                                                                                                                                                                                                                      | 48 |
| Figure 4.4-2. Flow duration curve for Grant Creek. Percent exceedance, the value of the x-axis, is the percent of the time flow surpasses the value on the y-axis. This curve was generated using data from the period 1947-1958, from USGS gage #5246000. ....                                                                                                                                                                                                            | 48 |
| Figure 4.4-3. Grant Creek discharge data. Historic data are from USGS gage 15246000 (1947-1958) and manual instantaneous flow measurements made in 2008 by HDR Alaska. Mean discharge (heavy blue line), 10% flow exceedance (dashed aqua line), and 90% flow exceedance (solid pink line), in cubic feet per second are shown for historical data. Manually collected instantaneous stream flow measurements collected in 2008 by HDR Alaska are shown as black dots..... | 49 |
| Figure 4.4-4. Mean monthly discharge of Falls Creek, modeled using data from USGS gage 15246000 (1947-1958) at Grant Creek, adjusted by monthly ratios developed by Ebasco (APA 1984; using one open water season of flow data at Falls Creek).....                                                                                                                                                                                                                        | 51 |
| Figure 4.4-5. Flow duration curve for Grant Creek. Percent exceedance, the value of the x-axis, is the percent of the time flow surpasses the value on the y-axis. ....                                                                                                                                                                                                                                                                                                    | 52 |
| Figure 4.4-6. Falls Creek modeled discharge based on data from USGS gage 15246000 (1947-1958) at Grant Creek, adjusted by monthly ratios developed by Ebasco (APA 1984).....                                                                                                                                                                                                                                                                                               | 53 |
| Figure 4.4-7. Temperature profiles in Grant Lake (APA 1984). ....                                                                                                                                                                                                                                                                                                                                                                                                          | 57 |
| Figure 4.4-8. Temperature profile for the upper basin of Grant Lake (APA 1984). ....                                                                                                                                                                                                                                                                                                                                                                                       | 58 |
| Figure 4.5-1. The range of anadromous fish in Grant Creek, as documented by the AWC (Johnson and Daigneault 2008). ....                                                                                                                                                                                                                                                                                                                                                    | 67 |
| Figure 4.5-2. Length-frequency distribution of Chinook (king) salmon, coho salmon, rainbow trout, and Dolly Varden captured via electrofishing in Grant Creek during 1982 (from AEIDC 1983).....                                                                                                                                                                                                                                                                           | 68 |
| Figure 4.6-1. Major brown bear forage resources and denning habitat in the Project vicinity in 1982 (APA 1984). ....                                                                                                                                                                                                                                                                                                                                                       | 75 |

Figure 4.6-2. Moose ranges in the Project vicinity in 1982 (APA 1984). ..... 78

Figure 4.6-3. Principal area of mountain goat use in the Project vicinity in 1982 (APA 1984). ..... 79

Figure 4.6-4. Favored range of Dall’s sheep in the Project vicinity in 1982 (APA 1984). ..... 80

Figure 4.7-1. Sheet 1. Upper and Lower Trail Lakes, Grant Creek, and south leg of Grant Lake showing general location of wetlands (NWI mapping, USFWS 2007). ..... 94

Figure 4.7-1, Sheet 2. Upper and Lower Trail Lakes, Grant Creek, and south leg of Grant Lake showing detail location of wetlands (NWI mapping, USFWS 2007). ..... 95

Figure 4.7-1. Sheet 3. Narrows at the juncture of the south and east legs of Grant Lake showing detail location of one wetland (NWI mapping, USFWS 2007). ..... 96

Figure 4.7-2. Sheet 1. East leg of Grant Lake at Inlet Creek showing general location of wetlands (NWI mapping, USFWS 2007). ..... 97

Figure 4.7-2, Sheet 2. East leg of Grant Lake at Inlet Creek showing detail location of wetlands (NWI mapping, USFWS 2007). ..... 98

Figure 4.11-1. Kenai Peninsula Borough boundaries and land ownership (KPB 2005). ..... 113

Figure 4.11-2. Land Use in the Kenai Peninsula Borough (KPB 2005). ..... 116

*PRE-APPLICATION DOCUMENT*

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## **1 EXECUTIVE SUMMARY**

Kenai Hydro, LLC (KHL) was issued two preliminary permits effective October 1, 2008 to investigate hydropower projects at Grant Lake/Grant Creek (FERC Project No. 13212) and Falls Creek (FERC Project No. 13211). This Pre-Application Document describes a combined Grant Lake/Falls Creek Hydroelectric Project that includes a proposed Grant Lake/Grant Creek development, and a Falls Creek development to divert water from Falls Creek to Grant Lake in order to supplement generation capacity at the powerhouse located on Grant Creek.

The proposed Project generating facilities will be located on Grant Creek, near the outlet of Grant Lake, with a diversion tunnel constructed from Falls Creek. The proposed Project would be located near the community of Moose Pass, Alaska, approximately 25 miles north of Seward, Alaska, and just east of the Seward Highway (State Route 9). The proposed Project location is in the Kenai Peninsula Borough.

This PAD summarizes existing information on geology and soils, water resources, fish and aquatic resources, wildlife and botanical resources, recreation and land use, aesthetic and visual resources, cultural resources, socioeconomic resources, and Tribal resources in the proposed Project vicinity. The PAD presents preliminary engineering descriptions of proposed Project facilities and describes a proposed environmental study program to determine potential Project impacts. Finally, the PAD summarizes early consultation efforts to gather existing information and begin development of environmental studies for the Project area.

KHL is requesting Commission approval to use the Traditional Licensing Process (TLP). The proposed Grant Lake/Falls Creek Project is a new, relatively small (4.5 MW) conventional hydropower project. As proposed the Project would affect flows in less than one mile of Grant Creek and less than two miles of Falls Creek and would change water levels in existing Grant Lake. The overall footprint of the proposed Project covers a relatively small geographic area. The licensing process should be scaled appropriately to the potential impacts of the proposed Project and size of the proposed Project area. KHL believes that a TLP, with an additional communications protocol is the preferred process for the pre-filing consultation and study efforts for the Project.

## **2 PROCESS PLAN, SCHEDULE, AND COMMUNICATION PROTOCOL**

### **2.1. Overview of Licensing Approach and Early Consultation**

In conjunction with its Notice of Intent (NOI) to file for a new license, Kenai Hydro, LLC is seeking FERC approval to use the Traditional Licensing Process (TLP) for the licensing of the Grant Lake/Falls Creek Hydroelectric Project (Project) in order to complete pre-filing consultation and file a license application within the timeframes of the preliminary permits issued by FERC. KHL initiated informal consultation with potentially interested parties with an outreach effort that

began in 2008. KHL is initiating formal pre-filing consultation with issuance of the NOI and this Pre- Application Document (PAD). The TLP, if approved, will require a Joint Meeting and site visit with the agencies, Tribes and public. The TLP also provides opportunities for the agencies and other interested parties to provide comments on the PAD and to make study requests.

## **2.2. Process Plan and Schedule**

Table 2.2-1 summarizes milestones in the TLP along with dates pursuant to timelines identified in 18 CFR § 4.38. In the interest of offering a site visit during the field season, prior to study design, KHL has scheduled a site visit with the Instream Flow Technical Workgroup established to inform study plan development. In addition agencies and active Participants were apprised of field schedules between June and September 2009, and were offered the opportunity to join field crews in the proposed Project area. Finally, KHL will offer a site visit to agencies, Tribes, and the public on November 5, in conjunction with the proposed Joint Meeting date.

## PRE-APPLICATION DOCUMENT

**Table 2.2-1.** Milestones, responsible parties, and proposed dates for pre-licensing activities, assuming approval of the TLP.

| <b>Pre-Filing Milestone</b>                                                                                                                                                                                                        | <b>Responsible Party</b>                 | <b>Date<br/>[Required Timeframe]</b>                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------|
| Initiate informal consultation with agencies, non-governmental organizations, and public                                                                                                                                           | KHL                                      | Fall 2008                                                            |
| Informational Meetings                                                                                                                                                                                                             | KHL                                      | January 20, 21, & 28, 2009                                           |
| Fish, Instream Flow, Hydrology, and Water Quality Workgroup meeting                                                                                                                                                                | KHL                                      | March 24, 2009                                                       |
| Instream Flow Technical Workgroup meeting                                                                                                                                                                                          | KHL                                      | April 21, 2009                                                       |
| Instream Flow Technical Workgroup conference call                                                                                                                                                                                  | KHL                                      | May 19, 2009                                                         |
| Instream Flow Technical Workgroup conference call                                                                                                                                                                                  | KHL                                      | July 16, 2009                                                        |
| File NOI and PAD with FERC and distribute (via email notice) to appropriate Federal, state, and interstate resource agencies, Indian tribes, local governments and members of the public likely to be interested in the proceeding | KHL                                      | August 6, 2009                                                       |
| Conduct Tribal meeting(s)                                                                                                                                                                                                          | FERC                                     | September 6, 2009 [within 30-days of the NOI]                        |
| Comments on use of the TLP                                                                                                                                                                                                         | Interested Parties, Agencies, and Tribes | September 6, 2009 [within 30-days of the NOI and request to use TLP] |
| Instream Flow Technical Workgroup Meeting and Agency Site Visit                                                                                                                                                                    | KHL                                      | September 22-24, 2009 [Voluntary]                                    |
| Commission issues decision on use of TLP                                                                                                                                                                                           | FERC                                     | October 5, 2009 [within 60-days of NOI and request to use TLP]       |
| Consultation with agencies and Tribes to schedule a Joint Meeting                                                                                                                                                                  | KHL                                      | October 5 – October 14, 2009 [within 30-days of TLP decision]        |

*PRE-APPLICATION DOCUMENT*

| <b>Pre-Filing Milestone</b>                                                                                                                                                                                                                                         | <b>Responsible Party</b>                 | <b>Date<br/>[Required Timeframe]</b>                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Advance notice to FERC of Joint Meeting and proposed site visit                                                                                                                                                                                                     | KHL                                      | October 15, 2009 [at least 15-days prior to Joint Meeting]                                                                 |
| Hold Joint Meeting and site visit with agencies and Tribes, and members of the public                                                                                                                                                                               | KHL                                      | November 5, 2009 [between 30 and 60 days of TLP decision]                                                                  |
| Parties provide study determinations and information requests                                                                                                                                                                                                       | Interested Parties, Agencies, and Tribes | November 5, 2009 – January 6, 2010 [Within 60-days of Joint Meeting, unless extension is granted upon request of agencies] |
| Dispute resolution steps (if necessary)                                                                                                                                                                                                                             | KHL, interested parties, FERC            | January – April 2010                                                                                                       |
| Additional study plan development and review meetings proposed by Kenai Hydro to gain feedback during the study implementation phase. Timeframes and meeting dates will be agreed to by Participants and KHL according to the consultation protocol outlined below. |                                          |                                                                                                                            |
| Provide technical memorandum outlining 2009 reconnaissance study results and draft study plans                                                                                                                                                                      | KHL                                      | January 2010                                                                                                               |
| Proposed meeting to discuss 2010 draft study plans                                                                                                                                                                                                                  | KHL                                      | April 14 – April 16, 2010                                                                                                  |
| Issue 2010 final study plans for agency approval                                                                                                                                                                                                                    | KHL                                      | May 8-12, 2010                                                                                                             |
| Conduct studies per study plans and provide periodic agency updates as agreed                                                                                                                                                                                       | KHL                                      | May 2010 – January 2011 (or later as agreed in study plans)                                                                |
| Issue Draft License Application                                                                                                                                                                                                                                     | KHL                                      | May 3, 2011                                                                                                                |
| Submit Final License Application                                                                                                                                                                                                                                    | KHL                                      | September 29, 2011                                                                                                         |
| Expiration of Preliminary Permit                                                                                                                                                                                                                                    | KHL                                      | September 30, 2011                                                                                                         |

### 2.3. Communications and Document Distribution

This Communication Protocol (Protocol) is intended to facilitate communication and cooperation among KHL, federal and state agencies, Indian tribes, native corporations other interested organizations and members of the public (collectively, Participants) during the preparation of KHL's

Application for Original License for the Project. This Protocol is structured based on the assumption that FERC will approve the use of the Traditional Licensing Process (TLP) for the pre-filing consultation period for the Project. Given KHL's understanding based on its outreach efforts that agencies and others are concerned with the rigid timeframes and deadlines of the Integrated Licensing Process (ILP) it believes that the TLP, supplemented by the provisions outlined below, would be the most effective process for completing the necessary pre-filing work while providing for meaningful participation by agencies and other interested organizations.

KHL conducted a successful pre-formal consultation with agencies and other interested stakeholders regarding informal study efforts in 2009. These efforts included face to face meetings, conference calls and field visits, where scheduling of interactions and review periods were worked out in a collaborative fashion. As a result of this collective effort, draft study plans were developed, reviewed, comments provided and revised plans issued in an efficient and effective fashion. KHL hopes to emulate this success utilizing the modified TLP for the formal licensing consultation.

Should the TLP not be approved for use, KHL will continue with consultation utilizing the default ILP and follow the applicable regulations.

This Protocol will govern communications among all Participants and provide public access to information regarding the consultation activities related to the licensing of the Project. The Protocol also applies to communications made by contractors or consultants on behalf of KHL or any of the Participants. This Protocol does not apply to communications solely between Participants, or to any Participant's internal communications.

### **2.3.1. Participation in the Licensing Process**

The licensing process for the Project is open to the general public and interested parties are encouraged to participate. A contact list, compiled by KHL, will be maintained to identify those agencies, organizations, individuals or groups that have been identified as interested parties or who have requested to be included as Participants. The contact list will be used to provide notice of any public meetings, as well as notice of the availability of information for public review. The contact list will be updated periodically by KHL and inactive Participants will be asked annually to re-affirm their interest in participating in the process.

In response to concerns with the TLP identified by agencies and other interested parties, KHL proposes to supplement the TLP process with additional consultation steps to provide an enhanced level of engagement and transparency. These enhancements include:

- Working with agencies and other stakeholders on the scheduling of meetings and conference calls,
- Providing opportunities for the review of draft study plans and study reports and addressing those comments in final plans/reports,



- Allowing for more than the minimum 30 days for review of significant documents when possible without jeopardizing the overall project schedule.

To the extent possible, KHL is committed to working with agencies and other Participants to identify opportunities to make adjustments to timeframes throughout the pre-filing period. Given that this licensing effort will occur within a TLP, these decisions regarding adjustments to timeframes can be made by KHL in coordination with Participants.

### **2.3.2. Maintenance of the Public Reference File**

KHL has developed and will maintain a public reference file at KHL's offices. The public reference file will include copies of all written correspondence (including e-mails), documentation of phone conversations, meeting notices, agendas and summaries, study plans, study reports, status reports, and other documents developed during consultation or submitted for inclusion in the public reference file. All documents in the public reference file will be submitted to FERC as part of the formal licensing record.

KHL will also maintain a website ([www.kenaihydro.com](http://www.kenaihydro.com)) for access to key documents developed during the course of the licensing consultation, such as the PAD and NOI, meeting notices, meeting summaries, study plans, and study reports. The licensing website will also have an information library that allows Participants to access relevant information that KHL has gathered through its due diligence process.

For the duration of the licensing proceeding KHL will also make available to the public for inspection in a form that is readily accessible, reviewable and reproducible during regular business hours, the PAD, materials referenced in the PAD and other information that will make up the complete application for license, including all exhibits, appendices, and any amendments, pleadings, supplementary or additional information, or correspondence filed by KHL with the Commission in connection with the application.

### **2.3.3. Meetings**

KHL shall be responsible for scheduling all consultation meetings involving KHL and Participants. For the meeting specified in 18 CFR Section 4.38(b)(3), KHL will provide the required notice in appropriate local and other forums. KHL will solicit input from Participants on meeting agendas and objectives and will seek to locate meetings to facilitate Participant attendance to most effectively accomplish those objectives.

KHL will notify all Participants of meetings scheduled by KHL at least 30 days prior to the meeting date. This notification may be made in writing, via fax, via email, or by telephone conversation. Under special circumstances, KHL may hold a meeting with less than 30 days notice.

KHL shall propose the meeting agenda and will strive to provide a written meeting agenda to all Participants at least two weeks prior to a scheduled meeting. Participants may submit comments on the agenda to KHL up to one week before the scheduled meeting. KHL will address any proposed changes to the agenda and will distribute a final agenda at the meeting. In addition, the agenda may be modified at the beginning of the meeting.

KHL and all Participants will endeavor to make available all documents and other information necessary to prepare for a consultation meeting at least two weeks prior to the scheduled meeting. In the alternative, materials can be provided at the meeting.

#### **2.3.4. Documentation**

All of the documentation requirements described below apply to substantive communications regarding the licensing of the Project; communications related to procedural matters (e.g., responding to inquiries regarding meeting scheduling) are not subject to the same documentation requirements.

##### *Meeting Summaries*

KHL will be primarily responsible for providing a written summary of the matters addressed at all meetings involving KHL and Participants. A draft meeting summary will be distributed to all meeting attendees within 15 days of the meeting. Any corrections to the draft meeting summary should be submitted to KHL within 15 days. KHL will finalize the meeting summary within 30 days after receiving corrections. If no corrections are submitted, the meeting summary will become final 30 days after the date of the meeting. Final meeting summaries will be posted on the licensing website.

##### *Oral Communications*

Any oral communication (i.e., telephone conversations) between KHL and any Participant regarding any substantive aspect of the Project licensing shall be documented in writing by KHL and included in the public reference file, with a copy provided to those participating in the oral communication.

##### *Technical Documents*

A variety of technical documents will be produced during the course of licensing consultation, including the PAD, study plans, study reports, and draft and final license applications. Whenever comments are solicited on documents, review periods will be established and communicated to Participants. Review periods will typically be 30 days, unless longer periods are required by FERC regulations (e.g., 90 day comment period on the draft application). Participants will strive to provide comments to KHL within the timeframes specified for comment periods. KHL will consider adjusting comment periods, making them either longer or shorter, to better utilize

available time within the course of pre-filing consultation, without jeopardizing the overall project schedule. Any such adjustments will be made with the concurrence of the Participants.

### *Written Correspondence*

Any written correspondence (including e-mails) regarding the licensing of the Project between KHL and Participants will become part of the public reference file.

All written correspondence should be sent to KHL at the following address:

Kenai Hydro, LLC  
Attn: Steve Gilbert  
6921 Howard Ave.  
Anchorage, AK 99504

With a copy sent to:  
Jenna Borovansky  
Long View Associates, Inc.  
P.O. Box 3844  
Coeur d'Alene, ID 83816

Or by email: [SteveG@enxco.com](mailto:SteveG@enxco.com) and [jborovansky@longviewassociates.com](mailto:jborovansky@longviewassociates.com).

### **2.3.5. Distribution of Licensing Documentation**

Distribution of licensing documents will be accomplished primarily by email notice and availability on the KHL web-site ([www.kenaihydro.com](http://www.kenaihydro.com)). If a Participant has indicated a preference to receive hard-copy mailings, KHL will send paper documents through regular mail. A Participant may also request to receive a paper copy of any specific licensing document by contacting Jenna Borovansky at [jborovansky@longviewassociates.com](mailto:jborovansky@longviewassociates.com). Fees in accordance with regulations may apply.

In addition to distribution to all Participants, all licensing documents will be posted on the licensing website ([www.kenaihydro.com](http://www.kenaihydro.com)). Distribution of licensing documents (aside from brief letters, notices, etc.) will include a copy of the distribution list.

### **2.4. Revisions to the Communications Protocol**

This protocol may be revised at any time upon general agreement of KHL and the Participants.

### **2.5. Duration of the Communication Protocol**

This Communications Protocol will remain in effect until FERC notices that the License Application is accepted for filing.

### **3 PROJECT LOCATIONS, FACILITIES, AND OPERATIONS**

#### **3.1. Authorized Agents for the Applicant**

The name, business address, and telephone number of each person authorized to act as agent for the Applicant are as follows:

Steve Gilbert  
Manager  
Kenai Hydro, LLC  
6921 Howard Ave.  
Anchorage, Alaska 99504  
907-333-0810

Brad Zubeck  
Project Engineer  
Kenai Hydro, LLC  
280 Airport Way  
Kenai, Alaska 99611  
907-335-6204

#### **3.2. Project Location**

The proposed Grant Lake/Falls Creek Hydroelectric Project would be located near the community of Moose Pass, Alaska (pop. 206), approximately 25 miles north of Seward, Alaska (pop. 3,016), just east of the Seward Highway (State Route 9); this highway connects Anchorage (pop. 279,671) to Seward. The Alaska Railroad parallels the route of the Seward Highway, and is also adjacent to the Project area. The community of Cooper Landing (pop. 369) is located 24 miles to the northwest and is accessible via the Sterling Highway (State Route 1) which connects to the Seward Highway approximately 10 miles northwest of Moose Pass. The proposed Project location is in the mountainous terrain of the Kenai Mountain Range.

Land ownership and the proposed locations for Project facilities are shown in Figure 3.2-1. (Appendix 1 includes larger scale versions of the figure.)

Proposed project facilities and land ownership

Figure 3.2-1

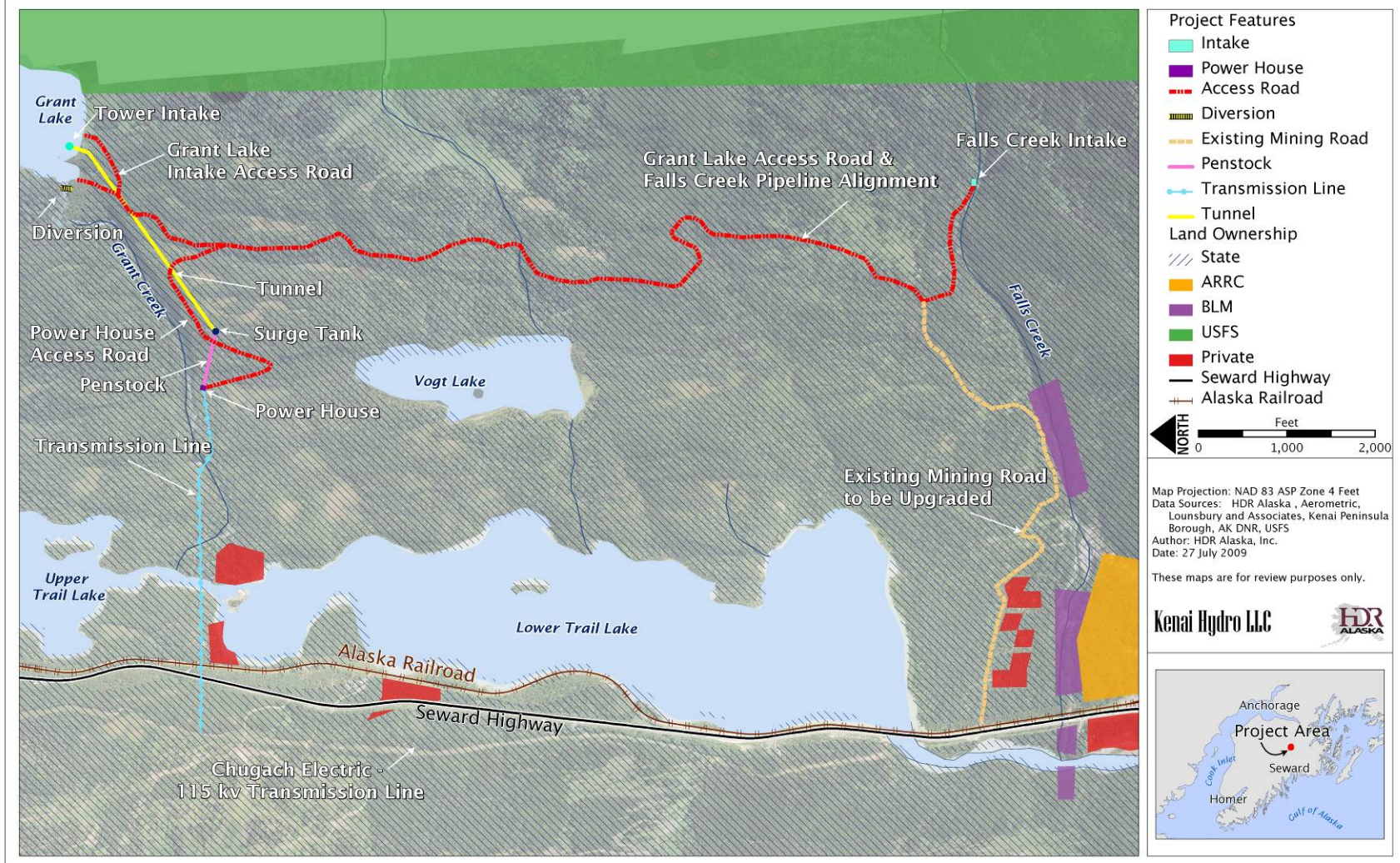


Figure 3.2-1. Proposed Project facilities and land ownership.



### **3.2.1. Grant Lake and Grant Creek Development**

KHL was issued a preliminary permit to investigate a proposed hydropower development on Grant Creek near the outlet of Grant Lake. Several potential alternatives were reviewed for this project; the most promising alternative would use approximately 48,000 acre-feet of storage during operations between pool elevations of 675 and 706 feet. Storage would be obtained by raising the natural level of Grant Lake using a low diversion at the outlet and drawing down Grant Lake below its natural water level. The proposed lake level would range from approximately 9 feet above up to 25 feet below the natural lake elevation. A multi-level intake would be constructed near the diversion structure. An approximate 2800-foot-long, 10-foot diameter horseshoe tunnel will convey water from the intake to directly above the powerhouse at about elevation 650 from mean sea level (MSL). At the outlet to the tunnel a 650-foot-long section of penstock will convey water to the powerhouse located at about elevation 518-foot MSL. The tailrace would be located in order to minimize impacts to fish habitat by returning flows to Grant Creek upstream of the most productive fish habitat.

### **3.2.2. Falls Creek Development**

KHL was issued a preliminary permit to investigate a proposed hydropower project on Falls Creek. Upon investigation, the most feasible alternative is to combine the Falls Creek development with the Grant Lake/Grant Creek development, and divert water from Falls Creek via an approximately 13,000-foot-long pipe into Grant Lake to create increased generation capability at the proposed generation facility located on Grant Creek.

### **3.3. Proposed Project Facilities**

The Project will consist of two developments – a Grant Lake/Grant Creek development and a Falls Creek development. The Grant Lake/Grant Creek development is comprised of a diversion dam at the outlet to Grant Lake, an intake structure in Grant Lake, a tunnel, a potential surge tank, a penstock, a powerhouse, access roads, a step-up transformer, a breaker, an overhead transmission line, and a switchyard. The powerhouse will contain two Francis turbine generating units with a combined rated capacity of 4.5 MW with a total design flow of 350 cfs.

Additionally, a Falls Creek development will be constructed in order to divert water from Falls Creek to Grant Lake. Falls Creek will be diverted into Grant Lake during the spring, summer and fall months to provide additional flows into Grant Lake for subsequent power generation. The Falls Creek development is comprised of a diversion dam, a pipeline between Falls Creek and Grant Lake, and an access road.

Conceptual drawings of proposed Project facilities are included in Appendix 2.

### 3.3.1. Summary of Project Features

The proposed Project features have been developed based upon existing physical and environmental information and are conceptual in nature. As part of the pre-filing consultation process additional information will be obtained through technical and environmental studies, research and consultation with equipment manufacturers and resource agencies. As new information becomes available, the design features presented below can be expected to be refined and/or modified to accommodate any changed conditions, including maintenance of instream flow requirements.

Project features as currently envisioned are summarized in Table 3.3-1 and described in this section.

| <b>SUMMARY OF PROJECT FEATURES</b>         |                                             |
|--------------------------------------------|---------------------------------------------|
| <b>Number of Generating Units</b>          | 2                                           |
| <b>Turbine Type</b>                        | Francis                                     |
| <b>Rated Generator Output</b>              |                                             |
| Unit 1                                     | 1.2 MW                                      |
| Unit 2                                     | 3.3 MW                                      |
| <b>Maximum Rated Turbine Discharge</b>     |                                             |
| Unit 1                                     | 100 cfs                                     |
| Unit 2                                     | 250 cfs                                     |
| <b>Turbine Centerline Elevation</b>        | 521.0                                       |
| <b>Normal Tailwater Elevation</b>          |                                             |
| Minimum                                    | 512.0                                       |
| Maximum                                    | 515.0                                       |
| <b>Average Annual Energy</b>               | 23,430 MWh                                  |
| <b>Normal Maximum Reservoir Elevation</b>  | 706.0                                       |
| <b>Normal Minimum Reservoir Elevation</b>  | 675.0                                       |
| <b>Gross Head</b>                          | 191.0 feet                                  |
| <b>Net Head at Maximum Rated Discharge</b> | 170.4 feet                                  |
| <b>Grant Lake</b>                          |                                             |
| Drainage Area                              | 44.0 sq. mi.                                |
| Surface Area at Elevation 706.0            | 1,790 acres                                 |
| Active Storage Volume                      | 48,000 acre feet (Elevation 706.0 to 675.0) |
| Average Annual Natural Outflow             | 139,650 acre feet                           |
| Average Annual Natural Outflow             | 192.9 cfs                                   |
| <b>Grant Creek Diversion</b>               |                                             |
| Type                                       | Concrete Gravity Dam                        |
| Maximum Height                             | 10 feet                                     |
| Overall Width                              | 120 feet                                    |
| Spillway Crest Length                      | 60 feet                                     |
| Crest Elevation                            | 706                                         |
| <b>Water Conveyance</b>                    |                                             |
| Intake                                     | Tower                                       |

## PRE-APPLICATION DOCUMENT

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| Invert Elevation                      | 660                                        |
| <i>Lower Pressure Pipeline</i>        |                                            |
| Type                                  | Welded Steel                               |
| Length                                | 200 feet                                   |
| Diameter                              | 96 inches                                  |
| <i>Pressure Tunnel</i>                |                                            |
| Type                                  | 10-foot Horseshoe                          |
| Length                                | 2,800 feet                                 |
| Velocity at Maximum Turbine Discharge | 3.9 fps                                    |
| <i>Surge Tank</i>                     |                                            |
| Diameter                              | 96 inches                                  |
| Base Elevation (Preliminary)          | 650                                        |
| Top Elevation (Preliminary)           | 760                                        |
| <i>Penstock</i>                       |                                            |
| Type                                  | Welded Steel                               |
| Length                                | 650 feet                                   |
| Diameter                              | 66 inches                                  |
| <b>Falls Creek Diversion</b>          |                                            |
| Type                                  | Concrete Gravity Dam                       |
| Maximum Height                        | 10 feet                                    |
| Crest Length                          | 50 feet                                    |
| Crest Elevation                       | 800                                        |
| <b>Falls Creek Pipeline</b>           |                                            |
| Type                                  | Welded Steel                               |
| Length                                | 13,000 feet                                |
| Diameter                              | 42 inches                                  |
| <b>Powerhouse</b>                     |                                            |
| Approximate Dimensions                | 45 feet x 60 feet x 30 feet high           |
| Finished Floor Elevation              | 518                                        |
| <b>Tailrace</b>                       |                                            |
| Type                                  | Open Channel                               |
| Length                                | 200 feet                                   |
| <b>Transmission Line</b>              |                                            |
| Type                                  | Overhead                                   |
| Length                                | 4,100 feet                                 |
| Voltage                               | 115 kV                                     |
| <b>Access Roads</b>                   |                                            |
| Type                                  | Single lane gravel surfacing with turnouts |
| Length                                | 3.4 miles                                  |

**Table 3.3-1.** Summary of proposed Project features.**3.3.1.1. Grant Creek Diversion**

A concrete gravity diversion structure will be constructed near the outlet of Grant Lake. The dam will have a maximum height of approximately 10 feet and will have an overall width of approximately 120 feet. The center 60 feet of the dam will have an uncontrolled spillway section



with a crest elevation at 706 MSL. The abutments will have a top elevation of 716 MSL. The spillway will have a flood capacity of 4,200 cfs with 3 feet of freeboard.

A low level outlet will be constructed on the north abutment of the diversion dam. The outlet works will be contained in a valve house constructed integral with the diversion structure. This outlet will be used during the construction of the intake on Grant Lake. The valve house will contain a regulating valve, controls, and associated monitoring equipment. The outlet will discharge into Grant Creek immediately below the diversion. This low level outlet will aid in construction of the intake by lowering the lake level. The outlet will also be available to provide instream flow to the reach of Grant Creek between the intake and the powerhouse tailrace. The potential need for instream flow in this reach of Grant Creek will be examined during licensing studies.

#### **3.3.1.2. *Grant Lake Intake***

The water intake will be a free-standing concrete tower structure located approximately 500 feet east of the natural outlet of Grant Lake and approximately 120 feet off-shore. The intake structure will have base dimensions of approximately 20 feet by 20 feet. At the top of the intake will be a small gate house to contain the gate hoist mechanism and controls. The intake will be connected to the shore by a narrow access bridge at elevation 720 MSL.

The intake will allow for drawdown of Grant Lake to elevation 675 MSL thereby creating 48,000 acre-feet of active storage for the project between elevations 706 MSL and 675 MSL. The invert of the intake will be at elevation 660 to provide for adequate submergence. The intake will consist of multiple levels to allow the Project to draw water near the surface during all seasons of operation. The front of the intake will be protected by a steel trashrack. Downstream of the trashracks will be a shut-off gate. A 200-foot-long, 8-foot diameter steel pipeline section will connect the intake to the power tunnel.

#### **3.3.1.3. *Tunnel***

An approximately 2,800-foot-long, 10-foot diameter horseshoe tunnel will convey water from the intake to directly above the powerhouse at about elevation 650 MSL. It is expected that the tunnel will be supported with rock bolts and shotcrete. It may be partially lined depending upon the geotechnical conditions encountered during excavation.

#### **3.3.1.4. *Penstock and Surge Tank***

At the outlet to the tunnel a short section of penstock will convey water to the powerhouse. The penstock will be constructed of welded steel and will be approximately 650-feet-long and will have an outside diameter of 66 inches. Additional engineering work will be done to determine the feasibility of utilizing a surge tank located at the beginning of the penstock. Preliminary

designs propose an 8-ft diameter by 110-ft high structure, however the height could be reduced depending on alternative generator design, constructing this tank into the slope or integral to the tunnel, or using a synchronous bypass valve. The surge tank will have a base elevation of 650 MSL with a top elevation of 760 MSL if built to maximum height proposed. The penstock will bifurcate to the two turbines immediately upstream of the powerhouse.

#### **3.3.1.5. *Tailrace***

The tailrace will be an open channel approximately 200-feet-long and will convey water back to Grant Creek at approximately elevation 508 MSL. The tailrace will be excavated from in-situ material and armored with riprap to prevent erosion.

#### **3.3.1.6. *Falls Creek Diversion/Intake***

Diversion of Falls Creek will be made via a concrete diversion structure. The diversion dam will have a crest elevation of 800 MSL and a crest width of approximately 50 feet. The intake structure will consist of a small concrete box type of structure located on the right bank of Falls Creek, approximately 1.4 miles from the mouth of Falls Creek. The front of the intake will be protected by a trashrack. Stoplog slots will be located downstream of the trashrack to provide a means to dewater the intake during periods of maintenance. A small valve house will be located immediately downstream of the intake. The valve house will house the pipeline shut-off valve and operator and level control and flow sensors. If studies support the need for maintaining instream flows downstream of the diversion, water can be allowed to spill over the spillway by reducing flows through the pipeline.

#### **3.3.1.7. *Falls Creek Pipeline***

An approximate 13,000 foot-long welded steel penstock will convey water from the Falls Creek intake to Grant Lake. The pipeline will have a diameter of 42 inches corresponding to a maximum flow rate of 150 cfs. The pipeline will be of above-ground construction on simple saddle supports approximately 40 feet on center. The pipeline will have an epoxy lining and coating to prevent corrosion. The pipeline will enter Grant Lake through an energy dissipating channel which will start at the new high lake elevation and continue to the proposed low lake elevation.

#### **3.3.1.8. *Powerhouse***

The powerhouse will be located on the south bank of Grant Creek near the end of the canyon section of the creek. The powerhouse will be approximately 45 feet by 60 feet by 30 feet high and will have a finished floor elevation of 518 MSL. The powerhouse will be a pre-engineered metal building on a concrete foundation.

The powerhouse will contain two horizontal Francis type turbine/ generator units with a rated total capacity of 4,500 kW, guard valves, and associated switchgear and controls. Unit 1 will have a design flow of 100 cfs and a rated capacity of 1,200 kW. Unit 2 will have a design flow of 250 cfs and a rated capacity of 3,300 kW. Centerline of the turbine and generator units will be approximately 521 MSL. Tailwater elevation at the powerhouse will range from approximate elevations 512 MSL to 515 MSL depending upon output level. The turbines could operate over a range of flows from the maximum of 350 cfs to a minimum of around 30 cfs depending on conditions. The powerhouse will also contain a bypass valve to release flows during power generation outages.

#### **3.3.1.9.      *Transmission Line/Switchyard***

The switchyard at the powerhouse will consist of a pad-mounted disconnect switch (i.e., breaker) and a pad-mounted step-up transformer. An overhead 115 kV transmission line would run from the powerhouse approximately 4,100 feet to a point of interconnection directly west where it would intersect the existing 115 kV transmission line. At the intersection a switchyard would be constructed in consultation with the existing transmission line owner. The route would attempt to incorporate setbacks to the creek and alignment changes to minimize visual impacts as viewed from the Seward Highway.

The poles would be designed as tangent line structures on about 300 foot centers. Design of the line will also incorporate the latest raptor protection guidelines. Collision avoidance devices will be installed on the line at appropriate locations to protect migratory birds.

#### **3.3.2. Proposed Project Boundary**

The Project Boundary will encompass each of the Project features described above in the Grant Creek and Falls Creek drainages, and the area of Grant Lake up to approximately contour elevation 720. The corridors for the access roads, penstock and transmission line will be approximately 50-75 feet from each side of the centerline. The specific delineation of the proposed Project Boundary, in terms of survey coordinates, will be made after study work has been completed and will be included as part of the License Application.

#### **3.3.3. Proposed Construction and Development Schedule**

The Project will be constructed over a 30-36 month timeframe after the issuance of the License. Construction will begin in the April timeframe with the construction of access roads immediately followed by the start of tunnel construction. Construction of the Grant Lake diversion dam and intake will be performed by first drawing down the lake elevation using a pair of diversion trenches cut through the outlet of the lake. This method will allow the lake to be drawn down to approximately elevation 680 MSL over the winter. Next the intake will be constructed behind an in-situ rock cofferdam. Once the intake and tunnel are complete the in-situ cofferdam will be

removed by blasting. The Grant Lake diversion dam will be constructed at the same time in parallel.

Construction of the Falls Creek diversion structure will be performed in two phases. In the first phase, the creek will be diverted to the left side to allow construction of the intake box and sluiceway. In phase two, water will be diverted to the right bank and through the sluiceway to allow construction of the main body of the diversion.

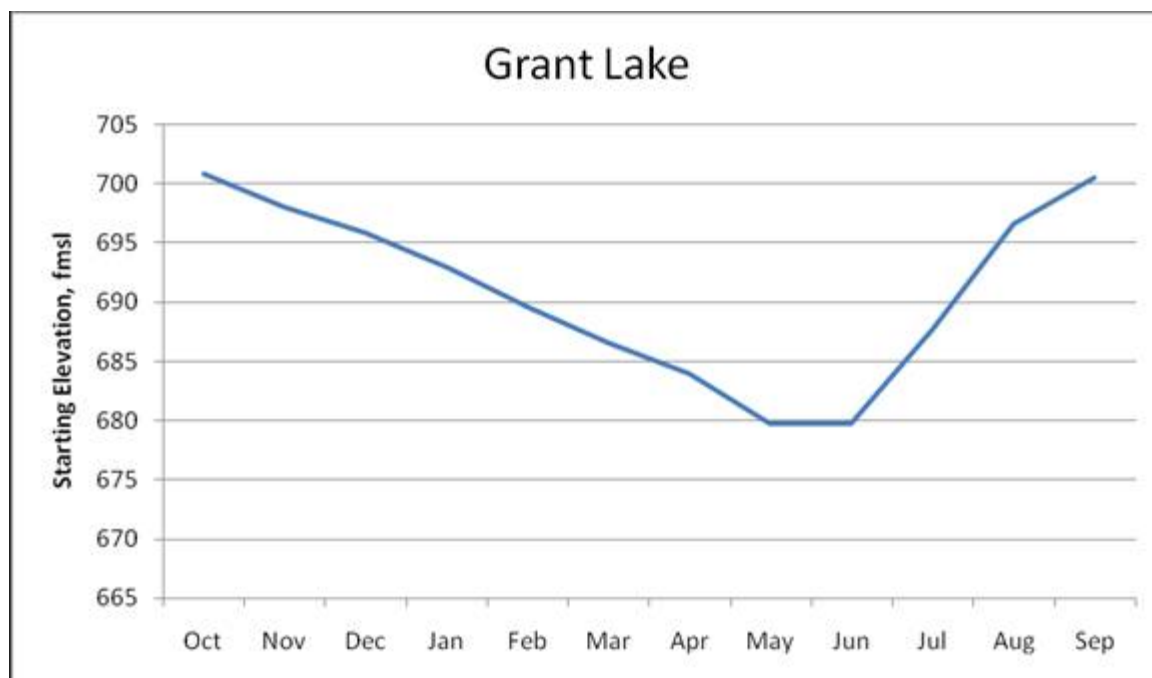
### **3.4. Project Operations**

#### **3.4.1. Proposed Project Operations**

Two modes of operation are likely for the Project: block loading or level control (run-of-river). The primary operational mode will be block loading at a specific output level. Level control, or balancing of outflow to inflow, will likely only occur during periods of low natural inflow to Grant Lake when the reservoir is at or near minimum pool elevation. Due to the small size of the Project in relation to the size of the interconnected system, the Project is not likely to be used to load follow.

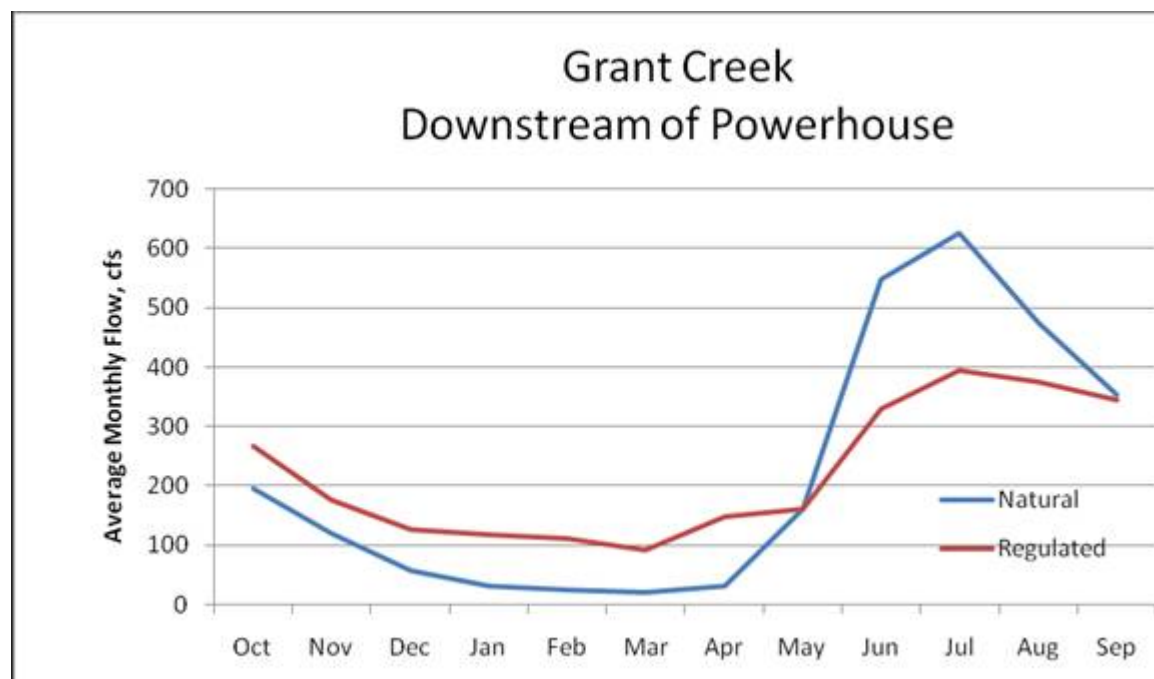
With Grant Lake operating as a regulating reservoir, the typical mode of operation will be to capture high spring and summer runoff and to enter the late fall and winter season with the reservoir full at elevation 706 MSL. During the winter months when the energy is needed most on the system, the reservoir will be systematically drafted to produce energy throughout the winter. The rate at which water is drawn from storage will decrease gradually until reaching a base rate of approximately 100 cfs. Occasionally, the Project may run at higher capacities to meet system needs at intermittent times. However, the amount of time the Project could operate at higher outputs would be limited by available storage. This process will continue until the reservoir begins to refill with snowmelt (typically around May). During the summer months when inflow exceeds powerhouse capacity, the Project will most often run continuously at peak capacity. During the months of May through October, up to 150 cfs will be diverted from Falls Creek into Grant Lake to supplement reservoir refilling and energy generation.

Expected average annual reservoir fluctuations are shown in Figure 3.4-1. Due to the amount of storage, there will be negligible carryover storage from one year to the next. The maximum lake level drawdown will be to 675 MSL, but actual drawdown will be dependent on water inflow and operational scenarios.



**Figure 3.4-1.** Estimated Grant Lake elevations with proposed Project operations.

Flows in Grant Creek are naturally high during the summer when snowmelt is occurring and low in the winter when temperatures are below freezing. With the proposed Project in operation, the high flows in the summer will be stored and released later in the season. Figure 3.4-2 shows the effect of this operation.

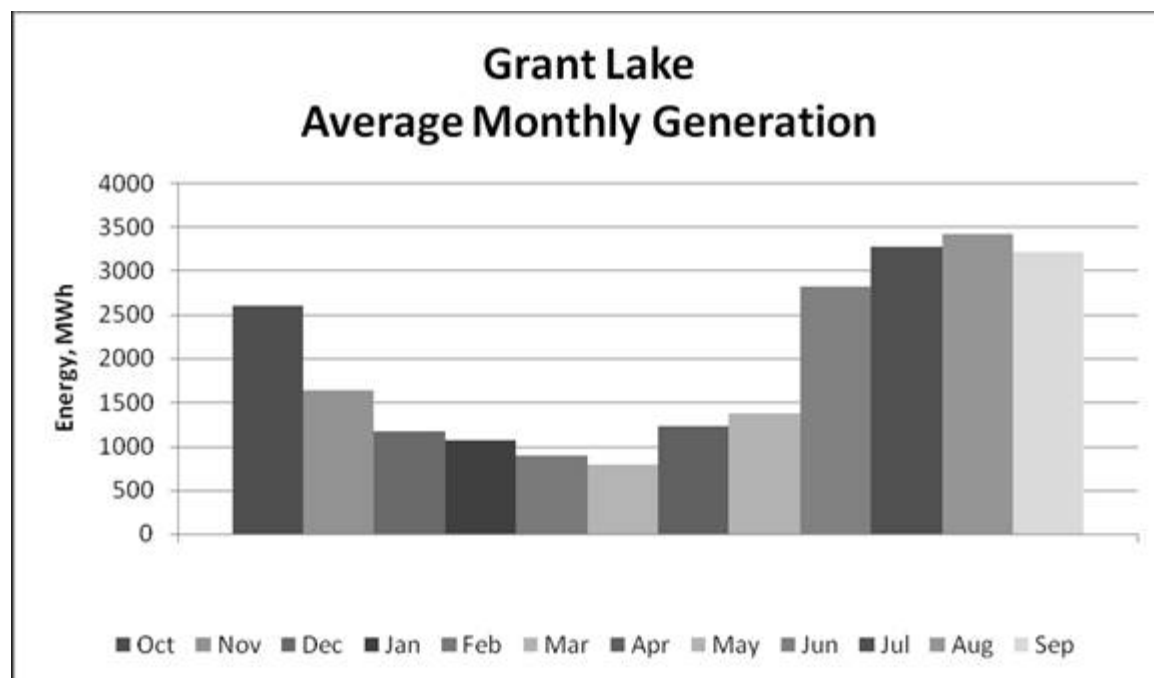


**Figure 3.4-2.** Estimated average monthly flows in Grant Creek downstream of the proposed powerhouse location.

Flows in Grant Creek downstream of the tailrace are expected to vary from the minimum flow requirement determined to be needed in the creek to a flow rate that will be a combination of turbine discharges, natural inflow, and bypassed flows.

### 3.4.2. Project Capacity and Production

The Project will have an installed capacity of 4,500 kW. Estimated energy production was simulated using a computer model utilizing daily flows, reservoir characteristics, assumed equipment data, and no required flows in the reaches below the Grant Lake diversion to the powerhouse or below the Falls Creek diversion. The predicted average annual energy from the Project is 23,400 MWh representing a plant factor of 59%. Monthly generation is assumed to vary as shown in Figure 3.4-3. Estimates will be revised once instream flow studies are completed, and any flow requirements below the Grant Lake and Falls Creek diversions are determined.



**Figure 3.4-3.** Grant Lake estimated average monthly generation.

### 3.4.3. Summary of Project Generation

The proposed Project is a new facility. As such there is not a record of generation.

## 4 DESCRIPTION OF EXISTING ENVIRONMENT AND RESOURCE IMPACTS

### 4.1. Summary

The hydroelectric potential at Grant Lake has been evaluated several times as a potential power source for the Seward/Kenai Peninsula area. In 1954, R.W. Beck and Associates (cited by APA 1984) prepared a preliminary investigation and concluded that a project was feasible. The U.S. Geological Survey (USGS) conducted geologic investigations of proposed power sites at Cooper, Grant, Ptarmigan, and Crescent Lakes in the 1950s (Plafker 1955). In 1980, CH<sub>2</sub>M Hill (cited by APA 1984) prepared a pre-feasibility study for a Grant Lake Project and also concluded that a project developed at the site would be feasible. The Grant Lake Project was referenced in the 1981 U.S. Army Corps of Engineers (USACE) National Hydroelectric Power Resources Study (USACE 1981). The most extensive study was performed by Ebasco Services, Inc. in 1984 for the Alaska Power Authority (now Alaska Energy Authority; APA 1984). Two of the alternatives evaluated by Ebasco included the diversion of flows from the adjacent Falls Creek into Grant Lake to provide additional water for power generation. Kenai Hydro, Incorporated further

refined the APA (1984) proposals in a license application to FERC (Kenai Hydro, Incorporated 1987). Kenai Hydro, LLC is not affiliated with Kenai Hydro, Incorporated.

During the licensing process, KHL will be investigating the feasibility of diverting a portion of Falls Creek flows to the proposed powerhouse on Grant Creek. Background literature and field research conducted to support the APA's impact study is reported in AEIDC (1983). The project proposal in the 1980s contemplated a different project configuration, including dewatering of Falls and Grant Creek, therefore while baseline information from these earlier studies is presented below, the potential impacts of the proposed Project described by this PAD may be different than those impacts described in the 1980s impact analyses. Nonetheless, this PAD relies heavily on the research conducted previously for the majority of the resource evaluation presented in the following section.

HDR Alaska, Inc. is under contract to Kenai Hydro, LLC to conduct field studies and supplemental literature reviews to supplement the existing information presented in this PAD as the FERC licensing process proceeds.

## **4.2. Basin Overview**

### **4.2.1. Description of the Grant Lake, Grant Creek, and Falls Creek Basin**

#### **4.2.1.1. Basin Description and Drainage Area**

Grant Lake is located approximately 1.5 miles southeast of Moose Pass, Alaska. It is located at an elevation of approximately 696 feet from mean sea level (MSL), with a maximum depth of nearly 300 feet and surface area of 2.6 square miles (APA 1984). The Grant Lake and Grant Creek watershed has a total drainage area of approximately 44 square miles. Grant Lake consists of an upper and lower portion separated by a natural constriction and island near the lake's midpoint. The lake is ringed by mountains of the Kenai Mountain Range to the east, north, and south, with elevations ranging from 4,500 to 5,500 feet.

Grant Lake's only outlet, Grant Creek, runs west approximately 1 mile from the south end of Grant Lake to drain into the narrows between Upper and Lower Trail Lake. Trail River drains Lower Trail Lake, and then flows into Kenai Lake. Kenai Lake drains into the Kenai River at its west end near Cooper Landing (APA 1984). Grant Creek has a mean annual flow of 193 cubic feet per second (cfs), is 5,180 ft long, with an average gradient of 207 feet per mile; its substrate includes cobble and boulder alluvial deposits and gravel shoals (APA 1984). The stream is 25 feet wide on average. In its upper half, the stream passes through a rocky gorge with three substantial waterfalls; in its lower half, the stream becomes less turbulent as it passes over gravel shoals and diminishing boulder substrate (APA 1984).

The Falls Creek watershed is about 12 square miles and has an estimated average annual flow of 38 cfs, with a stream length of 8 miles, and an average stream gradient of 418 feet per mile (APA



1984). The creek runs through a very confined, steep walled valley with numerous waterfalls. The substrate consists of cobble and boulder deposits with a few gravel bars and fine silt near the mouth (APA 1984). Falls Creek occupies the valley immediately south of the Grant Lake Valley, and drains into the Trail River approximately 1.8 miles downstream of the mouth of Grant Creek and 0.5 miles north of the town of Crown Point.

#### ***4.2.1.2. Tributaries Potentially Affected by Project Operations***

##### ***Grant Lake Tributaries***

Tributaries to Grant Lake include Inlet Creek at the headwaters and other small glacial-and snowmelt fed streams in the watershed.

##### ***Grant Creek Tributaries***

The majority of Grant Creek flow is from Grant Lake. There is one unnamed tributary to Grant Creek, located downstream of the lake outlet and proposed powerhouse location. It is thought to be intermittent. Instantaneous flow measurements will be taken during the 2009 field season to characterize the unnamed tributary's hydrologic input into Grant Creek (HDR 2009a). No other significant tributaries are known to exist.

##### ***Falls Creek Tributaries***

Falls Creek has no major tributaries, with water originating primarily from snowmelt.

##### ***Trail River/Trail Lake***

Grant Creek and Falls Creek are both tributaries to the Trail Lake/Trail River system. Upper and Lower Trail Lakes flow into the Trail River, which is a tributary to Kenai Lake.

#### ***4.2.1.3. Dams and Diversion Structures in the Basin***

There are no existing dams or diversion structures in the Grant Lake, Grant Creek, or Falls Creek drainages.

### **4.2.2. Land and Water Uses**

#### ***4.2.2.1. Grant Lake and Grant Creek***

Alaska Department of Natural Resources records were reviewed to gather information on land status, mining claims, and water rights within the proposed Grant Lake Development (HDR 2008a). Land status in the proposed Grant Lake/Falls Creek Project area is shown in Figure 4.2-1. (Appendix 1 includes a large scale version of Figure 4.2-1.) Lands surrounding Grant Lake are primarily federally owned and are managed by the Chugach National Forest, with state

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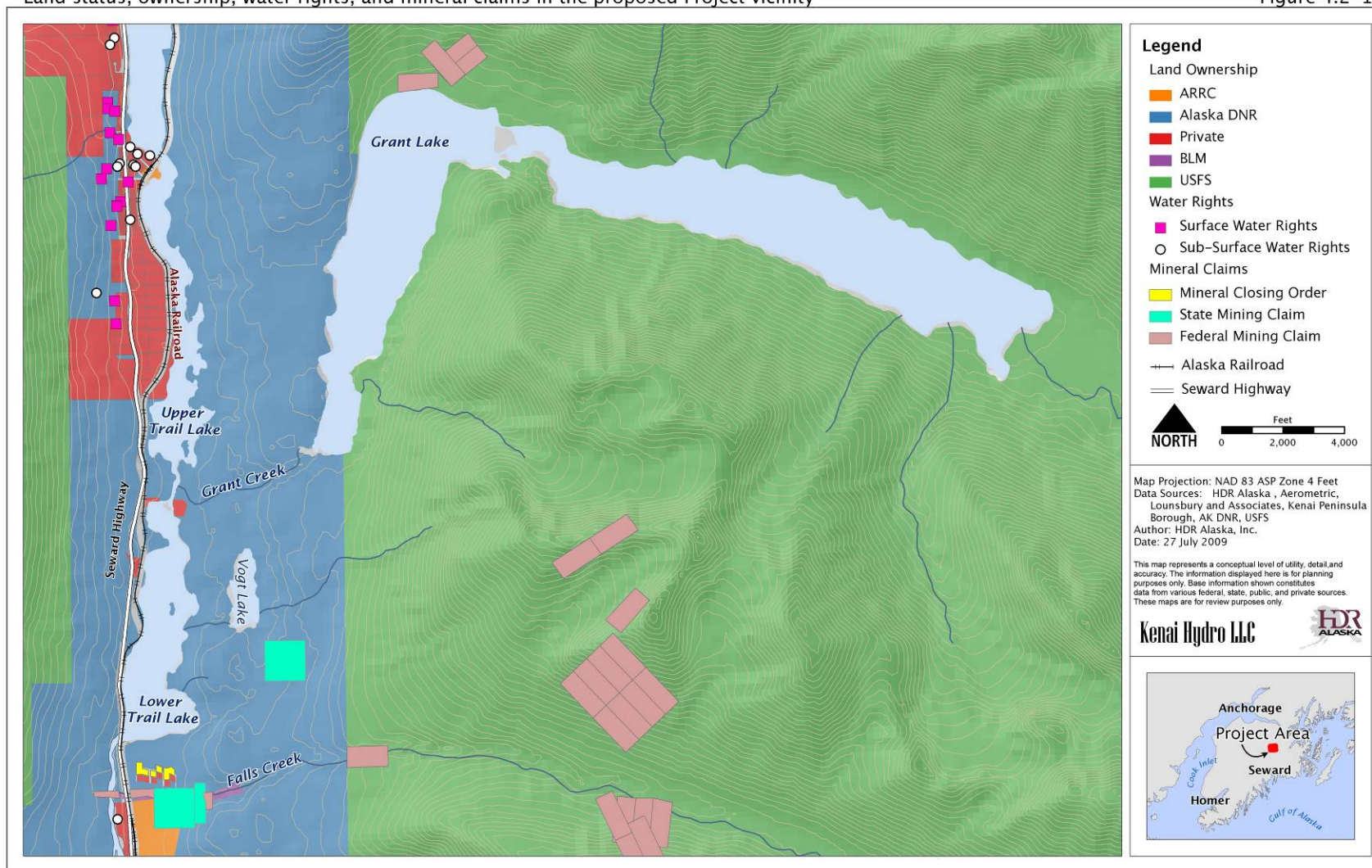
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ownership west of Grant Lake to the Seward highway and along Grant Creek. State lands are managed by the Alaska Department of Natural Resources (ADNR). There is a limited amount of private ownership (mainly rural residential) in the lower portions of the Grant Creek drainage. The proposed Project's facilities would be located on state land managed by ADNR.

Four mining claims were identified on federal lands on the north side of Grant Lake's lower basin, and their locations are shown on Figure 4.2-1. There is active mining occurring at this location. No documented water rights were found within the Grant Lake drainage area. (HDR 2008a).

Land status, ownership, water rights, and mineral claims in the proposed Project vicinity

Figure 4.2-1



**Figure 4.2-1.** Land status, ownership, water rights, and mineral claims in the Project vicinity.

#### **4.2.2.2. Falls Creek**

Research was conducted on land status, mining claims, and water rights within the vicinity of the proposed Falls Creek Development (HDR 2008b). Land ownership surrounding Falls Creek is shown in Figure 4.2-1. The proposed Falls Creek Development will be located on state lands. There is a parcel of BLM managed land, and there are numerous private landowners along the Seward Highway and the mining access road below the Development (Figure 4.2-1).

Sixteen federal mining claims and four state mining claims exist within the proposed Falls Creek Development (Figure 4.2-1). Several of these lie within the location of the preferred intake site. It is unknown whether these are active mining claims, or the extent to which they may be impacted by Project development. This will be investigated further during pre-licensing activities.

One subsurface water right was identified at the far west end of the proposed Project area near the Trail River, but it is unlikely to be affected by the Falls Creek Development.

### **4.3. Geology and Soils**

#### **4.3.1. Introduction**

Grant Lake is a glacier-formed lake surrounded by the Kenai Mountain Range in south-central Alaska. Its right-angle bend is indicative of the diversion of a side glacier at its intersection with the major southward moving glaciers, a morphology characteristic of the east-west trending Grant Lake and Kenai Lake valleys that have nearly right-angle bends where they intersect the major north-south trending lowlands. The surrounding mountains rise to over 5,000 feet elevation and contain many small glaciers at the heads of most of the major valleys. The geology of the proposed Project site and vicinity is associated with the upper Cretaceous age of the Mesozoic era and is between 64 and 100 million years old. Most of Grant Lake and is underlain by low-grade metamorphosed sedimentary rock, predominantly greywacke and slate. This area of Alaska is also one of the most seismically active regions in the world, being located above the Alaska-Aleutian megathrust fault that extends eastward along the Aleutian arc into south-central Alaska.

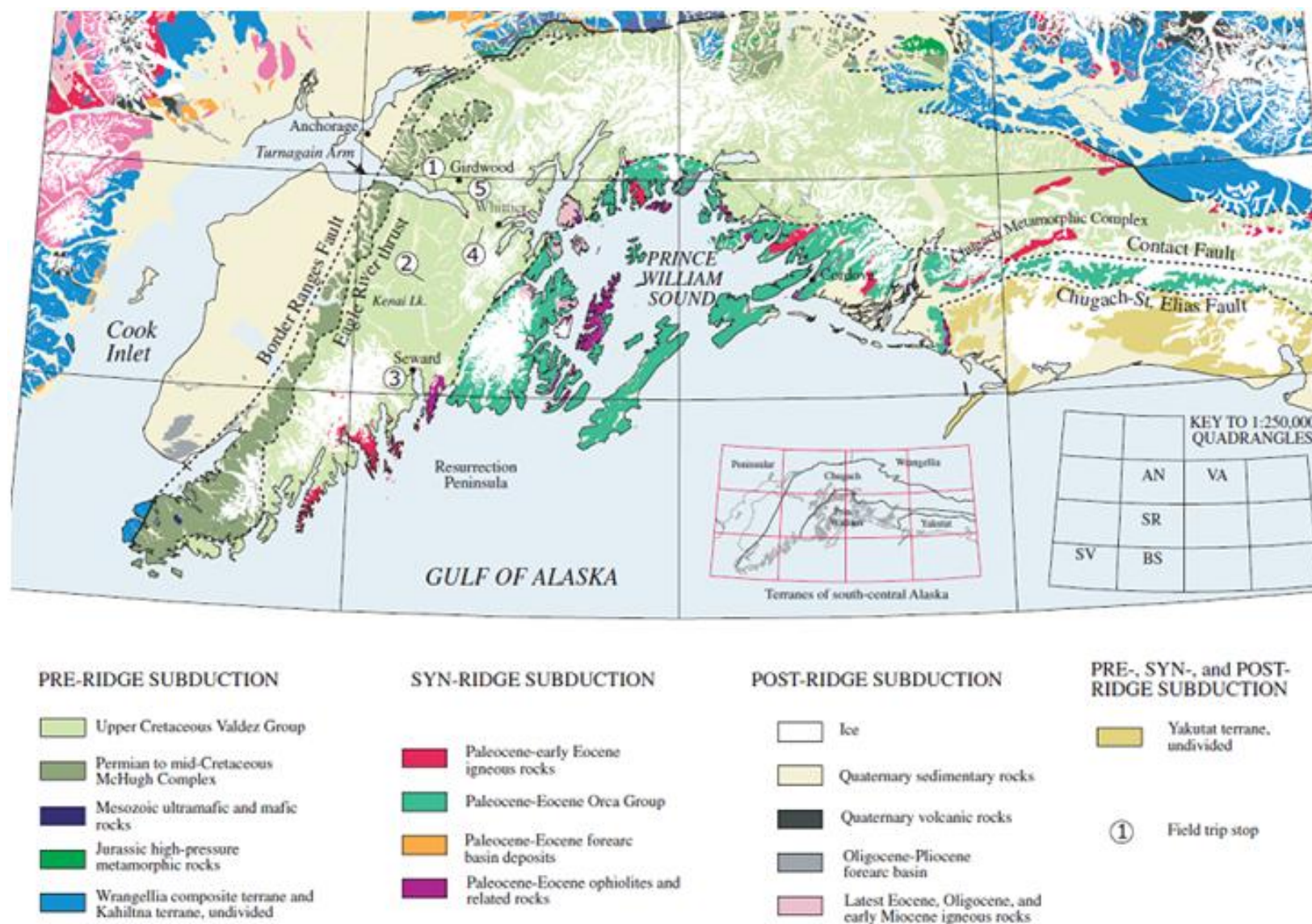
#### **4.3.2. Geology**

##### **4.3.2.1. Regional Geology and Tectonics**

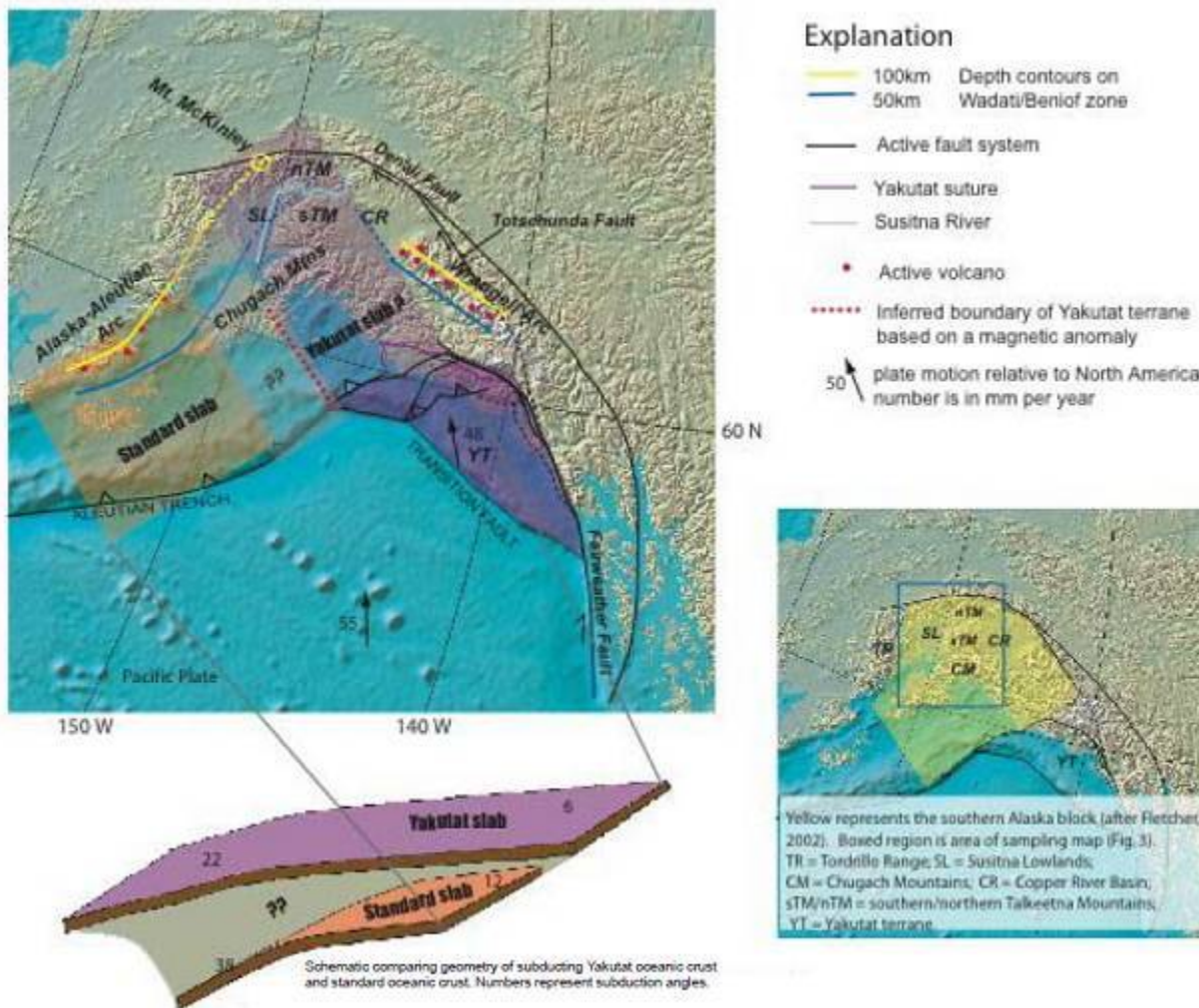
The proposed Grant Lake Development will be located on Grant Lake within the Cook Inlet Basin in the Pre-Ridge Subduction Upper Cretaceous Valdez Geologic Group (Figure 4.3-1) (Bradley et al. 2003). The Cook Inlet Basin is located in the fore-arc region of the convergent plate margin in southern Alaska. The basin lies directly above the Aleutian subduction zone, and the northeastern part of the basin overlies the transition from the subduction of Pacific oceanic

lithosphere to the subduction of the Yakutat terrane, an allochthonous fragment of the North American continental margin. The transition from Pacific to Yakutat lithosphere is marked by widening of the low-angle subduction interface from about 200 kilometers to more than 400 kilometers proceeding from southwest to northeast, and a change in trend of the Benioff zone from northeast beneath Cook Inlet Basin to north-northeast beneath the Susitna River Basin as illustrated in Figure 4.3-2. The Susitna River and Cook Inlet basins form part of the structurally diffuse western boundary of the intra-continental Southern Alaska tectonic block, which is driven counter-clockwise in response to accretion and subduction of the Yakutat terrane (Bruhn 2006).





**Figure 4.3-1.** Generalized geologic map of south-central Alaska, from Bradley et al. (2003).

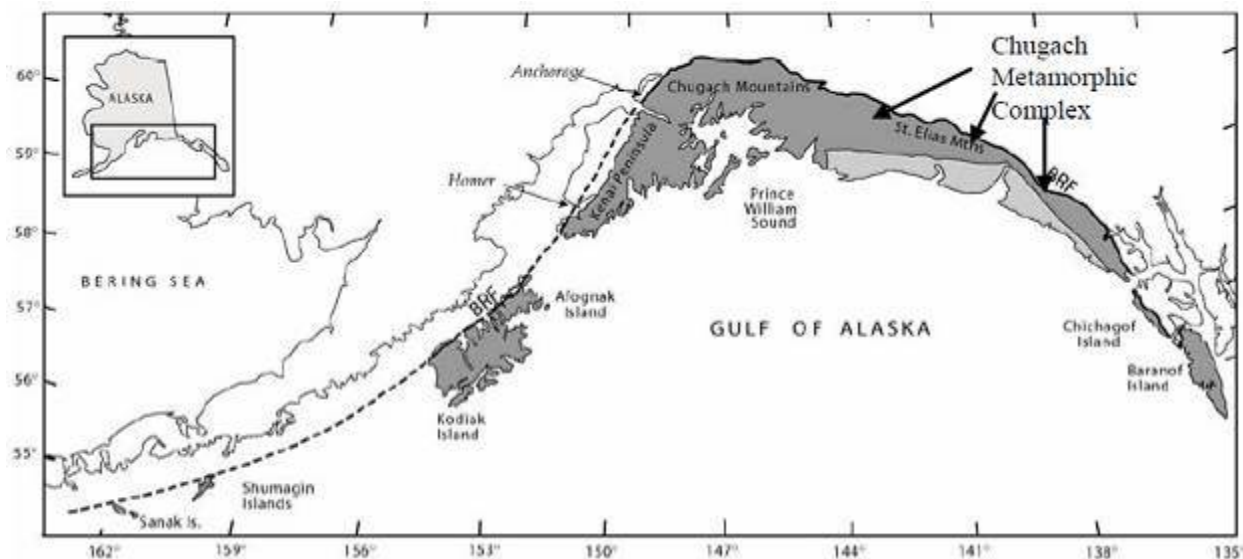


**Figure 4.3-2.** Tectonic setting of southern Alaska and Cook Inlet Basin showing subduction of Pacific plate and Yakutat microplate. Insert on lower right shows Southern Block outlined in yellow. Figure prepared by J. Willis, University of Utah (cited in Bruhn 2006).

The basin is filled by uppermost Cretaceous through Quaternary strata that were deposited in a northeast-trending trough and bordered by uplift accretionary complex rocks of the Chugach and Kenai Mountains and the plutonic and volcanic belt of the Alaska-Aleutian Range (Bruhn 2006). The structural contact between the crystalline rocks and accretionary complex is the Border Ranges Fault shown in Figure 4.3-3 (Pavlis 2006). Mesozoic-age rocks are present at depth, are greater than 36,000 feet thick, and represent deposition in marine environments. Commercial quantities of oil and gas have not been discovered in these rocks, although all oil found to date has its source in this section. The Tertiary succession is up to 25,000 feet thick in upper Cook Inlet and was deposited as alluvial fans along the basin margins and as river and floodplain



deposits along the basin axis. All commercial oil and gas fields in the basin are produced from reservoirs in Tertiary strata in fields associated with northeast-trending faulted anticlines (DGGS Staff 2008).



**Figure 4.3-3.** Map of southern Alaska showing the distribution of the Chugach terrane accretionary complex (dark grey) relative to its crystalline backstop (Border Ranges Fault – BRF) and to the east, the Yahutat block (light grey), which collided with North American in late Neogene (Pavlis and Roeske [in press] cited in Pavlis 2006).

#### 4.3.2.2. Project Area Geology and Tectonics

The bedrock in the proposed Project area is a complex assortment of metamorphosed sandstone, siltstones, and mudstones with some fine-grained volcanic units (Tysdal and Case 1979, cited in APA 1984). The area bedrock includes a large number of structural features, and joints are common. Joint orientations vary, although there are minor maxima orientated north-south to Northeast-Southwest, dipping between 50 and 90 degrees to the south or southeast (APA 1984).

The Trail Lakes valley is a long, north-trending valley that extends from the town of Seward northward to Upper Trail Lake. It has been called the “Kenai Lineament” since it is obvious on satellite imagery as a long, linear feature (Plafker et al. 1993). The valley runs parallel to the N-NW fault, and the Kenai Lineament may represent one of these fault zones that was extensively eroded during the glacial period. It is unlikely that the Kenai Lineament represents a major active fault. More likely it is a glacial valley whose orientation and location followed the N-NW trend of the minor fault set observed in other areas. (APA 1984)



Minor faults and fracture zones were discovered during the geologic study of the area and these are shown on Figures 4.3-4 and 4.3-5 (APA 1984). Two fracture directions are dominant. One set trends NE and the other N-NW. Grant Creek follows the most obvious NE feature, which is identified as the Grant Creek Fault.

### **4.3.3. Glacial Features**

Small glaciers occur at the head of most of the major valleys on the upper most heights of Solars Mountain. See Figure 4.3-4 for the location of these glacial features in the proposed Project area.

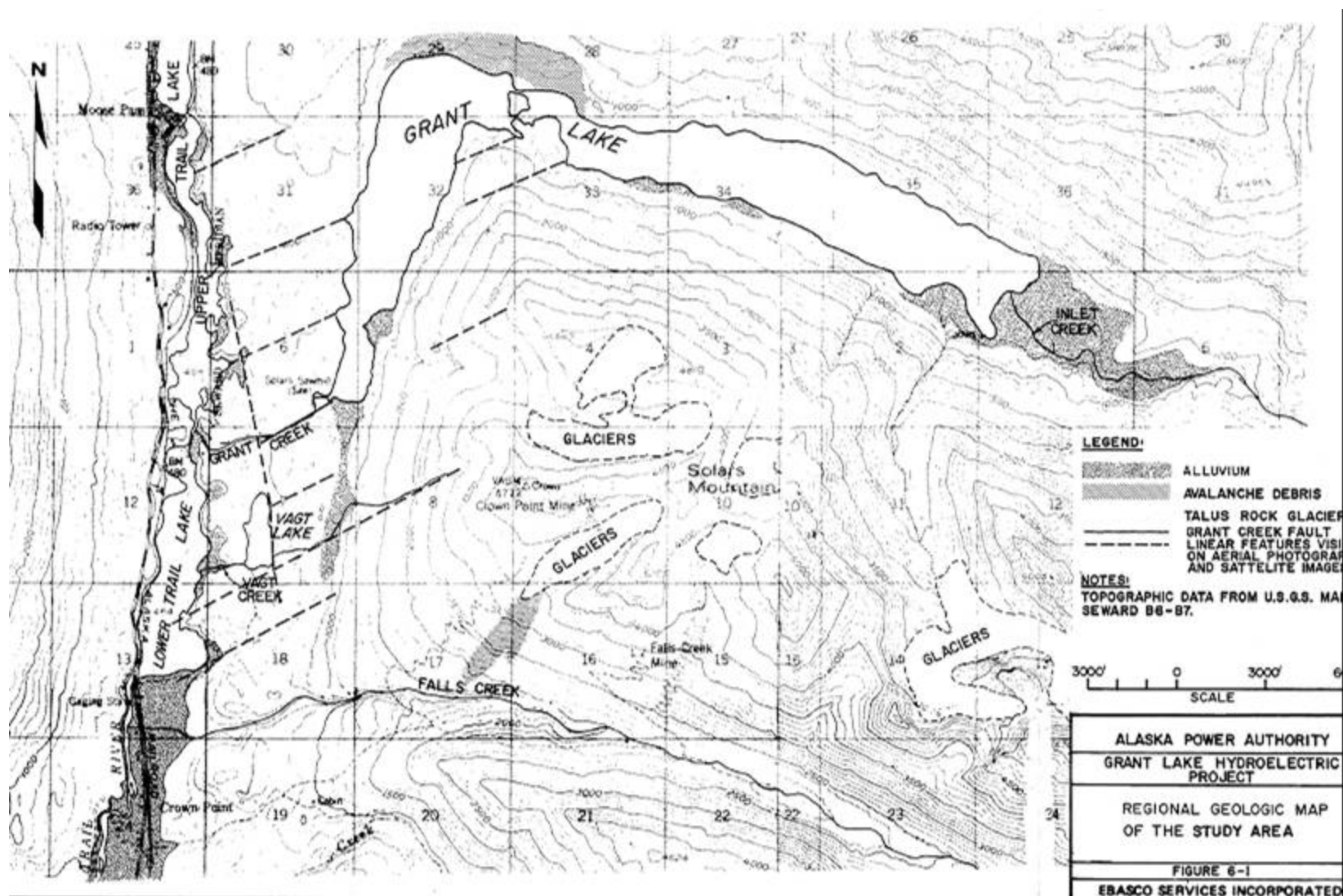
#### **4.3.3.1. *Unconsolidated Surficial Deposits***

Unconsolidated surficial deposits are relatively rare in the proposed Project area. Figures 4.3-4 and 4.3-5 show the location of unconsolidated surficial deposits for the proposed Project area and Project site, respectively.

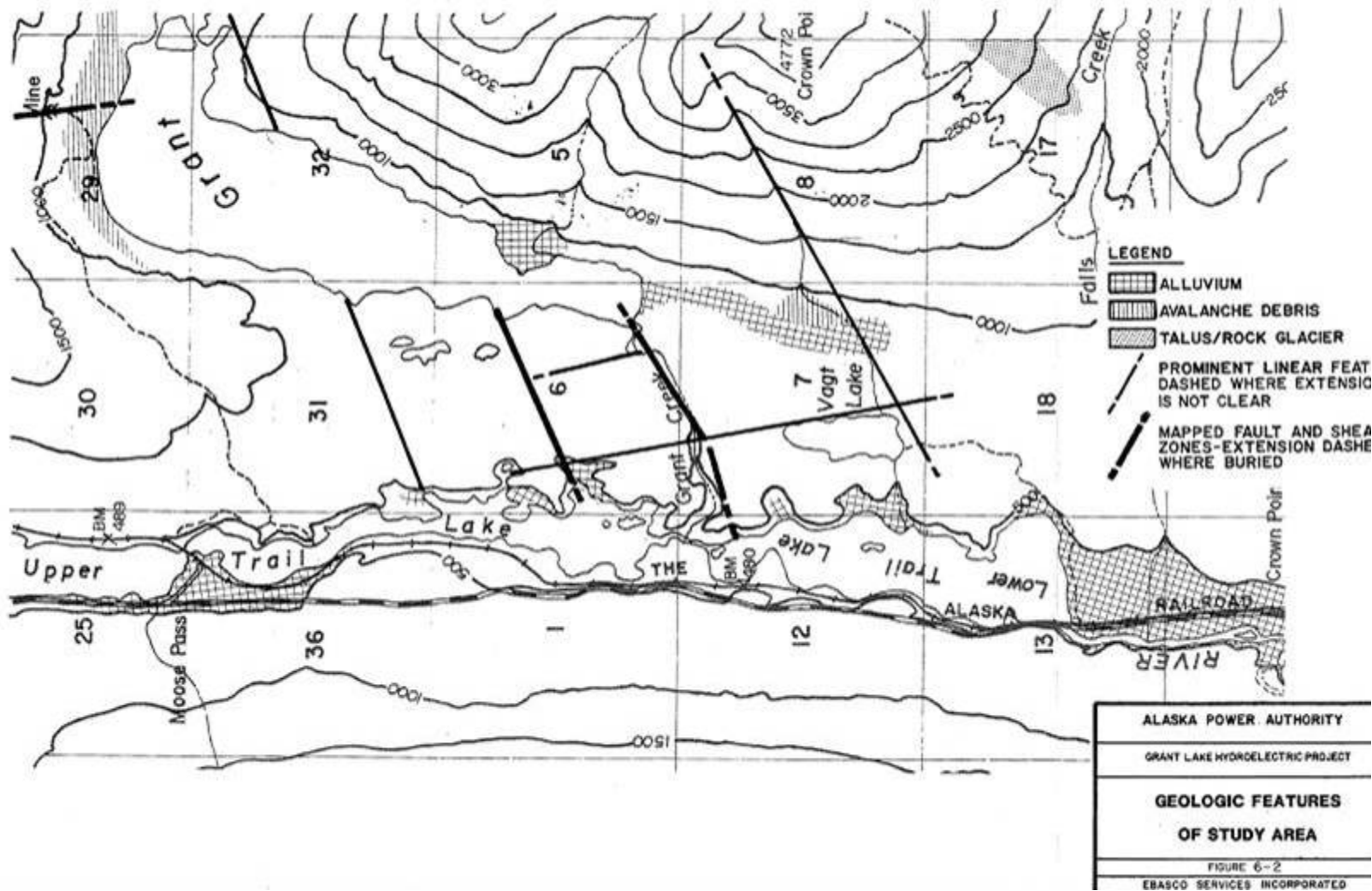
Alluvium is found at the head of Grant Lake, in the area between Lower Trail Lake and Kenai Lake, within a few of the coves around the Trail Lakes, and within the small bogs found in the low, bedrock ridges flanking the Trail Lakes valley. These deposits are typically mixtures of silt, sand, and gravel. Minor sand and gravel deposits are also found at the mouth of Grant Creek and Falls Creek.

Avalanche debris, the result of transport by snow avalanches during the winter and spring, consists of poorly sorted mixtures of cobbles, gravel, sand, and silt at the base of the major avalanche chutes. Avalanche debris is found on the north shore of Grant Lake where the lake bends to the east.

Talus deposits are rare in the proposed Project area, despite the steep slopes. The one exception is in the area between Falls Creek and Solars Mountain. In this area, large talus slopes of angular sandstone boulders and cobbles extend from the small cirque at the top of the mountain down the steep slopes into Falls Creek. The lobate morphology of the deposits suggests that they constitute a rock glacier.



**Figure 4.3-4.** Major geologic features and unconsolidated surficial deposits in the Project vicinity (APA 1984).



**Figure 4.3-5.** Geologic features and unconsolidated surficial deposits near the proposed Project site (APA 1984).

#### **4.3.4. Mining and Mineral Resources**

Historically, there are portions of the Project area have been mined for gold. A search of ADNR records (December 2008) identified four mining claims on federal lands on the north side of Grant Lake's lower basin (HDR 2008a). In addition, several mining claims exist along Falls Creek, with a history of extensive placer mining at the outlet of Falls Creek.

#### **4.3.5. Project Site Geology**

The bedrock that forms the ridge between Grant and Upper Trail lakes contains rocks typical of the bedrock throughout the area and is composed of metamorphosed sedimentary rocks of the Valdez Group. The predominant rock types are greywacke, slate, and a mixture of the two. Previous field investigations and exploratory borings (APA 1984) conducted on this ridge between the west shore of Grant Lake and Upper Trail Lake, north of the lake's outlet, indicated that the greywacke is an extremely hard and dense metamorphosed sandstone of varying composition.

Additional geologic investigations will be required for the proposed Project site at the lake's outlet and along Grant Creek for the siting, design and construction of project structures. No previous subsurface exploratory borings have been conducted at these locations. As previously described and illustrated in Figure 4.3-5, Grant Creek follows a NE trending fault identified as Grant Creek Fault that appears to be an inactive fault but may require further study for placement and design of Project structures.

#### **4.3.6. Seismic and Volcanic Activity**

##### **4.3.6.1. *Southern Alaska***

Alaska is the most seismically active state in the United States. Southern Alaska is one of the most seismically active regions in the world. Most of the seismicity in the region is associated with the Alaska-Aleutian megathrust fault extending eastward along the Aleutian arc into south-central Alaska and is described further in Wesson (2007). The northwestward-moving Pacific plate is subducted along this megathrust beneath the North American plate, giving rise to the Aleutian trench, islands, and related volcanic activity. Additional significant seismicity occurs along the Denali fault in south-central Alaska and along a northwestward-striking system of right-lateral strike-slip faults extending southeastward through and offshore from the panhandle of southeast Alaska. The southeastern portion of this system forms the northeast boundary of the Pacific plate. Additional seismicity also occurs elsewhere in central Alaska (Wesson 2007).

During this century, virtually the entire plate boundary from the westernmost Aleutian Islands to the Queen Charlotte Islands off British Columbia has ruptured in large (Richter surface wave magnitude Ms 7 to Ms 8) to great (Ms 8 or greater) earthquakes. The exceptions are areas near the Komandorski Islands (subzone Komandorski), near the Shuagin Islands (subzone Shumagin),

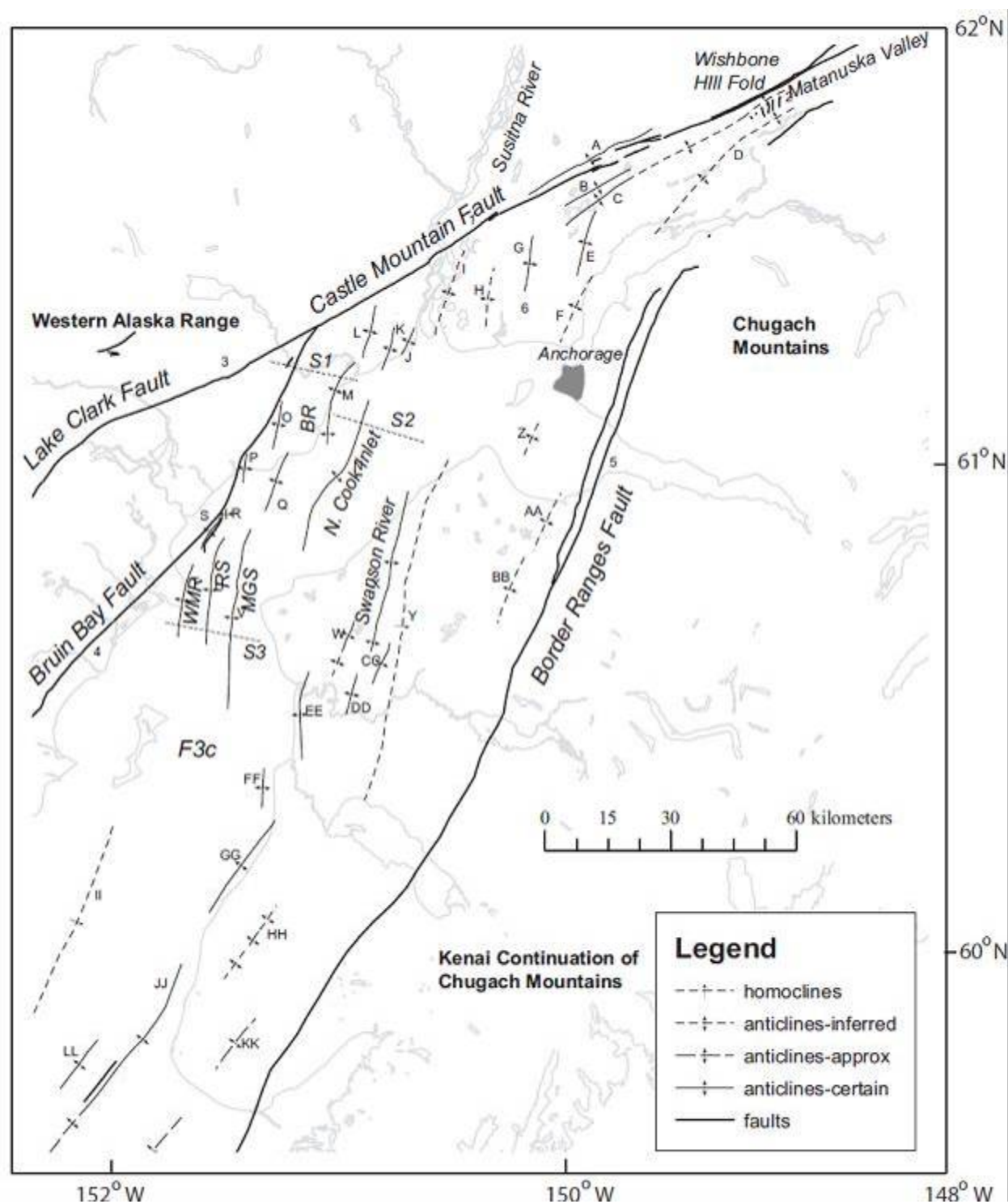
and near Cape Yakataga (subzone Yakataga). In the vicinity, of Sumagin Island no great earthquake has occurred in this century. Similarly, the vicinity of Cape Yakataga has experienced no great earthquakes since 1899 or before. These two regions have been identified as “seismic gaps”, that is, the potential sites of future large earthquakes (Sykes 1971, cited in Wesson 2007).

Folds in Cook Inlet Basin are cored by moderately to steep dipping faults that have the potential to generate large earthquakes. These folds within the basin and major faults along the basin borders are shown in Figure 4.3-6 (Bruhn 2006). The Border Ranges Fault (see Figures 4.3-1 and 4.3-6), located approximately 45 kilometers (28 miles) west of the proposed Project on Kenai Peninsula, occupies the westerly edge of the Eagle River thrust. The other faults shown on Figure 4.3-6, the Bruin Bay Fault, Lake Clark Fault, and the Castle Mountain Fault are located on the west side of Cook Inlet in the Western Alaska Range, north and west of Anchorage, over 125 kilometers (78 miles) from the Project site (Bruhn 2006).

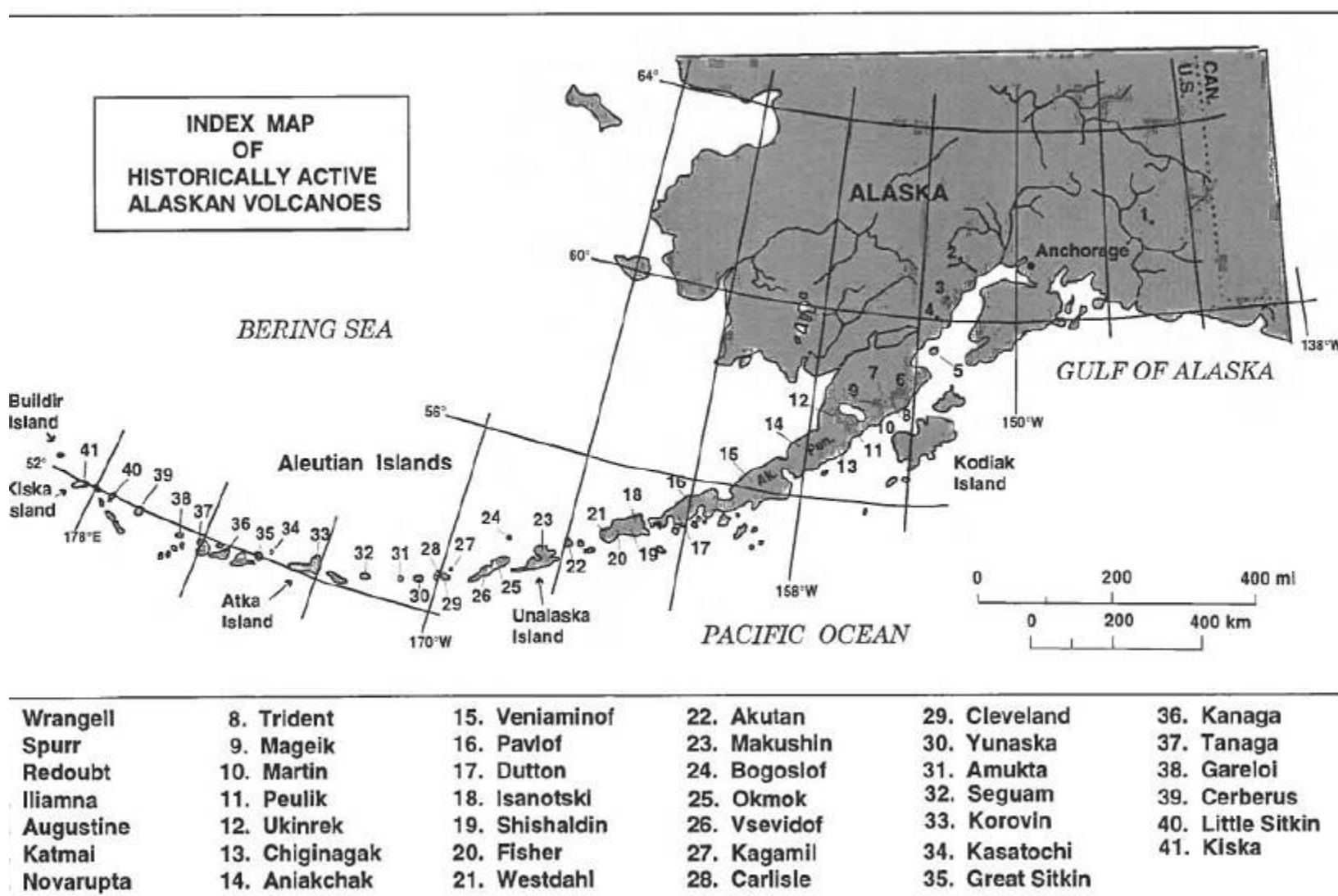
Occasionally, severe volcanic activity such as phreatic explosions or explosive caldera collapses may be accompanied by significant earthquake events. Because such large volcanic events are rare, there is little data from which to estimate earthquake magnitudes that may be associated volcano to those of the Aleutian chain, it is reasonable to assume that earthquakes associated with them. However, because of the similarities in characteristics of the Mount St. Helens with the recent Mount St. Helens eruption of May 1980 may also occur during future volcanic activity in the Aleutian chain. During the Mount St. Helens pre-cataclysmic eruption period before May 18, 1980, over 600 earthquakes greater than magnitude 3 and 12 around magnitude 5 were detected (PNSN 1980). The earthquake associated with Mount St. Helens explosive eruption that occurred on 18 May had a magnitude of 5.1 (U.S. Geological Survey 2000). Figure 4.3-7 shows the location of historically active Alaskan volcanoes (McGimsey et al. 1995). The volcanoes closest to the Project site, located over 180 kilometers (112 miles) away, include:

- Mt. Spurr and Crater Peak at location 2 on the west side of Cook Inlet, last active in 1953 (Spurr) and in 1992 (Crater Peak).
- Mt. Redoubt at location 3 on the west side of Cook Inlet, last active in 1989-90 and again in March 2009 (still currently venting).
- Mt. Iliamna at location 4 on the west side of Cook Inlet, no historic activity.
- Mt. Augustine at location 5 on Augustine Island in lower Cook Inlet, last active in 1986.

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**Figure 4.3-6.** Generalized structure map of Cook Inlet Basin showing folds within the basin and the regional faults along the basin borders (Bruhn 2006). P.J. Haeussler compilation.

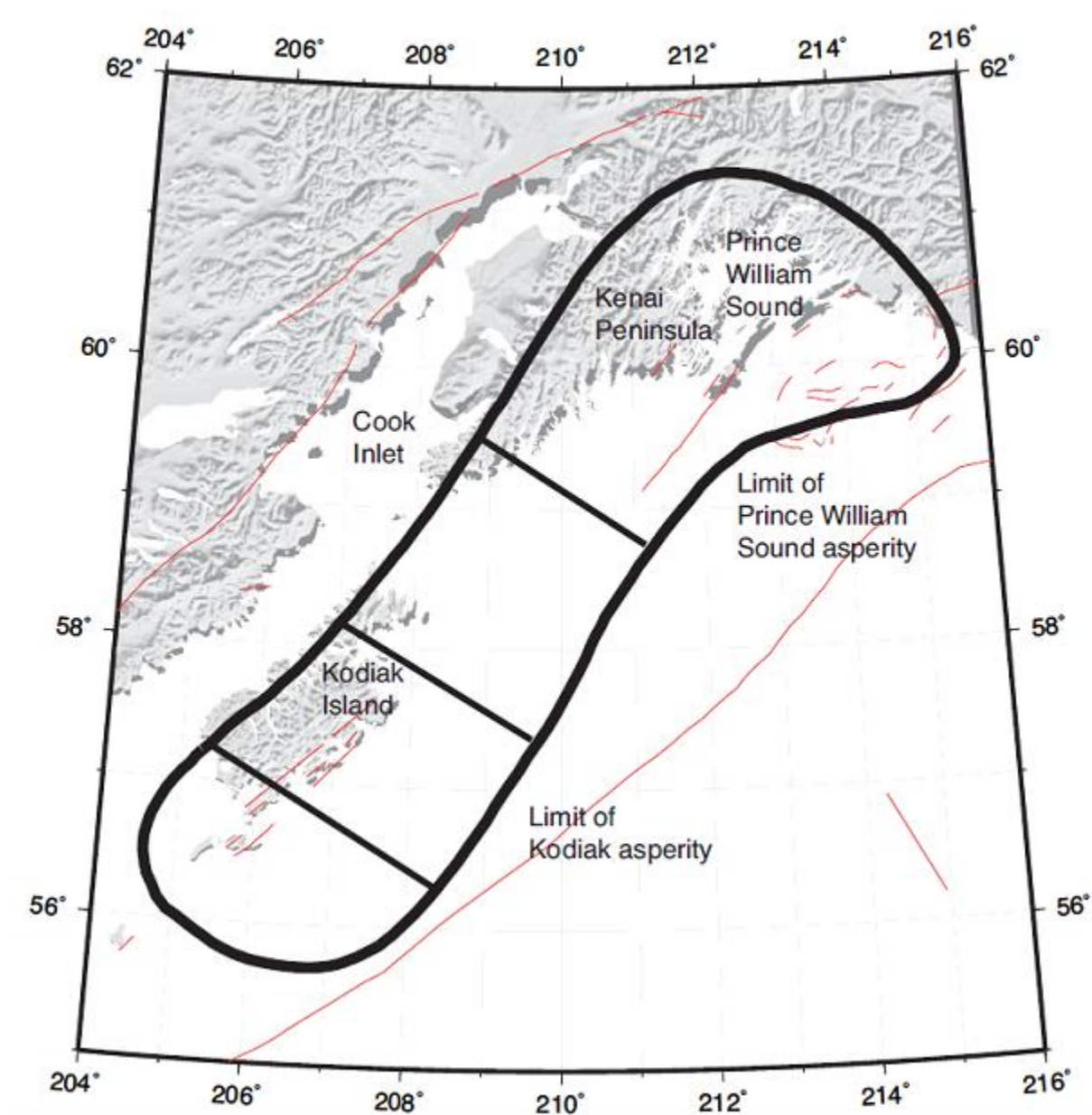


**Figure 4.3-7.** Historically active Alaskan volcanoes, locations 2, 3, 4, and 5 are nearest to the Project site (McGimsey et al. 1994).



#### 4.3.6.2. Prince William Sound and Kenai Peninsula

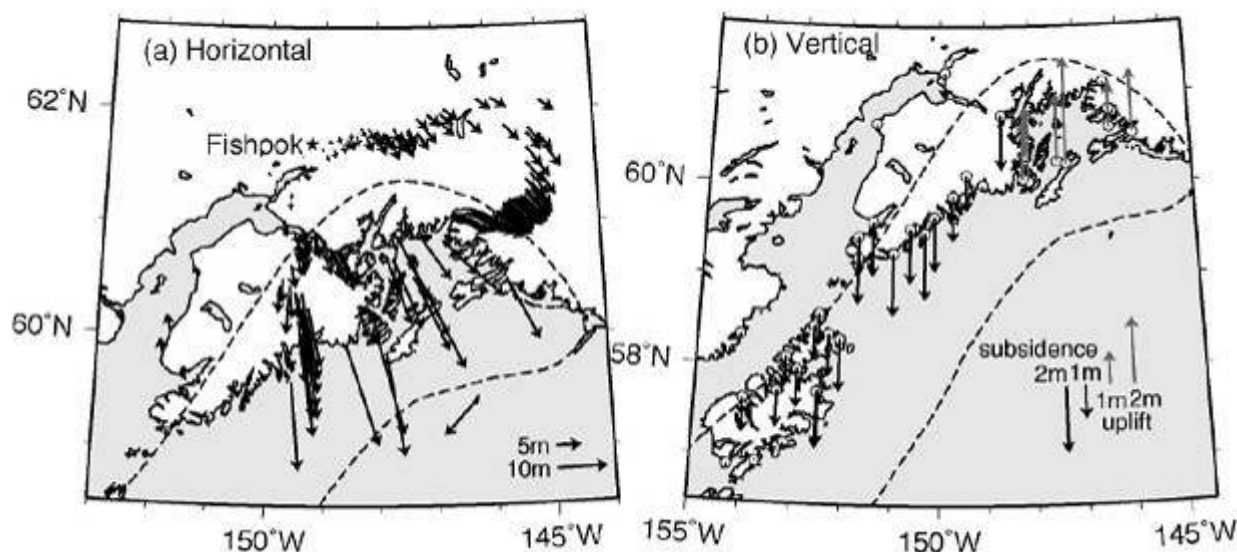
The 1964 Prince William Sound earthquake remains the second largest earthquake ever recorded. It ruptured 750 - 800 kilometers (466 - 497 miles) of the Alaska-Aleutian megathrust (Figure 4.3-8).



**Figure 4.3-8.** The region of the 1964 Prince William Sound earthquake (Freymueller 2006). The rupture area of the 1964 earthquake zone is shown in the bold line. The thinner lines indicate the approximate limits of the two asperities that released most of the moment in the earthquake.



The rupture extended roughly from the eastern end of the trench around Kayak Island to the southwest end of Kodiak Island. This segment of the megathrust is an exception for having an extraordinary shallow dip angle. A trench-normal profile passing through Seward on the Kenai Peninsula has an average dip angle of about 3 degrees, including a nearly flat section at roughly 20 kilometers depth. The dip angle gradually increases to the southwest, but remains only 6-7 degrees at Kodiak Island. One consequence of the shallow dip angle is that the main thrust zone on the interface is extremely wide, extending as far as 250-300 kilometers in from the trench. The earthquake caused large displacement over a wide area as illustrated in Figure 4.3-9. The most prominent displacements were vertical displacements along the coast, because of the resulting changes in relative sea level. Subsidence along Turnagain Arm and along the coast of the Kenai Peninsula created a number of drowned forests, and submerged the town of Portage. However, the horizontal displacements were much larger. In the outer part of Prince William Sound, repeated triangulation measurements showed measured horizontal displacements as large as 20 meters. The displacements were calculated relative to a specific benchmark, FISHHOOK 1944, and this mark probably moved about 4 meters (13 feet) during the earthquake (Suito et al. in prep and Cohen and Freymueller 2004 cited in Freymueller 2006).



**Figure 4.3-9.** Coseismic displacements during the 1964 M9.2 earthquake (Suito et al. [in prep] cited in Freymueller 2006).

Slip in the earthquake was concentrated in two main regions or asperities, one beneath Prince William Sound and one off shore of Kodiak Island (Figure 4.3-8). Seismic source modeling of the earthquake has always been difficult because seismometers around the world went off-scale from the direct body waves, and in some cases remained off-scale for several hours. The long duration of the earthquake ( $\approx 5$  minutes) poses an additional challenge.

Sites in the eastern Kenai Peninsula are moving toward the north-northwest, while sites in the western Kenai Peninsula are moving toward the south or southeast. The motions of sites in the eastern Kenai Peninsula are generally consistent with a simple model of subduction-related locked strain accumulation at the North America-Pacific plate interface. The site velocities are oriented in the direction of relative plate convergence, are largest close to the trench, and decrease with distance from the trench. The velocity vectors rotate somewhat across Prince William Sound, taking on a more westerly orientation, which reflects the impact of the Yakutat block collision. It is likely that both the Yakutat block and the Pacific plate subduct beneath Prince William Sound, with different directions of relative motion (Freymueller 2006).

#### **4.3.6.3. Project Site Seismicity**

The detailed feasibility analysis contained in APA (1984) considered the following potential occurrence of seismic hazards at the proposed Project area: vibratory ground motion, ground rupture, seismically-induced slope failure, and seiche. Information from APA (1984) on each of these hazards is excerpted below.

##### ***Vibratory Ground Motion***

Deterministic analysis of the sources of earthquakes, their distance from the proposed Project site, and the potential accelerations at the site indicate that the megathrust zone beneath southern Alaska and the random crustal event are the primary sources of seismic hazard. Random crustal events are then considered “floating” and potentially could occur anywhere. For calculation purposes, the random crustal event is considered to be directly beneath the Project site.

All known sources of earthquakes that were close enough to the proposed Project area to have significant impact were compiled in Table 6.1 the APA (1984) analysis. The maximum credible earthquake (MCE) for a random crustal event was chosen as magnitude 6.0, a conservative upgrade from the maximum recorded magnitude of 5.5. As indicated in APA (1984), the maximum calculated acceleration at the proposed Project site is 0.40 gravity from the random crustal event and 0.37 gravity from the 1964-type Aleutian Arc megathrust.

Return periods for these maximum earthquake events were established using historical and instrumental earthquake data. Based on the estimated return periods and the time since the last major event, the likelihood of such events was estimated by APA for the life of the project as proposed at the time. The likelihood of another 1964-type event on the megathrust was considered low for the life of that project. Because the return period exceeds 160 years; it is presumed that the calculations are still relevant and would apply to the currently proposed Project. The likelihood of a large random crustal event is moderate to high, with a recurrence interval of 50 to 100 years, and a low probability of such an event occurring in the proposed Project area.

***Ground Rupture***

There are no known active faults crossing the proposed Project site. No seismic events have been associated with known structures around the site, and no geologic data have been found to suggest the presence of active faulting. Ground rupture is not considered a hazard for the Project.

***Seismically Induced Slope Failure***

One of the most common features associated with moderate to large magnitude earthquakes is slope failure. Triggered by ground motion, naturally unstable slopes can fail. Slope failure can be broadly classified into landslides, rockfalls, avalanches, and slab or tumbling failures of rock faces.

There is little material in the Project area that would be susceptible to landslides during seismic events. No evidence was found for the occurrence of major landslides or of their deposits (APA 1984).

Rockfalls from the steep cliffs could occur during seismic shaking. Some evidence of minor rockfalls has been found in the area, but the triggering mechanism is unknown. The rock cliffs along the Upper Trail Lake valley on the west slope below Grant Lake are a potential source of rockfalls.

Seismically induced avalanches could occur in the mountains above the Project. However, the topography around the proposed Project facilities does not appear to be subject to a hazard from avalanche.

Slab or tumbling failure of rock faces during seismic events is common in areas of unstable rock slopes. The western shore of Grant Lake is particularly susceptible to such failures, as the slopes are steeply dipping slopes of bedrock. Data from exploratory boring in this area in the early 1980s suggest that bedding-plane slides have already occurred here.

***Seiche***

Seiches are waves in lakes that are formed by water sloshing back and forth as the result of ground shaking during seismic events or the catastrophic inflow of material by slope failures around the lake's rim. There are several areas surrounding Grant Lake that could be sources of earth or avalanche material for mass movements into Grant Lake, which could generate seiche waves. Fieldwork associated with the APA (1984) analysis did not reveal any areas along the shoreline of Grant Lake where wave damage above normal high water levels was noted. This observation suggests that significant wave run-up did not occur during the 1964 earthquake. Further, the volumes of material that could enter Grant Lake are probably not sufficient to generate very large seiche waves.

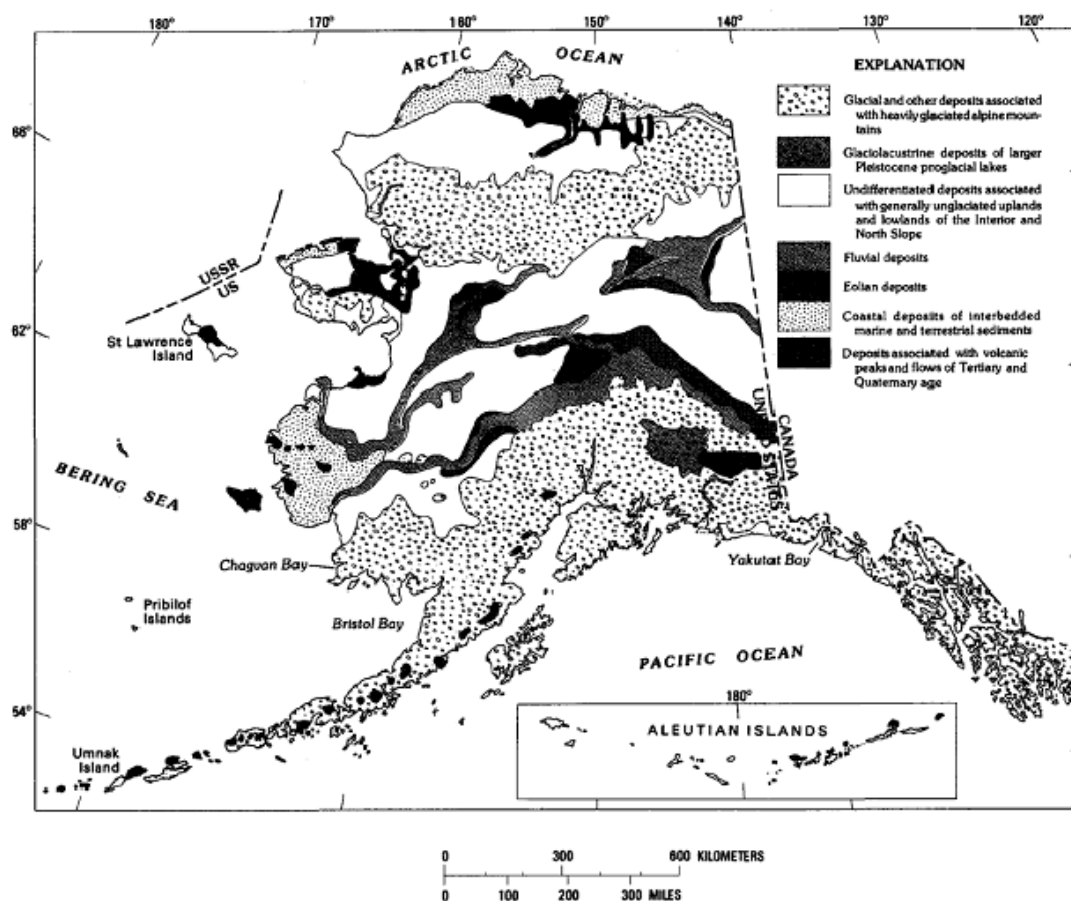
Investigations around Lower and Upper Trail lakes indicate that the surrounding topography coupled with the shallowness of the lakes present significantly less hazard from seiche. There are no areas of material that could generate large waves by mass movement into these lakes. The proposed Project's facilities would be designed so that they are not susceptible to damage by seiches that could occur in Grant Lake.

#### **4.3.7. Soils**

##### *4.3.7.1. Regional Soils*

The soils on Kenai Peninsula, including the proposed Project area, are derived from glacial and other deposits associated with heavily glaciated alpine mountains as depicted on Figure 4.3-10.

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**Figure 4.3-10.** Major regional groups of surficial deposits in Alaska (cited in Gough et al. 1988).

### ***Project Area Soils***

The investigations reported in APA (1984) indicate extensive glacial till deposits are absent in the Project area. Minor glacial till deposits may exist at the base of some of the bogs and lakes and within some of the coves along Upper and Lower Trail lakes.

Two exploratory borings, conducted in an area of alluvial deposits in the valley on the east side of Upper Trail Lake, penetrated 28 feet and 18 feet of soils ranging from sand and silt near the surface to poorly sorted mixtures of cobbles, gravel, sand, and silt at depth. The lower material may represent glacial till or outwash, while the upper material is likely younger stream or lake bed sediment. None of the material is consolidated (APA 1984).

### ***Project Site Soils***

As discussed above for the proposed Project area, Figure 4.3-5 shows in greater detail the location of alluvium, avalanche debris, and talus deposits/rock glaciers in the immediate area of

the proposed Project site. No unconsolidated surficial deposits are known to exist at the site of the proposed Project developments.

The lack of significant soil cover or alluvial deposits indicates that erosion would be minimal during construction and operation of the Project.

Mass movements or slope failures, including landslides, rockfalls, avalanches, and slab failure, are discussed above as possible results of seismic activity. The rock cliffs along Upper Trail Lake from the east could be a source of small rockfalls, triggered either by seismic activity or seasonal freeze-thaw. Examination of the many cliffs in the area, however, suggests a high degree of stability (APA 1984).

#### **4.3.8. Glacial Activity**

Glacial activity in the immediate vicinity of the Project is limited to the Solars Mountain to the east and south of Grant Lake as illustrated in Figure 4.3-4.

#### **4.3.9. Lake Shoreline and Streambanks**

##### **4.3.9.1. Grant Lake**

Grant Lake is composed of two basins, an upper and lower basin, joined at right angles by a relatively narrow and shallow channel and island near its midpoint. The shoreline is forested to the edge of the water. The shoreline vegetation consists of lowbush cranberry, ferns, alders, spruce, hemlock, and a few cottonwoods near the inlet stream deltas. Conifer stands occur in some avalanche-free sites around the lake. The shoreline is littered with floating and sunken organic debris and patches of thick macrophyte growth (e.g., *Ranunculus* spp.) in the limited littoral areas (Figures 4.3-11 and 4.3-12).

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**Figure 4.3- 11.** Grant Lake, lower basin looking south toward the outlet for Grant Creek (HDR 2008a).



**Figure 4.3-12.** Grant Lake, upper basin looking east toward the inlet for Inlet Creek (HDR 2008a).

Channel and island between the upper portion and lower portion of the lake is in the foreground.

#### **4.3.9.2.    *Tributary Streams to Grant Lake***

Tributaries to Grant Lake include Inlet Creek at the headwaters and numerous short streams, including three glacial-fed streams, which originate in the nearly vertical mountains surrounding the Lake. The Inlet Creek stream valley supports a mature balsam poplar stand on the deltas and conifer stands farther up the valley. Inlet Creek has a poorly defined channel and appears to shift its course across the delta frequently. Additional vegetation along the creek and on the delta includes willows, river beauty, fireweed, horsetail, and on the drier sites, bluejoint.

#### **4.3.9.3.    *Grant Creek***

Grant Creek, Grant Lake's only outlet, flows from its origin at the south end of Grant Lake approximately one mile in a westerly direction, draining into the narrows between Upper and Lower Trail lakes. In the upper section, the creek flows over three substantial waterfalls, through a rocky canyon, and over large rubble and boulders. The lower section is somewhat less



turbulent with fewer boulders and more cobble and frequent gravel shoals, although the gradient of the lower 0.5-mile segment is still fairly steep. The average width of the stream is approximately 25 feet.

#### 4.3.9.4. *Upper and Lower Trail Lakes*

Both the Upper and Lower Trail lake shorelines are forested with a mixed forest type consisting of paper birch, white spruce, and western hemlock on relatively warm, dry sites, and black spruce on the cool wet sites. Investigations around Lower and Upper Trail lakes indicate that the surrounding topography coupled with the shallowness of the lakes present significantly less hazard from seiche. There are no areas of material that could generate large waves by mass movement into the lakes.

### 4.3.10. **Potential Adverse Impacts**

Potential adverse environmental impacts of the proposed Project will be assessed by the licensing studies. Table 4.3-1 summarizes potential resource issues related to geology and soils.

**Table 4.3-1.** Potential Project impacts to geology and soil resources.

| Potential Impact                                                    | Resource Issue                                                                                                       |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Increased Grant Lake Water Level Fluctuation                        | Possible erosion and sedimentation in the zone above normal full pond due to the increase in lake level fluctuation. |
|                                                                     | Possible down-cutting of the Inlet Creek delta as a result of lowered water levels in Grant Lake.                    |
| Construction of dam and diversions, including blasting of cofferdam | Impact of sediment releases into Grant Lake, Grant Creek, and Falls Creek, Trail Lake and Trail Creek                |
| Roads and Transmission Lines                                        | Potential contribution of road and transmission line construction to erosion in the proposed Project area.           |
|                                                                     | Potential contribution of road and transmission line operation to erosion in the Project area.                       |

### 4.3.11. **Proposed Protection, Mitigation, and Enhancement Measures**

Kenai Hydro has not to date identified proposed geology and soils related protection, mitigation, and enhancement measures (PM&Es) for implementation under the project license.

Identification of PM&Es will occur following completion of effects analyses based on licensing studies.

#### **4.4. Water Resources**

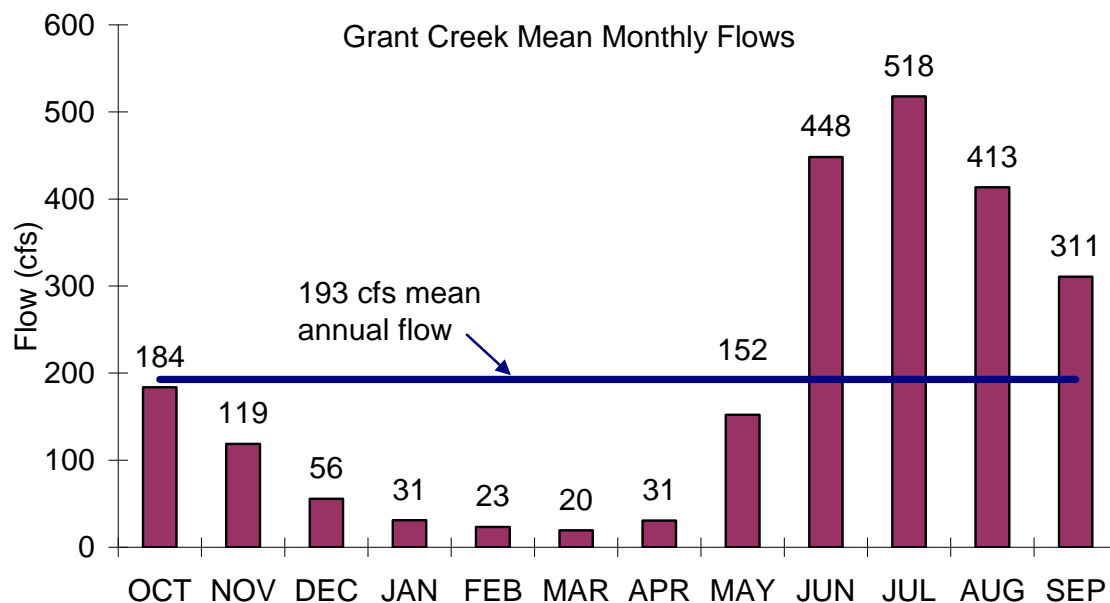
##### **4.4.1. Introduction**

The drainage basin area is described in section 4.2.1, and existing water rights are discussed in Section 4.2.2, Land and Water Uses. This section includes a discussion of historic drainage basin hydrology, a summary of available streamflow data, applicable Alaska Water Quality Standards, and available water quality data. Additional water quality data collected in 2009 and 2010 to support the licensing effort will supplement available historic data and establish a pre-project baseline (HDR 2009a).

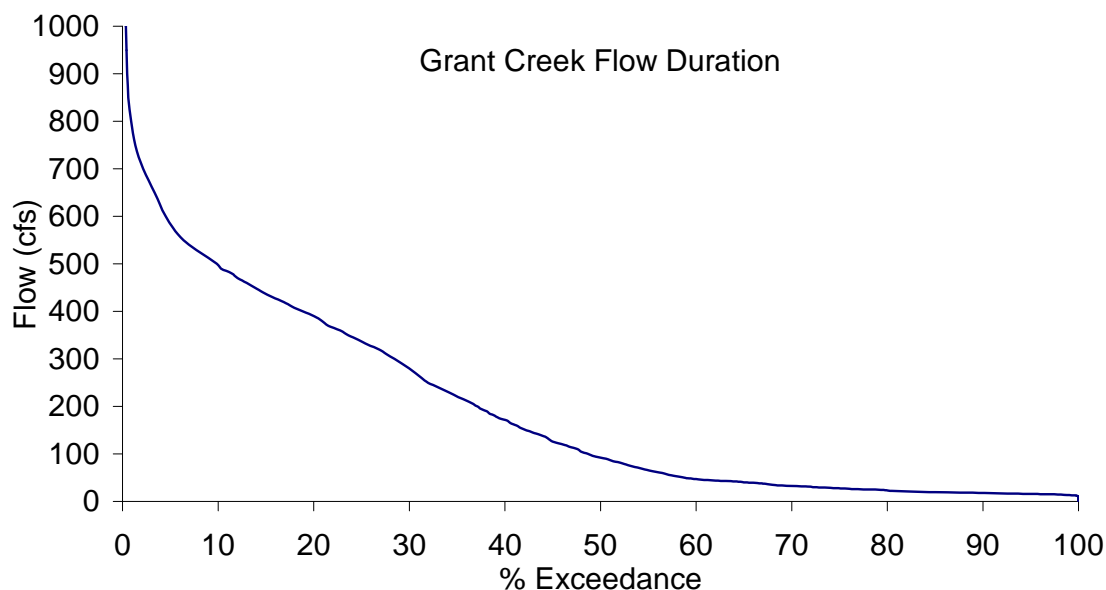
##### **4.4.2. Drainage Basin Hydrology**

###### **4.4.2.1. *Grant Lake and Grant Creek***

In 1947, the USGS installed a stream gage (#15246000) approximately 0.3 miles upstream of the mouth of Grant Creek. This gage recorded continuously for 11 years between 1947 and 1958 (average annual flow was 193 cfs; drainage area at gage site is 44.2 square miles; Figure 4.4-1). Flow was generally lower in the winter months (December through April, <50 cfs). During the ice-free seasons (June through September), mean monthly flows exceeded 300 cfs. Peak flow occurred during the month of July, with a mean of 518 cfs. Grant Creek's flows rarely exceeded 600 cfs or dropped below 50 cfs (Figure 4.4-2).

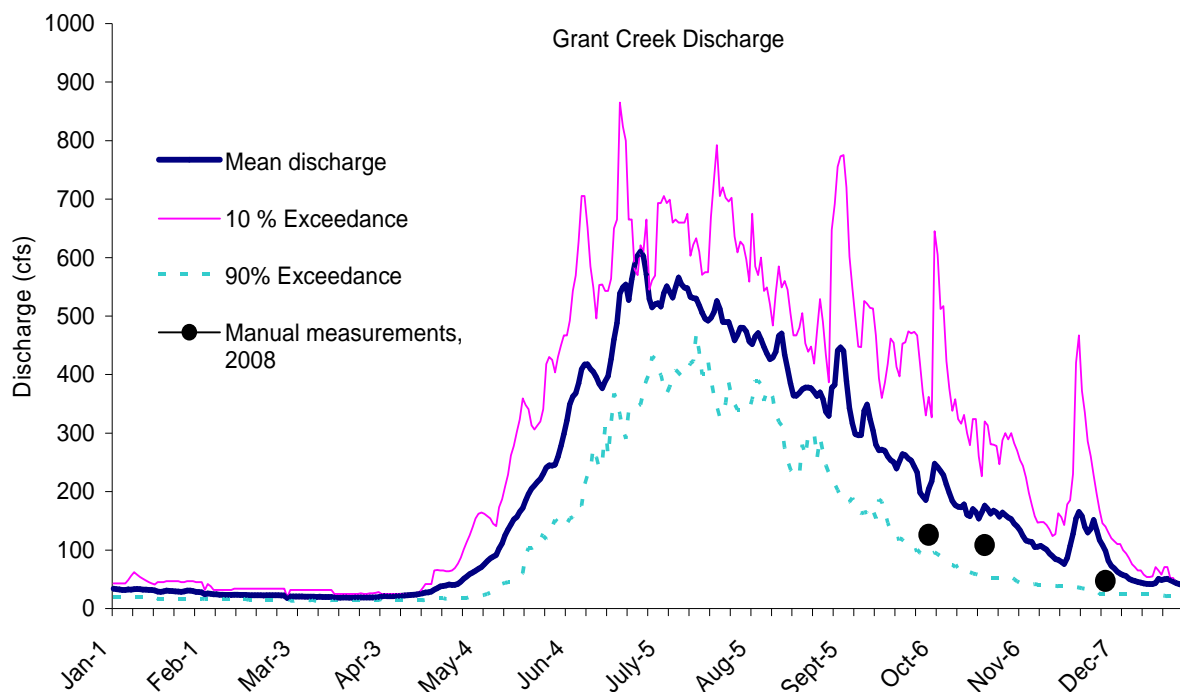


**Figure 4.4-1.** Mean monthly discharge at Grant Creek. Average annual flow (for period of record 1947-1958, from USGS gage #5246000) is shown as a solid horizontal line (193 cfs).



**Figure 4.4-2.** Flow duration curve for Grant Creek. Percent exceedance, the value of the x-axis, is the percent of the time flow surpasses the value on the y-axis. This curve was generated using data from the period 1947-1958, from USGS gage #5246000.

HDR Alaska gathered instantaneous discharge data at Grant Creek on October 4, October 23, and December 3 of 2008. Stream discharge measurements were taken just downstream of the original site of the USGS stream gauge, at a site that allowed safe fording of the stream, using standard USGS gauging protocols (Buchanan and Somers 1969). Measurements from 2008 were compiled with historical discharge data from USGS Gage 15246000 (1947-1958; Figure 4.4-3). Wetted stream width ranged from 35.0 (October 4, 2008) to 38.9 ft (December 3, 2008; Table 4.4-1).



**Figure 4.4-3.** Grant Creek discharge data. Historic data are from USGS gage 15246000 (1947-1958) and manual instantaneous flow measurements made in 2008 by HDR Alaska. Mean discharge (heavy blue line), 10% flow exceedance (dashed aqua line), and 90% flow exceedance (solid pink line), in cubic feet per second are shown for historical data. Manually collected instantaneous stream flow measurements collected in 2008 by HDR Alaska are shown as black dots.

**Table 4.4-1.** 2008 instantaneous flow measurements collected by HDR October to December 2008.

| <b>Site</b>        | <b>Date</b> | <b>Instantaneous<br/>Discharge<br/>(cfs)</b> | <b>Stream Width (ft)</b> |
|--------------------|-------------|----------------------------------------------|--------------------------|
| <b>Grant Creek</b> | 10/4/2008   | 126.0                                        | 35.0                     |
|                    | 10/23/2008  | 108.3                                        | 38.9                     |
|                    | 12/3/2008   | 47.3                                         | 36.8                     |
| <b>Falls Creek</b> | 10/5/2008   | 22.1                                         | 19.1                     |
|                    | 10/24/2008  | 13.9                                         | 16.7                     |

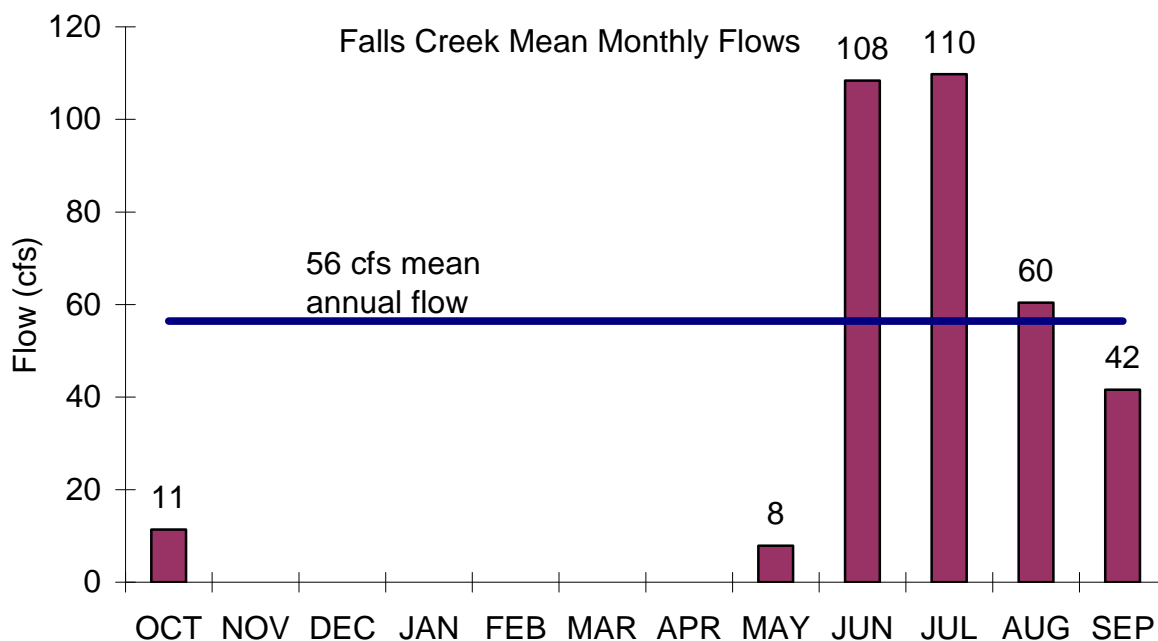
#### 4.4.2.2. *Falls Creek*

Continuous streamflow data were collected from May to October 1982 as part of the Ebasco studies (APA 1984). This stream gage was located near the mouth of Falls Creek. The average flow during this period was 38 cfs.

Because of the short period of record at Falls Creek, long term estimates of the flow in Falls Creek were estimated by comparison to adjacent Grant Creek (USGS #15246000) which was gaged continuously by the USGS for 11 years between 1947 and 1958. To estimate the hydrology of Falls Creek, the mean daily flows from the Grant Creek gage for May through September were scaled by factors determined by Ebasco (APA 1984; Table 4.4-2) to create a simulated daily flow file. In estimating the hydrology for hydropower generation, Ebasco assumed that flows in Falls Creek would be minimal during the months of November through April. Ebasco estimated the average monthly flow for May through October to be 56 cfs (Figure 4.4-4).

**Table 4.4-2.** Falls Creek scale factors (determined by APA 1984) used to simulate flow of Falls Creek from stream flow data collected at Grant Creek.

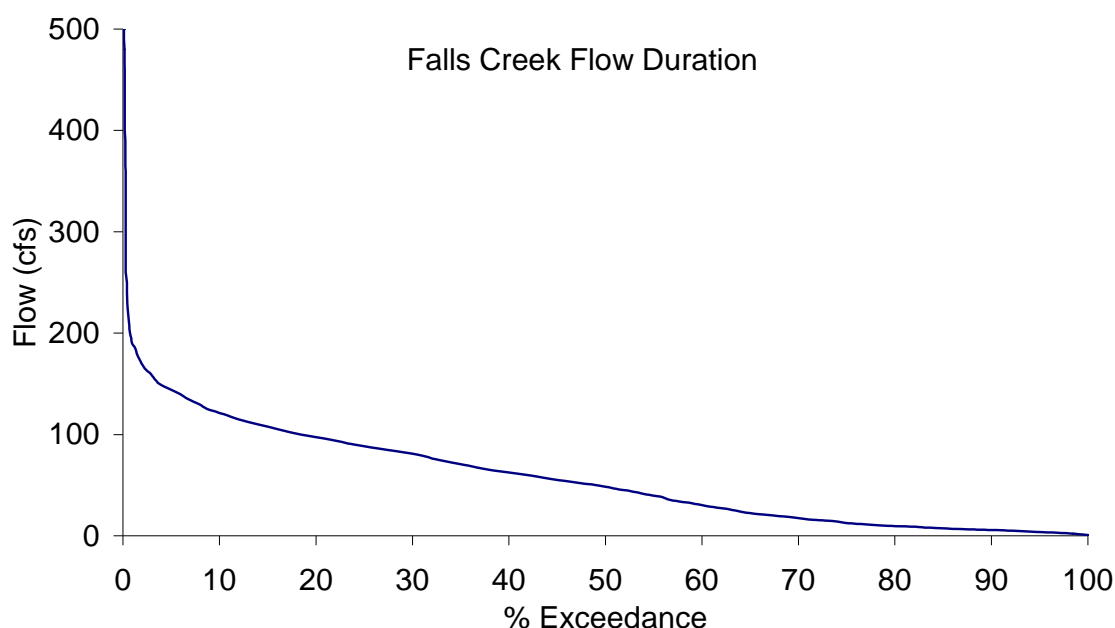
| Month     | Scale factor |
|-----------|--------------|
| October   | 6.2%         |
| November  | 0            |
| December  | 0            |
| January   | 0            |
| February  | 0            |
| March     | 0            |
| April     | 0            |
| May       | 5.2%         |
| June      | 24.2%        |
| July      | 21.2%        |
| August    | 14.6%        |
| September | 13.4%        |

**Figure 4.4-4.** Mean monthly discharge of Falls Creek, modeled using data from USGS gage 15246000 (1947-1958) at Grant Creek, adjusted by monthly ratios developed by Ebasco (APA 1984; using one open water season of flow data at Falls Creek).

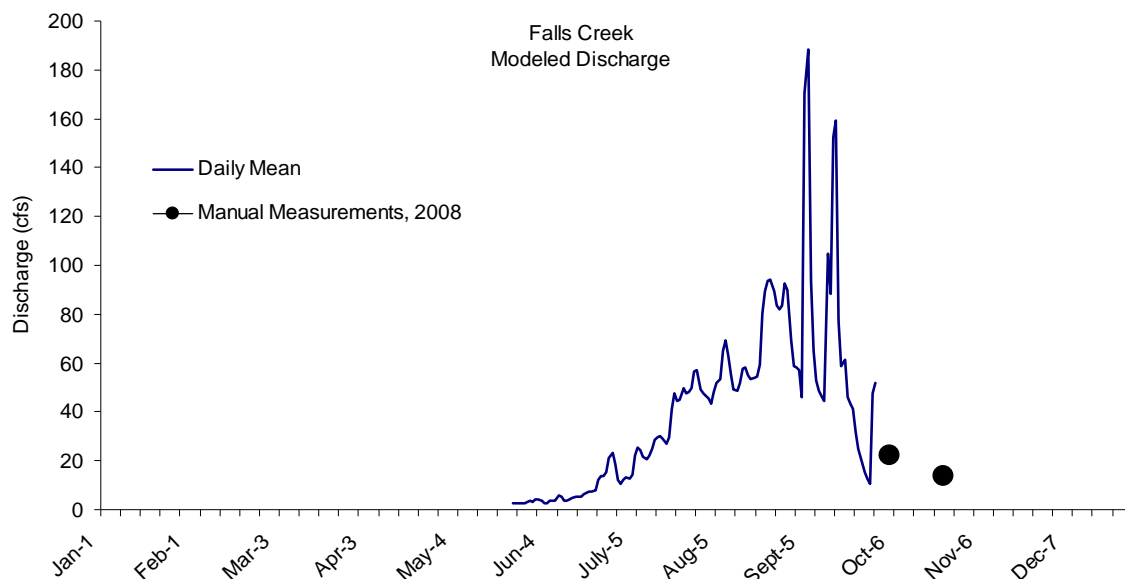
During these ice-free months, Falls Creek's mean monthly flow was lowest in May (8 cfs) and October (11 cfs), and highest in mid-summer (approximately 110 cfs). Estimated flows rarely

exceeded 200 cfs or dropped below 70 cfs (Figure 4.4-5). This curve was generated using modeled data from USGS gage 15246000 (1947-1958) at Grant Creek, adjusted by monthly ratios developed by Ebasco (APA 1984; using one open water season of flow data. at Falls Creek).

Stream flow and stream widths were measured at Falls Creek on October 5 and October 24, 2008 (Table 4.4-1). Measurements were taken at a site approximately 100 feet downstream of the Seward Highway Bridge. Falls Creek modeled discharge data were compiled with field measurements from 2008; data were generated from USGS gage 15246000 (1947-1958) at Grant Creek and adjusted by monthly ratios developed by Ebasco (APA 1984) using one open water season of current flow data from Falls Creek (Figure 4.4-6).



**Figure 4.4-5.** Flow duration curve for Grant Creek. Percent exceedance, the value of the x-axis, is the percent of the time flow surpasses the value on the y-axis.



**Figure 4.4-6.** Falls Creek modeled discharge based on data from USGS gage 15246000 (1947-1958) at Grant Creek, adjusted by monthly ratios developed by Ebasco (APA 1984).

#### 4.4.3. Project Streamflow Data

The monthly minimum, mean, and maximum recorded flows in cubic feet per second of Grant Creek at the powerplant intake, and at the potential Falls Creek diversion will be determined by instream flow studies to be conducted following filing of this PAD.

#### 4.4.4. Water Quality

##### 4.4.4.1. Applicable Water Quality Standards

Alaska Water Quality Standards require that, unless otherwise designated, all fresh water bodies be protected for all designated uses listed below:

- Water supply (drinking water, agriculture, aquaculture, industrial)
- Water recreation (contact and non-contact)
- Growth and propagation of fish, shellfish, other aquatic life, and wildlife

Alaska Water Quality Standards identify acceptable levels for designated use for categories of pollutants, including: color; fecal coliform bacteria; dissolved oxygen (DO); dissolved inorganic substances; petroleum hydrocarbons, oil and grease; pH; radioactivity; residues (floating solids, foam, debris, deposits); sediment; temperature; toxic substances; and turbidity (18 Alaska



Administrative Code [AAC] 70). Data collected in 2009 and 2010 to support the licensing effort will be evaluated for consistency with relevant water quality standards.

Grant Lake and Grant Creek are not specifically identified in Alaska's Final 2008 Integrated Water Quality and Assessment Report to EPA (ADEC 2008), and Falls Creek is listed as a water body for which not enough information exists to determine its compliance with water quality standards.

#### ***4.4.4.2. Water Clarity, Turbidity, and Dissolved Solids***

Turbidity and suspended solids were consistently low in Grant Lake during the 1981-1982 monitoring period (October 1981, and March, June and August 1982) (APA 1984). Turbidity measured 0.24 to 3.8 NTU at the surface of the lake and 0.28 to 0.46 NTU at 50 m depth. Secchi disc readings ranged from 1.6 to 16.4 feet (APA 1984).

Grant Creek turbidity values ranged from 0.40 to 0.80 NTU, and Falls Creek turbidity values ranged from 0.35 to 6.0 NTU (APA 1984).

#### ***4.4.4.3. Nutrients***

Nutrient levels in Grant Lake, Grant Creek, and Falls Creek are low. Nitrate (NO<sub>3</sub>) concentrations were reported between 0.1 and 0.38 mg/l for Grant Lake in 1981-1982, and orthophosphate concentrations were less than 0.01 mg/l, except in March 1982 when 0.13 mg/l was recorded (APA 1984).

Grant Creek nutrient levels closely follow Grant Lake levels. In 1981-1982, Grant Creek nitrate levels were between 0.1 and 0.36 mg/l and orthophosphate was less than 0.01 mg/l, except in March 1982 when 0.04 mg/l was recorded (APA 1984). Periodic USGS data between 1950 and 1958 reported nitrate levels between 0.3 and 2.6 mg/l and nitrogen levels between 0.05 and 0.59 mg/l in Grant Creek (AIEDC 1983).

In 1981-1982, Falls Creek nitrate concentrations ranged from less than 0.1 to 0.12 mg/l, and orthophosphate was less than 0.01 mg/l.

#### ***4.4.4.4. Coliform Bacteria***

Coliform bacteria were not detected in 1981-1982 monitoring in Grant Lake, Grant Creek, and Falls Creek (APA 1984).

#### *4.4.4.5. Dissolved Oxygen*

Grant Lake DO concentrations reported in APA (1984) from 1981 and 1982 studies conducted by ADF&G and AEIDC were at saturation for all depths measured (surface to 60 m). Lower and upper basin DO levels ranged from 9.75 to 13.5 mg/l.

#### *4.4.4.6. Temperature*

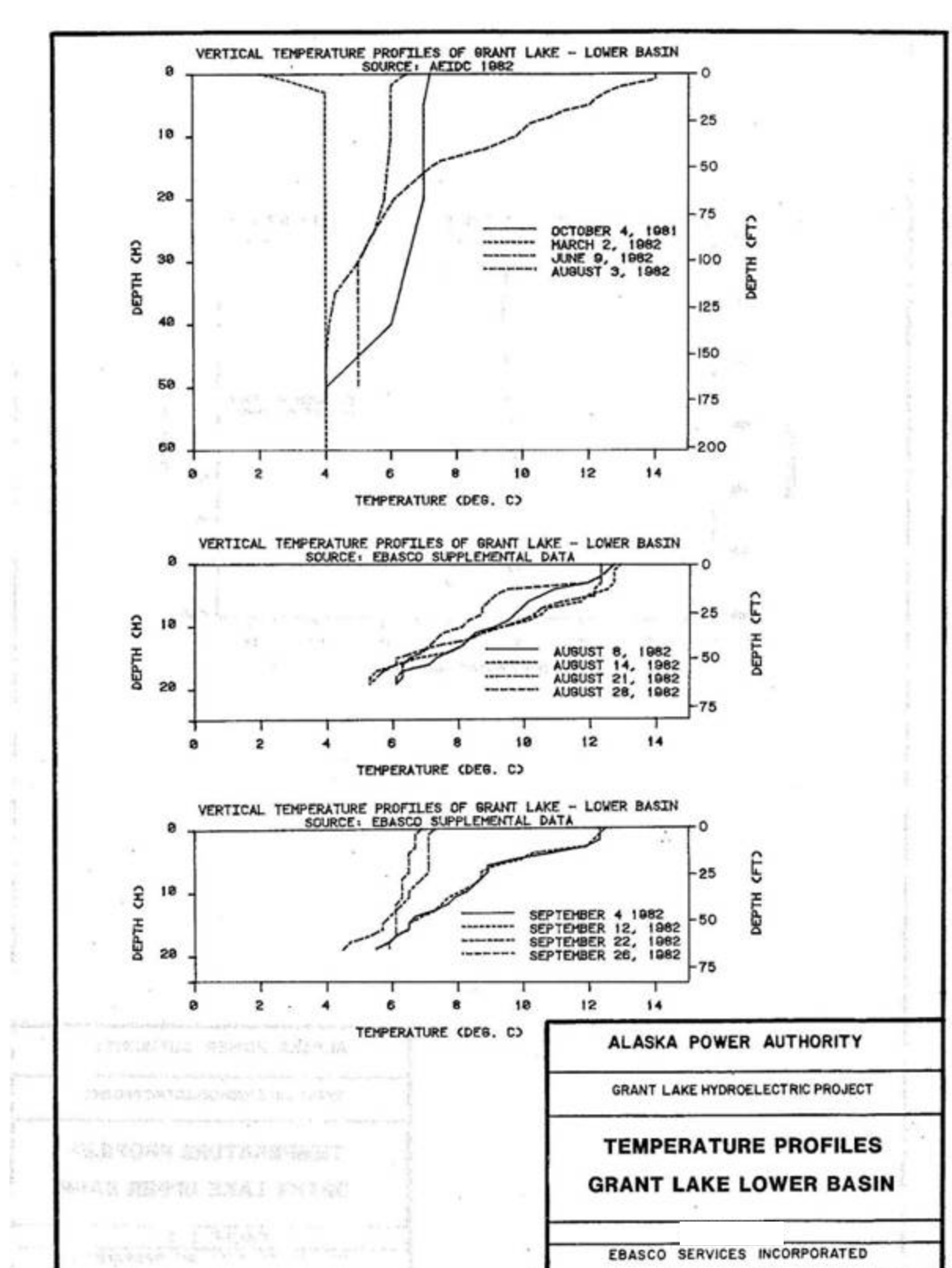
Temperature data show that Grant Lake is stratified during summer months, with surface temperatures reaching 14 °C and bottom (depth of 100 feet) temperatures of 5 °C. Fall overturn occurred in mid-September in 1981 and October in 1982. Seasonal temperature profiles for data collected in 1981-1982 in the upper and lower basins of Grant Lake are shown in Figures 4.4-7 and 4.4-8.

In 1981-1982, Grant Creek temperatures were between 0 °C and 13 °C and found to be closely related to Grant Lake surface temperatures (APA 1984). Temperatures in Falls Creek, which freezes solid in the winter, ranged from 0.3 °C to 6.7 °C during 1981-1982. Table 4.4-3 includes historic Grant Lake surface, Grant Creek, and Falls Creek temperature data reported in APA (1984).

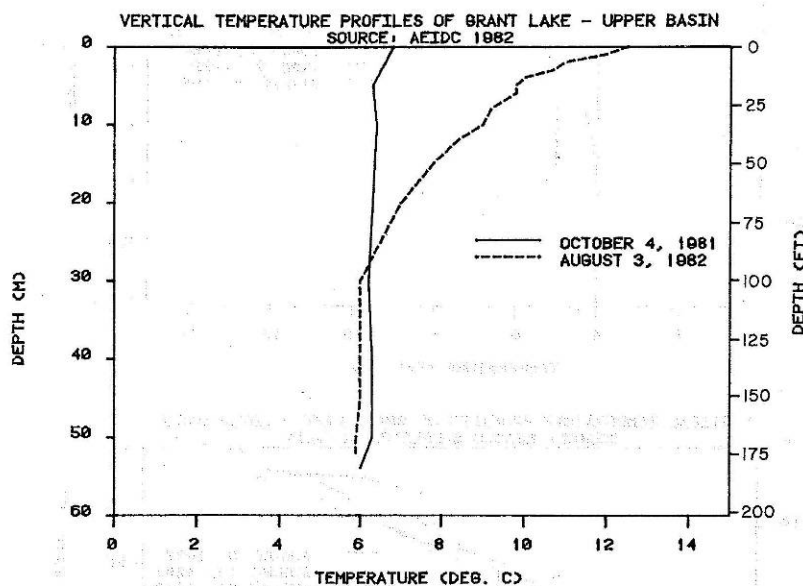
*PRE-APPLICATION DOCUMENT***Table 4.4-3.** Temperature comparisons of Grant Lake, Grant Creek, and Falls Creek (Source: APA 1984).

| <b>Date</b>                             | <b>Source</b> | <b>Grant Lake<br/>Surface<br/>(°C)</b> | <b>Grant<br/>Creek<br/>(°C)</b> | <b>Falls<br/>Creek<br/>(°C)</b> | <b>Temperature<br/>Difference<br/>Between<br/>Grant Lake<br/>and Grant Creek<br/>(°C)</b> | <b>Temperature<br/>Difference<br/>Between<br/>Grant Creek<br/>and Falls Creek<br/>(°C)</b> |
|-----------------------------------------|---------------|----------------------------------------|---------------------------------|---------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 11/3/59                                 | USFW (1961)   |                                        | 4.4                             | 0.3                             |                                                                                           | 4.1                                                                                        |
| 6/8/60                                  | USFW (1961)   |                                        | 7.8                             | 5.0                             |                                                                                           | 2.8                                                                                        |
| 6/17/60                                 | USFW (1961)   | 11.7                                   | 11.7                            |                                 | 0                                                                                         |                                                                                            |
| 7/20/60                                 | USFW (1961)   | 12.8                                   | 11.1                            | 5.0                             | 1.7                                                                                       | 6.1                                                                                        |
| 8/8/60                                  | USFW (1961)   | 11.1                                   | 11.1                            |                                 | 0                                                                                         |                                                                                            |
| 8/13/60                                 | USFW (1961)   |                                        | 10.6                            | 6.7                             |                                                                                           | 3.9                                                                                        |
| 9/1/60                                  | USFW (1961)   |                                        | 10.0                            | 5.6                             |                                                                                           | 4.4                                                                                        |
| 9/14/60                                 | USFW (1961)   |                                        | 9.4                             | 5.0                             |                                                                                           | 4.4                                                                                        |
| 10/16/60                                | USFW (1961)   | 6.7                                    | 5.6                             | 2.2                             | 1.1                                                                                       | 3.4                                                                                        |
| 10/13/81                                | AEDIC (1982)  | 7.2                                    | 6.0                             | 3.5                             | 1.2                                                                                       | 2.5                                                                                        |
| 3/2/82                                  | AEDIC (1982)  | 2.0                                    | 1.0                             |                                 | 1.0                                                                                       |                                                                                            |
| 6/9/82                                  | AEDIC (1982)  | 6.6                                    | 6.5                             | 4.0                             | 0.1                                                                                       | 2.5                                                                                        |
| 8/3/82                                  | AEDIC (1982)  | 14.0                                   | 12.5                            | 5.5                             | <u>1.5</u>                                                                                | <u>7.0</u>                                                                                 |
| Average Temperature<br>Difference, (°C) |               | ...                                    | ...                             | ...                             | 0.8                                                                                       | 4.1                                                                                        |

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**Figure 4.4-7.** Temperature profiles in Grant Lake (APA 1984).



**Figure 4.4-8.** Temperature profile for the upper basin of Grant Lake (APA 1984).

#### 4.4.4.7. pH

Grant Lake pH values were measured between 6.2 and 7.6 standard units (APA 1984) in 1981 and 1982, with the lowest levels recorded in October. Grant Creek pH was measured between 6.2 and 7.2, and Falls Creek pH was between 6.3 and 7.3.

#### 4.4.4.8. Trace Metals and Hardness Levels

Limited trace metals data are available from 1981-1982 water quality studies. Cadmium, chromium (trivalent), copper, lead, mercury, silver, and zinc levels are reported in Table 4.4-4. In addition to the metals listed above, barium, cobalt, and manganese were measured in Grant Lake, Grant Creek, and Falls Creek in October 1981 and were found to be below the detection limit. Arsenic, gold, boron, bismuth, molybdenum, nickel, platinum, antimony, selenium, tin, strontium, titanium, tungsten, vanadium, and zirconium were measured in Grant and Falls Creek below detection limits, except strontium (0.06 mg/l in Grant Creek and 0.07 mg/l in Falls Creek) (APA 1984). Total hardness data from October 1981 and March, June, and August 1982 are reported in AEIDC (1983) as  $\text{CaCO}_3$ : Grant Lake – 27-33 mg/l; Grant Creek – 28-31 mg/l; and Falls Creek – 25-39 mg/l.

**Table 4.4-4.** Trace metals data collected in 1982.

|                             | Grant Lake (µg/l) |              |              | Grant Creek (µg/l) |              |              | Falls Creek (µg/l) |              |                                  |                        |
|-----------------------------|-------------------|--------------|--------------|--------------------|--------------|--------------|--------------------|--------------|----------------------------------|------------------------|
| Metal                       | March             | June         | August       | March              | June         | August       | June               | August       | Method <sup>1</sup>              | Detection Limit (mg/l) |
| <b>Cadmium</b>              | 0.3               | <0.1         | <0.1         | <0.1               | <0.1         | <0.1         | <0.1               | <0.1         | Graphite Furnace AA <sup>2</sup> | 0.0001                 |
| <b>Chromium (trivalent)</b> | 0.6               | 0.8          | 1.4          | 0.5                | <0.5         | 0.6          | 3.7                | <0.5         | Graphite Furnace AA              | 0.0005                 |
| <b>Copper</b>               | 3                 | 2            | 18           | 2                  | <1           | 2            | 4                  | 1            | Graphite Furnace AA              | 0.001                  |
| <b>Lead</b>                 | 9                 | 2            | 5            | 4                  | <1           | <1           | 2                  | <1           | Graphite Furnace AA              | 0.001                  |
| <b>Mercury</b>              | <0.2              | Not Measured | Not Measured | <0.2               | Not Measured | Not Measured | Not Measured       | Not Measured | Cold Vapor Technique             | 0.0002                 |
| <b>Silver</b>               | <0.3              | 0.3          | <0.3         | <0.3               | <0.3         | <0.3         | <0.3               | 0.3          | Graphite Furnace AA              | 0.0003                 |
| <b>Zinc</b>                 | <5                | 6            | 15           | 125                | 6            | <5           | 8                  | 8            | Flame AA                         | 0.005                  |

Notes:

1 Samples taken in October 1981 were below detection limits, processed using the Inductively Coupled Argon Plasma Scan (ICAP) method, with detection limits as reported in APA (1984).

2 AA – Atomic Absorption

Source: APA 1984, Tables 2-1 and 2-3

#### **4.4.5. Existing and Proposed Water Uses**

##### **4.4.5.1. Existing Water Use**

Existing water uses for Grant Lake and Creek and Falls Creek are summarized in section 4.2.2 – Land and Water Uses.

##### **4.4.5.2. Grant Lake Proposed Water Use**

Kenai Hydro, LLC submitted a water rights application for the proposed Grant Lake Development to the Alaska Department of Natural Resources, Water Resources Section, in April 2009 (KHL 2009a). The application requested water rights for the proposed Project, to include:

- 48,000 acre feet of storage in Grant Lake
- 910 acre feet per day (for use January – December)
- 297 million gallons per day (maximum daily use)

##### **4.4.5.3. Falls Creek Proposed Water Use**

Kenai Hydro, LLC submitted a water rights application for the proposed Falls Creek Development to the Alaska Department of Natural Resources, Water Resources Section, in April 2009 (KHL 2009b). The application requested water rights for the proposed Project, to include:

- 210 acre feet per day (for use January – December)
- 70 million gallons per day (maximum daily use)

#### **4.4.6. Potential Adverse Impacts**

Potential adverse environmental impacts of the proposed Project will be assessed by the licensing studies. Table 4.4-5 summarizes potential Project impacts to water resources. Seasonal temperature changes in Grant Creek could occur. Minimum instream flow needs for fish and aquatic habitat will be determined through future studies. Potential water quality impacts due to seasonal changes in hydrology through diversion of flow from Falls Creek, and changed flows in Grant Creek will be investigated and baseline data collected will be evaluated by Alaska Water Quality Standards.

**Table 4.4-5.** Potential Project impacts on water resources.

| Potential Impact                                           | Resource Issue                                                    |
|------------------------------------------------------------|-------------------------------------------------------------------|
| Changes in seasonal flows from Grant Lake into Grant Creek | Water quality, including temperature, impacts on Grant Creek.     |
| Reduction in flow in Falls Creek                           | Water quality impacts on Falls Creek                              |
| Changes in seasonal flows in Grant Creek and Falls Creek   | Water quality and hydrology impacts on Trail Lake and Trail Creek |

#### 4.4.7. Proposed Protection, Mitigation, and Enhancement Measures

Kenai Hydro, LLC has not to date identified proposed water resources related protection, mitigation, and enhancement measures (PM&Es) for implementation under the project license. Identification of PM&Es will occur following completion of effects analyses based on licensing studies. The proposed Project facilities include a multi-level intake structure in order to address potential temperature impact of changes in stream hydrology due to the Project.

### 4.5. Fish and Aquatic Resources

#### 4.5.1. Introduction

The following subsections include a description of existing fish and aquatic resources in the vicinity of the proposed Grant Lake/Falls Creek Project. Topics addressed, to the extent possible based on existing information, include anadromous and resident fish, invertebrate, and aquatic plant communities

#### 4.5.2. Existing Fish and Aquatic Communities

##### 4.5.2.1. Kenai River Basin

The Kenai River system, one of the most productive salmon rivers in the world, supports 34 species of anadromous and resident fish, including five species of Pacific salmon: Chinook (*Oncorhynchus tshawytscha*), coho (*O. kisutch*), sockeye (*O. nerka*), pink (*O. gorbuscha*), and chum (*O. keta*) salmon, although chum salmon are uncommon in the Kenai River. Other salmonid species in the Kenai River and its tributaries include resident rainbow trout (*O. mykiss*), Dolly Varden (*Salvelinus malma*), lake trout (*S. namaycush*), Arctic grayling (*Thymallus arcticus*), Bering cisco (*Coregonus laurettae*), and round whitefish (*Prosopium cylindraceum*). Anadromous rainbow trout (steelhead) do not occur in the Kenai River basin (ADNR 1997).



***Chinook Salmon***

There are two distinct Chinook salmon spawning runs in the Kenai River basin: an early run that enters the river from May through late June and spawns primarily in tributaries from late July to mid August and a late run that enters the river from late June through August and spawns primarily in the mainstem Kenai River. In recent years, the early run population has fluctuated between 8,100 fish and 16,000 individuals, whereas the late run is typically larger, with a total run size averaging 56,000 fish (ADF&G 2006a).

A number of upper river tributaries are used by early run Chinook salmon for spawning. In the mainstem Kenai River the greatest amount of Chinook salmon spawning occurs between river miles 10 - 21 and 40 - 50. Rearing Chinook salmon are seasonally distributed throughout the entire mainstem Kenai River, in the lower reaches of a number of tributaries, and in Skilak and Kenai lakes (ADNR 1998). Juvenile Chinook typically rear in fresh water for just over one year and are usually associated with low gradient, meandering, unconstrained river reaches. The majority of Chinook juveniles in the mainstem Kenai River rear within about six feet of undisturbed riverbanks where natural bank indentations provide cover (ADNR 1997).

***Coho Salmon***

Coho salmon also have two distinct spawning runs in the Kenai River basin. The early run enters the river in late July and the late run in November and December. Early-run coho spawn primarily in tributaries from September through early October, and late-run coho spawn in the mainstem Kenai River from October through February. After emergence, juvenile coho spend from one to three winters in streams and may spend up to five winters in lakes before migrating to the ocean as smolts (ADF&G 2006a).

***Sockeye Salmon***

There are also two distinct sockeye salmon runs in the Kenai River. The early run enters the river in mid May, and the late run begins entering the river by mid July. Spawning usually occurs in rivers, streams, and upwelling areas along lake beaches. In systems with lakes, juveniles usually spend one to three years in fresh water before migrating to the ocean in the spring as smolts (ADF&G 2006a). The majority of mainstem and tributary juvenile sockeye salmon rear in Kenai and Skilak lakes.

***Rainbow Trout***

Resident rainbow trout occur throughout the Kenai River system, and the upper Kenai River supports a large portion of the overall rainbow trout population. The majority of these fish over-winter in Skilak and Kenai lakes and migrate to spawning and feeding locations in the upper Kenai River and tributaries during May and June. Adult rainbow trout move from upper river locations to over-wintering areas in September and November.

***Dolly Varden***

Resident and anadromous Dolly Varden inhabit the entire Kenai River system, including both Skilak and Kenai lakes (ADF&G 2004). Several staging areas containing spawning fish have been identified in tributaries and in the mainstem Kenai River. Dolly Varden occupy most of the tributaries to Kenai Lake and the Kenai River during summer and fall and overwinter in lakes.

**4.5.2.2. *Grant Lake and Grant Creek******Grant Lake***

Because of the impassable falls below Grant Lake's outlet, no anadromous fish species occur in Grant Lake and its tributaries (USFWS 1961, AEIDC 1983, APA 1984), and Grant Lake is not included in the Anadromous Waters Catalog (AWC) published by ADF&G (Johnson and Daigneault 2008). Grant Lake appears to support only resident populations of sculpin—including slimy sculpin (*Cottus cognatus*) and coast range sculpin (*Cottus aleuticus*)—and threespine stickleback (*Gasterosteus aculeatus*) (AEIDC 1983, USFWS 1961, Johnson and Daigneault 2008). Although Sisson (1984) reported that Dolly Varden and a few rainbow trout occupied Grant Lake, subsequent investigations (USFWS 1961, AEIDC 1983, Marcuson 1989) have documented only sculpin and stickleback. From 1983-1986, coho salmon fry were stocked in Grant Lake by ADF&G, with limited success, through some enhanced returns to Grant Creek were recorded (Marcuson 1989). To augment existing information, KHL is conducting surveys in 2009 to characterize fish use within Grant Lake (HDR 2009a).

Patches of aquatic macrophytes occur in Grant Lake in the few littoral areas shallow enough to allow their growth. Based on surveys conducted in the early 1980s, white water crowfoot (*Ranunculus trichophyllus*) occurred in Grant Lake but was abundant only near the lake's outlet (APA 1984). Sedges (*Carex rhynchophylla*) were documented in the narrows between upper and lower Grant Lake basins. Both species were uncommon, which was attributed to the lake's lack of shallows and level of turbidity (APA 1984).

Results of 1982 phytoplankton collection in Grant Lake show that the dominant taxa during all seasons were diatoms, mainly *Cyclotella* and *Synedra*, and that phytoplankton abundance was greatest in August (APA 1984). Phytoplankton density was low compared to measurements from other northern oligotrophic lakes.

Surveys conducted in 1982 showed that the zooplankton community in Grant Lake was dominated by rotifers, mainly *Kellicottia* and *Asplanchna*, and cyclopoid copepods (APA 1984). Non-rotifer zooplankton abundance was highest in August, likely following peak abundance of the phytoplankton upon which they feed.

Sampling conducted in Grant Lake in 1981 and 1982 revealed that benthic macroinvertebrate diversity was low, as is typical of cold, glacial fed lakes with limited littoral habitat (APA 1984).

The three most abundant taxa were midges (Chironomidae), segmented worms (Oligochaeta), and clams. Densities of all insect taxa, other than chironomids, were low. Macroinvertebrates were typically most abundant in summer, and the lower Grant Lake basin had more abundant caddisflies (Trichoptera) and clams and fewer worms than the upper basin.

### ***Grant Creek***

Both anadromous and resident fish are present in Grant Creek, which is included in the Anadromous Waters Catalog (AWC) due to the presence of spawning and rearing salmon (Johnson and Daigneault 2008). The section of Grant Creek containing anadromous fish is shown in Figure 4.5-1. A series of impassable falls near Grant Lake's outlet (approximately 0.75 miles upstream of the creek's mouth) prevents colonization of the lake by salmonids from Grant Creek (APA 1984).

Spawning Chinook, sockeye, and coho salmon, rainbow trout (*O. mykiss*), and Dolly Varden occur in the lower reaches of Grant Creek (APA 1984, Johnson and Daigneault 2008). Round whitefish and Arctic grayling have been captured in Grant Creek but are not known to spawn there (APA 1984). Chinook salmon may be present in Grant Creek from early July to early September with the peak of spawning occurring in late July-early August. Sockeye salmon may be present from mid-July through late September with the spawning peak in late August. Coho salmon enter the creek in late August and may be present through early November with the spawning peak occurring in early October (Marcuson 1986). Rainbow trout may be present most of the year with spawning likely occurring just after ice breakup in late spring. Dolly Varden spawning occurs in the late fall.

Counts of salmon in lower Grant Creek based on foot surveys by a number of investigators are presented in Table 4.5-1. Additionally, a counting weir was operated on lower Grant Creek in late summer and fall during the years 1986-1989 in order to evaluate the experimental stocking of coho salmon in Grant Lake. Foot survey counts are likely substantially lower than actual escapement numbers. The weir data can be expected to be more reflective of actual fish numbers. However, the weir was placed after the peak of the chinook run so numbers of chinook probably underestimate total escapement. Very small numbers of pink and chum salmon (less than 10) were also caught in the weir.

## PRE-APPLICATION DOCUMENT

**Table 4.5-1.** Number of adult salmon observed in lower Grant Creek during intermittent foot surveys (1952-1982) and weir counts (1985-1988).

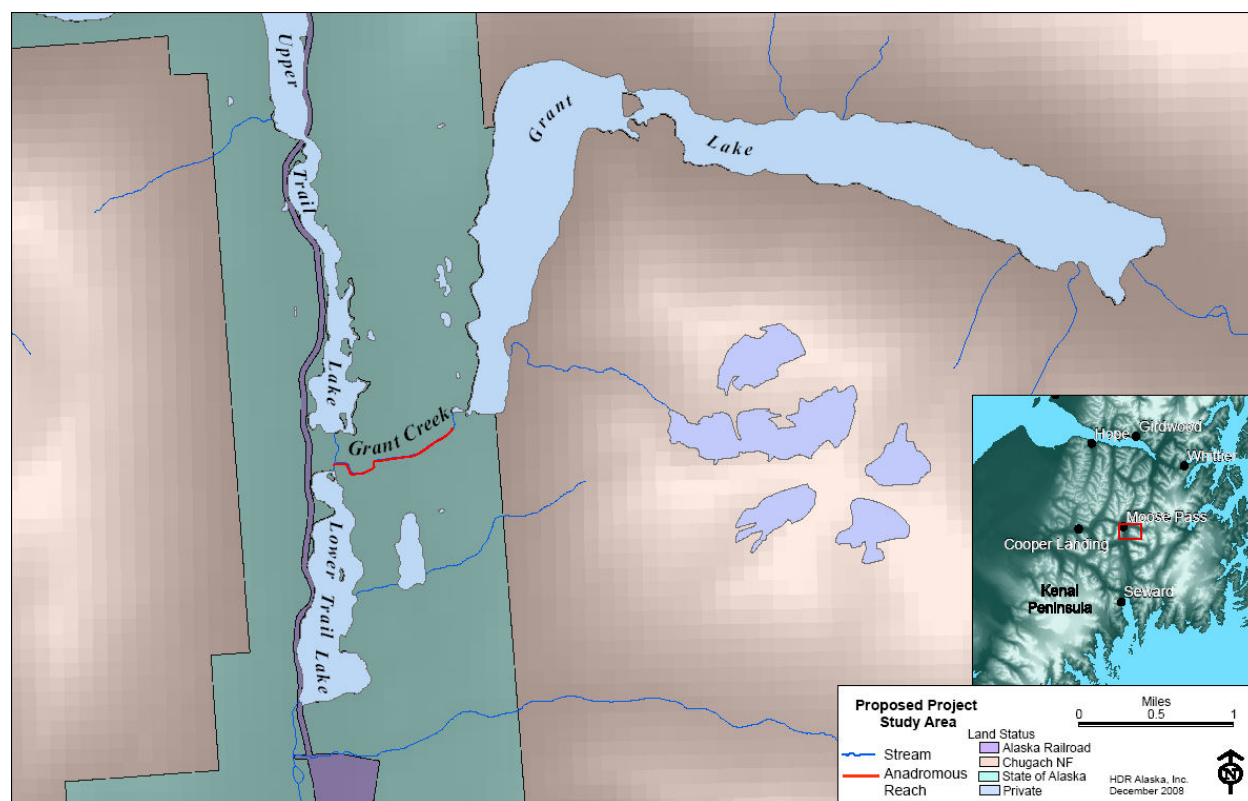
| YEAR | NUMBER OF ADULT SALMON |                |             |
|------|------------------------|----------------|-------------|
|      | Chinook Salmon         | Sockeye Salmon | Coho Salmon |
| 1952 | 0                      | 250            |             |
| 1953 | 12                     | 13             |             |
| 1954 | 6                      | 45             |             |
| 1957 | 8                      | 0              |             |
| 1959 | 28                     | 0              |             |
| 1961 | 86 Total               |                |             |
| 1962 | 2                      | 234            |             |
| 1963 | 33                     | 41             |             |
| 1976 | 29                     | 0              |             |
| 1977 | 0                      | 4              |             |
| 1978 | 5                      | 0              |             |
| 1979 | 42                     | 29             |             |
| 1980 | 5                      | 0              |             |
| 1981 | 45                     | 19             |             |
| 1982 | 46                     | 135            |             |
| 1985 | 53                     | 400            | 301*        |
| 1986 | 46                     | 675            | 178*        |
| 1987 | 34                     | 2181           | 312*        |
| 1988 | 33                     | 551            | 55*         |

\*Estimated wild fish - additional cohos were present but were returns from Grant Lake fry stocking and do not represent current conditions.

Source – APA 1984 and Marcuson 1989

Minnow trapping and electrofishing conducted in lower Grant Creek during 1981 and 1982 yielded higher catches of salmon, trout, and Dolly Varden in the fall and summer than in winter and spring (AEIDC 1983). Length-frequency distribution of fish caught via electrofishing in Grant Creek during 1982 show that most fish captured were small, particularly Chinook and coho salmon (Figure 4.5-2) (AEIDC 1983).

As noted above, upper Grant Creek is impassable to fish because of barrier falls (APA 1984, Johnson and Daigneault 2008), restricting usable anadromous fish habitat to the lower portion of the stream. Juvenile fish habitat exists mainly in the stream's margins, eddies, deep pools with cover, and side channels (APA 1984). Substrate throughout Grant Creek is large as a result of high water velocity, although isolated areas of spawning gravel occur in the lower half of the stream (APA 1984).



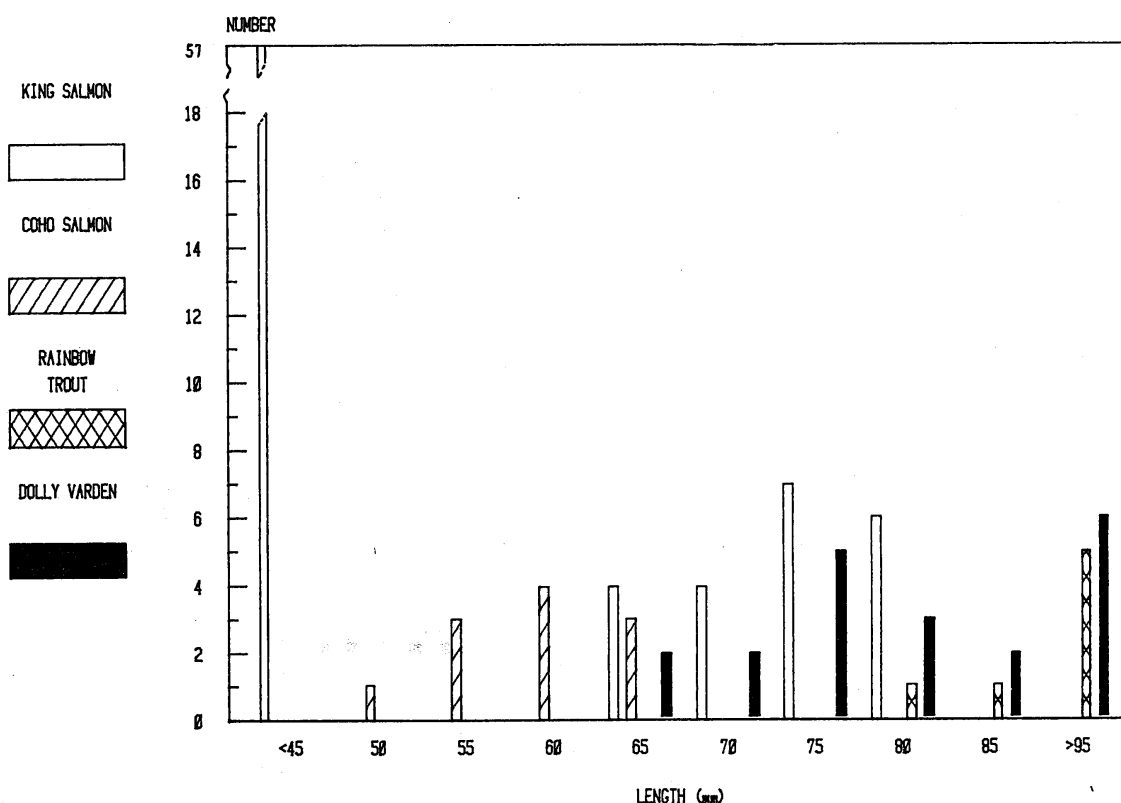
**Figure 4.5-1.** The range of anadromous fish in Grant Creek, as documented by the AWC (Johnson and Daigneault 2008).

To augment existing fisheries information, KHL is conducting surveys of fish populations and habitat in Grant Creek during 2009 (HDR 2009a). The purpose of the study is to characterize resident and anadromous fish use, fish spawning abundance, spawning run timing, and habitat quality. As part of the study, potential locations will be evaluated for the installation and operation of a fish weir on Grant Creek, which may be used to estimate salmon escapement. In addition to fish and habitat surveys, KHL is conducting an instream flow study to determine the potential effects of a range of flow regimes on physical habitat and water temperature in Grant Creek.

Surveys conducted in 1982 showed that the periphyton community in Grant Creek was dominated by diatoms, mainly *Achnanthes* and *Synedra* (APA 1984). Diatoms were most abundant in spring, as is typical of streams. Galcial runoff may at times reduce light penetration in Grant Creek, which in turn would reduce potential periphyton production. APA (1984) concluded that allochthonous input of leaves and other organic matter, along with input of phytoplankton and zooplankton from Grant Lake, was likely more important than periphyton as the basis of productivity in Grant Creek.

## PRE-APPLICATION DOCUMENT

Surber sampling conducted in Grant Creek in 1981 and 1982 revealed that benthic macroinvertebrate diversity was low, as is typical of cold, glacial fed streams (APA 1984). The most abundant taxa were midge species (Chironomidae), followed by mayflies (Ephemeroptera), stoneflies (Plecoptera), and clams. No seasonal variation in macroinvertebrate abundance was observed.



**Figure 4.5-2.** Length-frequency distribution of Chinook (king) salmon, coho salmon, rainbow trout, and Dolly Varden captured via electrofishing in Grant Creek during 1982 (from AEIDC 1983).

#### 4.5.2.3. Falls Creek

Both anadromous and resident fish are present in the lowest 0.25 miles of Falls Creek, which is included in the Anadromous Waters Catalog (AWC) due to the presence of spawning and rearing salmon (Johnson and Daigneault 2008). There is a fish barrier at the lower end of Falls Creek preventing further upstream passage. Sampling conducted in 1959 by the USFWS in Falls Creek documented the presence of juvenile Chinook salmon, Dolly Varden, and sculpin species; the

rearing Chinook juveniles were all observed in the lowest 0.1 miles of the stream (based on minnow trapping results). During surveys in the early 1980s there was no evidence that Dolly Varden spawned in Falls Creek (AIEDC 1983).

Sampling conducted in Falls Creek in 1981 and 1982 revealed that benthic macroinvertebrate diversity was low (AIEDC 1983), as is typical of cold, glacial streams. The dominant taxa were midges and mayflies, although stoneflies, caddisflies, and other species of true flies (Diptera) were present. Densities of all insect taxa, other than mayflies, were low. Macroinvertebrates were typically most abundant in late summer.

To augment existing information, KHL is conducting surveys in 2009 of fish populations and habitat in Falls Creek (HDR 2009a). The purpose of the studies is to evaluate resident and anadromous fish species composition, distribution, and abundance and to survey fish habitat resources and assess quality and quantity of key habitat parameters.

#### **4.5.2.4. Trail Lake/Trail River**

Anadromous and resident fish species in the Trail Lake/Trail River system include Chinook, coho, sockeye, and pink salmon. Other salmonid species include resident rainbow trout, Dolly Varden, lake trout, Arctic grayling, and round whitefish (ADNR 1998, AIEDC 1983). Both late-run sockeye salmon and lake trout spawn in Upper Trail Lake (ADF&G 2006a).

### **4.5.3. Threatened and Endangered Species**

There are no federally or state listed Threatened or Endangered fish species in the vicinity of Grant Lake, Grant Creek or Falls Creek.

### **4.5.4. Federally Designated Habitat**

The Magnuson-Stevens Fishery Conservation and Management Act of 1996 defines Essential Fish Habitat (EFH) as “those waters and substrates necessary for fish spawning, breeding, feeding, or growth to maturity.” Freshwater EFH includes streams, rivers, lakes, ponds, wetlands and other bodies of water currently and historically accessible to Pacific salmon. EFH for Pacific salmon recognizes six critical life history stages: (1) spawning and incubation of eggs; (2) juvenile rearing; (3) winter and summer rearing during freshwater residency; (4) juvenile migration between freshwater and estuarine rearing habitats; (5) marine residency of immature and maturing adults; and (6) adult spawning migration. Habitat requirements within these periods can differ significantly, and modification of habitat within these periods can adversely affect EFH. By agreement between NOAA Fisheries and ADF&G, EFH for anadromous species in Alaskan fresh waters is defined by the ADF&G Catalogue of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes (ADF&G 2008).



#### **4.5.4.1.    *Grant Lake and Grant Creek***

In Grant Creek, EFH is limited to those areas occupied by Chinook, coho, and sockeye salmon identified in ADF&G's Catalogue of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes (ADF&G 2008). The reach (about 0.75 miles) of Grant Creek below the impassable barrier falls is identified as EFH by ADF&G.

#### **4.5.4.2.    *Falls Creek***

In the Falls Creek, EFH is limited to those areas occupied by Chinook, coho, and sockeye salmon identified in ADF&G's Catalogue of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes (ADF&G 2008). The lowest reach (about 0.25 miles) of Falls Creek is identified as EFH by ADF&G.

#### **4.5.4.3.    *Trail Creek***

In Trail Creek, EFH is limited to those areas occupied by Chinook, coho, and sockeye salmon identified in ADF&G's Catalogue of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes (ADF&G 2008). Trail Creek between Trail Lake and Kenai Lake (about 1.5 miles) is identified as EFH by ADF&G.

### **4.5.5. Potential Adverse Impacts**

#### **4.5.5.1.    *Grant Lake and Grant Creek***

Potential adverse environmental impacts of the proposed Project will be assessed by the licensing studies being undertaken in 2009 to develop the information needed to understand the potential effects of the Grant Lake and Falls Creek developments on fish and aquatic resources in the vicinity of the project.

Alteration of streamflow and temperature regime (depending on the depth of water withdrawal in Grant Lake) in Grant Creek as the result of potential Project operation could affect spawning and rearing habitat for anadromous fish species and habitat for all lifestages of resident fish species, depending on the timing and magnitude of flow alteration.

Changes in water surface elevations in Grant Lake would likely affect aquatic biota in littoral areas, including fish, macroinvertebrates, and macrophytes; the timing and magnitude of lake level changes would dictate the level of effects (the proposed lake level changes would range from 9 feet above to 25 feet below the natural lake elevation of approximately 696 feet). Areas of shoreline wetlands could also be affected. Any dredging of Grant Lake in the vicinity of the proposed intake structure could result in short-term impacts on benthic macroinvertebrate populations in the area. Water temperatures in Grant Lake could be influenced by operation of the proposed Project, depending on the depth of water withdrawal.

Increased fine sediment runoff from access roads and construction activities could affect habitat conditions in Grant Creek over the short-term, but implementation of Best Management Practices (BMPs) at the site would minimize, and possibly preclude, such impacts. The stream, however, is already turbid as the result of glacial runoff, so it is uncertain how significant effects of any sediment input would be.

#### **4.5.5.2. Falls Creek**

Alteration of streamflow in Falls Creek due to the diversion of flow from Falls Creek to Grant Lake, could affect spawning and rearing habitat for anadromous fish species and habitat for all lifestages of resident fish species, depending on the timing and magnitude of flow alteration. It is unknown whether alteration of streamflow in Falls Creek as the result of potential Project operations, i.e., water diversion to Grant Lake, could affect conditions in Falls Creek. Because Grant Creek flows into Trail Lake upstream of the mouth of Falls Creek, no net change in flow would be experienced in Trail Creek due to Falls Creek diversion.

#### **4.5.6. Proposed Protection, Mitigation, and Enhancement Measures**

Kenai Hydro, LLC has not to date identified proposed fish and aquatic resource related protection, mitigation, and enhancement measures (PM&Es) for implementation under the project license. Identification of PM&Es will occur following completion of effects analyses based on licensing studies. An instream flow study will be conducted on Grant Creek to determine the effects of altered flow on fish habitats and to provide a basis for establishing minimum flow releases to protect anadromous fish habitat within the lower Grant Creek fish use area.

### **4.6. Wildlife and Botanical Resources**

#### **4.6.1. Introduction**

The ecological setting of the Project vicinity reflects the area's low average temperatures, prolonged freezing in the winter, and the relative geographic isolation of the Kenai Peninsula from the principal land mass of Alaska. Low overall temperatures limit primary and secondary productivity, and the area's geographic isolation lead to low plant and animal diversity. The proposed Project would be located between elevation 500 feet and 700 feet MSL within a transition zone between boreal and coastal coniferous forests dominated by Sitka spruce and hemlock. Timberline lies between 1,000 and 1,500 feet elevation, and plant species adapted to avalanches, desiccation, and freezing occur at higher elevations. Willow and alder occupy areas between forest and alpine species.

There are no known occurrences of federally listed endangered or threatened plant or wildlife species in the vicinity of the proposed Project.

#### 4.6.2. Wildlife

A series of reconnaissance-level foot and aerial field surveys were conducted between October 1981 and September 1982 by AEIDC to ascertain the presence, distribution, relative abundance, and use patterns of wildlife species and to identify the distribution and relative value of seasonally-limited habitats in the Grant Lake/Falls Creek Project vicinity. Limited additional information on wildlife populations is available in more recent ADF&G reports for some species; wildlife surveys will be conducted as a part of licensing studies in order to update the information included in this section.

##### 4.6.2.1. Description of Wildlife Populations and Habitat Use

Tables with a list of all mammal and bird species found in the proposed Project vicinity along with their occurrence in the area, relative abundance, breeding habitats (bird species), and population estimates (mammals) are included in APA (1984).

#### ***Mammals***

The mammalian fauna of the proposed Project vicinity is composed of a nearly equal mix of herbivore and carnivore species. In general, habitat is marginal for mammals and supports few individuals of most species. Notable exceptions are some south-facing alpine and subalpine communities, which are important to mountain goat and Dall's sheep.

Most mammal species in the area are migratory. Movements are influenced by the terrain, snowfall, and snow melt. Several movement corridors of large mammals were identified in the 1980s field study (APA 1984), and this historical species information is summarized below.

**Small mammals** – Twelve species of shrew and mice are possible residents of the proposed project vicinity. Shrews were ubiquitous in all forest and scrub associations based on observed sign, particularly in older forest communities, but less so above timberline. Vole tracks were observed throughout the Project vicinity to 2,000 feet elevation, the altitudinal limit of foot surveys. The tundra and singing voles are the most common species in the area. Only the northern red-backed mouse (*Clethrionomys rutilus*) was seen in the Project vicinity. This species is common throughout the Kenai Peninsula. The little brown myotis (*Vespertilionidae Myotis lucifugus*), a common summer resident of southcentral Alaska is likely present.

Hoary marmots (*Marmota caligata*) are common residents of alpine tundra communities throughout the project vicinity. In general they were observed at between 1,500 and 3,000 feet elevation. Highest marmot concentrations were observed in the Upper Falls Creek drainage and in local areas north and northeast of Grant Lake. Red squirrels (*Tamiasciurus hudsonicus*) are conspicuous throughout the coniferous forests of the Project vicinity, being most abundant in areas of larger spruce timber. No northern flying squirrels (*Glaucomys sabrinus*) were observed but they probably occur in forest in the area.

Although beavers (*Castor canadensis*) are one of the most abundant furbearing mammals in Alaska, little beaver habitat exists in the Project area. Evidence of beaver was scarce and, with few exceptions, was confined to Grant Lake and its tributaries. Four lodges were observed in this area although only one appeared active. Limited trapping of beavers occurs in the area, but trapping intensity varies considerably between and within years.

Porcupines (*Erethizon dorsatum*) are common throughout the coniferous forests of the Kenai Peninsula, particularly in mountainous regions near timberline. Population sizes are highly variable and fluctuate over long intervals. Occasional scattered porcupine sign was noted in the project area, generally at altitudes of 500 to 1,000 feet. The species was not abundant in the area at the time of the surveys in 1981 and 1982.

**Wolf (*Canis lupus*)** –Wolves recolonized the Kenai Peninsula during the 1960s, and ADF&G estimates the wolf population on the Kenai Peninsula in Game Management Units 7 and 15 (10,637 square miles) to be about 200 (Selinger 2006). The wolf is a frequent transient in the Grant Lake, Falls Creek, and Trail Lakes region (APA 1984). The wolves in the Grant Lake area are probably the group known as the Mystery Creek pack, ranging in the mountain area from Mystery Creek as far east as Grant Lake or perhaps, on occasion, as far as Nellie Juan Lake (APA 1984). The wolf preys upon a variety of animals, including moose, Dall's sheep, mountain goat, snowshoe hare, beaver, coyote, and fox.

**Coyote (*Canis latrans*)** – Coyote abundance has increased rapidly since colonizing the Kenai Peninsula around 1930. Coyote sign was noted over much of the Project vicinity during the 1981-82 field studies. Like the wolf, the coyote is wide-ranging and will travel and hunt throughout all the habitat types of the Project vicinity. A frequently used coyote travel route was noted on the bench between Falls Creek and Grant Lake in the timberline region at the base of the mountain slope (APA 1984).

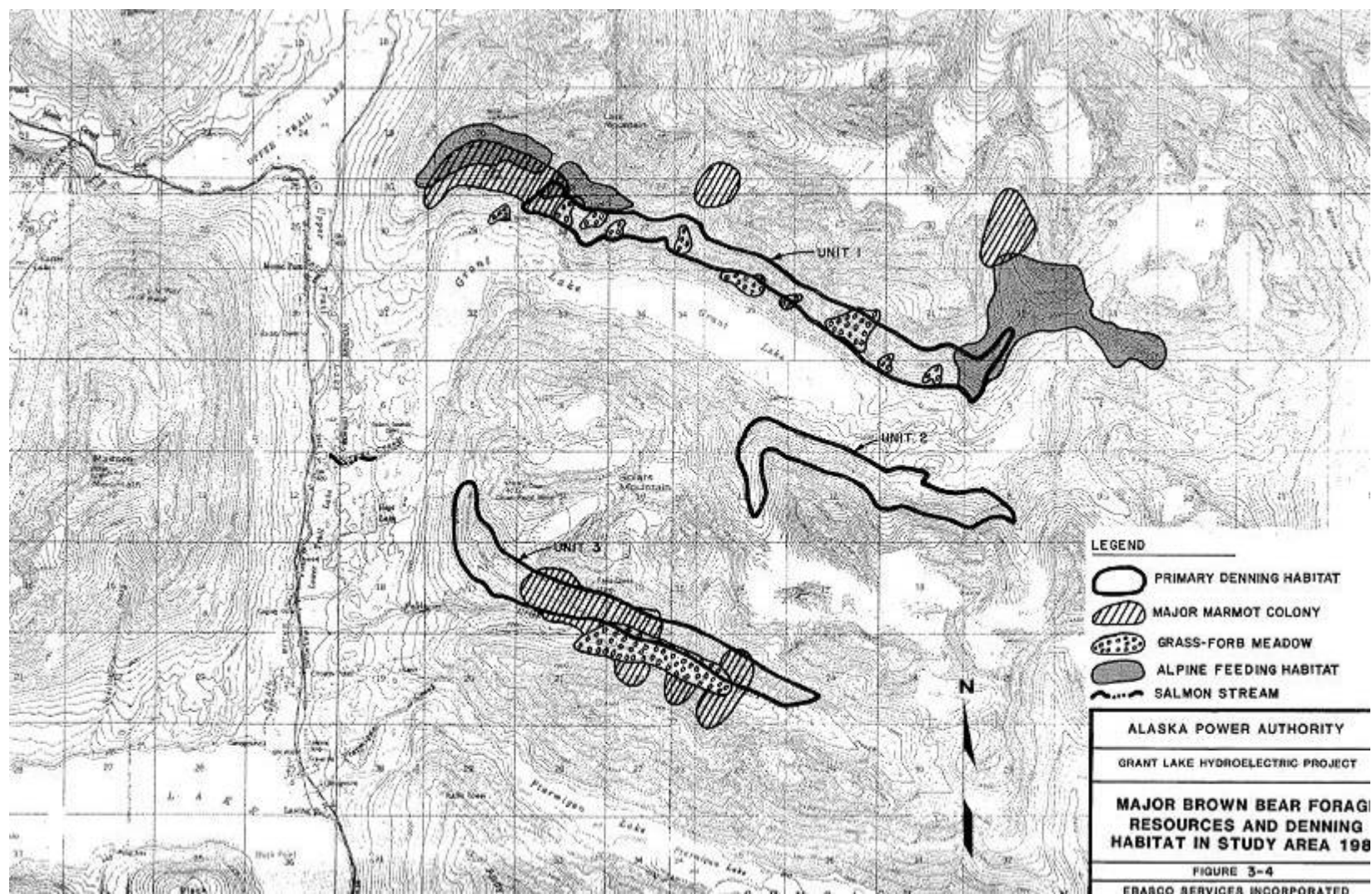
**Red fox (*Vulpes vulpes*)** – The red fox is an indigenous species on the Kenai Peninsula, although population sizes have remained small since about 1930. Low red fox densities are likely due to competition from coyotes and wolves (McDonough 2007a).

**Black bear (*Ursus americanus*)** – Black bears are one of the most widely distributed and abundant large mammals on the Kenai Peninsula. Black bear within the Project vicinity are generally associated with valley floors, small alluvial plains, lakeshores, and intervening streams. Sign was evenly distributed between 500 and 1,000 foot elevations between and around the lakes. There was no evidence of black bear activity in the upper Grant Lake valley during early 1980s surveys. Black bear distribution is regulated by the temporal and spatial distribution of food, which in the Grant Lake area appear to be limited. Important black bear habitat in the Project vicinity includes the lower alpine zone near the shrubline, which is used in July and August for rearing. During August and September black bears feed on salmon in Grant Creek, but because salmon densities are low, bears intermittently forage in the subalpine zone and on

lowland berries at this time. Likely denning habitat in the Grant Lake area includes spruce-covered slopes and hillsides. Primary denning habitat for black bears probably occurs in the Trail Lakes and Moose Creek valleys; the forested habitat along Trail Lakes appears less suitable because of human disturbance. Studies reported in APA (1984) identified the bench between Grant and Trail lakes south to and including the Ptarmigan Creek drainage as potential denning habitat.

**Brown bear (*Ursus arctos*)** – Brown bears are sparsely distributed throughout much of the region surrounding the Project vicinity. During the 1981-1982 field studies, only 16 widely scattered sets of tracks and three individuals, a female with one yearling and a mature individual, were observed. Alaska Department of Fish and Game reported insufficient forage as the factor responsible for the low density of brown bears in the region. Forage resources and denning habitat in 1982 are shown in Figure 4.6-1 for the Project vicinity. (APA 1984). Three units of potential denning habitat are delineated based on sightings of individual bears and their sign at the time of den emergence and on the basis of geomorphic and vegetation characteristics. No more than one or two families and possibly two or three solitary animals would den within the proposed Project area in any given year. The slopes west of Solars and Lark mountains and the bench partitioning Grant and Trail lakes constitute the principal travel routes to and from the Grant Lake valley, although some travel occurs in the pass intersecting the headwater areas of Moose Creek and Snow River. The period of greatest activity during the 1981-1982 studies was the last half of May, coinciding with den emergence and breeding. Few, if any, brown bears reside year-round within the Project vicinity due to lack of food, limited denning habitat, and residential development along the Seward Highway.

The State of Alaska developed a Kenai Peninsula Brown Bear Conservation Strategy (ADF&G 2000) to address impacts of human activities on brown bear habitat. Kenai Peninsula brown bears are listed as a Species of Special Concern by the State of Alaska. ADF&G believes that the population has been increasing over the last decade, but no recent population estimates have been established (Selinger 2005).



**Figure 4.6-1.** Major brown bear forage resources and denning habitat in the Project vicinity in 1982 (APA 1984).

**Mustelids** - Although martens (*Martes americana*) are indigenous to the Kenai Peninsula and present over much of its mountain and foothill areas, little marten sign was found in the Grant Lake area in during the 1981-1982 studies.

The least weasel (*Mustela nivalis*) is widely distributed throughout the Kenai Peninsula, and sign was found throughout all habitat types in the Grant Lake area, particularly in grassy areas near timberline and around lake margins.

Mink (*Mustela vison*) were not sighted during the 1981-1982 field surveys and very little sign was observed. Mink habitat is limited to the lower reaches of Grant and Falls creeks and to the shoreline of Trail Lake. Habitats along Trail Lake are probably important only following salmon runs when salmon carcasses provide food.

Wolverines (*Gulo gulo*) are relatively abundant predators on the Kenai Peninsula. Wide-ranging by nature, they can be found in all habitat types, most commonly in mountain areas. During the 1981-1982 field surveys, the Project vicinity was within the travel and hunting range of one or more wolverines. The Grant Lake-Inlet Creek delta was the site of considerable wolverine foraging activity in March 1982.

River otters (*Lutra canadensis*) are relatively abundant and widespread on the Kenai Peninsula, but no sign of their presence was found in the Project vicinity. Suitable habitat for otter is limited to the lower reaches of Grant Creek. Lack of habitat probably precludes the establishment of a resident population, but otters are probably present as transients in the area.

**Canada Lynx (*Lynx canadensis*)** – Lynx are widespread over the Kenai Peninsula. Lynx distribution and population levels vary in response to snowshoe hare abundance. Forest and shrubland habitats with an abundance of hardwood browse plants available for hares is prime lynx habitat. In 1981-1982, the Project area had a relatively low hare population, so lynx were also uncommon.

**Moose (*Alces alces*)** – Moose inhabit the Project vicinity, but were not particularly abundant during 1981-1982 field studies. Snow depth and a corresponding lack of winter forage limit moose numbers in the Project area (APA 1984). Figure 4.6-2 shows summer and winter ranges and travel routes, with one travel route identified that crosses the bench between Grant and Trail lakes. While little moose monitoring has been conducted, ADF&G estimates moose populations at between 700 and 1,000 based on harvest information in the Eastern Kenai Peninsula Game Management Unit 7 (McDonough 2007c).

**Mountain goats (*Oreamnos americanus*)** – The Kenai Peninsula goat population is subject to considerable short-term annual fluctuations and shifts in ranges occur due to primarily to winter weather conditions and recently to hunting pressures. In the summers of 1979 and 1981, ADF&G conducted a population study, and estimated a population of 246 goats. Of this group,

about one-quarter (an average of 50) commonly use the Grant Lake basin through much of the year.

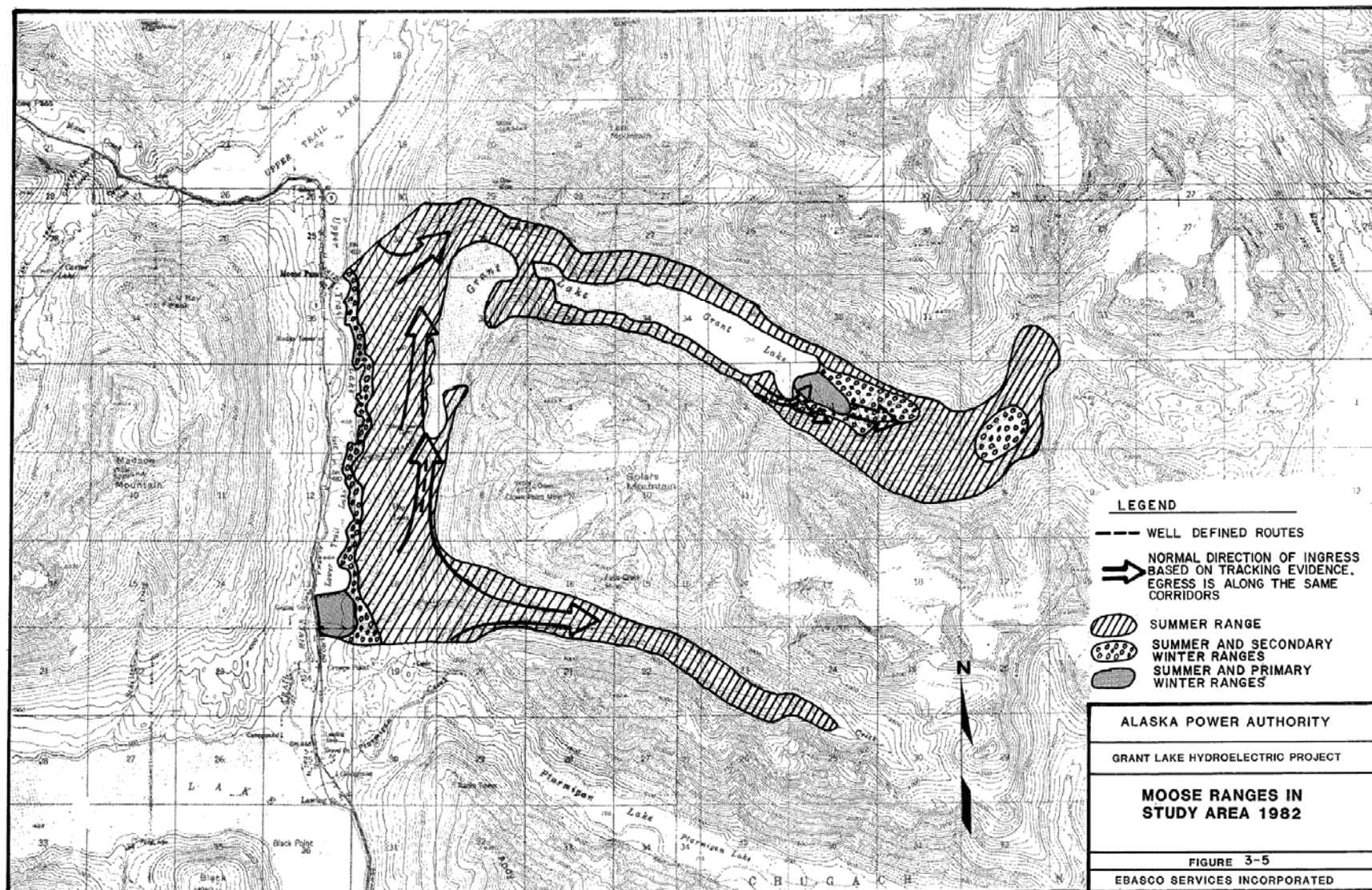
Although the entire drainage is used by mountain goats, the principal area of use is the north side of Grant Lake on the south-facing slopes – generally small vegetated benches and ridges between 1,000 to 3,200 feet. These locations, where mountain goats were observed during April, May, and June in 1982, are depicted on Figure 4.6-3. The primary areas of interchange between Grant Lake and other subpopulations are the Moose Creek drainage and across the glacier to the Kings River-Kings Bay area.

**Dall sheep (*Ovis dalli*)** – Dall sheep are more abundant in the interior sections of the Kenai Mountain range than elsewhere on the Kenai Peninsula. The Grant Lake area constitutes the southern limit of Dall sheep range in Alaska. Dall's sheep reportedly range over the entire Grant lake and Falls Creek drainages in several small bands. During the 1981-1982 field studies, however, they were only noted on the northern half of the Grant Lake drainage. The locations, where Dall's sheep were observed during May and June in 1982, are depicted in Figure 4.6-4. Frequent interchange apparently occurs with the Moose Creek herd, particularly during summer. As with goats, mid-elevations of the slopes constitute favored range, especially vegetated benches, and the upper edges of timbered areas and exposed ridges where some forage plants are available. Sheep were observed during various seasons from the Lark Mountain ridge line above Moose Pass to slopes in the upper basin of the drainage.

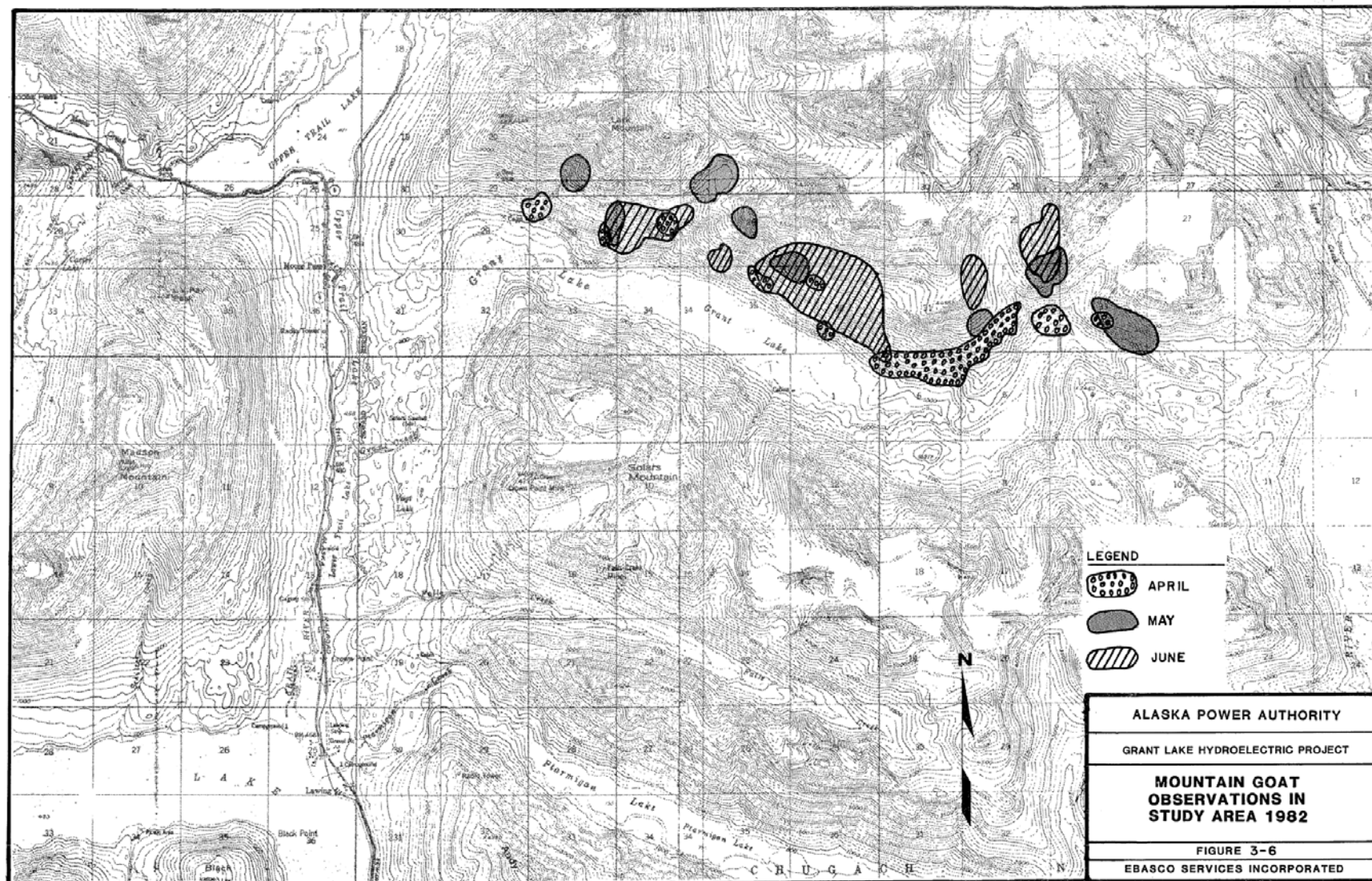
Winter range is the principal limiting factor for sheep. Good winter range in the Grant Lake basin consists of snow-free sites near escape terrain at the mid-altitude. In early spring, sheep sometimes move to lower altitudes into subalpine tree cover, where emergent vegetation appears soon after the snow recedes. Sheep scats were found in open bluejoint meadows as low as 1,000 feet.

The most recent survey of the Kenai Peninsula Dall sheep population was conducted in 1992, when 1600 sheep were counted by ADF&G (McDonough 2008).

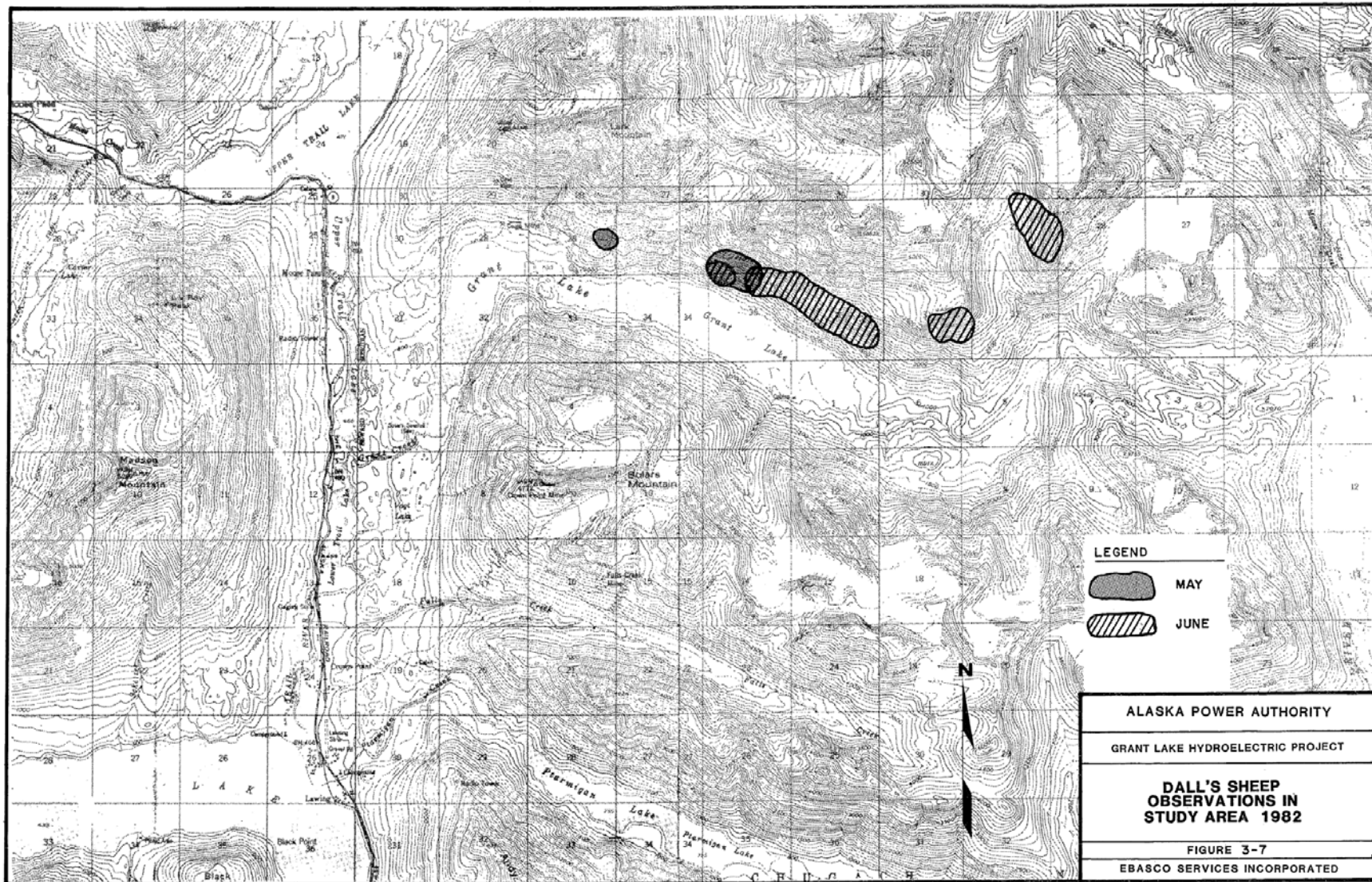




**Figure 4.6-2.** Moose ranges in the Project vicinity in 1982 (APA 1984).



**Figure 4.6-3.** Principal area of mountain goat use in the Project vicinity in 1982 (APA 1984).



**Figure 4.6-4.** Favored range of Dall's sheep in the Project vicinity in 1982 (APA 1984).



**Birds**

AEIDC (1983) studies identified approximately 108 bird species that could either inhabit or migrate through the proposed Project vicinity. A comprehensive list of the species that may occur in the Project vicinity and their breeding status, relative abundance, and breeding habitats is presented in Table 3-16 of the APA analysis (1984).

During field studies, 63 bird species were observed in the Project area in 1981-1982 (AEIDC 1983). Of the 63 species observed, 43 were known or probable breeders within the Project area. The status of the major species groups in the Project vicinity is discussed in APA (1984), and summarized below.

**Waterfowl, Loons, and Grebes** – A variety of swans, geese, and ducks use the Kenai Peninsula, mostly on broad low level plains, with numerous lakes and ponds.

Nine duck species were observed during field studies. An American wigeon (*Anas Americana*) nest was found along the shores of Upper Trail Lake and a common goldeneye (*Bucephala clangula*) with a single down young was observed in Grant Lake. Harlequin ducks (*Histrionicus histrionicus*) and green-winged teal (*Anas crecca*) were observed and suspected to be nesting in the Grant Lake Inlet Creek area.

When Grant Lake is iced-over, an area at the outlet of the lake remains ice-free. This area was a winter feeding area for a flock of mallards (*Anas platyrhynchos*). As many as 30 individuals were observed in this opening during winter 1981-1982 field studies. White-water crowfoot in this area supports benthic macroinvertebrates, which serve as a food source for the ducks. With the exception of the two pools in Grant Creek, this was the only area within the study area boundaries remaining ice-free and possessing an abundant, available food supply during the 1981-1982 winter.

Four loon and two grebe species inhabit the Kenai Peninsula. Nesting habitat in the Project vicinity is limited; but Vagt Lake, Grant Lake, and, to a lesser extent, the ponds along the bench between Grant and Upper Trail lakes provide some nesting habitat. Several common loons (*Gavia immer*) were observed during field studies and a pair was assumed to be nesting at Vagt Lake. While it is more typical for arctic loon nesting to occur further north, a pair of arctic loons (*Gavia arctica*) nested near the east end of Grant Lake during 1982.

**Shorebirds, Gulls, and Terns** – Gulls, terns, and shorebirds are more common along the outer Kenai Peninsula than in the project vicinity, although a number of shorebird species potentially occur in the project vicinity. Five species were observed during the 1981-1982 field studies and four were assumed to be breeding. The four probable breeders were greater yellowlegs (*Tringa melanoleuca*) and lesser yellowlegs (*Tringa flavipes*) (in bogs on the bench between Grant and Upper Trail Lakes), the spotted sandpiper (*Actitis macularia*) (along the Grant Lake inlet creek),

and the common snipe (*Cupella gallinago*) (along Upper Trail Lake). The mew gull (*Larus canus*) and arctic tern (*Sterna paradisaea*) were observed but did not appear to be nesting.

**Raptors** – There are five hawk species, two eagle species, two falcon species, and five owl species that breed on or migrate through the Kenai Peninsula. Of the hawk species only one, the sharp-shinned hawk (*Accipiter striatus*), was observed in the Project area, in a small forested drainage along the south shore of Grant Lake's upper basin. Nesting habitat for this species, as well as the goshawk (*Acipiter gentilis*) and red-tailed hawk (*Buteo jamaicensis*), occurs within the forested portions of the project vicinity. Several cliffs in the project vicinity appear to have suitable nesting habitat for rough-legged hawks (*Buteo lagopus*), and nesting habitat for marsh hawks (*Circus cyaneus*) is present in bog areas. A single American kestrel (*Falco sparverius*) was observed on the north slopes of Grant Lake's upper basin, but there was no evidence of breeding.

A single bald eagle (*Haliaeetus leucocephalus*) was observed along Grant Lake in October 1981. No nest sites were found. The small Grant Creek salmon run is not believed to be of sufficient magnitude to sustain fish-eating birds in large numbers. Juvenile and adult golden eagles (*Aquila chrysaetos*) were regularly observed in the alpine zone of the project vicinity. Nesting is assumed to occur in this habitat but was not documented.

No owl species were observed during field studies; however, suitable habitat exists throughout the Grant Lake area.

**Grouse and Ptarmigan** – One species of grouse, the spruce grouse (*Canachites canadensis*), occurs on the Kenai Peninsula. Two of the three species of ptarmigan, the rock (*Lagopus mutus*) and willow ptarmigan (*Lagopus lagopus*), that inhabit the Kenai Peninsula were observed in the project vicinity. The best habitat for spruce grouse in the project vicinity was located in mixed forest along Trail Lake and the Vagt Lake Trail. The remainder of the area provides marginal habitat. Eight adults and one chick were observed in the project vicinity during 1981-1982 field studies. Neither species appeared to be abundant.

**Other Birds** – Belted kingfishers (*Megceryle alcyon*) were commonly observed during field studies around Trail Lake and Grant Creek. Several dippers (*Cinclus mexicanus*) were observed in the Project area and young were seen along Grant Creek and the Grant Lake Inlet Creek, indicating breeding in these areas. A large flock of Bohemian waxwings (*Bombycilla garrulous*) containing many young birds was observed feeding on insects at the mouth of Grant Creek. Five warbler species, all suspected to be breeding, were commonly seen throughout upland scrub and riparian scrub communities as well as the small patches of scrub vegetation that occurred on the bench between Grant Lake and Trail Lake.

### ***Amphibians***

The wood frog (*Rana sylvatica*) is the only amphibian known to occur in the proposed project area based on the 1981-1982 field surveys. Habitat for this species is present in the area between Grant and Trail lakes. No reptiles were found in the region.

#### ***4.6.2.2. Wildlife Species with Commercial, Recreational, or Cultural Importance***

Several species of wildlife are of commercial, recreational, or cultural importance. The Project area lies within ADF&G Unit 7 (Seward), with black bear, brown bear, goat, moose, sheep, wolf, and wolverine regulations in place (ADFG 2009) for recreational hunting. Furbearer trapping on the Kenai Peninsula is primarily a recreational activity, with a louse infestation currently impacting wolves and some coyotes, further decreasing fur quality and also reducing trapping effort (McDonough 2007a).

#### ***4.6.2.3. Rare, Threatened, and Endangered Species and Other Species with Special Status***

Thirteen wildlife species and one plant species are federally listed in Alaska. Of these, only the Canada lynx may occur in the Project vicinity, and the Alaska population is not included in threatened listing (USFWS 2009; L. Kahn, USFWS, personal communication, July 2009). The FEIS for the Revised Land and Resource Management Plan for the CNF (USFS 2005) also indicates that there are no known federally threatened and endangered species on the Kenai Peninsula area of the CNF. The U.S. Forest Service (USFS) has identified three management indicator species (MIS) and eight species of special interest (SSI) in the Kenai Peninsula area section of the CNF (Table 4.6-1).

Several species on the State of Alaska list of Species of Special Concern (ADF&G 1998) likely occur in the proposed Project area, including the olive-sided flycatcher, gray-cheeked warbler, Townsend's warbler, Blackpoll warbler, and the Kenai population of the brown bear.

## PRE-APPLICATION DOCUMENT

**Table 4.6-1.** Management indicator species, species of special interest, and general habitat types located on the Kenai Peninsula area of the Chugach National Forest (USFS 2005).

| Species            |                                       | Species Status |     | General Habitat Type    |                        |        |            |          |
|--------------------|---------------------------------------|----------------|-----|-------------------------|------------------------|--------|------------|----------|
| Common Name        | Scientific Name                       | MIS            | SSI | Early Forest Succession | Late Forest Succession | Alpine | Freshwater | Riparian |
| Brown bear         | <i>Ursus arctos</i>                   | X              |     | X                       |                        |        | X          | X        |
| Moose              | <i>Alces alces</i>                    | X              |     |                         |                        |        |            | X        |
| Mountain goat      | <i>Oreamnos americanus</i>            | X              |     |                         |                        | X      |            |          |
| Lynx               | <i>Lynx canadensis</i>                |                | X   | X                       |                        |        |            |          |
| Wolverine          | <i>Gulo gulo</i>                      |                | X   |                         |                        |        | X          | X        |
| River otter        | <i>Lutra canadensis</i>               |                | X   |                         |                        |        |            | X        |
| Marbled murrelet   | <i>Brachyramphus marmoratus</i>       |                | X   |                         | X                      |        |            |          |
| Townsend's warbler | <i>Dendroica townsendi</i>            |                | X   |                         | X                      |        |            | X        |
| Northern goshawk   | <i>Accipiter gentilis</i>             |                | X   |                         | X                      |        |            |          |
| Bald eagle         | <i>Haliaeetus leucocephalus</i>       |                | X   |                         |                        |        |            | X        |
| Osprey             | <i>Pandion halioetus carolinensis</i> |                | X   |                         |                        |        |            | X        |

**4.6.3. Botanical**

The proposed project areas includes a variety of vegetation associations, from conifers and mixed conifer/broadleaf stands, which include small ponds and bogs between Trail Lake and Grant Lake (500 to 700 feet), to alpine tundra vegetation above 2,000 feet, to barren mountain

tops and snow fields above 4,000 feet on Solars Mountain to the south and Lark Mountain to the north. The 1981-1982 field studies by AEIDC (1983) identified 109 plant species occupying nine vegetation association cover types (APA 1984).

#### 4.6.3.1. *Vegetation Cover Types*

The Project vicinity examined for botanical resources was defined as the watersheds of Grant Lake, Grant Creek, and Falls Creek. Nine vegetation cover types (mapping units) were identified in this area using 1978 NASA high-altitude, color-enhanced, infrared photography (ADA 1984). The mapping units represent combinations of plant community types that could be delineated from the aerial photographs. Nine vegetation cover types were field checked and classified according to an unpublished 1982 version of the classification system published by Viereck et al. (1992). The cover types identified in the Project vicinity include:

- Coniferous Forest
- Broadleaf Forest
- Mixed Broadleaf/Coniferous Forest
- Riparian Scrub
- Upland Scrub
- Grass/Forb Meadow
- Bog (Wet Meadow)
- Alpine Tundra
- Barren

These vegetation cover types are described in detail below. Site specific local vegetation classification information for the Project vicinity is available from the Chugach National Forest GIS data library layers and in DeVelice et al. (1999) and will be used to map vegetation in the proposed Project area during licensing studies.

**Coniferous Forest** – This vegetation cover type is represented in the Project area primarily by pure or mixed stands of white spruce (*Picea glauca*) and western hemlock (*Tsuga heterophylla*). Mountain hemlock (*T. mertensiana*) occurs at higher elevations. Coniferous forest occurs primarily between Grant Lake and Upper Trail Lake, in patches along Grant Lake's shoreline, in the valley of the Grant Lake Inlet Creek, and between the mouth of the Falls Creek valley and Trail River. Understory shrubs are primarily rusty menziesta (*Menziesia ferruginea*), early blueberry (*Vaccinium ovalifolium*), and Alaska spirea (*Spiraea beauverdiana*). Devil's club (*Echinopanax horridum*) occurs in moist areas and along drainages. Forest openings may support Sitka alder (*Alnus crisp subsp. sinuata*), serviceberry (*Amelanchier alnifolia*), Pacific red elder (*Sambucus racemosa*), and Sitka mountain ash (*Sorbus sitchensis*). Other common shrubs in this cover type are trailing black currant (*Ribes laxiflorum*) and American red currant (*R. triste*). The ground cover consists primarily of Sphagnum spp. and other mosses. Areas of poor



drainage may support open stands of black spruce (*Picea mariana*), with an understory of Labrador tea (*Ledum palustre subsp. decumbens*), linonberry (*Vaccinium vitis-idaea*), and dwarf blueberry (*V. caespitosum*) growing over a layer of sphagnum moss and lichens (primarily *Cladonia spp.*). These black spruce stands occur along Trail Lake and are scattered throughout the lower elevations around ponds and adjacent to open meadows.

**Broadleaf Forest** – This vegetation cover type is dominated by balsam poplar (*Populus balsamifera*), with an understory of feltleaf willow (*Salix alaxensis*), Sitka willow (*S. sitchensis*), Sitka alder, and occasional white spruce. The ground cover is extremely sparse and consists of scattered patches of horsetail (*Equisetum arvense*) and river beauty (*Epilobium latifolium*). Frequent flooding is an important factor influence vegetation in this cover type. This cover type occurs in the Project area only along the main Grant Lake Inlet Creek and on the small delta of another inlet creek to the west of the main creek. Inlet Creek has a poorly defined channel and appears to shift its course across the delta frequently. During July 1982, the main body of the stream flowed directly through a mature poplar (*Populus spp.*) stand.

**Mixed Broadleaf/Coniferous Forest** – This vegetation cover type is dominated by paper birch (*Betula papyrifera*), white spruce, and western hemlock on relatively warm, dry sites, whereas cool wet sites are often dominated by black spruce. Common understory plants are rusty menziesia, highbush cranberry (*Viburnum edule*), early blueberry, American red currant, and prickly rose (*Rosa acicularis*). Devil's club is found in wet places and along streams. Open sites often support Sitka alder thickets. Ground cover is primarily mosses, bunchberry (*Cornus canadensis*), five-leaf bramble (*Rubus spp.*), and lingonberry. The mixed forest type occurs in the Project vicinity in a band along Trail Lake and Vagt Lake.

**Riparian Scrub** – This vegetation cover type, which consists almost entirely of willows (*Salix spp.*), river beauty, fireweed (*Epilobium angustifolium*), horsetail, and on drier sites, bluejoint (*Calamagrostis canadensis*), is uncommon in the Project vicinity, occurring only along the Grant Lake Inlet Creek, on the Grant Lake delta, and interspersed within the broadleaf forest.

**Upland Scrub** – This vegetation cover type comprises most of the subalpine vegetation in the Project vicinity, and is composed primarily of Sitka alder thickets in a complex mosaic with the grass/forb meadow type. This cover type has an understory composed primarily of lady fern (*Athyrium filix-femina*). In some avalanche chutes the alder is mixed with willows. Rusty menziesia commonly occurs in this cover type along the conifer/scrub interface. This mapping unit generally occurs from 700 to 2,500 feet, along mountain slopes throughout the Project vicinity.

**Grass/Forb Meadow** – This vegetation cover type forms a mosaic with the upland scrub type described above and is mostly included in the upland scrub unit on the map (Figure 4.6-5) because of the small size of these meadows. However, larger meadows are mapped separately. The primary constituent of this type is bluejoint grass. Salmonberry (*Rubus spectabilis*), red

raspberry (*R. idaeus*), fireweed, cow parsnip (*Heracleum lanatum*), false hellebore (*Veratrum viride*) and goatsbeard (*Arnuncus sylvestris*) are found throughout these meadows but generally are sparsely distributed. Dry, rocky slopes often support prickly rose, yarrow (*Achillea millefolium*), arctic sagewort (*Artemisia tilesii* subsp. *elator*), cranesbill (*Geranium erianthum*), and harebells (*Campanula rotundifolia*). Monkeyflower (*Mimulus guttatus*) is conspicuous along drainages. These meadows are located primarily along the slopes of both Grant Lake and Falls Creek valleys, but small meadows also can be found in the mixed forest and coniferous forest types.

**Bog (Wet Meadow)** – Sphagnum mosses form the basis of this vegetation cover type. The bogs vary from extremely wet, floating mats to firm, treed bogs with a high proportion of shrubs. Often there is a small pond or wet spot near the center of the bog. The wettest of these communities support sphagnum, sundews (*Drosera angelica*), buckbean (*Menyanthes trifoliata*) and scattered beakrush (*Rhynchospora alba*) and sedges (*Carex* spp.). The ponds themselves often support buckbean and yellow pond lily (*Nuphar polysepalum*). The drier bogs may support scattered black spruce, dwarf birch (*Betula nana*), Labrador tea, lingonberry, dwarf blueberry, crowberry (*Empetrum nigrum*), and cloudberry (*Rubus chamaemorus*). These bogs are most common in the Project vicinity in areas of low relief in the mixed and conifer forest types, often surrounding ponds or lakes. Most of them occur between Grant Lake and the Trail Lake. Some of the smaller or more forested bogs are included in the forest classes.

**Alpine Tundra** – Tundra vegetation can vary considerably depending on the microclimate of a site. In many areas, upland scrub and grass/forb meadows intergrade with tundra types, making the map delineations somewhat arbitrary. Therefore, this description is a generalization of many types that occur in patches throughout the alpine zone. Lichens are conspicuous in many alpine areas, the most prevalent being *Cladonia* spp. and *Stereocaulon* spp. Prostrate willows, such as ovalleaf willow (*Salix stolonifera*) and arctic willow (*S. arctica*), form a mat over the lichens in many alpine areas, as does bearberry (*Arctostaphylos alpine*). Graminoids, such as woodrush (*Luzula walenbergii* subsp. *piperi*), finely-awned sedge (*Carex microchaeta*), and fescue (*Festuca altaica*), are interspersed throughout tundra areas, especially on moist sites. Alaska moss heath (*Cassiope stelleriana*), Aleutian mountain heather (*Phyllodoce aleutica*), and crowberry can cover large areas on the alpine slopes. Leutkea (*Luetkea pectinata*) and sweet coltsfoot (*Petasites hyperboreus*) grow in moist places such as snowbeds and along drainages. Bog blueberry (*Vaccinium uliginosum*) grows in patches on sunny slopes. Shrubby willows such as barclay willow (*Salix barclayi*), feltleaf willow, and diamondleaf willow (*S. pulchra*) grow along some of the alpine drainages. Alpine tundra in the Project vicinity is limited to the steep barren mountain tops, talus slopes, and permanent snowfields. It is most extensive on south-facing slopes above 2,000 feet and is very restricted on north-facing slopes.

**Barren** – These areas are mountain tops, talus slopes, cliffs, and snowfields having less than 10 percent plant cover.

#### 4.6.3.2. *Plant Species in the Project Vicinity*

Species characteristic of the vegetation cover types in the Project vicinity are noted in the above Section 4.6.3.1. Subalpine vegetation species, including alder interspersed with dense grass/forb meadows are common in the Grant Lake/Falls Creek Project area. A full species list of plants identified during 1981-1982 field investigations is included as Table 3-14 in APA (1984).

#### 4.6.3.3. *Rare, Threatened, and Endangered Species*

Based on information contained in the FEIS and Revised Land And Resource Management Plan for the CNF (USFS 2005), there are no known threatened and endangered plant species in the CNF and, therefore, in the Project vicinity. The U.S. Forest Service has identified 13 sensitive plant species as known or suspected to occur on the Chugach National Forest. Based on the Forest Service's review of the Grant Lake and Grant Creek project area and the bioenvironmental database used in the Forest Plan, there are three Alaska Region sensitive plant species potentially occurring in the project area are Norberg arnica (*Arnica lessingii* ssp. *norbergii*), goose-grass sedge (*Carex lenticularis* var. *dolia*), and pale poppy (*Papaver alboroseum*). The U.S. Forest Service's review of the Falls Creek project area indicated that the five Alaska Region sensitive plant species potentially occurring in the project area are Eschscholtz's little nightmare (*Aphragmus eschscholtzianus*), Norberg arnica (*Arnica lessingii* ssp. *norbergii*), goose-grass sedge (*Carex lenticularis* var. *dolia*), tundra whitlow-grass (*Draba kananaskis*), and pale poppy (*Papaver alboroseum*). The U.S. Forest Service indicated that only pale poppy and Eschscholtz's little nightmare will remain on a revision of the Alaska Region sensitive species list since the other two are included in more broadly distributed or abundant taxa (Mary Stensvold, personal communication, cited in Simmons 2008a and 2008b).

Both of these species are identified as rare or uncommon in the state (Forest Service Rank S3). Eschscholtz's little nightmare occurs in mountainous areas in moist, mossy habitats or near rivulets in alpine habitat areas. The pale poppy occurs in open, recently deglaciated areas, rock outcrops, and on sand and gravel or other well-drained soils. (USFS 2004).

#### 4.6.3.4. *Plant Species with Important Commercial, Recreational, or Cultural Value*

Plant species with important commercial, recreational, or cultural value have not been identified in existing studies and available information.

#### 4.6.3.5. *Non-native Plant Species*

Non-native species known to occur in the Kenai Peninsula are listed in DelVelice (2004) and Duffy (2003). Twenty-four non-native plant species were found during a survey along trails in the Kenai Peninsula portion of the Chugach National Forest (DelVelice 2004). The DelVelice study did not include trails specifically located within the proposed Project area, though similar

species may occur in the Project area. Duffy (2003) surveyed 78 sites in the Kenai Mountains Ecoregion of the Chugach National Forest and found 57 non-natives species, and two prohibited noxious weeds (quack grass and hemp nettle). The Duffy surveys included sites along the Seward Highway and Trail Lakes in the Project vicinity. Licensing studies will investigate non-native species observed in the proposed Project area.

#### **4.6.4. Potential Adverse Impacts**

Proposed Project operations will change the Grant Lake level. Project operation will alter flows in Grant and Falls Creeks, depending on the operational parameters determined. Habitats around the shores of Grant Lake could be affected by increased fluctuation in the water surface elevation of the lake, including the Inlet Creek area and associated delta into Grant Lake.

The extent of these potential impacts, and possible needs for mitigation, will be examined during the licensing process. To assist in this effort, studies are planned to inventory potentially affected terrestrial wildlife, bird species, and sensitive plants.

Potential impacts from the proposed Project include minor disturbances resulting from study activity as well as impacts due to construction and hydrologic changes after Project operation begins. A discussion of potential impacts to Wildlife and Botanical Resources, by impact category, is shown in Table 4.6-2.

## PRE-APPLICATION DOCUMENT

**Table 4.6-2.** Potential Project impacts to wildlife and botanical resources

| <b>Potential Impacts to Wildlife and Botanical Resources</b>                                                                                  |                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Potential Impact</b>                                                                                                                       | <b>Resource Issue</b>                                                                                                                           |
| General project activity, including air and ground disturbance, which may be associated with pre-project studies, construction and operation. | General disturbance (e.g. from helicopter overflights) of wildlife species during critical life stages.                                         |
| Increased Grant Lake Water Level Fluctuation                                                                                                  | Changes in shoreline vegetation due to lake level fluctuation.                                                                                  |
|                                                                                                                                               | Loss of, or increase in, shoreline habitats used by wildlife species due to lake level fluctuations; resulting effects on wildlife populations. |
|                                                                                                                                               | Potential Changes in distribution and/or number of fish used by wildlife species.                                                               |
|                                                                                                                                               | Changes in breeding and rearing habitat and nesting success of waterbirds in Grant Lake and Inlet Creek.                                        |
| Seasonal Flow Changes in Grant Creek and Falls Creek                                                                                          | Potential changes in riparian vegetation due to hydrologic changes.                                                                             |
|                                                                                                                                               | Potential reductions in the abundance of fish used by wildlife species.                                                                         |
|                                                                                                                                               | Loss or increase in riparian habitats used by wildlife species due to hydrologic changes; resulting effects on wildlife populations.            |
| Construction of Intake, Sluiceway, Penstock, and Powerhouse                                                                                   | Loss of existing habitat.                                                                                                                       |
|                                                                                                                                               | Potential disruption of wildlife movement across the bench between Grant Lake and Trail lakes, and between Grant Creek and Falls Creek.         |
| Roads and Transmission Lines                                                                                                                  | Construction and maintenance impacts on vegetation.                                                                                             |

| Potential Impacts to Wildlife and Botanical Resources |                                                                                                             |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Potential Impact                                      | Resource Issue                                                                                              |
|                                                       | Disturbance to wildlife populations due to initial habitat disturbance and subsequent corridor maintenance. |
|                                                       | Potential for bird deaths because of collisions with the transmission lines.                                |

#### 4.6.5. Proposed Protection, Mitigation, and Enhancement Measures

Kenai Hydro, LLC has not to date identified proposed protection, mitigation, and enhancement measures (PM&Es) for implementation under the project license. Identification of PM&Es will occur following completion of effects analyses based on licensing studies. Transmission line design will incorporate the latest raptor protection guidelines and collision avoidance devices will be installed on the line in appropriate locations to protect migratory birds.

#### 4.7. Wetlands, Riparian, and Littoral Habitat

The major water-bodies located in the proposed Project vicinity include: Upper and Lower Trail Lakes, Grant Creek, Grant Lake, and Inlet Creek. The lower reach of Grant Creek supports an anadromous fish run (see Section 4.5) and has been identified as a salmon stream for brown bear forage in Section 4.6.2 Wildlife Resources on Figure 4.6-1. The wetland, riparian, and littoral habitats that could be affected by the proposed Project would most likely be associated with these waterbodies. Wetlands mapping and an inventory of potentially affected wetlands is planned for this licensing effort.

##### 4.7.1. Introduction

The vegetation cover type mapping from the APA (1984) studies identified nine vegetation associations or habitat types. Of the nine habitat types described in the APA studies, three would fall under categories of wetlands and riparian habitats, although wetlands were not specifically identified. These habitats, described in detail under Section 4.6.3, Botanical, Vegetation Cover Types, are:

- Riparian Scrub
- Bog (Wet Meadow)
- Alpine Tundra (includes riparian vegetation along alpine drainages)

Since the studies performed in 1982, the USFWS has mapped wetlands in the Project area as part of the National Wetlands Inventory (NWI). Available digital mapping covers the entire Project area and is provided here for two levels of detail i.e., two general location maps (Figures 4.7-1, Sheet 1, and Figure 4.7-2, Sheet 1) and corresponding detail maps of the wetland locations. The descriptions of the wetlands are provided below.

Figure 4.7-1 Sheet 1 and Sheet 2, Upper Trail and Lower Trail Lakes, Grant Creek, and the south leg of Grant Lake:

- Grant Lake and Upper and Lower Trail lakes are lacustrine limnetic, unconsolidated bottom, permanently flooded wetlands.
- Grant Creek, at the outlet of Grant Lake, is a riverine upper perennial, unconsolidated bottom, permanently flooded wetland.
- Numerous small freshwater forested/shrub wetlands are scattered throughout the area between Grant Lake and Upper and Lower Trail lakes. A few of these individual areas are classified on the NWI map as palustrine scrub-shrub, broad-leaved deciduous, and either temporarily flooded, saturated, or seasonally flooded wetlands.

Just west of Grant Lake on the bench between Grant Lake and the Trail lakes there are several more wetland types, in addition to the scattered forested/shrub wetlands described above:

- Several small freshwater ponds in one area are classified palustrine unconsolidated bottom, permanently flooded wetlands.
- Two separate areas of freshwater palustrine emergent, persistent wetland exist; one is seasonally flooded, and the other is semi-permanently flooded.
- One wetland area is palustrine scrub-shrub, broad-leaved deciduous and emergent, persistent, seasonally flooded.

Figure 4.7-1 Sheet 1 and Sheet 3 narrows at the juncture of the south and east legs of Grant Lake:

- One freshwater forested/shrub wetland is located in the narrows on the south shore of Grant Lake. It is a small palustrine scrub-shrub, broad-leaved deciduous, saturated wetland.

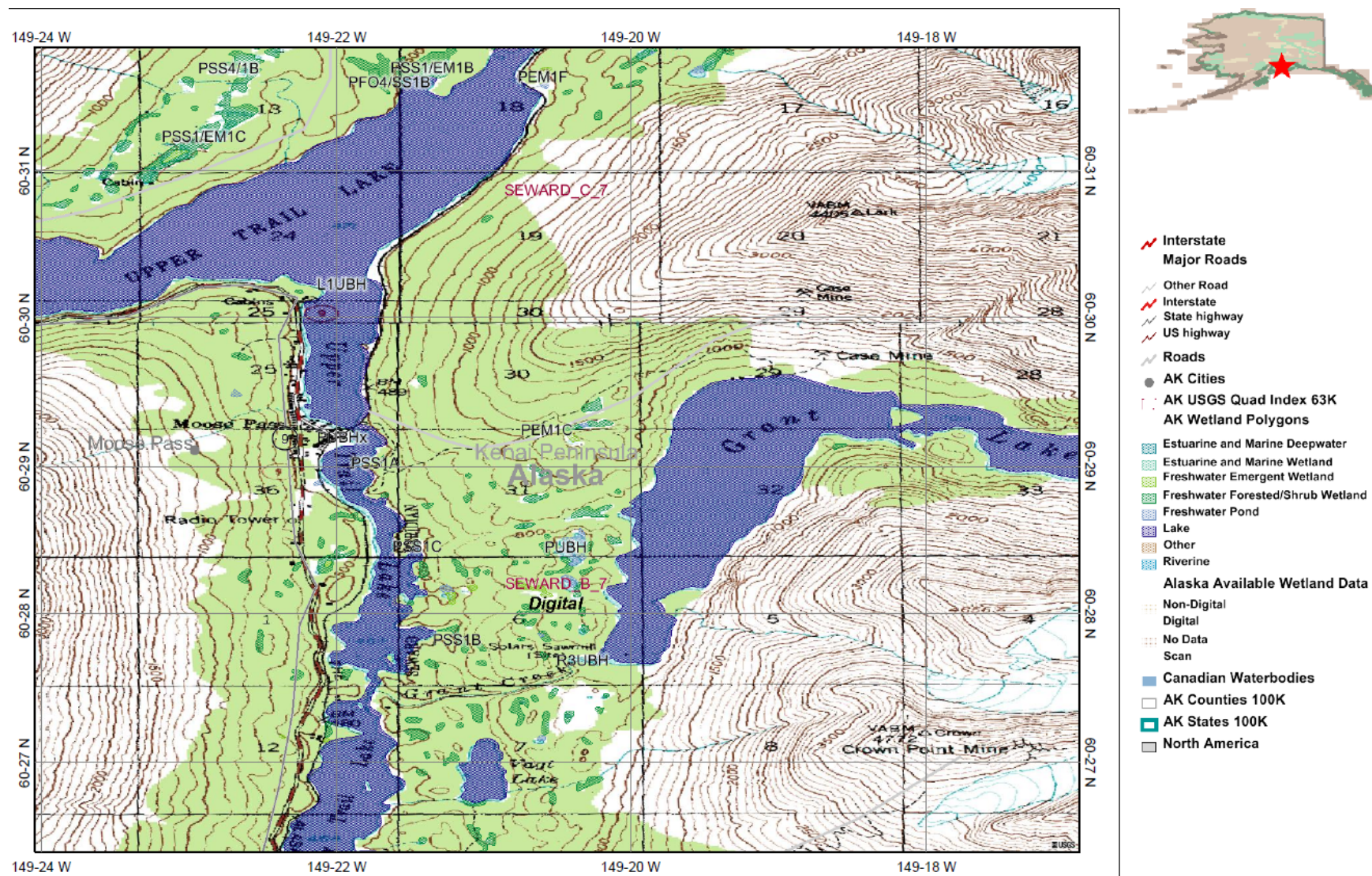
Figure 4.7-2 Sheet 1 and Sheet 2, east leg of Grant Lake at Inlet Creek:

- Inlet Creek is a riverine upper perennial, unconsolidated shore, and unconsolidated bottom wetland.
- Other wetlands located at the creek's inlet with Grant Lake and extending along and from the shore of Grant Lake include: a lacustrine littoral, unconsolidated, seasonally flooded wetland; a palustrine forested, broad-leaved deciduous, and dead, seasonally flooded

wetland; and two palustrine scrub-shrub, broad-leaved deciduous wetlands, one temporarily flooded and one seasonally flooded.

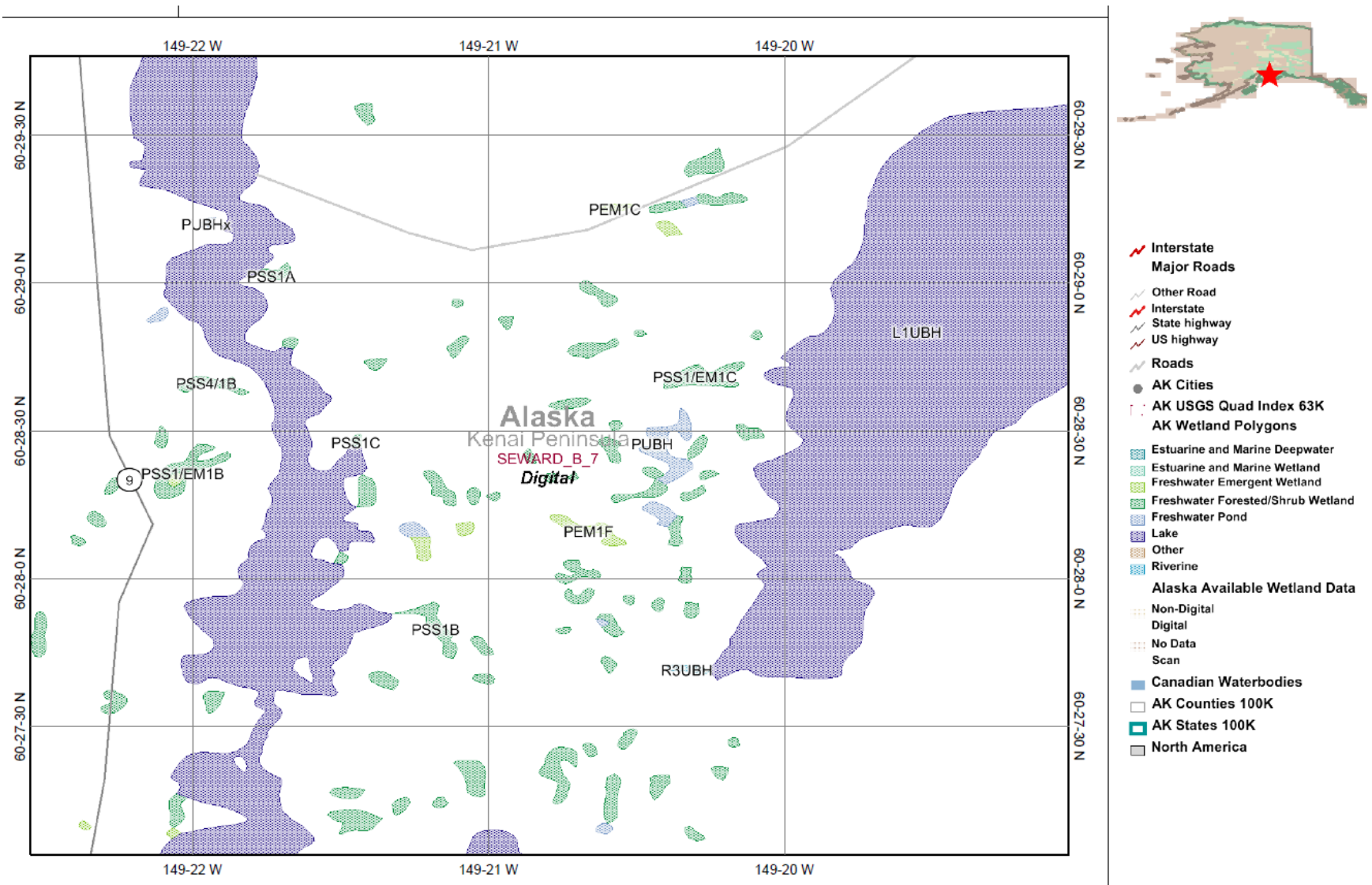
- Several more wetlands are located a short distance up Inlet Creek as shown on Figure 4.7-2 and Sheet 2. These include: a palustrine forested, broad-leaved deciduous and scrub-shrub broad-leaved deciduous, temporarily flooded wetland located adjacent to Inlet Creek; and located a short distance away from the creek is a palustrine scrub-shrub, broad-leaved deciduous and emergent, persistent, saturated wetland; and a palustrine scrub-shrub, broad-leaved deciduous, saturated wetland.



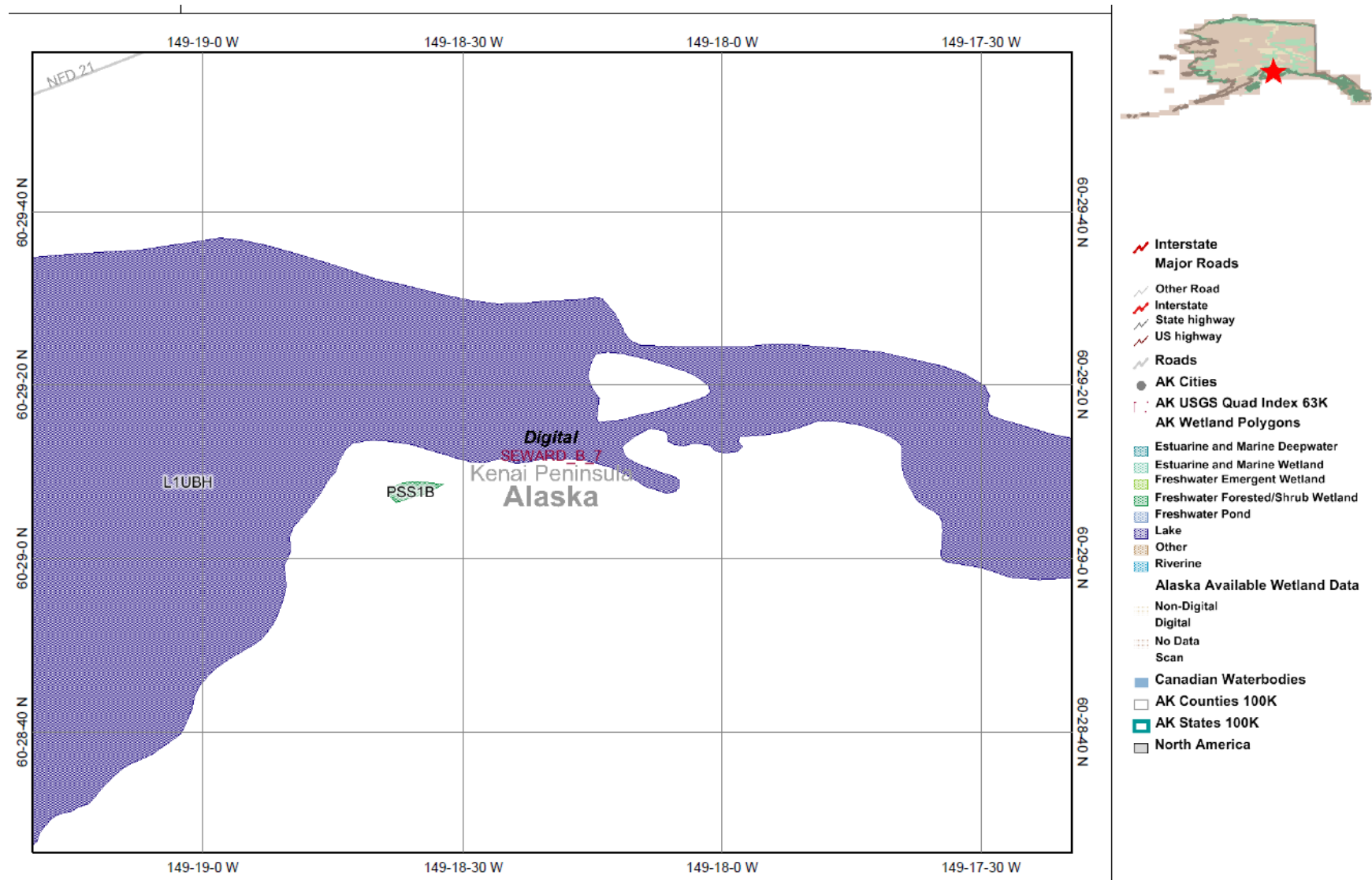


**Figure 4.7-1. Sheet 1.** Upper and Lower Trail Lakes, Grant Creek, and south leg of Grant Lake showing general location of wetlands (NWI mapping, USFWS 2007).



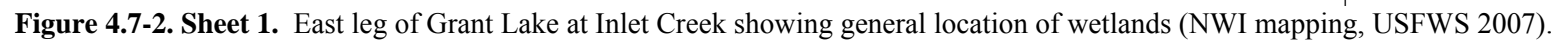


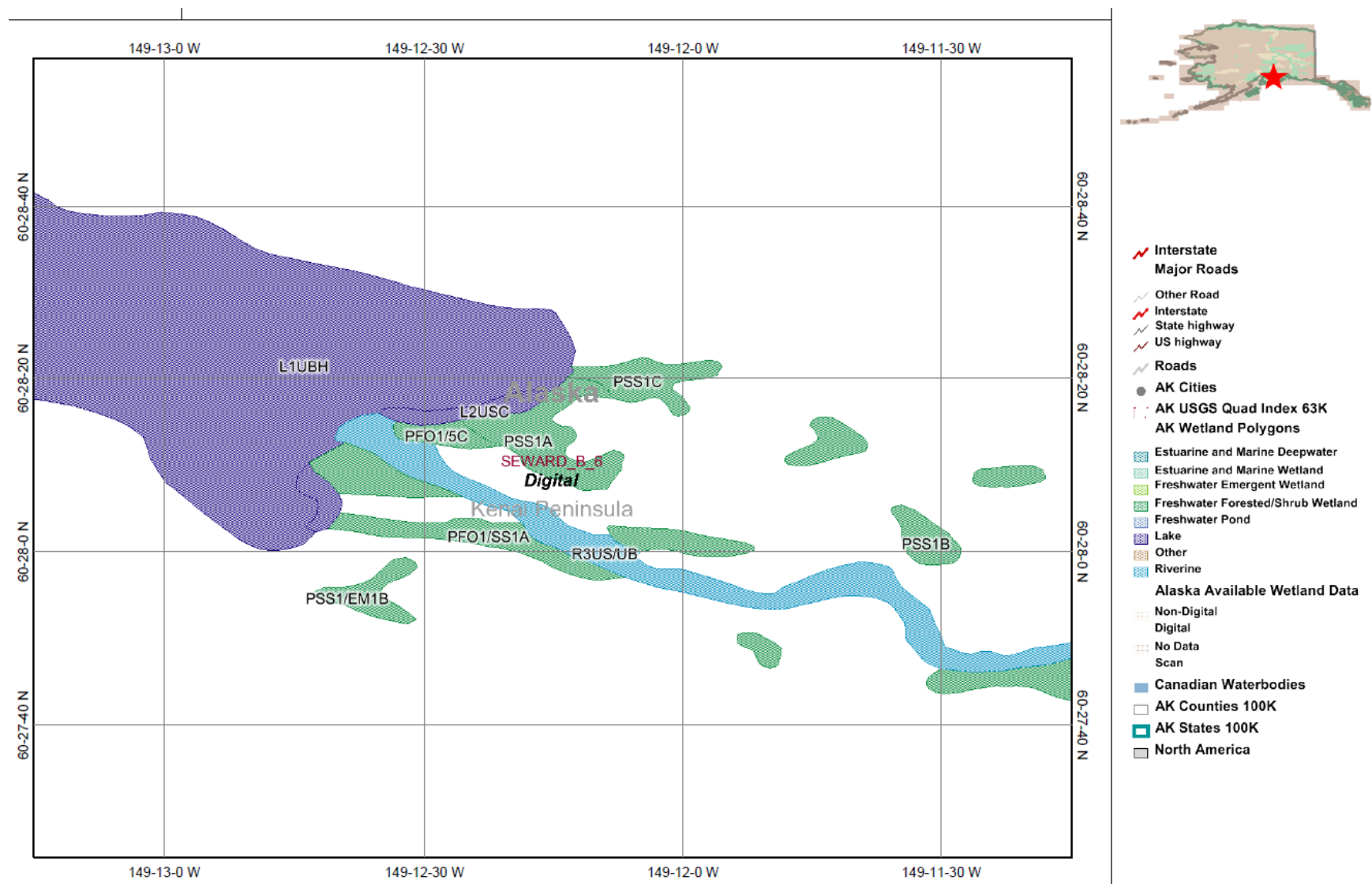
**Figure 4.7-1, Sheet 2.** Upper and Lower Trail Lakes, Grant Creek, and south leg of Grant Lake showing detail location of wetlands (NWI mapping, USFWS 2007).



**Figure 4.7-1. Sheet 3.** Narrows at the juncture of the south and east legs of Grant Lake showing detail location of one wetland (NWI mapping, USFWS 2007).







**Figure 4.7-2, Sheet 2.** East leg of Grant Lake at Inlet Creek showing detail location of wetlands (NWI mapping, USFWS 2007).



#### 4.7.2. Potential Adverse Impacts

Potential impacts from the proposed Project could result from disturbances due to construction activities and to hydrologic changes after Project operation begins. A discussion of impacts to Wetland Resources related to potential impacts is shown in Table 4.7-1.

Proposed Project operations will change the Grant Lake level. Project operation will also changes flows in Grant Creek and Falls Creek. Decreased flow in Grant Creek or Falls Creek may reduce the amount of water available to support existing riparian and littoral habitat at the Grant Lake outlet and in the section of Grant Creek with reduced flows in some seasons. Increased flow in Grant Creek below the powerhouse may also impact riparian habitats in this section of the Creek as well as the littoral habitat at the mouth of Grant Creek at the narrows between Upper and Lower Trail Lakes.

Wetland, riparian, and littoral habitats around the shores of Grant Lake could be affected by increased fluctuations in the water surface elevation of the lake, including Inlet Creek, its delta and associated wetland areas.

**Table 4.7-1.** Potential Project impacts related to wetland resources.

| Potential Wetland Resource Impacts                                                                               |                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Potential Impact                                                                                                 | Resource Issue                                                                                                                                                                                                                                                          |
| Increased Grant Lake Water Level Fluctuation                                                                     | Changes in wetland, riparian, and littoral habitats along Grant Lake, at Inlet Creek and at Grant Creek outlet due to lake level fluctuation.                                                                                                                           |
|                                                                                                                  | Loss of, or increase in, littoral habitats due to lake level fluctuations.                                                                                                                                                                                              |
| Flow Changes in Grant Creek and Falls Creek (due to Project operations and potential diversion from Falls Creek) | Changes (reduction) in riparian and littoral wetland habitats due to hydrologic changes in Grant Creek and Falls Creek.                                                                                                                                                 |
|                                                                                                                  | Potential Changes in riparian habitat in Grant Creek and adjacent littoral habitat at the mouth of Grant Creek at the narrows between Upper and Lower Trail Lakes due to hydrologic changes. Changes in riparian habitat in Falls Creek may occur due to reduced flows. |

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| <b>Potential Wetland Resource Impacts</b>                          |                                                                                                                                |
|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Potential Impact</b>                                            | <b>Resource Issue</b>                                                                                                          |
| Construction of Intake, Sluiceway, Penstock, and Powerhouse        | Potential loss of existing riparian, and littoral wetland habitat on the shore of Grant Lake and at the outlet to Grant Creek. |
|                                                                    | Potential construction and maintenance impacts on riparian habitat of Grant Creek.                                             |
| Construction, maintenance, and use of Roads and Transmission Lines | Potential construction and maintenance impacts on forested/scrub wetlands.                                                     |

#### **4.7.3. Proposed Protection, Mitigation, and Enhancement Measures**

The extent of the potential impacts identified above, and possible needs for mitigation, will be examined during the licensing process. To assist in this effort, studies are planned to identify critical wetland resources in the Project area and any potential impacts.

### **4.8. Recreation and Land Use**

#### **4.8.1. Introduction**

Lands in the Kenai Peninsula and the Project vicinity are predominantly undeveloped public lands with significant recreation and aesthetic value. Fishing opportunities are the driving factor for most visitors (Kenai Peninsula Borough Coastal Management Program 2008). Hunting for wild game and wildlife viewing are also popular activities in the Project vicinity. The primary recreational fishing locations in the region are located on the mainstem Kenai River, though there is some use of the streams in the Project area for recreational fisheries.

Land ownership in the Project vicinity is a mix of federal, state, and borough agencies, Native corporations, and private parties. Land use in the Project area is generally rural residential or undeveloped, and the portion of the project area located on National Forest System land is part of an inventoried roadless area. There is some historic mining use in the area. Falls Creek has a history of placer mining, and there are a few mining claims near the Grant Lake development. Mining claim locations are shown in Figure 4.2-1.

This section provides a summary of the information readily available on recreation and land use in the Project area.

#### 4.8.2. Current Recreational Use of the Project Vicinity and Region

While there are few developed recreation facilities in the vicinity, the Forest Service reported some lake and trail use (Simmons 2008a and 2008b). The BLM manages the Iditarod Trail in the vicinity, which is primarily used in the winter. The National Park Service is assisting the Kenai Peninsula Borough and Iditarod Trailblazers (Seward Chapter) to plan an extension of the Iditarod National Historic Trail south to Seward, where the serum run originated. The proposed trail segments run close to the proposed Project location on the eastern side of the Seward Highway. If established, the trail would have both recreational and cultural significance (C. Thomas, NPS, personal communication, July 2009).

There is some commercial recreation use in the Project vicinity. ADNR (2009) provides annual use information from permitted commercial recreation operators through a registration system used to make informed land management decisions for state land. ADNR collects information about where such uses are occurring, how many clients are recreating on state land (i.e., state uplands, shorelands, tidelands, and fresh water bodies), and the type of activity that is occurring. Table 4.8-1 summarizes the registration information for 2006 through 2008 for game management unit 7 that includes the Project area, and the surrounding area.

**Table 4.8-1.** Recreation activity and access information for Game Management Subunit 7 (ADNR 2009b).

| Year | Number of Registered Operators | Visitor Days | Activity Types                                                                                                                                                                                                                                                   | Types of Access                                                                                                                                  |
|------|--------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 2008 | 13                             | 3592         | Skiing, snowshoe, snowboard, Dogsledding, Bicycling, Hunting, Off-road Vehicle Use, Motorized Boating, General Tour (sightseeing, wildlife, nature), Hiking Rock/Mountain Climbing, Drop-off Comm. Recreation Uses, Rafting, Kayaking, Canoeing, Fishing         | Float Plane, Wheel Plane, Ski Plane, Helicopter, Off-road Vehicle, Road Vehicle, Foot, Motorized Boat, Non-motorized Boat                        |
| 2007 | 14                             | 7118         | Skiing, snowshoe, snowboard, Hunting, Off-road Vehicle Use, Motorized Boating, Scuba Diving, General Tour (sightseeing, wildlife, nature), Hiking Rock/Mountain Climbing, Drop-off Comm. Recreation Uses, Rafting, Kayaking, Canoeing, Horseback Riding, Fishing | Float Plane, Wheel Plane, Ski Plane, Helicopter, Off-road Vehicle, Road Vehicle, Foot, Horse/Beast of Burden, Motorized Boat, Non-motorized Boat |



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|      |    |      |                                                                                                                                                                                                                              |                                                                                                                                |
|------|----|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 2006 | 12 | 5803 | Skiing, snowshoe, snowboard, Hunting, Motorized Boating, General Tour (sightseeing, wildlife, nature), Hiking Rock/Mountain Climbing, Drop-off Comm. Recreation Uses, Rafting, Kayaking, Canoeing, Horseback Riding, Fishing | Float Plane, Wheel Plane, Ski Plane, Helicopter, Road Vehicle, Foot, Horse/Beast of Burden, Motorized Boat, Non-motorized Boat |
|------|----|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|

#### **4.8.3. Shoreline Buffer Zones and Adjoining Land Use**

The shoreline of Grant Lake is managed by the Forest Service and the state of Alaska and is currently undeveloped except for one small cabin site near the south end of Grant Lake.

#### **4.8.4. Recreation-Related Goals and Needs Identified in Agency Management Plans**

Relevant local, state, and regional recreation and land use management plans include Alaska's Outdoor Legacy Statewide Comprehensive Outdoor Recreation Plan (SCORP) 2004-2009, Kenai Peninsula Borough Coastal Zone Management Plan, Kenai Peninsula Borough Comprehensive Plan, Kenai Area Plan, and the Kenai River Special Management Area (KRSMA).

##### ***4.8.4.1. Alaska's Outdoor Legacy Statewide Comprehensive Outdoor Recreation Plan (SCORP) 2004-2009***

Alaska's current SCORP guides recreation-related acquisition, facility development, and policy for the State of Alaska for 2004 through 2009 (ADNR 2004). The goals of the SCORP are to:

- Provide recreation agencies and communities with a reference to outdoor recreation preferences, use trends, and issues relevant to Alaska through 2009;
- Identify statewide capital investment priorities for acquiring, developing, and protecting outdoor recreation resources;
- Identify the State's priorities, strategies, and actions for the obligation of its Land and Water Conservation Fund (LWCF) apportionment; and
- Provide information that agencies and communities need to develop project proposals eligible for LWCF assistance.

The chief goal for outdoor recreation providers is to offer a range of opportunities for responsible use of Alaska's recreation resources while protecting natural values. The SCORP identifies four recreation issues and goals, one of which includes aspects related to aesthetic/visual resources, along with recommended strategies to meet these goals:

- Issue 1: Lack of Adequate Funding

Goal: Secure a reliable source of funding for outdoor recreation in Alaska. Develop programs that allow important projects to be completed and maintained. Strengthen mutually beneficial relationships with other agencies, private sector and user groups.

Recommended Strategies: support ongoing efforts to reform the Land and Water Conservation Fund Grant (LWCF) Program; continue interagency communication and cooperative efforts; privatize selected services, facility operation, and maintenance; strengthen alternative funding mechanisms and programs; develop alternative funding sources.

- Issue 2: Opportunities to Meet Recreation Needs in Communities

Goal: Support efforts to assist communities in meeting the outdoor recreation needs of their citizens.

Recommended Strategies: give some communities a higher priority for LWCF matching grants; develop alternative funding sources; design facilities to reflect economic realities and sustainable practices.

- Issue 3: Improved Access to Outdoor Recreation Resources (includes discussion of transportation enhancements [including acquisition of scenic easements and scenic or historic sites, scenic highway programs, and scenic beautification], Trails and Recreational Access for Alaskan (TRAAK) [including transportation enhancements, the Scenic Byways Program, and the Recreation Trails Program], disabled access, and trail identification/legal access)

Goal: Provide more convenient, legal, and barrier-free access to outdoor recreation opportunities on Alaska's public lands and waters.

Recommended Strategies: implement Intermodal Surface Transportation Efficiency Act (ISTEA) provisions; improve access to water based recreation; develop inventory of barrier free outdoor recreation facilities; continue cooperative planning efforts with "barrier-free" advocacy groups; consider incompatibility among users and user values; continue the identification and legal dedication of existing trails.

- Issue 4: Shortage of Tourism Opportunities on Public Lands

Goal Support and promote balanced use and development of Alaska's public lands for outdoor recreation and nature-based tourism.

Recommended Strategies: expand cooperative planning and marketing efforts; maintain and expand private-public nature-based tourism partnerships; promote private sector development on public lands where appropriate; develop year round tourism destinations and related services on public lands; increase capital spending to rehabilitate and expand

facilities, expand public use cabin system; promote the Alaska Public Lands Information Centers.

#### *4.8.4.2. Kenai Peninsula Borough Coastal Zone Management Plan*

The Kenai Peninsula Borough Coastal Management Plan was developed to provide local information and policies that carry out the objectives of the Alaska Coastal Management Program. The plan provides the Kenai Peninsula Borough with a tool for evaluating proposed developments within its coastal zone. The boundary of the Kenai Peninsula Borough and the Kenai coastal district are the same. Within that boundary, there is an area called the “coastal zone.” This coastal zone is subject to coastal zone management.

State lands within the Project area are designated as “Recreation” use in the Kenai Peninsula Borough coastal zone management plan. Federal lands are excluded from the coastal zone and the recreation designation. The goals and objectives of the Kenai Peninsula Borough Coastal Management Plan (Kenai Peninsula Borough Coastal Management Program 2008) related to recreational resources include the following:

- Goal 3.1: To maintain the Borough's variety of high quality recreational opportunities to meet the needs of residents and visitors.
  - Objective 3.1.1: To encourage the well-planned development of recreation and tourism facilities and area wide trail systems by public agencies and private citizens where there is local support.
  - Objective 3.1.2: To minimize conflicting uses in designated recreation areas.
  - Objective 3.1.3: To maintain public access to water bodies and recreation areas and facilitate provision of additional access where necessary and desirable.
  - Objective 3.1.4: To minimize the adverse impacts of access on sensitive environments
- Goal 3.3: To encourage provision of facilities for outdoor and indoor recreational activities for borough residents and visitors.
  - Objective 3.3.1: Support improved, environmentally responsible angler access facilities on major rivers in the Borough.
- Goal 3.4: To plan for future recreational use of borough land that has recreational value.
  - Objective 3.4.1: Identify borough lands with recreational value that provide access to coastlines or recreational areas.

- Objective 3.4.2: To maintain information about and support other groups in establishing and maintaining a network of trails to provide recreation and transportation opportunities.
- Objective 3.4.3: Work with the ANDR and local organizations to inventory existing and potential recreational trails on the Kenai Peninsula.
- Objective 3.4.4: Develop access management plans to avoid or minimize the adverse impacts of access.

The Statewide Standards relevant to recreational resources also address coastal access. Districts and state agencies shall ensure that projects maintain and, where appropriate, increase public access to, from, and along coastal water.

#### **4.8.4.3. *Kenai Area Plan***

The Kenai Area Plan directs how ADNR will manage state uplands, tidelands, and submerged lands within the planning boundary, including the Project area (ADNR 2001). The state land use plans determine management intent, land-use designations, and management guidelines that apply to all state lands in the planning area. The plan is used by staff within the ADNR Division of Mining, Land, and Water when reviewing and making decisions on authorizations for use of state land, including permits, leases, sales, conveyances, and right-of-way. The plan is also used by the ADNR Divisions of Forestry, Agriculture, Parks and Outdoor Recreation. The Division of Oil and Gas also uses the plan in its mitigation measures. The Kenai Peninsula Borough and federal government also have plans and planning efforts that directly and indirectly affect state lands. Camping, hiking, boating, hunting, and fishing generally do not require authorization on state lands.

Goals of state lands in the planning area include:

- Economic development - provide opportunities for jobs and income by managing state land and resources to support a self-sustaining local economy;
- Fiscal costs - locate settlement uses where there is sustainable economic base and where necessary services can be efficiently provided;
- Public health and safety - maintain or enhance public health and safety for users of state land and resources;
- Public use - provide and enhance opportunities for public use of state lands, including hunting, fishing, boating, and other types of recreation;
- Quality of life - maintain or enhance the quality and diversity of the natural environments and protect heritage resources and the character and lifestyle of the community;
- Settlement - provide opportunities for private ownership and leasing of land currently owned by the state; and

- Sustained yield - maintain the long-term productivity and quality of renewable resources and all other state-owned replenishable resources on a sustained-yield or optimum-sustained yield basis, including fish, wildlife, rangelands, and forests.

Specific to public recreation, the goals of the plan include providing lands for accessible outdoor recreational opportunities with well-designed, maintained and conveniently located recreation facilities; providing undeveloped lands for recreation pursuits that do not require developed facilities. These opportunities would be realized by:

- Developing a State Park System of recreation areas, trails, waysides, rivers and sites that provide a wide range of year-round outdoor recreation opportunities for all ages, abilities and use preferences in close proximity to population centers and major travel routes.
- Providing recreation opportunities on less developed land and water areas both within the State Park System as well as areas outside the system, which serve multiple purposes.
- Encouraging commercial development of recreation facilities and services through land sales, leases, and permits where public recreation needs can most effectively be provided by private enterprise. In some units, the plan specifically allows for commercial recreation leasing.
- Providing for public open space that is readily accessible to communities and is sufficient to meet existing and future needs for public recreation land in developed areas.
- Protecting scenic beauty.

Specific to trails and access, the goals of the plan include the following:

- Public Use Opportunities - Ensure adequate opportunities for public use of important recreation, public access and historic trails of regional and statewide significance. Also provide for future trail and access needs.
- Local Trails - Assist in establishing local trail systems that provide access to public land and water and community facilities.
- Trail Corridors - Protect or establish trail corridors to meet projected future use requirements as well as protecting current use.

Management guidelines in the plan related to trails and access include consideration for aesthetic/visual resources.

Additionally, the plan identifies specific goals associated with the following resources related to public recreation and aesthetic resources:

- Transportation and utilities - Design a transportation system and authorize vehicle uses in a manner that has minimal adverse impacts on local residents, the environment, fish and wildlife resources, and aesthetic and cultural features.
- Shorelines, stream corridors and wetlands - Protect and enhance a variety of public recreation and tourism opportunities along waterbodies including both wilderness and developed recreational and tourism activities and protect the visual quality of waterbodies.
- Forestry - Ensure that the state forestlands support tourism, maintain opportunities for diverse recreational activities in a variety of settings, and promote scenic quality.

#### **4.8.4.4. Kenai River Special Management Area**

The Project area is located on the eastern edge of the Kenai River Special Management Area (KRSMA) managed by the ADNR. The KRSMA consists of more than 105 linear miles of rivers and lakes, including Kenai Lake, Skilak Lake, and the Kenai River from river mile 82 downstream to four miles above the river's mouth on Cook Inlet. Legislatively established in 1984, the purposes for which the KRSMA was established include:

- To protect and perpetuate the fishery and wildlife resources and habitat in the unit and adjacent area.
- To manage recreational uses and development activities in the unit and adjacent area

#### **4.8.5. Designated Scenic and Protected River Segments**

There are no river segments designated as part of, or under study for inclusion in, the National Wild and Scenic River System. There are no known state protected river segments in the Project area.

#### **4.8.6. National Trails System and Wilderness Area Lands in the Region**

The Iditarod Trail, managed by the BLM, has been recognized as a National Historic Trail and declared a Millennium Trail. Many secondary trails that connect with the Iditarod National Historic Trail are also considered eligible trails (USFS 2005).

#### **4.8.7. Recreation Areas in the Project Vicinity**

##### **4.8.7.1. Grant Lake and Grant Creek**

The U.S. Forest Service reports trail use in the Project area and water use of Grant Lake, but there are no developed recreation sites on the U.S. Forest Service Lands in the Grant Lake area (Simmons 2008a).

The nearest campground site is the Trail River campground, approximately one mile south of the Grant Creek mouth on Trail Lake.

#### **4.8.7.2. Falls Creek**

There is a campground located near the southwestern corner of the project vicinity of Falls Creek Development that is outside the proposed Project area. It is the largest campground on the Chugach National Forest, and the area is reserved for recreation under Public Land Order 1731 on September 17, 1958 (Simmons 2008b).

There are no developed recreation areas within the Falls Creek development area.

#### **4.8.8. Non-Recreational Land-Uses and Management**

Land ownership in the Project vicinity is shown in Figure 3.2-1. Land in the Project area and vicinity is primarily vacant with some private residential and limited private commercial use near the Seward Highway. Regionally, federal lands account for approximately 65 percent of the total land area in the Kenai Peninsula Borough (Kenai Peninsula Borough 2005). State-owned lands account for approximately 21 percent of the total land area in the Borough, followed by Native land (approximately 9 percent), borough land (approximately 0.7 percent), and city land (approximately 0.2 percent) (Kenai Peninsula Borough 2005). Large areas of historical federal land have been transferred to the Alaskan Native and the State of Alaska. A small amount of state land was subsequently transferred to the Kenai Peninsula Borough.

#### **4.8.9. Potential Adverse Impacts**

No adverse impacts on recreation resources have been identified at this time.

#### **4.8.10. Proposed Protection, Mitigation, and Enhancement Measures**

Kenai Hydro, LLC has not to date identified proposed protection, mitigation, and enhancement measures (PM&Es) for implementation under the project license. Identification of PM&Es will occur following completion of effects analyses based on licensing studies.

### **4.9. Aesthetic/Visual Resources**

The Seward Highway cuts through the Project area from south to north with many view points looking east. The Seward Highway is a designated “All American Road”, the most scenic designation in the National Scenic Byway program administered by the Federal Highway Administration. Except for transmission line corridors, the Project facilities are not expected to be visible from the highway. Preliminary designs propose an 8-ft diameter by 110-ft high surge tank structure, which if built to this height; may be some visual impact on the immediate Project area.

#### **4.9.1. Existing Aesthetic/Visual Resource Conditions**

A visual resource assessment was conducted for the APA (1984) in the Project area and vicinity. The area is dominated by views of snow-capped mountain peaks. Vistas are generally limited by foreground and middle ground distance zones due to dense forest vegetation and steep mountain slopes.

Human elements currently exist in the Project vicinity aesthetics, including the Seward Highway, Alaska Railroad, and the community of Moose Pass. The primary views are from the Seward Highway towards the proposed Project area, however, Grant Lake is not visible from the scenic highway.

The highway and the railroad cross Falls Creek, and the Falls Creek Development may be visible. Currently, Falls Creek is covered with dense vegetation.

#### **4.9.2. Potential Adverse Impacts**

Project developments on Falls Creek may be visible from the scenic highway and hiking trails in the area. Grant Lake and its outlet where the Grant Lake Development will be located are not visible from the Seward Highway. There are existing transmission lines in the area, and additional visual impact is not expected. Scenic views from the Seward Highway, and potentially from watercraft on Grant Lake or the Trail Lakes may be impacted by the project. However, transmission line corridors and other Project facilities will be designed and placed to minimize visual impacts.

#### **4.9.3. Proposed Protection, Mitigation, and Enhancement Measures**

The Project will be designed to minimize visual impacts. Kenai Hydro, LLC has not to date identified proposed protection, mitigation, and enhancement measures (PM&Es) for implementation under the project license. Identification of PM&Es will occur following completion of effects analyses based on licensing studies.

### **4.10. Cultural Resources**

#### **4.10.1. Introduction**

Section 4.3.3 describes known historic mining locations in the area. The U.S. Forest Service noted that there are five of these known heritage sites on USFS lands within the proposed Project area (Simmons 2008a). This section summarizes available information on cultural resources.



#### **4.10.2. Applicable Laws and Regulations**

The passage of the National Historic Preservation Act (NHPA) of 1966 authorizes the Secretary of the Interior to “to expand and maintain a National Register of districts, sites, buildings, structures, and objects significant in American history, archaeology, engineering, and culture” (30 CFR 60.1). These sites, structures, and objects are records of a region’s past that warrant listing in the National Register, the Alaska Heritage Resources Survey (AHRS), or are deemed significant by traditional cultural groups. The NHPA declares that “the preservation of this irreplaceable heritage is in the public interest...” (30 CFR 60.1). Section 106 of NHPA requires that the possible effects of federal undertakings on properties listed or eligible for the National Register be considered. The Project will comply with the NHPA and its implementing regulations (36 CFR 800) and the Alaska Historic Preservation Act (AS 41.35.010 – 41.35.240, and 11 AAC 16.010 – 11 AAC 16.900). Consultation with Tribal entities and identification of traditional cultural properties (TCPs) will be performed as required in 36 CFR Part 800, Protection of Historic Properties (FR, Vol. 65, No. 239, 12/12/2000). The term historic property includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization which meet the criteria for inclusion in the National Register of Historic Places.

#### **4.10.3. Area of Potential Affect**

The preliminary Area of Potential Affect (APE) will include the Project area, and will be specified during the FERC licensing process in consultation with Tribes, the SHPO, and other interested parties.

#### **4.10.4. Identification of Historic Properties and Archaeological Sites in the Project Vicinity**

Historic or archaeological sites in the proposed project vicinity will be identified, including, sites or properties either listed in, or recommended by the State Historic Preservation Officer or Tribal Historic Preservation Officer for inclusion in, the National Register of Historic Places.

#### **4.10.5. Potential Adverse Impacts**

No potential adverse impacts on cultural resources are known at this time. The impact of project construction and operation on the APE will be evaluated during licensing studies.

#### **4.10.6. Existing Discovery Measures**

A limited field archeological survey and literature review was conducted in the early 1980s. AEIDC (1983) identified the following sites within the Project vicinity and describes their status and location (if located on the ground). Previous site inventories and descriptions are provided in AEIDC (1983) for the following sites:

- Crown Point/Trail Creek Station and Stevenson Cabin (may be the same site) – mining property with cabin
- Alaska Northern Railway
- Iditarod Trail (on National Register of Historic Places) – located adjacent to the Alaska Northern Railway
- Baggs Cabin – lower end of Falls Creek (not located)
- Crown Point Mine (structures, Mountain Trail, and Mine) – located in Falls Creek drainage
- Solars Sawmill – near outlet of Grant Lake (located in the 1980s, but in deteriorating condition)

#### **4.10.7. Affected Tribes**

Tribes in the area have been contacted to determine their interest in the project and if there are cultural properties within the project area that may be impacted by the project. Consultation with Tribes will continue, with activities and reporting consistent with the Archaeological Resources Protection Act of 1979, 16 U.S.C. 470w-3, and the National Historic Preservation Act of 1966, 16 U.S.C. 470hh). Tribes contacted during development of the PAD include:

- Eklutna Village
- Kenaitze Indian Tribe
- Salamatof Native Association
- Qutekcak Native Tribe

Native organizations contacted during the development of the PAD include:

- Chenega Corporation
- Cook Inlet Region Inc. (CIRI)
- Kenai Natives Association
- Chugach Alaska Corporation
- Ninilchik Natives Association, Inc.

Of the Tribes contacted, only the Kenaitze Indian Tribe has indicated an interest in the Project area to date and representatives have indicated that they will provide information during the FERC process.

CIRI is a partner in the Project. CIRI and enXco are equal owners of Alaska Wind Energy, LLC (dba Wind Energy Alaska). Wind Energy Alaska is 50 percent owner of Kenai Hydro, LLC with Homer Electric Association owning the other 50 percent.

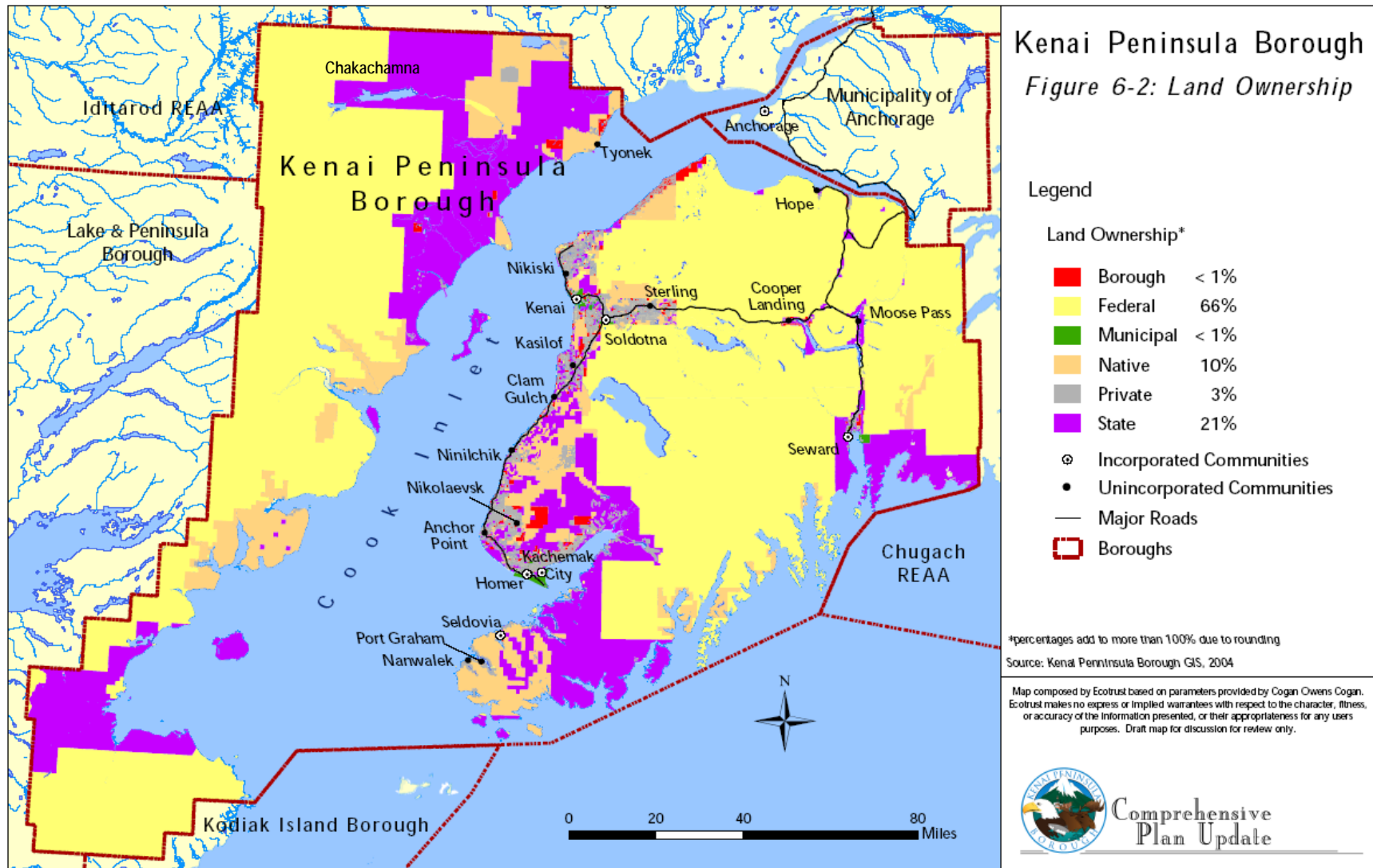
#### **4.10.8. Proposed Protection, Mitigation, and Enhancement Measures**

Kenai Hydro, LLC has not to date identified proposed protection, mitigation, and enhancement measures (PM&Es) for implementation under the project license. Identification of PM&Es for cultural resources will occur following completion of effects analyses based on licensing studies.

#### **4.11. Socioeconomic Resources**

##### **4.11.1. Introduction**

The Project is located within the boundaries of the Kenai Peninsula Borough (KPB). The nearest community is the unincorporated town of Moose Pass – population approximately 206 – about 1.5 miles to the southeast of Grant Lake. The nearest major town is Seward, population approximately 2,830, located approximately 30 miles south of Moose Pass. (2000 U.S. Census Data).



**Figure 4.11-1.** Kenai Peninsula Borough boundaries and land ownership (KPB 2005).

#### **4.11.2. Land Use and Real Estate**

The Project area lies entirely within the KPB. Land use patterns in the Project area are rural. Most of the lands in the Project area are public, either state or federal. However there are several areas of private ownership along the Seward Highway. Borough land management policies are described in the Kenai Peninsula Borough Comprehensive Plan and the Kenai Peninsula Borough Coastal Zone Management Plan (KPB 2005 and 2008). Table 4.11-1, from the KPB Comprehensive Plan (KPB 2005) lists landownership in the borough by category. Much of the land within the borough is either state or federally owned.

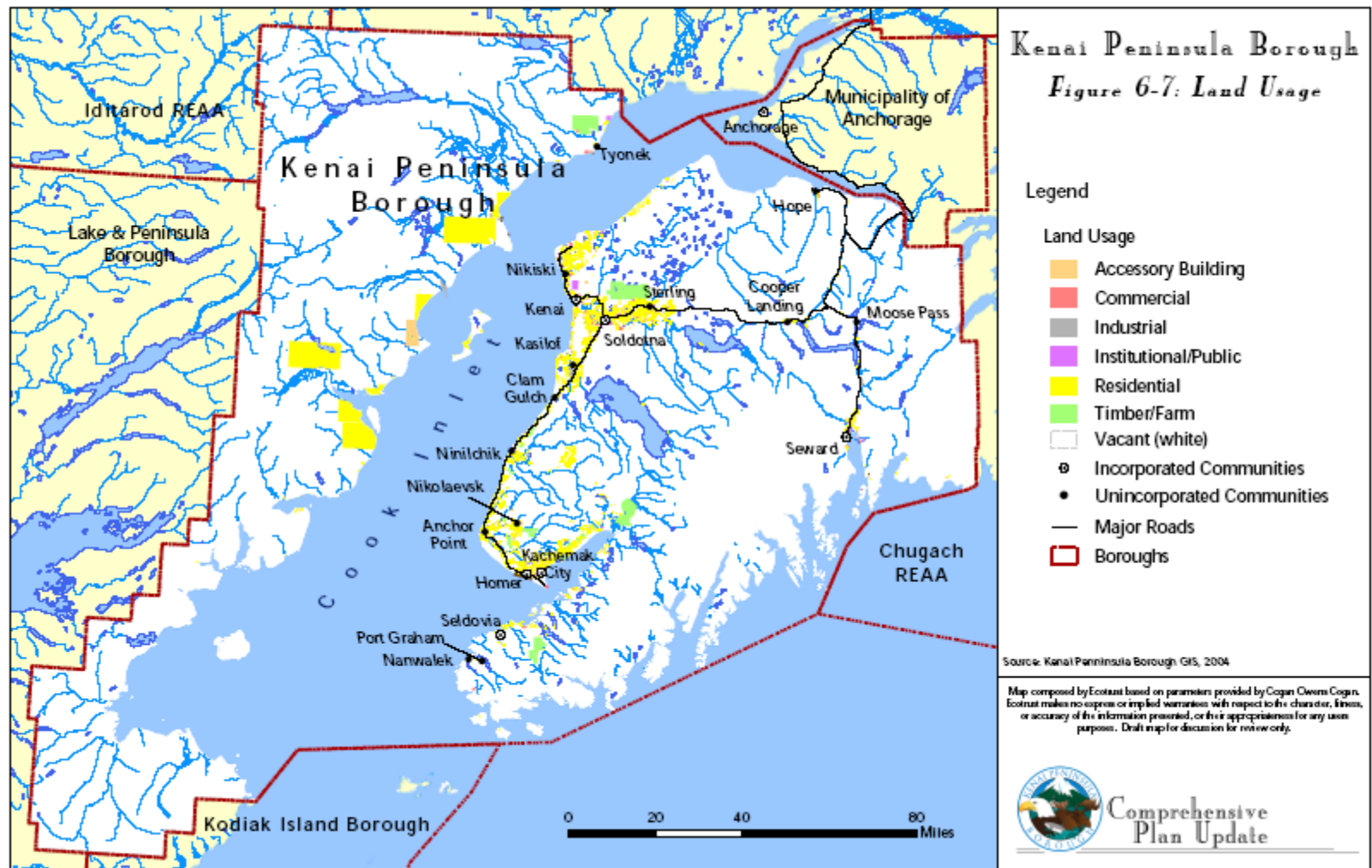
Figures 4.11-1 shows land ownership in the KPB. Land use is predominantly characterized as vacant and is shown in Figure 4.11-2.

**Table 4.11-1.** Land Ownership in the Kenai Peninsula Borough (KPB 2005).

**Land Ownership by Major and Minor Category**  
**2 0 0 4**

| Owner                                            | Acres             | Percent of Total |
|--------------------------------------------------|-------------------|------------------|
| <b>FEDERAL</b>                                   |                   |                  |
| Lake Clark National Park (NP)                    | 1,523,000         |                  |
| Katmai NP                                        | 588,000           |                  |
| Kenai Fjords NP                                  | 574,000           |                  |
| Kenai National Wildlife Refuge                   | 1,894,000         |                  |
| Alaska Maritime National Wildlife Refuge         | 24,000            |                  |
| Chugach National Forest                          | 1,216,000         |                  |
| Public Domain and Other Federal                  | 1,035,375         |                  |
| <b>Total Federal</b>                             | <b>6,854,375</b>  | <b>65.5%</b>     |
| <b>STATE</b>                                     |                   |                  |
| Department of Natural Resources                  | 2,180,794         |                  |
| Aviation Division                                | 1,087             |                  |
| Fish and Game                                    | 407               |                  |
| Department of Transportation                     | 159               |                  |
| Mental Health Trust                              | 18,774            |                  |
| State Parks                                      | 742               |                  |
| University of Alaska                             | 15,048            |                  |
| Alaska Railroad Corporation                      | 512               |                  |
| Other State                                      | 49                |                  |
| <b>Total State</b>                               | <b>2,223,923</b>  | <b>21.3%</b>     |
| <b>BOROUGH</b>                                   | <b>72,409</b>     | <b>0.7%</b>      |
| <b>CITY</b>                                      | <b>17,116</b>     | <b>0.2%</b>      |
| <b>NATIVE CORPORATION OR TRIBE/VILLAGE</b>       |                   |                  |
| Chugach Alaska Corporation                       | 52,684            |                  |
| Cook Inlet Region, Inc.                          | 523,108           |                  |
| English Bay Corporation                          | 61,864            |                  |
| Kenai Natives Association, Inc.                  | 8,294             |                  |
| Nanwalek Village and Council                     | 82                |                  |
| Ninilchik Native Association and Village Council | 44,335            |                  |
| Port Graham Corporation and Village Council      | 67,057            |                  |
| Salamatof Native Association, Inc.               | 24,060            |                  |
| Seldovia Native Association, Inc.                | 72,809            |                  |
| Tyonek Native Corporation and Village            | 78,849            |                  |
| <b>Total Native Land</b>                         | <b>929,174</b>    | <b>8.9%</b>      |
| <b>OTHER PRIVATE LAND</b>                        | <b>357,826</b>    | <b>3.4%</b>      |
| <b>TOTAL ALL OWNERS</b>                          | <b>10,458,699</b> |                  |

Source: KPB Assessing Department, Cogan Owens Cogan



**Figure 4.11-2.** Land Use in the Kenai Peninsula Borough (KPB 2005).

### 4.11.3. Demographics

Population density in the Project vicinity is relatively low. The Project area is approximately 100 miles from Anchorage, Alaska's largest city. The population of the area is centered near the Seward highway.

The population characteristics of the Project area are similar to those of the Kenai Peninsula Borough, as whole. Population growth was greatest during the 1970's and early 1980's. Current populations for incorporated cities in the Borough are shown in Table 4.11-2, and current growth rates are estimated at less than 1% (KPB 2008), with negative population growth in several towns near the Project area.

**Table 4.11-2.** Population growth in the Kenai Peninsula Borough (KPB 2008).

| <b>Number and Annual Rate of Change in Population, Kenai Peninsula Borough and Incorporated Cities in the Borough: 2000-2006</b> |             |             |                     |                              |
|----------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|---------------------|------------------------------|
|                                                                                                                                  | <b>2000</b> | <b>2006</b> | <b>Total Change</b> | <b>Annual Rate of Change</b> |
| Kenai Peninsula Borough                                                                                                          | 49,691      | 51,350      | 1659                | 276.5                        |
| Homer (Increases partially due to annexation)                                                                                    | 3,946       | 5,454       | 1,508               | 251.3                        |
| Kachemak City                                                                                                                    | 431         | 458         | 27                  | 4.5                          |
| Kenai                                                                                                                            | 6,942       | 6,864       | - 78                | - 13.0                       |
| Seldovia                                                                                                                         | 430         | 375         | - 51                | - 8.5                        |
| Seward                                                                                                                           | 2,830       | 2,627       | - 203               | - 33.8                       |
| Soldotna                                                                                                                         | 3,759       | 3,807       | 48                  | 8.0                          |

The racial composition of the borough is predominantly white, except for the small native villages (2000 U.S. Census Data).

In general, adjusted incomes in the KPB decreased during the last few of decades (KPB 2005). Table 4.11-3 summarizes occupations and income in the KPB.



## PRE-APPLICATION DOCUMENT

**Table 4.11-3.** Income and occupations in Kenai Peninsula Borough (ADCRA 2009; 2000 U.S. Census Data).

| <b>Income, Poverty, and Occupation: 2000 U.S. Census Data</b>                                                                                                                     |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>Income and Poverty Levels:</b><br><b>Note:</b> Current socio-economic measures could differ significantly. Kenai Peninsula Borough located in the Kenai Peninsula Census Area. |          |
| Per Capita Income:                                                                                                                                                                | \$20,949 |
| Median Household Income:                                                                                                                                                          | \$46,397 |
| Median Family Income:                                                                                                                                                             | \$54,106 |
| Persons in Poverty:                                                                                                                                                               | 4,861    |
| Percent Below Poverty:                                                                                                                                                            | 10.0%    |
| Total Potential Work Force (Age 16+):                                                                                                                                             | 36,781   |
| Total Employment:                                                                                                                                                                 | 20,486   |
| <b>Employment by Occupation:</b>                                                                                                                                                  |          |
| Management, Professional & Related:                                                                                                                                               | 5,581    |
| Service:                                                                                                                                                                          | 3,471    |
| Sales & Office:                                                                                                                                                                   | 4,740    |
| Farming, Fishing & Forestry:                                                                                                                                                      | 485      |
| Construction, Extraction & Maintenance:                                                                                                                                           | 3,394    |
| Production, Transportation & Material Moving:                                                                                                                                     | 2,693    |

The KPB Comprehensive Plan (KPB 2005) points out the following issues regarding borough demographics:

- Aging population – the average age and percent of population in higher age groups has increased and is predicted to continue to do so.
- Declines in school age children – there are budget and service issues surrounding declining enrollment.
- Declining incomes – decreases in real income may signal increased demand on social and other services at the same time that there is less money to support taxes and fees.

#### 4.11.4. Industry and Employment

Employment in the KPB is concentrated in several industries and summarized in Table 4.11-4. Moose Pass and Seward employment is consistent with Borough employment information.

**Table 4.11-4.** Employment in the Kenai Peninsula Borough (ADCRA 2009, 2000 U.S. Census Data).

| <b>Employment: 2000 U.S. Census Data</b>                                                                                                            |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Note:</b> Current socio-economic measures could differ significantly. The Kenai Peninsula Borough is located in the Kenai Peninsula Census Area. |               |
| <b>Employment:</b>                                                                                                                                  |               |
| Total Potential Work Force (Age 16+):                                                                                                               | 36,781        |
| <b>Total Employment:</b>                                                                                                                            | <b>20,486</b> |
| Percent Unemployed:                                                                                                                                 | 11.4%         |
| Adults Not in Labor Force (Not Seeking Work):                                                                                                       | 13,665        |
| Percent of All 16+ Not Working (Unemployed + Not Seeking):                                                                                          | 44.3%         |
| Private Wage & Salary Workers:                                                                                                                      | 13,691        |
| Self-Employed Workers (in own not incorporated business):                                                                                           | 2,578         |
| Government Workers (City, Borough, State, Federal):                                                                                                 | 3,976         |
| <b>Employment by Industry:</b>                                                                                                                      |               |

*PRE-APPLICATION DOCUMENT*

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|                                                                    |       |
|--------------------------------------------------------------------|-------|
| Agriculture, Forestry, Fishing & Hunting, Mining:                  | 2,157 |
| Construction:                                                      | 1,898 |
| Manufacturing:                                                     | 1,046 |
| Wholesale Trade:                                                   | 383   |
| Retail Trade:                                                      | 2,568 |
| Transportation, Warehousing & Utilities:                           | 1,319 |
| Information:                                                       | 294   |
| Finance, Insurance, Real Estate, Rental & Leasing:                 | 638   |
| Professional, Scientific, Management, Administrative & Waste Mgmt: | 1,046 |
| Education, Health & Social Services:                               | 3,996 |
| Arts, Entertainment, Recreation, Accommodation & Food Services:    | 2,209 |
| Other Services (Except Public Admin):                              | 1,283 |
| Public Administration:                                             | 1,527 |

**4.11.5. Public Sector**

Kenai Peninsula Borough is incorporated as a second class borough and as such levies taxes and fees, which fund borough government and services. The KPB operates the schools and the landfill, but most other services such as sewer, water, fire, and law enforcement are managed locally by each city. There are 44 schools in the Kenai Peninsula School District with a total of 9,487 students and employing 716 teachers. Tables 4.11-5 and 4.11-6 summarize the finances for the KPB for 2005 (ADCRA, accessed 2009).

## PRE-APPLICATION DOCUMENT

**Table 4.11-5.** Kenai Peninsula Borough revenues (ADCRA 2009).

| <b>2005 Municipal Revenues</b>              |                      |                                         |                     |
|---------------------------------------------|----------------------|-----------------------------------------|---------------------|
| <b>Local Operating Revenues</b>             |                      | <b>Outside Operating Revenues</b>       |                     |
| Taxes:                                      | \$58,372,872         | Federal Operating:                      | \$5,033,393         |
| Service Charges:                            | \$1,231,122          | Other State Revenue:                    | \$3,634,590         |
| Enterprise:                                 | \$79,739,464         | State/Federal Education Funds:          | \$59,617,943        |
| Other Local Revenue:                        | \$7,664,902          |                                         |                     |
| <b>Total Local Operating Revenues:</b>      | <b>\$147,008,360</b> | <b>Total Outside Revenues:</b>          | <b>\$68,285,926</b> |
| Total Operating Revenues (local + outside): | \$215,294,286        | State/Federal Capital Project Revenues: | \$1,673,099         |
| <b>Total All Revenues: \$216,967,385</b>    |                      |                                         |                     |

**Table 4.11-6.** Kenai Peninsula Borough Expenditures (ADCRA 2009).

| <b>2005 Municipal Expenditures</b>           |                                  |              |
|----------------------------------------------|----------------------------------|--------------|
|                                              | General Government Expenditures: | \$13,729,978 |
|                                              | Public Safety:                   | \$9,782,444  |
|                                              | Roads:                           | \$3,198,758  |
|                                              | Refuse/Landfill:                 | \$4,348,928  |
|                                              | Clinic Hospital:                 | \$68,867,214 |
|                                              | Parks and Recreation:            | \$1,383,393  |
|                                              | Education:                       | \$95,553,345 |
|                                              | Capital Projects:                | \$17,209,587 |
| <b>Total All Expenditures: \$218,680,175</b> |                                  |              |

#### **4.11.6. Electricity**

The south and central portions of the Kenai Peninsula are supplied by Homer Electric Association. Currently, Chugach Electric supplies electricity to the Project area. The proposed Project will supply Homer Electric customers. Currently, Homer Electric purchases power from Chugach Electric and is a partner with them in the Bradley Lake Hydroelectric Project, receiving about 12 percent of that project's output. Homer Electric also has a 40 megawatt co-generation facility in North Kenai, which supplies the Railbelt electric grid.

The City of Seward owns its local electrical distribution system and transmission lines north of the city. Power is purchased from Chugach Electric. In addition, the city owns one percent of the output of the Bradley Lake Project and a 12 megawatt diesel generator for back up.

#### **4.11.7. Potential Adverse Impacts**

No adverse socioeconomic impacts have been identified at this time.

#### **4.11.8. Proposed Protection, Mitigation, and Enhancement Measures**

Kenai Hydro, LLC has not to date identified proposed protection, mitigation, and enhancement measures (PM&Es) for implementation under the project license. Identification of PM&Es will occur following completion of effects analyses based on licensing studies.

#### **4.12. Tribal Resources**

Tribes in the area have been contacted to determine their interest in the Project and if there are cultural properties within the Project area that may be impacted. Consultation with Tribes will continue, with activities and reporting consistent with the Archaeological Resources Protection Act of 1979, 16 U.S.C. 470w-3, and the National Historic Preservation Act of 1966, 16 U.S.C. 470hh).

### **5 PRELIMINARY ISSUES AND STUDIES LIST**

#### **5.1. Introduction**

Based on review of the existing information and preliminary discussions with agencies, tribes, and other stakeholders, Kenai Hydro, LLC has identified potential impact types or information gaps that provide an organizing framework for the Grant Lake/Falls Creek licensing studies and future information gathering efforts. From this list, key questions or information needs are identified that will require a multi-disciplinary approach to reach an understanding of how the proposed Project may affect area resource values. Fifteen discreet study topics have been identified that will provide the basis for determining potential Project effects, as well as potential Protection, Mitigation, and Enhancement measures (PM&Es). These topics will be combined into logical study plans, and studies will be conducted commensurate with the scope and scale of

the proposed Project and potential resource impacts. The identified study topics will form the basis of the draft study plans to be developed in coordination with agencies and other interested Participants.

Although it was mainly completed in the 1980s, there is a significant body of baseline environmental data for the Project area which will inform analysis for the proposed Project. An initial objective of the study program will focus on developing or confirming existing baseline information. Reconnaissance data being collected in 2009 prior to the formal FERC study process will provide supplemental baseline information to inform development of the draft study plans. Project facilities and Project operations descriptions and associated engineering will inform and be informed by resource studies.

Section 4 of this PAD identifies potential Project impacts by resource area based on existing information. Proposed study topics identified in the following section 5.2 were identified to evaluate the resource issues associated with the following potential Project impacts and information needs:

- Increased Grant Lake water level fluctuation
- Potential influence of Grant Lake intake structure on fish and wildlife populations
- Reduced flows in upper Grant Creek between the dam and powerhouse
- Altered average flows in lower Grant Creek below the powerhouse
- Flow fluctuations in lower Grant Creek below the powerhouse
- Reduced flows in Falls Creek below the point of diversion
- Water temperature changes in Grant Creek
- Tailrace outflow water quality (such as nitrogen gas saturation)
- Project construction and operation impacts on species with cultural or recreational value and other species of concern (Alaska non-game fish, designated Essential Fish Habitat, threatened or endangered species, etc)
- General project activity impacts on all resources, including ground disturbance associated with studies, construction, and operations
- Need for hydrologic data record for Grant Lake, Grant Creek, and Falls Creek
- Need for baseline water quality data record
- Development of baseline surveys and mapping tools for fisheries and wildlife habitat assessments

## 5.2. Grant Lake/Falls Creek Study List

A list of environmental studies that may need to be completed to inform the license application is provided below. The list is divided generally by resource areas; however, it should be noted that Kenai Hydro, LLC expects that these studies will be interdisciplinary. In addition to resource area studies, analyses that are primarily engineering in nature, including facilities (lands, roads, bridges, transmission lines), hazards and geotechnical risk assessment, power market and economic analysis, and project feature optimization will be on-going. Where engineering analyses have the potential to impact resources, the analysis questions will be included in the proposed study plans. Preliminary engineering analyses are presented in this PAD, and will be updated for the license application, pending results of the resource studies. The study list focuses on the Grant Lake/Grant Creek and Falls Creek watersheds, although study information will also be used to assess the impact of project construction and operation on resources in the Lower Trail Lake and Trail Creek watershed.

### Geology and Soils

1. Grant Lake Shoreline Erosional Processes Study

### Water Resources

2. Hydrology of Grant Lake/Grant Creek and Falls Creek Watersheds
3. Water Quality of Grant Lake/Grant Creek and Falls Creek Watersheds

### Fisheries and Aquatic Resources

4. Grant Lake Fish Resources Distribution and Abundance
5. Grant Creek Fish Resources Abundance and Distribution
6. Grant Creek Habitat Modeling/Instream Flow Analysis
7. Falls Creek Fish Resources Distribution and Abundance

### Terrestrial Resources

8. Wildlife and Bird Surveys and Habitat Use Mapping
9. Vegetation Surveys and Mapping
10. Wetlands Mapping

### Cultural Resources

11. Subsistence and Cultural Use Study
12. Historical and Archeological Resources Survey

## Recreation Resources and Land Use

13. Recreational Use Assessment
14. Land Use and Facilities Study (includes lands, roads, and construction practices)

## Visual and Aesthetic Resources

15. Aesthetic/Visual Resources Study

### **5.3. Geology and Soils**

Information collected during the proposed study efforts will be used to describe the existing environment, assess potential impacts, and provide essential information that will help to avoid or mitigate Project impacts. Potential impacts on geology and soils of the project area include impact of sediment releases into Grant Lake, Grant Creek, and Falls Creek and Lower Trail Lake and Trail Creek associated with the construction of the dam and diversions, possible down-cutting of Inlet Creek delta as a result of lowered water levels in Grant Lake, and possible soil erosion and sedimentation in the zone above normal full pond due to the increase in lake levels and water surface level fluctuations. There is also the potential for site specific erosion from road and transmission line construction and maintenance.

#### **5.3.1. Proposed Study Topics**

- Grant Lake Shoreline and Erosional Processes Study
- Land Use and Facilities Study

#### **5.3.2. Relevant Plans**

Relevant Management Plans regarding geology and soils in the proposed Project area include:

- ADNR (Alaska Department of Natural Resources). 1997. Kenai River Comprehensive Management Plan.
- Kenai Peninsula Borough (KPB). 2005. Kenai Peninsula Borough Comprehensive Plan.
- KPB Coastal Management Program and LaRoche and Associates. 2008. Kenai Peninsula Borough Coastal Zone Management Plan.
- U.S. Forest Service. 2005. Revised Land and Resource Management Plan for the Chugach National Forest.

### **5.4. Water Resources**

Information collected during the proposed study efforts will be used to describe the existing environment, assess potential impacts, and provide essential information that will help to avoid or mitigate Project impacts. Potential impacts on water resources include long-term seasonal changes in flow regimes in Grant Creek and Falls Creek. Baseline hydrologic and water quality information is needed to assess potential Project impacts. In particular, potential temperature



impacts in Grant Creek will need to be assessed. Impact of Project construction and operation on water quality and hydrology of Lower Trail Lake and Trail Creek will be assessed. Reconnaissance water quality and hydrology information will be collected in 2009 prior to the formal FERC study process (HDR 2009b), and information will be used to inform the draft study plan process.

#### **5.4.1. Proposed Study Topics**

- Hydrology of Grant Lake/Grant Creek and Falls Creek Watersheds
  - Stream gaging of Grant Creek and Falls Creek
  - Aquatic Habitat Modeling/Instream Flow Study
- Water quality of Grant Lake/Grant Creek and Falls Creek Watersheds
  - Grant Lake Water Quality and Limnology
  - Grant and Falls Creek Water Quality and Productivity Monitoring (stream macroinvertebrates and periphyton)
  - Grant Creek Temperature Modeling
- Land Use and Facilities Study

#### **5.4.2. Relevant Plans**

The following resource management plans and directives provide guidance and direction for protection of water resources:

- ADF&G. 2006b. Our Wealth Maintained: A Strategy for Conserving Alaska's Diverse Wildlife and Fish Resources.
- ADNR. 1997. Kenai River Comprehensive Management Plan.
- ADNR. Kenai River Special Management Area (KRSMA).
- KPB. 2005. Kenai Peninsula Borough Comprehensive Plan.
- KPB Coastal Management Program and LaRoche and Associates. 2008. Kenai Peninsula Borough Coastal Zone Management Plan.
- McCracken, B. W. 2007. Aquatic Resources Implementation Plan for Alaska's Comprehensive Wildlife Conservation Strategy, September 2006 - 2001. Alaska Department of Fish and Game.
- U.S. Forest Service. 2005. Revised Land and Resource Management Plan for the Chugach National Forest.

### **5.5. Fish and Aquatic Resources**

Based on meetings with stakeholders, input from federal and state resource agencies, and its consultants Kenai Hydro, LLC has identified the following fish and aquatic resources study

needs. Information collected by the proposed studies will be used to describe the existing environment, assess potential impacts, and provide essential information that will help to avoid or mitigate Project impacts. Potential impacts to fish and aquatics resources include impacts related to fluctuating flows in Grant Lake, and Grant and Falls Creek, potential impacts of fish at the intake structure, potential reduced flows between the dam and the powerhouse on Grant Creek and below the Falls Creek diversion, potential impacts from the tailrace outflow, potential loss of habitat due to tunnel construction and disposal of rock spoil in drainage ways, and increased recreational fishing pressure due to increased access. Reconnaissance fish and aquatic habitat and distribution information will be collected in 2009 prior to the formal FERC study process (HDR 2009a), and information will be used to inform the draft study plan process.

Grant Creek, and Falls Creek below the respective diversions are each less than 1.5 miles long and the potential fish use zone of Falls Creek is very limited. Consequently, all of the aquatic resource study programs should be viewed from the perspective of a very limited impact zone. The scopes of study programs will necessarily be commensurate with the range of potential impacts. Potential impact of Project construction and operation on the fish and aquatic resources in Lower Trail Lake and Trail Creek will also be assessed.

#### **5.5.1. Proposed Study Topics**

- Grant Lake Fish Resources Distribution and Abundance
- Grant Creek Fish Resources Distribution and Abundance
  - Grant Creek Salmon Spawning Abundance and Distribution
  - Grant Creek Resident and Rearing Fish Distribution and Abundance
  - Grant Creek Habitat Mapping/Critical Factors Analysis
- Grant Creek Habitat Modeling/Instream Flow Analysis
  - Analysis of Habitat Changes under Varying Flow Regimes
  - Ramping and Flow Fluctuation Analysis
- Falls Creek Fish Resources Distribution and Abundance
- Land Use and Facilities Study

#### **5.5.2. Relevant Plans**

The following resource management plans and directives provide guidance and direction for protection of fish resources and aquatic habitats:

- ADF&G. 2006b. Our Wealth Maintained: A Strategy for Conserving Alaska's Diverse Wildlife and Fish Resources.
- ADNR. 1997. Kenai River Comprehensive Management Plan.
- ADNR. Kenai River Special Management Area (KRSMA).

- KPB Coastal Management Program and LaRoche and Associates. 2008. Kenai Peninsula Borough Coastal Zone Management Plan.
- McCracken, B. W. 2007. Aquatic Resources Implementation Plan for Alaska's Comprehensive Wildlife Conservation Strategy, September 2006 - 2001. Alaska Department of Fish and Game.
- U.S. Forest Service. 2005. Revised Land and Resource Management Plan for the Chugach National Forest.

## **5.6. Wildlife and Botanical Resources**

Information collected by the proposed studies will be used to describe the existing environment, assess potential impacts, and provide essential information that will help to avoid or mitigate Project impacts. Impacts and information needs identified for wildlife and botanical resources (including wetland, riparian, and littoral habitat) include: a need for baseline mapping and field confirmation of existing information regarding wildlife habitat and vegetation cover types; assessment of potential impacts to species with cultural or recreational value and other species of concern (Alaska non-game species, sensitive, rare, threatened or engendered species, etc); impacts related to general project activity, including potential disturbance to wildlife due to increased human activity in the area; potential for loss of, or increase in, shoreline or wetland habitats used by wildlife species due to lake level rise and increased water surface level fluctuations and potential effects on wildlife, riparian vegetation, and wetlands; need for survey of TES plants and assessment of potential impacts to rare species tracked by the Alaska Natural Heritage Program; potential disturbance to plants and wildlife due to transmission lines or corridor maintenance; and the potential for spread of invasive species during Project construction and operation.

### **5.6.1. Proposed Study Topics**

- Wildlife and Bird Surveys and Habitat Use Mapping
  - Wildlife Survey and Habitat Use Mapping
  - Breeding and Migratory Bird Surveys (raptors, songbirds, waterfowl and waterbirds)
- Vegetation Surveys and Mapping
  - Vegetation Mapping
  - Invasive Plant Species Survey
  - Threatened, Endangered, and Sensitive (TES) Plant Survey
- Wetlands Mapping
- Land Use and Facilities Study

**5.6.2. Relevant Plans**

Relevant management plans and management agency guidance documents for wildlife and botanical resources include:

- AKEPIC Database. Updated 2008. Alaska Exotic Plant Information Clearinghouse Database. Available at: <http://akweeds.uaa.alaska.edu>.
- Alaska Natural Heritage Program (AKHNP). 1997. Alaska Rare Plant Field Guide. Environment and Natural Resources Institute, University of Alaska Anchorage. <http://aknhp.uaa.alaska.edu>
- AKHNP. 2000. Contingency Planning - Sensitive Areas, Rare Plant Species Map Series. Environment and Natural Resources Institute, University of Alaska Anchorage.
- ADF&G. 2000. Kenai Peninsula brown bear conservation strategy.
- ADF&G. 2006b. Our Wealth Maintained: A Strategy for Conserving Alaska's Diverse Wildlife and Fish Resources.
- KPB. 2005. Kenai Peninsula Borough Comprehensive Plan.
- KPB Coastal Management Program and LaRoche and Associates. 2008. Kenai Peninsula Borough Coastal Zone Management Plan.
- McDonough, T. 2007a. Units 7 & 15 furbearer management report. Pages 91-96 in P. Harper, editor. Black bear management report of survey and inventory activities 1 July 2003 – 30 June 2006.
- McDonough, T. 2007b. Units 7 & 15 caribou management report. Pages 1-13 in P. Harper, editor. Caribou management report of survey and management activities 1 July 2004 – 30 June 2006. Alaska Department of Fish and Game.
- McDonough, T. 2007c. Unit 7 moose management report. Pages 110-115 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2005–30 June 2007. Alaska Department of Fish and Game.
- Selinger, J. 2006. Units 7 & 15 wolf management report. Pages 59-64 in P. Harper, editor. Wolf management report of survey and inventory activities 1 July 2002 – 30 June 2005. Alaska Department of Fish and Game.
- Selinger, J. 2008. Units 7 & 15 black bear management report. Pages 143-148 in P. Harper, editor. Black bear management report of survey and inventory activities 1 July 2004–30 June 2007. Alaska Department of Fish and Game.
- Selinger, J. 2005. Units 7 & 15 brown bear management report. Pages 64-74 in P. Harper, editor. Brown bear management report of survey and inventory activities 1 July 2004–30 June 2006. Alaska Department of Fish and Game.
- U. S. Army Corps of Engineers Research and Development Center. 2007. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0). Vicksburg, MS.

- U.S. Army Corps of Engineers Environmental Laboratory (USACOEEL). 1987. Corps of Engineers Wetlands Delineation Manual. Vicksburg, MS.
- U. S. Forest Service. 1995. Forest Service Manual. Part 2600 - Wildlife, Fish, and Sensitive Plant. Habitat Management, WO Amendment 2600-95-7. Effective 6/23/95. Chapter 2670 – Threatened, endangered, and sensitive plants and animals.
- U. S. Forest Service. 2005. Revised Land And Resource Management Plan for the Chugach National Forest.
- U.S. Code 16 Subchapters II and III. 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986, and 1989. Migratory Bird Treaty Act and Migratory Bird Conservation.
- U.S. Code 16 668-668d, 54 Stat. 250. 1940, as amended 1940, 1959, 1962, 1972, and 1977. Bald Eagle and Golden Eagle Protection Act of 1940.
- U.S. Code 33 1343 Section 404. 1977. Clean Water Act. (Section 404 - discharge of dredged or fill material into the navigable waters of the U.S.).

## **5.7. Recreation and Land Use**

Information collected by the proposed studies will be used to describe the existing environment, assess potential impacts, and provide essential information that will help to avoid or mitigate Project impacts on recreation and existing land use. Potential impacts identified include: effects on travel around the shoreline of Grant Lake in summer and winter; potential impacts to recreational uses such as boating, fishing, and hunting, potential effects of reduced/altered flows in Falls and Grant Creek on recreational fishing; and potential increased recreational pressure (such as hunting, fishing, and boating, snow machining, etc) due to increased access.

### **5.7.1. Proposed Study Topics**

- Recreational Use Assessment
- Land Use and Facilities Study (includes lands, roads, and construction practices)
- Aesthetic/Visual Resources Study

### **5.7.2. Relevant Plans**

Relevant local, state, or regional land use and recreation plans include:

- ADNR. 2001. Kenai Area Plan
- ADNR. 2004. Alaska's Outdoor Legacy Statewide Comprehensive Outdoor Recreation Plan (SCORP) 2004-2009.
- KPB. 2005. Kenai Peninsula Borough Comprehensive Plan.
- KPB Coastal Management Program and LaRoche and Associates. 2008. Kenai Peninsula Borough Coastal Zone Management Plan.

- McDonough, T. 2007a. Unit 7 & 15 furbearer management report. Pages 91-96 in P. Harper, editor. Black bear management report of survey and inventory activities 1 July 2003 – 30 June 2006.
- McDonough, T. 2007c. Unit 7 moose management report. Pages 110-115 in P. Harper, editor. Moose management report of survey and inventory activities 1 July 2005–30 June 2007. Alaska Department of Fish and Game.
- Selinger, J. 2006. Units 7 & 15 wolf management report. Pages 59-64 in P. Harper, editor. Wolf management report of survey and inventory activities 1 July 2002 – 30 June 2005. Alaska Department of Fish and Game.
- Selinger, J. 2008. Units 7 & 15 black bear management report. Pages 143-148 in P. Harper, editor. Black bear management report of survey and inventory activities 1 July 2004–30 June 2007. Alaska Department of Fish and Game.
- Selinger, J. 2005. Units 7 & 15 brown bear management report. Pages 64-74 in P. Harper, editor. Brown bear management report of survey and inventory activities 1 July 2004–30 June 2006. Alaska Department of Fish and Game.
- U.S. Forest Service. 1979. Recreation Opportunity Spectrum: A Framework for Planning, Management, and Research. Pacific Northwest forest and Range Experiment Station, General Technical Report PNW-98.
- U.S. Forest Service. 2005. Revised Land And Resource Management Plan for the Chugach National Forest.

## **5.8. Aesthetic/Visual Resources**

Information collected by the proposed studies will be used to describe the existing environment, assess potential impacts, and provide essential information that will help to avoid or mitigate Project impacts on aesthetic and visual resources. Potential impacts identified include: changing water surface elevations in Grant Lake and flows in Grant Creek and/or Falls Creek may impact visual resources; potential impacts on road viewpoints and views from existing recreational trails will be assessed; and new road or transmission line corridors may impact aesthetic or visual resources.

### **5.8.1. Proposed Study Topics**

- Land Use and Facilities Study (includes lands, roads, and construction practices)
- Aesthetic/Visual Resources Study

### **5.8.2. Relevant Plans**

Management plans relevant to aesthetic/visual resources include:

- ADNR. 2001. Kenai Area Plan.

- ADNR. 2004. Alaska's Outdoor Legacy Statewide Comprehensive Outdoor Recreation Plan (SCORP) 2004-2009.
- KPB. 2005. Kenai Peninsula Borough Comprehensive Plan. KPB Planning Department.
- U.S. Forest Service. 2005. Revised Land And Resource Management Plan for the Chugach National Forest.

## **5.9. Cultural Resources**

Information collected by the proposed studies will be used to avoid or mitigate Project impacts. Kenai Hydro, LLC will identify an Area of Potential Effects (APE), including the Project area. Establishment of the APE will be a collaborative effort between Kenai Hydro, LLC, the SHPO, tribes, federal agencies, and FERC. Additional information is needed to assess potential Project effects on cultural resources on the APE due to construction, Project operations, or increased recreational and other uses in the area; potential impacts on cultural resources due to fluctuating water surface elevations in Grant Lake; and assessment of subsistence use in the area and potential effects of reduced flows in Grant and Falls Creek.

### **5.9.1. Proposed Study Topics**

- Subsistence and Cultural Use Study
- Historical and Archeological Resources Survey

### **5.9.2. Relevant Plans**

Management and land use plans relevant to cultural resources studies include:

- KPB. 2005. Kenai Peninsula Borough Comprehensive Plan. KPB Planning Department.
- USFS. 2005. Revised Land And Resource Management Plan for the Chugach National Forest.
- U.S. Department of the Interior. 1966. National Historic Preservation Act. 36 CFR Part 60.
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## **5.10. Socioeconomic Resources**

Kenai Hydro, LLC has identified the following socioeconomic resource issues. There is existing information sources referenced in this PAD that will be used to describe the existing environment, assess potential impacts, and provide essential information that will provide information on potential Project impacts on socioeconomic resources. Issues to be addressed by Kenai Hydro, LLC include an assessment of socioeconomic effects of the proposed Project on the local and regional economy related to Project construction and operations.

### **5.10.1. Proposed Study Topics**

- Socioeconomic Assessment

### **5.10.2. Relevant Plans**

Management and local or regional land use plans relevant to socioeconomic resources include:

- KPB. 2005. Kenai Peninsula Borough Comprehensive Plan. KPB Planning Department.
- KPB Coastal Management Program and LaRoche and Associates. 2008. Kenai Peninsula Borough Coastal Zone Management Plan.

## **5.11. Tribal Resources**

Tribes in the general Project vicinity have been contacted to begin consultation on their interest in the Project and their concerns surrounding its development. The studies are being planned that will provide information on potential impacts to tribal resources. These studies include Subsistence and Cultural Use Study, Historical and Archaeological Resources Survey, Fisheries and Aquatic Resources studies, Terrestrial Resources studies, Recreational Use Assessment and Land Use Study, and Socioeconomic Assessment. As information becomes available, it will be shared with appropriate tribal contacts and next steps determined.

### **5.11.1. Relevant Plans**

The federal, state, and tribal comprehensive waterway plans and resource management plans that are listed as relevant for other resource areas described in this section 5 of the PAD are also relevant to tribal resources, to the extent that there are tribal interests in the other resources areas.

## **6 SUMMARY OF CONTACTS**

### **6.1. Introduction**

KHL began early consultation with agencies and the public upon filing of the Preliminary Permits for the Grant Lake/Grant Creek and Falls Creek projects. The objectives of the consultation efforts included:

- Gathering information from agencies, tribes, and other potential stakeholders regarding their interests in the proposed project areas
- Distributing information regarding the preliminary permit process, the FERC licensing process steps, reconnaissance study efforts, regional power production needs and goals, and project design development



- Developing contact information for stakeholders
- Identifying and obtaining relevant information for development of the PAD and subsequent
- Identifying information gaps to be addressed during the reconnaissance study efforts, and in the formal FERC study process

## **6.2. Summary of Outreach Efforts and Contacts**

Beginning in early 2009, KHL engaged in public outreach to provide information on the proposed Project to all interested parties. In addition, KHL engaged with agencies and interested stakeholders regarding development of draft and final study plans for the pre-formal study season in 2009, and formed an Instream Flow Technical Workgroup to begin developing the needed information for an instream flow study to be conducted as a part of the formal pre-licensing study program. Appendix 3 includes a summary table of KHL's consultation to gather information for this PAD and to inform the study program. Records of all consultation efforts recorded in Appendix 3 are included in the PAD document library, available on Kenai Hydro, LLC's website ([www.kenaihydro.com](http://www.kenaihydro.com)).

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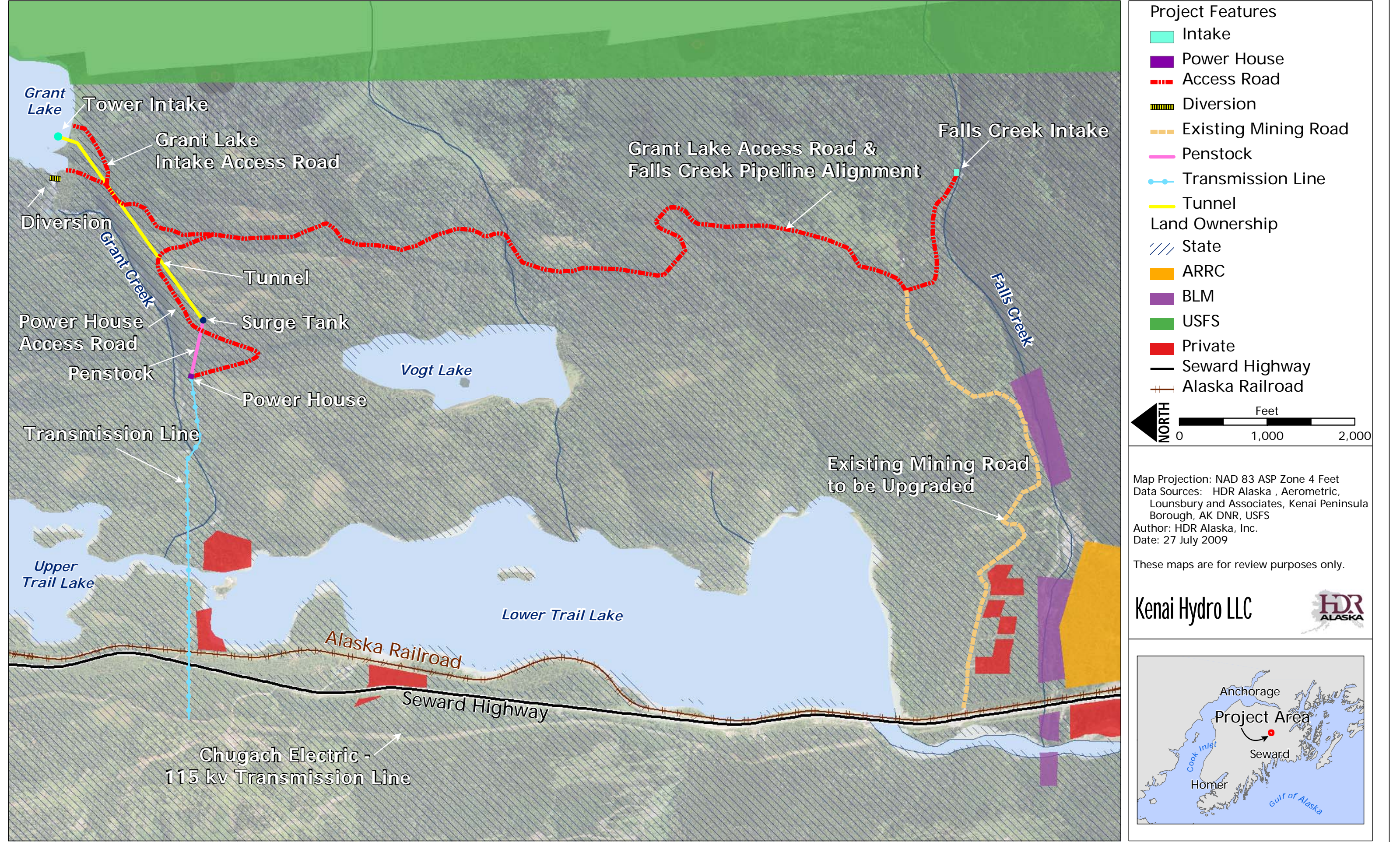
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## **APPENDIX 1: LARGE SCALE FIGURES**







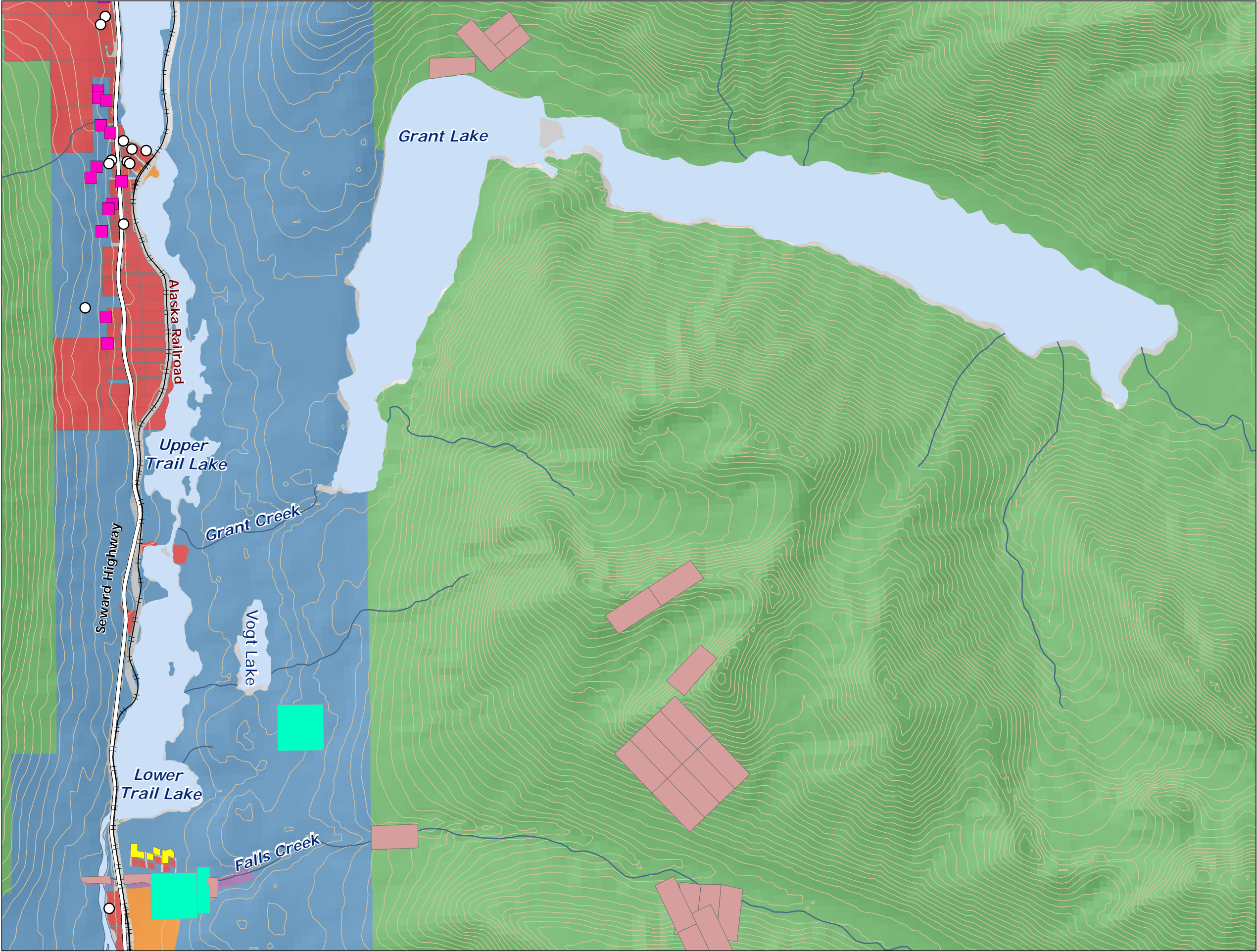






Land status, ownership, water rights, and mineral claims in the proposed Project vicinity

Figure 4.2- 1



Legend

Land Ownership

- ARRC
- Alaska DNR
- Private
- BLM
- USFS

Water Rights

- Surface Water Rights
- Sub- Surface Water Rights

Mineral Claims

- Mineral Closing Order
- State Mining Claim
- Federal Mining Claim

- Alaska Railroad
- Seward Highway

NORTH

Feet

0 2,000 4,000

Map Projection: NAD 83 ASP Zone 4 Feet  
Data Sources: HDR Alaska , Aerometric,  
Lounsbury and Associates, Kenai Peninsula  
Borough, AK DNR, USFS  
Author: HDR Alaska, Inc.  
Date: 27 July 2009

This map represents a conceptual level of utility, detail, and accuracy. The information displayed here is for planning purposes only. Base information shown constitutes data from various federal, state, public, and private sources. These maps are for review purposes only.

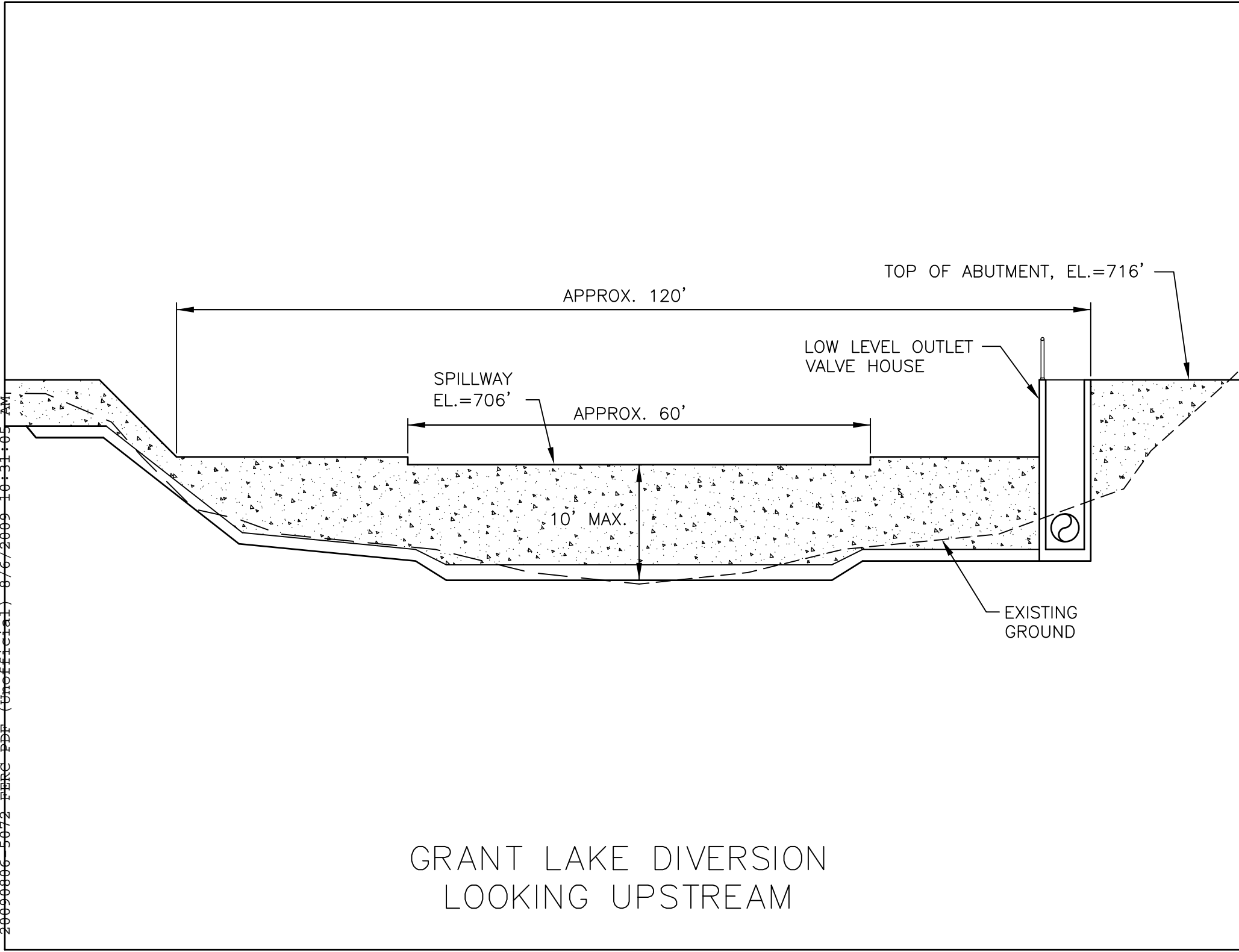
Kenai Hydro LLC





## **APPENDIX 2: CONCEPTUAL DRAWINGS OF PROPOSED PROJECT FACILITIES**







HOUSE CONTAINING  
GATE HOIST  
MECHANISM AND  
CONTROLS

ACCESS  
BRIDGE

GATE HOIST

EL. 720'

INLET WITH  
GATE

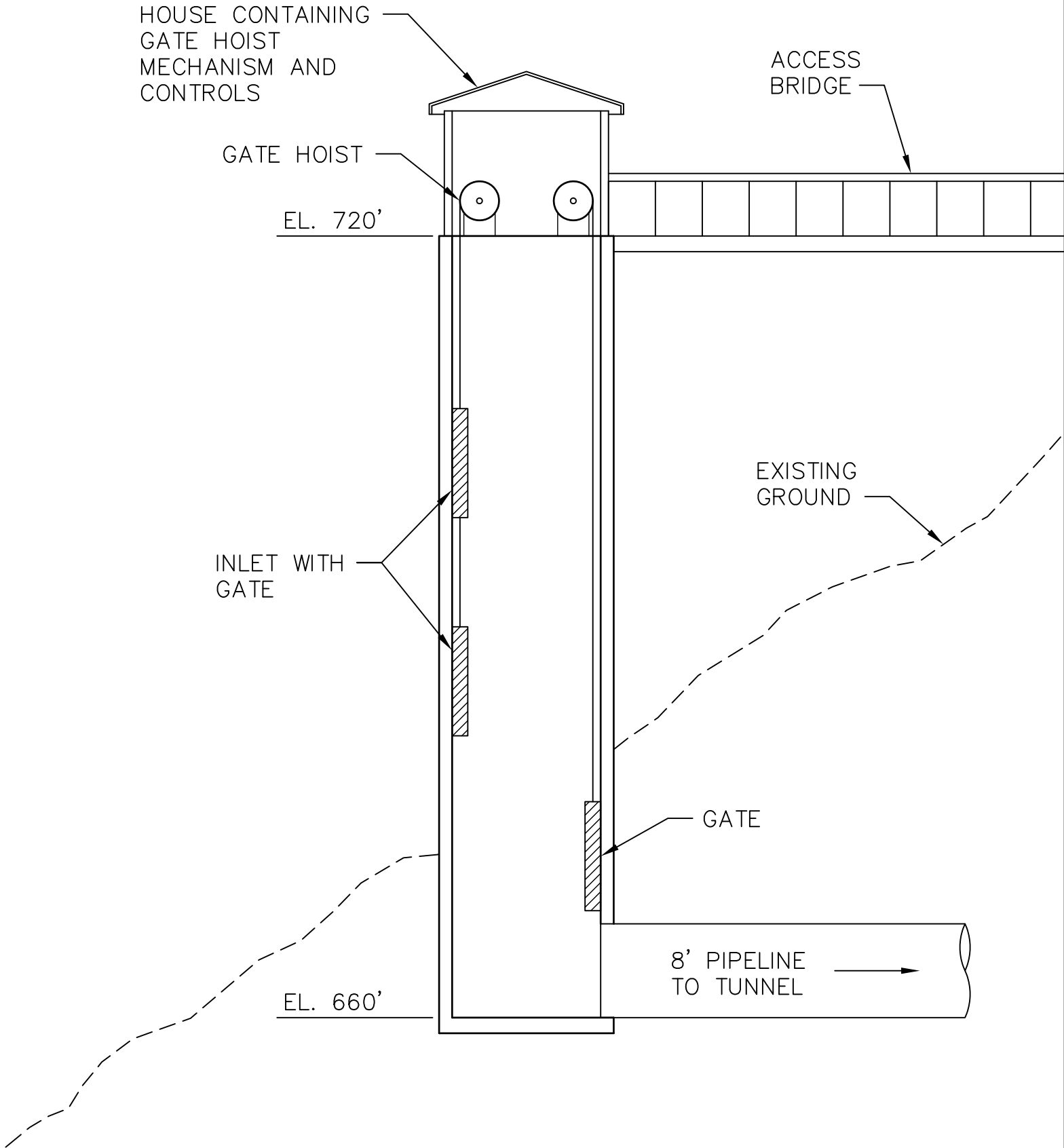
EXISTING  
GROUND

GATE

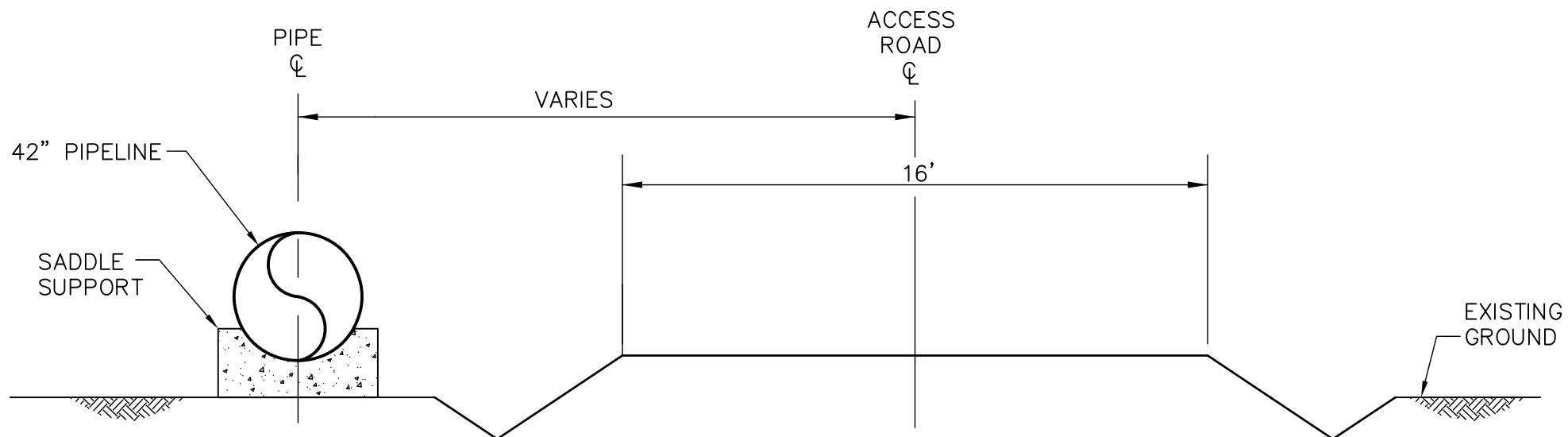
EL. 660'

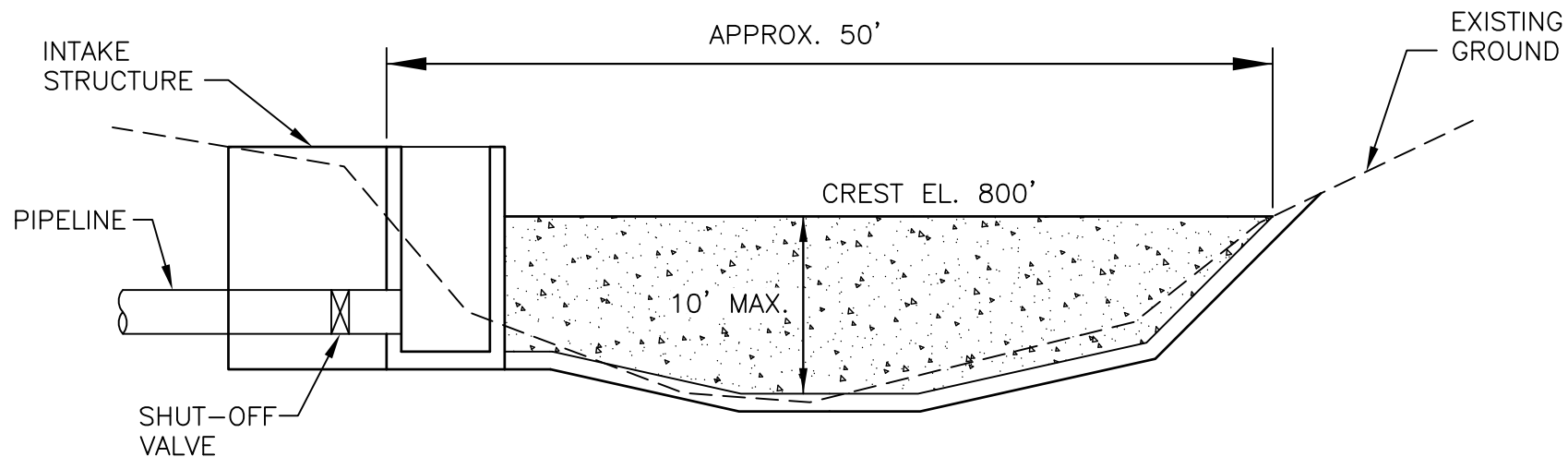
8' PIPELINE  
TO TUNNEL

GRANT LAKE INTAKE

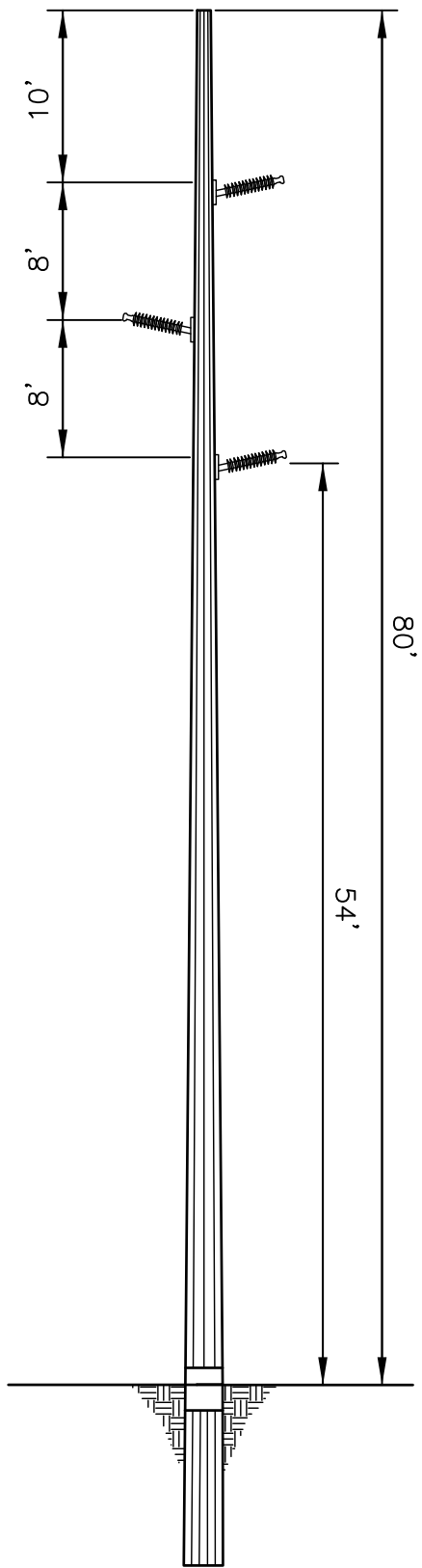


# FALLS CREEK ACCESS ROAD AND PIPELINE





FALLS CREEK DIVERSION/INTAKE  
LOOKING UPSTREAM



115kV TRANSMISSION LINE  
TYPICAL POLE



## **APPENDIX 3: SUMMARY OF CONSULTATION**



### APPENDIX 3

This appendix summarizes contacts with Federal, state, and interstate resource agencies, Indian tribes, non-governmental organizations, or other members of the public made in connection with preparing the pre-application document sufficient to enable the Commission to determine if due diligence has been exercised in obtaining relevant information. Communication records for each of the contacts summarized below are available in the document library at [www.kenaihydro.com](http://www.kenaihydro.com).

| Date       | Summary of Contact                                                                                                                                                                            | Agency/Organization Contacted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/19/2008 | Steve Gilbert (Kenai Hydro, LLC [KHL]) provided notice to FERC of public meetings to be held to discuss Grant Lake/Grant Creek, Falls Creek (and Crescent Lake and Ptarmigan Creek) Projects. | FERC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1/5/2009   | Information packets and invitations to attend agency and public meetings on January 20-21, 2009.                                                                                              | Friends of Cooper Landing, ADFG, ADNR, Kenai Peninsula Borough (KPB) Planning Department, Trout Unlimited, USFWS, Salamatof Native Association Inc, US Army Corps of Engineers, Alaska Center for the Environment, KPB Kenai River Center, USDA Forest Service – Chugach National Forest, Resurrection Bay Conservation Alliance, Alaska Fly Fishers, Alaska Conservation Foundation, National Heritage Institute-Hydropower Reform Coalition, National Wildlife Federation, Moose Pass Sportsman's Club, Fish for Cooper Creek Coalition, Sierra Club, Kenai Watershed Forum, ADNR State Parks, American Rivers Hydropower Reform Coalition, Cook Inletkeeper, Kenai Natives Association Kenaitze Indian Tribe, Alaska Conservation Alliance, Anchorage Fish and Game Advisory Committee, Kenai |



| <b>Date</b> | <b>Summary of Contact</b>                                                                                                                                                                                                                           | <b>Agency/Organization Contacted</b>                                                                                                                                    |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             |                                                                                                                                                                                                                                                     | Princess Lodge, Renewable Resources Foundation, public                                                                                                                  |
| 1/20/2009   | KHL hosted at meeting in Anchorage, Alaska to solicit input on the Grant Lake/Grant Creek, Falls Creek (and Crescent Lake and Ptarmigan Creek) Projects .                                                                                           | Alaska Center for the Environment, FOCL, Hydropower Reform Coalition, National Park Service, USFS, Resurrection Bay Conservation Alliance, Alaska Conservation Alliance |
| 1/21/2009   | KHL hosted at meeting in Cooper Landing, Alaska to solicit input on the Grant Lake/Grant Creek, Falls Creek (and Crescent Lake and Ptarmigan Creek) Projects.                                                                                       | ADFG, ADNR, Kenai River Float and Fish, FOCL, Homer Electric, Anchorage Fish and Game Advisory Committee, Kenai River Center, public                                    |
| 1/28/2009   | KHL hosted at meeting in Moose Pass, Alaska to solicit input on the Grant Lake/Grant Creek, Falls Creek (and Crescent Lake and Ptarmigan Creek) Projects.                                                                                           | Resurrection Bay Conservation Alliance, FOCL, KPB Planning Department, public                                                                                           |
| 1/29/2009   | Steve Gilbert (KHL) exchanged emails with Blake Kowal (CIRI) regarding CIRI's land interests in the Moose Pass area.                                                                                                                                | CIRI                                                                                                                                                                    |
| 3/13/2009   | Paul McLarnon (HDR) emailed agencies and interested parties an invitation to a March 24, 2009 meeting to discuss study plans for the Fish-Instream Flow, Water Quality and Hydrology reconnaissance studies for the Grant Lake/Falls Creek Project. | All agencies and interested parties                                                                                                                                     |
| 3/17/2009   | Paul McLarnon (HDR) emailed agencies and interested parties information on the location of the March 24, 2009 meeting to discuss study plans for the Fish-Instream Flow, Water Quality and Hydrology reconnaissance studies.                        | All agencies and interested parties                                                                                                                                     |
| 3/23/2009   | Paul McLarnon (HDR) emailed agencies and interested parties a website link to access draft study plans prior to the March 24, 2009 meeting.                                                                                                         | All agencies and interested parties                                                                                                                                     |

| <b>Date</b>                                              | <b>Summary of Contact</b>                                                                                                                                                                                                 | <b>Agency/Organization Contacted</b>                                         |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 3/24/2009                                                | Aquatics Workgroup Meeting in Moose Pass, Alaska to discuss draft fish and aquatics and water quality study plans for 2009 reconnaissance studies, and to identify participants for an instream flow technical workgroup. | ADFG, ADNR, NOAA, USFWS, USFS, NPS, FOCL, KRSA, AEC                          |
| 3/25/2009                                                | Brad Zubeck (KHL) emailed the sign-in sheet from the March 24, 2009 meeting to Mike Cooney (FOCL).                                                                                                                        | FOCL                                                                         |
| 3/27/2009                                                | Paul McLarnon (HDR) emailed meeting participants a website link to access PowerPoint presentations from the March 24, 2009 meeting.                                                                                       | ADFG, ADNR, NOAA, USFWS, USFS, NPS, FOCL, KRSA, AEC                          |
| 4/7/2009                                                 | Jason Kent (HDR) emailed agency biologists and potentially interested water resource professionals an invitation to join the Grant Creek/Falls Creek instream flow technical workgroup.                                   | ADFG, ADNR, NOAA, USFWS, USFS, NPS, FOCL, KRSA, AEC, Kenai River Center, EPA |
| 4/13/2009                                                | Paul McLarnon (HDR) emailed agencies and interested parties that revised study plans were posted to the Kenai Hydro website, and requested comments.                                                                      | All agencies and interested parties                                          |
| 4/13/09 Sterling,<br>4/15/09 Homer,<br>& 4/16/09 Nikiski | Brad Zubeck (KHL) gave a PowerPoint presentation on small hydropower projects and the Grant Lake/Falls Creek Project at Homer Electric Associations Renewable Energy Forums in Sterling, Homer and Nikiski.               | Public                                                                       |
| 4/15/2009                                                | Mike Cooney (resident) emailed Jason Kent (HDR) with questions regarding the scope of the proposed Grant Lake/Grant Creek and Falls Creek Project.                                                                        | FOCL                                                                         |
| 4/20/2009                                                | Jason Kent (HDR) emailed Instream Flow Technical Workgroup members an agenda for the April 21, 2009 meeting.                                                                                                              | Instream Flow TWG                                                            |
| 4/21/2009                                                | Instream Flow Technical Workgroup Meeting in Kenai, Alaska to discuss hydrology station locations, 2009 reconnaissance studies, and to instream flow study needs.                                                         | See Meeting Participant List                                                 |
| 4/29/2009                                                | Jason Kent (HDR) emailed April 21, 2009 meeting participants additional information on proposed instream flow methodologies.                                                                                              | Instream Flow TWG                                                            |
| 4/22/2009                                                | Brad Zubeck (KHL) gave a PowerPoint presentation on small hydro and the Grant Lake/Falls Creek Project to the Kenai Area Fisherman's Coalition in Kenai, Alaska.                                                          | Kenai Area Fisherman's Coalition                                             |
| 4/29/2009                                                | Jason Kent (HDR) spoke with Gary Prokosch (ADNR) on the phone regarding a revised approach to the hydrology station locations discussed at the April 21, 2009 TWG meeting.                                                | ANDR                                                                         |

## PRE-APPLICATION DOCUMENT

| <b>Date</b> | <b>Summary of Contact</b>                                                                                                                                                                                                                  | <b>Agency/Organization Contacted</b>        |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| 5/7/2009    | Jason Kent (HDR) emailed the Instream Flow TWG that a meeting summary for the April 21, 2009 meeting and a memo regarding hydrology station locations were posted to the Kenai Hydro website.                                              | Instream Flow TWG                           |
| 5/12/2009   | Brad Zubeck (KHL) gave a PowerPoint presentation to the Kenai River Professional Guides Association in Sterling, Alaska.                                                                                                                   | Kenai River Professional Guides Association |
| 5/14/2009   | Paul McLarnon (HDR) and Melinda O'Donnell (ADNR) exchanged emails about ADNR's review of study permit applications and Melinda requested that she be added to Kenai Hydro's interested party list.                                         | ADNR                                        |
| 5/18/2009   | Jason Kent (HDR) emailed Instream Flow Technical Workgroup members an agenda for the May 19, 2009 conference call.                                                                                                                         | Instream Flow TWG                           |
| 5/19/2009   | Instream Flow Technical Workgroup conference call to discuss instream flow studies methodologies.                                                                                                                                          | Instream Flow TWG                           |
| 5/27/2009   | Brad Zubeck exchanged emails with Matt Cutlip (FERC) following a phone conversation on 5/22/2009 to determine a contact at FERC for filing of the NOI and PAD for the Grant Lake/Falls Creek Project.                                      | FERC                                        |
| 5/27/2009   | Brad Zubeck (KHL) spoke with Lynnda Kahn (USFWS) by phone to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided Lynnda with information on the Kenai Hydro website and document library.              | USFWS                                       |
| 5/27/2009   | Brad Zubeck (KHL) left a voicemail for Phil North (EPA) to request relevant information for the Grant Lake/Falls Creek Project.                                                                                                            | EPA                                         |
| 5/27/2009   | Brad Zubeck (KHL) left a voicemail for Vern Stanford (Kenai Natives Association) to inquire whether he had any concerns about the Projects and to request relevant information for the Grant Lake/Falls Creek Project.                     | Kenai Natives Association                   |
| 5/27/2009   | Brad Zubeck (KHL) spoke with Doug Palmer (USFWS) by phone to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided Doug with information on the Kenai Hydro website and document library.                | USFWS                                       |
| 5/27/2009   | Brad Zubeck (KHL) spoke with Gary Williams (Kenai River Center) by phone to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided Gary with information on the Kenai Hydro website and document library. | Kenai River Center                          |

## PRE-APPLICATION DOCUMENT

| <b>Date</b> | <b>Summary of Contact</b>                                                                                                                                                                                                                                                                                                     | <b>Agency/Organization Contacted</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 5/27/2009   | Brad Zubeck (KHL) spoke with Karen O'Leary (USFS) by phone to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided Karen with information on the Kenai Hydro website and document library.                                                                                                 | USFS                                 |
| 5/27/2009   | Brad Zubeck (KHL) spoke with Dave Casey, and Katy McCafferty (USACE) by phone to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided Katy with information on the Kenai Hydro website and document library.                                                                               | USACE                                |
| 5/28/2009   | Brad Zubeck (KHL) left a voicemail for Brenda Trefon (Kenaitze Indian Tribe) to request relevant information for the Grant Lake/Falls Creek Project.                                                                                                                                                                          | Kenaitze Indian Tribe                |
| 5/28/2009   | Brad Zubeck (KHL) spoke with John Johnson (Chugach Alaska Corporation) by phone to inquire regarding the Chugach Corporation's interest in the Projects and to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided John with information on the Kenai Hydro website and document library. | Chugach Alaska Corporation           |
| 5/28/2009   | Brad Zubeck (KHL) left a voicemail (5/27/2009) and subsequently spoke with Mary King (ADFG) by phone to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided Mary with information on the Kenai Hydro website and document library.                                                        | ADFG                                 |
| 5/28/2009   | Brad Zubeck (KHL) spoke with Melanee Stevens (Qutekcak Native Tribe) by phone to inquire regarding the Qutekcak's interest in the Projects and to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided Melanee with information on the Kenai Hydro website and document library.           | Qutekcak Native Tribe                |
| 5/28/2009   | Brad Zubeck (KHL) emailed Melanee Stevens (Qutekcak Native Tribe) to follow-up on the request by phone for relevant information on the Grant Lake/Falls Creek Project and to provide contact and Kenai Hydro website information.                                                                                             | Qutekcak Native Tribe                |
| 5/28/2009   | Brad Zubeck (KHL) attempted to contact Penny Carty (Salamatof Native Association) by phone and email.                                                                                                                                                                                                                         | Salamatof Native Association         |
| 5/28/2009   | Brad Zubeck (KHL) exchanged emails with Phil North (EPA) to request relevant information for the Grant Lake/Falls Creek Project and to provide information on the Kenai Hydro website and document library.                                                                                                                   | EPA                                  |

## PRE-APPLICATION DOCUMENT

| <b>Date</b> | <b>Summary of Contact</b>                                                                                                                                                                                                                                                                                                             | <b>Agency/Organization Contacted</b> |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 5/28/2009   | Brad Zubeck (KHL) exchanged emails with Brenda Trefon (Kenaitze Indian Tribe) to request relevant information for the Grant Lake/Falls Creek Project and to provide information on the Kenai Hydro website and document library. Brenda indicated that the Kenaitze Tribe will have an interest in the FERC process for this Project. | Kenaitze Indian Tribe                |
| 5/28/2009   | Brad Zubeck (KHL) emailed Bruce Oskolkoff (Ninilchik Native Association) after phoning the Ninilchik Native Association office to request relevant information for the Grant Lake/Falls Creek Project and to provide information on the Kenai Hydro website and document library.                                                     | Ninilchik Native Association         |
| 5/28/2009   | Jenna Borovansky (LVA) emailed Karen O'Leary a copy of the Grant Creek stream nomination form.                                                                                                                                                                                                                                        | USFS                                 |
| 5/28/2009   | Brad Zubeck (KHL) exchanged emails with John Johnson (Chugach Alaska Corporation) following a request by phone for relevant information on the Grant Lake/Falls Creek Project. Brad also provided his contact information and Kenai Hydro website information.                                                                        | Chugach Alaska Corporation           |
| 5/28/2009   | David Phillips (Chugach Alaska Corporation) emailed Brad Zubeck (KHL) regarding Chugach owned land near Grant Lake.                                                                                                                                                                                                                   | Chugach Alaska Corporation           |
| 6/1/2009    | Brad Zubeck (KHL) and Jenna Borovansky (LVA) held a conference call with Joe Adamson and Patty Leppert (FERC) regarding preparation for filing of the PAD and NOI for the Grant Lake/Falls Creek Project.                                                                                                                             | FERC                                 |
| 6/1/2009    | Phil North (EPA) emailed Brad Zubeck (KHL) to inform him that he did not have additional information to add to the record for the Grant Lake/Falls Creek Project at this time.                                                                                                                                                        | EPA                                  |
| 6/2/2009    | Brad Zubeck (KHL) completed an email FOIA request to the ACOE for information regarding the Grant Lake/Falls Creek area.                                                                                                                                                                                                              | ACOE                                 |
| 6/8/2009    | Brad Zubeck (KHL) and Joe Adamson (FERC) exchanged emails regarding a list of Tribal contacts for the Project.                                                                                                                                                                                                                        | FERC                                 |
| 6/9/2009    | Brad Zubeck (KHL) spoke with Mark Lamoreaux (Eklutna Village) by phone to inquire regarding the Eklutna Village's interest in the Projects and to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided Mark with information on the Kenai Hydro website and document library.                      | Eklutna Village                      |
| 6/9/2009    | Brad Zubeck (KHL) spoke with Sherian Soaries (Kenai Natives Association) by phone to inquire regarding the Kenai Native Association's interest in the                                                                                                                                                                                 | Kenai Natives Association            |

| Date      | Summary of Contact                                                                                                                                                                                                                                                                                                                                                                                        | Agency/Organization Contacted |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
|           | Projects and to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided Sherian with information on the Kenai Hydro website and document library                                                                                                                                                                                                                          |                               |
| 6/9/2009  | Brad Zubeck (KHL) spoke with Patty Andrews and Deb Daisy (Chenega Corporation) by phone and left a voicemail with Peter Nosek (Chenega Corporation) to inquire regarding the Chenega Corporation's interest in the Projects and to request relevant information for the Grant Lake/Falls Creek Project. Brad also provided Patty and Deb with information on the Kenai Hydro website and document library | Chenega Corporation           |
| 6/10/2009 | Jenna Borovansky (LVA) spoke with Gary Prokosch (ANDR) by phone to request relevant information for the Grant Lake/Falls Creek Project. Jenna also provided Gary with information on the Kenai Hydro website and document library, and requested feedback regarding use of the TLP.                                                                                                                       | ADNR                          |
| 6/10/2009 | Jason Kent (HDR) emailed Instream Flow Technical Workgroup members relevant literature reviews on instream flow methodologies provided by Jason Maow (ADFG).                                                                                                                                                                                                                                              | Instream Flow TWG             |
| 6/12/2009 | Jenna Borovansky (LVA) left a voicemail (6/11/2009) and spoke with Jim Ferguson (ADFG) by phone to request relevant information for the Grant Lake/Falls Creek Project. Jenna also provided Jim with information on the Kenai Hydro website and document library, and requested feedback regarding use of the TLP.                                                                                        | ADFG                          |
| 6/16/2009 | Paul McLarnon and Erin Cunnigham (HDR) and Jason Mouw and Tom Cappiello conducted a site visit to discuss current and proposed fisheries and instream flow methodologies.                                                                                                                                                                                                                                 | ADFG                          |
| 6/19/2009 | Jenna Borovansky (LVA) emailed all interested parties information on the Kenai Hydro website and login instructions, and requested relevant information for the PAD.                                                                                                                                                                                                                                      | All interested parties        |
| 6/19/2009 | Jenna Borovansky (LVA) emailed Instream Flow Technical Workgroup members information on the Kenai Hydro website, login instructions, and notice that draft May 19, 2009 meeting notes were available.                                                                                                                                                                                                     | Instream Flow TWG             |
| 6/21/2009 | Mike Cooney (FOCL) emailed comments on the draft May 19, 2009 TWG meeting notes to Jenna Borovansky (LVA).                                                                                                                                                                                                                                                                                                | FOCL                          |
| 6/24/2009 | Jenna Borovansky (LVA) left a voicemail and sent a follow-up email to Susan Walker (NOAA) to request relevant information for the Grant Lake/Grant Creek Project and to request feedback regarding Kenai Hydro's intent to                                                                                                                                                                                | NOAA                          |

| Date      | Summary of Contact                                                                                                                                                                                                                                                                | Agency/Organization Contacted                                |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
|           | request use of the TLP.                                                                                                                                                                                                                                                           |                                                              |
| 7/01/2009 | Jason Kent (HDR) emailed Instream Flow Technical Workgroup members notice of a July conference call to discuss field work and a memo summarizing 2009 habitat suitability data collection.                                                                                        | Instream Flow TWG                                            |
| 7/09/2009 | Paul McLarnon (HDR) emailed TWG members to change the July conference call date to July 16, 2009.                                                                                                                                                                                 | Instream Flow TWG                                            |
| 7/10/2009 | Jenna Borovansky (LVA) left a phone message, and followed up with an email to request relevant information on the Grant Lake/Falls Creek Project area from Cassie Thomas (NPS). Cassie emailed information on trail projects supported by the NPS near the proposed Project area. | NPS                                                          |
| 7/10/2009 | Jenna Borovansky (LVA) left a voicemail, and exchanged emails with Travis Moseley (USFS) to request relevant information on the Grant Lake/Falls Creek Project area and to provide information on the Kenai Hydro website.                                                        | USFS                                                         |
| 7/13/2009 | Brad Zubeck (KHL) contacted interested agencies, Tribes, and key stakeholders requesting feedback on a proposed communications protocol and use of the Traditional Licensing Process.                                                                                             | Agencies, Tribes, and Stakeholders<br>(See record for list.) |
| 7/14/2009 | Paul McLarnon (HDR) and Jason Mouw (ADFG) exchanged emails regarding a potential collaboration to conduct a piezometer study in Grant Creek.                                                                                                                                      | ADFG                                                         |
| 7/14/2009 | Brad Zubeck (KHL) emailed Valerie Cooper (Alaska Center for the Environment) a copy of KHL's request to use the TLP and proposed communications protocol, and answered questions regarding the public process.                                                                    | Alaska Center for the Environment                            |
| 7/15/2009 | Paul McLarnon (HDR) emailed Instream Flow Technical Workgroup members a mid-season update on field studies and an agenda for the July 16, 2009 conference call.                                                                                                                   | Instream Flow TWG                                            |
| 7/15/2009 | Brad Zubeck (KHL) and Mike Cooney (FOCL) exchanged emails regarding the request to use the Traditional Licensing Process and opportunities for public comment.                                                                                                                    | FOCL                                                         |
| 7/16/2009 | Instream Flow Technical Workgroup conference call to discuss methodologies and field study updates.                                                                                                                                                                               | ADFG, ADNR, FOCL, USFWS                                      |
| 7/20/2009 | Valerie Cooper (Alaska Center for the Environment) exchanged emails with Jenna Borovansky (LVA) regarding the process for public participation and comment on Kenai Hydro proposals.                                                                                              | Alaska Center for the Environment                            |

## PRE-APPLICATION DOCUMENT

| <b>Date</b> | <b>Summary of Contact</b>                                                                                                                       | <b>Agency/Organization Contacted</b> |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 7/22/2009   | Paul McLarnon (HDR) and Tom Cappiello (ADFG) exchanged emails regarding the gill net methods being used in Grant Lake.                          | ADFG                                 |
| 7/22/2009   | Robert Baldwin (FOCL) commented by email in opposition to the proposed TLP and communications proposal.                                         | FOCL                                 |
| 7/22/2009   | Jason Aigeldinger commented by email in opposition to the proposed use of the TLP and communications proposal.                                  | Public                               |
| 7/22/2009   | Laura Aigeldinger commented by email in opposition to the proposed use of the TLP and communications proposal.                                  | Public                               |
| 7/28/2009   | Jenna Borovansky (LVA) exchanged phone calls with Lynnda Kahn to (USFWS) to confirm there were no listed species in the proposed Project area.  | USFWS                                |
| 7/28/2008   | Jim Ferguson (ADFG) provided feedback to Brad Zubeck (KHL) on ADFG's ability to comment on the proposed use of TLP and communications protocol. | ADFG                                 |



Document Content(s)

2009-08-06\_Project13211\_13212\_PAD\_NOI.PDF.....1-215

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**From:** Jenna Borovansky  
**Sent:** Friday, August 07, 2009 3:26 PM  
**To:** 'Luttrell Mark'  
**Cc:** 'Zubeck, Brad'  
**Subject:** RE: Notice of Availability of Pre-Application Document for Grant Lake/Falls Creek Hydroelectric Project

Hi Mark,

I forwarded your request to Brad Zubeck, Project Engineer for KHL, and he asked that I forward KHL's reply to your requests.

- Kenai Hydro, LLC (KHL) will mail a courtesy copy of the NOI and PAD to the Seward Community Library. KHL will make a note on its website that a copy is/will be available for viewing at the Seward library.
- KHL placed a public notice in the local print newspaper, the Seward Phoenix Log. Public notices were also placed in the Anchorage Daily News, Peninsula Clarion, and Homer Tribune.
- FERC guidelines allow for a reproduction and mailing fee to be charged for print copies. Upon receipt of a \$25.00 reproduction and mailing fee, made payable to Homer Electric Association, KHL will mail a hard copy to Mr. Luttrell via USPS Priority Mail. Please note on the check that this is for the "KHL NOI & PAD Printing". The check should be mailed to "ATTN: Brad Zubeck, Homer Electric Association, 280 Airport Way, Kenai, AK 99611."
- The entire NOI & PAD is available for FREE download on KHL's website, [www.kenaihydro.com](http://www.kenaihydro.com).

Thank you for RBCA's continued interest in the Grant Lake/Falls Creek Hydro project, and [please let me know](#) if you have further questions.

Best regards,  
Jenna Borovansky  
208.765.1413

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**From:** Luttrell Mark [<mailto:prufrock@arctic.net>]  
**Sent:** Thursday, August 06, 2009 4:53 PM  
**To:** Jenna Borovansky  
**Subject:** Re: Notice of Availability of Pre-Application Document for Grant Lake/Falls Creek Hydroelectric Project

Hi Jenna:

Thanks you for keeping the Resurrection Bay Conservation Alliance in the information loop in regards to the proposed dam on Grant Lake with a diversion from Falls Creek.

In the NOI, the Seward Community Library was not included as a recipient of the NOI, PAD and the request for TLP instead of ILP. Would you please mail a hard copy of those documents to the the library (PO Box 2389 Seward 99664)?

Also, in Seward, most people get their news via the "Seward City News", an online-only news source. Would you be willing to provide a notice to them also (<http://sewardcitynews.com/>)?

Would you also be willing to mail a hard copy of the PAD to the Resurrection Bay Conservation Alliance (Box 1092, Seward 99664)?

Thank you

Mark

Mark Luttrell, President  
Resurrection Bay Conservation Alliance  
Box 1092  
Seward, AK 99664  
907 224-4621  
[prufrock@arctic.net](mailto:prufrock@arctic.net)  
[rbca-alaska.org](http://rbca-alaska.org)

On Aug 6, 2009, at 1:25 PM, Jenna Borovansky wrote:

Dear Interested Parties,

On August 6, 2009 Kenai Hydro, LLC (KHL) filed with the Federal Energy Regulatory Commission (FERC): 1) a Notice of Intent (NOI) to file an application for original license under Part I of the Federal Power Act for the Grant Lake/Falls Creek Hydropower Project (FERC No. 13211/13212); 2) a Pre-Application Document (PAD) which summarizes existing information on the Project, describes a proposed environmental study program to determine potential Project impacts, and identifies steps to developing appropriate protection, mitigation, and enhancement measures for inclusion in the license application; and 3) a request to use a Traditional Licensing Process (TLP) for the Project.

The full documents filed with FERC are available for viewing at [www.kenaihydro.com](http://www.kenaihydro.com). Further information on the 30-day public comment opportunity on the request to use the TLP, and the PAD comment period and upcoming public meetings is provided on the website.

In order to facilitate communication and dissemination of information, Kenai Hydro, LLC has established this website to provide on-going updates on the Grant Lake/Falls Creek Project ([www.kenaihydro.com](http://www.kenaihydro.com)). All FERC filings will be posted to this website. You are currently signed-up to receive email updates during the on-going licensing process. Kenai Hydro requests that you confirm your interest by logging-in on the website (login to your existing account using your email address, and choose "forgot password" if you have not set one up yet). If you wish to be removed from this contact list, please reply to this email with that request.

Thank you,

Jenna Borovansky  
Long View Associates (on behalf of Kenai Hydro, LLC)  
[jborovansky@longviewassociates.com](mailto:jborovansky@longviewassociates.com)  
208-765-1413

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**From:** Jenna Borovansky  
**Sent:** Thursday, August 27, 2009 8:39 PM  
**To:** 'Luttrell Mark'  
**Subject:** RE: Grant Lake dam Ebasco document  
**Attachments:** Ebasco\_page4-9&4-10\_2.pdf

Hi Mark,

We found the missing pages. Attached are the two missing pages, just in case you don't want to download the entire document all over again.

If you do want a complete version, the document in the document library has been replaced with a copy with all the pages, in the correct order. Thanks for bringing this to our attention.

Best wishes,  
Jenna

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**From:** Luttrell Mark [<mailto:prufrock@arctic.net>]  
**Sent:** Tuesday, August 18, 2009 10:38 AM  
**To:** Jenna Borovansky  
**Subject:** Re: Grant Lake dam Ebasco document

Thanks a million Jenna  
Mark

On Aug 18, 2009, at 6:12 AM, Jenna Borovansky wrote:

Hi Mark,

No problem contacting me about the missing pages in the Ebasco study - or any other document questions. I believe this document was scanned from a library copy, so I apologize for the mixed up pages. I can fix in this in the master document to prevent further confusion. On the missing pages 4-9 and 4-10, we will work at trying to track these down and I will get back to you on what we find.

Thanks,  
Jenna

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**From:** Luttrell Mark [<mailto:prufrock@arctic.net>]  
**Sent:** Saturday, August 15, 2009 1:11 PM  
**To:** Jenna Borovansky  
**Subject:** Grant Lake dam Ebasco document

Hi again Jenna

I've been perusing the 1984 Ebasco study and noticed that pages 4-9 and 4-10 are missing plus the remaining pages of the cultural section of the report are out of order. Can you provide to me the missing pages?

If you are not the appropriate person to ask, I apologize for the intrusion. Would you mind passing this request on to the appropriate person?

Thank you very much

Mark

Mark Luttrell, President  
Resurrection Bay Conservation Alliance  
Box 1092  
Seward, AK 99664  
907 224-4621  
[prufrock@arctic.net](mailto:prufrock@arctic.net)  
[rbca-alaska.org](http://rbca-alaska.org)

south side of the cove, revealed vegetation and culturally sterile soil above bedrock. The soil under several uprooted trees in the area yielded diffuse traces of charcoal, but there is also evidence of an old burn in the area.

#### 4.2.5 Shoreline of Upper Trail Lake from the Powerhouse Site to the Mouth of Grant Creek

No cultural material was found other than occasional modern debris washed up on the beach. One roughly rectangular hole, approximately 3 ft by 6 ft (1 m by 2 m), was noted at the west end of the island which splits the mouth of Grant Creek. Its bottom was obscured by shallow water, but a shovel probe immediately struck gravel. It could be the natural result of fluctuating creek and lake levels. There was no associated cultural material.

#### 4.2.6 Island Between the Upper and Lower Basins of Grant Lake and Adjacent Points of Land

Aside from old signs of small-scale logging on the north adjacent point and a recent survey marker on the south adjacent point, no evidence of human activity was noted.

As noted above, a fourth phase of archaeological survey and testing will be conducted after all construction facilities and other affected areas have been located on the ground. The following areas, shown on Figure 1-3, appear to warrant further survey:

- o The access road between the powerhouse site and the highway, especially the portion between the highway and the bridge across the Trail Lakes narrows, since the latter area was not examined in the survey; and
- o The access road to the gate shaft area that will roughly parallel Grant Creek, the proposed road passes through an area of archaeological potential.

#### 4.3 CULTURAL RESOURCES WITHIN THE PROJECT SITE

Of the sites identified through the first three phases of study, the Alaska Northern Railway (SEW029) and Iditarod Trail (SEW148) routes, the Solars Sawmill site, and the trail between the Sawmill and Upper Trail Lake are those which are likely to be directly affected by Project construction. The Crown Point Mountain Trail (SEW140), Crown Point Mine (SEW192) and associated structures, structural remains along the lower mine access road, the Brosius cabin, sluice, and camp identified along Falls Creek, and the Baggs Cabin site will not be affected by the Project. Crown Point/Trail Creek Station and the Stevenson cabin lie to the north of the access road to Grant Lake and will be unaffected. Each of these sites is discussed in the following paragraphs. Additional information is presented in Appendix C.

The Iditarod Trail and Alaska Northern Railway roughly coincide with the present route of the Alaska Railroad through the Project site. The Iditarod Trail was blazed in 1908 by the Alaska Road Commission as a winter route between the port of Seward and the gold fields of Nome and the interior. The old right-of-way is still used by the present-day railroad (Barry 1973). It is listed in the Division of Parks' Alaska Heritage Resources Survey (1981) and has been designated as a national historic trail.

The Solars Sawmill site consists of a collapsed wooden structure; a roofless standing cabin of milled lumber with attached woodshed, both in very poor condition; an outhouse, tipped over; two small piles of rusted cans; two pairs of mining-car wheels; and assorted historic debris. Three large pulleys mounted on heavy timbers, wire cable, and two frameworks of timbers leading down into Grant Creek constitute the remains of the mill itself. The available literature provides little information on the establishment or operation of this site. A report compiled by the Forest Service in 1924 mentions that an area at the head of Grant Lake had been cut over for a sawmill at the foot of the

## Jenna Borovansky

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**From:** Jenna Borovansky  
**Sent:** Tuesday, August 18, 2009 7:11 AM  
**To:** 'Luttrell Mark'  
**Subject:** RE: Looking for a Grant lake dam documnet

Hi Mark,

I agree that the FERC site is not entirely user-friendly; just wanted to make sure you were aware of it as an additional source of documents. Don't hesitate to contact me with further questions. Cheers, Jenna

---

**From:** Luttrell Mark [<mailto:prufrock@arctic.net>]  
**Sent:** Saturday, August 15, 2009 11:35 AM  
**To:** Jenna Borovansky  
**Subject:** Re: Looking for a Grant lake dam documnet

Thanks Jenna for the quick response

I've visited the FERC site several times and find it difficult to navigate but I'll keep trying. I am impressed though that so much information is readily available.

Mark

On Aug 14, 2009, at 11:20 PM, Jenna Borovansky wrote:

Hi Mark,  
The two documents you requested are attached. I will also upload them to the PAD library over the weekend.

Fyi, these particular documents are also available on FERC's website since they are comments that were filed directly with FERC. Agency and public comments, etc, should always be available through FERC's e-library by searching for the Project number (P-13211 and P-13212) at [www.ferc.gov](http://www.ferc.gov).

Thanks for your interest in the Grant Lake/Falls Creek Project.

Best,  
Jenna Borovansky

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**From:** Luttrell Mark [<mailto:prufrock@arctic.net>]  
**Sent:** Friday, August 14, 2009 11:57 PM  
**To:** Jenna Borovansky  
**Subject:** Looking for a Grant lake dam documnet

Hi Jenna



I noticed this author cited in the KHL PAD for the Grant Lake dam. Could you provide me an electronic copy of the documents? Seems quite relevant.

Thanks

Mark

Simmons, R. 2008a. USFS-Chugach National Forest Comments on Grant Lake Preliminary Permit (FERC No. 13212).

Simmons, R. 2008b. USFS-Chugach National Forest Comments on Falls Creek Preliminary Permit (FERC No. 13211).

Mark Luttrell, President  
Resurrection Bay Conservation Alliance  
Box 1092  
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907 224-4621  
[prufrock@arctic.net](mailto:prufrock@arctic.net)  
[rbca-alaska.org](http://rbca-alaska.org)

<USFS\_Falls\_comments.doc><USFS\_Grant\_comments.doc>



United States  
Department of  
Agriculture

Forest  
Service

Chugach  
National  
Forest

3301 'C' Street  
Suite 300  
Anchorage, AK 99503-3998

**File Code:** 2770

**Date:** September 19, 2008

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

SUBJECT: COMMENTS - PRELIMINARY PERMIT APPLICATION  
FALLS CREEK PROJECT, FERC NO. 13211-000

Dear Secretary Bose:

Thank you for the opportunity to comment on the Application for Preliminary Permit for Falls Creek Project No. 13211-000, issued by FERC on July 21, 2008. This project is located on Falls Creek within the Chugach National Forest in the Alaska Region.

The project proponent, Kenai Hydro, LLC will need a special use authorization (SUA) from the Forest Service for occupancy and use of National Forest System lands during both the term of the Preliminary Permit and the License to Operate. The comments below identify issues that should be incorporated into the study plans and will be evaluated by the Forest Service when processing special use applications submitted by the proponent.



## **Special Use Authorizations**

A special use authorization will be required from the Forest Service to conduct resource and feasibility studies on the National Forest. If the project is authorized by FERC, a SUA would also be required for the project components located on the National Forest.

### **Cost Recovery:**

Applicants for SUAs are required to pay a fee for processing their special use applications and monitoring compliance with their associated SUAs. Fees are based on an estimate of the number of hours Forest Service personnel will spend on work necessary for processing an application and monitoring an authorization.

### **NEPA Review:**

Activities on National Forest System Lands must be evaluated under the National Environmental Policy Act before a SUA can be issued. Proposals must be consistent with the *Revised Chugach National Forest Land and Resource Management Plan*, May 2002 (Forest Plan) or an amendment to the Forest Plan must be made. Due to minimal ground disturbance, conducting resource studies on the National Forest are often categories of actions that can be excluded from documentation in an Environmental Assessment (EA) or Environmental Impact Statement (EIS). Project development, however, generally requires an EA or EIS because extensive ground disturbance is required to build the project.

## **Resource Issues**

The following resources should be evaluated to ensure that adequate information is available prior to issuing a Preliminary License. Additional studies may be required if the proposal moves beyond the Preliminary License stage.

### **Project Boundary:**

The southwestern most corner of the project area includes land occupied by Trail River Campground. The campground was recently updated and is the largest campground on the Chugach National Forest. The area was reserved for a recreation site under Public Land Order 1731 on September 17, 1958. The reserved area is located in T4N, R1W, Sections 24 and 25 and is not available for power projects. A minor project boundary adjustment would remove the highly developed recreation facility from the project area.

### **Land Ownership:**

The proposed constructed facilities located on the National Forest appear to include the diversion structure and intake. The Forest Service reserved road and trail access through the area when the land transferred to the State of Alaska. The reservations include Falls Creek Mine road, Ptarmigan Creek Cutoff trail, and Crown Point Mine road.

### **Forest Plan Consistency:**

On National Forest System lands, the project should be designed to achieve the objectives outlined in the Forest Plan. If the project could not be developed to meet existing Forest

Plan standards and guidelines, it would be necessary to amend the Forest Plan. The additional costs to amend the Forest Plan would be the responsibility of the proponent.

Forest wide standards include maintaining streamflows, lake levels and water temperatures to provide for the natural range and frequency of aquatic habitat and the stream system or to mitigate for the instream and lake habitat losses. Projects that develop flow control structures need to maintain habitat for adult and juvenile fish both up and downstream or to mitigate for the losses in fish productivity. The project area is also designated with a management prescription of Fish, Wildlife, and Recreation Management. Lands within this management area are managed to provide a variety of habitats for fish and wildlife species and year round recreational opportunities in both developed and dispersed settings.

**Access Needs:**

That portion of the project area located on National Forest System land is part of an inventoried roadless area. At this time, there are two conflicting court orders affecting implementation of the Forest Service Roadless Area Conservation Rule (36 CFR 294). The national direction is to defer taking action that would have the potential to create a conflict with either court's order. The Forest Service will keep FERC apprised of the legal situation. The court rulings are:

- Wyoming v. USDA, No. 2:07-cv-0017-CAB (D. Wyoming, August 8, 2008)
- State of California v. USDA, 3:05-cv-03508-EDL (N. D. Cal.)

**Botany:**

There are 13 sensitive plant species known or suspected to occur on the Chugach National Forest. Based on our review of the map submitted with the preliminary application and the bioenvironmental database used in the Forest Plan, the only Alaska Region sensitive plant species potentially occurring in the project area are Eschscholtz's little nightmare (*Aphragmus eschscholtzianus*), Norberg arnica (*Arnica lessingii* ssp. *norbergii*), goose-grass sedge (*Carex lenticularis* var. *dolia*), tundra whitlow-grass (*Draba kananaskis*), and pale poppy (*Papaver alboroseum*). Of these, only Eschscholtz's little nightmare and pale poppy will remain on a revision of the Alaska Region sensitive species list since the other three are now included in more broadly distributed or abundant taxa (Mary Stensvold, *personal communication*). A field survey for sensitive plants within the project area on National Forest System lands should be conducted.

**Heritage Resources:**

There are five known heritage sites within the project area. Other archaeological and historic sites may exist within the project area. Literature review and field surveys are necessary to determine the presence or absence of potentially significant archaeological or historic sites.

**Mineral Resources and Geology:**

Currently, there are several Federal mining claims within the project area. Impacts to mining claims and access to the claims should be evaluated. In addition, a geotechnical

analysis should be conducted for any geologic features that may be incorporated into the constructed features (dams, diversions, spillways, etc.).

**Timber resources:**

Timber impacted by the proposed construction will need to be inventoried for volume and value.

**Fisheries and Wildlife:**

The project area is within the Kenai River watershed, one of the most popular fisheries in the State of Alaska. The presence or absence of aquatic and terrestrial wildlife populations should be assessed. More intensive studies may be needed if a proposal to develop the project is made. Potential effects to subsistence activities should also be considered.

**Hydrology:**

Local hydrological data should be collected. Local hydrology of the area varies considerably and extrapolation of data from other sites is not acceptable.

**Wetlands:**

All classified wetlands within the project boundary should be inventoried and mapped. Affected or potentially affected wetlands adjacent to or connected to the project boundary should be included.

**Recreation Resources:**

National Forest System lands within the project area include recreation facilities including trails, dispersed sites, and a large campground. A full inventory and assessment of the recreation resource would be expected in the NEPA work.

**Visual Resources:**

The Seward Highway cuts through the project area from south to north with many view points looking east. The Seward Highway is a designated “All American Road”, the most scenic designation in the National Scenic Byway program administered by the Federal Highway Administration. Project activities may be visible from the scenic highway. A comprehensive visual resources study should be conducted.

Thank you for the opportunity to comment. The Chugach National Forest contact for this project is Karen O’Leary. Please contact Ms. O’Leary at [kaoleary@fs.fed.us](mailto:kaoleary@fs.fed.us) or (907) 743-9542, if you have any questions or if you desire a map of the project area concerns discussed above.

Sincerely,

*/s/ Robert L. Simmons*  
ROBERT L. SIMMONS  
Acting Forest Supervisor



cc: Steve Gilbert  
6921 Howard Avenue  
Anchorage  
AK 99504



United States  
Department of  
Agriculture

Forest  
Service

Chugach  
National  
Forest

3301 'C' Street  
Suite 300  
Anchorage, AK 99503-3998

**File Code:** 2770

**Date:** September 19, 2008

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

SUBJECT: COMMENTS - PRELIMINARY PERMIT APPLICATION  
GRANT LAKE PROJECT, FERC NO. 13212-000

Dear Secretary Bose:

Thank you for the opportunity to comment on the Application for Preliminary Permit for Grant Lake Project No. 13212-000, issued by FERC on July 21, 2008. This project is located on Grant Lake within the Chugach National Forest in the Alaska Region.

The project proponent, Kenai Hydro, LLC, will need a special use authorization (SUA) from the Forest Service for occupancy and use of National Forest System lands during both the term of the Preliminary Permit and the License to Operate. The comments below identify issues that should be incorporated into the study plans and will be evaluated by the Forest Service when processing special use applications submitted by the proponent.



## **Special Use Authorizations**

A special use authorization will be required from the Forest Service to conduct resource and feasibility studies on the National Forest. If the project is authorized by FERC, a SUA would be required from the Forest Service for the project components on the National Forest.

### **Cost Recovery:**

Applicants for SUAs are required to pay a fee for processing their special use applications and monitoring compliance with their associated SUAs. Fees are based on an estimate of the number of hours Forest Service personnel will spend on work necessary for processing an application and monitoring an authorization.

### **NEPA Review:**

Activities on National Forest System Lands must be evaluated under the National Environmental Policy Act before a special use authorization can be issued. Proposals must be consistent with the *Revised Chugach National Forest Land and Resource Management Plan*, May 2002 (Forest Plan) or an amendment to the Forest Plan must be made. Due to minimal ground disturbance, conducting studies on the National Forest are often categories of actions that can be excluded from documentation in an Environmental Assessment (EA) or Environmental Impact Statement (EIS). Project development generally requires an EA or EIS because extensive ground disturbance is required to build the project.

## **Resource Issues**

The following resources should be evaluated to ensure that adequate information is available prior to issuing a Preliminary License. Additional studies may be required if the proposal moves beyond the Preliminary License stage.

### **Land Ownership:**

The majority of the proposed constructed facilities are located in the western portion of the project area. This area is non-National Forest System land. The eastern portion of the project area is National Forest System land and the major impacts would be primarily related to rising lake levels. The Forest Service reserved road and trail access to Grant Lake when the land transferred to the State of Alaska. The Grant Lake trail, Grant Creek trail, and Grant Lake Mine road are closed to motorized use in the summer and open to motorized vehicles in the winter.

### **Forest Plan Consistency:**

On National Forest System lands, the project should be designed to achieve the objectives outlined in the Forest Plan. If the project could not be developed to meet existing Forest Plan standards and guidelines, it would be necessary to amend the Forest Plan. The additional costs to amend the Forest Plan would be the responsibility of the proponent.

Forest wide standards include maintaining streamflows, lake levels and water temperatures to provide for the natural range and frequency of aquatic habitat and the stream system or to mitigate for the instream and lake habitat losses. Projects that develop flow control structures need to maintain habitat for adult and juvenile fish both up and downstream or to mitigate for the losses in fish productivity. The project area is also designated with a management prescription of Fish, Wildlife, and Recreation Management. Lands within this management area are managed to provide a variety of habitats for fish and wildlife species and year round recreational opportunities in both developed and dispersed settings.

**Access Needs:**

That portion of the project area located on National Forest System land is part of an inventoried roadless area. At this time, there are two conflicting court orders affecting implementation of the Forest Service Roadless Area Conservation Rule (36 CFR 294). The national direction is to defer taking action that would have the potential to create a conflict with either court's order. The Forest Service will keep FERC apprised of the legal situation. The court rulings are:

- Wyoming v. USDA, No. 2:07-cv-0017-CAB (D. Wyoming, August 8, 2008)
- State of California v. USDA, 3:05-cv-03508-EDL (N. D. Cal.)

**Botany:**

There are 13 sensitive plant species known or suspected to occur on the Chugach National Forest. Based on our review of the map submitted with the preliminary application and the bioenvironmental database used in the Forest Plan, the only Alaska

Region sensitive plant species potentially occurring in the project area are Norberg arnica (*Arnica lessingii* ssp. *norbergii*), goose-grass sedge (*Carex lenticularis* var. *dolia*), and pale poppy (*Papaver alboroseum*). Of these, only pale poppy will remain on a revision of the Alaska Region sensitive species list since the other two are now included in more broadly distributed or abundant taxa (Mary Stensvold, *personal communication*). A field survey for sensitive plants within the project area on National Forest System lands should be conducted.

### **Heritage Resources:**

There are five known heritage sites within the project area. Other archaeological and historic sites may exist within the project area. Literature review and field surveys are necessary to determine the presence or absence of potentially significant archaeological or historic sites.

### **Mineral Resources and Geology:**

Currently there is one Federal mining claim within the project area. Impacts to the mining claim and access to that claim should be evaluated. In addition, a geotechnical analysis should be conducted for any geologic features that may be incorporated into the constructed features (dams, diversions, spillways, etc.).

### **Timber resources:**

Timber impacted by the proposed construction will need to be inventoried for volume and value.

**Fisheries and Wildlife:**

The project area is within the Kenai River watershed, one of the most popular fisheries in Alaska. The presence or absence of aquatic and terrestrial wildlife populations should be assessed. More intensive studies may be needed if a proposal to develop the project is made. Potential effects to subsistence activities should also be considered.

**Hydrology:**

Local hydrological data should be collected. Local hydrology of the area varies considerably and extrapolation of data from other sites is not acceptable.

**Wetlands:**

All classified wetlands within the project boundary should be inventoried and mapped. Affected or potentially affected wetlands adjacent to or connected to the project boundary should be included.

**Recreation Resources:**

Due to difficult access, the National Forest System lands within the project area contain few recreation facilities. However, lake and trail use occurs and a full inventory and assessment of the recreation resource would be expected in the NEPA work.

**Visual Resources:**

The Seward Highway cuts through the project area from south to north with many view points looking east. The Seward Highway is a designated “All American Road”, the most scenic designation in the National Scenic Byway program administered by the Federal Highway Administration. Project activities may be visible from the scenic highway. A comprehensive visual resources study should be conducted.

Thank you for the opportunity to comment. The Chugach National Forest contact for this project is Karen O’Leary. Please contact Ms. O’Leary at [kaoleary@fs.fed.us](mailto:kaoleary@fs.fed.us) or (907) 743-9542, if you have any questions.

Sincerely,

*/s/ Robert L. Simmons*  
ROBERT L. SIMMONS  
Acting Forest Supervisor

cc: Steve Gilbert  
6921 Howard Avenue  
Anchorage  
AK 99504



## Jenna Borovansky

---

**From:** Jenna Borovansky  
**Sent:** Tuesday, September 01, 2009 12:36 PM  
**To:** 'comments@kenaihydro.com'  
**Subject:** Kenai Hydro Request to Use TLP

Dear Interested Parties,

As you know, the comment deadline for Kenai Hydro's request to use the Traditional Licensing Process (TLP) for the Grant Lake/Falls Creek Hydroelectric Project (FERC No. 13211/13212) is coming up on September 5; due to the holiday, comments will be accepted by FERC until September 8. In discussions with ADF&G, ADF&G suggested that with the addition of early scoping by FERC, use of the TLP would be acceptable due to its added flexibility over the ILP. Kenai Hydro would support this addition to its proposal to use the TLP, and requests that agencies and interested parties consider this as an option when/if you choose to submit comments to FERC on the use of the TLP for the Grant Lake/Falls Creek Project.

Please contact Brad Zubeck (907.335.6204 or [BZubeck@HomerElectric.com](mailto:BZubeck@HomerElectric.com)) if you have questions.

---

**From:** Maclean, Scott H (DFG) [<mailto:scott.maclean@alaska.gov>]  
**Sent:** Friday, August 28, 2009 9:18 AM  
**To:** Zubeck, Brad; Steve Padula; Jenna Borovansky  
**Cc:** Ferguson, Jim M (DFG); Klein, Joseph P (DFG)  
**Subject:** RE: Joe Adamson

Morning Brad, I have no objection to sharing our thoughts with other agencies and interested parties. Thanks for asking. Scott

---

**From:** Zubeck, Brad [<mailto:BZubeck@HomerElectric.com>]  
**Sent:** Thursday, August 27, 2009 5:13 PM  
**To:** Maclean, Scott H (DFG); Steve Padula; Jenna Borovansky  
**Cc:** Ferguson, Jim M (DFG); Klein, Joseph P (DFG)  
**Subject:** RE: Joe Adamson

Hi Scott & Jim,

Thanks for the sharing the summary of your interaction with FERC regarding the licensing process and thanks for the support of the TLP with early scoping. Would it be possible to share your view with other agencies and interested parties? Thanks again!

Regards,  
Brad Zubeck

---

**From:** Maclean, Scott H (DFG) [<mailto:scott.maclean@alaska.gov>]  
**Sent:** Thursday, August 27, 2009 5:02 PM  
**To:** Zubeck, Brad; Steve Padula; Jenna Borovansky  
**Cc:** Ferguson, Jim M (DFG); Klein, Joseph P (DFG)  
**Subject:** RE: Joe Adamson

Hi All,

Jim Ferguson and I spoke with Joe Adamson and Nick Jayjack (FERC) this morning about the licensing process for Grant Lake. We were told from Nick's experience with the ILP that FERC stays the course with a very rigid schedule and doesn't bend to requests for time extensions. This is the same experience that Steve shared with us yesterday.

Therefore, what we believe would be acceptable to us is the TLP with early scoping. We recognize that the TLP is more flexible than the ILP and believe it would address our potential need for more time during the environmental study phase.

We appreciated the opportunity to discuss this with you in advance of submitting our comments. Please contact Jim or me if you have any questions.

Thanks,

Scott Maclean  
Statewide Hydropower Coordinator  
Alaska Department of Fish and Game  
Division of Sport Fish - RTS  
333 Raspberry Rd.  
Anchorage, AK 99518  
(907) 267-2312

**Kenai Hydro, LLC**  
2525 C Street, Suite 500  
Anchorage, AK 99503

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September 14, 2009

Ms. Kimberly Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street NE  
Washington, DC 20426

FILED ELECTRONICALLY

**Subject:** Grant Lake/Falls Creek (FERC Project No. 13212/13211) Request to Use TLP  
Response to Comments

Dear Secretary Bose,

Kenai Hydro, LLC (KHL) appreciated the opportunity to meet via conference call on September 10, 2009 with FERC staff, Joe Adamson and Jennifer Hill, to discuss the next steps in FERC's licensing process determination. KHL is committed to a transparent and collaborative licensing process within a schedule that allows the license application to be filed before the end of the preliminary permit term. KHL believes that the Traditional Licensing Process (TLP) is the best vehicle to achieve this goal for the Grant Lake/Falls Creek Project.

KHL would like to provide additional information for the record in response to comments submitted to FERC on KHL's proposal to use the TLP.

- KHL intends to continue public outreach and collaboration with interested parties and agencies throughout the licensing process, utilizing its website and public meetings to provide information and receive comment on the proposed Project as it is developed. Appendix 3 of the Pre-Application Document (PAD) outlines individual and public outreach and consultation efforts that KHL has already undertaken to inform agencies, tribes, and the public about the proposed Project.
- KHL has indicated since January 2009 its intent to utilize the TLP in public meeting presentations and materials. In May 2009, KHL expedited establishment of a website, in response to public requests for accessible information on the Project. The website includes a link to FERC's process descriptions, and a statement of KHL's intent to use the TLP. Since filing on August 6, 2009, KHL's request to use the TLP and the PAD have been available for download at [www.kenaihydro.com/documents](http://www.kenaihydro.com/documents).
- KHL is committed to studying all necessary resource issues associated with the proposed Project. KHL has demonstrated this commitment through our efforts to engage agencies and other interested parties to gather early field information prior to the formal FERC

study process. In the PAD, KHL identified a comprehensive list of issues and relevant resource plans, and has worked extensively with agencies and other interested parties to develop fish and aquatics and water quality study plans to direct field studies being conducted this summer and fall. The intent of these early information gathering efforts is to be able to provide all parties with preliminary field data to inform development of a robust and relevant formal study program.

After review of comments received, KHL continues to believe that use of the TLP will allow for the most efficient, constructive and thorough dialogue with agencies and the public. We look forward to working with FERC to implement the licensing process and schedule following FERC's determination on KHL's request to use the TLP.

Sincerely,

A handwritten signature in black ink that reads "Steven Gilbert". The signature is fluid and cursive, with the first name "Steven" and last name "Gilbert" clearly distinguishable.

Steven Gilbert  
Manager, Kenai Hydro, LLC

cc: Joe Adamson, FERC  
Jennifer Hill, FERC

Document Content(s)

Project13211\_13212\_KHL\_TLPResponse.PDF.....1-2

FEDERAL ENERGY REGULATORY COMMISSION

WASHINGTON, D. C. 20426

September 15, 2009

OFFICE OF ENERGY PROJECTS

Project No. 13212-001 and 13211-001  
– Alaska  
Grant Lake/Falls Creek Hydroelectric  
Project  
Kenai Hydro, L.L.C.

Steve Gilbert, Manager  
Kenai Hydro, L.L.C.  
6921 Howard Avenue  
Anchorage, AK 99504

**RE: Section 106 Consultation Authorization**

Dear Mr. Gilbert:

In the letter filed August 6, 2009, you requested that we grant permission for you to initiate Section 106 consultation on our behalf. By copy of this letter, we are authorizing Kenai Hydro L.L.C. to initiate consultation with the Alaska State Historic Preservation Officers, appropriate Native American tribes, Chugach National Forest, and other consulting parties, pursuant to 36 CFR § 800.2(c)(4) of the regulations implementing Section 106 of the National Historic Preservation Act. This consultation pertains to the original licensing effort by Kenai Hydro, L.L.C. involving the Grant Lake/Falls Creek Hydroelectric Project located on the Kenai Peninsula, near the community of Moose Pass, Alaska.

We are granting authorization to Kenai Hydro, L.L.C. in order for them to conduct day-to-day section 106 consultation responsibilities in regards to the above proposed project; however, the Commission remains ultimately responsible for all findings and determinations.

If you have any questions, please contact Joseph C. Adamson at 202-502-8085, or by email at [joseph.adamson@ferc.gov](mailto:joseph.adamson@ferc.gov) with any questions or comments.

Sincerely,

Jennifer Hill, Chief  
Hydro West Branch

cc: Mailing List  
Service List

Judith Bittner  
State Historic Preservation Officer  
550 West Seventh Avenue, Suite 1310  
Anchorage, AK 99801-3565

John Fowler, Executive Director  
Advisory Council on Historic Preservation  
1100 Penn. Ave., NW, Suite 809  
Washington, DC 20004

Karen O'Leary  
Chugach National Forest  
3301 C Street, Suite 300  
Anchorage, AK 99503

Dorothy Cook, President  
Native Village of Eklutna  
26339 Eklutna Village Road  
Chugiak, AK 99567

Richard Greg Encelewski, President  
Ninilchik Traditional Council  
P.O. Box 39070  
Ninilchik, AK 99639

Penny Carty, President  
Salamatof Native Association, Inc.  
P.O. Box 2682  
Kenai, AK 99611

Vernon Stanford, Chair  
Kenai Natives Association, Inc.  
2115 Fidalgo Avenue, Suite 101  
Kenai, AK 99611-7776

Margaret L. Brown, President  
Cook Inlet Region, Inc.  
P.O. Box 93330  
Anchorage, AK 99509-3330

Sheri D. Buretta, Chairman of the Board  
Chugach Alaska Corporation  
3800 Centerpoint Drive, Suite 601  
Anchorage, AK 99503

Charles W. Totemoff, President  
Chenega Corporation  
3000 C Street, Suite 301  
Anchorage, AK 99503

Dianne McRae, President  
Qutekcak Native Tribe  
P.O. Box 1467  
Seward, AK 99664

Jaylene Peterson-Nyren, Director  
Kenaitze Indian Tribe  
P.O. Box 988  
Kenai, AK 99611

Brad Zubeck, Project Engineer  
Kenai Hydro, L.L.C.  
280 Airport Way  
Kenai, AK 99611



Document Content(s)

P-13212-001Letter3.DOC.....1-3

FEDERAL ENERGY REGULATORY COMMISSION

WASHINGTON, D. C. 20426

September 15, 2009

OFFICE OF ENERGY PROJECTS

Project No. 13212-001 and 13211-001

– Alaska

Grant Lake/Falls Creek Hydroelectric  
Project

Kenai Hydro, L.L.C.

Steve Gilbert, Manager  
Kenai Hydro, L.L.C.  
6921 Howard Avenue  
Anchorage, AK 99504

**Reference: Authorization to Use the Traditional Licensing Process**

Dear Mr. Gilbert:

In a letter filed August 6, 2009, you requested to use the Traditional Licensing Process (TLP) in preparing a license application for the proposed 4.5-megawatt Grant Lake/Falls Creek Hydroelectric Project, which would be located on Grant Lake, Grant Creek and Falls Creek on the Kenai Peninsula, near the community of Moose Pass, Alaska. On August 6, 2009, you filed a notice of intent and pre-application document (PAD) for the proposed project.

On August 7, 2009, you filed documentation that you published notice of your request to use the TLP in editions of the Anchorage Daily News, Peninsula Clarion and Homer Tribune. Your notice contained the information required in 18 C.F.R. § 5.3(d)(2) of the Commission's regulations, including a statement requesting that comments on the request to use the TLP be filed with the Commission within 30 days of the date of the notice, which was by September 5, 2009.

The U.S. Forest Service (Forest Service) and Alaska Department of Fish and Game (Alaska DFG) filed comments September 4 and 8, 2009, respectfully, supporting the use of the TLP, with the request that scoping be held early in the licensing process to advance timely study development and provide time for analysis of results. The Kenaitze Indian Tribe, filed comments September 4, 2009, expressing no opposition to the use of the TLP.

Comments from Michael Cooney and the Sierra Club Alaska Chapter, filed September 8, and 10, 2009, respectfully, expressed concerns with the use of the TLP, particularly that the process does not afford adequate public involvement in which to voice environmental concerns. The Sierra Club also expressed concerns that the Integrated License Process (ILP), the Commission's default license process, would need to be modified through lengthened timeframes, to ensure adequate study development and deployment.

Also, comments from the Alaska Center for the Environment, filed September 8, 2009, while not advocating one process over the other, do express the different advantages of the ILP and TLP, noting that early scoping is one benefit of the ILP.

Holding scoping early in the licensing process, as suggested by the Forest Service and the Alaska DFG, would provide early identification of issues by all interested parties, which would help to foster the development of any needed studies. Kenai Hydro, L.L.C., in a comment filed September 10, 2009, expressed support of the TLP with early scoping and requested agencies and interested parties to consider this as an option when filing their comments. Early scoping also addresses some of the concerns of the Sierra Club Alaska Chapter and the Alaska Center for the Environment. In consideration of the above, I am granting your request to use the TLP with early scoping.

If you have any questions, please contact Joseph Adamson at (202) 502-8085 or via email at [joseph.adamson@ferc.gov](mailto:joseph.adamson@ferc.gov).

Sincerely,

Ann F. Miles, Director  
Division of Hydropower  
Licensing

cc: Mailing List  
Public Files

Brad Zubeck, Project Engineer  
Kenai Hydro, L.L.C.  
280 Airport Way  
Kenai, AK 99611

Document Content(s)

P-13212-001Letter.DOC.....1-2

**Kenai Hydro, LLC  
Grant Lake/Falls Creek Hydroelectric Project  
Aquatics Technical Work Group Meeting  
USFS Work Center, Kenai, Alaska  
September 22-23, 2009 9 am – 3 pm**

**In Attendance – Site Visit (September 22, 2009)**

Jenna Borovansky, Long View Associates (LVA)  
Jeff Anderson, U.S. Fish and Wildlife Service (USFWS)  
Erin Cunningham, HDR  
Gary Fandrei, Cook Inlet Aquaculture Association (CIAA)  
Ricky Gease, Kenai River Sportfishing Association (KRSA)  
Jason Kent, HDR  
Ginny Litchfield, Alaska Department of Fish and Game (ADF&G)  
Lee McKinley, ADF&G  
Paul McLarnon, HDR  
John Morsell, Northern Ecological Services (NES)  
Ron Rainey, KRSA  
Kim Sager, Alaska Department of Natural Resources (ADNR)  
Sue Walker, National Marine Fisheries Service (NMFS)  
Brad Zubeck, Kenai Hydro, LLC (KHL)

**In Attendance – Technical Workgroup Meeting (September 23, 2009)**

Jenna Borovansky, LVA  
Jeff Anderson, USFWS  
Erin Cunningham, HDR  
Gary Fandrei, CIAA  
Jim Ferguson, ADF&G  
Ricky Gease, KRSA  
Eric Johansen, U.S. Forest Service (USFS)  
Jason Kent, HDR  
Ginny Litchfield, ADF&G  
Lee McKinley, ADF&G  
Paul McLarnon, HDR  
John Morsell, NES  
Gary Prokosch, ADNR  
Kim Sager, ADNR  
Mike Tracy, KHL  
Sue Walker, NMFS  
Brad Zubeck, KHL

## **Meeting Summary**

### **Agenda**

- September 22, 2009: 10 am – 3 pm, Site Visit to Grant Creek
- September 23, 2009 9 am – 3 pm, Technical Workgroup (TWG) Meeting

### **Review of September 22, 2009 Grant Creek Field Visit**

During the TWG meeting on September 23, Paul McLarnon (HDR) summarized characteristics of Grant Creek, and summarized highlights of the field visit to Grant Creek on September 22, 2009 (Attachment 1). Brad Zubeck (KHL) noted that there were several questions during the field day about whether Falls Creek was included in the Project proposal; he confirmed that Falls Creek is a part of the Project.

### **TWG Meeting Summary**

Attachment 2 contains the PowerPoint presentation for the day. Brad Zubeck summarized Project features as proposed in the PAD (Attachment 2, slides 4-6). He noted that while a table in the PAD states that the maximum elevation of the Lake under the current operating proposal is 706 feet, that 709 feet is the correct number, reflecting the potential for the lake level to rise 9 feet.

Jason Kent (HDR) summarized hydrology and temperature data collected to date (Attachment 2, slides 8-18).

- *Comment:* Susan Walker (NMFS) asked where the current year's (and available historical flow data) fall relative to the entire historic flow record. She also stated that it would be interesting to determine if El Nino or PDO (Pacific Decadal Oscillation) events occurred in the period of record.  
*Response:* Jason Kent said that he felt the 2009 hydrology data indicate that this was not the lowest flow on record, but that it is likely a low to average flow year. HDR will review the record of El Nino and PDO event timing.

Jason Kent noted that on slide 14, there is an example of flows around 423 cfs, which HDR noted was the upper limit of safety for hydrologic data collection.

Jason Kent discussed Grant Lake temperature data, highlighting that Grant Creek temperatures in 2009 closely matched the water temperature profile at 1.5 meters depth in Grant Lake. Jason also noted Grant Creek appears to exhibit uniform temperatures longitudinally (upstream to downstream), and differences between surface temperatures and pools measured was slight (maximum difference of about 0.2°C.)

- *Comment:* Gary Fandrei (CIAA) asked whether the temperature data loggers would be left overwinter.  
*Response:* HDR stated that the surface-level thermistors would be removed prior to ice up, but the thermistors in the deep pools would be left over the winter.

Paul McLarnon provided a summary of data collected in the Fish and Aquatic Habitat Studies through August 31 (Attachment 2, slides 19-32).

Jason Mouw (ADF&G) noted that results of piezometer work done by ADF&G and HDR indicate a simple system with little groundwater influence. Most sites showing neutral or slight downwelling characteristics. Jason noted that the results were consistent with the shallow bedrock characteristics observed in most areas, noting that where there was a shallow colluvium layer over the bedrock, it seemed more likely to find the slight downwelling areas.

Paul McLarnon reviewed spawning foot surveys and minnow trapping data to date. He noted that coho had not been seen spawning in the Creek to date, but that YOY coho were observed, indicating that coho spawning is likely. Surveys would continue into the fall.

Erin Cunningham (HDR) reviewed fish use data from snorkeling surveys (Attachment 2, slides 33-50, and Attachment 3).

- *Comment:* Jason Mouw noted that the shallow backwater areas seen in the field looked to be important habitat, and inquired about sampling effort in these areas.  
*Response:* Erin Cunningham noted that some of these shallow backwater pocket areas were included in the snorkel surveys. Minnow traps were also placed in these areas, although capture results differed. Erin said the shallow backwater areas are difficult to sample by snorkeling, but some snorkeling was completed, and that future sampling would include these areas.
- *Comment:* Gary Fandrei noted that the timing of the 2009 studies missed sockeye emergence, and that minnow trapping may not be effective for Chinook.  
*Response:* Paul McLarnon replied that work will begin in May 2010, utilizing electrofishing and/or netting.
- *Comment:* Jeff Anderson (USFWS) stated that sizes of fish observed indicate that there may be overwintering Chinook (greater than 80 mm), and asked if scales had been collected for aging.  
*Response:* Paul McLarnon stated that scales have not been collected to age fish, but agreed that Chinook sizes indicate overwintering, or fish moving into the system. John Morsell (NES) and Paul noted that data have not shown many juveniles moving into the system yet, and that over-wintering is likely.
- *Comment:* Lee McKinley (ADF&G) asked if any marking was done during resident fish studies.  
*Response:* Paul McLarnon stated that no marking of juvenile fish was done, but that an informal caudal fin mark was done upon the initial capture of larger fish, and in June there were two or three recaptures during angling surveys. Once new fish began moving into the system later in the summer, no additional recaptures occurred.

Overall HDR found many more fish than historic studies. Paul McLarnon noted that the foot surveys were intense, and that he is confident in the “zeros” recorded at the end of the spawning surveys.

- *Comment:* Gary Fandrei stated that he could look into the timing of weir installation in the 1980s, though he agreed that given the target species at the time was coho, it is likely that the weir did not go in until later in the season.
- *Comment:* Ginny Litchfield (ADF&G) noted that many more fish than expected were seen in Grant Creek, and that the south bank group did not observe any adult fish present or passing into Reach5 during the site visit. She indicated that information on where in the Creek fish use/distribution tapers off would be useful. Jim Ferguson (AD&G) agreed that determining the location where fish use becomes less intensive will be important.  
*Response:* He indicated that there appears to be a gradient of fish use in the creek, and that use appears to drop off near the reach 4 and 5 break, but this information will need to be confirmed in next year's studies. During field work, crews stopped at the reach break between 4 and 5 for half an hour at the end of each survey, and did not observe any adult fish passage this summer.
- *Comment:* Jim Ferguson asked where anadromy ends.  
*Response:* Paul McLarnon stated that the current assumption is that there is anadromous use all the way to the currently mapped fish barrier location, but this is not confirmed by data to date. HDR will get further into Reach 5 during next year's study to determine the extent of anadromy.
- *Comment:* Gary Prokosch (ADNR) asked if any recreational fishing was observed during the field season.  
*Response:* Erin Cunningham noted that she did not see any recreational fishing when she was snorkeling in June. Paul McLarnon stated that other sampling crews saw less than five recreational anglers this season, and that two were seen in the fall last year (2008).
- *Comment:* Jeff Anderson asked if any larger Chinook were observed in June snorkeling.  
*Response:* Erin Cunningham stated she believed that nearly all of the Chinook were young of the year; although some larger Chinook were observed (> 60 mm). All Chinook had visible parr marks, and the behavior observed did not indicate the fish were on their way out

## Instream Flow Study

Jason Kent reviewed information from the historic instream flow study developed for the previous dam proposal (Attachment 2, slides 51-64; Attachment 4).

- *Comment:* Mike Tracy (Kenai Hydro) asked if there was a precipitation gauge near the Project area that may also have historic information that could be reviewed relative to the historic information.  
*Response:* Eric Johansen (USFS) stated that the USFS keeps some precipitation information for fire monitoring purposes at the Kenai Work Center, but is not sure of the length of the record. The Seward airport may also have data.
- *Comment:* Jason Mouw agreed with the limitations identified in the existing study, notably, he stated that the habitat curves used by Estes and Vincent-Lang did not seem



applicable. He also noted that given the other limitations of the study (limited range of flows examined, etc), that examining the historic data with updated habitat curves may not be useful.

- *Response:* Jason Kent stated that the purpose of introducing this study was to provide background information, but that a new instream flow study will be conducted by HDR.

John Morsell and Paul McLarnon noted that in the evaluation of effective spawning habitat, the studies will take into consideration that effective spawning area is only as available as incubation/survivability overwinter. John cited an example of the Bradley River, where spawning habitat was considered in conjunction with incubation criteria developed by participants. Paul noted that if winter flows are a limiting factor in the Grant Creek system, increased winter flows may increase incubation success, and effective spawning area. This will be examined in the studies.

- *Comment:* Jim Ferguson noted that past studies identified temperatures as a concern.  
*Response:* Jason Kent noted that pool thermistors will be left in over the winter and downloaded when access is available in the spring. Jason also stated that Grant Creek temperatures track the temperature profile of the Grant Lake thermistor at 1.5 meters of depth. Paul McLarnon stated that HDR will leave the thermistor string in the Lake overwinter, but that there will be logistical challenges with maintaining it.
- *Comment:* Jeff Anderson noted that targeting water withdrawal from this area [the top 1.5 m] in the lake would be useful.  
*Comment:* Susan Walker asked if water would be available from the top 1.5 m of Grant Lake year round.  
*Response:* Brad Zubeck stated that the engineers on the Project will need to review the feasibility of year round surface withdrawal, if necessary. The current proposal allows for a low level release to maintain canyon flow.
- *Comment:* Lee McKinley asked if gravel recruitment downstream could be impacted by flow regulation at the dam.  
*Response:* Jason Kent noted on the hydrograph that peak flows greater than 750 cfs could be characterized as flushing flows, though it is unknown if reduced flows would impact spawning gravel recruitment with current information.
- *Comment:* Susan Walker noted that the future precipitation predications may result in more extreme events in the future, and that the Project design should take this into consideration.
- *Comment:* Jim Ferguson asked if the proposed structure could accommodate spill at higher flows.  
*Response:* Brad Zubeck noted that the preferred operation would be to limit spill, but that flushing flows could be considered based on study results and agency input. The current operations proposal includes operation with up to 350 cfs, with 100 cfs unit running continuously.

John Morsell introduced the instream flow methodology, which was designed to focus on areas of known fish use. Jason Kent explained the elements of the instream flow approach (Attachment 2, slides 66-89). The approach discussed is summarized in Attachment 5.

- *Comment:* Gary Fandrei noted that temperature is a key habitat parameter for many life stages, and that even 1 °C change could have a large influence.  
*Response:* Jason Kent noted that hydrology studies will collect information to determine the thermal regime in the Creek, and potential temperature changes can be assessed later in the instream flow study after baseline data has been collected.
- *Comment:* Jeff Anderson noted that current proposed study locations do not account for coho spawning, and requested that additional study sites be added if coho spawning is observed.  
*Response:* HDR agreed that if different areas were used for coho spawning, additional study sites would be added.
- *Comment:* Jeff Anderson asked if changes in velocity (higher in winter) due to Project operations would alter fish use.  
*Response:* Jason Kent noted that the assumption of this method is that since habitat is being used, current velocities are acceptable. Available habitat parameters may be evaluated based on winter conditions and proposed operations, but velocities will not be measured. However, the agencies should have enough information from studies to evaluate effects.
- *Comment:* Ginny Litchfield also noted that if winter use is limiting, habitat areas identified may not be the key winter habitats.  
*Response:* Jason Kent noted that the instream flow model will be able to predict when areas go dry. John Morsell added that winter habitat can be estimated using the proposed method, and that additional transects could be added if studies show new use areas in the winter. Paul McLarnon added that it may be difficult to get in and look at winter use until after break-up, but noted that potential winter habitat areas could be identified now (e.g., pools), and an effort could be made to look at these areas during the winter.
- *Comment:* Jeff Anderson noted that the operations proposal could provide more winter habitat for fish.
- *Comment:* The group discussed whether it was possible to install thermistor strings in Chinook redds over winter. Jason Mouw noted that the literature supports an average depth of 40 cm for Chinook. This would be too deep for sockeye, but would still provide information on the source of water in the redd.
- *Comment:* The group noted that winter survey (in rearing areas) information, where feasible, may be useful. It was also noted that winter observation of ice presence would be useful.

- *Comment:* Jason Mouw noted he is in support of this instream flow study approach. He stated that a tendency in instream flow studies is to ignore important shoreline and pocket habitats, and this approach allows for considering those areas.
- *Comment:* Susan Walker noted that a sediment transport study would provide useful information.  
*Response:* Jason Kent stated that a limited sediment transport analysis will be included as a part of the fluvial geomorphology component of the hydrology study.
- *Comment:* Jim Ferguson asked if overwinter temperatures change, availability of food sources, etc should be considered.  
*Response:* John Morsell noted that temperature data will provide necessary information to evaluate operations proposals, as more information becomes available through the studies to develop the proposal based on resource considerations.
- *Comment:* Lee McKinley asked if there were potential changes to wood recruitment.  
*Response:* Paul McLarnon noted that the habitat mapping methodology includes the collection of information on wood distribution, and based on observation, wood sources appear plentiful in Grant Creek.

Jason Kent walked through information on slide 75 describing habitats for instream flow consideration, and gathered feedback on priorities.

- *Comment:* Susan Walker noted that the fundamental function of the stream should be considered when designing studies and evaluation effects.  
*Response:* John Morsell stated that salmonid spawning and incubation, and early life stage refugia for Chinook are important considerations for Grant Creek.
- *Comment:* Gary Prokosch asked if parameters for winter habitat were considered a primary function of the stream.  
*Response:* Paul McLarnon noted that there is limited winter use, with observations of YOY only.
- *Comment:* Gary Prokosch stated that proposed operations could open up rearing habitat in the winter. Jeff Anderson noted that overwintering habitat is generally the bottleneck for Chinook, so Project could reduce this bottleneck.  
*Response:* John Morsell noted that the wetted perimeter analysis in the side channel habitat will be an essential index for evaluating this use. Overall, analysis will focus on parameters that are most likely to be impacted by changes in flow.
- *Comment:* Jason Mouw stated that from preliminary data on downwelling, this may not be a key limiting factor of use. He stated that intergravel flow depth may be limited in areas.
- *Comment:* Susan Walker noted that in spawning areas, since current use is known, she does not envision flow changes having a negative effect.

- *Comment:* Jeff Anderson asked the range of flows that could be analyzed with this approach.
- *Response:* Jason Kent noted that staff gages can be read from the bank at any high flow. However, flows in the creek will likely not be measured at flows higher than 450 cfs, so there likely will not be verification of the stage-discharge curve at these flows. On the low end, flow measurements will be taken at low flows when ice impact is minimal. The instream flow method allows extrapolation of 40-60% of the high/low ranges, so the total flow range will depend on measured flows in the hydrology study.

## Closing

The agency representatives were offered the opportunity to mark habitat study areas in the field the following day, but no participants chose to attend. The proposed study areas and approach presented in the meeting was generally supported, with feedback recorded in the notes. A full study plan will be presented by HDR in November, and a technical memo outlining the instream flow methodology is provided as Attachment 5.

The meeting adjourned at approximately 3 pm.

## Attachments

Attachments are available on the September 22-23, 2009 TWG meeting calendar page at [www.kenaihydro.com](http://www.kenaihydro.com).

Attachment 1: September 22, 2009 Field Observation Summary and Reach Map

Attachment 2: September 23, 2009 PowerPoint Presentation

Attachment 3: Fish Use by Reach (2009) Figures

Attachment 4: Summary of 1986-1987 Instream Flow Study

Attachment 5: Instream Flow Methodology Technical Memo

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**From:** Jason Werner [<mailto:Jwerner@adakisland.com>]  
**Sent:** Wednesday, September 23, 2009 10:26 AM  
**To:** [SteveG@enxco.com](mailto:SteveG@enxco.com); Zubeck, Brad  
**Cc:** Jason and Renae Werner; David Werner  
**Subject:** Grant Creek HydroProject Impacts

Steve & Brad,

I've attached some info and pictures for you:

The attached Google Earth photo looks to be from June of 2004. I included the KPB assessor map cabin showing that our 6 acre property lies South of Grant Creek and borders Lower Trail Lake. Our cabin can be clearly seen in about the center of the picture. The picture represents fairly high water levels as the small island, east of the cabin, is partially submerged and white water can be seen west of the cabin in Grant Creek.

There is a gradient between the area of white water and our cabin. This is likely the area where Grant Creek hops its channel and flows in a south east direction towards Lower Trail Lake. Although the resolution may not be accurate enough, there appears to be a small white patch slightly to the east of the visible white water that may represent Grant Creek hopping the bank.

When the creek hops its bank, it flows directly across our property and joins a wetland area on Lower Trail Lake where ducks and other birds nest. There is a concern that any changes to the Grant Lake outflow and the additional water volume from the Falls Creek reroute to Grant Lake could negatively impact our property and wetland area, including nesting birds, south of our property.

Also attached are three photos. One photo is of the cabin itself. The other photos are taken near the cabin facing a southerly direction towards Lower Trail Lake. The areas in the southward facing photos beyond the trees are the wetland areas impacted that I earlier discussed.

Also, in reviewing some of the documents I don't see any specific mention of grayling which I have caught in the mouth of Grant Creek. I have also seen beavers at the mouth of Grant Creek as well as black and brown bears and moose. There are also a number of eagle nests along the creek bank and around our property at Lower Trail lake.

I would be happy to meet with a project representative, onsite, to show you areas of potential impact we have concerns about. I have a boat and could provide transportation.

If project representatives need access to our property, please feel free do so. I just ask that you just let me know either by email or phone so I can keep track of visitors.

Thanks,

Jason Werner  
696-3405 home















SW002535 US SURVEY 2535  
SW003081 US SURVEY 3081  
SW003300 US SURVEY 3300

POR. SEC. 12, T4N, R1W, SEWARD MERIDIAN

125-170



DATE: SEPT. 18, 1998

FOR 1999 ASSESSMENT ROLL

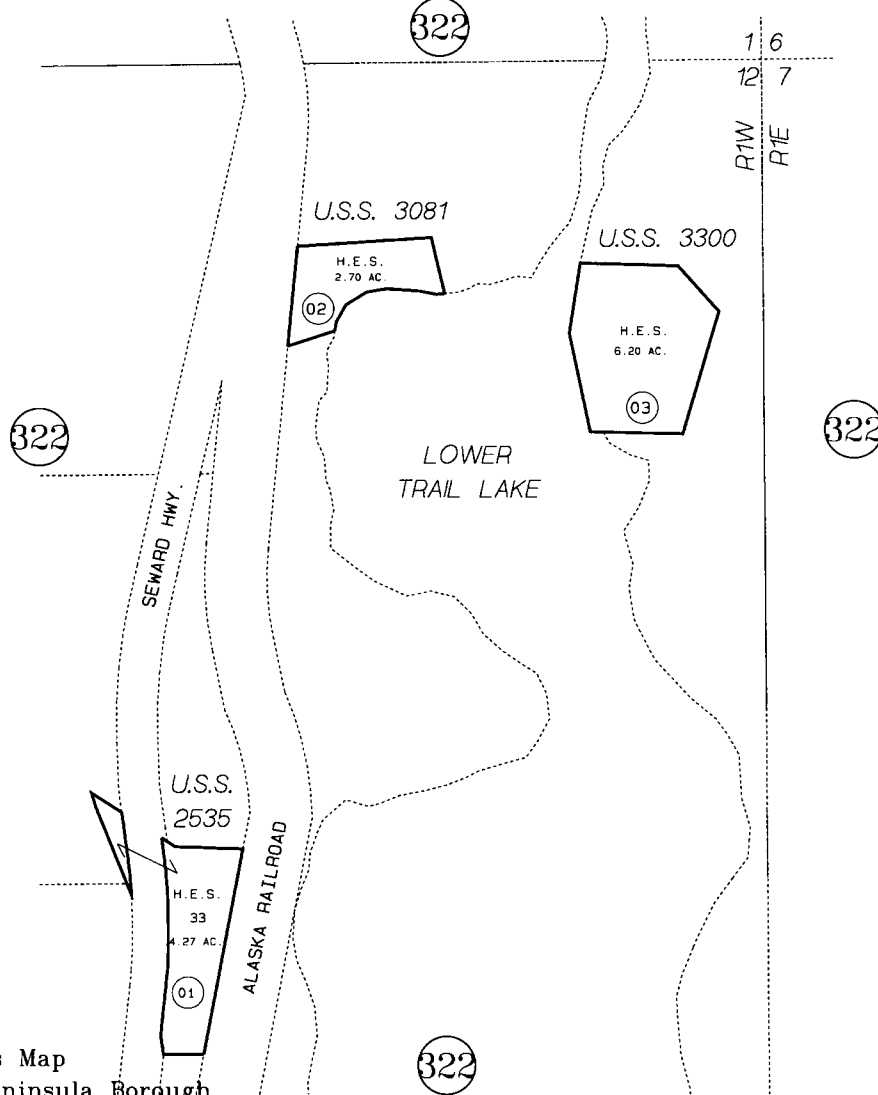
DELETE ADD REVISED

TO

REPLACEMENT

PAGE

Assessor's Map  
Kenai Peninsula Borough



THIS MAP IS PREPARED  
FOR KENAI PENINSULA  
BOROUGH ASSESSING DEPT.  
USE ONLY AND IS NOT  
INTENDED FOR ANY  
OTHER USE OR REPRESENTATION

NOTE - Assessor's Block Numbers Shown in Ellipses  
Assessor's Parcel Numbers Shown in Circles



Image © 2009 DigitalGlobe

©2009 Google

Imagery Date: Jun 20, 2004

60°27'23.71" N 149°21'42.31" W elev 478 ft

Eye alt 1581 ft

## **Kenai Hydro, LLC**

2525 C Street, Suite 500  
Anchorage, AK 99503

September 30, 2009

The Secretary  
Federal Energy Regulatory Commission  
ATTN: DHAC, PJ-12.2  
888 First Street, NE  
Washington, DC 20426

**- FILED ELECTRONICALLY -**

**RE: Second Six Month Progress Report for the Grant Lake Project, FERC  
Project No. 13212, April 2009 – September 2009**

Dear Secretary:

Kenai Hydro, LLC (KHL) hereby submits its second six month report for the period of April 1, 2008 to September 30, 2009 for the Grant Lake project, pursuant to Article 4 of the Preliminary Permit issued on October 7, 2008.

### **ACTIVITIES DURING THE REPORTING PERIOD**

#### Engineering and Environmental Studies

The following reconnaissance level engineering and environmental efforts were initiated:

- Field Investigation of Design Elements
- Finalized Baseline or Reconnaissance Level Environmental Field Study Plans
- Collected Baseline Aquatics Field Data (Study Plan Implementation)
- Continued Search & Review of Existing Information Available on the Project
- Applied for Water Rights
- Refined Conceptual Facility Arrangements and Alternatives
- Obtained ground survey and LiDAR topographic data
- Prepared Draft and Filed Final Notice of Intent (NOI) and Pre-Application Document (PAD) for the combined Grant Lake/Creek and Falls Creek hydro project

#### Stakeholder Outreach and Consultation

KHL conducted many individual consultations and public interactive meetings with the organizations and agencies listed below. The purpose of these consultations and meetings was to introduce the project concepts and solicit feedback to prepare study plans and inform the Pre-Application Document. A complete consultation record is available in the PAD filed with FERC on August 6, 2009.

- US Forest Service
- US Fish and Wildlife Service
- US Army Corps of Engineers

## **Kenai Hydro, LLC**

2525 C Street, Suite 500

Anchorage, AK 99503

- US National Parks Service
- Alaska Department of Fish and Game
- Alaska Department of Natural Resources
- Alaska State Parks
- NOAA Fisheries
- Kenai Peninsula Borough Lands Committee
- Kenai Area Fisherman's Coalition
- Kenai River Professional Guides Association

KHL actively maintains a web site to facilitate the exchange and update of information and calendar related to the project(s). The domain name registered for the site is [www.kenaihydro.com](http://www.kenaihydro.com).

### **ACTIVITIES PROPOSED FOR THE NEXT REPORTING PERIOD**

#### Engineering and Environmental Studies

KHL expects to receive and review reports summarizing the engineering and field data collection from the summer's activities. KHL will also be preparing draft study plans for the 2010 field season for review and comment during the formal TLP consultation process over the winter.

#### Stakeholder Outreach and Consultation

Consultations and outreach activities will be formally conducted as part of the TLP process FERC approved for the project. Schedule details are still being confirmed, but the intent is to have formal study plans approved in advance of the spring 2010 field season.

#### License Application Determination

KHL filed the NOI and PAD for this project on August 6, 2009 to maintain a timely schedule for filing a license application within the term of the preliminary permit period; however, KHL continues to update and evaluate the project feasibility. If the project remains viable, it is expected that KHL would file a license application before the preliminary permit expires in October 2011.

Please feel free to contact me with any questions regarding this report or for additional information as needed.

Sincerely,

Steve Gilbert  
Manager  
6921 Howard Avenue  
Anchorage, AK 99504  
(907) 333-0810

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**From:** Ferguson, Jim M (DFG) [jim.ferguson@alaska.gov]  
**Sent:** Wednesday, October 07, 2009 10:57 AM  
**To:** Jenna Borovansky  
**Subject:** RE: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

Thanks Jenna. I am available November 12 for a meeting in Kenai or Soldotna (see below), and November 10 would work as an alternative.

For December, it depends on where the meeting will be held and/or what time it starts. I am flying into Anchorage from Seattle late on Monday Dec. 7, and am staying overnight in Anchorage. I would need to drive down to Kenai the morning of the 8<sup>th</sup> (assuming you can get over the pass—and that can be a big “if” at that time of year...), so I would not be available until afternoon. The 9<sup>th</sup> or 10<sup>th</sup> would be much better for me.

I think Soldotna or Kenai is a good choice, with my preference being Soldotna. FYI, most agency folks involved in the project work in Soldotna (Kenai River Center, and ADF&G and USFWS offices are there), and it is closer to the main highway, for drivers from Anchorage.

If I haven't written already, it was good to meet you at the TWG meeting,

Cheers,

Jim

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**From:** Jenna Borovansky [<mailto:jborovansky@longviewassociates.com>]  
**Sent:** Wednesday, October 07, 2009 8:59 AM  
**To:** [comments@kenaihydro.com](mailto:comments@kenaihydro.com)  
**Subject:** Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

Dear Interested Parties,

As you may know, September 15, 2009, FERC approved Kenai Hydro, LLC's (KHL) request for use of the Traditional Licensing Process (TLP) for the Grant Lake/Falls Creek proposed hydropower project (FERC No. 13211/13212), with a provision for early FERC involvement in scoping issues. This approval, and the commitment to early scoping, triggers two meetings in the next several months. KHL would appreciate feedback on your availability to attend a “Joint Meeting” proposed for November 12, and the FERC scoping meeting proposed on December 8. More detail on the purpose of each meeting is below. In order to allow for adequate public notice of the meetings, we would appreciate your prompt feedback, preferably no later than Monday, October 12. Confirmation of meeting dates and locations will be emailed to the KHL contact list, and posted on the website ([www.kenaihydro.com](http://www.kenaihydro.com)) as soon as possible after responses are received. Public notices will be issued as required by FERC regulation.

Joint Meeting: Under the TLP, KHL is required to host a “Joint Meeting” with agencies, tribes, and the public no later than November 15, 2009. This is a public meeting where Kenai Hydro, LLC will present a description of the proposed project and summarize information on potentially affected resources discussed in the Pre-Application Document (PAD). The majority of the meeting will focus on a review and discussion of draft study plans in each resource area and electronic copies of the plans will be provided. The Joint Meeting will initiate a 60-day comment period on the study plans (and information in the PAD). KHL consulted with many of you at the recent Instream Flow Technical Workgroup meeting regarding your availability for an evening meeting in

Kenai on Thursday, November 12, and we would appreciate feedback on your availability for this date. If you are unavailable, please provide suggested alternatives for the week of November 9.

FERC Scoping Meeting: In its approval of KHL's use of the TLP, FERC stated its willingness to conduct early scoping. FERC has indicated the second week in December as a target for the scoping meeting, and has requested that KHL investigate availability for the early scoping meeting between December 8-10. KHL would like to solicit feedback on your availability for scoping meetings on Tuesday, December 8, and if you are unavailable on the 8<sup>th</sup>, please also provide your availability for the 9<sup>th</sup> or 10<sup>th</sup> of December. FERC typically offers two scoping meetings, one during business hours, and a second evening meeting. Currently, the proposed location for both meetings is Kenai. Please provide your feedback on a preferred location for the daytime meeting, as an alternative location could be considered. FERC will publish their Scoping Document 1 at least 30 days prior to the scoping meeting, and at the meeting, FERC will solicit feedback on whether all relevant issues have been addressed in the scoping document (and proposed studies previously presented by KHL).

Environmental Site Review: FERC regulations require that the license applicant provide an opportunity for an environmental site review of the Project area by FERC staff and other interested parties. More information regarding the future scheduling of this site visit in the spring/summer will be provided at the Joint Meeting, and FERC may be providing more information in its scoping notice.

Thank you for your continued interest and participation in the licensing process for the Grant Lake/Falls Creek hydropower project.

Jenna Borovansky  
Long View Associates, Inc.  
(On behalf of Kenai Hydro, LLC)  
208.765.1413

---

**From:** Jenna Borovansky  
**Sent:** Wednesday, October 07, 2009 10:12 AM  
**To:** 'jan@hydroreform.org'  
**Cc:** 'rupak@hydroreform.org'  
**Subject:** Alaska contact

Hello Jan,

We have identified the Hydropower Reform Coalition as a potentially interested party in the proposed new small hydro project at Grant Lake/Falls Creek (FERC No. 13211/13212) but have been using [hydro@gci.net](mailto:hydro@gci.net) on our email contact list, and emails to [hydro@gci.net](mailto:hydro@gci.net) continually bounce back. As a result, I have removed you from the contact list. In looking at the HRC website, I noticed that the email address for you has been updated to the contact I am using in this email.

If you, HRC or its member organizations have an interest in the Project, please sign-up with a valid email address to receive updates at [www.kenaihydro.com](http://www.kenaihydro.com).

Thanks,  
Jenna Borovansky  
Long View Associates, Inc.  
208.765.1413

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**From:** Bruce Jaffa [jaffa@eagle.ptialaska.net]  
**Sent:** Wednesday, October 07, 2009 1:00 PM  
**To:** Jenna Borovansky  
**Cc:** ben ikerd; Bruce Jaffa; Jeff & Rose Hetrick; Jennifer Trudeau (E-mail); Mark Stauble; 'Ruth D'Amico'  
**Subject:** Re: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested  
**Attachments:** jaffa.vcf

Jaffa Construction, Inc.  
P.O. Box 107 Moose Pass, Alaska 99631  
[Jaffa@Eagle.PTIALaska.net](mailto:Jaffa@Eagle.PTIALaska.net)  
907-224-8002

Dear Ms. Borovansky,

I will be out of the State 11-2 thru 11-18 and unavailable for the meeting period you mention.

I am concerned that your scoping meeting locatin have no relevance to the effected community of Moose Pass. This may satisfy a strict interpretation of the rules but will certainly allow a valid complaint from the local community. Most of the local residents have little business or opportunity to visit the Central Peninsula on business. Can some form of meeting be held in Moose Pass?

Two organizations Moose Pass Sportsman's Club and the Moose Pass Planing Advisory Commission do have meetings. The MPAPC is currently scheduling a 10-21 meeting.

While i am a proponent of these energy projects I am also very protective of our natural assets. I look forward to participating in the process

Bruce Jaffa

Jenna Borovansky wrote:

>  
> Dear Interested Parties,  
>  
> As you may know, September 15, 2009, FERC approved Kenai Hydro, LLC's  
> (KHL) request for use of the Traditional Licensing Process (TLP) for  
> the Grant Lake/Falls Creek proposed hydropower project (FERC No.  
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> 12, and the FERC scoping meeting proposed on December 8. More detail  
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> prompt feedback, preferably no later than Monday, October 12.  
> Confirmation of meeting dates and locations will be emailed to the KHL  
> contact list, and posted on the website ([www.kenaihydro.com](http://www.kenaihydro.com)  
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> received. Public notices will be issued as required by FERC regulation.



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> potentially affected resources discussed in the Pre-Application  
> Document (PAD). The majority of the meeting will focus on a review and  
> discussion of draft study plans in each resource area and electronic  
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> Please provide your feedback on a preferred location for the daytime  
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> providing more information in its scoping notice.  
>  
> Thank you for your continued interest and participation in the  
> licensing process for the Grant Lake/Falls Creek hydropower project.  
>  
> Jenna Borovansky  
>  
> Long View Associates, Inc.  
>  
> (On behalf of Kenai Hydro, LLC)  
>  
> 208.765.1413  
>

**From:** Jenna Borovansky

**Sent:** Wednesday, October 07, 2009 9:59 AM

**To:** 'comments@kenaihydro.com'

**Subject:** Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

**BCC:** Jenna Borovansky; Finlay Anderson; 'katherine.a.mccafferty2@usace.army.mil';

'Mary.King@alaska.gov'; 'youth@qutekcak.net'; Steve Padula; 'bzubeck@homerelectric.com';

'prufrock@arctic.net'; 'jhollon@nhtusa.com'; 'bluewagon82@yahoo.com';

'jasonaigeldinger@mac.com'; 'berungia@yahoo.com'; 'dave@renewableresourcescoalition.org';

'gbaker2@arctic.net'; 'kenailake@arctic.net'; 'rwbarnwell@yahoo.com'; 'robert.begich@alaska.gov';

'jhpbt@yahoo.com'; 'mbest@borough.kenai.ak.us'; 'bruncobwl@yahoo.com'; 'tbristol@tu.org';

'mlbrittain@ak.net'; 'phil\_brna@fws.gov'; 'info@ciri.com'; 'info@troutfitters.com';

'nwad20@yahoo.com'; 'info@salamatof.com'; 'dave.c.casey@usace.army.mil';

'susan.chihuly@alaska.gov'; 'valerie@akcenter.org'; 'mcooney@arctic.net';

'jczarn@borough.kenai.ak.us'; 'js2dixon@hotmail.com'; 'kdoroff@princesstours.com';

'jletma@arctic.net'; 'gfandrei@ciaanet.org'; 'jim.ferguson@alaska.gov'; 'epfisheads@yahoo.com';

'jgabler@borough.kenai.ak.us'; 'ricky@kenairiversportfishing.com'; 'glaser@seward.net';

'jglaser@stanford.edu'; 'mgrayrba@gmail.com'; 'lance@lancehankins.com'; 'nhardigg@akcf.org';

'info@riverwranglers.com'; 'alli@akcenter.org'; 'khelgren@princesstours.com'; 'jjh@seward.net';

'caitlin@akvoice.org'; 'sondrakey8@msn.com'; 'hgrandella@hotmail.com';

'hotbanana76@hotmail.com'; 'ikerdhome@gmail.com'; 'jaffa@eagle.ptialaska.net';

'joe\_klein@fishgame.state.ak.us'; 'lynnda\_kahn@fws.gov'; 'kolodziejski@yahoo.com'; 'hydro@gci.net';

'dwimar@gci.net'; 'kkromrey@fs.fed.us'; 'mk2l@arctic.net'; 'lavin@nwf.org'; 'adele.lee@alaska.gov';

'jraelindquist@hotmail.com'; 'ginny.litchfield@alaska.gov'; 'DMahalak@borough.kenai.ak.us';

'akbronze@arctic.net'; 'lee.mckinley@alaska.gov'; 'jmohorci@borough.kenai.ak.us';

'sunrise@arctic.net'; 'tmoseley@fs.fed.us'; 'niceinalaska@yahoo.com'; 'dnelson@borough.kenai.ak.us';

'redoubtreporter@alaska.net'; 'north.phil@epamail.epa.gov'; 'mnovy@fs.fed.us'; 'jjodhner@arctic.net';

'melinda.odonnell@alaska.gov'; 'kaoleary@fs.fed.us'; 'DOtt@aidea.org'; 'painter@arctic.net';

'douglas\_palmer@fws.gov'; 'jason.pawluk@alaska.gov'; 'mightykenai@arctic.net'; 'alecl@arctic.net';

'todd@sewardrealestate.com'; 'gary.prokosch@alaska.gov'; 'ronaklo@att.net';

'montesfishing@alaska.net'; 'trish@sierraclubalaska.org'; 'robert@kenaiwatershed.org';

'Pamela.Russell@alaska.gov'; 'gydaric@yahoo.com'; 'jseebach@americanrivers.org';

'keeper@inletkeeper.org'; 'benbo61@gmail.com'; 'rlsimmons@fs.fed.us'; 'bobbiejoskibo@yahoo.com';

'ace@akcenter.org'; 'info@kenailake.com'; 'rspangler@fs.fed.us'; 'stauble@arctic.net';

'bstock@arctic.net'; 'moosepassrosie@yahoo.com'; 'pdt205@nyu.edu'; 'qenqay@arctic.net';

'cassie\_thomas@nps.gov'; 'jmtjohnt@yahoo.com'; 'btrefon@kenaitze.org'; 'rebew@att.net';

'willie9470@hotmail.com'; 'gwilliams@borough.kenai.ak.us'; 'russianriv@yahoo.com';

'sherry.wright@alaska.gov'; 'zengobys@hotmail.com'; 'kenairivcenter@borough.kenai.ak.us';

'jack.sinclair@alaska.gov'; 'dawn.germain@ogc.usda.gov'; 'rbirk@fs.fed.us'; 'ejohansen@fs.fed.us';

'wamacfarlane@fs.fed.us'; 'thomas.cappiello@alaska.gov'; 'susan.walker@noaa.gov';

'kimberly.sager@alaska.gov'; 'jason.kent@hdrinc.com'; 'paul.mclarnon@hdrinc.com';

'jason.mouw@alaska.gov'; 'dmichels@princesstours.com'; 'SteveG@enxco.com';

'mikeo@cosmichamlet.net'; 'caesar.kortuem@kiewit.com'; 'jack.erickson@alaska.gov';

'jeavis@fs.fed.us'; 'douglas\_mutter@ios.doi.gov'; 'jeffry\_anderson@fws.gov';

'joseph.adamson@ferc.gov'; 'todd.bethard@hdrinc.com'; 'jmorsell@northernecological.com';

'smorsell@northernecological.com'; 'scott.maclean@alaska.gov'; 'mtracy@homerelectric.com';

'jrwner@mtaonline.net'; 'davidwerner74@gmail.com'; 'cohare@popud.org'

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Jenna Borovansky  
Long View Associates, Inc.  
(On behalf of Kenai Hydro, LLC)  
208.765.1413

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**From:** Lynnda\_Kahn@fws.gov  
**Sent:** Wednesday, October 07, 2009 12:13 PM  
**To:** Jenna Borovansky  
**Cc:** Jeffry\_Anderson@fws.gov  
**Subject:** Re: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

Jenna - November 12th works for me for the Joint Meeting.

With regard to the FERC Scoping Mtg., I will be departing for Texas, early the morning of Dec. 10th, so Dec. 8th would be preferable for me. Thanks.

Lynnda

**Lynnda Kahn | U.S. Fish and Wildlife Service | (907) 260-0131 | (907) 262-7145 fax**  
**Kenai Fish and Wildlife Field Office**  
**43655 Kalifornsky Beach Road**  
**Soldotna, AK 99669-8296**

"Not creatures of the sea, not creatures of the river, not flesh, not fog; salmon are all of these—and the regular, rhythmic, reliable movement from one world to the other, our glimpse of the possibility of our own transformation. Salmon are our reminder that everything once was one thing and will be again, and we are part of that one big thing, separated only for a season." ><((((") ... ><(((("(\*)> ...

Kathleen Dean Moore, "The Pine Island Paradox

Jenna Borovansky <jborovansky@longviewassociates.com>

**Jenna Borovansky**  
**<jborovansky@longviewassociates.com>**

10/07/2009 08:59 AM

To"comments@kenaihydro.com"  
<comments@kenaihydro.com>

cc

SubjectGrant Lake/Falls Creek Proposed Public  
Meeting Dates - Feedback Requested

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Jenna Borovansky  
Long View Associates, Inc.  
(On behalf of Kenai Hydro, LLC)  
208.765.1413

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**From:** Karen A O'Leary [kaoleary@fs.fed.us]  
**Sent:** Wednesday, October 07, 2009 1:06 PM  
**To:** Jenna Borovansky  
**Subject:** Re: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

I will forward your message to interested folks in our agency and will ask that they respond directly to you. (I'm preparing to leave the office for 2 weeks.)

The proposed dates are fine with me. However, I don't believe the meeting location in Kenai will bode well with the public. I'd suggest holding the meeting(s) near the project location -- the Moose Pass Community Center perhaps. If it's not big enough, Seward has some meeting room options.

++++  
Karen O'Leary  
Special Uses Service Team Leader  
Chugach National Forest  
phone: (907)743-9542, fax: (907)743-9492  
email: [kaoleary@fs.fed.us](mailto:kaoleary@fs.fed.us)  
++++

Jenna Borovansky  
<[jborovansky@longviewassociates.com](mailto:jborovansky@longviewassociates.com)>

To "[comments@kenaihydro.com](mailto:comments@kenaihydro.com)" <[comments@kenaihydro.com](mailto:comments@kenaihydro.com)>  
cc  
Subject [Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested](#)

[10/07/2009 08:59 AM](#)

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Jenna Borovansky  
Long View Associates, Inc.  
(On behalf of Kenai Hydro, LLC)  
208.765.1413



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**From:** Susan Walker [susan.walker@noaa.gov]  
**Sent:** Wednesday, October 07, 2009 7:32 PM  
**To:** Jenna Borovansky  
**Subject:** Re: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested  
**Attachments:** Susan\_Walker.vcf

Jenna -

Nov 12th works for me. I would probably not travel to both the FERC scoping and the joint meeting. Sue

Jenna Borovansky wrote:

>  
> Dear Interested Parties,  
>  
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> (KHL) request for use of the Traditional Licensing Process (TLP) for  
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> \_\_\_\_\_  
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> Jenna Borovansky  
>  
> Long View Associates, Inc.  
>  
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>  
> 208.765.1413  
>

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Sue Walker

Alaska Region Hydropower Coordinator

Alaska Region, Habitat Conservation Division National Marine Fisheries Service P.O. Box 21668  
Juneau, Alaska 99802-1668 907-586-7646 office  
907-321-8991 cell

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**From:** Jason and Renae Werner [jrwner@mtaonline.net]  
**Sent:** Wednesday, October 07, 2009 6:33 PM  
**To:** Jenna Borovansky  
**Subject:** RE: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

As maybe the only private land owner in the Lower Trail Lake/Grant Creek project area, I am very interested in the project and potential effects on our property and surrounding area.

Our family members live and work in both Seward and Anchorage so physically attending either a Joint Meeting or a FERC Scoping Meeting in Kenai, Monday through Friday, during working hours is not convenient.

I would imagine that other interested land owners that live in their homes, in the Moose Pass area, wouldn't think Kenai would be the ideal choice for a meeting either, especially driving over winter roads to get there. I would suggest that Moose Pass or even Seward would be more convenient for most members of the public. A Saturday meeting might allow more members of the public to attend who have to drive a long way.

Would it be possible to participate in the meetings telephonically? That isn't listed as an option in your email.

I would be very interested in attending an environmental site review as the flow of Grant Creek directly affects our property.

Thanks,

Jason Werner

-----Original Message-----

**From:** Jenna Borovansky [mailto:jborovansky@longviewassociates.com]  
**Sent:** Wednesday, October 07, 2009 8:59 AM  
**To:** comments@kenaihydro.com  
**Subject:** Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

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Jenna Borovansky  
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(On behalf of Kenai Hydro, LLC)  
208.765.1413

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**From:** Gary Fandrei [gfandrei@ciaanet.org]  
**Sent:** Sunday, October 11, 2009 12:36 PM  
**To:** Jenna Borovansky  
**Subject:** RE: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

Jenna,

Thank you for the reminder on the Kenai Hydro meetings coming in November and December.

It appears I will not be available for the joint meeting in November. I will be out-of-town from the 12<sup>th</sup> through the 21<sup>st</sup>; and, while I have no other conflicts on November 9<sup>th</sup>, 10<sup>th</sup> or 11<sup>th</sup>, I will be preparing for our Board of Directors meeting during this time and find it very difficult to participate in an earlier meeting.

I will be available to attend the December 8<sup>th</sup> FERC Scoping meeting.

*Gary Fandrei, Executive Director  
Cook Inlet Aquaculture Association  
Phone: (907) 283-5761  
Fax: (907) 283-9433  
Cell (907) 398-4505*

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**From:** Jenna Borovansky [mailto:jborovansky@longviewassociates.com]  
**Sent:** Wednesday, October 07, 2009 8:59 AM  
**To:** [comments@kenaihydro.com](mailto:comments@kenaihydro.com)  
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Environmental Site Review: FERC regulations require that the license applicant provide an opportunity for an environmental site review of the Project area by FERC staff and other interested parties. More information regarding the future scheduling of this site visit in the spring/summer will be provided at the Joint Meeting, and FERC may be providing more information in its scoping notice.

Thank you for your continued interest and participation in the licensing process for the Grant Lake/Falls Creek hydropower project.

Jenna Borovansky  
Long View Associates, Inc.  
(On behalf of Kenai Hydro, LLC)  
208.765.1413

Friends of Cooper Landing, Inc.  
P.O. Box 815  
Cooper Landing, Alaska 99572-0815

907-595-2129  
kenailake@arctic.net

October 13, 2009

Long View Associates, Inc.  
(Representing: Kenai Hydro, LLC  
and the Federal Energy Regulatory Commission)

Subject: FERC Hydropower Scoping Meetings for Grant Lake and Falls Creek

Dear Ms. Borovansky;

The Friends of Cooper Landing are concerned that FERC hydropower scoping meetings have been proposed by Kenai Hydro, LLC for "early scoping" in December; and additionally that they are being planned in Kenai, which is not directly accessible to the concerned public.

We are also concerned that FERC is not independently scheduling FERC meetings. FERC has apparently delegated significant regulatory responsibility to a potential license applicant and applicant's agent, both of whom have a conflict of interest. We are uncertain what this portends for fairness and the required protection of public interests in the difficult and controversial process ahead.

For the record, we object to this type of fast tracking, lack of accessibility, and delegation of responsibility.

We understand the intent of these meetings is to afford the public an opportunity to provide advice to FERC about adequacy of the proposed scoping document. We assume representative public participation is the goal. The most knowledgeable and impacted sector of the public resides in the area directly affected by these proposals.

Your proposal to hold FERC scoping meetings in December is not viable. December is a very poor month to schedule important public meetings in rural Alaska due to conflicts with traditional year-end holiday events and travel. Public attendance would not be representative. We would attempt to be represented at a December meeting, but only under protest.

Your proposal to hold FERC scoping meetings in Kenai is also not viable. Kenai is too far removed from the proposed project area. Public attendance would not be representative. The meetings should be held in Cooper Landing, which is readily accessible to the majority of the public now and potentially involved.  
Long View Associates, Inc.

(Kenai Hydro, LLC and FERC)  
FOCL, Oct. 12, 2009  
Page 2

We request the FERC scoping meetings be scheduled in mid-January or later, in Cooper Landing.

Sincerely,

/s/ Robert L. Baldwin, President  
Friends of Cooper Landing, Inc.

cc: FERC offices

*--Our focal point is Cooper Landing--*



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**From:** Jenna Borovansky  
**Sent:** Monday, October 12, 2009 2:47 PM  
**To:** 'Valerie Connor'  
**Subject:** RE: meeting schedule

Dear Valerie,

Thank you for your input. Kenai Hydro is looking for a location closer to Moose Pass for one or both of the meetings. It is somewhat challenging to find a location near the Project area that can accommodate a relatively large group of people, but several other participants have made suggestions as well, and Kenai Hydro is investigating these options.

Thanks,  
Jenna Borovansky

---

**From:** Valerie Connor [<mailto:valerie@akcenter.org>]  
**Sent:** Monday, October 12, 2009 2:28 PM  
**To:** Jenna Borovansky  
**Cc:** 'Ann Miles'; 'Jennifer Hill'  
**Subject:** meeting schedule

Hello Jenna,

Please find my recommendations regarding the upcoming Kenai Hydro, LLC meetings in the attached letter.

Thank you,

*Valerie Connor*  
*Conservation Director*  
*Alaska Center for the Environment*  
*807 G Street, Suite 100*  
*Anchorage, Alaska 99501*  
*(907)274-3632\*\*\* NEW PHONE NUMBER*  
[valerie@akcenter.org](mailto:valerie@akcenter.org)



## **ALASKA CENTER *for the* ENVIRONMENT**

807 G Street, Suite 100 Anchorage, Alaska 99501

907-274-3632 [valerie@akcenter.org](mailto:valerie@akcenter.org) [www.akcenter.org](http://www.akcenter.org)

Jenna Borovansky  
Long View Associates, Inc.  
PO Box 3844  
Coeur d'Alene, ID 83816

October 12, 2009

Dear Ms. Borovansky,

I have received notice of the two upcoming meetings being scheduled for Kenai Hydro, LLC for the Grant Lake/Falls Creek proposed hydropower projects (FERC No. 13211/13212). You asked for feedback regarding the scheduling of these meetings. It appears that the joint meeting is geared more towards those who have been involved in the technical working group so I will leave comments to those participants as to a convenient time and location.

The two FERC scoping meetings however should not be held in Kenai. This is hours away from the communities of Cooper Landing and Moose Pass, the two communities located in close proximity to the proposed projects. I would like to request that the evening FERC scoping meeting be held in one of these two communities to ensure that the public most affected by the proposals have an opportunity to weigh in with FERC.

Additionally, December is not considered a good time for important public meetings as many Alaskans are traveling during that time. I would suggest that sometime after the first of the year would be a much more convenient and appropriate time to hold the FERC scoping meeting.

The whole point of scoping is to identify potential impacts that a project will have on the environment or the community. Local residents have valuable knowledge and familiarity with the area that will be helpful in determining which issues should be addressed and analyzed in the environmental documents.

To hold this meeting in Kenai in December is basically a message to the public that FERC and Kenai Hydro, LLC are not interested in hearing from those residents who not only have the most at stake, but who possess a great deal of local knowledge of the area.

Thank you for considering my request,

*Valerie Connor*  
*Conservation Director*



*Resurrection Bay  
Conservation  
Alliance*

*PO Box 1092  
Seward, Alaska 99664  
907 224 4621  
rbca-alaska.org*

October 12, 2009

Jenna Borovansky  
Long View Associates, Inc.  
PO Box 3844  
Coeur d'Alene, ID 83816

Dear Ms. Borovansky,

Thank you for the announcement about the upcoming meetings relevant to the Grant Lake/Falls Creek dams projects (FERC No. 13211/13212).

I request that the FERC scoping meetings be rescheduled and relocated to better bring in the experience, expertise and advice of the locals who live closest to the project.

More effective communication would be better served if the meeting were held the week of Jan 11-15, 2010. That way, the process of scoping important issues will include people who have returned from the holidays. Plus it gives Longview, KHL, FERC and others more time to convey the complicated details of the projects to its stakeholders prior to the meetings.

Similarly, changing the meeting location will better draw in those with the greatest local expertise - those who live in Seward, Moose Pass and Cooper Landing. I request that the meetings be held in Cooper Landing. Its important though to also tap into the expertise of those who live in the area of the lower Kenai River, especially since the project is in the headwaters of the Kenai River, the economic core of Kenai and Soldotna. I suggest that a second series of meetings be scheduled for Kenai.

Sincerely,

QuickTime™ and a  
decompressor  
are needed to see this picture.

Mark Luttrell, President

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**From:** Joshua O Milligan [jmilligan@fs.fed.us]  
**Sent:** Monday, October 12, 2009 12:14 PM  
**To:** Jenna Borovansky  
**Subject:** Re: Fw: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

Jenna, these dates work for me.

Joshua O. Milligan  
NEPA Coordinator  
Chugach National Forest, Seward Ranger District  
Phone Seward (907) 288-7720  
Phone Anchorage (907) 743-9568  
e-mail: jmilligan@fs.fed.us

**Karen A Oleary/R10/USDAFS**

10/07/2009 05:47 PM

To Andrew J Schmidt/R10/USDAFS@FSNOTES, Joe Meade/R10/USDAFS@FSNOTES, John Eavis/R10/USDAFS@FSNOTES, Karen Kromrey/R10/USDAFS@FSNOTES, Mike Novy/R10/USDAFS@FSNOTES, Rob Spangler/R10/USDAFS@FSNOTES, Robert L Simmons/R10/USDAFS@FSNOTES, Roger Birk/R10/USDAFS@FSNOTES, Susan Rutherford/R10/USDAFS@FSNOTES, Travis Moseley/R3/USDAFS@FSNOTES, Robert Stovall/R10/USDAFS@FSNOTES, Elizabeth Brann/R10/USDAFS@FSNOTES, Sara Boario/R10/USDAFS@FSNOTES, Joshua O Milligan/R10/USDAFS@FSNOTES, Kent Kohlhase/R10/USDAFS@FSNOTES, Karen A Oleary/R10/USDAFS@FSNOTES, Barbara Stanley/R10/USDAFS@FSNOTES, Eric Johansen/R10/USDAFS@FSNOTES

cc

Subject Fw: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

See the attached message from Longview Associates regarding upcoming public meeting dates.

Please let Jenna know if the proposed dates will work for you. I encourage you to fit these meetings into your schedule if at all possible. I have already recommended to Jenna that a meeting location closer to the project area would sit better with our local communities.

Please forward this message on to those you think should attend. This will be a good opportunity to get current information and hear directly from FERC.

+++++

Karen O'Leary  
Special Uses Service Team Leader  
Chugach National Forest  
phone: (907)743-9542, fax: (907)743-9492  
email: kaoleary@fs.fed.us

+++++

----- Forwarded by Karen A Oleary/R10/USDAFS on 10/07/2009 05:36 PM -----

**Jenna Borovansky**  
<jborovansky@longviewassociates.com>

To "comments@kenaihydro.com" <comments@kenaihydro.com>

cc

Subject Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

10/07/2009 08:59 AM

Dear Interested Parties,

As you may know, September 15, 2009, FERC approved Kenai Hydro, LLC's (KHL) request for use of the Traditional Licensing Process (TLP) for the Grant Lake/Falls Creek proposed hydropower project (FERC No. 13211/13212), with a provision for early FERC involvement in scoping issues. This approval, and the commitment to early scoping, triggers two meetings in the next several months. KHL would appreciate feedback on your availability to attend a "Joint Meeting" proposed for November 12, and the FERC scoping meeting proposed on December 8. More detail on the purpose of each meeting is below. In order to allow for adequate public notice of the meetings, we would appreciate your prompt feedback, preferably no later than Monday, October 12. Confirmation of meeting dates and locations will be emailed to the KHL contact list, and posted on the website ([www.kenaihydro.com](http://www.kenaihydro.com)) as soon as possible after responses are received. Public notices will be issued as required by FERC regulation.

Joint Meeting: Under the TLP, KHL is required to host a "Joint Meeting" with agencies, tribes, and the public no later than November 15, 2009. This is a public meeting where Kenai Hydro, LLC will present a description of the proposed project and summarize information on potentially affected resources discussed in the Pre-Application Document (PAD). The majority of the meeting will focus on a review and discussion of draft study plans in each resource area and electronic copies of the plans will be provided. The Joint Meeting will initiate a 60-day comment period on the study plans (and information in the PAD). KHL consulted with many of you at the recent Instream Flow Technical Workgroup meeting regarding your availability for an evening meeting in Kenai on Thursday, November 12, and we would appreciate feedback on your availability for this date. If you are unavailable, please provide suggested alternatives for the week of November 9.

FERC Scoping Meeting: In its approval of KHL's use of the TLP, FERC stated its willingness to conduct early scoping. FERC has indicated the second week in December as a target for the scoping meeting, and has requested that KHL investigate availability for the early scoping meeting between December 8-10. KHL would like to solicit feedback on your availability for scoping meetings on Tuesday, December 8, and if you are unavailable on the 8<sup>th</sup>, please also provide your availability for the 9<sup>th</sup> or 10<sup>th</sup> of December. FERC typically offers two scoping meetings, one during business hours, and a second evening meeting. Currently, the proposed location for both meetings is Kenai. Please provide your feedback on a preferred location for the daytime meeting, as an alternative location could be considered. FERC will publish their Scoping Document 1 at least 30 days prior to the scoping meeting, and at the meeting, FERC will solicit feedback on whether all relevant issues have been addressed in the scoping document (and proposed studies previously presented by KHL).

Environmental Site Review: FERC regulations require that the license applicant provide an opportunity for an environmental site review of the Project area by FERC staff and other interested parties. More information regarding the future scheduling of this site visit in the spring/summer will be provided at the Joint Meeting, and FERC may be providing more information in its scoping notice.

Thank you for your continued interest and participation in the licensing process for the Grant Lake/Falls Creek hydropower project.

Jenna Borovansky  
Long View Associates, Inc.

(On behalf of Kenai Hydro, LLC)  
208.765.1413

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**From:** McCafferty, Katherine A POA [Katherine.A.McCafferty2@usace.army.mil]  
**Sent:** Tuesday, October 13, 2009 3:42 PM  
**To:** Jenna Borovansky  
**Subject:** RE: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

Ms. Borovansky,  
It appears that I am available for the meeting dates that you propose (Thursday, November 12 and Tuesday, December 8).

Katherine McCafferty  
Project Manager  
U.S. Army Corps of Engineers  
Regulatory Division, Kenai Field Office  
805 Frontage Road, Suite 200C  
Kenai, AK 99611-7755  
phone: 907-283-3519  
fax: 907-283-3981

-----Original Message-----

From: Jenna Borovansky [mailto:[jborovansky@longviewassociates.com](mailto:jborovansky@longviewassociates.com)]  
Sent: Wednesday, October 07, 2009 8:59 AM  
To: [comments@kenaihydro.com](mailto:comments@kenaihydro.com)  
Subject: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

Dear Interested Parties,

As you may know, September 15, 2009, FERC approved Kenai Hydro, LLC's (KHL) request for use of the Traditional Licensing Process (TLP) for the Grant Lake/Falls Creek proposed hydropower project (FERC No. 13211/13212), with a provision for early FERC involvement in scoping issues. This approval, and the commitment to early scoping, triggers two meetings in the next several months. KHL would appreciate feedback on your availability to attend a "Joint Meeting" proposed for November 12, and the FERC scoping meeting proposed on December 8. More detail on the purpose of each meeting is below.

In order to allow for adequate public notice of the meetings, we would appreciate your prompt feedback, preferably no later than Monday, October 12.

Confirmation of meeting dates and locations will be emailed to the KHL contact list, and posted on the website ([www.kenaihydro.com](http://www.kenaihydro.com)) as soon as possible after responses are received. Public notices will be issued as required by FERC regulation.

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Please provide your feedback on a preferred location for the daytime meeting, as an alternative location could be considered. FERC will publish their Scoping Document 1 at least 30 days prior to the scoping meeting, and at the meeting, FERC will solicit feedback on whether all relevant issues have been addressed in the scoping document (and proposed studies previously presented by KHL).

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Thank you for your continued interest and participation in the licensing process for the Grant Lake/Falls Creek hydropower project.

Jenna Borovansky

Long View Associates, Inc.

(On behalf of Kenai Hydro, LLC)

208.765.1413

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**From:** Karen Kromrey [kkromrey@fs.fed.us]  
**Sent:** Wednesday, October 21, 2009 11:55 AM  
**To:** Jenna Borovansky  
**Subject:** Re: Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested

Hi Jenna,  
I plan to attend the meeting on Nov 12 and have Dec 8th on my calendar as well. I apologize for the lateness of the reply.

Karen Kromrey  
Public Services Staff Officer - Planning  
Seward Ranger District - Chugach National Forest  
P.O. Box 390  
Seward, AK 99664  
(907) 288-7745  
[kkromrey@fs.fed.us](mailto:kkromrey@fs.fed.us)

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Jenna Borovansky  
<[jb Borovansky@longviewassociates.com](mailto:jb Borovansky@longviewassociates.com)>

To "[comments@kenaihydro.com](mailto:comments@kenaihydro.com)" <[comments@kenaihydro.com](mailto:comments@kenaihydro.com)>  
cc  
Subject [Grant Lake/Falls Creek Proposed Public Meeting Dates - Feedback Requested](#)

10/07/2009 08:59 AM

Dear Interested Parties,

As you may know, September 15, 2009, FERC approved Kenai Hydro, LLC's (KHL) request for use of the Traditional Licensing Process (TLP) for the Grant Lake/Falls Creek proposed hydropower project (FERC No. 13211/13212), with a provision for early FERC involvement in scoping issues. This approval, and the commitment to early scoping, triggers two meetings in the next several months. KHL would appreciate feedback on your availability to attend a "Joint Meeting" proposed for November 12, and the FERC scoping meeting proposed on December 8. More detail on the purpose of each meeting is below. In order to allow for adequate public notice of the meetings, we would appreciate your prompt feedback, preferably no later than Monday, October 12. Confirmation of meeting dates and locations will be emailed to the KHL contact list, and posted on the website ([www.kenaihydro.com](http://www.kenaihydro.com)) as soon as possible after responses are received. Public notices will be issued as required by FERC regulation.

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Thank you for your continued interest and participation in the licensing process for the Grant Lake/Falls Creek hydropower project.

Jenna Borovansky  
Long View Associates, Inc.  
(On behalf of Kenai Hydro, LLC)  
208.765.1413

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**From:** Bruce Jaffa [jaffa@eagle.ptialaska.net]  
**Sent:** Thursday, October 22, 2009 5:37 PM  
**To:** Jenna Borovansky; Hippchen, Crista; Carey, Dave; ben ikerd; Bruce Jaffa; Jeff & Rose Hetrick; Jennifer Trudeau (E-mail); Mark Stauble; 'Ruth D'Amico'; Zubeck, Brad; Sue McClure  
**Subject:** KHL Local meeting  
**Attachments:** jaffa.vcf

Dear Ms. Borovansky,

At a well attended regular meeting on 21-Oct-2009 of the Moose Pass Advisory Planing Commission the commissioners voted to request a favorable response from planers of the Kenai Hydro project in providing a timely local meeting for local citizens to learn and express concerns regarding the Grant Lake/ Falls Creek project. The project description has changed significantly since it was originally introduced her in Moose Pass. A meeting in the affected area should be arranged to allow the greatest participation of citizens affected by your plan. A meeting in Kenai or the Central Peninsula does not suit this purpose. KHL may or may not be meeting the letter of the FERC process, we have no way of determining that, but the community is quire united in its view that Moose Pass not be overlooked or ignored at any step in the process. Beyond what may be vital to the success of your application process the appropriate thing to do is to involve the local community in a very direct and ongoing way due the potential long term effect of this project on this community.

We can schedule any special meeting of the MPAPC should you feel this type of a local presentation would be of benefit to you or the project.

Meeting space is available at our local school, or less preferred, in Seward.

Bruce Jaffa, Chair MPAPC  
P.O. Box 107 Moose Pass, Alaska 99631  
[Jaffa@Eagle.PTIALaska.net](mailto:Jaffa@Eagle.PTIALaska.net)

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**From:** Jenna Borovansky

**Sent:** Friday, October 23, 2009 4:49 PM

**To:** Jenna Borovansky

**BCC:** Jenna Borovansky; Finlay Anderson; 'katherine.a.mccafferty2@usace.army.mil'; 'Mary.King@alaska.gov'; 'youth@qutekcak.net'; Steve Padula; 'bzubeck@homerelectric.com'; 'prufrock@arctic.net'; 'jhollon@nhtiusa.com'; 'bluewagon82@yahoo.com'; 'jasonaigeldinger@mac.com'; 'berungia@yahoo.com'; 'dave@renewableresourcescoalition.org'; 'gbaker2@arctic.net'; 'kenailake@arctic.net'; 'rwbarnwell@yahoo.com'; 'robert.begich@alaska.gov'; 'jhpbt@yahoo.com'; 'mbest@borough.kenai.ak.us'; 'bruncobwl@yahoo.com'; 'tbristol@tu.org'; 'mlbrittain@ak.net'; 'phil\_brna@fws.gov'; 'info@ciri.com'; 'info@troutfitters.com'; 'nwad20@yahoo.com'; 'info@salamatof.com'; 'dave.c.casey@usace.army.mil'; 'susan.chihuly@alaska.gov'; 'valerie@akcenter.org'; 'mcooney@arctic.net'; 'jczarn@borough.kenai.ak.us'; 'js2dixon@hotmail.com'; 'kdoroff@princesstours.com'; 'jletma@arctic.net'; 'gfandrei@ciaanet.org'; 'jim.ferguson@alaska.gov'; 'epfisheads@yahoo.com'; 'jgabler@borough.kenai.ak.us'; 'ricky@kenairiversportfishing.com'; 'glaser@seward.net'; 'jglaser@stanford.edu'; 'mgrayrbca@gmail.com'; 'lance@lancehankins.com'; 'nhardigg@akcf.org'; 'info@riverwranglers.com'; 'alli@akcenter.org'; 'khelgren@princesstours.com'; 'jjh@seward.net'; 'caitlin@akvoice.org'; 'sondrakey8@msn.com'; 'hgrandella@hotmail.com'; 'hotbanana76@hotmail.com'; 'ikerdhome@gmail.com'; 'jaffa@eagle.ptialaska.net'; 'joe\_klein@fishgame.state.ak.us'; 'lynnda\_kahn@fws.gov'; 'kolodziejewski@yahoo.com'; 'dwimar@gsi.net'; 'kkromrey@fs.fed.us'; 'mk2l@arctic.net'; 'lavin@nwf.org'; 'adele.lee@alaska.gov'; 'jraelindquist@hotmail.com'; 'ginny.litchfield@alaska.gov'; 'DMahalak@borough.kenai.ak.us'; 'akbronze@arctic.net'; 'lee.mckinley@alaska.gov'; 'jmohorci@borough.kenai.ak.us'; 'sunrise@arctic.net'; 'tmoseley@fs.fed.us'; 'niceinalaska@yahoo.com'; 'dnelson@borough.kenai.ak.us'; 'redoubtreporter@alaska.net'; 'north.phil@epamail.epa.gov'; 'mnovy@fs.fed.us'; 'jjodhner@arctic.net'; 'melinda.odonnell@alaska.gov'; 'kaoleary@fs.fed.us'; 'DOtt@aidea.org'; 'painter@arctic.net'; 'douglas\_palmer@fws.gov'; 'jason.pawluk@alaska.gov'; 'mightykenai@arctic.net'; 'alecl@arctic.net'; 'todd@sewardrealestate.com'; 'gary.prokosch@alaska.gov'; 'ronaklo@att.net'; 'montesfishing@alaska.net'; 'trish@sierraclubalaska.org'; 'robert@kenaiwatershed.org'; 'Pamela.Russell@alaska.gov'; 'gydaric@yahoo.com'; 'jseebach@americanrivers.org'; 'keeper@inletkeeper.org'; 'benbo61@gmail.com'; 'rlsimmons@fs.fed.us'; 'bobbiejokibo@yahoo.com'; 'ace@akcenter.org'; 'info@kenailake.com'; 'rspangler@fs.fed.us'; 'stauble@arctic.net'; 'bstock@arctic.net'; 'moosepassrosie@yahoo.com'; 'pdt205@nyu.edu'; 'qenqay@arctic.net'; 'cassie\_thomas@nps.gov'; 'jmtjohnt@yahoo.com'; 'btrefon@kenaitze.org'; 'rebew@att.net'; 'willie9470@hotmail.com'; 'gwilliams@borough.kenai.ak.us'; 'russianriv@yahoo.com'; 'sherry.wright@alaska.gov'; 'zengobys@hotmail.com'; 'kenairivcenter@borough.kenai.ak.us'; 'jack.sinclair@alaska.gov'; 'dawn.germain@ogc.usda.gov'; 'rbirk@fs.fed.us'; 'ejohansen@fs.fed.us'; 'wamacfarlane@fs.fed.us'; 'thomas.cappiello@alaska.gov'; 'susan.walker@noaa.gov'; 'kimberly.sager@alaska.gov'; 'jason.kent@hdrinc.com'; 'paul.mclarnon@hdrinc.com'; 'jason.mouw@alaska.gov'; 'dmichels@princesstours.com'; 'SteveG@enxco.com'; 'mikeo@cosmichamlet.net'; 'caesar.kortuem@kiewit.com'; 'jack.erickson@alaska.gov'; 'jeavis@fs.fed.us'; 'douglas\_mutter@ios.doi.gov'; 'jeffry\_anderson@fws.gov'; 'joseph.adamson@ferc.gov'; 'todd.bethard@hdrinc.com'; 'jmorsell@northernecological.com'; 'smorsell@northernecological.com'; 'scott.maclean@alaska.gov'; 'mtracy@homerelectric.com'; 'jrwerner@mtaonline.net'; 'davidwerner74@gmail.com'; 'cohare@popud.org'; 'Heidi.Weigner@hdrinc.com'; 'rdwl@gci.net'; 'jan@hydroreform.org'; 'dwellinsecretplace@yahoo.com'; 'billibobsterman@gmail.com'; 'claritinpills@gmail.com'; 'ivandercool@gmail.com'

**Subject:** Grant Lake/Falls Creek Project Meeting Announcement - November 12, Seward, AK

Dear Interested Parties,

Thank you for your input on your availability for a Joint Meeting regarding the proposed Grant Lake/Falls Creek Hydroelectric Project to be held November 12. Based on comments received, the meeting will be held closer to the Project site, in Seward. The time of the FERC scoping meeting (originally proposed for December) has been delayed and will occur sometime in 2010. The Commission has stated that it will hold one of the scoping meetings closer to the Project site to accommodate those interested in the Project.

A public notice for the joint consultation meeting will be published in local papers next week. The text of the public notice follows:

On August 6, 2009 Kenai Hydro, LLC (KHL) filed with the Federal Energy Regulatory Commission (FERC): 1) a Notice of Intent (NOI) to file an application for original license under Part I of the Federal Power Act for the Grant Lake/Falls Creek Hydropower Project (FERC No. 13211/13212); and 2) a Pre-Application Document (PAD) which summarizes existing information on the Project, describes a proposed environmental study program to determine potential Project impacts, and identifies steps to developing appropriate protection, mitigation, and enhancement measures for inclusion in the license application. On September 15, 2009, FERC approved KHL's request to use the Traditional Licensing Process (TLP) with early scoping.

The proposed Project will be located on Grant Creek, near the outlet of Grant Lake, and on Falls Creek. The proposed Project will be located near the community of Moose Pass, Alaska, approximately 25 miles north of Seward, Alaska, and just east of the Seward Highway (State Route 9). The proposed Project location is in the Kenai Peninsula Borough. Additional Project information is available at: [www.kenaihydro.com](http://www.kenaihydro.com).

A Joint Meeting to discuss the proposed Project with the public, agencies, and Tribes will be held:

Thursday, November 12, 2009  
6:00pm to 9:00pm  
Seward AVTEC Student Services Building, 2<sup>nd</sup> Floor Auditorium  
809 Second Avenue  
Seward, Alaska 99664

The purpose of the meeting is to explain the Project proposal presented in the PAD and its potential environmental impact, to review the information provided, and to discuss the data to be obtained and studies to be conducted by KHL in order to support consultation with the public, agencies, and Tribes regarding the development of a license application to be filed FERC. The major issue areas to be addressed include: fisheries and aquatic resources, water resources, terrestrial resources, visual and recreation resources, and cultural resources. A general schedule of activities pre-licensing will be discussed, and KHL will invite comments on the objectives of the identified studies and suggestions for any additional studies that the public, agencies, or Tribes may have.

Thank you for your continued interest in the Grant Lake/Falls Creek Hydroelectric Project. Please do not hesitate to contact me, or Brad Zubeck (KHL, [bzubeck@homerelectric.com](mailto:bzubeck@homerelectric.com)) if you have any questions about the upcoming meeting or the proposed Project.

Sincerely,

Jenna Borovansky  
Long View Associates (On Behalf of Kenai Hydro, LLC)  
208.765.1413

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**From:** Zubeck, Brad [BZubeck@HomerElectric.com]  
**Sent:** Friday, October 23, 2009 9:23 AM  
**To:** 'Carey, Dave'; Bruce Jaffa; Jenna Borovansky; Hippchen, Crista; ben ikerd; Jeff & Rose Hetrick; Jennifer Trudeau (E-mail); Mark Stauble; Ruth D'Amico; Sue McClure  
**Cc:** Wilcox, Susan; Chumley, Hugh  
**Subject:** RE: KHL Local meeting

Good Morning to All,

Thank you for voicing your comments concerning the location for the joint meeting. Let me assure you that your comments are well received and have not fallen on deaf ears.

In response your comments, Kenai Hydro (KHL) has already made arrangements to host the meeting at the Seward AVTEC Student Center Auditorium from 6:00pm to 9:00pm the evening of November 12, 2009.

I want you to know that KHL considered holding the meeting at the Moose Pass School, which had a pre-scheduled conflict, and the Moose Pass Community Center, which KHL did not consider to be large enough for the size of the anticipated group based on experience at the site in January.

The purpose of the public meeting on November 12 will be present the currently proposed project design, an overview of potentially affected resources and KHL plans to study any impacts, and to discuss the general schedule of activities during the pre-licensing process. KHL will invite comments on the objectives of the study plans and suggestions for any additional studies that the public, agencies, or Tribes may deem appropriate.

I am looking forward to the occasion to meet with you again and hope you will be able to attend the event.

Best Regards,  
Brad Zubeck

-----Original Message-----

From: Carey, Dave [<mailto:dcarey@borough.kenai.ak.us>]  
Sent: Thursday, October 22, 2009 8:09 PM  
To: Bruce Jaffa; [Jenna Borovansky](#); [Hippchen, Crista](#); ben ikerd; Jeff & Rose Hetrick; Jennifer Trudeau (E-mail); Mark Stauble; Ruth D'Amico; Zubeck, Brad; Sue McClure  
Cc: Wilcox, Susan; Chumley, Hugh  
Subject: RE: KHL Local meeting

Thursday, 8:07 PM

Dear Bruce:

If Sue McClure is of like mind, I would be glad to sponsor a Resolution voicing opposition to these projects.

Mayor Carey

-----Original Message-----

From: Bruce Jaffa [<mailto:jaffa@eagle.ptialaska.net>]

Sent: , Brad; Sue McClure

Subject: KHL Local meeting

Dear Ms. Borovansky,

At a well attended regular meeting on 21-Oct-2009 of the Moose Pass Advisory Planing Commission the commissioners voted to request a favorable response from planers of the Kenai Hydro project in providing a timely local meeting for local citizens to learn and express

concerns regarding the Grant Lake/ Falls Creek project. The project description has changed significantly since it was originally introduced

her in Moose Pass. A meeting in the affected area should be arranged to

allow the greatest participation of citizens affected by your plan. A meeting in Kenai or the Central Peninsula does not suit this purpose.

KHL may or may not be meeting the letter of the FERC process, we have no

way of determining that, but the community is quire united in its view that Moose Pass not be overlooked or ignored at any step in the

process. Beyond what may be vital to the success of your application process the appropriate thing to do is to involve the local community in

a very direct and ongoing way due the potential long term effect of this

project on this community.

We can schedule any special meeting of the MPAPC should you feel this type of a local presentation would be of benefit to you or the project.

Meeting space is available at our local school, or less preferred, in Seward.

Bruce Jaffa, Chair MPAPC

P.O. Box 107 Moose Pass, Alaska 99631

[Jaffa@Eagle.PTIALaska.net](mailto:Jaffa@Eagle.PTIALaska.net)



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**From:** Bruce Jaffa [jaffa@eagle.ptialaska.net]  
**Sent:** Thursday, October 22, 2009 5:37 PM  
**To:** Jenna Borovansky; Hippchen, Crista; Carey, Dave; ben ikerd; Bruce Jaffa; Jeff & Rose Hetrick; Jennifer Trudeau (E-mail); Mark Stauble; 'Ruth D'Amico'; Zubeck, Brad; Sue McClure  
**Subject:** KHL Local meeting  
**Attachments:** jaffa.vcf

Dear Ms. Borovansky,

At a well attended regular meeting on 21-Oct-2009 of the Moose Pass Advisory Planing Commission the commissioners voted to request a favorable response from planers of the Kenai Hydro project in providing a timely local meeting for local citizens to learn and express concerns regarding the Grant Lake/ Falls Creek project. The project description has changed significantly since it was originally introduced her in Moose Pass. A meeting in the affected area should be arranged to allow the greatest participation of citizens affected by your plan. A meeting in Kenai or the Central Peninsula does not suit this purpose. KHL may or may not be meeting the letter of the FERC process, we have no way of determining that, but the community is quire united in its view that Moose Pass not be overlooked or ignored at any step in the process. Beyond what may be vital to the success of your application process the appropriate thing to do is to involve the local community in a very direct and ongoing way due the potential long term effect of this project on this community.

We can schedule any special meeting of the MPAPC should you feel this type of a local presentation would be of benefit to you or the project.

Meeting space is available at our local school, or less preferred, in Seward.

Bruce Jaffa, Chair MPAPC  
P.O. Box 107 Moose Pass, Alaska 99631  
[Jaffa@Eagle.PTIAAlaska.net](mailto:Jaffa@Eagle.PTIAAlaska.net)

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**From:** Bruce Jaffa [jaffa@eagle.ptialaska.net]  
**Sent:** Thursday, October 22, 2009 5:53 PM  
**To:** Jenna Borovansky; Zubeck, Brad; Dawn Campbell; Ann Whitmore-Dan Painter; Annie Gaule; Annie Gaule; ben ikerd; Bruce Jaffa; Connie Jacobson; Dave Clem; Dawn Campbell; Dawn Campbell; Dawn Ernst; Erin&Kevin Knotek; Gary Baker; Jack Timm; Jason & Laura Aigeidinger; Jeanne Follett; Jeff & Rose Hetrick; Jeff & Terry Estes; Jeff and Wendy Bryden; Jennifer Hedke; Jennifer Trudeau (E-mail); Jewel of the North; JJ Kaiser; jjodhner; John E Yost; Jolie glaser; Julie Lindquist; June and Marty Arnoldy; Kate Glaser; Kathy Taylor; Lee Cox; Lura Kingsford; Marion Glaser; Mark Luttrell; Mark Stauble; Melanie Schilling; Melissa Guernsey; Mike Cooney; Mike Turner; Moose Pass Fire & EMS; Jeff & Rose Hetrick; Mark Stauble; 'Ruth D'Amico'; Jennifer Trudeau (E-mail); ben ikerd; Bruce Jaffa; Paul Wiest; Rachel; Renfro's Lakeside Retreat; Rick Smeriglio & Ellen O'Brien; rlms@ptialaska.net; Rod Pilch; 'Ruth D'Amico'; Scenic Mtn Air; Shawn and Mary McDonald; Teddy Berglund; todd peterson; Tom and Heather Lindquist; Tom Barnett; Trail Lake Lodge; Vicki Johnson; Wendy Milligan; Wolf Trail Log Cabins; Hippchen, Crista; Sue McClure  
**Subject:** Local meeting  
**Attachments:** jaffa.vcf

Dear Ms. Borovansky,

At a well attended regular meeting on 21-Oct-2009 of the Moose Pass Advisory Planing Commission the commissioners voted to request a favorable response from planers of the Keani Hydro project in providing a local meeting for local citizens to learn and express concerns regarding the Grant Lake/ Falls Creek project. A meeting in the affected area should be arranged to allow the greatest participation of citizens affected by your plan. A meeting in Kenai or the Central Peninsula does not suit this purpose. KHL may or may not be meeting the letter of the FERC process but the community is quire united in its view that Moose Pass not be overlooked or ignored. Beyond what may be vital to the success of your application process the appropriate thing to do is to involve the local community in a very direct and ongoing way due the potential long term effect of this project on this community.

We can schedule any special meeting of the MPAPC should you feel a local presentation would be of benefit to you.

Meeting space is available at our local school, or in Seward.

Bruce Jaffa, Chair MPAPC  
P.O. Box 107 Moose Pass, Alaska 99631  
[Jaffa@Eagle.PTIAAlaska.net](mailto:Jaffa@Eagle.PTIAAlaska.net)

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**Kenai Hydro, LLC**  
2525 C Street, Suite 500  
Anchorage, AK 99503

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October 27, 2009

Ms. Kimberly Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street NE  
Washington, DC 20426

FILED ELECTRONICALLY

**Subject:** Grant Lake/Falls Creek (FERC Project No. 13212/13211) Notice of Joint Meeting  
Location and Agenda

Dear Secretary Bose,

Pursuant to 18 CFR §4.38, Kenai Hydro, LLC (KHL) is notifying the Commission that it has consulted with agencies, Tribes, and the public regarding the date and proposed location for a joint meeting. A site visit will be offered when weather conditions allow better access to the Project site. The joint meeting to discuss the proposed Grant Lake/Falls Creek Project with the public, agencies, and Tribes will be held:

November 12, 2009  
6:00pm to 9:00pm  
Seward AVTEC Student Services Building, 2<sup>nd</sup> Floor Auditorium  
809 Second Avenue  
Seward, Alaska 99664

The purpose of the meeting is to explain the Project proposal presented in the PAD and its potential environmental impact, to review the information provided, and to discuss the data to be obtained and studies to be conducted by KHL in order to support consultation with the public, agencies, and Tribes regarding the development of a license application to be filed with the Commission. The major issue areas to be addressed include: fisheries and aquatic resources, water resources, terrestrial resources, visual and recreation resources, and cultural resources. A general schedule of activities pre-licensing will be discussed, and KHL will invite comments on the objectives of the identified studies and suggestions for any additional studies that the public, agencies, or Tribes may have. An agenda for the meeting is attached.

Public notice will be published in local papers on Thursday, October 29, 2009, and the meeting information has been provided to KHL's email contact list and posted on the website ([www.kenaihydro.com](http://www.kenaihydro.com)). Proof of publication of the public notice will be filed with the Commission.

Sincerely,



Steven Gilbert  
Manager, Kenai Hydro, LLC

**Kenai Hydro, LLC**  
**Grant Lake/Falls Creek Hydroelectric Project (FERC No. 13211/13212)**  
**Joint Meeting Agenda**

**AVTEC Seward Campus**  
**Student Services Building, 2<sup>nd</sup> Floor Auditorium**  
**809 Second Avenue**  
**Seward, Alaska 99664**

**Thursday, November 12**  
**6:00 pm – 9:00 pm**

| AGENDA  |         |
|---|---------|
| Welcome, Project Status and Schedule, Meeting Goals   | 6:00 pm |
| Review Agenda, FERC Process, and how to file comments and information with the Commission   | 6:15 pm |
| Proposed Project Facilities/Project Operations Overview   | 6:30 pm |
| Fisheries and Aquatic Resources <ul style="list-style-type: none"> <li>• Existing Information and Relevant Plans</li> <li>• Study Topics</li> <li>• Questions and Comments</li> </ul> | 6:40 pm |
| Water Resources <ul style="list-style-type: none"> <li>• Existing Information and Relevant Plans</li> <li>• Study Topics</li> <li>• Questions and Comments</li> </ul>                 | 7:10 pm |
| Terrestrial Resources <ul style="list-style-type: none"> <li>• Existing Information and Relevant Plans</li> <li>• Study Topics</li> <li>• Questions and Comments</li> </ul>           | 7:30 pm |
| Visual and Recreation Resources <ul style="list-style-type: none"> <li>• Existing Information and Relevant Plans</li> <li>• Study Topics</li> <li>• Questions and Comments</li> </ul> | 7:50 pm |
| Cultural Resources <ul style="list-style-type: none"> <li>• Existing Information and Relevant Plans</li> <li>• Study Topics</li> <li>• Questions and Comments</li> </ul>              | 8:10 pm |
| Wrap-Up and Comments  | 8:30 pm |
| Adjourn   | 9:00 pm |

Document Content(s)

2009-10-27\_Project13211-13212Notice of Joint Mtg\_KHL.PDF.....1-2

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**From:** Jan Odhner [jjodhner@arctic.net]  
**Sent:** Saturday, October 31, 2009 8:17 PM  
**To:** Jenna Borovansky  
**Subject:** Re: Grant Lake/Falls Creek Project Meeting Announcement - November 12, Seward, AK

I am not clear why the meeting would be in Seward when it concerns Moose Pass? Thank you Judith Odhner

----- Original Message -----

**From:** Jenna Borovansky

**To:** Jenna Borovansky

**Sent:** Friday, October 23, 2009 2:49 PM

**Subject:** Grant Lake/Falls Creek Project Meeting Announcement - November 12, Seward, AK

Dear Interested Parties,

Thank you for your input on your availability for a Joint Meeting regarding the proposed Grant Lake/Falls Creek Hydroelectric Project to be held November 12. Based on comments received, the meeting will be held closer to the Project site, in Seward. The time of the FERC scoping meeting (originally proposed for December) has been delayed and will occur sometime in 2010. The Commission has stated that it will hold one of the scoping meetings closer to the Project site to accommodate those interested in the Project.

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Seward, Alaska 99664

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cultural resources. A general schedule of activities pre-licensing will be discussed, and KHL will invite comments on the objectives of the identified studies and suggestions for any additional studies that the public, agencies, or Tribes may have.

Thank you for your continued interest in the Grant Lake/Falls Creek Hydroelectric Project. Please do not hesitate to contact me, or Brad Zubeck (KHL, [bzubeck@homerelectric.com](mailto:bzubeck@homerelectric.com)) if you have any questions about the upcoming meeting or the proposed Project.

Sincerely,

Jenna Borovansky  
Long View Associates (On Behalf of Kenai Hydro, LLC)  
208.765.1413

**From:** Jenna Borovansky

**Sent:** Tuesday, November 10, 2009 5:46 PM

**To:** Zubeck, Brad

**Subject:** Grant Lake/Falls Creek Project - TWG Update

**Bcc:** Jenna Borovansky; Steve Padula; bzubeck@homerelectric.com; robert.begich@alaska.gov; dave.c.casey@usace.army.mil; mcooney@arctic.net; gfandrei@ciaanet.org; jim.ferguson@alaska.gov; ricky@kenairiversportfishing.com; jjh@seward.net; lynnda\_kahn@fws.gov; ginny.litchfield@alaska.gov; lee.mckinley@alaska.gov; north.phil@epamail.epa.gov; douglas\_palmer@fws.gov; gary.prokosch@alaska.gov; ronaklo@att.net; robert@kenaiwatershed.org; rspangler@fs.fed.us; ejohansen@fs.fed.us; wamacfarlane@fs.fed.us; thomas.cappiello@alaska.gov; susan.walker@noaa.gov; kimberly.sager@alaska.gov; jason.kent@hdrinc.com; paul.mclarnon@hdrinc.com; jason.mouw@alaska.gov; jeffry\_anderson@fws.gov; jmorsell@northernecological.com

Dear TWG members,

No comments were received on the draft meeting summary for the September TWG meeting, so it has been posted as a final meeting summary for the September TWG meeting ([www.kenaihydro.com](http://www.kenaihydro.com) – see the calendar page for September 22-23). A technical memo that summarizes the instream flow study approach decided on at that meeting is posted as an attachment to the meeting summary.

As you know, the Joint Meeting will be held November 12, 2009 in Seward from 6 pm – 9 pm at the AVTEC Seward Campus, Student Services Building, 2<sup>nd</sup> Floor Auditorium, 809 Second Avenue, Seward, Alaska 99664. The agenda is attached to this email. Please note that there will not be significantly new information presented in the fish and aquatics area. The goal of the meeting is to review the list of potential impacts to be studied for all resource areas. The baseline study information for fish and aquatics that was discussed at the September TWG meeting will be referenced, but will not be discussed in more detail.

Also, due to potential delays in the start of the study season next year, Kenai Hydro (KHL) will not be providing draft study plans at this time. KHL is pursuing additional funding for the study program, and will keep the workgroups posted as funding and the schedule for next year is developed. Draft study plans will be provided for review and comment when KHL has a more definitive timeline established.

KHL still anticipates that the study report from the 2009 baseline work will be available in December and will be posted to the website.

Kenai Hydro greatly appreciates your feedback and participation in the baseline and instream flow study development, and looks forward to working with you throughout the remainder of the licensing process. Please contact Brad Zubeck ([bzubeck@homerelectric.com](mailto:bzubeck@homerelectric.com), 907-335-6204) with questions or comments, and we look forward to seeing you on November 12.

Jenna Borovansky  
Long View Associates, Inc.  
208.765.1413 (phone)  
208.699.3993 (cell)



**Kenai Hydro, LLC  
Grant Lake/Falls Creek Hydroelectric Project (FERC No. 13211/13212)  
Joint Meeting Agenda**

**AVTEC Seward Campus  
Student Services Building, 2<sup>nd</sup> Floor Auditorium  
809 Second Avenue  
Seward, Alaska 99664**

**Thursday, November 12  
6:00 pm – 9:00 pm**

| <b>AGENDA</b>  |                |
|--|----------------|
| <b>Welcome, Project Status, Meeting Goals – Brad Zubeck, KHL</b>   | <b>6:00 pm</b> |
| <b>Review Agenda for Evening, FERC Process, and How to File Comments</b>   | <b>6:15 pm</b> |
| <b>Proposed Project Facilities/Project Operations Overview</b>   | <b>6:30 pm</b> |
| <b>Fisheries and Aquatic Resources</b> <ul style="list-style-type: none"><li>• Existing Information</li><li>• Study Topics</li><li>• Q&amp;A</li></ul> | <b>6:40 pm</b> |
| <b>Water Resources</b> <ul style="list-style-type: none"><li>• Existing Information</li><li>• Study Topics</li><li>• Q&amp;A</li></ul>                 | <b>7:10 pm</b> |
| <b>Break</b>   | <b>7:30 pm</b> |
| <b>Terrestrial Resources</b> <ul style="list-style-type: none"><li>• Existing Information</li><li>• Study Topics</li><li>• Q&amp;A</li></ul>           | <b>7:45 pm</b> |
| <b>Visual and Recreation</b> <ul style="list-style-type: none"><li>• Existing Information</li><li>• Study Topics</li><li>• Q&amp;A</li></ul>           | <b>8:05 pm</b> |
| <b>Cultural Resources</b> <ul style="list-style-type: none"><li>• Existing Information</li><li>• Study Topics</li><li>• Q&amp;A</li></ul>              | <b>8:25 pm</b> |
| <b>Wrap-Up and Additional Q&amp;A</b>  | <b>8:45 pm</b> |
| <b>Adjourn</b>   | <b>9:00 pm</b> |

GRANT LAKE/FALLS CREEK HYDROELECTRIC PROJECT  
JOINT MEETING PRESENTATION

Taken November 12, 2009  
Commencing at 6:00 p.m.

Volume I - Pages 1 - 119, inclusive

Taken at  
AVTEC Seward Campus  
519 Fourth Avenue  
Seward, AK 99664

Reported by: Valerie Martinez

## 1     A P P E A R A N C E S:

2             Brad Zubeck, Kenai Hydro, LLC

3             Jenna Borovansky, Long View Associates

4             Bob Butera, HDR Alaska, Inc.

5             Amanda Prevel-Ramos, HDR Alaska, Inc.

6             John Morsell, Northern Ecological Services

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11     Reported by:

12             Valerie Martinez

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18             BE IT KNOWN that the aforementioned proceedings  
19     were taken at the time and place duly noted on the title  
20     page before Valerie Martinez, Notary Republic within and  
21     for the State of Alaska.

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## 1 P R O C E E D I N G S

2 BRAD ZUBECK: Thanks very much for coming out  
3 tonight. I appreciate it. Thank you. My name is Brad  
4 Zubeck. I'm with Kenai Hydro and Homer Electric. We'll  
5 make some introductions to begin with. This is the  
6 Grant Lake/Falls Creek Hydro Project. It's a joint  
7 meeting to take comments tonight on issues.

8 We do have a court reporter. A FERC  
9 requirement is to provide a transcript of the meeting.  
10 And so if you would speak clearly. If you have a  
11 comment, please state your name, first and last name.  
12 She may ask you to spell it. If you do remember to  
13 spell it, that would be great.

14 With that, we'll go to our first slide. I  
15 introduced myself with Kenai Hydro. We have some other  
16 folks from HEA tonight. We have our general manager,  
17 Mr. Brad Janorschke; our director of power production  
18 and transmission, Mr. Harvey Ambrose; and our director  
19 of engineering and operations, Don Smith. Thanks for  
20 coming out tonight, guys.

21 Jenna Borovansky with Long View Associates is  
22 our FERC licensing consultant. She'll be presenting  
23 several segments tonight. With HDR, an engineering  
24 consultant, we have Bob Butera and Amanda Prevel-Ramos.  
25 And John Morsell with Northern Ecological Services. And

1 we're a person down tonight. John's wife, Sally,  
2 usually handles terrestrial and cultural resources,  
3 recreational resources, and John and Jenna are going to  
4 stand in. She's a victim of the cold and flu and  
5 couldn't make it.

6 A brief update on our other projects. If  
7 you've been paying attention, you may have noticed that  
8 we've surrendered permits on the Ptarmigan Lake and  
9 Crescent Lake projects. For environmental and economic  
10 reasons, they aren't attractive to us. And we have no  
11 plans right now for additional projects at this time.

12 So on the Grant Lake/Falls Creek Project, our  
13 plans are to finalize our baseline studies from this  
14 year. We'll be issuing a final report in December. We  
15 have copies of the interim reports on the tables, the  
16 spiral-bound copies of the reports. They're interim  
17 because they don't have about a month and a half of  
18 hydrologic data that's been quality controlled and  
19 integrated. So when the report comes out in December,  
20 we'll have that finalized. It will be available on our  
21 web site.

22 We have an agenda tonight. On the backside of  
23 that you will find directions on how to file comments  
24 with FERC and how to find our Kenai Hydro site. So if  
25 you walk out of here tonight with that, you'll have the

1 information on how to get ahold of FERC and how to get  
2 ahold of us.

3 Our other task is to file comments. The  
4 comments tonight will be recorded and sent to FERC.  
5 FERC would prefer that you file comments directly with  
6 them and also copy us. But if you do comment to us,  
7 we'll gladly file those with FERC. They won't be lost.  
8 We'll send those on to FERC. And if you have questions  
9 on how to comment, we'll be covering that a little bit  
10 later.

11 The schedule that we've discussed tonight is  
12 tentative for a couple reasons. One, it's -- the dates  
13 that you see would get us to a license application  
14 within the term of our preliminary permit. Also we've  
15 taken a look at the scope of the studies that would be  
16 required and we anticipate that we won't have enough  
17 funds to fully implement those. So after tonight, we'll  
18 suspend study activity and other activities until we can  
19 secure enough funds to fully implement what we think has  
20 to be done to study -- on the project.

21 So a brief overview of our agenda for tonight.  
22 We'll talk about the FERC licensing process -- the FERC  
23 licensing process that we're in. We'll talk about the  
24 goals for the meeting, how to file comments with FERC,  
25 give you a brief project description, and then jump into

1 the resource areas.

2 The way these will be presented is you'll get  
3 a little bit of existing information, a summary of  
4 existing information, up front and then we'll talk about  
5 the resource issues that we've identified. We'll fit a  
6 break in there somewhere in the middle of these  
7 resources. And at the end, we'll have time for wrap-up.  
8 And you can talk to us individually both at breaks or  
9 after the meeting if you'd like to talk individually  
10 about more detailed information.

11 So our goal and the purpose for the meeting is  
12 to summarize existing information. The goal of this in  
13 the licensing process is to develop a common  
14 understanding of the project, the project concepts and  
15 issues that might need to be studied.

16 What we present tonight should all be  
17 contained in the pre-application document. Copies of  
18 those are also at tables. There's a copy over here in  
19 the binder and a copy behind the binder. At breaks or  
20 after the meeting, take a look at that. And, again, on  
21 the tables are the interim, or draft, report of the  
22 baseline studies that were conducted this summer.

23 Now, the primary purpose is to identify study  
24 topics, to take a look at the project. You don't have  
25 to give us all your comments tonight. There's a 60-day

1 comment period. Again, you can use the FERC web site to  
2 file those comments and copy us with those. And we'll  
3 go into that in more detail a little bit later.

4 The feedback, the comments that we would like  
5 to have is -- you see the issues that we've identified?  
6 We're looking to see if we've missed anything. Is there  
7 anything important out there that's important to you  
8 that you think should be studied? There's some  
9 guidelines from FERC on how to present that. And,  
10 again, we'll go over that a little bit later.

11 So just protocol for the night, some  
12 guidelines. Please hold your questions until the end of  
13 each segment. We'll provide a break at the end of each  
14 segment for questions. Try to be concise, if you can.  
15 Be thinking about your questions and keep them brief.  
16 Focus your comments on identifying or clarifying  
17 potential study issues or impacts. If you do have  
18 extensive additional information we ask that you please  
19 submit those to us in writing. We'd really appreciate  
20 that if you let us know. And, again, we'll be available  
21 at the breaks and afterwards for individual questions or  
22 comments or clarifying questions.

23 So with that, we'll hand it over to Jenna  
24 Borovansky to talk about the FERC process and the  
25 filing.



1 JENNA BOROVANSKY: If you haven't had the  
2 pleasure of going through a FERC process before, I just  
3 thought I'd run down where we're at in the process and  
4 what you can expect next.

5 The Federal Energy Regulatory Commission, from  
6 here on after FERC, has jurisdiction over hydroelectric  
7 development. And under their jurisdiction they have  
8 different processes for applicants to make a choice,  
9 essentially which process they would like to use. Kenai  
10 has requested to use the traditional licensing process.  
11 And that was at the same time we submitted the  
12 pre-application document, and FERC did approve use of  
13 that process. And so I will go through kind of the main  
14 components of the traditional licensing process.

15 We're in the first stage consultation now.  
16 And the idea of the process overall is just to lay out  
17 essentially the rules and the timeline for how Kenai  
18 Hydro is going to work with the public and agencies as  
19 they develop their proposal for the hydroelectric  
20 project involvement.

21 We've filed a pre-application document. Right  
22 now we're at our joint meeting, November 12th. You have  
23 your 60-day comment. And then in the traditional  
24 licensing process, there's also a dispute -- kind of the  
25 next step would be dispute resolution. If everybody

1 doesn't come into agreement on the study -- the topics  
2 to be studied, that's what you'd kick into.

3 But with the approval of the traditional  
4 licensing process, in this instance by request, FERC is  
5 going to do early scoping. So what that means is  
6 they'll actually come out sometime -- you know, on the  
7 schedule right now sometime in 2010, but it will be  
8 dependent upon when the studies start. And they will  
9 actually take a look at the feedback from today, the  
10 list of issues that have already been submitted, and  
11 they'll actually issue their own documents that says  
12 these are the study issues.

13 And then they'll hold another public meeting,  
14 which will also include a site visit, and we'll be able  
15 to tour the project site with FERC and agencies and any  
16 interested public. And then they'll hold another 60-day  
17 comment period and then that would kick off studies.

18 And after all the comments are received from  
19 this meeting, we'll be in kind of the study phase, which  
20 is the second stage of consultation. Essentially  
21 remember, as Brad said, all these dates are tentative as  
22 to get us to the point of filing by the end of the  
23 preliminary permit term. But it just lays out -- the  
24 dates lay out for you that we will issue draft study  
25 plans, there will be a chance for comments, final study

1 plans, and then the study season will move forward with  
2 the next formal public comment period after that, being  
3 a filing of the draft license application which will  
4 then have the benefit of all the information that was  
5 gained from the resource studies to inform a draft  
6 proposal for development of the project.

7 And then third-stage consultation is just the  
8 actual filing of the license application and then it  
9 kicks to FERC processing for that.

10 And then how -- kind of the nitty-gritty of  
11 how you can get more information throughout the process  
12 and file. Comments with FERC, they do prefer electric  
13 comments. You can do that on their web site two  
14 different ways. There's a quick comment, which actually  
15 really is pretty easy. You can just cut and paste from  
16 any document and comment, but you are limited to 6,000  
17 characters. If you have more information than that, you  
18 just register your e-mail address with FERC.

19 And if you have any questions or problems, the  
20 project manager is Joe Adamson. He'll help you with  
21 getting your comments in. And they also will accept  
22 written comments as well.

23 Most of you are on the e-mail list and you get  
24 e-mails from me. I'm also happy to help you with your  
25 first FERC filing if you need help. Usually once you

1 get it through, then you're set up in your system and  
2 you're good to go.

3 And the key thing with filing with FERC is  
4 always to reference the project numbers, which are the  
5 P-13211 and P-13212. And that's on the back of your  
6 agenda.

7 Along with these two web sites, we'll always  
8 keep updates and any filings that Kenai Hydro has made  
9 on to kenaihydro.com web site, which there's also -- if  
10 you haven't done it already, you can register your  
11 e-mail with us, so then we'll actually send -- I'll send  
12 you an e-mail whenever we post anything new to the web  
13 site. So that's one way to keep track of information.

14 You can also keep track of all the official  
15 filings with FERC by registering with them. Again, you  
16 go to the same web site and choose the e-subscription  
17 service. And you will get an e-mail notification any  
18 time anyone files a comment or filing on these two  
19 projects. And, again, you use those project numbers.

20 And with that, I'll turn it over to Bob to  
21 start with an overview of the project.

22 BOB BUTERA: I'm Bob Butera. I'm with HDR and  
23 we're doing the technical work and also some of the  
24 environmental work on this project. This next step, I'm  
25 just going to talk about the technical part of it and

1     what the project looks like at this time. It's still in  
2     conceptual stages. It's evolving. But I'll bring you  
3     up to speed on where we're at at this time.

4             First, just to get an idea of where the  
5     project is, here's the Seward Highway coming from  
6     Anchorage up north, coming south to Seward. Moose Pass  
7     is here. Upper Trail Lake, Cook Inlet Hatchery, and  
8     Moose Pass here. Lower Trail Lake and then Kenai Lake.

9             Grant Lake is the dog-leg-shaped lake here.  
10    You can't see it from the highway. It's behind this  
11    morainal and bedrock feature. Grant Creek comes down  
12    from this end of the lake. It's the outlet of Grant  
13    Lake and then feeds into what's called the narrows at  
14    Trail Lake.

15            Falls Creek, which is another component of  
16    this project, is to the south of Grant Lake. And it's a  
17    steep stream that feeds into Trail Creek and it does not  
18    have any lake features on it.

19            A hydro project essentially needs two things.  
20    It needs water and it needs head or fall to drop that  
21    water through to generate power. This Grant Lake  
22    Project has those. It gets the water from the drainage  
23    basin of Grant Lake and it gets its drop from the  
24    difference between Grant Lake and Trail Lake, which is  
25    about 200 feet.

1           The project really has a long history. It was  
2   looked at first in the '50s by the USGS as a power  
3   project and then it was looked at again in the 1980s by  
4   the Alaska Energy Authority as a power project. And  
5   both of those projects looked at a combination of a  
6   tunnel or a penstock coming down from Grant Lake at this  
7   point down to Trail Lake.

8           And the reason they -- basically, they  
9   completely bypassed Grant Creek. And the reason they  
10   did that is that's the way to get the most drop out of  
11   the water so you get the most power from it. It makes  
12   it the most economical project.

13           The project we're looking at today is a little  
14   bit different and it actually continues to evolve as the  
15   environmental studies on this project evolve because the  
16   two work hand in hand. But for any hydroelectric  
17   project, there's a number of components. There's access  
18   to the project, there's an intake, there's a conveyance  
19   system to bring the water from the intake to the  
20   powerhouse, a powerhouse, and then a transmission line  
21   to get the power from the powerhouse to some intertie to  
22   bring it to consumers.

23           What we've laid out here -- and here's Grant  
24   Lake up here, so north would be to this side of this  
25   picture and Seward would be this way. We're looking at

1 coming in off of the Seward Highway. There's an  
2 existing access across the railroad tracks here and  
3 there's an existing mining road that goes up along Falls  
4 Creek bringing our access in from that point across the  
5 contours here and branching one branch to go up to Grant  
6 Lake for a construction access for the intake and the  
7 other branch going down to the powerhouse. And that  
8 would be for access on a continual basis.

9           The intake that we envision, the intake and  
10 conveyance system, is a tunnel that would run through  
11 the rock out to a point here where it drops down through  
12 a pipeline to the powerhouse. Previously -- some of the  
13 previous versions of this project going back to the '80s  
14 actually showed a penstock, which would be an  
15 aboveground feature coming down, but there is actually  
16 no practical way to do that because the ground is much  
17 higher through this reach than it is here. So the only  
18 way to get the water from the lake down to a powerhouse  
19 is really through a tunnel.

20           That tunnel would be about 10 foot diameter  
21 and it's about 2800 feet long. The intake to that  
22 tunnel is right here. It's very much conceptual at this  
23 time, but what we envision is an intake on the shore of  
24 the lake and potentially a small diversion dam at the  
25 outlet of the lake here.

1           The powerhouse would be down here at the -- if  
2   you look at Trail -- Grant Creek, it basically is a  
3   fairly low gradient stream up until this point. And  
4   then it hits a canyon and then it gets very steep up to  
5   here. And that's where you get most of your drop. So  
6   what we're looking at doing is putting the powerhouse  
7   right at the base of that canyon.

8           The main purpose for that -- obviously, we  
9   wouldn't want to do that for power generation. It would  
10  be better if we could get the water all the way to here  
11  because we could get more drop out of it. But there's a  
12  lot of fish in this piece of the stream and we want to  
13  keep the water in it. So that's why the powerhouse  
14  would be at this point because the water would come  
15  through the penstock, into the powerhouse, and back into  
16  the creek so this piece of the creek would not be  
17  dewatered.

18          From the powerhouse there would be a  
19  transmission line that connects to the existing intertie  
20  that runs along the highway.

21          That's essentially the essence of the project.  
22  Some of the details. The powerhouse right now we're  
23  envisioning would have two turbines in it. It would be  
24  about four and a half megawatt total. And the two  
25  turbines are so that it can handle different flows at



1 different times of the year and still be efficient.

2           The other component of this project is Falls  
3 Creek over here. We still don't know if it's viable.  
4 It kind of looks like it might be and we're keeping it  
5 in the mix at this point, but its components are an  
6 intake here, a pipeline that runs across the contours  
7 here and comes into Grant Lake. Water would go into  
8 Grant Lake, mix with Grant Lake, and then it would run  
9 through the same system here. Its purpose would be to  
10 add more water to Grant Lake and more water equals  
11 greater power. That's essentially the project.

12           Any questions on the layout of the project or  
13 how it works? Go ahead.

14           DAVID PEARSON: Will you be completely  
15 dewatering Falls Creek downstream of the intake?

16           BOB BUTERA: That's undetermined right now.

17           BRAD ZUBECK: If you wouldn't mind, please  
18 state your first and last name just for the record.

19           DAVID PEARSON: My name is David Pearson. And  
20 to be fair, I live in that bottom red block next to  
21 Falls Creek.

22           BOB BUTERA: Right. Undetermined at this  
23 point. Actually, as the designers, we'd like to know  
24 that answer, too, because that's what our next piece of  
25 work is very contingent upon, is that component of it,

1     because it affects how we design our intake and how we  
2     design our conveyance system.

3                   And I think I'll leave that to John.  Are you  
4     going to talk more about that in the fisheries after  
5     this?

6                   JOHN MORSELL:  Probably not at this point.

7                   BOB BUTERA:  Then maybe -- that's as far as I  
8     know at this point.  We're waiting on that answer  
9     ourselves.

10                  MARK LUTTRELL:  My name is Mark Luttrell,  
11     L-u-t-t-r-e-l-l, here in Seward.  What sort of  
12     information do you need to know to make the decision  
13     about how much water you would leave in Falls Creek?

14                  BOB BUTERA:  Well, I think some fishery  
15     studies were done through this summer and there's more  
16     to come.  I think it's a balancing act between the value  
17     of what those fisheries are and the value of -- and  
18     whether it's even possible to keep water in there.

19                  BRAD ZUBECK:  It will show up later as an  
20     issue, but that's, for instance, a comment that you  
21     might ask FERC.  Hopefully we'll answer it tonight  
22     through the course of the evening, but it's a good  
23     question.

24                  RAE WICKARD:  Rae Wickard (ph).  What is the  
25     purpose of routing water from Falls Creek over to Grant

1 Lake? Is there not enough water in Grant Lake?

2 BRAD ZUBECK: There is. But as Bob alluded  
3 to, the more water that you can run through the  
4 powerhouse, the more energy you can produce. So it's,  
5 again, the balancing act of how much water do we have to  
6 have to support fisheries both in Falls Creek and Grant  
7 Creek and how much can we use to produce power. So the  
8 studies will determine that for us.

9 Sir?

10 BOB ATKINSON: My name is Bob Atkinson. So if  
11 you do this pipe thing from Falls Creek, you're going to  
12 have two big clearings across the side of the mountain,  
13 then, one for the road and one for the pipeline? Is  
14 that right?

15 BOB BUTERA: No. That red line that's there  
16 is very conceptual in nature. We don't have accurate  
17 topography for that area yet. So the pipeline is  
18 constrained because we want it to flow by gravity to the  
19 extent possible. So it would drive where the -- where  
20 it would be. But it's possible that the road could  
21 parallel it. So we don't know that at this point.  
22 Ideally, they'd be together, from my perspective.

23 BRAD ZUBECK: Sir?

24 PAUL SHADURA: Paul Shadura. I'm just kind of  
25 looking at that conceptual map there. If we look at the

1     powerhouse, are we to assume that that section from the  
2     powerhouse to Grant Lake would have no water in it?

3             BOB BUTERA: This section right here?

4             PAUL SHADURA: Towards the Grant Lake side.

5             BOB BUTERA: Upstream?

6             PAUL SHADURA: Uh-huh.

7             BOB BUTERA: Our assumption right now in our  
8     design and in power estimates is that there is no water  
9     in that creek in that section. We're not leaving water  
10    in it. It's a steep section. It's steep with rapids,  
11    big cobbles. It's not great fish habitat. There has  
12    been some fish found in the lower end. It's very  
13    difficult to find out how many fish might be in there  
14    because we just can't get in there. But we're -- I  
15    don't want to speak for John, but from what I've been  
16    hearing, the habitat value of it isn't that high.

17            JOHN MORSELL: There are still some  
18    significant questions as to really what the habitat  
19    value is.

20            BOB BUTERA: Right.

21            JOHN MORSELL: So that would be one of the  
22    goals of studies to come.

23            JON DEACON: My name is Jon Deacon. I live  
24    right at the end of the road on a state mining claim  
25    that's right next to Falls Creek down the Trail Lakes

1 Road.

2 BOB BUTERA: Right there?

3 JON DEACON: No. All the way up past the red  
4 blocks. Before you make the left -- the road that  
5 you're going to use, the mining road, I live right where  
6 the road -- Trail Lakes Road, one half a mile off of the  
7 Seward Highway to the west right where the creek cuts  
8 across.

9 My question basically is: There's a number of  
10 us that get our drinking water from there. If you end  
11 up using the water out of that stream, what will people  
12 do that live there for their drinking water?

13 BOB BUTERA: Good question. And we didn't  
14 know that.

15 BRAD ZUBECK: Ma'am?

16 ADRIENNE MORETTI: My name is Adrienne  
17 Moretti. Is the project still considered viable without  
18 the Falls Creek intake part? Without the Falls Creek  
19 half of it, would the project still be worthwhile, I  
20 guess?

21 BRAD ZUBECK: We think so, yes.

22 JJ KAIZER: JJ Kaizer, Crown Point.

23 BRAD ZUBECK: I didn't catch the name.

24 JJ KAIZER: JJ Kaizer, Crown Point.

25 BRAD ZUBECK: Thank you.

1 JJ KAIZER: One of the most intrusive parts of  
2 this project seems to be going from Falls to Grant.  
3 Given the amount of the loss of glacial ice up Falls  
4 Creek Valley, which we can calculate right now to  
5 approximately eight million cubic feet in the last 12  
6 years, can you tell me when Falls Creek will become  
7 seasonal?

8 BOB BUTERA: I think it's already seasonal.  
9 And basically the water from Falls Creek would be -- a  
10 standalone project on Falls Creek would not be a viable  
11 project because it is too seasonal. So you'd have big  
12 heaps at one time and then hardly any flow at another  
13 time, and I'm sure the people that get their water from  
14 it can tell you that.

15 But we look at it as a project that would take  
16 the water and put it into Grant Lake so it can be stored  
17 so it can be used with more seasonality. Does that make  
18 sense?

19 JJ KAIZER: Of course.

20 BRAD ZUBECK: Yes, sir?

21 WILL BRENNAN: My name is Will Brennan. I  
22 also live on Falls Creek Road. I'm wondering about the  
23 proposed road. At what point are you planning on coming  
24 off an existing road? I mean, where in relation to the  
25 existing road is that? Do you have an idea of where --

1 do you have a survey line or a flag line up there that I  
2 can go look at?

3 BOB BUTERA: It's right about the 800-foot  
4 elevation, if that helps. But, no, we don't have any  
5 flagging up there at all. It's all a pretty concept  
6 level. We haven't surveyed. We haven't -- we're just  
7 working off existing maps.

8 BRAD ZUBECK: We have done some survey work on  
9 the Grant Creek side, powerhouse, and intake areas. We  
10 haven't done survey work on the Falls Creek Road. It's  
11 a fairly well-established road and fairly visible from  
12 aerial photography and mapping. And so I'm pretty  
13 confident that the yellow line that you see on the map  
14 there probably follows that four-wheel drive, ATV,  
15 existing mining road.

16 WILL BRENNAN: Yeah, I'm wondering about where  
17 the red line is. Do you know where -- do you have an  
18 idea where it's going to tie in on the yellow line?

19 BRAD ZUBECK: I think, as Bob indicated, the  
20 intake was proposed at about 800 feet. And just roughly  
21 speaking, Grant Lake is at 700 feet, so by gravity it  
22 would stay within those two contours.

23 Any other questions before we move on?

24 MATT GRAY: Matt Gray. Did I hear there's two  
25 kind of dam structures involved?

1           BRAD ZUBECK: There would be an intake  
2 structure at Falls Creek, if that were to be the option  
3 pursued, and there would also be a diversion structure  
4 intake, really just a dam to allow water to be taken  
5 into the intake structure, yes.

6           MATT GRAY: But I was actually referring to  
7 just on Grant Lake.

8           BOB BUTERA: Just one at Grant.

9           MATT GRAY: Just the tower and the dam?

10          BRAD ZUBECK: The intake structure and the  
11 dam, if you will.

12          Mr. Cooney?

13          MIKE COONEY: Mike Cooney, Moose Pass.  
14 Without the Falls Creek portion of this project, what  
15 would you estimate the power of production to be with  
16 only the Grant Creek Project suggested? It's about four  
17 and a half megawatts now. What would it be without the  
18 falls?

19          BOB BUTERA: It would still remain as a four  
20 and a half megawatts project, which would be its maximum  
21 capacity, but the annual amount of power you got out of  
22 it would be less.

23          MIKE COONEY: Can you quantify that somehow?

24          BOB BUTERA: I don't have the --

25          BRAD ZUBECK: About 19 gigawatts more of



1 energy.

2 MIKE COONEY: Thank you.

3 BRAD ZUBECK: Yep.

4 With Falls Creek it's just over 23.4, and  
5 those are estimates.

6 Time for one more question. Mr. Gray?

7 MATT GRAY: I just wanted to confirm, is the  
8 lake elevation fluctuation still at plus 10 to minus 25?

9 BRAD ZUBECK: It's about a 30-foot lake level  
10 fluctuation, yes, it is.

11 BOB BUTERA: But it's about a plus 10 and  
12 minus 20 to get the 30.

13 BOB ATKINSON: Bob Atkinson again. Any  
14 possibility that the power line coming out of there  
15 could be buried?

16 BRAD ZUBECK: Absolutely. It's just shown as  
17 a more or less straight line. And I might mention that  
18 visual studies, esthetic studies, if you will, are a  
19 part of what we would look at. And very straight  
20 transmission line corridors like that are probably  
21 objectionable. And so we would probably look to put  
22 some switchbacks in that possibly so that you don't look  
23 down a long sight line, a long transmission line  
24 corridor.

25 The other question somebody made a comment

1     about -- and maybe it was you -- about the ability to  
2     see a cut on the hillside. And where it's perpendicular  
3     to the road system, they're much easier to see. Where  
4     you're parallel on the road system, they're much more  
5     difficult to see from the road.

6             And you are probably very familiar with this  
7     area. And driving down the Seward Highway, it's very,  
8     very difficult to see most of the project area from the  
9     highway system. But we'll be studying esthetic impacts  
10    as part of the resource studies.

11            Thank you very much, Bob.

12            AMANDA PREVEL-RAMOS: I'm Amanda Prevel-Ramos  
13     with HDR, and I'm going to talk to you about existing  
14     information starting with fisheries. And that's just  
15     another day at the office this summer.

16            There's been a lot of work done at Grant Lake  
17     and Grant Creek, including what we did this summer to  
18     look at fisheries resources. What we did this year was  
19     we looked at juvenile fish, resident fish, such as Dolly  
20     Varden and rainbow trout and adult salmon. And then  
21     also we conducted the first year of an in-stream flow  
22     study to look at changes in characteristics of fish  
23     habitat based on changes in the flow. And the studies  
24     of fish were to add to the existing body of information  
25     on fish resources.

1           So as I said, there is already a little bit  
2 of -- well, more than a little bit -- quite a bit of  
3 information from the '60s and the '80s conducted by  
4 different resource agencies as well as by previous  
5 applicants for developing a hydro project at Grant Lake.  
6 All of this existing information, including what was  
7 gathered this summer, is summarized in the preliminary  
8 application document that you guys can find on the Kenai  
9 Hydro web site.

10           So Bob kind of went over the project area with  
11 you already. I'll just point out that the purple areas  
12 on that map are the areas that we worked in this summer.  
13 So looking here, HDR went through this summer and  
14 actually -- we reestablished study reaches that were  
15 started out by the group that studied the creek in the  
16 '80s.

17           So reach one through reach four is basically  
18 the part that we were talking about before that would be  
19 below the powerhouse at the red triangle right there.  
20 And then it's mostly -- that's the best fish habitat,  
21 and primarily it's fast-water habitat.

22           Reach five is -- you get into more of that  
23 cascade habitat. There's less fish present. Reach six  
24 is basically an extension of the lake ecosystem. And  
25 I'll just point out also that the Alaska Department of

1 Fish & Game has placed a marker in their anadromous fish  
2 catalog that says that fish do not pass above that green  
3 dot. They call it anadromous fish barrier.

4 So at Grant Lake, this summer and in previous  
5 investigations, we found sticklebacks and sculpin. No  
6 one has found trout, Dolly Varden, or salmon in the work  
7 they have done up there or in the small streams that  
8 actually feed into the Upper and Lower Trail Lakes.

9 In 2009 we resampled the sites that were  
10 sampled in an extensive effort in the '80s. And we also  
11 sampled extra sites that we thought looked likely to --  
12 would be good spots for finding fish and did not find  
13 any salmon, trout, or Dolly Varden in our traps or nets.

14 In Grant Creek there are runs of sockeye, or  
15 red salmon; chinook, or king salmon; and coho, or silver  
16 salmon. And ADF&G has designated the lower eighth of a  
17 mile as anadromous fish habitat.

18 Estimates of the number of spawning salmon in  
19 the creek vary from 400 to 2500 sockeye, 33 to 230  
20 chinook, and 55 to 300 coho. And that's based on many  
21 years of different kinds of data. So ADF&G has gone up  
22 there and done foot surveys. We did foot surveys this  
23 summer. The previous investigators in the '80s and back  
24 in the '60s did other foot surveys. So it's coming from  
25 a lot of different studies, those numbers, and reflects

1 an annual variation in the fish runs.

2 So in 2009 we also, as I mentioned, looked at  
3 juvenile salmon. And in the lower reaches there are  
4 more scattered slow-water habitats where juvenile salmon  
5 can rear. Most of these are places where small fish are  
6 seeking refuge from very fast water currents. And the  
7 kinds of -- examples of these kinds of habitat include  
8 undercut banks, side channels, and backwater areas.

9 And so within these areas we find the most  
10 abundant are juvenile, chinook, and coho. And most of  
11 the fish that we found in our traps were fry or younger  
12 than a year, which indicates that fish do not move into  
13 Grant Creek to rear there from other areas and also that  
14 they probably do not overwinter in Grant Creek.

15 And in 2009 we also looked at resident fish,  
16 such as Dolly Varden and rainbow trout. We found that  
17 Dolly Varden were the most abundant fish overall and  
18 that all ages were -- all age classes were present.  
19 Adult and subadult rainbow trout were also present and  
20 were pretty common.

21 And so we also did some recognizance level  
22 work at Falls Creek. It has not had as much work done  
23 in the past as Falls -- as Grant Creek and Grant Lake.  
24 But ADF&G has designated the lower one-third of a mile  
25 as anadromous fish habitat.

1           In 2009 when we went out and did recognizance  
2 minnow trapping, we found only Dolly Varden and we found  
3 no adult salmon. We actually did foot surveys of the  
4 same frequency, so every 10 days, that we did on Grant  
5 Creek. So we did both creeks in tandem on the same days  
6 every 10 days.

7           I'll be available to answer questions more in  
8 depth about fish on Grant Creek afterwards or after the  
9 end of John's segment. John is going to talk a little  
10 bit more about fish.

11           JOHN MORSELL: Thanks, Amanda.

12           I'm John Morsell. I'm helping to coordinate  
13 some of the study programs and make sure that they  
14 answer the questions that need to be answered for the  
15 FERC process and the kinds of things you folks are most  
16 interested in.

17           As Amanda has indicated, Grant Creek, while  
18 it's fairly short, has substantial fish habitat value.  
19 And we suspect that there's going to be quite a bit of  
20 interest and concern in the fish in Grant Creek.

21           So some of the specific issues that we've  
22 identified are listed on this slide. For example, you  
23 know, the potential effects of increased lake level  
24 fluctuation on Grant Lake fish resources; potential  
25 effects of the project intake structure on the Grant

1 Lake fish; potential effects of changes to the seasonal  
2 flow regime on the abundance and distribution of fish in  
3 Grant Creek.

4               This third item is probably the big one, the  
5 one that most people are going to be concerned about,  
6 what's going to happen to the fish as the flow changes.  
7 Also, another potential issue has to do with what the  
8 effects of flow changes might be on the movement of  
9 materials from upstream to downstream within Grant Creek  
10 if the flow regime is changed. Salmon spawning areas  
11 often depend on a replenishment of gravel within their  
12 spawning areas and they can be detrimentally affected by  
13 sediment deposition, so this is another issue that's  
14 worth looking at.

15              Additionally, we're going to look at the  
16 overall -- we proposed to look at the overall  
17 productivity of Grant Creek as indicated by the  
18 abundance of aquatic insects and algae, sort of an index  
19 of productivity.

20              Another potential issue has to do with the  
21 effects of construction activities on fish habitats.  
22 Most of these are sort of temporary impacts due to  
23 disturbance, erosion, sedimentation, and so forth that  
24 occurs during construction.

25              And moving to Falls Creek we have the same

1 sort of set of questions, what's the potential effect of  
2 a reduced flow in Falls Creek on the distribution of  
3 fish.

4 And then finally we have the whole question of  
5 when you alter the access to an area, you can increase  
6 the potential human usage and how is this increased  
7 recreational fishing opportunity going to affect the  
8 fish resources.

9 So currently we have a whole set of studies  
10 that are currently proposed. And most of these are  
11 continuations of studies that were already started in  
12 2009. The studies that will be proposed will be more  
13 precisely focused on issues partly resulting from the  
14 feedback we get from you folks.

15 Anyway, we're going to continue to look at the  
16 Grant Creek salmon spawning distribution and abundance  
17 as well as the resident and rearing fish distribution.  
18 We're also going to do a little better job of looking at  
19 the specific aquatic habitats within Grant Creek, map  
20 the habitats and try and determine what the critical  
21 factors are that make fish use these particular  
22 habitats. And this feeds into the in-stream flow study,  
23 which is the next item.

24 We've had several technical working group  
25 meetings to discuss potential approaches to in-stream



1 flow study on Grant Creek. At the last meeting we  
2 proposed an approach, which we seemed to have a fair  
3 amount of agreement on at looking at potential changes  
4 and how they might affect fish habitats and how we might  
5 use that to predict what might happen with altered  
6 stream flows.

7 And then we have the same -- basically the  
8 same studies in Falls Creek. We can do a much more  
9 thorough job of looking at the distribution and  
10 abundance of fish in Falls Creek, become a little bit  
11 more quantitative in trying to figure out how many fish  
12 are in the creek.

13 We plan to do baseline studies of stream  
14 critters, mostly to provide sort of a baseline against  
15 which future conditions can be compared. These benthic  
16 invertebrates and periphyton act as indicator species.  
17 They can tell us what kinds of changes that are  
18 occurring in the stream.

19 And then similarly we're also proposing to do  
20 studies of zooplankton and phytoplankton in Grant Lake  
21 related to the productivity of Grant Lake.

22 That's the end of the aquatic resources  
23 segment. So we'll be glad to take a few questions.

24 Yes?

25 PAM RUSSELL: Pam Russell. I noticed in your

1 studies there, has it been determined if the water  
2 temperature is going to change coming out of that hydro  
3 plant when -- after it goes from either Falls to Grant  
4 and then going through the processes? Is the water  
5 temperature going to change after it comes out of the  
6 power head?

7 JOHN MORSELL: It depends on the depth of the  
8 intake. That's something we're going to be looking at.  
9 We'll be talking a little later on about temperature  
10 monitoring that we're currently doing. We should be  
11 able to model that fairly accurately and pretty much  
12 tell exactly what those numbers are going to be.

13 PAM RUSSELL: How long are you going to do the  
14 studies that you have proposed now, the fish studies and  
15 everything?

16 JOHN MORSELL: Well, I think currently the  
17 studies -- well, it depends on how the project schedule  
18 proceeds, but I think the intent is to have one full  
19 year -- one more full year of studies.

20 Yeah?

21 PAUL SHADURA: Paul Shadura. I've got a  
22 temperature question, since that was identified in some  
23 of the previous studies. It's not so much the change in  
24 the ambient temperature but the change in the  
25 temperatures in the seasonal situations that I'm curious

1 about. What kind of analysis or study are you designing  
2 to understand what that would be?

3 JOHN MORSELL: Well, we are and we'll continue  
4 to take continuous temperature measurements in both  
5 Grant Lake, which includes a profile, a depth profile of  
6 temperatures, as well as in Grant Creek. And after  
7 the -- after we have the project operating components  
8 nailed down, we can just do a temperature balance  
9 modeling. And we should be able to figure out pretty  
10 closely what's going to happen at any time of the year  
11 as far as the temperature is concerned.

12 PAUL SHADURA: If I can follow up just once.  
13 So that would give you an idea of what's occurring at  
14 this point. So am I too far-reaching to ask you what  
15 you would do to control the temperature changes within  
16 your plant?

17 JOHN MORSELL: Well, if --

18 PAUL SHADURA: Draw from the lake, forget  
19 about that part. I'm interested more in what's left in.

20 JOHN MORSELL: Well, there are ways that  
21 temperatures can be regulated. If the studies determine  
22 that changes in temperature might be detrimental to  
23 fish, then the depth of the intake structure could be  
24 modified because the lake temperature varies with depth.  
25 That would be the primary way that we could mitigate any

1 possible changes.

2 Yeah?

3 MIKE COONEY: Mike Cooney, Moose Pass. Could  
4 you tell us what species of fish are documented in the  
5 Fish & Game anadromous catalog for Falls Creek and also  
6 if there is any credible information to suggest that  
7 king salmon, chum salmon, might exist in Falls or Grant  
8 Creek?

9 AMANDA PREVEL-RAMOS: I'm not going to try to  
10 remember off the top of my head what they are. I know  
11 that they do have species of both salmon and I believe  
12 probably that Dollies are on there. I know that we have  
13 that information in our recognizance report on Falls  
14 Creek. And I believe it's also actually included in the  
15 interim draft report. There's a summary of existing  
16 information in the beginning of that report. So we  
17 could definitely find it.

18 JOHN MORSELL: The Fish & Wildlife Service had  
19 a weir in Grant Creek for a while, and they did catch a  
20 couple of pink salmon and one or two chum salmon. Very  
21 small numbers.

22 Anything else?

23 BRAD ZUBECK: Mr. Gray?

24 MATT GRAY: I was just wondering, that reach  
25 number five, how long is it and could you just recap

1     what the fishery resources were in that section?

2                 AMANDA PREVEL-RAMOS:   Well, I don't know off  
3     the top of my head how long it is.   I can probably find  
4     that information for you after the meeting.

5                 MATT GRAY:   An approximate?

6                 AMANDA PREVEL-RAMOS:   Yeah.

7                 JOHN MORSELL:   It's about four-tenths of a  
8     mile, I think.

9                 AMANDA PREVEL-RAMOS:   Yeah.

10                BRAD ZUBECK:   The creek itself is about a mile  
11     long and the powerhouse is about halfway down the  
12     stream, so four-tenths of a mile is probably a pretty  
13     good guess.

14                AMANDA PREVEL-RAMOS:   What was the second part  
15     of that question?

16                MATT GRAY:   Just recap the fisheries, you  
17     know, documentation.

18                AMANDA PREVEL-RAMOS:   I think there are -- I  
19     know our crew, I believe, saw king salmon in the lower  
20     portion, adult king salmon in the very lowest portion.  
21     And then, like I said, the anadromous fish barrier is  
22     above there.

23                So part of what we're doing -- planning to do  
24     next year is do a more in-depth study of what is the  
25     spawning distribution in that reach.

1           JOHN MORSELL: One of the problems is that  
2 reach five is almost totally inaccessible without  
3 rock-climbing techniques, which they didn't try to get  
4 at this year. But that will be part of the plans for  
5 upcoming studies will be to get into that region and get  
6 a better idea.

7           And there's also tentative plans to do some  
8 radiotelemetry work on king salmon to try and figure out  
9 what proportion of the total numbers actually end up in  
10 that reach five.

11           MIKE COONEY: Mike Cooney, Moose Pass. Are  
12 there any plans that study the productivity of Grant  
13 Creek in terms of the wild fish that it produces  
14 annually, anadromous fish particularly, and how it  
15 contributes to the Kenai River water system?

16           JOHN MORSELL: Well, there are no plans  
17 currently to do that. That's comments you could  
18 suggest. We'll take that into consideration.

19           MARK LUTTRELL: Mark Luttrell from Seward.  
20 This may be a question for you, Brad. It's kind of a  
21 process question. I've got a copy of the  
22 pre-application document that I think you gave to the  
23 library here in town. And if I understand it, that's  
24 like a collection of what is known about various  
25 resources. And my concern is that you guys have created

1 a list of great research questions, questions anyway,  
2 but they're not in the pre-application document. So how  
3 will the questions that you've created and that the  
4 public tonight offers, how will those questions be made  
5 public? Where do they fall in the next step of the  
6 process?

7 BRAD ZUBECK: Sure. Jenna should have -- I  
8 stepped out of the room there -- the next step, but I'm  
9 happy to review them with you again. The next step in  
10 the process after taking comments would be to prepare  
11 draft study plans that should address the issues that  
12 we've identified and the issues that you would be  
13 raising over the next 60 days. Those draft study plans  
14 would then be issued for public review and for comments  
15 and then for -- take comments on those as well.

16 We also have the FERC-approved process with  
17 early scoping. So FERC would also be involved with  
18 identifying and kind of affirming or solidifying what  
19 the issues are through their scoping documents.

20 So once these have been reviewed -- there's a  
21 dispute resolution process in place as well. But we  
22 would then, after public comment, finalize plans; if  
23 needed, go through any dispute resolution process; and  
24 then we would have formal final study plans, if you  
25 will, to implement it. And that's a step that at this

1 time we're not ready to launch into. That would be the  
2 next step in the process. But we won't be entering into  
3 that next step until we secure enough funding to  
4 implement what those plans would be.

5 MARK LUTTRELL: Thank you.

6 BRAD ZUBECK: You bet.

7 DAVID PEARSON: David Pearson, Moose Pass. Do  
8 you plan to do studies considering DO on the lower  
9 section of the stream and how that will change with the  
10 intake versus natural falls? And a second part, which  
11 is a simple question. There is an acronym, AEINC.

12 JOHN MORSELL: AEIDC?

13 DAVID PEARSON: Yes. And who would that be?

14 JOHN MORSELL: Well, AEIDC is an organization  
15 that's no longer in existence. Arctic Environmental  
16 Information and Data Center, and they're now --

17 JENNA BOROVANSKY: It's a part of UAA.

18 JOHN MORSELL: Anyway, they acted sort of as  
19 consultants on some of those earlier studies.

20 DAVID PEARSON: And the first part was DO  
21 levels.

22 JOHN MORSELL: We're currently -- actually,  
23 the next part is going to be water resources, but we are  
24 currently measuring DOs in both the lake and the stream.  
25 And that will be part of the impact analysis, will there



1 be potential effects. I mean, my first inclination is  
2 that there won't be any affect on DO, but hopefully we  
3 can get some better information on our studies.

4 JJ KAIZER: Hi. JJ Kaiser again. At one  
5 point I have read that Grant Lake will have to be  
6 drained in order to aid construction.

7 BRAD ZUBECK: The lake, in order to allow  
8 construction of a -- an intake structure possibly or a  
9 dam itself, could be drained. You could also build  
10 copper dams. I mean, it's certainly -- I wouldn't state  
11 as a matter of fact that we'd have to drain the lake to  
12 build the structure. There are other engineering  
13 devices that you can use to keep from draining the lake,  
14 build copper dams and that kind of thing. But that's  
15 certainly within the realm of possibility. I wouldn't  
16 recommend it necessarily at this time, but it's one of  
17 those options that would exist.

18 Bob?

19 BOB BUTERA: I don't think I would use the  
20 word "drain". I would probably use the word "lower".  
21 Because you could aid the construction by lowering the  
22 lake somewhat.

23 JJ KAIZER: And that effect on the fish  
24 population?

25 BRAD ZUBECK: Well, if we were to propose that

1 as a construction method, we would have to determine  
2 what the impact would be. So that's probably worthy of  
3 a comment and we'll take -- so noted to consider impact  
4 of a construction method to lower the lake level and  
5 what influence that would have.

6 JOHN MORSELL: There would have to be a  
7 diversion to keep water in Grant Creek.

8 BRAD ZUBECK: Well, exactly. We would have to  
9 have some kind of a bypass that would allow and support  
10 fish populations in Grant Creek. We wouldn't drain it,  
11 cease flow. We would have to maintain flow in the  
12 creek.

13 Mr. Deacon?

14 JON DEACON: How much of the water in Grant  
15 Creek/Falls Creek in any of the areas that you'll be  
16 getting water from is glacially fed? How much of that  
17 accounts on glacial melting?

18 BRAD ZUBECK: You know, I can't answer that  
19 question.

20 JON DEACON: The reason I ask, obviously with  
21 a hydroelectric project you're looking at some span of  
22 life for it, whether it's 30 years, 40 years, whatever.  
23 With the glaciers lowering and the water being less and  
24 less as we know all over the place, has that yet been  
25 looked into that 10 years from now they could run out of

1 the glacial melt and therefore the water would no longer  
2 be available to run the project?

3 BRAD ZUBECK: I believe that the watershed  
4 area would collect rain or snowfall naturally. We have  
5 not studied whether or not these glaciers -- the glacial  
6 streams are receding, the glaciers are receding, so that  
7 it might be a significant problem, but we'll note that  
8 as a potential study topic.

9 MIKE COONEY: Mike Cooney, Moose Pass. I  
10 noticed that in the previous discussion there's plans  
11 that study the impacts of road construction and other  
12 infrastructures constructed on fisheries. But are there  
13 any plans to monitor or assess long-term fish habitat  
14 impacts as a result of that road? Because it's going to  
15 have to slope right into Grant Lake for about a mile or  
16 so. Potentially there could be some water quality  
17 issues associated with that, I would think.

18 JOHN MORSELL: That would be part of the  
19 environmental assessment done by FERC. I'm not sure  
20 whether that would require a separate study or not, but  
21 certainly that would be taken into consideration.

22 Yeah?

23 TOM BARNETT: Tom Barnett, Moose Pass. To  
24 kind of follow up on John's question a little bit real  
25 quick. To kind of rephrase that, then, is the volume

1 that you're anticipating to pull out of Falls Creek, are  
2 you then just basing that on annual snow and rainfall?

3 BRAD ZUBECK: I think we'll get to the  
4 hydrology data. And probably a better way to answer  
5 that is we have quite a history of hydrology  
6 information. Some from 1948 to '58, I believe it is.  
7 So we do have -- and the recent data we have  
8 collected -- some longer-term data to look at that would  
9 give us the sense that the watershed is reliable and the  
10 flows are reliable.

11 TOM BARNETT: But that's based on -- that's  
12 going to be based on -- the longer you -- the longer  
13 time period that you base that data on, that skews it in  
14 not a way that you really want it to skew. If you take  
15 a look at -- just look at the Exit Glacier and how far  
16 that's dropped back every year since -- you know, you  
17 say decades.

18 So you're actually going to want to look at  
19 the shorter term because that's going to tell you more  
20 realistically what volume you have available, especially  
21 when you take a look at -- if you've been around there  
22 long enough and have seen the recession of the glaciers  
23 in that area, then you -- you know, if you're going to  
24 be conservative, you base it on what you know you're  
25 going to get every year in terms of the snowfall and

1     rainfall as opposed to what's collected over centuries  
2     and you're slowly melting off or now more rapidly  
3     melting off.

4             I think you skew the data the wrong way if you  
5     use a longer time period.

6             BRAD ZUBECK: The comment is noted and we'll  
7     trust our engineers to make and use their best  
8     engineering judgment to design the project. But thank  
9     you for the comment.

10            JOHN MORSELL: I guess we'll move on to water  
11     resources and we'll talk a little bit about some of the  
12     things that these questions have brought up.

13            Looking specifically at hydrology, there's  
14     substantial existing information, although as the case  
15     with most Alaska projects, it's not long enough. We'd  
16     sure like to have more data.

17            What we have for Grant Creek is 11 years of  
18     continuous stream gauge data from 1947 to '58. And then  
19     for Falls Creek, the data aren't quite so good. There's  
20     only one summer's worth of continuous measurements and  
21     then there are a bunch of other instantaneous discharge  
22     measurements that have been made over the years. There  
23     was one feasibility study that was done by EBASCO in  
24     1987 that modeled a lot of this hydrological data and  
25     kind of put it all together.

1           And in addition to these older studies, HDR  
2   installed stream gauges in both Grant and Falls Creek in  
3   the spring of 2009, so that's out there collecting  
4   continuous data now.

5           As far as the general hydrologic  
6   characteristics of the Grant Lake watershed -- well, we  
7   don't have that map. Anyway, this relates to some of  
8   the quick questions that were just asked. This is a  
9   hydrograph, which gives the average flow over the course  
10   of the year for that 11-year continuous monitoring  
11   period.

12           And you can see that during breakup, flow  
13   increases very quickly due to snow melt and then  
14   gradually begins to taper off but stays high for quite a  
15   while during the summer because of glacial melt in the  
16   latter part of the summer and then it gradually declines  
17   through the fall and early winter except for some peaks  
18   where summer -- fall storms add large quantities or a  
19   sudden influx of water.

20           And then during the winter, the flow goes way  
21   down to something like 25 CFS. And most of that is what  
22   the hydrologists call base flow, which is the result of  
23   groundwater flowing into the stream, basically springs,  
24   keeping the stream going.

25           So the project proposes to use some of the

1 water from this upper part of the hydrograph.

2 Moving on to water quality. Some of the  
3 existing information. There have been various studies  
4 that have looked at water chemistry and temperature in  
5 the '60s and the '80s. There's quite a variety of  
6 information, both from Grant Lake and Grant Creek. And  
7 then HDR's ongoing study program has collected seasonal  
8 water chemistry and continuous temperatures in Grant  
9 Creek and Grant Lake at several stations.

10 As far as overall water quality  
11 characteristics, I mean, the water is pretty much  
12 typical of a cold Alaska drainage that has some glacial  
13 input. The nutrient levels are generally low indicating  
14 relatively low biological productivity. Turbidity  
15 varies with the season. It's moderately turbid in the  
16 summer, although Grant Lake tends to settle some of that  
17 turbidity out. And then in the winter and spring, the  
18 lake clears up somewhat and Grant Creek consequently  
19 becomes more clear.

20 And none of the studies of water chemistry  
21 have suggested that there's any water pollution or any  
22 other unusual conditions in these creeks.

23 As far as water resources issues, we need to  
24 look at the potential effects of the project, you know,  
25 on water quality and hydrology and water temperature.

1 And a lot of this information relates also to fisheries  
2 impacts as some of your questions have suggested.

3 We're also looking at the affects of the  
4 project construction and operation on water quality and  
5 hydrology downstream from Grant Creek, specifically on  
6 Lower Trail Lake and Trail Creek. And then how will the  
7 physical changes to Grant Creek or Falls creek affect  
8 fish resources.

9 The studies that are currently proposed, the  
10 hydrological studies, we're just going to continue the  
11 ongoing stream gauging in Lower Grant Creek and Falls  
12 Creek. The Grant Creek studies not only provide a  
13 baseline record of hydrology, but they also provide  
14 input to the proposed in-stream flow study, which  
15 requires discharge information.

16 As far as studies that are proposed for water  
17 quality, we're going to continue to collect water  
18 chemistry data in Grant Creek, Falls Creek, and Grant  
19 Lake, you know, to better define the baseline water  
20 quality conditions, continue to collect continuous water  
21 temperature data in Grant Creek and Falls Creek and  
22 Grant Lake to provide input to resource assessment  
23 models.

24 And that ends the water resources segment and  
25 we have time for a few questions.



1 Yes?

2 WILL BRENNAN: Will any of your studies --  
3 sorry -- Will Brennan. Will any of your studies look at  
4 the water quality on Vagt Lake or fish resources there,  
5 which at least looking at your map looks like there  
6 could be some potential erosion from a new road getting  
7 put in just above it?

8 JOHN MORSELL: We don't propose to look at  
9 Vagt Lake. And I guess it would be the road routing  
10 that would determine whether that would need to be done  
11 in the future.

12 BRAD ZUBECK: We'll make a note of it. I  
13 wouldn't expect that the road would influence Vagt Lake.  
14 And you may or may not be aware that most construction  
15 projects are designed to mitigate against erosion  
16 effects through storm water protection plans, best  
17 management practices, and such. So influences there  
18 would be temporary and we would seek to have some  
19 long-term stabilization graphs and that kind of thing to  
20 stabilize any erosion.

21 Sir?

22 TOM BARNETT: On the private property that is  
23 along that Falls Creek Road, any studies on the  
24 effective -- pulling the water off of Falls Creek, how  
25 much that will affect the water tables in there in terms

1 of the wells that will be affected?

2 BRAD ZUBECK: Groundwater influence, we will  
3 have to make a note. Drinking water -- folks getting  
4 their drinking water from Falls Creek.

5 TOM BARNETT: But its effect on the water  
6 table itself, because not everybody gets it directly  
7 from the creek itself, but you get it from the water  
8 table.

9 BRAD ZUBECK: We'll make a note of it.

10 TOM BARNETT: Because I noticed --

11 BRAD ZUBECK: That wasn't in the scope of our  
12 study plans right now, but we'll make a note.

13 TOM BARNETT: Will it be part of that or is it  
14 just -- I don't want to say it as -- having been through  
15 this on your end of it before, the stock answer is, we  
16 will look into it, thank you for your response, we will  
17 look into it. Are you saying it will be included or  
18 you're not making that commitment?

19 BRAD ZUBECK: Your comment tonight is being  
20 recorded. Transcriptions of this event will be supplied  
21 to FERC and your comment will be addressed. If it's  
22 not, we'll be remiss.

23 BOB ATKINSON: Yeah, Bob Atkinson again. This  
24 is probably pretty off the wall, but for the price of a  
25 pipeline running from Falls Creek to Grant Lake, what's

1 the drop from Grant Lake to the lower section? This  
2 really steep canyon where there's no fish anyway and  
3 it's almost impassible, there's no -- the cost of  
4 building a dam at the bottom of the section, damming up,  
5 making another reservoir down at that elevation and  
6 using that as a head of water, would that be just  
7 totally financially out of the question to actually  
8 build a dam there rather than running a pipeline across  
9 the side of the mountain?

10 BRAD ZUBECK: I'm not sure I understood your  
11 question correctly. As I was thinking while you were  
12 speaking, I was envisioning possibly a structure at the  
13 base of what we call reach five, the base of that canyon  
14 section, that would basically back water up from the  
15 bottom of that point basically up to the natural lake  
16 level, if you will.

17 BOB ATKINSON: Yeah. It's about a 100-foot  
18 deep canyon in there.

19 BRAD ZUBECK: The size and cost of that  
20 structure, I'm assuming, would be greater than the size  
21 and cost of the structure that we envision up by the  
22 natural lake outlet. My guess is --

23 BOB ATKINSON: Well, you could do both. I  
24 mean, that's the point.

25 BRAD ZUBECK: Pardon?

1 BOB ATKINSON: That's the point, you'd use  
2 both. You would use the natural fall from Grant Lake,  
3 but then you'd use whatever fall you could get from the  
4 reservoir that you get by damming it up.

5 BRAD ZUBECK: We'll note your comment. I'm  
6 trusting my engineers who brought me the best possible  
7 project. They may have considered that. I don't know  
8 for sure. But thanks for the question.

9 RACHEL SCHUBERT: Rachel Schubert from Moose  
10 Pass. I was just wondering if your water quality test  
11 includes heavy metal testing or for things such as  
12 arsenic, maybe residual stuff from mining?

13 JOHN MORSELL: I think the answer is yes. It  
14 definitely includes mercury. I don't recall whether  
15 arsenic was included or not.

16 AMANDA PREVEL-RAMOS: The earlier studies in  
17 the '80s did a battery of water quality constituents.

18 JOHN MORSELL: Yes?

19 JJ KAIZER: JJ Kaizer. Have any studies been  
20 done on the impact of the size of the road that will be  
21 necessary for the construction materials for the  
22 penstock to be built between Falls and Grant Creeks?

23 BRAD ZUBECK: The impact will be considered  
24 for the road that would be built.

25 JJ KAIZER: For those who live there as well

1 as the businesses that are close to there?

2 BRAD ZUBECK: So if I could rephrase your  
3 question in terms of a comment, you would like us to  
4 study the impact of the road from -- for the intake and  
5 pipeline from Falls Creek to Grant Creek on the local  
6 residents on --

7 JJ KAIZER: I'm sorry. The impact of the road  
8 that must be widened or improved to take the amount of  
9 traffic and construction materials from the Seward  
10 Highway up to the Falls Creek diversion. What kind of  
11 studies have been done on the impact of the private  
12 property owners there as well as the businesses there?

13 BRAD ZUBECK: We haven't done any studies to  
14 date, but we will take your question and comment. Thank  
15 you.

16 Yes?

17 TOM BARNETT: That particular road -- we're  
18 sort of off the water quality. Somehow we veered off of  
19 that. We're on another road, so to speak. But going  
20 down another path, are the power line tie-in -- is the  
21 power line tie-in route and at road access, are those  
22 virtually etched in stone or are they open to  
23 alternatives?

24 BRAD ZUBECK: They're not etched in stone. At  
25 this time this is a conceptual design, if you will. And

1 they will be modified based on the influence of the  
2 studies.

3 TOM BARNETT: Another question on that. The  
4 easements for those, for the road widening and the  
5 easements actually -- the road goes to a certain point.  
6 And the easements only go to a certain point in there  
7 and then the rest of the road up to the plant and then  
8 over to the -- up to Falls Creek and then all the way  
9 over, that easement and then the easement for the power  
10 line, have they already been approved?

11 BRAD ZUBECK: They have not been obtained yet.

12 TOM BARNETT: Do those have to go through a  
13 separate process with the Borough?

14 BRAD ZUBECK: It's state-owned land for most  
15 of the project facilities, so we would have to pursue  
16 acquisition through the state.

17 TOM BARNETT: I didn't realize it was all  
18 state.

19 BRAD ZUBECK: Yes?

20 PAUL SHADURA: Paul Shadura again. Being that  
21 this is under a five megawatt project and it's mostly on  
22 state land, when it comes to the Federal Powers Act, am  
23 I hearing that the federal oversight -- for instance,  
24 NMFS -- won't be involved in this process? Or am I  
25 misinformed?

1           BRAD ZUBECK: No. If you mean NEPA work,  
2     environmental assessment?

3           PAUL SHADURA: No. National Fishery Service,  
4     the way I understand, on the Federal Powers Act has the  
5     oversight on hydroelectric projects and diversion  
6     projects. But since there is an exemption -- the way  
7     I'm understanding it and I'm trying to understand --  
8     within 2008 that allows the State of Alaska to do that  
9     because it's mostly on state lands, is the state  
10    superceding the federal oversight from NMFS to do that?  
11    And what agency would that be?

12          BRAD ZUBECK: Mr. Prokosch?

13          GARY PROKOSCH: I can answer that. My name is  
14    Gary Prokosch. There was a federal bill and a state  
15    legislative bill that allowed the state to go into  
16    negotiations and come up with a plan to take over the  
17    licensing of projects less than five megawatts. It went  
18    through about a two-and-a-half-year process and then it  
19    was -- regulations done and then it went back to the --  
20    RCA was doing the study, the Regulatory Commission of  
21    Alaska, and it was put on a shelf. There's no  
22    regulations. There's nothing that's been passed.

23          FERC would in fact be in charge of this  
24    project. It would be a FERC-run project. The state  
25    would only do its normal permitting for habitat, water

1 rights, and that type of thing. But there is no  
2 federal -- there is no federal or state law right now in  
3 place that allows the state to license the project.

4 PAUL SHADURA: I've read that on NMFS web  
5 site, so I'm glad you answered that question. The other  
6 question came with the five megawatt picture. We have a  
7 4.5 megawatt producing facility. And as you alluded to,  
8 under five megawatts, was this plant --

9 GARY PROKOSCH: It was the plan, but it  
10 never saw the light.

11 PAUL SHADURA: So there's no significance  
12 about 4.5 to five megs --

13 GARY PROKOSCH: No.

14 PAUL SHADURA: -- in federal oversight limits?

15 GARY PROKOSCH: No. FERC has licensed  
16 projects in Alaska where they run power for a hatchery  
17 and for a cannery and provide full power for a small  
18 village with very, very little water, one or two cubic  
19 feet per second. So FERC can do that. And they -- but  
20 they've exempted larger projects in the State of Alaska,  
21 too, but this one was not exempt. It will go through  
22 the FERC process.

23 PAUL SHADURA: Thank you.

24 JOHN MORSELL: I might add that NMFS has  
25 participated in the -- we've had three working group



1 meetings to discuss in-stream flow issues, and they have  
2 attended all of them. So they have been very much  
3 involved in the technical aspects of the project so far.

4 SPEAKER: Has FERC been involved, a  
5 representative from --

6 BRAD ZUBECK: No, they have not.

7 SPEAKER: Do they have an Alaska office?

8 BRAD ZUBECK: No, they do not.

9 SPEAKER: And they're the lead agency?

10 BRAD ZUBECK: For licensing, yes.

11 SPEAKER: And also for NEPA scoping?

12 BRAD ZUBECK: I believe so, but I would be...  
13 Mr. Ferguson?

14 JIM FERGUSON: I'm Jim Ferguson with the  
15 Alaska Department of Fish & Game. I just thought I  
16 might provide another comment, given the gentleman's  
17 question back here, that National Marine Fisheries  
18 Service, Fish and Wildlife Service, and the Alaska  
19 Department of Fish & Game will all be involved with this  
20 process through the Federal Power Act and through our  
21 abilities to comment that are provided under the Federal  
22 Power Act. And all three agencies are involved.

23 Further, the U.S. Forest Service, because  
24 there's forest service lands involved in the project  
25 area, will have an additional authority to put mandatory

1 conditions on the license, which is something that in  
2 general -- there's always exceptions, but in general the  
3 other agencies cannot do. So just to let you know kind  
4 of how all that works.

5 And regarding FERC's involvement, if they  
6 conduct the scoping and they produce the scoping  
7 documents, they will actually lead the meetings when the  
8 scoping starts.

9 MIKE GLASER: My name is Mike Glaser from Mile  
10 20. When Grant Lake is considered as a standalone  
11 project, are they still anticipating using the Falls  
12 Creek Road for access or is another road access being  
13 considered if it's just for Grant Lake?

14 BRAD ZUBECK: I believe we would still use the  
15 Falls Creek Road for access to the Grant Lake site.

16 JOHN MORSELL: I guess we probably ought to  
17 move along. There will be more time for --

18 BRAD ZUBECK: Mr. Shadura had one more  
19 question. Let's get that and then we'll move on.

20 PAUL SHADURA: Just about the funding aspects.  
21 There's a lot of proposals, you know, for studies  
22 analysis, a lot of comments brought up here, the way the  
23 money stretches nowadays, the amount that we see on the  
24 table here seems kind of small for what I envision is a  
25 complete analysis for the whole project. That's just my

1 opinion. Are the companies involved in HEA looking for  
2 federal funding for a substantial portion of the final  
3 project or some more analysis, or is this totally a  
4 private enterprise or a public cooperative enterprise  
5 through HEA and CIRI?

6 BRAD ZUBECK: Well, I think --

7 PAUL SHADURA: I'm looking for the funding  
8 aspects. Is federal funding involved in this at all?

9 BRAD ZUBECK: At this time, no, there are no  
10 federal funds involved in the project.

11 Let's move on. There will be another  
12 opportunity -- actually, it's time for a break.

13 (Break.)

14 BRAD ZUBECK: Thanks for the questions so far.  
15 Just a quick reminder, the purpose of tonight is to try  
16 to identify issues that we might have missed. So if  
17 you -- some great comments, some great issues. But  
18 remember, just try and keep questions for the most part  
19 of the meeting to issues that we would require for  
20 study. Personal issues, those are all good ones, having  
21 to do with where you live and how the project might  
22 impact you are great questions and comments. Other  
23 questions that you might want to ask us, grab us at the  
24 break, grab us on the side, or we'll have time at the  
25 end. If we run out of issue-type questions, we'll be

1 glad to field other ones.

2 So with that, we'll start again. And thank  
3 you for your attention.

4 JOHN MORSELL: We're going to briefly talk  
5 about terrestrial resources. I'm standing in for my  
6 wife who is conveniently sick. So if I sound kind of  
7 stupid, that's why.

8 Well, we have the same array of existing  
9 information that we have had for most of the other  
10 studies, except that much less attention has been paid  
11 to terrestrial resources than to the fish resources.  
12 Because of perception, I think that the impact to  
13 terrestrial resources will probably not be as sensitive  
14 as the fish issues.

15 But some of the previous studies have done  
16 some real basic inventories of plants and wildlife.  
17 Plus, there's the various resource agencies, especially  
18 the Forest Service has been involved in classifying  
19 habitats and doing vegetation studies and so forth. All  
20 the existing information is summarized in the  
21 preliminary application document.

22 Just a real brief rundown on plant community.  
23 It's pretty much typical of what you would expect to  
24 find on the Kenai Peninsula. There's a mixture of  
25 coniferous, deciduous, and mixed forest, shrub lands,

1 grasslands, and tundra and various kinds of wetland  
2 habitats.

3 As you all know who live down here, the bark  
4 beetle has had a significant effect on a portion of the  
5 peninsula, including the Grant Lake Project area.

6 Some of the plant communities of special  
7 interest include forested areas with harvestable timber,  
8 some of the wetland and riparian communities, and  
9 special attention to rare or sensitive plant habitats.

10 And this -- actually, it might be a good idea  
11 to turn off the lights. This slide kind of provides a  
12 good overview of habitat or plant community types. If  
13 you use your imagination a little bit, this is Grant  
14 Lake up here with Grant Creek flowing down here into the  
15 narrows between Upper and Lower Trail Lakes. We  
16 obviously have alpine terrain on the mountain side,  
17 hillside alder shrub terrain at a little slightly lower  
18 elevation.

19 Most of the forest surrounding Grant Lake is  
20 coniferous, spruce and hemlock. And then as you drop in  
21 elevation somewhat, you get into the mixed spruce and  
22 birch forest. And then in lower Grant Creek there's a  
23 substantial stretch of pretty much deciduous forest,  
24 primarily cottonwoods and birch. And you can also see  
25 that there are wetlands, little bogs and various kinds

1 of wet communities scattered here and there.

2 As far as wildlife community studies, the 1980  
3 study did an inventory and estimated 108 bird species  
4 and 34 mammal species. Some of the habitats of  
5 particular interest include this area, which is actually  
6 the Grant Lake outlet. This is the beginning of Grant  
7 Creek right here. This outlet area is shallow.

8 It has emergent -- not emergent, but aquatic  
9 vegetation and a large part of it remains unfrozen  
10 during the winter. And the previous study found that  
11 there were a bunch of waterfowl that actually hung out  
12 here, primarily dabbling ducks, all winter. So this is  
13 considered sort of a project-specific area of some  
14 significance.

15 And these are just real general habitat maps.  
16 This is potential raptor nesting habitat, possible bald  
17 eagle nesting, possible cliff nesting raptors, golden  
18 eagles and falcons, and rough-legged hawks in some of  
19 the steeper terrain.

20 Waterbird nesting habitat is pretty much any  
21 place around Grant Lake where the elevation is -- the  
22 elevation change isn't too steep. So any place where  
23 there's a margin along the lake shore is a potential  
24 waterfowl nesting.

25 But another area of particular interest is

1     this delta at the head of Grant Lake where there's a  
2     substantial inlet stream, a good-sized delta. This  
3     whole area is considered to be potential waterfowl  
4     nesting habitat.

5             The same with brown bears. The purple areas  
6     delineate potential denning habitat. And the blue areas  
7     are primarily foraging habitat. And then you can see  
8     that this northeast ridge along the right part of Grant  
9     Lake is thought to be significant from both a denning  
10    and a foraging standpoint for brown bears.

11            Moose range. As you all know, moose are found  
12    pretty much wherever they can get to. So this outer  
13    line pretty much surrounds everything except the real  
14    steep terrain. But, again, we have some habitats of  
15    interest in this upper delta area where there's a  
16    designated high-value wintering area here and then an  
17    expanded wintering and summering area up in here.

18            Some of these terrestrial resources have  
19    special status due to the state or federal regulations.  
20    Fish and Wildlife Service has identified two sensitive  
21    plant species that might be present in the project area  
22    but no sensitive, rare, threatened, or endangered plants  
23    have actually been documented in the project area. No  
24    threatened or endangered animals occur in the project  
25    area.

1 Fish and Wildlife Service pays special  
2 interest to three management indicator species, the  
3 brown bear, moose, and mountain goat. And then there's  
4 a bunch of other species that are of interest, but less  
5 so. And the State also lists species of special  
6 concern, primarily bird species. And these lists of  
7 species can be found in the preliminary application  
8 document.

9 As far as issues related to terrestrial  
10 resources, we have potential effects on the wildlife  
11 from overall disturbance due to various kinds of  
12 construction and operation activities, such as aircraft  
13 operations, heavy equipment, blasting, all the kinds of  
14 things that you associate with the development of a  
15 project.

16 You also have the potential effects of  
17 increased water level fluctuation in Grant Lake,  
18 especially in relation to a bird nesting habitat, and  
19 the potential effects of changes in flow in Grant Creek  
20 and Falls Creek.

21 And you have possible construction effects due  
22 to new habitat elimination, effects on wildlife. If  
23 fisheries are affected, then some wildlife species may  
24 also be affected.

25 And then there's also the potential issue



1 associated with access roads and transmission lines as  
2 related to fish and wildlife -- to wildlife  
3 specifically.

4 The proposed studies as far as plants are  
5 concerned. Existing vegetation maps that are available  
6 for the area will be refined. There will be a timber  
7 stand survey that is suggested. Also proposed, a  
8 sensitive plant survey and an invasive plant survey.  
9 The Forest Service specifically requires some of these  
10 specific kinds of plant studies.

11 And wetlands will also be further delineated.  
12 There are existing wetland maps for the project area,  
13 but they're fairly large scale and they will have to be  
14 refined for the project.

15 Where wildlife is concerned, obviously we need  
16 to get a better handle on the distribution and abundance  
17 of the key wildlife species, you know, which involves  
18 documenting species' composition for birds and mammals.  
19 Also classifying and mapping wildlife habitat in the  
20 project area, which will occur in conjunction with the  
21 plant resources studies.

22 And another study has to do with conducting a  
23 bear denning survey, and especially brown bears, which  
24 have been a sensitive issue on the Kenai Peninsula in  
25 recent years.

1                   That's the end of the terrestrial resources  
2 segment. Any questions?

3                   Yes?

4                   DAVID PEARSON: David Pearson, Moose Pass.  
5 With the fluctuation 10 feet coming up, would that  
6 pretty much flood that eastern area where you do have it  
7 identified as high-valued moose habitat? I guess my  
8 question is: What's the change of elevation between the  
9 lake and that habitat?

10                  JOHN MORSELL: We don't know, but that is  
11 something that we definitely need to study and we will  
12 study. Obviously, we'll flood some of it, but I think  
13 the study program will probably allow us to delineate  
14 the boundaries of the flooded area.

15                  Yes?

16                  BILL DOWLEY: Bill Dowley, Crown Point. How  
17 is this road that goes from Falls Creek to Grant Lake  
18 going to affect public access? Is there going to be a  
19 public parking area at Grant Lake? Are we going to see  
20 boat access there? What type of public access is going  
21 to be available on this road?

22                  BRAD ZUBECK: Good questions. And that's  
23 where we would rely on public input to study the process  
24 to determine whether the public is interested in such a  
25 facility or not. So that will be one of the things that

1 we would like to quantify through study.

2 Is that something that you would be an  
3 advocate of? Would you like to see that?

4 BILL DOWLEY: I think it could go either way.  
5 It could either be a good thing or it could be a not so  
6 good thing. Would I like to have access to the area?  
7 Yes. Would I like everybody else to? Not necessarily.

8 BRAD ZUBECK: Sir?

9 TOM BARNETT: To follow-up on his question --  
10 Tom Barnett again. If you are going to do public  
11 access, then the more of that you promote -- by allowing  
12 public access, you promote more traffic on that  
13 particular road, which would definitely affect that  
14 subdivision, which kind of leads back to the question  
15 asked earlier: Is that road etched in stone?

16 BRAD ZUBECK: Again, a subject for a study.  
17 Couldn't tell you at this time.

18 TOM BARNETT: Any thought about moving it to  
19 the south side of Falls Creek, crossing Falls Creek,  
20 since it has such low volume with the culvert? Avoiding  
21 that particular subdivision, you allow for more public  
22 traffic if you want it without affecting the quality of  
23 life along that road where people do live now.

24 BRAD ZUBECK: So if I understand correctly,  
25 you would like not to have that residential street now

1 be an arterial street, kind of a major access, you would  
2 like it to be kept a side road and the main access along  
3 a different route?

4 TOM BARNETT: I guess what I want is to be  
5 kind of pragmatic about things to a certain degree. One  
6 is, you guys really desire to have that project. And  
7 I'm not going to tell you that I'm objecting to it,  
8 because I really don't, but I do see some things that  
9 could be detrimental to the lifestyle of the people that  
10 do live in that area. So the better way to look at it  
11 is a win-win. Move the road away from people that are  
12 affected, but it still allows for public access, if  
13 that's the goal.

14 Even for the construction side of things and  
15 the widening and even the traffic that still will be  
16 generated, it's still not a bad idea because it  
17 remains -- it keeps a relatively private community  
18 private with limited access. And the more public you  
19 make roads -- arterial, as you put it -- the more  
20 problems you get with that in terms of break-ins and  
21 those sort of things. But if you circumvent that and  
22 make it less attractive, it's a win-win.

23 Then the other side of that, too, is -- well,  
24 I guess it doesn't matter, the power lines going across  
25 that. The substation is on the south side of the creek,

1 too, that existing one.

2 BILL DOWLEY: Are you suggesting that the road  
3 follow the power line path approximately, the access  
4 road?

5 TOM BARNETT: No. I'm thinking going up the  
6 south side of Falls Creek, as opposed to the north side.

7 BILL DOWLEY: So the mining road?

8 TOM BARNETT: Yeah. There's a mining road on  
9 that side. Well --

10 BILL DOWLEY: Oh, I see.

11 TOM BARNETT: There's the mining road that's  
12 farther down at the -- oh, come on.

13 SPEAKER: Right south of Falls Creek.

14 TOM BARNETT: Just south of Falls Creek.

15 SPEAKER: By the old dump, the old Moose Pass  
16 dump.

17 BRAD ZUBECK: It's probably a good time for me  
18 to mention something that we intended to mention to you  
19 guys. As we put these study plans into place, we'll be  
20 forming technical work groups -- you might have heard  
21 that term earlier -- for different resource areas that  
22 we're talking about tonight.

23 And through the use of our web site, we'll  
24 have areas that you can select for areas of interest.  
25 One of those might be recreational access, which would

1 cover roads and road construction, that kind of thing.  
2 So you'll be able to indicate what your area of interest  
3 is, sign up for a specific user group or technical work  
4 group that can provide further comment and insight on  
5 certain elements that interest you.

6 And so as we put together these proposed study  
7 plans at some point in the future, we wouldn't seek to  
8 do all of these resource-specific comment meetings in an  
9 environment like this. We would like to break into  
10 smaller groups where people have a particular interest  
11 and share those comments. And folks that don't share  
12 those same interests don't have to, if you will, suffer  
13 through questions that they have no interest in.

14 So these user groups through the vehicle of  
15 the web site, you can sign up for and we'll be glad in  
16 the study phase to address these kind of issues.

17 And so I appreciate the questions and  
18 comments. And rather than get down to the weeds of  
19 actually designing the roads, which are great -- that's  
20 to come -- let's just address -- we need to study road  
21 alignments to make best use for public access and maybe  
22 to keep residential areas private with concern to maybe  
23 public access and vandalism, that kind of thing.

24 So those are all good comments. Keep those  
25 up. But, again, we'll have a forum for that in the

1 future in these study groups, the technical work groups.

2 JOHN MORSELL: As far as the access issues  
3 beyond private property, the state and the Forest  
4 Service are obviously going to be real interested and  
5 play a big part on exactly what happens on these roads,  
6 at the ends of these roads, and so forth.

7 PAUL SHADURA: Currently I don't think this is  
8 within the bounds of the Kenai River Special Management  
9 Area, but I think that there is some bills and some  
10 efforts to include portions of this area so parks would  
11 be involved when there is the public access situation.  
12 Are we analyzing that situation if that comes to play  
13 and what would happen if --

14 BRAD ZUBECK: We would have to consider that.

15 PAUL SHADURA: -- parks would be involved in  
16 this.

17 BRAD ZUBECK: Yes.

18 PAUL SHADURA: And I just noticed there was a  
19 blocked black kind of area in there. Is that to signify  
20 a different ownership or would that be the KRSMA area  
21 there? It's on your maps. It's kind of shaded.

22 BRAD ZUBECK: I don't believe we have a map of  
23 the Kenai River Special Management Area. But the maps  
24 that you're probably referring to are land use or land  
25 ownership. So I'm guessing that that was probably

1 Forest Service and state ownership of lands in the area  
2 as well as private ownership.

3 PAUL SHADURA: Thank you.

4 BRAD ZUBECK: Yep.

5 AMANDA PREVEL-RAMOS: As far as the Kenai  
6 River Special Management Area, I think that all  
7 tributaries to the Kenai River are a part of that, and  
8 so it does apply.

9 PAUL SHADURA: So they already have an  
10 overview of the Grant Creek situation?

11 PAM RUSSELL: We've been in -- me and Jack  
12 have been in --

13 THE REPORTER: I can't hear.

14 BRAD ZUBECK: Pam Russell with State Parks  
15 stating that she and Jack have been involved in the  
16 process.

17 We'll move on.

18 JENNA BOROVANSKY: Again, this is Sally's area  
19 of expertise. Although I do like to recreate, I haven't  
20 studied it.

21 And this is recreational and visual resources.  
22 It also covers -- it's kind of a -- this study area will  
23 also cover land use, and so it's kind of broader than  
24 just recreational and visual. It's land use and kind of  
25 the whole human interaction with the area and all the



1 parts of that.

2 And there is extensive existing information  
3 just like all the other areas. Not quite as much as  
4 fish and aquatics, again, but the Forest Service has  
5 done some surveys and recreation information.

6 The earlier AEIDC report, which I don't know  
7 that anybody has mentioned, is available on the web  
8 site. All of this 1980s information is all summarized  
9 in -- you know, if you print it out, it's that thick.  
10 If you look at it on the web, it's a lot of pages. But  
11 we have both those available on the web for download if  
12 you're interested in some of this historical information  
13 on any of the resource areas. And then a summary of the  
14 information is in the PAD.

15 So for recreational and visual, just kind of  
16 an overview of land use and land use designations in the  
17 area. The upper portion of the watershed around the  
18 lake is Forest Service, Forest Service ownership. It's  
19 all within a fish, wildlife, and recreation prescription  
20 until you get to the east end of Grant Lake, which is a  
21 backcountry prescription.

22 State lands are kind of the lower portion of  
23 the project area of the map coming up. And that  
24 includes the location of the majority of all the project  
25 facilities are going to be on State lands.

1           The Bureau has selected some lands between  
2   Grant Lake and Upper Trail Lake with use yet to be  
3   designated -- to be determined. And then there is some  
4   private property in the Moose Pass area along the shores  
5   of Upper and Lower Trail Lakes and as has been mentioned  
6   kind of along that Falls Creek Road.

7           This is the land ownership map. The green is  
8   Forest Service. The blue is State lands. And then this  
9   is -- there's our project facilities and there's Falls  
10   Creek. And then the little red spots, a lot of you  
11   probably know those. Those are the private lands.

12           So we're mostly dealing with state land and  
13   Forest Service prescriptions and management and  
14   interaction and management direction. So the studies  
15   will be looking at kind of existing resources in  
16   management prescription and then kind of predicting  
17   changes.

18           So identified trails in the area. The  
19   Iditarod Trail traverses the project area. There's  
20   several other trails that are either near or within the  
21   project area; the Grant Lake Trail, Falls Creek Road,  
22   Vagt Lake Trail, Crown Point Mine Road and Trail have  
23   all been identified already.

24           Access to the area. Generally, boat in the  
25   summer; snowmachine, cross-country skiing in the winter.

1     There's no developed trailheads or signs within the  
2     project area currently. Use level based on Forest  
3     Service work that's been done, it's characterized as  
4     light currently in the summer and the winter. That's  
5     relative to other areas in the Kenai River watershed.

6             A photo of one of the main trails in the area,  
7     the Falls Creek hiking trail.

8             Other recreational uses that are documented  
9     and we'll be looking at, hunting and fishing, mining.  
10    There are some active mine claims, particularly around  
11    Falls Lake and the lower part of -- Falls Creek and the  
12    lower part of Grant Lake.

13            Access on the Forest Service lands. Motorized  
14    travel is permitted in the winter until you get into the  
15    backcountry prescription. It is limited to helicopters  
16    only. So all that will be taken into consideration when  
17    we're looking at that.

18            Scenic designation by the Forest Service right  
19    now is considered moderate. And then in the backcountry  
20    prescription area it's high. And the scenic features  
21    have -- two scenic features within the project area have  
22    been described in Alaska DNR studies; the waterfall at  
23    the outlet of Grant Lake as well as the high mountain  
24    walls surrounding the lake and the east shore.

25            And then when we're looking at esthetics and

1 visual, the project area actually isn't visible from the  
2 Seward Highway or other easily accessible vantage points  
3 and trails. That's something that when we get into the  
4 study design we'll be looking at more.

5 Here's the cascade below the outlet of Grant  
6 Lake, to give you an idea of the esthetics we're looking  
7 at. And this is Grant Lake looking east into the  
8 backcountry prescription area.

9 So the issues that we're going to be looking  
10 at in regard -- that we've identified so far in regards  
11 to recreation and visual resources, again, we're going  
12 to look at the potential effects of the water level  
13 fluctuations in Grant Lake; the changes in flow in Grant  
14 Creek and Falls Creek on things like recreational  
15 access, perception, use; the potential effects of the  
16 actual construction of the project and the expansion of  
17 the roads; and then looking at the potential effects on  
18 recreation if the distribution of the fish change.

19 Again, recreational land use and visual is a  
20 lot of interaction between the different resource areas,  
21 and so there's a lot of pull from the information you  
22 get on the fish, and these things then affect recreation  
23 and vice versa.

24 And then also looking at the potential effects  
25 of construction and then the maintenance of those access

1 roads and transmission lines. And, again, as John  
2 mentioned, on the roads, in particular on state lands  
3 and Forest Service lands, their management direction and  
4 prescriptions are going to have a lot to say about how  
5 the roads are managed, considering that the purpose of  
6 having it in there is also to allow access for Kenai  
7 Hydro to the dam.

8 And then the studies that are planned will get  
9 at those effects and questions. We're looking at kind  
10 of taking another look at current recreational use. And  
11 then they use that data from regional trends as well as  
12 the potential project expansion and access and predict  
13 trends into the future if the project were constructed.  
14 The goal is to understand public use, perception, and  
15 the recreational opportunities in the area. And we'll  
16 be using U.S. Forest Service methods and designations to  
17 classify the studies' results.

18 And then we'll also look at the visual quality  
19 of the project area. And that usually involves kind of  
20 picking -- this is where the work group comes into play  
21 with the agencies and the public and people are  
22 interested. Usually you pick different key visual  
23 observation points and predict what the project --  
24 what it would -- well, you look at what it looks like  
25 now and then you predict what it will look like, whether

1     you'll see the project facilities. And then you look at  
2     public perception of the visual esthetic qualities in  
3     the area. And then you also look at land use in  
4     general.

5                     And then we're on to questions.

6                     JJ KAIZER: Bradley Lake is the name of the  
7     Homer Electric Project at Kachemak?

8                     BRAD ZUBECK: Actually, it's a state project  
9     that Homer Electric operates and maintains it for the  
10    Bradley Lake facility.

11                    JJ KAIZER: And if I were to be standing at  
12    the Russian village that is on the other end of that --  
13    the other side of that bay at night, what would I be  
14    looking at when I'm looking at the hydro project? Would  
15    I be seeing that at night?

16                    BRAD ZUBECK: You're asking about the Bradley  
17    Project or are you asking about the Grant Creek --

18                    JJ KAIZER: The Bradley Project.

19                    BRAD ZUBECK: I would simply be guessing, but  
20    the powerhouse may be visible from Homer, say, or the  
21    north side of the bay.

22                    JJ KAIZER: So it's well lit?

23                    BRAD ZUBECK: You know, I really can't speak  
24    to that. I don't know. I'm sure there are some lights  
25    for security and operations. I'm not sure. I haven't

1     tried to -- it's not really germane tonight. I'm not  
2     prepared to answer that question.

3                 JJ KAIZER: And what would I be hearing at  
4     that Russian village?

5                 JOHN MORSELL: You wouldn't hear anything.

6                 JJ KAIZER: You wouldn't hear anything?

7                 JOHN MORSELL: No.

8                 JJ KAIZER: Okay. All right. So when we say  
9     "visual effects", are we thinking of daylight visual  
10    effects or are we also looking at how it's going to  
11    affect the look of that community at night?

12                BRAD ZUBECK: We can certainly take that into  
13    consideration for visual and esthetic impacts to  
14    consider what the project would look at night; night  
15    pollution, can you see the stars, that kind of thing.

16                JJ KAIZER: It's not an off-handed question  
17    because there are a number of businesses in that  
18    community that are based on the pristine quality of the  
19    area, period.

20                BRAD ZUBECK: Okay.

21                JJ KAIZER: And if we have not considered that  
22    as a major issue of this project, we have not considered  
23    the people who are going to be impacted by this project.

24                BRAD ZUBECK: I agree. And that's why visual  
25    and esthetic resources is a resource that's identified

1 for studying an impact.

2 JJ KAIZER: And how many of those businesses  
3 will not exist after such a thing is built?

4 JENNA BOROVANSKY: A part of a standard  
5 environmental impact statement is also a  
6 socioeconomic impact.

7 JJ KAIZER: You know, I'm sorry to say, dear,  
8 I haven't seen a lot of that happening right now. I  
9 don't see it up there. Maybe I'm missing something.

10 JENNA BOROVANSKY: Well, we can put it here.  
11 It will be considered in the analysis.

12 BRAD ZUBECK: Valid question. And that's the  
13 purpose of the meeting tonight is to take exactly those  
14 comments.

15 Sir?

16 TOM BARNETT: The transmission line, as you  
17 have it shown there; aboveground, buried?

18 BRAD ZUBECK: Right now it would be an  
19 overhead power line, yes.

20 TOM BARNETT: What's the size of the easement  
21 and what are the size of the poles?

22 BRAD ZUBECK: Typical easement would be maybe  
23 60 feet, 100 feet on the outside, I would guess.

24 Pole heights -- Mr. Don Smith? 60-foot? Do  
25 you have a wild guess at what the pole height might be?



1 DON SMITH: What voltage are we talking?

2 BRAD ZUBECK: Let's say it would be conducted  
3 at -- well, 69 or 115. Conducted at 115.

4 DON SMITH: Then, yeah, probably a 60-foot  
5 pole height.

6 TOM BARNETT: Wood; steel?

7 BRAD ZUBECK: Most likely wood.

8 TOM BARNETT: And that's part of the project,  
9 so that is a visible -- that will be visible?

10 BRAD ZUBECK: Potentially visible from a boat,  
11 for instance, if you were on the lake. Maybe not so  
12 visible from the Seward Highway if you're in your  
13 vehicle. But, again, that would be an element of the  
14 visual --

15 TOM BARNETT: Well, you're running a straight  
16 line right across the Seward Highway, according to that  
17 tie-in. So you'd be driving along and you'd look right  
18 down it.

19 BRAD ZUBECK: Again, it's drawn that way. I'm  
20 fairly certain it probably wouldn't be constructed that  
21 way. The visual studies will address the alignment.

22 JENNA BOROVANSKY: I think on that one we even  
23 went so far in the pre-application document to state  
24 that that will be adjusted.

25 We're just in the steps of -- we're

1 identifying all the things to be studied now and then  
2 the pre-application document has the existing  
3 information. And then once we get the studies, then you  
4 start to look at essentially tweaking the designs to  
5 respond to the studies both in operation of the dam and  
6 the esthetics. And then you develop and you finalize  
7 the -- well, you draft and finalize this application.  
8 In conjunction with agencies and the public you develop  
9 what are called protection, mitigation, and enhancement  
10 measures. It's to protect the resources, mitigate for  
11 any impacts, and enhance resources that are already  
12 there.

13 And that's the thing that I'm hearing people  
14 have noticed is missing from the pre-application  
15 document because we're so early. You know, we're out  
16 there with the existing information, we get the input,  
17 and then together we develop.

18 TOM BARNETT: So you're saying this question  
19 has sort of already been addressed a little bit?

20 JENNA BOROVANSKY: We're saying it's already  
21 been identified to be addressed, but nobody has the  
22 answer of exactly how it will look because it will be  
23 figured out.

24 MARK LUTTRELL: I wanted to make one  
25 clarification about --

1 BRAD ZUBECK: Mr. Luttrell.

2 MARK LUTTRELL: -- the visuals from the Seward  
3 Highway, for example, at the -- where the current bridge  
4 is that's being repaired at the very south end of the  
5 Lower Trail, at the Vagt trailhead, there's that poplar  
6 shoreline there. From there you can see the whole  
7 industrial nature of the road and the powerhouse and the  
8 transmission line.

9 And, also, a component that I think you would  
10 be able to see, and it hasn't been discussed yet, is the  
11 surge tank, which I understand is sort of like a  
12 hydraulic safety valve. But in the pre-application  
13 document it's listed as something that would be 110 feet  
14 tall, which would be visible.

15 BRAD ZUBECK: That's another placeholder in  
16 the document. Maybe I'll let Bob speak to that in terms  
17 of options.

18 BOB BUTERA: Basically what that's there for  
19 is to absorb transient pressures in the penstock. And  
20 it has to be at least as tall as the lake elevation when  
21 the water comes in. So we put that in as a placeholder,  
22 but there are other ways to do it. It can be done with  
23 valves. It can be done by doing a vertical shaft inside  
24 the tunnel. There's other ways. It's a good comment.

25 DAVID PEARSON: David Pearson, Moose Pass.

1 This might be a moot point because of the amount of  
2 water you're moving, but you haven't addressed Lower  
3 Trail Lake and it's effect on ice, say, if people use  
4 that as a fairway for snowmachines in the winter and  
5 cross-country skiing. And I assume you're pulling the  
6 most water in the winter because that's when your demand  
7 is, so you're going to be putting -- is that going to  
8 change the safety on ice on Lower Trail Lake?

9 JENNA BOROVANSKY: That's a good comment.

10 DAVID PEARSON: I mean, the narrows are kind  
11 of sketchy to begin with. Is that going to extend that  
12 to Lower Trail Lake? You just had nothing about Lower  
13 Trail Lake. And that's probably where a lot of  
14 recreation happens as well.

15 JASON AIGELDINGER: Jason Aigeldinger, Mile 24  
16 and a half. I was looking at your map there on the --  
17 it would be the northeast corner of Lower Trail Lake  
18 where there's that private parcel in red there. Those  
19 folks do access their property in the winter via  
20 snowmachine, in the summer via boat. Can you give us an  
21 answer as to how -- you know, how Dave's talking about  
22 how is this going to jeopardize the safety of using the  
23 ice in that area in the winter months. Are those folks  
24 going to be able to get access to their property via  
25 your road when and where it's put in? Will they have

1 access to their property?

2 BRAD ZUBECK: Access for the project features  
3 would be only up to the lake and to the powerhouse, for  
4 instance. We're not proposing a road down to the mouth  
5 of the creek. And so access would be -- as you would --  
6 as they normally get access now, by snowmachine or by  
7 boat. And a study, as this gentleman has brought here,  
8 might look at ice safety or safety on that lake and how  
9 increased flows in the winters might reduce ice  
10 thickness or safety in the area. But aside from that,  
11 I'm not sure how we could answer the question tonight on  
12 how they might access their property.

13 JASON AIGELDINGER: Will they be able to  
14 benefit from the power generated by the creek next to  
15 their property?

16 BRAD ZUBECK: In a general sense potentially,  
17 but they're not in this particular area. The customers  
18 are of Homer Electric. The project might provide some  
19 ancillary benefit to reducing transmission line losses  
20 on the way due -- from other generation facilities, say,  
21 but those aren't probably things that you're going to  
22 perceive or realize -- recognize as benefits.

23 JASON AIGELDINGER: So right now they use a  
24 generator for power and they're going to have 60-foot  
25 power lines in their backyard. Will they get a little

1 taste?

2 BRAD ZUBECK: At this time I couldn't possibly  
3 tell you, but if they wanted to get involved in a group.  
4 I don't know if there would be a way to provide service  
5 to them. So a question might be, could the project  
6 bring residential service to residents or cabins in the  
7 area? We'll take that as a comment.

8 DAVID PEARSON: David Pearson, Moose Pass.  
9 Falls Creek Road, 12 residents, two with power, you're  
10 putting a road through it. We're not living there for  
11 the power. You're kind of taking what we live there  
12 for, so we don't see any of the benefits. That would be  
13 another question. Do those residents also get the  
14 kickback, say, power to their houses?

15 SPEAKER: What if those residents are fine  
16 without power?

17 BRAD ZUBECK: So the question, I think, kind  
18 of stands, and it falls all in the same category: Could  
19 residents of the area potentially benefit from  
20 residential service from the project?

21 DAVID PEARSON: Yes.

22 BRAD ZUBECK: Talk to me afterwards about  
23 that.

24 ADRIENNE MORETTI: Adrienne Moretti. And also  
25 continuing that out to not just the people that live on

1     that road but all the people of Moose Pass. The people  
2     who live there, what are the benefits, I think is a good  
3     question to ask here.

4                 BRAD ZUBECK: So as Jenna alluded to, there's  
5     a socioeconomic impact assessment, or study, as an  
6     element of the study program. So we would attempt to  
7     quantify what the benefit to the community might be. At  
8     this time I would only be speculating at what that could  
9     be. I don't know. Economic impact, increased activity,  
10    bringing dollars to the community, that kind of thing.

11                TOM BARNETT: Decreased property values.

12                BRAD ZUBECK: Again, a subject for a study.  
13    Pros and cons, a socioeconomic study.

14                Sir?

15                BILL DOWLEY: Bill Dowley, Crown Point. To  
16    kind of expand on that, I think that what she's getting  
17    at, and I'd like to know, too, if when the landslides  
18    take out the power at Mile 20-odd, are we going to still  
19    have power in our area?

20                BRAD ZUBECK: Good question. Obviously, if  
21    you had an avalanche on one side or the other where your  
22    power -- do you currently get power from Chugach?

23                BILL DOWLEY: I'm at Mile 23. So if there's  
24    an avalanche at Mile 20-something below me, our power  
25    goes out. Since this is upstream from us and we're tied

1     into the grid, will this give us the ability to maintain  
2     power even though it's out below us, south of us?

3                 BRAD ZUBECK:   If an avalanche separates you  
4     from your generation source, wherever that might be,  
5     you'll be out of power.   If you are nearer to the  
6     generation source than the avalanche obstruction, you'll  
7     have power, is the best way to answer that.

8                 JJ KAIZER:   Where is this 4.5 megawatts going?  
9     It's going into the grid?

10                BRAD ZUBECK:   It will be going onto the grid.  
11    And again -- yes, going onto the grid.

12                JJ KAIZER:   And does that go to Anchorage and  
13    Homer?

14                BRAD ZUBECK:   It goes to the grid.

15                JJ KAIZER:   Right.

16                BRAD ZUBECK:   And on paper it would be owned  
17    by Homer Electric.   In the electron world, the entire  
18    rail belt grid benefits from the generation in that  
19    location.

20                JJ KAIZER:   And can you tell us at this point  
21    what hydro projects are being planned for the peninsula  
22    closer to those two main towns?

23                BRAD ZUBECK:   The only thing I can speak to  
24    are Homer Electric's plans.   And I mentioned earlier in  
25    the presentation, at this time, we have no other plans



1 for a hydroelectric facility. This is the only project  
2 at this time we're concerned with.

3 Sir?

4 WILL BRENNAN: I have a question about how you  
5 go about trying to quantify visuals or esthetics. I  
6 mean, personally, my favorite view in Moose Pass is when  
7 you go up the trail, you take that left down to the  
8 lake. I don't know if you've been up there, but it's  
9 beautiful. It's a massive lake that you have to walk  
10 to. And it's for us. It's for the people of Moose Pass  
11 because there's no trailhead, you have to cross a lake,  
12 and you have to know how to cross that lake.

13 I mean, how do you quantify my love for that  
14 spot versus your need for power? I mean, yours is  
15 quantifiable. Mine, it's all qualitative and I love it,  
16 but how do you put that in a chart?

17 BRAD ZUBECK: I personally can't tell you how  
18 that happens, but there are folks that --

19 WILL BRENNAN: You're doing the studies. How  
20 are they being conducted, is all I want to know?

21 BRAD ZUBECK: I couldn't tell you exactly how,  
22 but I would encourage you to participate in the work  
23 group that we'll be conducting that will be involved  
24 with the visual and esthetic resource studies so that  
25 you will have your influence on that study. That's the

1 best I can do for you tonight.

2 JENNA BOROVANSKY: And, sorry, this is  
3 something that Sally knows a little bit more about the  
4 methods that are used in the group. I mean, that's one  
5 benefit of the group, you chose areas that you're going  
6 to look at that are potentially visible.

7 And in other projects what I've seen done is  
8 you look at photos. You take a photo from a viewpoint  
9 and then for a project that doesn't exist yet, you would  
10 put renderings and show whether it was visible or not  
11 and then you kind of look at it. I can't really --  
12 that's where the study plan development with somebody  
13 whose expertise is in this, they work with you to try  
14 and assess the potential change from what there is now  
15 to what there would be with the project.

16 BRAD ZUBECK: Sir?

17 TOM BARNETT: Any 3-D modeling in the works?

18 BRAD ZUBECK: Can you identify yourself,  
19 please?

20 TOM BARNETT: Tom Barnett. Any 3-D modeling  
21 in the works for that? Because some of the specific  
22 areas that were mentioned before, the Vagt Lake  
23 trailhead, spots that Will was talking about, and then  
24 the other spots, I mean, you could truly benefit from  
25 that. But what I'm kind of hearing is that it's not on

1 the agenda; it's more on the rendering side of things.

2 Well, I guess you could render in 3-D.

3 JENNA BOROVSANSKY: A 3-D rendering is my  
4 understanding.

5 TOM BARNETT: Is that part of it?

6 BRAD ZUBECK: You know, I think that's a  
7 little in more detail than I think we're going to be  
8 able to legitimately speak to tonight. But, again, if  
9 you would direct questions to comments. I think we  
10 should -- I think there would be a need for a 3-D model  
11 when you study visual and esthetic resources. So just  
12 frame it that way and we'll take and make note of that  
13 comment.

14 TOM BARNETT: I think you just framed it for  
15 me. Thank you.

16 BRAD ZUBECK: They're good questions we'll  
17 just try and form into comments that will help us shape  
18 studies.

19 Sir?

20 JASON AIGELDINGER: Jason Aigeldinger, again,  
21 from Moose Pass. We spoke in January and I asked a  
22 question about funding as well as a ballpark figure as  
23 to how much it's going to cost. Now I completely  
24 understand this is early, early stages of the game. Do  
25 you have any numbers for us?

1           BRAD ZUBECK: I don't have any numbers to  
2     share with you tonight. But suffice it to say, we will  
3     be looking at the economics. And as I alluded to  
4     tonight, we're taking forecasting costs of studies. And  
5     that's all rolled into the economic considerations of  
6     the project. And at this time we've told you that we  
7     perceive a need for additional funding to actually  
8     implement these studies on the front end, but we won't  
9     address economics or funding tonight.

10           JASON AIGELDINGER: May I ask one other  
11    question?

12           BRAD ZUBECK: Sure.

13           JASON AIGELDINGER: I understand that CIRI is  
14    no longer funding with you guys for this project. Is  
15    that correct?

16           BRAD ZUBECK: CIRI has expressed a desire to  
17    withdraw from the Kenai Hydro partnership and so we will  
18    work with them to bring that about.

19           JASON AIGELDINGER: Now, are you currently  
20    courting any other foundations, corporations, entities  
21    right now?

22           BRAD ZUBECK: I can't speak to that tonight,  
23    but I appreciate the question.

24           JASON AIGELDINGER: When do you think you can  
25    speak on that?

1           BRAD ZUBECK: When a decision is made to do  
2 something and then the entity of Kenai Hydro is ready to  
3 make that public.

4           JASON AIGELDINGER: And then one final  
5 question, Brad. Can you just -- well, I don't know if  
6 you can answer this. So for a similar-sized facility,  
7 say, somewhere else in the country, what would be a cost  
8 for the construction, the implementation and the  
9 construction?

10          BRAD ZUBECK: I'm not prepared to tell you  
11 what other facilities cost in other areas of the United  
12 States for a similar-type project.

13          JASON AIGELDINGER: Thank you.

14          BRAD ZUBECK: Other questions or are we ready  
15 to move on?

16          JENNA BOROVANSKY: Cultural resources. For  
17 cultural we have 13 previous surveys that have been done  
18 in the area. The general project area, so -- and  
19 they're on record with the State Historic Preservation  
20 Office. Some of that information is summarized in the  
21 PAD.

22               The Kenai Peninsula has been occupied  
23 prehistorically and historically by Native groups.  
24 There's a lot of historic mining, logging, and  
25 settlement within the project area, and that's all of

1 the recorded sites. There's nine historic properties.  
2 They're all of the historic era.

3 We haven't -- there's no prehistoric  
4 archaeological sites on record within the project area.  
5 And one of the historic sites has been determined  
6 eligible already for the National Register of Historic  
7 Places. And that's the Solars Sawmill on Grant Lake at  
8 the head of Grant Creek.

9 And then right into the issue that we'll be  
10 studying with the cultural resources study.  
11 Essentially, it's looking at whether construction,  
12 project operations, lake level fluctuation, road access,  
13 maintenance, and the change in flows has any impact on  
14 cultural -- either already identified cultural sites or  
15 cultural sites that are identified during surveys of the  
16 project area, because the whole area will be resurveyed.

17 So in addition to FERC requirements, the  
18 National Historic Preservation Act has specific  
19 requirements that are also met through the consultation  
20 process on cultural resources. And that involves making  
21 sure that we consult with tribal entities as well as the  
22 land management agencies, their archaeological  
23 professionals.

24 And they consult in determining the full  
25 survey area, which is called the Area of Potential

1 Effect for cultural resources. And then work -- they'll  
2 work with the contractors as it's being developed to  
3 determine the effects of any project activities on those  
4 resources and go through whether any further  
5 investigations to bring it -- to determine whether any  
6 of the identified sites are eligible for the National  
7 Register of Historic Places as well.

8 And then once that determination is made,  
9 again, look to see whether any of the project activities  
10 are going to impact that.

11 And part of the cultural resources study will  
12 also be looking at subsistence use in the area and  
13 whether any project -- there will be any project effect  
14 on that activity.

15 So that's it for cultural resources right now.  
16 It's a little bit more detailed processed. It usually  
17 takes a little bit longer, especially in identifying  
18 some of the -- if there's any tribal -- traditional  
19 cultural properties. That's an individual consultation  
20 that's kept -- it's called privileged information in the  
21 FERC process. And only the entities who have identified  
22 it know where it is. And that kind of goes through its  
23 own little process.

24 So as you're going through, occasionally, the  
25 cultural people will kind of just come back in and tell

1     you whether something was moved. But the whole idea is  
2     if a prehistoric site in particular is identified, you  
3     don't want the project activities and the identification  
4     of that to bring about more people knowing about the  
5     site and potentially damaging the site. So it's handled  
6     in a little bit paralleled process along with the  
7     public process.

8                 BRAD ZUBECK: Question on cultural?  
9                 Mr. Luttrell?

10                MARK LUTTRELL: Yeah, Mark Luttrell. I  
11     noticed on your slide it indicated that Solars Sawmill  
12     is eligible for the register. Did you mean the Case  
13     Mine?

14                JENNA BOROVANSKY: I don't know. You know,  
15     again, this is not my area of expertise. I think there  
16     is -- there were a couple of the cultural sites that are  
17     identified that I think when HDR was looking at it said  
18     there might be -- it might have two names, but I don't  
19     know.

20                MARK LUTTRELL: The Case Mine has received a  
21     lot of attention from the cultural types whereas Solars  
22     Sawmill hasn't.

23                JENNA BOROVANSKY: I know that in the list of  
24     the surveys that are on file I've seen Case Mine  
25     mentioned as well. So I would imagine when they put the



1 slides together, that's the one that had the  
2 determination.

3 MARK LUTTRELL: And here's more of a comment  
4 than a question -- sorry, Brad. Like you alluded to --  
5 well, I should just jump ahead.

6 Cultural resources are finite. And all the  
7 cultural resources that exist and are known for historic  
8 sites on Grant Lake are on or very near the shoreline.  
9 And any rise of the lake water is going to affect them.  
10 Ten feet is extremely significant in terms of what it  
11 would damage, because there are intact cultural deposits  
12 associated with those sites.

13 And while, you know, moose and alders and so  
14 forth can be mitigated; cultural resources can't. So  
15 one of the costs of this entire project that is finite  
16 is the loss of irreplaceable cultural material. And you  
17 can't put a price tag on it; you can't necessarily  
18 mitigate it. All you can do is excavate it. And  
19 there's nothing harder on an archaeological site than an  
20 archaeologist.

21 JENNA BOROVANSKY: That's definitely something  
22 that they look at. I think you know that, too. I mean,  
23 when you look at the potential effects, then what do you  
24 do to protect it or mitigate further potential impacts.

25 MARK LUTTRELL: Right. I'm just saying that

1       there isn't anything you can do.

2                   And, also, those 13 studies, those were -- it  
3       makes it sound like the area has been combed, but those  
4       were mainly in association with some prescribed burning  
5       by the Forest Service.

6                   JENNA BOROVANSKY: They were pretty site  
7       specific. The area will need to be combed, the  
8       identified project area.

9                   TOM BARNETT: When and who is doing that for  
10      you?

11                  BRAD ZUBECK: Mr. Barnett; correct?

12                  TOM BARNETT: Yes.

13                  JENNA BOROVANSKY: You said when --

14                  TOM BARNETT: When will those studies be --  
15      when will that cultural and archaeological survey be  
16      performed? And then who is contracted to do that?

17                  BRAD ZUBECK: Yet to be determined. The  
18      proposed study plan would be advanced along with the  
19      other study plans in accordance with the schedule that  
20      we've kind of outlined tonight. Again, it's a tentative  
21      schedule. And there would be a work group associated  
22      with that that would be focused on that area. But  
23      that's yet to be determined.

24                  Mr. Brennan?

25                  WILL BRENNAN: Will Brennan. I have a

1 question about the -- I guess the user groups. I guess  
2 I'm less interested in prehistorical and historical  
3 cultural resources and more interested in current  
4 cultural resources, way of life issues. Which user  
5 group do I want to get on for that?

6 JENNA BOROVANSKY: It is likely the  
7 recreation, land use, esthetics, socioeconomics bundle  
8 of groups. Those are generally all discussed kind of  
9 within the same group. Because the cultural resources  
10 is pretty specific to the historic or prehistoric  
11 resources.

12 But we'll make sure that when we're forming  
13 the groups, we're very clear about which groups are  
14 handling which study topics.

15 WILL BRENNAN: Just make sure to take care of  
16 that topic as well, way of life.

17 JJ KAIZER: There have been a lot of very  
18 important issues and comments that have been made this  
19 evening. Can you give us a heads up as to the date that  
20 you will be coming to the community that will be most  
21 impacted by this project; that is, Moose Pass?

22 BRAD ZUBECK: With?

23 TOM BARNETT: A meeting.

24 JJ KAIZER: This kind of a meeting, this kind  
25 of informational meeting.

1           BRAD ZUBECK: Well, the purpose of the meeting  
2 tonight and the location was to try to serve the Moose  
3 Pass community to provide a venue closer to that area.

4           Again, when we form specific resource groups,  
5 there should be ample opportunity for individuals from  
6 that area to be involved in those groups. Sites --

7           JJ KAIZER: We would like to invite you to  
8 Moose Pass. We have a very large gymnasium at the high  
9 school. We have anything that you would require so that  
10 people there who work so hard every day and can't come  
11 down here as far as a 50-mile drive after a long day of  
12 work but do need to be involved in this process, we  
13 would like to invite you there.

14           BRAD ZUBECK: We appreciate the invitation.  
15 We did look into holding the meeting at Moose Pass. We  
16 looked into the community center. But based on our  
17 experience there in January and the anticipated size of  
18 the crowd, we thought we needed a little larger venue.

19           JJ KAIZER: That's why the gymnasium is being  
20 offered to you.

21           BRAD ZUBECK: We looked into the Moose Pass  
22 Community School and they turned us down for this  
23 evening. They said they had a PTA meeting and that the  
24 school was unavailable to us.

25           JJ KAIZER: We would be happy to change the

1 calendar for whatever date that you would wish.

2 BRAD ZUBECK: It didn't escape our attention  
3 and we did look into Moose Pass as a first alternative.  
4 Because of other constraints for folks that would be  
5 attending tonight, we couldn't deviate from the date,  
6 today's date, but we did our best to try to serve the  
7 Moose Pass community and the residents on this side of  
8 the peninsula.

9 JJ KAIZER: Our only concern is the  
10 dissemination of all of this important information. It  
11 will be haphazard from now on. If there were a way for  
12 you to come to the community to pull all of these  
13 important pieces of information together, we would very  
14 much agree and do anything that we can do for you to  
15 help in the process.

16 BRAD ZUBECK: Thanks for the comment and the  
17 invitation. And we will endeavor to hold a meeting  
18 there and bring the information to the community.

19 JJ KAIZER: Thank you.

20 BRAD ZUBECK: Any other questions?

21 Mr. Shadura?

22 PAUL SHADURA: This is probably off the  
23 historical deal. Is it open for any questions at this  
24 point?

25 BRAD ZUBECK: We're probably ready to move on

1 to wrap up and open it up for general questions. Sure.

2 PAUL SHADURA: As the executive director of  
3 Kenai Peninsula Fishermen's Association, I've looked  
4 over your presentation and I see there is some studies  
5 that are pointed towards the effects of recreation and  
6 subsistence but not directly to commercial fishing.

7 In that regards, I would see that the study  
8 would also incorporate what some of the other agencies  
9 have overview. You know, the Sustainable Salmon  
10 Fisheries Policy for the State of Alaska, the Cook Inlet  
11 Salmon Management Plan. In the federal arena, the  
12 Essential Fish Habitat, the Magnuson-Stevens Act, 10  
13 National Standards. All those things are very important  
14 to us as commercial fishermen. That is why I'm here.

15 So I would appreciate if you will consider  
16 doing an analysis to see what kind of effects there  
17 would be on the commercial fishing in and around the  
18 Moose Pass area.

19 BRAD ZUBECK: Thank you for the comment.

20 Mr. Cooney?

21 MIKE COONEY: Mike Cooney, Moose Pass. A  
22 couple questions. I was just reminded in the cultural  
23 discussion about the privileged information related to  
24 cultural sites. I wondered if there was any chance that  
25 the brown bear den sites, if they are -- any identified.

1 Are those going to be privileged information or is that  
2 going to be disseminated to the public?

3 JENNA BOROVANSKY: Typically -- I don't know  
4 what has happened here. Sometimes the resource agencies  
5 like the Fish and Wildlife Service or the Forest Service  
6 or if ADF&G could ask that that type of information -- I  
7 know I've seen eagle nest sites kept as privileged  
8 before in certain areas. It's on, I think, a  
9 case-by-case basis.

10 Do you know anything more specific about the  
11 brown bear?

12 JOHN MORSELL: I think brown bear denning  
13 areas generally are not released to the public.

14 MIKE COONEY: And another question -- I guess  
15 a comment and a question. It seems like tonight there's  
16 been a lot of people talking about effects to the local  
17 community and the project area residents and the social  
18 standpoint from the economic standpoint. And I notice  
19 that it's not here on the agenda, but there has been  
20 some discussion about socioeconomic impacts being  
21 assessed. Is Kenai Hydro committed to performing those  
22 studies, or is that something that FERC is going to do  
23 on its own?

24 BRAD ZUBECK: I think that that's a resource,  
25 the socioeconomic impact, that would be part of the

1 studies that we're proposing.

2 MIKE COONEY: So if it's not on the agenda, it  
3 doesn't mean you're not going to form a group to discuss  
4 it?

5 BRAD ZUBECK: No. I think it falls within the  
6 recreational esthetic resource purview.

7 MIKE COONEY: Thanks.

8 JENNA BOROVANSKY: There's some areas that  
9 just end up -- yeah, they don't necessarily have their  
10 own study, but they're reported. If you look on -- if  
11 you go to ferc.gov and look at all the requirements of  
12 applicants and their draft -- when they get to draft  
13 license application and license application phases, it  
14 lists the type of information they need to be providing  
15 and socioeconomics is one of them.

16 MIKE COONEY: So I guess I'm still unclear.  
17 There won't be a socioeconomic study group, technical  
18 working group, to develop a study plan for that topic?

19 BRAD ZUBECK: The issue will be addressed,  
20 Mike. There may not be a specific group focused on  
21 that.

22 MIKE COONEY: That's what I wanted to know.

23 BRAD ZUBECK: Mr. Barnett?

24 TOM BARNETT: You've got -- so this is just  
25 the beginning of the NEPA process, the environment



1 impact statement will come out. What is your target  
2 date on that?

3 BRAD ZUBECK: This is not the beginning of the  
4 NEPA process, if I understand correctly. This is a  
5 pre-license process where we seek to identify and  
6 finalize what the issues are that require study that  
7 would be then incorporated into a license application to  
8 FERC. Once that application has been submitted to FERC,  
9 FERC then initiates the NEPA process. The environmental  
10 impact or environmental assessment then takes place  
11 under this traditional licensing process.

12 TOM BARNETT: And then somewhere in that --  
13 and then you will develop a full-blown -- a full-blown  
14 environmental impact statement will come out of that, it  
15 won't just be an EA; correct?

16 BRAD ZUBECK: It's one or the other. And it  
17 would come out of an actual license application.

18 TOM BARNETT: Which one are you anticipating?

19 BRAD ZUBECK: I couldn't tell you at this  
20 time.

21 JOHN MORSELL: That decision is made by FERC.

22 JENNA BOROVANSKY: FERC makes that decision.  
23 It's the Kenai Hydro --

24 TOM BARNETT: But having been through this  
25 several times myself, you should have a fairly good idea

1 of which one you're leaning towards even at this time.

2 BRAD ZUBECK: I cannot tell you at this time,  
3 sir.

4 JIM FERGUSON: Actually, I have a comment on  
5 that. Jim Ferguson with Fish & Game. FERC has a very  
6 unusual approach to putting those documents together,  
7 having looked at all the projects statewide and worked  
8 on them. What many agencies would call an EIS, FERC  
9 calls an EA. And I'm guessing -- this would just be my  
10 guess -- that FERC will call it an EA, but it will  
11 probably be several hundred pages long.

12 TOM BARNETT: That's an EA. I'm thinking an  
13 EIS about (indicating).

14 JIM FERGUSON: Well, it could be like that.  
15 It's hard to say. FERC is odd in that respect. It's  
16 something to be worth talking to someone who's involved  
17 in the FERC process about, how they look at that. I'm  
18 guessing that FERC is going to call it an EA.

19 TOM BARNETT: Well, that goes -- that's more  
20 of a time -- that becomes more of a time issue then.

21 BRAD ZUBECK: At this point, it's purely  
22 speculation and it is, I think, a FERC decision as  
23 pointed out.

24 Mr. Deacon?

25 JON DEACON: I have a question in general.

1 I've read a great deal about -- and I'm by no means a  
2 professional about this in any way. I've read a great  
3 deal about hydroelectric power from wave action, from  
4 tidal action, things like that, that France, Sweden,  
5 even the Thames River, and some other places have been  
6 doing this for about a decade. Has that been looked  
7 into here? We have a tremendous coastline here in  
8 Alaska and Cook Inlet. I mean, technologically, are we  
9 not there yet?

10 BRAD ZUBECK: Maybe that's a topic for --  
11 after the meeting is over, I'd be glad to talk with you  
12 about that a little bit or someone else from Homer  
13 Electric would be.

14 Other questions?

15 MARK KROMREY: Yeah, my name is Mark Kromrey.  
16 I'm a resident of Moose Pass area. I happen to be a  
17 landowner in that -- along the Falls Creek Road. One of  
18 things that I -- the reason I bought the property was  
19 the sound of Falls Creek. It drowns out all the sounds  
20 of, you know, the highway, anything like that.

21 I guess in the -- I missed whatever column  
22 this should have come up in, but -- there really wasn't  
23 a column -- but the sociological impact. The people  
24 that live there, they recreate there but they recreate  
25 there like every day. And the way they have the bridge

1 right now, every time a vehicle goes over, it's like  
2 three metal clangs, bam, bam, bam, every time a vehicle  
3 goes over it.

4 If you drain Falls Creek, the noise that the  
5 creek makes will go away; the highway noise will  
6 increase dramatically. I mean, you're going to hear all  
7 of that highway noise.

8 So, you know, I guess there's a lot of -- to  
9 the people who live there, there's a lot of negative  
10 effects. If you would have had this meeting in Moose  
11 Pass, you would have had four times as many people. I'm  
12 from there, have to leave the kids at home, come down  
13 here to Seward. You know, this sounds close to you, but  
14 it really is not. Driving to Seward is 70 miles round  
15 trip. By the number of people that I see from Moose  
16 Pass, this is a very near and dear area to our  
17 community.

18 So, you know, draining Falls Creek is not  
19 just, oh, a little bit more water for a power plant.  
20 It's going to be a very major effect on the people who  
21 live around there.

22 BRAD ZUBECK: So we should study the effect  
23 of --

24 MARK KROMREY: Noise.

25 BRAD ZUBECK: -- noise from the creek, quality

1 of life issues related to that?

2 MARK KROMREY: Yes, please.

3 BRAD ZUBECK: Again, I'll mention that tonight  
4 is just the beginning of an opportunity to comment. And  
5 it's just a meeting for us to get out and an opportunity  
6 for folks to come and hear what the project is about and  
7 to hear what we've identified as issues.

8 But people of Moose Pass are welcome to get  
9 ahold of the PAD through our web site, contact us  
10 directly for copies of the PAD to read through and ask  
11 questions, and submit comments even in the form of  
12 questions to FERC so that those are identified or  
13 addressed through study planning.

14 So tonight is not your only opportunity to ask  
15 questions or to comment. So for those of you returning  
16 to Moose Pass tonight, please pass that information on  
17 to the residents there and have them access the web  
18 site. Again, you've got the information on the back of  
19 the agenda tonight on how to file comments with FERC, on  
20 how to access our web site, and to give additional  
21 information.

22 Ma'am?

23 RAE WICKARD: Rae Wickard. I have a question.  
24 I've lived around dams growing up. And one of the  
25 things they did is when they open the gates -- is this

1 going to have gates, this type of dam you're building?  
2 This huge loud whistle or siren would blow alerting  
3 people downstream that there was going to be a larger  
4 pool of water. Is that the type of dam this is going to  
5 be? Are they going to have to blow this loud horn or  
6 whistle?

7 BRAD ZUBECK: I don't believe so.

8 RAE WICKARD: I'm just curious because that  
9 really has an impact on people.

10 BOB BUTERA: We wouldn't be releasing any more  
11 water than we had to because that would just be water we  
12 couldn't generate power with.

13 RAE WICKARD: I was just curious because it  
14 was quite loud. It could be heard for miles.

15 BRAD ZUBECK: Other questions or comments on  
16 issues to address?

17 Yes?

18 JJ KAIZER: May I check on two things that  
19 have been written up in the Redoubt Reporter with you?  
20 Just because this is an informational meeting, I just  
21 want to make sure that the information is correct.

22 BRAD ZUBECK: It's Ms. Kaizer?

23 JJ KAIZER: Yes.

24 BRAD ZUBECK: And we'll listen to the  
25 questions and see if --

1 JJ KAIZER: One statement was an outlet will  
2 be built on the north abutment of the dam allowing the  
3 lake to be drained to aid construction. And that is not  
4 correct?

5 BRAD ZUBECK: Not sure where that information  
6 came from, but --

7 JJ KAIZER: The other comment was construction  
8 starting with the access roads is expected to begin in  
9 April of this year.

10 BRAD ZUBECK: Misinformation. Don't know  
11 where they came up with that.

12 JJ KAIZER: Thank you.

13 BRAD ZUBECK: Other questions?

14 Mr. Barnett?

15 TOM BARNETT: I just -- I'd kind of like to  
16 reiterate what Mr. Kromrey said earlier that I think --  
17 in a lot of ways you're going to want to get support  
18 from the community. Living there and being part of the  
19 community, I sense that there's a sense of alienation or  
20 being ignored by meeting here, and I think that carries  
21 through. And even if we go back and tell people what we  
22 heard, it's still going to be why weren't they here.  
23 We'd sure appreciate it if they'd come here.

24 And if you're looking to promote your product,  
25 which you are, it would really behoove you to meet with

1 the community. And there will be a lot of negatives,  
2 but to deal with them at that local level and make  
3 everybody feel a part of it. Because the biggest thing  
4 is being heard. I might not like your answers, but if  
5 you're in the community and you're making that effort,  
6 that goes a long way.

7 And I can't suggest strongly enough what JJ  
8 said, please, make that effort and make it more than --  
9 for lack of better words -- more than just lip service.  
10 Be there and become part of that community because you  
11 will be eventually. It's better to be liked than hated  
12 for the whole time. That would be my only comment.

13 BRAD ZUBECK: I appreciate the comments and I  
14 appreciate the invitation. And, again, it wasn't for  
15 lack of effort to try to get there on this evening. We  
16 will make a point to do that in the future.

17 JJ KAIZER: Do you have a direct number I  
18 could call so we could make a plan for this?

19 BRAD ZUBECK: You can see me afterwards.

20 JJ KAIZER: Okay. Terrific.

21 BRAD ZUBECK: Other questions or comments?

22 Mr. Luttrell?

23 MARK LUTTRELL: I have one last thing. I'm  
24 part of the Resurrection Bay Conservation Alliance. And  
25 our group and also the Alaska Center for the Environment



1 put together a brochure I'd like to pass out to the  
2 group here tonight. It just describes some of the  
3 reasons why we oppose it and sources of more information  
4 about the web site -- about the project.

5 BRAD ZUBECK: Sir?

6 MIKE CORREA: Mike Correa, Crown Point. If  
7 the whole community was against this project, would it  
8 make a difference on the final outcome?

9 BRAD ZUBECK: It certainly could.

10 MIKE CORREA: Could we put a squash on it?

11 BRAD ZUBECK: I couldn't tell you.

12 MIKE CORREA: Would it go ahead as planned?

13 BRAD ZUBECK: I could not tell you.

14 MIKE CORREA: I just was curious. Thank you.

15 SPEAKER: FERC has the final say, yea or nay?

16 BRAD ZUBECK: On a license for the project.

17 SPEAKER: And you get to then decide whether  
18 you want to do it or not after that point; correct?

19 BRAD ZUBECK: Correct.

20 SPEAKER: FERC is a government agency on  
21 government land somewhere. I mean, there's no office  
22 here of FERC, so anything -- there's no representative  
23 of said FERC except through these meetings. So  
24 essentially there is no face of FERC besides going to  
25 meetings and the letters.

1 BRAD ZUBECK: At this time in the process.

2 I'll remind you that if the study plans go ahead, FERC  
3 has agreed to early scoping, which means that they would  
4 be involved early, which means they would conduct  
5 scoping meetings to address and more or less finalize  
6 issues in parallel with our study plans.

7 So we would issue draft study plans, FERC  
8 would issue a scoping document, plans would be finalized  
9 based on FERC's finalizing of the issues through that  
10 scoping process; the scoping document one, holding a  
11 meeting here that FERC would conduct more or less along  
12 the same lines where they would seek to take comments.  
13 And they will, I believe, take the comments from  
14 tonight. The comments that you have brought to us  
15 tonight would be rolled into their scoping document one  
16 as a preliminary draft of issues related to the project.  
17 So, yes, FERC would be involved early on in  
18 this process if we were to move forward with the study  
19 plan.

20 SPEAKER: Am I correct that even though FERC  
21 is involved, the ultimate needs to be -- all the  
22 permitting agencies still need to approve it before the  
23 project would be put forth?

24 BRAD ZUBECK: Correct.

25 JENNA BOROVANSKY: All the local, state, and

1 federal agency representatives are FERC relied upon, all  
2 of their requirements.

3 SPEAKER: I think sometimes there's a  
4 misconception that once you get a FERC permit, you get  
5 to go do whatever you want. And I think a lot of times  
6 people don't understand that there's also other permits  
7 that are still going to be required.

8 BRAD ZUBECK: Mr. Aigeldinger?

9 JASON AIGELDINGER: You got it. Thanks, Brad.  
10 Real quick. So would I be correct in saying that HEA at  
11 this time is using their own money to -- like all the  
12 research your contractors have done through the '08  
13 field season and -- well, of '09 -- I apologize -- and  
14 then gearing up for 2010, those are all private funds  
15 from Homer Electric, HEA?

16 BRAD ZUBECK: Again, see me afterwards to talk  
17 about funding.

18 JASON AIGELDINGER: I guess I have an interest  
19 as a taxpayer. I'm wondering if you're using any  
20 federal dollars.

21 BRAD ZUBECK: I think we've said, no, we do  
22 not have any federal monies involved with financing the  
23 project at this time.

24 Mr. Cooney?

25 MIKE COONEY: I have a question related to

1     that.  Is it true that the Denali Commission originally  
2     contributed \$200,000, HEA added \$4,000, and used that  
3     for the Falls/Grant Project?

4                 BRAD ZUBECK:  No.  Denali Commission has had  
5     absolutely no involvement in funding this project.  
6     Funding questions, see me afterwards.  Comments on  
7     issues need to be studied, we'll be glad to take them.

8                 Mr. Deacon?

9                 JON DEACON:  If this project doesn't work out  
10    the way you hope, where would be your next project site?

11                BRAD ZUBECK:  At this time we have no other  
12    plans for other hydro projects.

13                TOM BARNETT:  What happened to Ptarmigan Lake  
14    and the Cooper Lake ideas?

15                BRAD ZUBECK:  We surrendered those permits and  
16    are no longer pursuing those projects.  They didn't look  
17    to us to be attractive economically or environmentally.

18                Mr. Thomas?

19                DAVID THOMAS:  David Thomas, Kenai, to clarify  
20    a point.  Cooper Lake is not an HEA facility.  It is not  
21    and would not be anticipated to be --

22                BRAD ZUBECK:  I'm sorry, did you say Cooper --

23                DAVID THOMAS:  Tom said Cooper.

24                TOM BARNETT:  I'm sorry.

25                DAVID THOMAS:  On Crescent Lake.  That was one

1 of the permits that we surrendered.

2 BRAD ZUBECK: Thanks for the clarification.

3 TOM BARNETT: And what was the economic and  
4 the environmental considerations on those?

5 BRAD ZUBECK: They were not attractive  
6 economically and not attractive environmentally. We  
7 didn't want to pay for the cost of the power to come out  
8 of them and we didn't want to pay for the cost of the  
9 environmental impact.

10 JON DEACON: How was the environmental impact  
11 there different than here?

12 BRAD ZUBECK: I couldn't tell you at this time  
13 exactly what those details are.

14 JON DEACON: Because you haven't quite studied  
15 it far enough?

16 BRAD ZUBECK: I'm not prepared to answer  
17 tonight that particular question.

18 TOM BARNETT: Where can that be found?

19 BRAD ZUBECK: I couldn't tell you at this  
20 time.

21 TOM BARNETT: When can you? That would be  
22 interesting to see --

23 BRAD ZUBECK: See me afterwards. It's not  
24 related to this particular project, the Grant Lake/Falls  
25 Creek Project. So if you have questions related to

1 issues or study topics for this project, we'd be glad to  
2 take additional comments. Otherwise, we'll close the  
3 meeting and let these folks get on home. See me  
4 afterwards if you want to talk some more about those  
5 details.

6 Ma'am?

7 RACHEL SCHUBERT: Rachel Schubert, Moose Pass.  
8 I feel like the questions about the Grant Lake Project  
9 are directly related to the questions about the Crescent  
10 Lake Project because that project came about kind of at  
11 the same time this project came about and now that  
12 project is no longer in question.

13 That project no longer exists, but this  
14 project does. So something happened to that project,  
15 but something has not happened with this project. So, I  
16 mean, in order to better understand what is going on  
17 with these projects, it would be pertinent information  
18 to understand what happened with the other project.

19 BRAD ZUBECK: Tonight, for the purpose of  
20 tonight, we'll just say that those decisions have no  
21 bearing on the issues that we're going to study on the  
22 Grant Lake/Falls Creek Project.

23 Mr. Shadura?

24 PAUL SHADURA: This is the last one. I'm  
25 sorry to make people wait. But, you know, just as a

1 cooperative member of HEA since 1969 I'm just wondering  
2 why comparison analysis hasn't been done to put another  
3 turbine in the Bradley Lake facility, which it was  
4 designed to do, instead of using this and going through  
5 all this situation when basically the Bradley Lake  
6 Project would be a no-brainer, easy.

7 I mean, have you made that comparison to other  
8 projects as a representative of HEA?

9 BRAD ZUBECK: Again, that's probably -- that's  
10 an after the meeting type question to address with HEA  
11 and not for this forum tonight. We'll be glad to answer  
12 it afterwards.

13 Other questions for the night for issues  
14 related to Grant Lake/Falls Creek? If not, I thank you  
15 all very much for turning out tonight. I appreciate  
16 your attendance. I appreciate your comments.

17 As a reminder, again, you can find information  
18 on the back of your agenda, the sites to FERC and Kenai  
19 Hydro.

20 (Proceedings adjourned at 9:00 p.m.)  
21  
22  
23  
24  
25

## 1 REPORTER'S CERTIFICATE

2 I, Valerie Martinez, Notary Public in and for  
3 the State of Alaska do hereby certify:

4 That the proceedings were taken before me at the  
5 time and place herein set forth; that the proceedings  
6 were reported stenographically by me and later  
7 transcribed under my direction by computer  
8 transcription; that the foregoing is a true record of  
9 the proceedings taken at that time; and that I am not a  
10 party to nor have I any interest in the outcome of the  
11 action herein contained.

12 IN WITNESS WHEREOF, I have hereunto subscribed  
13 my hand and affixed my seal this \_\_\_\_ day of \_\_\_\_\_,  
14 2009.

15

16

17 \_\_\_\_\_  
Valerie Martinez  
18 Notary Public for Alaska

19

19 My Commission Expires: June 22, 2010  
20

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23

24

25



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**From:** Zubeck, Brad [BZubeck@HomerElectric.com]  
**Sent:** Friday, November 13, 2009 4:11 PM  
**To:** 'Karen A Oleary'  
**Subject:** RE: Seward meeting 11/12/09 - attendee list  
**Attachments:** 2009-11-12 Joint Meeting Sign-In Sheet.pdf

Hi Karen,

Thank you for the note and for the Forest Service's attendance at last night's meeting. I quickly reviewed the sign-in sheets and it appears that only the persons you identified as official representatives noted this affiliation on the sheets. A copy of the sign-in sheets is attached for your files and reference.

There was a good turnout and there were many good comments last night. I did expect a few more people to attend, especially from Moose Pass. If the project proceeds, I will make a point to hold another meeting in Moose Pass for the benefit of the residents there.

Thanks Again,  
Brad Z.

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**From:** Karen A Oleary [<mailto:kaoleary@fs.fed.us>]  
**Sent:** Friday, November 13, 2009 2:37 PM  
**To:** Zubeck, Brad  
**Subject:** Seward meeting 11/12/09 - attendee list

Hi Brad - Thanks for taking the time to come to Seward and provide information to folks. Folks had some good comments and of course more questions. I was happy to see so many folks in attendance. The facility worked out well, even though some folks complained about having to drive to Seward. No matter where you hold a meeting, someone will not be happy! Working group meetings should be easily accommodated in Moose at the Community Center. Large meetings in Moose Pass are always problematic and the school is not always available.

I just wanted to drop you a note about the meeting attendees. A number of Forest Service employees were in attendance but the only ones officially representing the Forest Service should be myself, Roger Birk, Travis Moseley, and Karen Kromrey. Any other attendees from the Forest Service were strictly there as private individuals. This may not be clear on the sign-in sheet. I'd appreciate it if you would make note of that in your attendee list and any comments they may have made should be shown as private individual comments, not agency comments.

Thanks

++++  
Karen O'Leary  
Special Uses Service Team Leader  
Chugach National Forest  
phone: (907)743-9542, fax: (907)743-9492  
email: [kaoleary@fs.fed.us](mailto:kaoleary@fs.fed.us)  
++++

| KENAI HYDRO, LLC. SIGN IN SHEET |           |           | Joint Meeting |  | LOCATION: SEWARD AVTEC Center              |                     | DATE: November 12, 2009 |                                   | PAGE# 1/3      |    |       |
|---------------------------------|-----------|-----------|---------------|--|--|---------------------|-------------------------|-----------------------------------|----------------|----|-------|
| N                               | Signature | FirstName | LastName      | Email                                      | Company/Agency                             | Division            | Title                   | Address                           | City           | St | Zip   |
| 1                               |           | Jenna     | Borovansky    | jborovansky@blonguiewaassociates.com       | LVA  | —                   | —                       | PO Box 3844<br>COA, ID            | COA            | ID | 83816 |
| 2                               |           | Amanda    | Prevel-Ramos  | aprevel@hdrinc.com                         | HDR  |                     | Fisheries<br>Biologist  | 2525 CST<br>Suite 305             | Anchorage      | AK | 99503 |
| 3                               |           | KATIE     | McCafferty    | katharine.a.mccafferty2@usa.cc.army.mil    | USACE                                      | Reg                 | Project Mgr             | 805 Frontage Rd<br>Suite 200      | Kenai          | AK | 99611 |
| 4                               |           | Robin     | Collman       | Collman@GCI.net                            |  |                     |                         | P.O. Box 161                      | Seward         | AK | 99664 |
| 5                               |           | MIKE      | COONEY        | mcooney@arctic.net                         | PUT  |                     |                         | P.O.B. 169                        | MOOSEPASS      | AK | 99651 |
| 6                               |           | Mart      | Luttrell      | prufrock@arctic.net                        | RBCA                                       |                     |                         | Box 511                           | Seward         | AK | 99664 |
| 7                               |           | JJ        | Kaiser        | jj-kaiser@yahoo.com                        | RBCA                                       |                     |                         | 29800 Seward Hwy                  | Sew            | AK | 99664 |
| 8                               |           | Harvey    | Ambrose       | hambrose@homerelectric.com                 | AEEC                                       | PPT                 | Director                | 1013 Alaska Ave #45               | Kenai          | AK | 99611 |
| 9                               |           | Don       | SMITH         | dsmith@homerelectric.com                   | HA   | EXO                 | DIRECTOR                | 280 Airport Wly                   | Kenai          | AK | 99664 |
| 10                              |           | Robert    | Atkinson      | bob@arctic.net                             |  |                     |                         | 29785<br>Seward Hwy               | Seward         | AK | 99664 |
| 11                              |           | Billy     | Dowley        | AKWATERCRAFT@GMAIL                         | Nawi                                       |                     |                         | 29796 Seward Hwy                  | Crown<br>Point | AK | 99664 |
| 12                              |           | ADRIENNE  | MORETTI       | adrienne.moretti@gmail.com                 | NOWE                                       |                     |                         | PO Box 204<br>MOOSEPASS           | MOOSEPASS      | AK | 99631 |
| 13                              |           | MARK      | Stanble       | Stanble@arctic.net                         |  |                     |                         | PO Box 156<br>MOOSEPASS           | "              | "  | "     |
| 14                              |           | KAREN     | OLEARY        | kaoleary@fs.fed.us                         | USFS                                       |                     |                         | 3301 C Street #300<br>Anch 99503  |                |    |       |
| 15                              |           | Mike      | Glaser        | glaser@seward.net<br>34270 Lakestar Seward | self                                       |                     |                         | 34270 Lakestar<br>Seward AK 99664 | Seward         | AK | 99664 |
| 16                              |           | Kate      | Glaser        | glaser@seward.net                          | none                                       |                     |                         | 34270 Lakestar Ln.                | "              | "  | "     |
| 17                              |           | Laurie    | stuart        | lkstuart@hotmail.com                       | RBCA                                       |                     |                         | P.O. 1691                         | Seward         | "  | 99664 |
| 18                              |           | Pamela    | Russell       | Pamela.Russell                             | State Parks                                |                     |                         | 514 Funny River Rd                | Soldotna       |    | 99669 |
| 19                              |           | Christine | Brandt        | cbrandt1960@gmail.com                      | <del>Kodiak Park</del><br>Eck Inlet Aquac. | <del>Director</del> | Director                | PO Box 504 <del>Soldotna</del>    | Soldotna       | AK | 99669 |
| 20                              |           | mike      | CORREA        | FARNORTH68@gmail.com                       | (NA)                                       |                     |                         | PO Box 2016                       | Seward         | AK | 99664 |





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**From:** Zubeck, Brad [BZubeck@HomerElectric.com]  
**Sent:** Thursday, November 19, 2009 10:37 AM  
**To:** 'mike cooney'  
**Cc:** Jenna Borovansky  
**Subject:** RE: Seward Mtng. Sign-in Sheet  
**Attachments:** 2009-11-12 Joint Meeting Sign-In Sheet.pdf

Hi Mike,

Thanks for attending the meeting. A copy of the sign-in sheet is attached. Looks like we had a good turnout from folks in the Moose Pass area...

Regards,  
Brad Z.

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**From:** mike cooney [<mailto:mcooney@arctic.net>]  
**Sent:** Thursday, November 19, 2009 9:22 AM  
**To:** Zubeck, Brad  
**Cc:** Jenna Borovansky  
**Subject:** Seward Mtng. Sign-in Sheet

Brad,  
Would it be possible for you to e-mail me a copy of the sign-in sheet from the November 12 public meeting in Seward regarding KHL's proposed dams at Grant/Falls Creeks?

Thanks for holding the meeting in Seward; many local residents look forward to another meeting in January to be held in Moose Pass.  
Thanks, Mike



| KENAI HYDRO, LLC. SIGN IN SHEET <i>Joint Meeting</i> |                             |           | LOCATION: <i>SEWARD AVTEC Center</i> |   | DATE: <i>NOVEMBER 12, 2009</i>             |                     |                        | PAGE# <i>1/3</i>                  |                |    |       |
|--|-----------------------------|-----------|--------------------------------------|---|--|---------------------|------------------------|-----------------------------------|----------------|----|-------|
| N  | Signature                   | FirstName | LastName                             | Email                                   | Company/Agency                             | Division            | Title                  | Address                           | City           | St | Zip   |
| 1  | <i>J Borovansky</i>         | Jenna     | Borovansky                           | jborovansky@blonguiewaassociates.com    | LVA  | —                   | —                      | PO Box 3844<br>COA, ID            | COA            | ID | 83816 |
| 2  | <i>Amanda Prevel</i>        | Amanda    | Prevel                               | aprevel@hdrinc.com                      | HDR  |                     | Fisheries<br>Biologist | 2525 CST<br>Suite 305             | Anchorage      | AK | 99503 |
| 3  | <i>Katharine McCafferty</i> | KATIE     | McCafferty                           | katharine.a.mccafferty2@usa.cc.army.mil | USACE                                      | Reg                 | Project Mgr            | 805 Frontage Rd<br>Suite 200      | Kenai          | AK | 99611 |
| 4  | <i>Robin Collman</i>        | Robin     | Collman                              | Collman@GCI.net                         |  |                     |                        | P.O. Box 1661                     | Seward         | AK | 99664 |
| 5  | <i>Mike Cooney</i>          | MIKE      | COONEY                               | mcooney@arctic.net                      | PUT  |                     |                        | P.O. Box 169                      | MOOSEPASS      | AK | 99651 |
| 6  | <i>Mart Luttrell</i>        | Mart      | Luttrell                             | prufrock@arctic.net                     | RBCA                                       |                     |                        | Box 511                           | Seward         | AK | 99664 |
| 7  | <i>JJ Kaiser</i>            | JJ        | Kaiser                               | jj-kaiser@yahoo.com                     | RBCA                                       |                     |                        | 29800 Seward Hwy                  | Sew            | AK | 99664 |
| 8  | <i>Harvey Ambrose</i>       | Harvey    | Ambrose                              | hambrose@homerelectric.com              | AEEC                                       | PPT                 | Director               | 1013 Alaska Ave #45               | Kenai          | AK | 99611 |
| 9  | <i>Don Smith</i>            | Don       | SMITH                                | dsmith@homerelectric.com                | HA   | EXO                 | DIRECTOR               | 280 Airport Way                   | Kenai          | AK | 99664 |
| 10   | <i>Robert Atkinson</i>      | Robert    | Atkinson                             | roba@arctic.net                         |  |                     |                        | 29785 Seward Hwy                  | Seward         | AK | 99664 |
| 11   | <i>Billy Dowley</i>         | Billy     | Dowley                               | AKWATERCRAFT@GMAIL                      | Nawi                                       |                     |                        | 29796 Seward Hwy                  | Crown<br>Point | AK | 99664 |
| 12   | <i>Adrienne Moretti</i>     | ADRIENNE  | MORETTI                              | adrienne.moretti@gmail.com              | NOWE                                       |                     |                        | PO Box 204<br>MOOSEPASS           | MOOSEPASS      | AK | 99631 |
| 13   | <i>Mark Stanble</i>         | MARK      | Stanble                              | Stanble@arctic.net                      |  |                     |                        | PO Box 156<br>MOOSEPASS           | "              | "  | "     |
| 14   | <i>Karen O'Leary</i>        | KAREN     | OLEARY                               | kaoleary@fs.fed.us                      | USFS                                       |                     |                        | 3301 C Street #300<br>Anch 99503  |                |    |       |
| 15   | <i>Mike Glaser</i>          | Mike      | Glaser                               | glaser@seward.net                       | self                                       |                     |                        | 34270 Lakestar<br>Seward AK 99664 | Seward         | AK | 99664 |
| 16   | <i>Katharine Glaser</i>     | Kate      | Glaser                               | glaser@seward.net                       | none                                       |                     |                        | 34270 Lakestar Ln.                | "              | "  | "     |
| 17   | <i>Laurie Stuart</i>        | Laurie    | stuart                               | lkstuart@hotmail.com                    | RBCA                                       |                     |                        | P.O. 1691                         | Seward         | "  | 99664 |
| 18   | <i>Pamela Russell</i>       | Pamela    | Russell                              | Pamela.Russell                          | State Parks                                |                     |                        | 514 Funny River Rd                | Soldotna       |    | 99669 |
| 19   | <i>Christine Brandt</i>     | Christine | Brandt                               | cbrandt1960@gmail.com                   | <del>Kodiak Park</del><br>Eck Inlet Aquac. | <del>Director</del> | Director               | PO Box 504 <del>Soldotna</del>    | Soldotna       | AK | 99669 |
| 20   | <i>Mike Correa</i>          | Mike      | CORREA                               | FARNORTH68@gmail.com                    | (NA)                                       |                     |                        | PO Box 2016                       | Seward         | AK | 99664 |







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**From:** Zubeck, Brad [BZubeck@HomerElectric.com]  
**Sent:** Tuesday, November 24, 2009 3:16 PM  
**To:** 'Jeff Estes'  
**Cc:** Jenna Borovansky  
**Subject:** RE: Grant Lake comment.ppt  
**Attachments:** 2009-11-24 City of Seward-Jeff Estes Grant Lake comment.ppt

Hi Jeff,

Thanks for the information. I agree, the best place to connect may be the City of Seward's Lawing substation. The t-line directly out to the highway may still be a possibility and is a place-holder at this time, but I understand that you and others in the Moose Pass community would not like to see an overhead line passing through the "rapids" section as currently shown on the Project Features figure in our PAD. Kenai Hydro (KHL) will consider bring the power out to interconnect at the substation using a low voltage line, possibly underground. As you note, there are several voltage levels present at the Lawing substation: 12.5kV, 24.9kV, 69kV & 115kV, with the two lower voltages available via a load-tap changer. The transformer is currently rated at 10MVA, but with forced cooling, is rated up to 18MVA.

I'll look further into the location of the proposed phased residential development on the bench area up Crown Point Mine road. I wrote down that this is included as part of the Moose Pass Comprehensive Plan on file at the Borough. If this is incorrect, send me a note correcting the source document.

Thanks again for the information and willingness to work with Kenai Hydro as the concept develops. Have a Happy Thanksgiving!

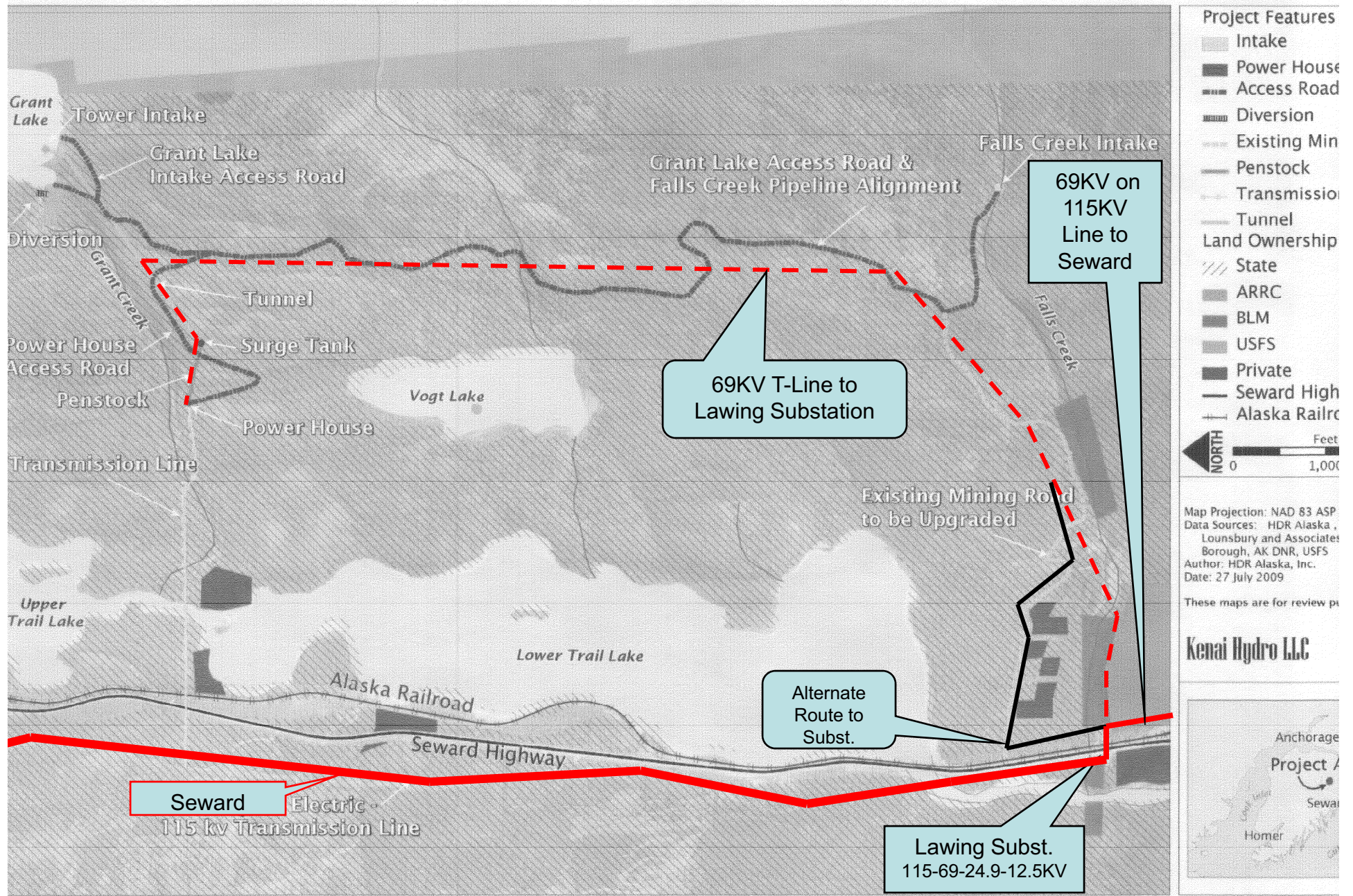
Best Regards,  
Brad Z.

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**From:** Jeff Estes [<mailto:jestes@cityofseward.net>]  
**Sent:** Tuesday, November 24, 2009 2:02 PM  
**To:** Zubeck, Brad  
**Subject:** Grant Lake comment.ppt

Please call with questions, and excuse my ineptness in power point.









December 4, 2009

Ms. Kimberly Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street NE  
Washington, DC 20426

FILED ELECTRONICALLY

**Subject:** Grant Lake/Falls Creek (FERC Project No. 13212/13211) Joint Meeting Transcript

Dear Secretary Bose,

Pursuant to 18 CFR §4.38, Kenai Hydro, LLC (KHL) held a Joint Meeting to discuss the proposed Grant Lake/Falls Creek Project with the public, agencies, and Tribes on November 12, 2009. Notice of this meeting was filed with the Commission on October 27, 2009 and published in local papers on Thursday, October 29, 2009.

This filing contains:

1. A transcript of the November 12, 2009 meeting;
2. The PowerPoint presentation that was given at the November 12, 2009 meeting;
3. An electronic copy of the sign-in sheet from the November 12, 2009 meeting; and
4. Proof of publication of the public notice in the Peninsula Clarion, the Anchorage Daily News, and the Homer Tribune. A public notice was also published in the Seward Public Log, and the notice was posted on Kenai Hydro's website ([www.kenaihydro.com](http://www.kenaihydro.com)).

If you have questions about this filing, please contact Brad Zubeck, Kenai Hydro (907.335.6204, [bzubeck@homerelectric.com](mailto:bzubeck@homerelectric.com)).

Sincerely,

A handwritten signature in black ink, reading 'Jenna Borovansky'. The signature is fluid and cursive, with a large loop at the end.

Jenna Borovansky  
Long View Associates, Inc.  
On Behalf of Kenai Hydro, LLC

GRANT LAKE/FALLS CREEK HYDROELECTRIC PROJECT  
JOINT MEETING PRESENTATION

Taken November 12, 2009  
Commencing at 6:00 p.m.

Volume I - Pages 1 - 119, inclusive

Taken at  
AVTEC Seward Campus  
519 Fourth Avenue  
Seward, AK 99664

Reported by: Valerie Martinez

## 1     A P P E A R A N C E S:

2             Brad Zubeck, Kenai Hydro, LLC

3             Jenna Borovansky, Long View Associates

4             Bob Butera, HDR Alaska, Inc.

5             Amanda Prevel-Ramos, HDR Alaska, Inc.

6             John Morsell, Northern Ecological Services

7

8

9

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11     Reported by:

12             Valerie Martinez

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18             BE IT KNOWN that the aforementioned proceedings  
19     were taken at the time and place duly noted on the title  
20     page before Valerie Martinez, Notary Republic within and  
21     for the State of Alaska.

22

23

24

25

## 1 P R O C E E D I N G S

2 BRAD ZUBECK: Thanks very much for coming out  
3 tonight. I appreciate it. Thank you. My name is Brad  
4 Zubeck. I'm with Kenai Hydro and Homer Electric. We'll  
5 make some introductions to begin with. This is the  
6 Grant Lake/Falls Creek Hydro Project. It's a joint  
7 meeting to take comments tonight on issues.

8 We do have a court reporter. A FERC  
9 requirement is to provide a transcript of the meeting.  
10 And so if you would speak clearly. If you have a  
11 comment, please state your name, first and last name.  
12 She may ask you to spell it. If you do remember to  
13 spell it, that would be great.

14 With that, we'll go to our first slide. I  
15 introduced myself with Kenai Hydro. We have some other  
16 folks from HEA tonight. We have our general manager,  
17 Mr. Brad Janorschke; our director of power production  
18 and transmission, Mr. Harvey Ambrose; and our director  
19 of engineering and operations, Don Smith. Thanks for  
20 coming out tonight, guys.

21 Jenna Borovansky with Long View Associates is  
22 our FERC licensing consultant. She'll be presenting  
23 several segments tonight. With HDR, an engineering  
24 consultant, we have Bob Butera and Amanda Prevel-Ramos.  
25 And John Morsell with Northern Ecological Services. And

1 we're a person down tonight. John's wife, Sally,  
2 usually handles terrestrial and cultural resources,  
3 recreational resources, and John and Jenna are going to  
4 stand in. She's a victim of the cold and flu and  
5 couldn't make it.

6 A brief update on our other projects. If  
7 you've been paying attention, you may have noticed that  
8 we've surrendered permits on the Ptarmigan Lake and  
9 Crescent Lake projects. For environmental and economic  
10 reasons, they aren't attractive to us. And we have no  
11 plans right now for additional projects at this time.

12 So on the Grant Lake/Falls Creek Project, our  
13 plans are to finalize our baseline studies from this  
14 year. We'll be issuing a final report in December. We  
15 have copies of the interim reports on the tables, the  
16 spiral-bound copies of the reports. They're interim  
17 because they don't have about a month and a half of  
18 hydrologic data that's been quality controlled and  
19 integrated. So when the report comes out in December,  
20 we'll have that finalized. It will be available on our  
21 web site.

22 We have an agenda tonight. On the backside of  
23 that you will find directions on how to file comments  
24 with FERC and how to find our Kenai Hydro site. So if  
25 you walk out of here tonight with that, you'll have the

1 information on how to get ahold of FERC and how to get  
2 ahold of us.

3 Our other task is to file comments. The  
4 comments tonight will be recorded and sent to FERC.  
5 FERC would prefer that you file comments directly with  
6 them and also copy us. But if you do comment to us,  
7 we'll gladly file those with FERC. They won't be lost.  
8 We'll send those on to FERC. And if you have questions  
9 on how to comment, we'll be covering that a little bit  
10 later.

11 The schedule that we've discussed tonight is  
12 tentative for a couple reasons. One, it's -- the dates  
13 that you see would get us to a license application  
14 within the term of our preliminary permit. Also we've  
15 taken a look at the scope of the studies that would be  
16 required and we anticipate that we won't have enough  
17 funds to fully implement those. So after tonight, we'll  
18 suspend study activity and other activities until we can  
19 secure enough funds to fully implement what we think has  
20 to be done to study -- on the project.

21 So a brief overview of our agenda for tonight.  
22 We'll talk about the FERC licensing process -- the FERC  
23 licensing process that we're in. We'll talk about the  
24 goals for the meeting, how to file comments with FERC,  
25 give you a brief project description, and then jump into



1 the resource areas.

2 The way these will be presented is you'll get  
3 a little bit of existing information, a summary of  
4 existing information, up front and then we'll talk about  
5 the resource issues that we've identified. We'll fit a  
6 break in there somewhere in the middle of these  
7 resources. And at the end, we'll have time for wrap-up.  
8 And you can talk to us individually both at breaks or  
9 after the meeting if you'd like to talk individually  
10 about more detailed information.

11 So our goal and the purpose for the meeting is  
12 to summarize existing information. The goal of this in  
13 the licensing process is to develop a common  
14 understanding of the project, the project concepts and  
15 issues that might need to be studied.

16 What we present tonight should all be  
17 contained in the pre-application document. Copies of  
18 those are also at tables. There's a copy over here in  
19 the binder and a copy behind the binder. At breaks or  
20 after the meeting, take a look at that. And, again, on  
21 the tables are the interim, or draft, report of the  
22 baseline studies that were conducted this summer.

23 Now, the primary purpose is to identify study  
24 topics, to take a look at the project. You don't have  
25 to give us all your comments tonight. There's a 60-day

1 comment period. Again, you can use the FERC web site to  
2 file those comments and copy us with those. And we'll  
3 go into that in more detail a little bit later.

4 The feedback, the comments that we would like  
5 to have is -- you see the issues that we've identified?  
6 We're looking to see if we've missed anything. Is there  
7 anything important out there that's important to you  
8 that you think should be studied? There's some  
9 guidelines from FERC on how to present that. And,  
10 again, we'll go over that a little bit later.

11 So just protocol for the night, some  
12 guidelines. Please hold your questions until the end of  
13 each segment. We'll provide a break at the end of each  
14 segment for questions. Try to be concise, if you can.  
15 Be thinking about your questions and keep them brief.  
16 Focus your comments on identifying or clarifying  
17 potential study issues or impacts. If you do have  
18 extensive additional information we ask that you please  
19 submit those to us in writing. We'd really appreciate  
20 that if you let us know. And, again, we'll be available  
21 at the breaks and afterwards for individual questions or  
22 comments or clarifying questions.

23 So with that, we'll hand it over to Jenna  
24 Borovansky to talk about the FERC process and the  
25 filing.

1 JENNA BOROVANSKY: If you haven't had the  
2 pleasure of going through a FERC process before, I just  
3 thought I'd run down where we're at in the process and  
4 what you can expect next.

5 The Federal Energy Regulatory Commission, from  
6 here on after FERC, has jurisdiction over hydroelectric  
7 development. And under their jurisdiction they have  
8 different processes for applicants to make a choice,  
9 essentially which process they would like to use. Kenai  
10 has requested to use the traditional licensing process.  
11 And that was at the same time we submitted the  
12 pre-application document, and FERC did approve use of  
13 that process. And so I will go through kind of the main  
14 components of the traditional licensing process.

15 We're in the first stage consultation now.  
16 And the idea of the process overall is just to lay out  
17 essentially the rules and the timeline for how Kenai  
18 Hydro is going to work with the public and agencies as  
19 they develop their proposal for the hydroelectric  
20 project involvement.

21 We've filed a pre-application document. Right  
22 now we're at our joint meeting, November 12th. You have  
23 your 60-day comment. And then in the traditional  
24 licensing process, there's also a dispute -- kind of the  
25 next step would be dispute resolution. If everybody

1 doesn't come into agreement on the study -- the topics  
2 to be studied, that's what you'd kick into.

3 But with the approval of the traditional  
4 licensing process, in this instance by request, FERC is  
5 going to do early scoping. So what that means is  
6 they'll actually come out sometime -- you know, on the  
7 schedule right now sometime in 2010, but it will be  
8 dependent upon when the studies start. And they will  
9 actually take a look at the feedback from today, the  
10 list of issues that have already been submitted, and  
11 they'll actually issue their own documents that says  
12 these are the study issues.

13 And then they'll hold another public meeting,  
14 which will also include a site visit, and we'll be able  
15 to tour the project site with FERC and agencies and any  
16 interested public. And then they'll hold another 60-day  
17 comment period and then that would kick off studies.

18 And after all the comments are received from  
19 this meeting, we'll be in kind of the study phase, which  
20 is the second stage of consultation. Essentially  
21 remember, as Brad said, all these dates are tentative as  
22 to get us to the point of filing by the end of the  
23 preliminary permit term. But it just lays out -- the  
24 dates lay out for you that we will issue draft study  
25 plans, there will be a chance for comments, final study

1 plans, and then the study season will move forward with  
2 the next formal public comment period after that, being  
3 a filing of the draft license application which will  
4 then have the benefit of all the information that was  
5 gained from the resource studies to inform a draft  
6 proposal for development of the project.

7 And then third-stage consultation is just the  
8 actual filing of the license application and then it  
9 kicks to FERC processing for that.

10 And then how -- kind of the nitty-gritty of  
11 how you can get more information throughout the process  
12 and file. Comments with FERC, they do prefer electric  
13 comments. You can do that on their web site two  
14 different ways. There's a quick comment, which actually  
15 really is pretty easy. You can just cut and paste from  
16 any document and comment, but you are limited to 6,000  
17 characters. If you have more information than that, you  
18 just register your e-mail address with FERC.

19 And if you have any questions or problems, the  
20 project manager is Joe Adamson. He'll help you with  
21 getting your comments in. And they also will accept  
22 written comments as well.

23 Most of you are on the e-mail list and you get  
24 e-mails from me. I'm also happy to help you with your  
25 first FERC filing if you need help. Usually once you

1 get it through, then you're set up in your system and  
2 you're good to go.

3 And the key thing with filing with FERC is  
4 always to reference the project numbers, which are the  
5 P-13211 and P-13212. And that's on the back of your  
6 agenda.

7 Along with these two web sites, we'll always  
8 keep updates and any filings that Kenai Hydro has made  
9 on to kenaihydro.com web site, which there's also -- if  
10 you haven't done it already, you can register your  
11 e-mail with us, so then we'll actually send -- I'll send  
12 you an e-mail whenever we post anything new to the web  
13 site. So that's one way to keep track of information.

14 You can also keep track of all the official  
15 filings with FERC by registering with them. Again, you  
16 go to the same web site and choose the e-subscription  
17 service. And you will get an e-mail notification any  
18 time anyone files a comment or filing on these two  
19 projects. And, again, you use those project numbers.

20 And with that, I'll turn it over to Bob to  
21 start with an overview of the project.

22 BOB BUTERA: I'm Bob Butera. I'm with HDR and  
23 we're doing the technical work and also some of the  
24 environmental work on this project. This next step, I'm  
25 just going to talk about the technical part of it and

1     what the project looks like at this time. It's still in  
2     conceptual stages. It's evolving. But I'll bring you  
3     up to speed on where we're at at this time.

4             First, just to get an idea of where the  
5     project is, here's the Seward Highway coming from  
6     Anchorage up north, coming south to Seward. Moose Pass  
7     is here. Upper Trail Lake, Cook Inlet Hatchery, and  
8     Moose Pass here. Lower Trail Lake and then Kenai Lake.

9             Grant Lake is the dog-leg-shaped lake here.  
10    You can't see it from the highway. It's behind this  
11    morainal and bedrock feature. Grant Creek comes down  
12    from this end of the lake. It's the outlet of Grant  
13    Lake and then feeds into what's called the narrows at  
14    Trail Lake.

15            Falls Creek, which is another component of  
16    this project, is to the south of Grant Lake. And it's a  
17    steep stream that feeds into Trail Creek and it does not  
18    have any lake features on it.

19            A hydro project essentially needs two things.  
20    It needs water and it needs head or fall to drop that  
21    water through to generate power. This Grant Lake  
22    Project has those. It gets the water from the drainage  
23    basin of Grant Lake and it gets its drop from the  
24    difference between Grant Lake and Trail Lake, which is  
25    about 200 feet.

1           The project really has a long history. It was  
2   looked at first in the '50s by the USGS as a power  
3   project and then it was looked at again in the 1980s by  
4   the Alaska Energy Authority as a power project. And  
5   both of those projects looked at a combination of a  
6   tunnel or a penstock coming down from Grant Lake at this  
7   point down to Trail Lake.

8           And the reason they -- basically, they  
9   completely bypassed Grant Creek. And the reason they  
10   did that is that's the way to get the most drop out of  
11   the water so you get the most power from it. It makes  
12   it the most economical project.

13           The project we're looking at today is a little  
14   bit different and it actually continues to evolve as the  
15   environmental studies on this project evolve because the  
16   two work hand in hand. But for any hydroelectric  
17   project, there's a number of components. There's access  
18   to the project, there's an intake, there's a conveyance  
19   system to bring the water from the intake to the  
20   powerhouse, a powerhouse, and then a transmission line  
21   to get the power from the powerhouse to some intertie to  
22   bring it to consumers.

23           What we've laid out here -- and here's Grant  
24   Lake up here, so north would be to this side of this  
25   picture and Seward would be this way. We're looking at



1 coming in off of the Seward Highway. There's an  
2 existing access across the railroad tracks here and  
3 there's an existing mining road that goes up along Falls  
4 Creek bringing our access in from that point across the  
5 contours here and branching one branch to go up to Grant  
6 Lake for a construction access for the intake and the  
7 other branch going down to the powerhouse. And that  
8 would be for access on a continual basis.

9           The intake that we envision, the intake and  
10 conveyance system, is a tunnel that would run through  
11 the rock out to a point here where it drops down through  
12 a pipeline to the powerhouse. Previously -- some of the  
13 previous versions of this project going back to the '80s  
14 actually showed a penstock, which would be an  
15 aboveground feature coming down, but there is actually  
16 no practical way to do that because the ground is much  
17 higher through this reach than it is here. So the only  
18 way to get the water from the lake down to a powerhouse  
19 is really through a tunnel.

20           That tunnel would be about 10 foot diameter  
21 and it's about 2800 feet long. The intake to that  
22 tunnel is right here. It's very much conceptual at this  
23 time, but what we envision is an intake on the shore of  
24 the lake and potentially a small diversion dam at the  
25 outlet of the lake here.

1           The powerhouse would be down here at the -- if  
2   you look at Trail -- Grant Creek, it basically is a  
3   fairly low gradient stream up until this point. And  
4   then it hits a canyon and then it gets very steep up to  
5   here. And that's where you get most of your drop. So  
6   what we're looking at doing is putting the powerhouse  
7   right at the base of that canyon.

8           The main purpose for that -- obviously, we  
9   wouldn't want to do that for power generation. It would  
10  be better if we could get the water all the way to here  
11  because we could get more drop out of it. But there's a  
12  lot of fish in this piece of the stream and we want to  
13  keep the water in it. So that's why the powerhouse  
14  would be at this point because the water would come  
15  through the penstock, into the powerhouse, and back into  
16  the creek so this piece of the creek would not be  
17  dewatered.

18          From the powerhouse there would be a  
19  transmission line that connects to the existing intertie  
20  that runs along the highway.

21          That's essentially the essence of the project.  
22  Some of the details. The powerhouse right now we're  
23  envisioning would have two turbines in it. It would be  
24  about four and a half megawatt total. And the two  
25  turbines are so that it can handle different flows at

1 different times of the year and still be efficient.

2           The other component of this project is Falls  
3 Creek over here. We still don't know if it's viable.  
4 It kind of looks like it might be and we're keeping it  
5 in the mix at this point, but its components are an  
6 intake here, a pipeline that runs across the contours  
7 here and comes into Grant Lake. Water would go into  
8 Grant Lake, mix with Grant Lake, and then it would run  
9 through the same system here. Its purpose would be to  
10 add more water to Grant Lake and more water equals  
11 greater power. That's essentially the project.

12           Any questions on the layout of the project or  
13 how it works? Go ahead.

14           DAVID PEARSON: Will you be completely  
15 dewatering Falls Creek downstream of the intake?

16           BOB BUTERA: That's undetermined right now.

17           BRAD ZUBECK: If you wouldn't mind, please  
18 state your first and last name just for the record.

19           DAVID PEARSON: My name is David Pearson. And  
20 to be fair, I live in that bottom red block next to  
21 Falls Creek.

22           BOB BUTERA: Right. Undetermined at this  
23 point. Actually, as the designers, we'd like to know  
24 that answer, too, because that's what our next piece of  
25 work is very contingent upon, is that component of it,

1     because it affects how we design our intake and how we  
2     design our conveyance system.

3                 And I think I'll leave that to John.  Are you  
4     going to talk more about that in the fisheries after  
5     this?

6                 JOHN MORSELL:  Probably not at this point.

7                 BOB BUTERA:  Then maybe -- that's as far as I  
8     know at this point.  We're waiting on that answer  
9     ourselves.

10                MARK LUTTRELL:  My name is Mark Luttrell,  
11     L-u-t-t-r-e-l-l, here in Seward.  What sort of  
12     information do you need to know to make the decision  
13     about how much water you would leave in Falls Creek?

14                BOB BUTERA:  Well, I think some fishery  
15     studies were done through this summer and there's more  
16     to come.  I think it's a balancing act between the value  
17     of what those fisheries are and the value of -- and  
18     whether it's even possible to keep water in there.

19                BRAD ZUBECK:  It will show up later as an  
20     issue, but that's, for instance, a comment that you  
21     might ask FERC.  Hopefully we'll answer it tonight  
22     through the course of the evening, but it's a good  
23     question.

24                RAE WICKARD:  Rae Wickard (ph).  What is the  
25     purpose of routing water from Falls Creek over to Grant

1 Lake? Is there not enough water in Grant Lake?

2 BRAD ZUBECK: There is. But as Bob alluded  
3 to, the more water that you can run through the  
4 powerhouse, the more energy you can produce. So it's,  
5 again, the balancing act of how much water do we have to  
6 have to support fisheries both in Falls Creek and Grant  
7 Creek and how much can we use to produce power. So the  
8 studies will determine that for us.

9 Sir?

10 BOB ATKINSON: My name is Bob Atkinson. So if  
11 you do this pipe thing from Falls Creek, you're going to  
12 have two big clearings across the side of the mountain,  
13 then, one for the road and one for the pipeline? Is  
14 that right?

15 BOB BUTERA: No. That red line that's there  
16 is very conceptual in nature. We don't have accurate  
17 topography for that area yet. So the pipeline is  
18 constrained because we want it to flow by gravity to the  
19 extent possible. So it would drive where the -- where  
20 it would be. But it's possible that the road could  
21 parallel it. So we don't know that at this point.  
22 Ideally, they'd be together, from my perspective.

23 BRAD ZUBECK: Sir?

24 PAUL SHADURA: Paul Shadura. I'm just kind of  
25 looking at that conceptual map there. If we look at the

1     powerhouse, are we to assume that that section from the  
2     powerhouse to Grant Lake would have no water in it?

3             BOB BUTERA: This section right here?

4             PAUL SHADURA: Towards the Grant Lake side.

5             BOB BUTERA: Upstream?

6             PAUL SHADURA: Uh-huh.

7             BOB BUTERA: Our assumption right now in our  
8     design and in power estimates is that there is no water  
9     in that creek in that section. We're not leaving water  
10    in it. It's a steep section. It's steep with rapids,  
11    big cobbles. It's not great fish habitat. There has  
12    been some fish found in the lower end. It's very  
13    difficult to find out how many fish might be in there  
14    because we just can't get in there. But we're -- I  
15    don't want to speak for John, but from what I've been  
16    hearing, the habitat value of it isn't that high.

17            JOHN MORSELL: There are still some  
18    significant questions as to really what the habitat  
19    value is.

20            BOB BUTERA: Right.

21            JOHN MORSELL: So that would be one of the  
22    goals of studies to come.

23            JON DEACON: My name is Jon Deacon. I live  
24    right at the end of the road on a state mining claim  
25    that's right next to Falls Creek down the Trail Lakes

1 Road.

2 BOB BUTERA: Right there?

3 JON DEACON: No. All the way up past the red  
4 blocks. Before you make the left -- the road that  
5 you're going to use, the mining road, I live right where  
6 the road -- Trail Lakes Road, one half a mile off of the  
7 Seward Highway to the west right where the creek cuts  
8 across.

9 My question basically is: There's a number of  
10 us that get our drinking water from there. If you end  
11 up using the water out of that stream, what will people  
12 do that live there for their drinking water?

13 BOB BUTERA: Good question. And we didn't  
14 know that.

15 BRAD ZUBECK: Ma'am?

16 ADRIENNE MORETTI: My name is Adrienne  
17 Moretti. Is the project still considered viable without  
18 the Falls Creek intake part? Without the Falls Creek  
19 half of it, would the project still be worthwhile, I  
20 guess?

21 BRAD ZUBECK: We think so, yes.

22 JJ KAIZER: JJ Kaizer, Crown Point.

23 BRAD ZUBECK: I didn't catch the name.

24 JJ KAIZER: JJ Kaizer, Crown Point.

25 BRAD ZUBECK: Thank you.

1 JJ KAIZER: One of the most intrusive parts of  
2 this project seems to be going from Falls to Grant.  
3 Given the amount of the loss of glacial ice up Falls  
4 Creek Valley, which we can calculate right now to  
5 approximately eight million cubic feet in the last 12  
6 years, can you tell me when Falls Creek will become  
7 seasonal?

8 BOB BUTERA: I think it's already seasonal.  
9 And basically the water from Falls Creek would be -- a  
10 standalone project on Falls Creek would not be a viable  
11 project because it is too seasonal. So you'd have big  
12 heaps at one time and then hardly any flow at another  
13 time, and I'm sure the people that get their water from  
14 it can tell you that.

15 But we look at it as a project that would take  
16 the water and put it into Grant Lake so it can be stored  
17 so it can be used with more seasonality. Does that make  
18 sense?

19 JJ KAIZER: Of course.

20 BRAD ZUBECK: Yes, sir?

21 WILL BRENNAN: My name is Will Brennan. I  
22 also live on Falls Creek Road. I'm wondering about the  
23 proposed road. At what point are you planning on coming  
24 off an existing road? I mean, where in relation to the  
25 existing road is that? Do you have an idea of where --



1 do you have a survey line or a flag line up there that I  
2 can go look at?

3 BOB BUTERA: It's right about the 800-foot  
4 elevation, if that helps. But, no, we don't have any  
5 flagging up there at all. It's all a pretty concept  
6 level. We haven't surveyed. We haven't -- we're just  
7 working off existing maps.

8 BRAD ZUBECK: We have done some survey work on  
9 the Grant Creek side, powerhouse, and intake areas. We  
10 haven't done survey work on the Falls Creek Road. It's  
11 a fairly well-established road and fairly visible from  
12 aerial photography and mapping. And so I'm pretty  
13 confident that the yellow line that you see on the map  
14 there probably follows that four-wheel drive, ATV,  
15 existing mining road.

16 WILL BRENNAN: Yeah, I'm wondering about where  
17 the red line is. Do you know where -- do you have an  
18 idea where it's going to tie in on the yellow line?

19 BRAD ZUBECK: I think, as Bob indicated, the  
20 intake was proposed at about 800 feet. And just roughly  
21 speaking, Grant Lake is at 700 feet, so by gravity it  
22 would stay within those two contours.

23 Any other questions before we move on?

24 MATT GRAY: Matt Gray. Did I hear there's two  
25 kind of dam structures involved?

1           BRAD ZUBECK: There would be an intake  
2 structure at Falls Creek, if that were to be the option  
3 pursued, and there would also be a diversion structure  
4 intake, really just a dam to allow water to be taken  
5 into the intake structure, yes.

6           MATT GRAY: But I was actually referring to  
7 just on Grant Lake.

8           BOB BUTERA: Just one at Grant.

9           MATT GRAY: Just the tower and the dam?

10          BRAD ZUBECK: The intake structure and the  
11 dam, if you will.

12          Mr. Cooney?

13          MIKE COONEY: Mike Cooney, Moose Pass.  
14 Without the Falls Creek portion of this project, what  
15 would you estimate the power of production to be with  
16 only the Grant Creek Project suggested? It's about four  
17 and a half megawatts now. What would it be without the  
18 falls?

19          BOB BUTERA: It would still remain as a four  
20 and a half megawatts project, which would be its maximum  
21 capacity, but the annual amount of power you got out of  
22 it would be less.

23          MIKE COONEY: Can you quantify that somehow?

24          BOB BUTERA: I don't have the --

25          BRAD ZUBECK: About 19 gigawatts more of

1 energy.

2 MIKE COONEY: Thank you.

3 BRAD ZUBECK: Yep.

4 With Falls Creek it's just over 23.4, and  
5 those are estimates.

6 Time for one more question. Mr. Gray?

7 MATT GRAY: I just wanted to confirm, is the  
8 lake elevation fluctuation still at plus 10 to minus 25?

9 BRAD ZUBECK: It's about a 30-foot lake level  
10 fluctuation, yes, it is.

11 BOB BUTERA: But it's about a plus 10 and  
12 minus 20 to get the 30.

13 BOB ATKINSON: Bob Atkinson again. Any  
14 possibility that the power line coming out of there  
15 could be buried?

16 BRAD ZUBECK: Absolutely. It's just shown as  
17 a more or less straight line. And I might mention that  
18 visual studies, esthetic studies, if you will, are a  
19 part of what we would look at. And very straight  
20 transmission line corridors like that are probably  
21 objectionable. And so we would probably look to put  
22 some switchbacks in that possibly so that you don't look  
23 down a long sight line, a long transmission line  
24 corridor.

25 The other question somebody made a comment

1 about -- and maybe it was you -- about the ability to  
2 see a cut on the hillside. And where it's perpendicular  
3 to the road system, they're much easier to see. Where  
4 you're parallel on the road system, they're much more  
5 difficult to see from the road.

6 And you are probably very familiar with this  
7 area. And driving down the Seward Highway, it's very,  
8 very difficult to see most of the project area from the  
9 highway system. But we'll be studying esthetic impacts  
10 as part of the resource studies.

11 Thank you very much, Bob.

12 AMANDA PREVEL-RAMOS: I'm Amanda Prevel-Ramos  
13 with HDR, and I'm going to talk to you about existing  
14 information starting with fisheries. And that's just  
15 another day at the office this summer.

16 There's been a lot of work done at Grant Lake  
17 and Grant Creek, including what we did this summer to  
18 look at fisheries resources. What we did this year was  
19 we looked at juvenile fish, resident fish, such as Dolly  
20 Varden and rainbow trout and adult salmon. And then  
21 also we conducted the first year of an in-stream flow  
22 study to look at changes in characteristics of fish  
23 habitat based on changes in the flow. And the studies  
24 of fish were to add to the existing body of information  
25 on fish resources.

1           So as I said, there is already a little bit  
2 of -- well, more than a little bit -- quite a bit of  
3 information from the '60s and the '80s conducted by  
4 different resource agencies as well as by previous  
5 applicants for developing a hydro project at Grant Lake.  
6 All of this existing information, including what was  
7 gathered this summer, is summarized in the preliminary  
8 application document that you guys can find on the Kenai  
9 Hydro web site.

10           So Bob kind of went over the project area with  
11 you already. I'll just point out that the purple areas  
12 on that map are the areas that we worked in this summer.  
13 So looking here, HDR went through this summer and  
14 actually -- we reestablished study reaches that were  
15 started out by the group that studied the creek in the  
16 '80s.

17           So reach one through reach four is basically  
18 the part that we were talking about before that would be  
19 below the powerhouse at the red triangle right there.  
20 And then it's mostly -- that's the best fish habitat,  
21 and primarily it's fast-water habitat.

22           Reach five is -- you get into more of that  
23 cascade habitat. There's less fish present. Reach six  
24 is basically an extension of the lake ecosystem. And  
25 I'll just point out also that the Alaska Department of

1 Fish & Game has placed a marker in their anadromous fish  
2 catalog that says that fish do not pass above that green  
3 dot. They call it anadromous fish barrier.

4 So at Grant Lake, this summer and in previous  
5 investigations, we found sticklebacks and sculpin. No  
6 one has found trout, Dolly Varden, or salmon in the work  
7 they have done up there or in the small streams that  
8 actually feed into the Upper and Lower Trail Lakes.

9 In 2009 we resampled the sites that were  
10 sampled in an extensive effort in the '80s. And we also  
11 sampled extra sites that we thought looked likely to --  
12 would be good spots for finding fish and did not find  
13 any salmon, trout, or Dolly Varden in our traps or nets.

14 In Grant Creek there are runs of sockeye, or  
15 red salmon; chinook, or king salmon; and coho, or silver  
16 salmon. And ADF&G has designated the lower eighth of a  
17 mile as anadromous fish habitat.

18 Estimates of the number of spawning salmon in  
19 the creek vary from 400 to 2500 sockeye, 33 to 230  
20 chinook, and 55 to 300 coho. And that's based on many  
21 years of different kinds of data. So ADF&G has gone up  
22 there and done foot surveys. We did foot surveys this  
23 summer. The previous investigators in the '80s and back  
24 in the '60s did other foot surveys. So it's coming from  
25 a lot of different studies, those numbers, and reflects

1 an annual variation in the fish runs.

2 So in 2009 we also, as I mentioned, looked at  
3 juvenile salmon. And in the lower reaches there are  
4 more scattered slow-water habitats where juvenile salmon  
5 can rear. Most of these are places where small fish are  
6 seeking refuge from very fast water currents. And the  
7 kinds of -- examples of these kinds of habitat include  
8 undercut banks, side channels, and backwater areas.

9 And so within these areas we find the most  
10 abundant are juvenile, chinook, and coho. And most of  
11 the fish that we found in our traps were fry or younger  
12 than a year, which indicates that fish do not move into  
13 Grant Creek to rear there from other areas and also that  
14 they probably do not overwinter in Grant Creek.

15 And in 2009 we also looked at resident fish,  
16 such as Dolly Varden and rainbow trout. We found that  
17 Dolly Varden were the most abundant fish overall and  
18 that all ages were -- all age classes were present.  
19 Adult and subadult rainbow trout were also present and  
20 were pretty common.

21 And so we also did some recognizance level  
22 work at Falls Creek. It has not had as much work done  
23 in the past as Falls -- as Grant Creek and Grant Lake.  
24 But ADF&G has designated the lower one-third of a mile  
25 as anadromous fish habitat.

1           In 2009 when we went out and did recognizance  
2 minnow trapping, we found only Dolly Varden and we found  
3 no adult salmon. We actually did foot surveys of the  
4 same frequency, so every 10 days, that we did on Grant  
5 Creek. So we did both creeks in tandem on the same days  
6 every 10 days.

7           I'll be available to answer questions more in  
8 depth about fish on Grant Creek afterwards or after the  
9 end of John's segment. John is going to talk a little  
10 bit more about fish.

11           JOHN MORSELL: Thanks, Amanda.

12           I'm John Morsell. I'm helping to coordinate  
13 some of the study programs and make sure that they  
14 answer the questions that need to be answered for the  
15 FERC process and the kinds of things you folks are most  
16 interested in.

17           As Amanda has indicated, Grant Creek, while  
18 it's fairly short, has substantial fish habitat value.  
19 And we suspect that there's going to be quite a bit of  
20 interest and concern in the fish in Grant Creek.

21           So some of the specific issues that we've  
22 identified are listed on this slide. For example, you  
23 know, the potential effects of increased lake level  
24 fluctuation on Grant Lake fish resources; potential  
25 effects of the project intake structure on the Grant



1 Lake fish; potential effects of changes to the seasonal  
2 flow regime on the abundance and distribution of fish in  
3 Grant Creek.

4               This third item is probably the big one, the  
5 one that most people are going to be concerned about,  
6 what's going to happen to the fish as the flow changes.  
7 Also, another potential issue has to do with what the  
8 effects of flow changes might be on the movement of  
9 materials from upstream to downstream within Grant Creek  
10 if the flow regime is changed. Salmon spawning areas  
11 often depend on a replenishment of gravel within their  
12 spawning areas and they can be detrimentally affected by  
13 sediment deposition, so this is another issue that's  
14 worth looking at.

15              Additionally, we're going to look at the  
16 overall -- we proposed to look at the overall  
17 productivity of Grant Creek as indicated by the  
18 abundance of aquatic insects and algae, sort of an index  
19 of productivity.

20              Another potential issue has to do with the  
21 effects of construction activities on fish habitats.  
22 Most of these are sort of temporary impacts due to  
23 disturbance, erosion, sedimentation, and so forth that  
24 occurs during construction.

25              And moving to Falls Creek we have the same

1 sort of set of questions, what's the potential effect of  
2 a reduced flow in Falls Creek on the distribution of  
3 fish.

4 And then finally we have the whole question of  
5 when you alter the access to an area, you can increase  
6 the potential human usage and how is this increased  
7 recreational fishing opportunity going to affect the  
8 fish resources.

9 So currently we have a whole set of studies  
10 that are currently proposed. And most of these are  
11 continuations of studies that were already started in  
12 2009. The studies that will be proposed will be more  
13 precisely focused on issues partly resulting from the  
14 feedback we get from you folks.

15 Anyway, we're going to continue to look at the  
16 Grant Creek salmon spawning distribution and abundance  
17 as well as the resident and rearing fish distribution.  
18 We're also going to do a little better job of looking at  
19 the specific aquatic habitats within Grant Creek, map  
20 the habitats and try and determine what the critical  
21 factors are that make fish use these particular  
22 habitats. And this feeds into the in-stream flow study,  
23 which is the next item.

24 We've had several technical working group  
25 meetings to discuss potential approaches to in-stream

1 flow study on Grant Creek. At the last meeting we  
2 proposed an approach, which we seemed to have a fair  
3 amount of agreement on at looking at potential changes  
4 and how they might affect fish habitats and how we might  
5 use that to predict what might happen with altered  
6 stream flows.

7 And then we have the same -- basically the  
8 same studies in Falls Creek. We can do a much more  
9 thorough job of looking at the distribution and  
10 abundance of fish in Falls Creek, become a little bit  
11 more quantitative in trying to figure out how many fish  
12 are in the creek.

13 We plan to do baseline studies of stream  
14 critters, mostly to provide sort of a baseline against  
15 which future conditions can be compared. These benthic  
16 invertebrates and periphyton act as indicator species.  
17 They can tell us what kinds of changes that are  
18 occurring in the stream.

19 And then similarly we're also proposing to do  
20 studies of zooplankton and phytoplankton in Grant Lake  
21 related to the productivity of Grant Lake.

22 That's the end of the aquatic resources  
23 segment. So we'll be glad to take a few questions.

24 Yes?

25 PAM RUSSELL: Pam Russell. I noticed in your

1 studies there, has it been determined if the water  
2 temperature is going to change coming out of that hydro  
3 plant when -- after it goes from either Falls to Grant  
4 and then going through the processes? Is the water  
5 temperature going to change after it comes out of the  
6 power head?

7 JOHN MORSELL: It depends on the depth of the  
8 intake. That's something we're going to be looking at.  
9 We'll be talking a little later on about temperature  
10 monitoring that we're currently doing. We should be  
11 able to model that fairly accurately and pretty much  
12 tell exactly what those numbers are going to be.

13 PAM RUSSELL: How long are you going to do the  
14 studies that you have proposed now, the fish studies and  
15 everything?

16 JOHN MORSELL: Well, I think currently the  
17 studies -- well, it depends on how the project schedule  
18 proceeds, but I think the intent is to have one full  
19 year -- one more full year of studies.

20 Yeah?

21 PAUL SHADURA: Paul Shadura. I've got a  
22 temperature question, since that was identified in some  
23 of the previous studies. It's not so much the change in  
24 the ambient temperature but the change in the  
25 temperatures in the seasonal situations that I'm curious

1 about. What kind of analysis or study are you designing  
2 to understand what that would be?

3 JOHN MORSELL: Well, we are and we'll continue  
4 to take continuous temperature measurements in both  
5 Grant Lake, which includes a profile, a depth profile of  
6 temperatures, as well as in Grant Creek. And after  
7 the -- after we have the project operating components  
8 nailed down, we can just do a temperature balance  
9 modeling. And we should be able to figure out pretty  
10 closely what's going to happen at any time of the year  
11 as far as the temperature is concerned.

12 PAUL SHADURA: If I can follow up just once.  
13 So that would give you an idea of what's occurring at  
14 this point. So am I too far-reaching to ask you what  
15 you would do to control the temperature changes within  
16 your plant?

17 JOHN MORSELL: Well, if --

18 PAUL SHADURA: Draw from the lake, forget  
19 about that part. I'm interested more in what's left in.

20 JOHN MORSELL: Well, there are ways that  
21 temperatures can be regulated. If the studies determine  
22 that changes in temperature might be detrimental to  
23 fish, then the depth of the intake structure could be  
24 modified because the lake temperature varies with depth.  
25 That would be the primary way that we could mitigate any

1 possible changes.

2 Yeah?

3 MIKE COONEY: Mike Cooney, Moose Pass. Could  
4 you tell us what species of fish are documented in the  
5 Fish & Game anadromous catalog for Falls Creek and also  
6 if there is any credible information to suggest that  
7 king salmon, chum salmon, might exist in Falls or Grant  
8 Creek?

9 AMANDA PREVEL-RAMOS: I'm not going to try to  
10 remember off the top of my head what they are. I know  
11 that they do have species of both salmon and I believe  
12 probably that Dollies are on there. I know that we have  
13 that information in our recognizance report on Falls  
14 Creek. And I believe it's also actually included in the  
15 interim draft report. There's a summary of existing  
16 information in the beginning of that report. So we  
17 could definitely find it.

18 JOHN MORSELL: The Fish & Wildlife Service had  
19 a weir in Grant Creek for a while, and they did catch a  
20 couple of pink salmon and one or two chum salmon. Very  
21 small numbers.

22 Anything else?

23 BRAD ZUBECK: Mr. Gray?

24 MATT GRAY: I was just wondering, that reach  
25 number five, how long is it and could you just recap

1     what the fishery resources were in that section?

2                 AMANDA PREVEL-RAMOS:   Well, I don't know off  
3     the top of my head how long it is.   I can probably find  
4     that information for you after the meeting.

5                 MATT GRAY:   An approximate?

6                 AMANDA PREVEL-RAMOS:   Yeah.

7                 JOHN MORSELL:   It's about four-tenths of a  
8     mile, I think.

9                 AMANDA PREVEL-RAMOS:   Yeah.

10                BRAD ZUBECK:   The creek itself is about a mile  
11     long and the powerhouse is about halfway down the  
12     stream, so four-tenths of a mile is probably a pretty  
13     good guess.

14                AMANDA PREVEL-RAMOS:   What was the second part  
15     of that question?

16                MATT GRAY:   Just recap the fisheries, you  
17     know, documentation.

18                AMANDA PREVEL-RAMOS:   I think there are -- I  
19     know our crew, I believe, saw king salmon in the lower  
20     portion, adult king salmon in the very lowest portion.  
21     And then, like I said, the anadromous fish barrier is  
22     above there.

23                So part of what we're doing -- planning to do  
24     next year is do a more in-depth study of what is the  
25     spawning distribution in that reach.

1                   JOHN MORSELL: One of the problems is that  
2 reach five is almost totally inaccessible without  
3 rock-climbing techniques, which they didn't try to get  
4 at this year. But that will be part of the plans for  
5 upcoming studies will be to get into that region and get  
6 a better idea.

7                   And there's also tentative plans to do some  
8 radiotelemetry work on king salmon to try and figure out  
9 what proportion of the total numbers actually end up in  
10 that reach five.

11                  MIKE COONEY: Mike Cooney, Moose Pass. Are  
12 there any plans that study the productivity of Grant  
13 Creek in terms of the wild fish that it produces  
14 annually, anadromous fish particularly, and how it  
15 contributes to the Kenai River water system?

16                  JOHN MORSELL: Well, there are no plans  
17 currently to do that. That's comments you could  
18 suggest. We'll take that into consideration.

19                  MARK LUTTRELL: Mark Luttrell from Seward.  
20 This may be a question for you, Brad. It's kind of a  
21 process question. I've got a copy of the  
22 pre-application document that I think you gave to the  
23 library here in town. And if I understand it, that's  
24 like a collection of what is known about various  
25 resources. And my concern is that you guys have created



1 a list of great research questions, questions anyway,  
2 but they're not in the pre-application document. So how  
3 will the questions that you've created and that the  
4 public tonight offers, how will those questions be made  
5 public? Where do they fall in the next step of the  
6 process?

7 BRAD ZUBECK: Sure. Jenna should have -- I  
8 stepped out of the room there -- the next step, but I'm  
9 happy to review them with you again. The next step in  
10 the process after taking comments would be to prepare  
11 draft study plans that should address the issues that  
12 we've identified and the issues that you would be  
13 raising over the next 60 days. Those draft study plans  
14 would then be issued for public review and for comments  
15 and then for -- take comments on those as well.

16 We also have the FERC-approved process with  
17 early scoping. So FERC would also be involved with  
18 identifying and kind of affirming or solidifying what  
19 the issues are through their scoping documents.

20 So once these have been reviewed -- there's a  
21 dispute resolution process in place as well. But we  
22 would then, after public comment, finalize plans; if  
23 needed, go through any dispute resolution process; and  
24 then we would have formal final study plans, if you  
25 will, to implement it. And that's a step that at this

1 time we're not ready to launch into. That would be the  
2 next step in the process. But we won't be entering into  
3 that next step until we secure enough funding to  
4 implement what those plans would be.

5 MARK LUTTRELL: Thank you.

6 BRAD ZUBECK: You bet.

7 DAVID PEARSON: David Pearson, Moose Pass. Do  
8 you plan to do studies considering DO on the lower  
9 section of the stream and how that will change with the  
10 intake versus natural falls? And a second part, which  
11 is a simple question. There is an acronym, AEINC.

12 JOHN MORSELL: AEIDC?

13 DAVID PEARSON: Yes. And who would that be?

14 JOHN MORSELL: Well, AEIDC is an organization  
15 that's no longer in existence. Arctic Environmental  
16 Information and Data Center, and they're now --

17 JENNA BOROVANSKY: It's a part of UAA.

18 JOHN MORSELL: Anyway, they acted sort of as  
19 consultants on some of those earlier studies.

20 DAVID PEARSON: And the first part was DO  
21 levels.

22 JOHN MORSELL: We're currently -- actually,  
23 the next part is going to be water resources, but we are  
24 currently measuring DOs in both the lake and the stream.  
25 And that will be part of the impact analysis, will there

1 be potential effects. I mean, my first inclination is  
2 that there won't be any affect on DO, but hopefully we  
3 can get some better information on our studies.

4 JJ KAIZER: Hi. JJ Kaiser again. At one  
5 point I have read that Grant Lake will have to be  
6 drained in order to aid construction.

7 BRAD ZUBECK: The lake, in order to allow  
8 construction of a -- an intake structure possibly or a  
9 dam itself, could be drained. You could also build  
10 copper dams. I mean, it's certainly -- I wouldn't state  
11 as a matter of fact that we'd have to drain the lake to  
12 build the structure. There are other engineering  
13 devices that you can use to keep from draining the lake,  
14 build copper dams and that kind of thing. But that's  
15 certainly within the realm of possibility. I wouldn't  
16 recommend it necessarily at this time, but it's one of  
17 those options that would exist.

18 Bob?

19 BOB BUTERA: I don't think I would use the  
20 word "drain". I would probably use the word "lower".  
21 Because you could aid the construction by lowering the  
22 lake somewhat.

23 JJ KAIZER: And that effect on the fish  
24 population?

25 BRAD ZUBECK: Well, if we were to propose that

1 as a construction method, we would have to determine  
2 what the impact would be. So that's probably worthy of  
3 a comment and we'll take -- so noted to consider impact  
4 of a construction method to lower the lake level and  
5 what influence that would have.

6 JOHN MORSELL: There would have to be a  
7 diversion to keep water in Grant Creek.

8 BRAD ZUBECK: Well, exactly. We would have to  
9 have some kind of a bypass that would allow and support  
10 fish populations in Grant Creek. We wouldn't drain it,  
11 cease flow. We would have to maintain flow in the  
12 creek.

13 Mr. Deacon?

14 JON DEACON: How much of the water in Grant  
15 Creek/Falls Creek in any of the areas that you'll be  
16 getting water from is glacially fed? How much of that  
17 accounts on glacial melting?

18 BRAD ZUBECK: You know, I can't answer that  
19 question.

20 JON DEACON: The reason I ask, obviously with  
21 a hydroelectric project you're looking at some span of  
22 life for it, whether it's 30 years, 40 years, whatever.  
23 With the glaciers lowering and the water being less and  
24 less as we know all over the place, has that yet been  
25 looked into that 10 years from now they could run out of

1 the glacial melt and therefore the water would no longer  
2 be available to run the project?

3 BRAD ZUBECK: I believe that the watershed  
4 area would collect rain or snowfall naturally. We have  
5 not studied whether or not these glaciers -- the glacial  
6 streams are receding, the glaciers are receding, so that  
7 it might be a significant problem, but we'll note that  
8 as a potential study topic.

9 MIKE COONEY: Mike Cooney, Moose Pass. I  
10 noticed that in the previous discussion there's plans  
11 that study the impacts of road construction and other  
12 infrastructures constructed on fisheries. But are there  
13 any plans to monitor or assess long-term fish habitat  
14 impacts as a result of that road? Because it's going to  
15 have to slope right into Grant Lake for about a mile or  
16 so. Potentially there could be some water quality  
17 issues associated with that, I would think.

18 JOHN MORSELL: That would be part of the  
19 environmental assessment done by FERC. I'm not sure  
20 whether that would require a separate study or not, but  
21 certainly that would be taken into consideration.

22 Yeah?

23 TOM BARNETT: Tom Barnett, Moose Pass. To  
24 kind of follow up on John's question a little bit real  
25 quick. To kind of rephrase that, then, is the volume

1     that you're anticipating to pull out of Falls Creek, are  
2     you then just basing that on annual snow and rainfall?

3                 BRAD ZUBECK: I think we'll get to the  
4     hydrology data. And probably a better way to answer  
5     that is we have quite a history of hydrology  
6     information. Some from 1948 to '58, I believe it is.  
7     So we do have -- and the recent data we have  
8     collected -- some longer-term data to look at that would  
9     give us the sense that the watershed is reliable and the  
10    flows are reliable.

11                TOM BARNETT: But that's based on -- that's  
12    going to be based on -- the longer you -- the longer  
13    time period that you base that data on, that skews it in  
14    not a way that you really want it to skew. If you take  
15    a look at -- just look at the Exit Glacier and how far  
16    that's dropped back every year since -- you know, you  
17    say decades.

18                So you're actually going to want to look at  
19    the shorter term because that's going to tell you more  
20    realistically what volume you have available, especially  
21    when you take a look at -- if you've been around there  
22    long enough and have seen the recession of the glaciers  
23    in that area, then you -- you know, if you're going to  
24    be conservative, you base it on what you know you're  
25    going to get every year in terms of the snowfall and

1     rainfall as opposed to what's collected over centuries  
2     and you're slowly melting off or now more rapidly  
3     melting off.

4             I think you skew the data the wrong way if you  
5     use a longer time period.

6             BRAD ZUBECK: The comment is noted and we'll  
7     trust our engineers to make and use their best  
8     engineering judgment to design the project. But thank  
9     you for the comment.

10            JOHN MORSELL: I guess we'll move on to water  
11    resources and we'll talk a little bit about some of the  
12    things that these questions have brought up.

13            Looking specifically at hydrology, there's  
14    substantial existing information, although as the case  
15    with most Alaska projects, it's not long enough. We'd  
16    sure like to have more data.

17            What we have for Grant Creek is 11 years of  
18    continuous stream gauge data from 1947 to '58. And then  
19    for Falls Creek, the data aren't quite so good. There's  
20    only one summer's worth of continuous measurements and  
21    then there are a bunch of other instantaneous discharge  
22    measurements that have been made over the years. There  
23    was one feasibility study that was done by EBASCO in  
24    1987 that modeled a lot of this hydrological data and  
25    kind of put it all together.

1                   And in addition to these older studies, HDR  
2   installed stream gauges in both Grant and Falls Creek in  
3   the spring of 2009, so that's out there collecting  
4   continuous data now.

5                   As far as the general hydrologic  
6   characteristics of the Grant Lake watershed -- well, we  
7   don't have that map. Anyway, this relates to some of  
8   the quick questions that were just asked. This is a  
9   hydrograph, which gives the average flow over the course  
10   of the year for that 11-year continuous monitoring  
11   period.

12                  And you can see that during breakup, flow  
13   increases very quickly due to snow melt and then  
14   gradually begins to taper off but stays high for quite a  
15   while during the summer because of glacial melt in the  
16   latter part of the summer and then it gradually declines  
17   through the fall and early winter except for some peaks  
18   where summer -- fall storms add large quantities or a  
19   sudden influx of water.

20                  And then during the winter, the flow goes way  
21   down to something like 25 CFS. And most of that is what  
22   the hydrologists call base flow, which is the result of  
23   groundwater flowing into the stream, basically springs,  
24   keeping the stream going.

25                  So the project proposes to use some of the



1 water from this upper part of the hydrograph.

2 Moving on to water quality. Some of the  
3 existing information. There have been various studies  
4 that have looked at water chemistry and temperature in  
5 the '60s and the '80s. There's quite a variety of  
6 information, both from Grant Lake and Grant Creek. And  
7 then HDR's ongoing study program has collected seasonal  
8 water chemistry and continuous temperatures in Grant  
9 Creek and Grant Lake at several stations.

10 As far as overall water quality  
11 characteristics, I mean, the water is pretty much  
12 typical of a cold Alaska drainage that has some glacial  
13 input. The nutrient levels are generally low indicating  
14 relatively low biological productivity. Turbidity  
15 varies with the season. It's moderately turbid in the  
16 summer, although Grant Lake tends to settle some of that  
17 turbidity out. And then in the winter and spring, the  
18 lake clears up somewhat and Grant Creek consequently  
19 becomes more clear.

20 And none of the studies of water chemistry  
21 have suggested that there's any water pollution or any  
22 other unusual conditions in these creeks.

23 As far as water resources issues, we need to  
24 look at the potential effects of the project, you know,  
25 on water quality and hydrology and water temperature.

1 And a lot of this information relates also to fisheries  
2 impacts as some of your questions have suggested.

3 We're also looking at the affects of the  
4 project construction and operation on water quality and  
5 hydrology downstream from Grant Creek, specifically on  
6 Lower Trail Lake and Trail Creek. And then how will the  
7 physical changes to Grant Creek or Falls creek affect  
8 fish resources.

9 The studies that are currently proposed, the  
10 hydrological studies, we're just going to continue the  
11 ongoing stream gauging in Lower Grant Creek and Falls  
12 Creek. The Grant Creek studies not only provide a  
13 baseline record of hydrology, but they also provide  
14 input to the proposed in-stream flow study, which  
15 requires discharge information.

16 As far as studies that are proposed for water  
17 quality, we're going to continue to collect water  
18 chemistry data in Grant Creek, Falls Creek, and Grant  
19 Lake, you know, to better define the baseline water  
20 quality conditions, continue to collect continuous water  
21 temperature data in Grant Creek and Falls Creek and  
22 Grant Lake to provide input to resource assessment  
23 models.

24 And that ends the water resources segment and  
25 we have time for a few questions.

1 Yes?

2 WILL BRENNAN: Will any of your studies --  
3 sorry -- Will Brennan. Will any of your studies look at  
4 the water quality on Vagt Lake or fish resources there,  
5 which at least looking at your map looks like there  
6 could be some potential erosion from a new road getting  
7 put in just above it?

8 JOHN MORSELL: We don't propose to look at  
9 Vagt Lake. And I guess it would be the road routing  
10 that would determine whether that would need to be done  
11 in the future.

12 BRAD ZUBECK: We'll make a note of it. I  
13 wouldn't expect that the road would influence Vagt Lake.  
14 And you may or may not be aware that most construction  
15 projects are designed to mitigate against erosion  
16 effects through storm water protection plans, best  
17 management practices, and such. So influences there  
18 would be temporary and we would seek to have some  
19 long-term stabilization graphs and that kind of thing to  
20 stabilize any erosion.

21 Sir?

22 TOM BARNETT: On the private property that is  
23 along that Falls Creek Road, any studies on the  
24 effective -- pulling the water off of Falls Creek, how  
25 much that will affect the water tables in there in terms

1 of the wells that will be affected?

2 BRAD ZUBECK: Groundwater influence, we will  
3 have to make a note. Drinking water -- folks getting  
4 their drinking water from Falls Creek.

5 TOM BARNETT: But its effect on the water  
6 table itself, because not everybody gets it directly  
7 from the creek itself, but you get it from the water  
8 table.

9 BRAD ZUBECK: We'll make a note of it.

10 TOM BARNETT: Because I noticed --

11 BRAD ZUBECK: That wasn't in the scope of our  
12 study plans right now, but we'll make a note.

13 TOM BARNETT: Will it be part of that or is it  
14 just -- I don't want to say it as -- having been through  
15 this on your end of it before, the stock answer is, we  
16 will look into it, thank you for your response, we will  
17 look into it. Are you saying it will be included or  
18 you're not making that commitment?

19 BRAD ZUBECK: Your comment tonight is being  
20 recorded. Transcriptions of this event will be supplied  
21 to FERC and your comment will be addressed. If it's  
22 not, we'll be remiss.

23 BOB ATKINSON: Yeah, Bob Atkinson again. This  
24 is probably pretty off the wall, but for the price of a  
25 pipeline running from Falls Creek to Grant Lake, what's

1 the drop from Grant Lake to the lower section? This  
2 really steep canyon where there's no fish anyway and  
3 it's almost impassible, there's no -- the cost of  
4 building a dam at the bottom of the section, damming up,  
5 making another reservoir down at that elevation and  
6 using that as a head of water, would that be just  
7 totally financially out of the question to actually  
8 build a dam there rather than running a pipeline across  
9 the side of the mountain?

10 BRAD ZUBECK: I'm not sure I understood your  
11 question correctly. As I was thinking while you were  
12 speaking, I was envisioning possibly a structure at the  
13 base of what we call reach five, the base of that canyon  
14 section, that would basically back water up from the  
15 bottom of that point basically up to the natural lake  
16 level, if you will.

17 BOB ATKINSON: Yeah. It's about a 100-foot  
18 deep canyon in there.

19 BRAD ZUBECK: The size and cost of that  
20 structure, I'm assuming, would be greater than the size  
21 and cost of the structure that we envision up by the  
22 natural lake outlet. My guess is --

23 BOB ATKINSON: Well, you could do both. I  
24 mean, that's the point.

25 BRAD ZUBECK: Pardon?

1 BOB ATKINSON: That's the point, you'd use  
2 both. You would use the natural fall from Grant Lake,  
3 but then you'd use whatever fall you could get from the  
4 reservoir that you get by damming it up.

5 BRAD ZUBECK: We'll note your comment. I'm  
6 trusting my engineers who brought me the best possible  
7 project. They may have considered that. I don't know  
8 for sure. But thanks for the question.

9 RACHEL SCHUBERT: Rachel Schubert from Moose  
10 Pass. I was just wondering if your water quality test  
11 includes heavy metal testing or for things such as  
12 arsenic, maybe residual stuff from mining?

13 JOHN MORSELL: I think the answer is yes. It  
14 definitely includes mercury. I don't recall whether  
15 arsenic was included or not.

16 AMANDA PREVEL-RAMOS: The earlier studies in  
17 the '80s did a battery of water quality constituents.

18 JOHN MORSELL: Yes?

19 JJ KAIZER: JJ Kaizer. Have any studies been  
20 done on the impact of the size of the road that will be  
21 necessary for the construction materials for the  
22 penstock to be built between Falls and Grant Creeks?

23 BRAD ZUBECK: The impact will be considered  
24 for the road that would be built.

25 JJ KAIZER: For those who live there as well

1 as the businesses that are close to there?

2 BRAD ZUBECK: So if I could rephrase your  
3 question in terms of a comment, you would like us to  
4 study the impact of the road from -- for the intake and  
5 pipeline from Falls Creek to Grant Creek on the local  
6 residents on --

7 JJ KAIZER: I'm sorry. The impact of the road  
8 that must be widened or improved to take the amount of  
9 traffic and construction materials from the Seward  
10 Highway up to the Falls Creek diversion. What kind of  
11 studies have been done on the impact of the private  
12 property owners there as well as the businesses there?

13 BRAD ZUBECK: We haven't done any studies to  
14 date, but we will take your question and comment. Thank  
15 you.

16 Yes?

17 TOM BARNETT: That particular road -- we're  
18 sort of off the water quality. Somehow we veered off of  
19 that. We're on another road, so to speak. But going  
20 down another path, are the power line tie-in -- is the  
21 power line tie-in route and at road access, are those  
22 virtually etched in stone or are they open to  
23 alternatives?

24 BRAD ZUBECK: They're not etched in stone. At  
25 this time this is a conceptual design, if you will. And

1 they will be modified based on the influence of the  
2 studies.

3 TOM BARNETT: Another question on that. The  
4 easements for those, for the road widening and the  
5 easements actually -- the road goes to a certain point.  
6 And the easements only go to a certain point in there  
7 and then the rest of the road up to the plant and then  
8 over to the -- up to Falls Creek and then all the way  
9 over, that easement and then the easement for the power  
10 line, have they already been approved?

11 BRAD ZUBECK: They have not been obtained yet.

12 TOM BARNETT: Do those have to go through a  
13 separate process with the Borough?

14 BRAD ZUBECK: It's state-owned land for most  
15 of the project facilities, so we would have to pursue  
16 acquisition through the state.

17 TOM BARNETT: I didn't realize it was all  
18 state.

19 BRAD ZUBECK: Yes?

20 PAUL SHADURA: Paul Shadura again. Being that  
21 this is under a five megawatt project and it's mostly on  
22 state land, when it comes to the Federal Powers Act, am  
23 I hearing that the federal oversight -- for instance,  
24 NMFS -- won't be involved in this process? Or am I  
25 misinformed?



1           BRAD ZUBECK: No. If you mean NEPA work,  
2     environmental assessment?

3           PAUL SHADURA: No. National Fishery Service,  
4     the way I understand, on the Federal Powers Act has the  
5     oversight on hydroelectric projects and diversion  
6     projects. But since there is an exemption -- the way  
7     I'm understanding it and I'm trying to understand --  
8     within 2008 that allows the State of Alaska to do that  
9     because it's mostly on state lands, is the state  
10    superceding the federal oversight from NMFS to do that?  
11    And what agency would that be?

12          BRAD ZUBECK: Mr. Prokosch?

13          GARY PROKOSCH: I can answer that. My name is  
14    Gary Prokosch. There was a federal bill and a state  
15    legislative bill that allowed the state to go into  
16    negotiations and come up with a plan to take over the  
17    licensing of projects less than five megawatts. It went  
18    through about a two-and-a-half-year process and then it  
19    was -- regulations done and then it went back to the --  
20    RCA was doing the study, the Regulatory Commission of  
21    Alaska, and it was put on a shelf. There's no  
22    regulations. There's nothing that's been passed.

23          FERC would in fact be in charge of this  
24    project. It would be a FERC-run project. The state  
25    would only do its normal permitting for habitat, water

1 rights, and that type of thing. But there is no  
2 federal -- there is no federal or state law right now in  
3 place that allows the state to license the project.

4 PAUL SHADURA: I've read that on NMFS web  
5 site, so I'm glad you answered that question. The other  
6 question came with the five megawatt picture. We have a  
7 4.5 megawatt producing facility. And as you alluded to,  
8 under five megawatts, was this plant --

9 GARY PROKOSCH: It was the plan, but it  
10 never saw the light.

11 PAUL SHADURA: So there's no significance  
12 about 4.5 to five megs --

13 GARY PROKOSCH: No.

14 PAUL SHADURA: -- in federal oversight limits?

15 GARY PROKOSCH: No. FERC has licensed  
16 projects in Alaska where they run power for a hatchery  
17 and for a cannery and provide full power for a small  
18 village with very, very little water, one or two cubic  
19 feet per second. So FERC can do that. And they -- but  
20 they've exempted larger projects in the State of Alaska,  
21 too, but this one was not exempt. It will go through  
22 the FERC process.

23 PAUL SHADURA: Thank you.

24 JOHN MORSELL: I might add that NMFS has  
25 participated in the -- we've had three working group

1 meetings to discuss in-stream flow issues, and they have  
2 attended all of them. So they have been very much  
3 involved in the technical aspects of the project so far.

4 SPEAKER: Has FERC been involved, a  
5 representative from --

6 BRAD ZUBECK: No, they have not.

7 SPEAKER: Do they have an Alaska office?

8 BRAD ZUBECK: No, they do not.

9 SPEAKER: And they're the lead agency?

10 BRAD ZUBECK: For licensing, yes.

11 SPEAKER: And also for NEPA scoping?

12 BRAD ZUBECK: I believe so, but I would be...  
13 Mr. Ferguson?

14 JIM FERGUSON: I'm Jim Ferguson with the  
15 Alaska Department of Fish & Game. I just thought I  
16 might provide another comment, given the gentleman's  
17 question back here, that National Marine Fisheries  
18 Service, Fish and Wildlife Service, and the Alaska  
19 Department of Fish & Game will all be involved with this  
20 process through the Federal Power Act and through our  
21 abilities to comment that are provided under the Federal  
22 Power Act. And all three agencies are involved.

23 Further, the U.S. Forest Service, because  
24 there's forest service lands involved in the project  
25 area, will have an additional authority to put mandatory

1 conditions on the license, which is something that in  
2 general -- there's always exceptions, but in general the  
3 other agencies cannot do. So just to let you know kind  
4 of how all that works.

5 And regarding FERC's involvement, if they  
6 conduct the scoping and they produce the scoping  
7 documents, they will actually lead the meetings when the  
8 scoping starts.

9 MIKE GLASER: My name is Mike Glaser from Mile  
10 20. When Grant Lake is considered as a standalone  
11 project, are they still anticipating using the Falls  
12 Creek Road for access or is another road access being  
13 considered if it's just for Grant Lake?

14 BRAD ZUBECK: I believe we would still use the  
15 Falls Creek Road for access to the Grant Lake site.

16 JOHN MORSELL: I guess we probably ought to  
17 move along. There will be more time for --

18 BRAD ZUBECK: Mr. Shadura had one more  
19 question. Let's get that and then we'll move on.

20 PAUL SHADURA: Just about the funding aspects.  
21 There's a lot of proposals, you know, for studies  
22 analysis, a lot of comments brought up here, the way the  
23 money stretches nowadays, the amount that we see on the  
24 table here seems kind of small for what I envision is a  
25 complete analysis for the whole project. That's just my

1 opinion. Are the companies involved in HEA looking for  
2 federal funding for a substantial portion of the final  
3 project or some more analysis, or is this totally a  
4 private enterprise or a public cooperative enterprise  
5 through HEA and CIRI?

6 BRAD ZUBECK: Well, I think --

7 PAUL SHADURA: I'm looking for the funding  
8 aspects. Is federal funding involved in this at all?

9 BRAD ZUBECK: At this time, no, there are no  
10 federal funds involved in the project.

11 Let's move on. There will be another  
12 opportunity -- actually, it's time for a break.

13 (Break.)

14 BRAD ZUBECK: Thanks for the questions so far.  
15 Just a quick reminder, the purpose of tonight is to try  
16 to identify issues that we might have missed. So if  
17 you -- some great comments, some great issues. But  
18 remember, just try and keep questions for the most part  
19 of the meeting to issues that we would require for  
20 study. Personal issues, those are all good ones, having  
21 to do with where you live and how the project might  
22 impact you are great questions and comments. Other  
23 questions that you might want to ask us, grab us at the  
24 break, grab us on the side, or we'll have time at the  
25 end. If we run out of issue-type questions, we'll be

1 glad to field other ones.

2 So with that, we'll start again. And thank  
3 you for your attention.

4 JOHN MORSELL: We're going to briefly talk  
5 about terrestrial resources. I'm standing in for my  
6 wife who is conveniently sick. So if I sound kind of  
7 stupid, that's why.

8 Well, we have the same array of existing  
9 information that we have had for most of the other  
10 studies, except that much less attention has been paid  
11 to terrestrial resources than to the fish resources.  
12 Because of perception, I think that the impact to  
13 terrestrial resources will probably not be as sensitive  
14 as the fish issues.

15 But some of the previous studies have done  
16 some real basic inventories of plants and wildlife.  
17 Plus, there's the various resource agencies, especially  
18 the Forest Service has been involved in classifying  
19 habitats and doing vegetation studies and so forth. All  
20 the existing information is summarized in the  
21 preliminary application document.

22 Just a real brief rundown on plant community.  
23 It's pretty much typical of what you would expect to  
24 find on the Kenai Peninsula. There's a mixture of  
25 coniferous, deciduous, and mixed forest, shrub lands,

1 grasslands, and tundra and various kinds of wetland  
2 habitats.

3 As you all know who live down here, the bark  
4 beetle has had a significant effect on a portion of the  
5 peninsula, including the Grant Lake Project area.

6 Some of the plant communities of special  
7 interest include forested areas with harvestable timber,  
8 some of the wetland and riparian communities, and  
9 special attention to rare or sensitive plant habitats.

10 And this -- actually, it might be a good idea  
11 to turn off the lights. This slide kind of provides a  
12 good overview of habitat or plant community types. If  
13 you use your imagination a little bit, this is Grant  
14 Lake up here with Grant Creek flowing down here into the  
15 narrows between Upper and Lower Trail Lakes. We  
16 obviously have alpine terrain on the mountain side,  
17 hillside alder shrub terrain at a little slightly lower  
18 elevation.

19 Most of the forest surrounding Grant Lake is  
20 coniferous, spruce and hemlock. And then as you drop in  
21 elevation somewhat, you get into the mixed spruce and  
22 birch forest. And then in lower Grant Creek there's a  
23 substantial stretch of pretty much deciduous forest,  
24 primarily cottonwoods and birch. And you can also see  
25 that there are wetlands, little bogs and various kinds

1 of wet communities scattered here and there.

2 As far as wildlife community studies, the 1980  
3 study did an inventory and estimated 108 bird species  
4 and 34 mammal species. Some of the habitats of  
5 particular interest include this area, which is actually  
6 the Grant Lake outlet. This is the beginning of Grant  
7 Creek right here. This outlet area is shallow.

8 It has emergent -- not emergent, but aquatic  
9 vegetation and a large part of it remains unfrozen  
10 during the winter. And the previous study found that  
11 there were a bunch of waterfowl that actually hung out  
12 here, primarily dabbling ducks, all winter. So this is  
13 considered sort of a project-specific area of some  
14 significance.

15 And these are just real general habitat maps.  
16 This is potential raptor nesting habitat, possible bald  
17 eagle nesting, possible cliff nesting raptors, golden  
18 eagles and falcons, and rough-legged hawks in some of  
19 the steeper terrain.

20 Waterbird nesting habitat is pretty much any  
21 place around Grant Lake where the elevation is -- the  
22 elevation change isn't too steep. So any place where  
23 there's a margin along the lake shore is a potential  
24 waterfowl nesting.

25 But another area of particular interest is



1 this delta at the head of Grant Lake where there's a  
2 substantial inlet stream, a good-sized delta. This  
3 whole area is considered to be potential waterfowl  
4 nesting habitat.

5 The same with brown bears. The purple areas  
6 delineate potential denning habitat. And the blue areas  
7 are primarily foraging habitat. And then you can see  
8 that this northeast ridge along the right part of Grant  
9 Lake is thought to be significant from both a denning  
10 and a foraging standpoint for brown bears.

11 Moose range. As you all know, moose are found  
12 pretty much wherever they can get to. So this outer  
13 line pretty much surrounds everything except the real  
14 steep terrain. But, again, we have some habitats of  
15 interest in this upper delta area where there's a  
16 designated high-value wintering area here and then an  
17 expanded wintering and summering area up in here.

18 Some of these terrestrial resources have  
19 special status due to the state or federal regulations.  
20 Fish and Wildlife Service has identified two sensitive  
21 plant species that might be present in the project area  
22 but no sensitive, rare, threatened, or endangered plants  
23 have actually been documented in the project area. No  
24 threatened or endangered animals occur in the project  
25 area.

1 Fish and Wildlife Service pays special  
2 interest to three management indicator species, the  
3 brown bear, moose, and mountain goat. And then there's  
4 a bunch of other species that are of interest, but less  
5 so. And the State also lists species of special  
6 concern, primarily bird species. And these lists of  
7 species can be found in the preliminary application  
8 document.

9 As far as issues related to terrestrial  
10 resources, we have potential effects on the wildlife  
11 from overall disturbance due to various kinds of  
12 construction and operation activities, such as aircraft  
13 operations, heavy equipment, blasting, all the kinds of  
14 things that you associate with the development of a  
15 project.

16 You also have the potential effects of  
17 increased water level fluctuation in Grant Lake,  
18 especially in relation to a bird nesting habitat, and  
19 the potential effects of changes in flow in Grant Creek  
20 and Falls Creek.

21 And you have possible construction effects due  
22 to new habitat elimination, effects on wildlife. If  
23 fisheries are affected, then some wildlife species may  
24 also be affected.

25 And then there's also the potential issue

1 associated with access roads and transmission lines as  
2 related to fish and wildlife -- to wildlife  
3 specifically.

4 The proposed studies as far as plants are  
5 concerned. Existing vegetation maps that are available  
6 for the area will be refined. There will be a timber  
7 stand survey that is suggested. Also proposed, a  
8 sensitive plant survey and an invasive plant survey.  
9 The Forest Service specifically requires some of these  
10 specific kinds of plant studies.

11 And wetlands will also be further delineated.  
12 There are existing wetland maps for the project area,  
13 but they're fairly large scale and they will have to be  
14 refined for the project.

15 Where wildlife is concerned, obviously we need  
16 to get a better handle on the distribution and abundance  
17 of the key wildlife species, you know, which involves  
18 documenting species' composition for birds and mammals.  
19 Also classifying and mapping wildlife habitat in the  
20 project area, which will occur in conjunction with the  
21 plant resources studies.

22 And another study has to do with conducting a  
23 bear denning survey, and especially brown bears, which  
24 have been a sensitive issue on the Kenai Peninsula in  
25 recent years.

1                   That's the end of the terrestrial resources  
2 segment. Any questions?

3                   Yes?

4                   DAVID PEARSON: David Pearson, Moose Pass.  
5 With the fluctuation 10 feet coming up, would that  
6 pretty much flood that eastern area where you do have it  
7 identified as high-valued moose habitat? I guess my  
8 question is: What's the change of elevation between the  
9 lake and that habitat?

10                  JOHN MORSELL: We don't know, but that is  
11 something that we definitely need to study and we will  
12 study. Obviously, we'll flood some of it, but I think  
13 the study program will probably allow us to delineate  
14 the boundaries of the flooded area.

15                  Yes?

16                  BILL DOWLEY: Bill Dowley, Crown Point. How  
17 is this road that goes from Falls Creek to Grant Lake  
18 going to affect public access? Is there going to be a  
19 public parking area at Grant Lake? Are we going to see  
20 boat access there? What type of public access is going  
21 to be available on this road?

22                  BRAD ZUBECK: Good questions. And that's  
23 where we would rely on public input to study the process  
24 to determine whether the public is interested in such a  
25 facility or not. So that will be one of the things that

1 we would like to quantify through study.

2 Is that something that you would be an  
3 advocate of? Would you like to see that?

4 BILL DOWLEY: I think it could go either way.  
5 It could either be a good thing or it could be a not so  
6 good thing. Would I like to have access to the area?  
7 Yes. Would I like everybody else to? Not necessarily.

8 BRAD ZUBECK: Sir?

9 TOM BARNETT: To follow-up on his question --  
10 Tom Barnett again. If you are going to do public  
11 access, then the more of that you promote -- by allowing  
12 public access, you promote more traffic on that  
13 particular road, which would definitely affect that  
14 subdivision, which kind of leads back to the question  
15 asked earlier: Is that road etched in stone?

16 BRAD ZUBECK: Again, a subject for a study.  
17 Couldn't tell you at this time.

18 TOM BARNETT: Any thought about moving it to  
19 the south side of Falls Creek, crossing Falls Creek,  
20 since it has such low volume with the culvert? Avoiding  
21 that particular subdivision, you allow for more public  
22 traffic if you want it without affecting the quality of  
23 life along that road where people do live now.

24 BRAD ZUBECK: So if I understand correctly,  
25 you would like not to have that residential street now

1 be an arterial street, kind of a major access, you would  
2 like it to be kept a side road and the main access along  
3 a different route?

4 TOM BARNETT: I guess what I want is to be  
5 kind of pragmatic about things to a certain degree. One  
6 is, you guys really desire to have that project. And  
7 I'm not going to tell you that I'm objecting to it,  
8 because I really don't, but I do see some things that  
9 could be detrimental to the lifestyle of the people that  
10 do live in that area. So the better way to look at it  
11 is a win-win. Move the road away from people that are  
12 affected, but it still allows for public access, if  
13 that's the goal.

14 Even for the construction side of things and  
15 the widening and even the traffic that still will be  
16 generated, it's still not a bad idea because it  
17 remains -- it keeps a relatively private community  
18 private with limited access. And the more public you  
19 make roads -- arterial, as you put it -- the more  
20 problems you get with that in terms of break-ins and  
21 those sort of things. But if you circumvent that and  
22 make it less attractive, it's a win-win.

23 Then the other side of that, too, is -- well,  
24 I guess it doesn't matter, the power lines going across  
25 that. The substation is on the south side of the creek,

1 too, that existing one.

2 BILL DOWLEY: Are you suggesting that the road  
3 follow the power line path approximately, the access  
4 road?

5 TOM BARNETT: No. I'm thinking going up the  
6 south side of Falls Creek, as opposed to the north side.

7 BILL DOWLEY: So the mining road?

8 TOM BARNETT: Yeah. There's a mining road on  
9 that side. Well --

10 BILL DOWLEY: Oh, I see.

11 TOM BARNETT: There's the mining road that's  
12 farther down at the -- oh, come on.

13 SPEAKER: Right south of Falls Creek.

14 TOM BARNETT: Just south of Falls Creek.

15 SPEAKER: By the old dump, the old Moose Pass  
16 dump.

17 BRAD ZUBECK: It's probably a good time for me  
18 to mention something that we intended to mention to you  
19 guys. As we put these study plans into place, we'll be  
20 forming technical work groups -- you might have heard  
21 that term earlier -- for different resource areas that  
22 we're talking about tonight.

23 And through the use of our web site, we'll  
24 have areas that you can select for areas of interest.  
25 One of those might be recreational access, which would

1 cover roads and road construction, that kind of thing.  
2 So you'll be able to indicate what your area of interest  
3 is, sign up for a specific user group or technical work  
4 group that can provide further comment and insight on  
5 certain elements that interest you.

6 And so as we put together these proposed study  
7 plans at some point in the future, we wouldn't seek to  
8 do all of these resource-specific comment meetings in an  
9 environment like this. We would like to break into  
10 smaller groups where people have a particular interest  
11 and share those comments. And folks that don't share  
12 those same interests don't have to, if you will, suffer  
13 through questions that they have no interest in.

14 So these user groups through the vehicle of  
15 the web site, you can sign up for and we'll be glad in  
16 the study phase to address these kind of issues.

17 And so I appreciate the questions and  
18 comments. And rather than get down to the weeds of  
19 actually designing the roads, which are great -- that's  
20 to come -- let's just address -- we need to study road  
21 alignments to make best use for public access and maybe  
22 to keep residential areas private with concern to maybe  
23 public access and vandalism, that kind of thing.

24 So those are all good comments. Keep those  
25 up. But, again, we'll have a forum for that in the



1 future in these study groups, the technical work groups.

2 JOHN MORSELL: As far as the access issues  
3 beyond private property, the state and the Forest  
4 Service are obviously going to be real interested and  
5 play a big part on exactly what happens on these roads,  
6 at the ends of these roads, and so forth.

7 PAUL SHADURA: Currently I don't think this is  
8 within the bounds of the Kenai River Special Management  
9 Area, but I think that there is some bills and some  
10 efforts to include portions of this area so parks would  
11 be involved when there is the public access situation.  
12 Are we analyzing that situation if that comes to play  
13 and what would happen if --

14 BRAD ZUBECK: We would have to consider that.

15 PAUL SHADURA: -- parks would be involved in  
16 this.

17 BRAD ZUBECK: Yes.

18 PAUL SHADURA: And I just noticed there was a  
19 blocked black kind of area in there. Is that to signify  
20 a different ownership or would that be the KRSMA area  
21 there? It's on your maps. It's kind of shaded.

22 BRAD ZUBECK: I don't believe we have a map of  
23 the Kenai River Special Management Area. But the maps  
24 that you're probably referring to are land use or land  
25 ownership. So I'm guessing that that was probably

1 Forest Service and state ownership of lands in the area  
2 as well as private ownership.

3 PAUL SHADURA: Thank you.

4 BRAD ZUBECK: Yep.

5 AMANDA PREVEL-RAMOS: As far as the Kenai  
6 River Special Management Area, I think that all  
7 tributaries to the Kenai River are a part of that, and  
8 so it does apply.

9 PAUL SHADURA: So they already have an  
10 overview of the Grant Creek situation?

11 PAM RUSSELL: We've been in -- me and Jack  
12 have been in --

13 THE REPORTER: I can't hear.

14 BRAD ZUBECK: Pam Russell with State Parks  
15 stating that she and Jack have been involved in the  
16 process.

17 We'll move on.

18 JENNA BOROVANSKY: Again, this is Sally's area  
19 of expertise. Although I do like to recreate, I haven't  
20 studied it.

21 And this is recreational and visual resources.  
22 It also covers -- it's kind of a -- this study area will  
23 also cover land use, and so it's kind of broader than  
24 just recreational and visual. It's land use and kind of  
25 the whole human interaction with the area and all the

1 parts of that.

2 And there is extensive existing information  
3 just like all the other areas. Not quite as much as  
4 fish and aquatics, again, but the Forest Service has  
5 done some surveys and recreation information.

6 The earlier AEIDC report, which I don't know  
7 that anybody has mentioned, is available on the web  
8 site. All of this 1980s information is all summarized  
9 in -- you know, if you print it out, it's that thick.  
10 If you look at it on the web, it's a lot of pages. But  
11 we have both those available on the web for download if  
12 you're interested in some of this historical information  
13 on any of the resource areas. And then a summary of the  
14 information is in the PAD.

15 So for recreational and visual, just kind of  
16 an overview of land use and land use designations in the  
17 area. The upper portion of the watershed around the  
18 lake is Forest Service, Forest Service ownership. It's  
19 all within a fish, wildlife, and recreation prescription  
20 until you get to the east end of Grant Lake, which is a  
21 backcountry prescription.

22 State lands are kind of the lower portion of  
23 the project area of the map coming up. And that  
24 includes the location of the majority of all the project  
25 facilities are going to be on State lands.

1           The Bureau has selected some lands between  
2   Grant Lake and Upper Trail Lake with use yet to be  
3   designated -- to be determined. And then there is some  
4   private property in the Moose Pass area along the shores  
5   of Upper and Lower Trail Lakes and as has been mentioned  
6   kind of along that Falls Creek Road.

7           This is the land ownership map. The green is  
8   Forest Service. The blue is State lands. And then this  
9   is -- there's our project facilities and there's Falls  
10   Creek. And then the little red spots, a lot of you  
11   probably know those. Those are the private lands.

12           So we're mostly dealing with state land and  
13   Forest Service prescriptions and management and  
14   interaction and management direction. So the studies  
15   will be looking at kind of existing resources in  
16   management prescription and then kind of predicting  
17   changes.

18           So identified trails in the area. The  
19   Iditarod Trail traverses the project area. There's  
20   several other trails that are either near or within the  
21   project area; the Grant Lake Trail, Falls Creek Road,  
22   Vagt Lake Trail, Crown Point Mine Road and Trail have  
23   all been identified already.

24           Access to the area. Generally, boat in the  
25   summer; snowmachine, cross-country skiing in the winter.

1     There's no developed trailheads or signs within the  
2     project area currently. Use level based on Forest  
3     Service work that's been done, it's characterized as  
4     light currently in the summer and the winter. That's  
5     relative to other areas in the Kenai River watershed.

6             A photo of one of the main trails in the area,  
7     the Falls Creek hiking trail.

8             Other recreational uses that are documented  
9     and we'll be looking at, hunting and fishing, mining.  
10    There are some active mine claims, particularly around  
11    Falls Lake and the lower part of -- Falls Creek and the  
12    lower part of Grant Lake.

13            Access on the Forest Service lands. Motorized  
14    travel is permitted in the winter until you get into the  
15    backcountry prescription. It is limited to helicopters  
16    only. So all that will be taken into consideration when  
17    we're looking at that.

18            Scenic designation by the Forest Service right  
19    now is considered moderate. And then in the backcountry  
20    prescription area it's high. And the scenic features  
21    have -- two scenic features within the project area have  
22    been described in Alaska DNR studies; the waterfall at  
23    the outlet of Grant Lake as well as the high mountain  
24    walls surrounding the lake and the east shore.

25            And then when we're looking at esthetics and

1 visual, the project area actually isn't visible from the  
2 Seward Highway or other easily accessible vantage points  
3 and trails. That's something that when we get into the  
4 study design we'll be looking at more.

5 Here's the cascade below the outlet of Grant  
6 Lake, to give you an idea of the esthetics we're looking  
7 at. And this is Grant Lake looking east into the  
8 backcountry prescription area.

9 So the issues that we're going to be looking  
10 at in regard -- that we've identified so far in regards  
11 to recreation and visual resources, again, we're going  
12 to look at the potential effects of the water level  
13 fluctuations in Grant Lake; the changes in flow in Grant  
14 Creek and Falls Creek on things like recreational  
15 access, perception, use; the potential effects of the  
16 actual construction of the project and the expansion of  
17 the roads; and then looking at the potential effects on  
18 recreation if the distribution of the fish change.

19 Again, recreational land use and visual is a  
20 lot of interaction between the different resource areas,  
21 and so there's a lot of pull from the information you  
22 get on the fish, and these things then affect recreation  
23 and vice versa.

24 And then also looking at the potential effects  
25 of construction and then the maintenance of those access

1 roads and transmission lines. And, again, as John  
2 mentioned, on the roads, in particular on state lands  
3 and Forest Service lands, their management direction and  
4 prescriptions are going to have a lot to say about how  
5 the roads are managed, considering that the purpose of  
6 having it in there is also to allow access for Kenai  
7 Hydro to the dam.

8 And then the studies that are planned will get  
9 at those effects and questions. We're looking at kind  
10 of taking another look at current recreational use. And  
11 then they use that data from regional trends as well as  
12 the potential project expansion and access and predict  
13 trends into the future if the project were constructed.  
14 The goal is to understand public use, perception, and  
15 the recreational opportunities in the area. And we'll  
16 be using U.S. Forest Service methods and designations to  
17 classify the studies' results.

18 And then we'll also look at the visual quality  
19 of the project area. And that usually involves kind of  
20 picking -- this is where the work group comes into play  
21 with the agencies and the public and people are  
22 interested. Usually you pick different key visual  
23 observation points and predict what the project --  
24 what it would -- well, you look at what it looks like  
25 now and then you predict what it will look like, whether

1     you'll see the project facilities. And then you look at  
2     public perception of the visual esthetic qualities in  
3     the area. And then you also look at land use in  
4     general.

5                     And then we're on to questions.

6                     JJ KAIZER: Bradley Lake is the name of the  
7     Homer Electric Project at Kachemak?

8                     BRAD ZUBECK: Actually, it's a state project  
9     that Homer Electric operates and maintains it for the  
10    Bradley Lake facility.

11                    JJ KAIZER: And if I were to be standing at  
12    the Russian village that is on the other end of that --  
13    the other side of that bay at night, what would I be  
14    looking at when I'm looking at the hydro project? Would  
15    I be seeing that at night?

16                    BRAD ZUBECK: You're asking about the Bradley  
17    Project or are you asking about the Grant Creek --

18                    JJ KAIZER: The Bradley Project.

19                    BRAD ZUBECK: I would simply be guessing, but  
20    the powerhouse may be visible from Homer, say, or the  
21    north side of the bay.

22                    JJ KAIZER: So it's well lit?

23                    BRAD ZUBECK: You know, I really can't speak  
24    to that. I don't know. I'm sure there are some lights  
25    for security and operations. I'm not sure. I haven't



1     tried to -- it's not really germane tonight. I'm not  
2     prepared to answer that question.

3                 JJ KAIZER: And what would I be hearing at  
4     that Russian village?

5                 JOHN MORSELL: You wouldn't hear anything.

6                 JJ KAIZER: You wouldn't hear anything?

7                 JOHN MORSELL: No.

8                 JJ KAIZER: Okay. All right. So when we say  
9     "visual effects", are we thinking of daylight visual  
10    effects or are we also looking at how it's going to  
11    affect the look of that community at night?

12                BRAD ZUBECK: We can certainly take that into  
13    consideration for visual and esthetic impacts to  
14    consider what the project would look at night; night  
15    pollution, can you see the stars, that kind of thing.

16                JJ KAIZER: It's not an off-handed question  
17    because there are a number of businesses in that  
18    community that are based on the pristine quality of the  
19    area, period.

20                BRAD ZUBECK: Okay.

21                JJ KAIZER: And if we have not considered that  
22    as a major issue of this project, we have not considered  
23    the people who are going to be impacted by this project.

24                BRAD ZUBECK: I agree. And that's why visual  
25    and esthetic resources is a resource that's identified

1 for studying an impact.

2 JJ KAIZER: And how many of those businesses  
3 will not exist after such a thing is built?

4 JENNA BOROVANSKY: A part of a standard  
5 environmental impact statement is also a  
6 socioeconomic impact.

7 JJ KAIZER: You know, I'm sorry to say, dear,  
8 I haven't seen a lot of that happening right now. I  
9 don't see it up there. Maybe I'm missing something.

10 JENNA BOROVANSKY: Well, we can put it here.  
11 It will be considered in the analysis.

12 BRAD ZUBECK: Valid question. And that's the  
13 purpose of the meeting tonight is to take exactly those  
14 comments.

15 Sir?

16 TOM BARNETT: The transmission line, as you  
17 have it shown there; aboveground, buried?

18 BRAD ZUBECK: Right now it would be an  
19 overhead power line, yes.

20 TOM BARNETT: What's the size of the easement  
21 and what are the size of the poles?

22 BRAD ZUBECK: Typical easement would be maybe  
23 60 feet, 100 feet on the outside, I would guess.

24 Pole heights -- Mr. Don Smith? 60-foot? Do  
25 you have a wild guess at what the pole height might be?

1 DON SMITH: What voltage are we talking?

2 BRAD ZUBECK: Let's say it would be conducted  
3 at -- well, 69 or 115. Conducted at 115.

4 DON SMITH: Then, yeah, probably a 60-foot  
5 pole height.

6 TOM BARNETT: Wood; steel?

7 BRAD ZUBECK: Most likely wood.

8 TOM BARNETT: And that's part of the project,  
9 so that is a visible -- that will be visible?

10 BRAD ZUBECK: Potentially visible from a boat,  
11 for instance, if you were on the lake. Maybe not so  
12 visible from the Seward Highway if you're in your  
13 vehicle. But, again, that would be an element of the  
14 visual --

15 TOM BARNETT: Well, you're running a straight  
16 line right across the Seward Highway, according to that  
17 tie-in. So you'd be driving along and you'd look right  
18 down it.

19 BRAD ZUBECK: Again, it's drawn that way. I'm  
20 fairly certain it probably wouldn't be constructed that  
21 way. The visual studies will address the alignment.

22 JENNA BOROVANSKY: I think on that one we even  
23 went so far in the pre-application document to state  
24 that that will be adjusted.

25 We're just in the steps of -- we're

1 identifying all the things to be studied now and then  
2 the pre-application document has the existing  
3 information. And then once we get the studies, then you  
4 start to look at essentially tweaking the designs to  
5 respond to the studies both in operation of the dam and  
6 the esthetics. And then you develop and you finalize  
7 the -- well, you draft and finalize this application.  
8 In conjunction with agencies and the public you develop  
9 what are called protection, mitigation, and enhancement  
10 measures. It's to protect the resources, mitigate for  
11 any impacts, and enhance resources that are already  
12 there.

13 And that's the thing that I'm hearing people  
14 have noticed is missing from the pre-application  
15 document because we're so early. You know, we're out  
16 there with the existing information, we get the input,  
17 and then together we develop.

18 TOM BARNETT: So you're saying this question  
19 has sort of already been addressed a little bit?

20 JENNA BOROVANSKY: We're saying it's already  
21 been identified to be addressed, but nobody has the  
22 answer of exactly how it will look because it will be  
23 figured out.

24 MARK LUTTRELL: I wanted to make one  
25 clarification about --

1 BRAD ZUBECK: Mr. Luttrell.

2 MARK LUTTRELL: -- the visuals from the Seward  
3 Highway, for example, at the -- where the current bridge  
4 is that's being repaired at the very south end of the  
5 Lower Trail, at the Vagt trailhead, there's that poplar  
6 shoreline there. From there you can see the whole  
7 industrial nature of the road and the powerhouse and the  
8 transmission line.

9 And, also, a component that I think you would  
10 be able to see, and it hasn't been discussed yet, is the  
11 surge tank, which I understand is sort of like a  
12 hydraulic safety valve. But in the pre-application  
13 document it's listed as something that would be 110 feet  
14 tall, which would be visible.

15 BRAD ZUBECK: That's another placeholder in  
16 the document. Maybe I'll let Bob speak to that in terms  
17 of options.

18 BOB BUTERA: Basically what that's there for  
19 is to absorb transient pressures in the penstock. And  
20 it has to be at least as tall as the lake elevation when  
21 the water comes in. So we put that in as a placeholder,  
22 but there are other ways to do it. It can be done with  
23 valves. It can be done by doing a vertical shaft inside  
24 the tunnel. There's other ways. It's a good comment.

25 DAVID PEARSON: David Pearson, Moose Pass.

1 This might be a moot point because of the amount of  
2 water you're moving, but you haven't addressed Lower  
3 Trail Lake and it's effect on ice, say, if people use  
4 that as a fairway for snowmachines in the winter and  
5 cross-country skiing. And I assume you're pulling the  
6 most water in the winter because that's when your demand  
7 is, so you're going to be putting -- is that going to  
8 change the safety on ice on Lower Trail Lake?

9 JENNA BOROVANSKY: That's a good comment.

10 DAVID PEARSON: I mean, the narrows are kind  
11 of sketchy to begin with. Is that going to extend that  
12 to Lower Trail Lake? You just had nothing about Lower  
13 Trail Lake. And that's probably where a lot of  
14 recreation happens as well.

15 JASON AIGELDINGER: Jason Aigeldinger, Mile 24  
16 and a half. I was looking at your map there on the --  
17 it would be the northeast corner of Lower Trail Lake  
18 where there's that private parcel in red there. Those  
19 folks do access their property in the winter via  
20 snowmachine, in the summer via boat. Can you give us an  
21 answer as to how -- you know, how Dave's talking about  
22 how is this going to jeopardize the safety of using the  
23 ice in that area in the winter months. Are those folks  
24 going to be able to get access to their property via  
25 your road when and where it's put in? Will they have

1 access to their property?

2 BRAD ZUBECK: Access for the project features  
3 would be only up to the lake and to the powerhouse, for  
4 instance. We're not proposing a road down to the mouth  
5 of the creek. And so access would be -- as you would --  
6 as they normally get access now, by snowmachine or by  
7 boat. And a study, as this gentleman has brought here,  
8 might look at ice safety or safety on that lake and how  
9 increased flows in the winters might reduce ice  
10 thickness or safety in the area. But aside from that,  
11 I'm not sure how we could answer the question tonight on  
12 how they might access their property.

13 JASON AIGELDINGER: Will they be able to  
14 benefit from the power generated by the creek next to  
15 their property?

16 BRAD ZUBECK: In a general sense potentially,  
17 but they're not in this particular area. The customers  
18 are of Homer Electric. The project might provide some  
19 ancillary benefit to reducing transmission line losses  
20 on the way due -- from other generation facilities, say,  
21 but those aren't probably things that you're going to  
22 perceive or realize -- recognize as benefits.

23 JASON AIGELDINGER: So right now they use a  
24 generator for power and they're going to have 60-foot  
25 power lines in their backyard. Will they get a little

1 taste?

2 BRAD ZUBECK: At this time I couldn't possibly  
3 tell you, but if they wanted to get involved in a group.  
4 I don't know if there would be a way to provide service  
5 to them. So a question might be, could the project  
6 bring residential service to residents or cabins in the  
7 area? We'll take that as a comment.

8 DAVID PEARSON: David Pearson, Moose Pass.  
9 Falls Creek Road, 12 residents, two with power, you're  
10 putting a road through it. We're not living there for  
11 the power. You're kind of taking what we live there  
12 for, so we don't see any of the benefits. That would be  
13 another question. Do those residents also get the  
14 kickback, say, power to their houses?

15 SPEAKER: What if those residents are fine  
16 without power?

17 BRAD ZUBECK: So the question, I think, kind  
18 of stands, and it falls all in the same category: Could  
19 residents of the area potentially benefit from  
20 residential service from the project?

21 DAVID PEARSON: Yes.

22 BRAD ZUBECK: Talk to me afterwards about  
23 that.

24 ADRIENNE MORETTI: Adrienne Moretti. And also  
25 continuing that out to not just the people that live on



1     that road but all the people of Moose Pass. The people  
2     who live there, what are the benefits, I think is a good  
3     question to ask here.

4                 BRAD ZUBECK: So as Jenna alluded to, there's  
5     a socioeconomic impact assessment, or study, as an  
6     element of the study program. So we would attempt to  
7     quantify what the benefit to the community might be. At  
8     this time I would only be speculating at what that could  
9     be. I don't know. Economic impact, increased activity,  
10    bringing dollars to the community, that kind of thing.

11                TOM BARNETT: Decreased property values.

12                BRAD ZUBECK: Again, a subject for a study.  
13    Pros and cons, a socioeconomic study.

14                Sir?

15                BILL DOWLEY: Bill Dowley, Crown Point. To  
16    kind of expand on that, I think that what she's getting  
17    at, and I'd like to know, too, if when the landslides  
18    take out the power at Mile 20-odd, are we going to still  
19    have power in our area?

20                BRAD ZUBECK: Good question. Obviously, if  
21    you had an avalanche on one side or the other where your  
22    power -- do you currently get power from Chugach?

23                BILL DOWLEY: I'm at Mile 23. So if there's  
24    an avalanche at Mile 20-something below me, our power  
25    goes out. Since this is upstream from us and we're tied

1     into the grid, will this give us the ability to maintain  
2     power even though it's out below us, south of us?

3                 BRAD ZUBECK:   If an avalanche separates you  
4     from your generation source, wherever that might be,  
5     you'll be out of power.   If you are nearer to the  
6     generation source than the avalanche obstruction, you'll  
7     have power, is the best way to answer that.

8                 JJ KAIZER:   Where is this 4.5 megawatts going?  
9     It's going into the grid?

10                BRAD ZUBECK:   It will be going onto the grid.  
11    And again -- yes, going onto the grid.

12                JJ KAIZER:   And does that go to Anchorage and  
13    Homer?

14                BRAD ZUBECK:   It goes to the grid.

15                JJ KAIZER:   Right.

16                BRAD ZUBECK:   And on paper it would be owned  
17    by Homer Electric.   In the electron world, the entire  
18    rail belt grid benefits from the generation in that  
19    location.

20                JJ KAIZER:   And can you tell us at this point  
21    what hydro projects are being planned for the peninsula  
22    closer to those two main towns?

23                BRAD ZUBECK:   The only thing I can speak to  
24    are Homer Electric's plans.   And I mentioned earlier in  
25    the presentation, at this time, we have no other plans

1 for a hydroelectric facility. This is the only project  
2 at this time we're concerned with.

3 Sir?

4 WILL BRENNAN: I have a question about how you  
5 go about trying to quantify visuals or esthetics. I  
6 mean, personally, my favorite view in Moose Pass is when  
7 you go up the trail, you take that left down to the  
8 lake. I don't know if you've been up there, but it's  
9 beautiful. It's a massive lake that you have to walk  
10 to. And it's for us. It's for the people of Moose Pass  
11 because there's no trailhead, you have to cross a lake,  
12 and you have to know how to cross that lake.

13 I mean, how do you quantify my love for that  
14 spot versus your need for power? I mean, yours is  
15 quantifiable. Mine, it's all qualitative and I love it,  
16 but how do you put that in a chart?

17 BRAD ZUBECK: I personally can't tell you how  
18 that happens, but there are folks that --

19 WILL BRENNAN: You're doing the studies. How  
20 are they being conducted, is all I want to know?

21 BRAD ZUBECK: I couldn't tell you exactly how,  
22 but I would encourage you to participate in the work  
23 group that we'll be conducting that will be involved  
24 with the visual and esthetic resource studies so that  
25 you will have your influence on that study. That's the

1 best I can do for you tonight.

2 JENNA BOROVANSKY: And, sorry, this is  
3 something that Sally knows a little bit more about the  
4 methods that are used in the group. I mean, that's one  
5 benefit of the group, you chose areas that you're going  
6 to look at that are potentially visible.

7 And in other projects what I've seen done is  
8 you look at photos. You take a photo from a viewpoint  
9 and then for a project that doesn't exist yet, you would  
10 put renderings and show whether it was visible or not  
11 and then you kind of look at it. I can't really --  
12 that's where the study plan development with somebody  
13 whose expertise is in this, they work with you to try  
14 and assess the potential change from what there is now  
15 to what there would be with the project.

16 BRAD ZUBECK: Sir?

17 TOM BARNETT: Any 3-D modeling in the works?

18 BRAD ZUBECK: Can you identify yourself,  
19 please?

20 TOM BARNETT: Tom Barnett. Any 3-D modeling  
21 in the works for that? Because some of the specific  
22 areas that were mentioned before, the Vagt Lake  
23 trailhead, spots that Will was talking about, and then  
24 the other spots, I mean, you could truly benefit from  
25 that. But what I'm kind of hearing is that it's not on

1 the agenda; it's more on the rendering side of things.

2 Well, I guess you could render in 3-D.

3 JENNA BOROVSANSKY: A 3-D rendering is my  
4 understanding.

5 TOM BARNETT: Is that part of it?

6 BRAD ZUBECK: You know, I think that's a  
7 little in more detail than I think we're going to be  
8 able to legitimately speak to tonight. But, again, if  
9 you would direct questions to comments. I think we  
10 should -- I think there would be a need for a 3-D model  
11 when you study visual and esthetic resources. So just  
12 frame it that way and we'll take and make note of that  
13 comment.

14 TOM BARNETT: I think you just framed it for  
15 me. Thank you.

16 BRAD ZUBECK: They're good questions we'll  
17 just try and form into comments that will help us shape  
18 studies.

19 Sir?

20 JASON AIGELDINGER: Jason Aigeldinger, again,  
21 from Moose Pass. We spoke in January and I asked a  
22 question about funding as well as a ballpark figure as  
23 to how much it's going to cost. Now I completely  
24 understand this is early, early stages of the game. Do  
25 you have any numbers for us?

1           BRAD ZUBECK: I don't have any numbers to  
2     share with you tonight. But suffice it to say, we will  
3     be looking at the economics. And as I alluded to  
4     tonight, we're taking forecasting costs of studies. And  
5     that's all rolled into the economic considerations of  
6     the project. And at this time we've told you that we  
7     perceive a need for additional funding to actually  
8     implement these studies on the front end, but we won't  
9     address economics or funding tonight.

10           JASON AIGELDINGER: May I ask one other  
11    question?

12           BRAD ZUBECK: Sure.

13           JASON AIGELDINGER: I understand that CIRI is  
14    no longer funding with you guys for this project. Is  
15    that correct?

16           BRAD ZUBECK: CIRI has expressed a desire to  
17    withdraw from the Kenai Hydro partnership and so we will  
18    work with them to bring that about.

19           JASON AIGELDINGER: Now, are you currently  
20    courting any other foundations, corporations, entities  
21    right now?

22           BRAD ZUBECK: I can't speak to that tonight,  
23    but I appreciate the question.

24           JASON AIGELDINGER: When do you think you can  
25    speak on that?

1           BRAD ZUBECK: When a decision is made to do  
2 something and then the entity of Kenai Hydro is ready to  
3 make that public.

4           JASON AIGELDINGER: And then one final  
5 question, Brad. Can you just -- well, I don't know if  
6 you can answer this. So for a similar-sized facility,  
7 say, somewhere else in the country, what would be a cost  
8 for the construction, the implementation and the  
9 construction?

10          BRAD ZUBECK: I'm not prepared to tell you  
11 what other facilities cost in other areas of the United  
12 States for a similar-type project.

13          JASON AIGELDINGER: Thank you.

14          BRAD ZUBECK: Other questions or are we ready  
15 to move on?

16          JENNA BOROVANSKY: Cultural resources. For  
17 cultural we have 13 previous surveys that have been done  
18 in the area. The general project area, so -- and  
19 they're on record with the State Historic Preservation  
20 Office. Some of that information is summarized in the  
21 PAD.

22               The Kenai Peninsula has been occupied  
23 prehistorically and historically by Native groups.  
24 There's a lot of historic mining, logging, and  
25 settlement within the project area, and that's all of

1 the recorded sites. There's nine historic properties.  
2 They're all of the historic era.

3 We haven't -- there's no prehistoric  
4 archaeological sites on record within the project area.  
5 And one of the historic sites has been determined  
6 eligible already for the National Register of Historic  
7 Places. And that's the Solars Sawmill on Grant Lake at  
8 the head of Grant Creek.

9 And then right into the issue that we'll be  
10 studying with the cultural resources study.  
11 Essentially, it's looking at whether construction,  
12 project operations, lake level fluctuation, road access,  
13 maintenance, and the change in flows has any impact on  
14 cultural -- either already identified cultural sites or  
15 cultural sites that are identified during surveys of the  
16 project area, because the whole area will be resurveyed.

17 So in addition to FERC requirements, the  
18 National Historic Preservation Act has specific  
19 requirements that are also met through the consultation  
20 process on cultural resources. And that involves making  
21 sure that we consult with tribal entities as well as the  
22 land management agencies, their archaeological  
23 professionals.

24 And they consult in determining the full  
25 survey area, which is called the Area of Potential



1 Effect for cultural resources. And then work -- they'll  
2 work with the contractors as it's being developed to  
3 determine the effects of any project activities on those  
4 resources and go through whether any further  
5 investigations to bring it -- to determine whether any  
6 of the identified sites are eligible for the National  
7 Register of Historic Places as well.

8 And then once that determination is made,  
9 again, look to see whether any of the project activities  
10 are going to impact that.

11 And part of the cultural resources study will  
12 also be looking at subsistence use in the area and  
13 whether any project -- there will be any project effect  
14 on that activity.

15 So that's it for cultural resources right now.  
16 It's a little bit more detailed processed. It usually  
17 takes a little bit longer, especially in identifying  
18 some of the -- if there's any tribal -- traditional  
19 cultural properties. That's an individual consultation  
20 that's kept -- it's called privileged information in the  
21 FERC process. And only the entities who have identified  
22 it know where it is. And that kind of goes through its  
23 own little process.

24 So as you're going through, occasionally, the  
25 cultural people will kind of just come back in and tell

1     you whether something was moved. But the whole idea is  
2     if a prehistoric site in particular is identified, you  
3     don't want the project activities and the identification  
4     of that to bring about more people knowing about the  
5     site and potentially damaging the site. So it's handled  
6     in a little bit paralleled process along with the  
7     public process.

8                 BRAD ZUBECK: Question on cultural?  
9                 Mr. Luttrell?

10                MARK LUTTRELL: Yeah, Mark Luttrell. I  
11     noticed on your slide it indicated that Solars Sawmill  
12     is eligible for the register. Did you mean the Case  
13     Mine?

14                JENNA BOROVANSKY: I don't know. You know,  
15     again, this is not my area of expertise. I think there  
16     is -- there were a couple of the cultural sites that are  
17     identified that I think when HDR was looking at it said  
18     there might be -- it might have two names, but I don't  
19     know.

20                MARK LUTTRELL: The Case Mine has received a  
21     lot of attention from the cultural types whereas Solars  
22     Sawmill hasn't.

23                JENNA BOROVANSKY: I know that in the list of  
24     the surveys that are on file I've seen Case Mine  
25     mentioned as well. So I would imagine when they put the

1 slides together, that's the one that had the  
2 determination.

3 MARK LUTTRELL: And here's more of a comment  
4 than a question -- sorry, Brad. Like you alluded to --  
5 well, I should just jump ahead.

6 Cultural resources are finite. And all the  
7 cultural resources that exist and are known for historic  
8 sites on Grant Lake are on or very near the shoreline.  
9 And any rise of the lake water is going to affect them.  
10 Ten feet is extremely significant in terms of what it  
11 would damage, because there are intact cultural deposits  
12 associated with those sites.

13 And while, you know, moose and alders and so  
14 forth can be mitigated; cultural resources can't. So  
15 one of the costs of this entire project that is finite  
16 is the loss of irreplaceable cultural material. And you  
17 can't put a price tag on it; you can't necessarily  
18 mitigate it. All you can do is excavate it. And  
19 there's nothing harder on an archaeological site than an  
20 archaeologist.

21 JENNA BOROVANSKY: That's definitely something  
22 that they look at. I think you know that, too. I mean,  
23 when you look at the potential effects, then what do you  
24 do to protect it or mitigate further potential impacts.

25 MARK LUTTRELL: Right. I'm just saying that

1       there isn't anything you can do.

2                   And, also, those 13 studies, those were -- it  
3       makes it sound like the area has been combed, but those  
4       were mainly in association with some prescribed burning  
5       by the Forest Service.

6                   JENNA BOROVANSKY: They were pretty site  
7       specific. The area will need to be combed, the  
8       identified project area.

9                   TOM BARNETT: When and who is doing that for  
10      you?

11                  BRAD ZUBECK: Mr. Barnett; correct?

12                  TOM BARNETT: Yes.

13                  JENNA BOROVANSKY: You said when --

14                  TOM BARNETT: When will those studies be --  
15      when will that cultural and archaeological survey be  
16      performed? And then who is contracted to do that?

17                  BRAD ZUBECK: Yet to be determined. The  
18      proposed study plan would be advanced along with the  
19      other study plans in accordance with the schedule that  
20      we've kind of outlined tonight. Again, it's a tentative  
21      schedule. And there would be a work group associated  
22      with that that would be focused on that area. But  
23      that's yet to be determined.

24                  Mr. Brennan?

25                  WILL BRENNAN: Will Brennan. I have a

1 question about the -- I guess the user groups. I guess  
2 I'm less interested in prehistorical and historical  
3 cultural resources and more interested in current  
4 cultural resources, way of life issues. Which user  
5 group do I want to get on for that?

6 JENNA BOROVANSKY: It is likely the  
7 recreation, land use, esthetics, socioeconomics bundle  
8 of groups. Those are generally all discussed kind of  
9 within the same group. Because the cultural resources  
10 is pretty specific to the historic or prehistoric  
11 resources.

12 But we'll make sure that when we're forming  
13 the groups, we're very clear about which groups are  
14 handling which study topics.

15 WILL BRENNAN: Just make sure to take care of  
16 that topic as well, way of life.

17 JJ KAIZER: There have been a lot of very  
18 important issues and comments that have been made this  
19 evening. Can you give us a heads up as to the date that  
20 you will be coming to the community that will be most  
21 impacted by this project; that is, Moose Pass?

22 BRAD ZUBECK: With?

23 TOM BARNETT: A meeting.

24 JJ KAIZER: This kind of a meeting, this kind  
25 of informational meeting.

1           BRAD ZUBECK: Well, the purpose of the meeting  
2 tonight and the location was to try to serve the Moose  
3 Pass community to provide a venue closer to that area.

4           Again, when we form specific resource groups,  
5 there should be ample opportunity for individuals from  
6 that area to be involved in those groups. Sites --

7           JJ KAIZER: We would like to invite you to  
8 Moose Pass. We have a very large gymnasium at the high  
9 school. We have anything that you would require so that  
10 people there who work so hard every day and can't come  
11 down here as far as a 50-mile drive after a long day of  
12 work but do need to be involved in this process, we  
13 would like to invite you there.

14           BRAD ZUBECK: We appreciate the invitation.  
15 We did look into holding the meeting at Moose Pass. We  
16 looked into the community center. But based on our  
17 experience there in January and the anticipated size of  
18 the crowd, we thought we needed a little larger venue.

19           JJ KAIZER: That's why the gymnasium is being  
20 offered to you.

21           BRAD ZUBECK: We looked into the Moose Pass  
22 Community School and they turned us down for this  
23 evening. They said they had a PTA meeting and that the  
24 school was unavailable to us.

25           JJ KAIZER: We would be happy to change the

1 calendar for whatever date that you would wish.

2 BRAD ZUBECK: It didn't escape our attention  
3 and we did look into Moose Pass as a first alternative.  
4 Because of other constraints for folks that would be  
5 attending tonight, we couldn't deviate from the date,  
6 today's date, but we did our best to try to serve the  
7 Moose Pass community and the residents on this side of  
8 the peninsula.

9 JJ KAIZER: Our only concern is the  
10 dissemination of all of this important information. It  
11 will be haphazard from now on. If there were a way for  
12 you to come to the community to pull all of these  
13 important pieces of information together, we would very  
14 much agree and do anything that we can do for you to  
15 help in the process.

16 BRAD ZUBECK: Thanks for the comment and the  
17 invitation. And we will endeavor to hold a meeting  
18 there and bring the information to the community.

19 JJ KAIZER: Thank you.

20 BRAD ZUBECK: Any other questions?

21 Mr. Shadura?

22 PAUL SHADURA: This is probably off the  
23 historical deal. Is it open for any questions at this  
24 point?

25 BRAD ZUBECK: We're probably ready to move on

1 to wrap up and open it up for general questions. Sure.

2 PAUL SHADURA: As the executive director of  
3 Kenai Peninsula Fishermen's Association, I've looked  
4 over your presentation and I see there is some studies  
5 that are pointed towards the effects of recreation and  
6 subsistence but not directly to commercial fishing.

7 In that regards, I would see that the study  
8 would also incorporate what some of the other agencies  
9 have overview. You know, the Sustainable Salmon  
10 Fisheries Policy for the State of Alaska, the Cook Inlet  
11 Salmon Management Plan. In the federal arena, the  
12 Essential Fish Habitat, the Magnuson-Stevens Act, 10  
13 National Standards. All those things are very important  
14 to us as commercial fishermen. That is why I'm here.

15 So I would appreciate if you will consider  
16 doing an analysis to see what kind of effects there  
17 would be on the commercial fishing in and around the  
18 Moose Pass area.

19 BRAD ZUBECK: Thank you for the comment.

20 Mr. Cooney?

21 MIKE COONEY: Mike Cooney, Moose Pass. A  
22 couple questions. I was just reminded in the cultural  
23 discussion about the privileged information related to  
24 cultural sites. I wondered if there was any chance that  
25 the brown bear den sites, if they are -- any identified.



1 Are those going to be privileged information or is that  
2 going to be disseminated to the public?

3 JENNA BOROVANSKY: Typically -- I don't know  
4 what has happened here. Sometimes the resource agencies  
5 like the Fish and Wildlife Service or the Forest Service  
6 or if ADF&G could ask that that type of information -- I  
7 know I've seen eagle nest sites kept as privileged  
8 before in certain areas. It's on, I think, a  
9 case-by-case basis.

10 Do you know anything more specific about the  
11 brown bear?

12 JOHN MORSELL: I think brown bear denning  
13 areas generally are not released to the public.

14 MIKE COONEY: And another question -- I guess  
15 a comment and a question. It seems like tonight there's  
16 been a lot of people talking about effects to the local  
17 community and the project area residents and the social  
18 standpoint from the economic standpoint. And I notice  
19 that it's not here on the agenda, but there has been  
20 some discussion about socioeconomic impacts being  
21 assessed. Is Kenai Hydro committed to performing those  
22 studies, or is that something that FERC is going to do  
23 on its own?

24 BRAD ZUBECK: I think that that's a resource,  
25 the socioeconomic impact, that would be part of the

1 studies that we're proposing.

2 MIKE COONEY: So if it's not on the agenda, it  
3 doesn't mean you're not going to form a group to discuss  
4 it?

5 BRAD ZUBECK: No. I think it falls within the  
6 recreational esthetic resource purview.

7 MIKE COONEY: Thanks.

8 JENNA BOROVANSKY: There's some areas that  
9 just end up -- yeah, they don't necessarily have their  
10 own study, but they're reported. If you look on -- if  
11 you go to ferc.gov and look at all the requirements of  
12 applicants and their draft -- when they get to draft  
13 license application and license application phases, it  
14 lists the type of information they need to be providing  
15 and socioeconomics is one of them.

16 MIKE COONEY: So I guess I'm still unclear.  
17 There won't be a socioeconomic study group, technical  
18 working group, to develop a study plan for that topic?

19 BRAD ZUBECK: The issue will be addressed,  
20 Mike. There may not be a specific group focused on  
21 that.

22 MIKE COONEY: That's what I wanted to know.

23 BRAD ZUBECK: Mr. Barnett?

24 TOM BARNETT: You've got -- so this is just  
25 the beginning of the NEPA process, the environment

1 impact statement will come out. What is your target  
2 date on that?

3 BRAD ZUBECK: This is not the beginning of the  
4 NEPA process, if I understand correctly. This is a  
5 pre-license process where we seek to identify and  
6 finalize what the issues are that require study that  
7 would be then incorporated into a license application to  
8 FERC. Once that application has been submitted to FERC,  
9 FERC then initiates the NEPA process. The environmental  
10 impact or environmental assessment then takes place  
11 under this traditional licensing process.

12 TOM BARNETT: And then somewhere in that --  
13 and then you will develop a full-blown -- a full-blown  
14 environmental impact statement will come out of that, it  
15 won't just be an EA; correct?

16 BRAD ZUBECK: It's one or the other. And it  
17 would come out of an actual license application.

18 TOM BARNETT: Which one are you anticipating?

19 BRAD ZUBECK: I couldn't tell you at this  
20 time.

21 JOHN MORSELL: That decision is made by FERC.

22 JENNA BOROVANSKY: FERC makes that decision.  
23 It's the Kenai Hydro --

24 TOM BARNETT: But having been through this  
25 several times myself, you should have a fairly good idea

1 of which one you're leaning towards even at this time.

2 BRAD ZUBECK: I cannot tell you at this time,  
3 sir.

4 JIM FERGUSON: Actually, I have a comment on  
5 that. Jim Ferguson with Fish & Game. FERC has a very  
6 unusual approach to putting those documents together,  
7 having looked at all the projects statewide and worked  
8 on them. What many agencies would call an EIS, FERC  
9 calls an EA. And I'm guessing -- this would just be my  
10 guess -- that FERC will call it an EA, but it will  
11 probably be several hundred pages long.

12 TOM BARNETT: That's an EA. I'm thinking an  
13 EIS about (indicating).

14 JIM FERGUSON: Well, it could be like that.  
15 It's hard to say. FERC is odd in that respect. It's  
16 something to be worth talking to someone who's involved  
17 in the FERC process about, how they look at that. I'm  
18 guessing that FERC is going to call it an EA.

19 TOM BARNETT: Well, that goes -- that's more  
20 of a time -- that becomes more of a time issue then.

21 BRAD ZUBECK: At this point, it's purely  
22 speculation and it is, I think, a FERC decision as  
23 pointed out.

24 Mr. Deacon?

25 JON DEACON: I have a question in general.

1 I've read a great deal about -- and I'm by no means a  
2 professional about this in any way. I've read a great  
3 deal about hydroelectric power from wave action, from  
4 tidal action, things like that, that France, Sweden,  
5 even the Thames River, and some other places have been  
6 doing this for about a decade. Has that been looked  
7 into here? We have a tremendous coastline here in  
8 Alaska and Cook Inlet. I mean, technologically, are we  
9 not there yet?

10 BRAD ZUBECK: Maybe that's a topic for --  
11 after the meeting is over, I'd be glad to talk with you  
12 about that a little bit or someone else from Homer  
13 Electric would be.

14 Other questions?

15 MARK KROMREY: Yeah, my name is Mark Kromrey.  
16 I'm a resident of Moose Pass area. I happen to be a  
17 landowner in that -- along the Falls Creek Road. One of  
18 things that I -- the reason I bought the property was  
19 the sound of Falls Creek. It drowns out all the sounds  
20 of, you know, the highway, anything like that.

21 I guess in the -- I missed whatever column  
22 this should have come up in, but -- there really wasn't  
23 a column -- but the sociological impact. The people  
24 that live there, they recreate there but they recreate  
25 there like every day. And the way they have the bridge

1 right now, every time a vehicle goes over, it's like  
2 three metal clangs, bam, bam, bam, every time a vehicle  
3 goes over it.

4 If you drain Falls Creek, the noise that the  
5 creek makes will go away; the highway noise will  
6 increase dramatically. I mean, you're going to hear all  
7 of that highway noise.

8 So, you know, I guess there's a lot of -- to  
9 the people who live there, there's a lot of negative  
10 effects. If you would have had this meeting in Moose  
11 Pass, you would have had four times as many people. I'm  
12 from there, have to leave the kids at home, come down  
13 here to Seward. You know, this sounds close to you, but  
14 it really is not. Driving to Seward is 70 miles round  
15 trip. By the number of people that I see from Moose  
16 Pass, this is a very near and dear area to our  
17 community.

18 So, you know, draining Falls Creek is not  
19 just, oh, a little bit more water for a power plant.  
20 It's going to be a very major effect on the people who  
21 live around there.

22 BRAD ZUBECK: So we should study the effect  
23 of --

24 MARK KROMREY: Noise.

25 BRAD ZUBECK: -- noise from the creek, quality

1 of life issues related to that?

2 MARK KROMREY: Yes, please.

3 BRAD ZUBECK: Again, I'll mention that tonight  
4 is just the beginning of an opportunity to comment. And  
5 it's just a meeting for us to get out and an opportunity  
6 for folks to come and hear what the project is about and  
7 to hear what we've identified as issues.

8 But people of Moose Pass are welcome to get  
9 ahold of the PAD through our web site, contact us  
10 directly for copies of the PAD to read through and ask  
11 questions, and submit comments even in the form of  
12 questions to FERC so that those are identified or  
13 addressed through study planning.

14 So tonight is not your only opportunity to ask  
15 questions or to comment. So for those of you returning  
16 to Moose Pass tonight, please pass that information on  
17 to the residents there and have them access the web  
18 site. Again, you've got the information on the back of  
19 the agenda tonight on how to file comments with FERC, on  
20 how to access our web site, and to give additional  
21 information.

22 Ma'am?

23 RAE WICKARD: Rae Wickard. I have a question.  
24 I've lived around dams growing up. And one of the  
25 things they did is when they open the gates -- is this

1 going to have gates, this type of dam you're building?  
2 This huge loud whistle or siren would blow alerting  
3 people downstream that there was going to be a larger  
4 pool of water. Is that the type of dam this is going to  
5 be? Are they going to have to blow this loud horn or  
6 whistle?

7 BRAD ZUBECK: I don't believe so.

8 RAE WICKARD: I'm just curious because that  
9 really has an impact on people.

10 BOB BUTERA: We wouldn't be releasing any more  
11 water than we had to because that would just be water we  
12 couldn't generate power with.

13 RAE WICKARD: I was just curious because it  
14 was quite loud. It could be heard for miles.

15 BRAD ZUBECK: Other questions or comments on  
16 issues to address?

17 Yes?

18 JJ KAIZER: May I check on two things that  
19 have been written up in the Redoubt Reporter with you?  
20 Just because this is an informational meeting, I just  
21 want to make sure that the information is correct.

22 BRAD ZUBECK: It's Ms. Kaizer?

23 JJ KAIZER: Yes.

24 BRAD ZUBECK: And we'll listen to the  
25 questions and see if --



1 JJ KAIZER: One statement was an outlet will  
2 be built on the north abutment of the dam allowing the  
3 lake to be drained to aid construction. And that is not  
4 correct?

5 BRAD ZUBECK: Not sure where that information  
6 came from, but --

7 JJ KAIZER: The other comment was construction  
8 starting with the access roads is expected to begin in  
9 April of this year.

10 BRAD ZUBECK: Misinformation. Don't know  
11 where they came up with that.

12 JJ KAIZER: Thank you.

13 BRAD ZUBECK: Other questions?

14 Mr. Barnett?

15 TOM BARNETT: I just -- I'd kind of like to  
16 reiterate what Mr. Kromrey said earlier that I think --  
17 in a lot of ways you're going to want to get support  
18 from the community. Living there and being part of the  
19 community, I sense that there's a sense of alienation or  
20 being ignored by meeting here, and I think that carries  
21 through. And even if we go back and tell people what we  
22 heard, it's still going to be why weren't they here.  
23 We'd sure appreciate it if they'd come here.

24 And if you're looking to promote your product,  
25 which you are, it would really behoove you to meet with

1 the community. And there will be a lot of negatives,  
2 but to deal with them at that local level and make  
3 everybody feel a part of it. Because the biggest thing  
4 is being heard. I might not like your answers, but if  
5 you're in the community and you're making that effort,  
6 that goes a long way.

7 And I can't suggest strongly enough what JJ  
8 said, please, make that effort and make it more than --  
9 for lack of better words -- more than just lip service.  
10 Be there and become part of that community because you  
11 will be eventually. It's better to be liked than hated  
12 for the whole time. That would be my only comment.

13 BRAD ZUBECK: I appreciate the comments and I  
14 appreciate the invitation. And, again, it wasn't for  
15 lack of effort to try to get there on this evening. We  
16 will make a point to do that in the future.

17 JJ KAIZER: Do you have a direct number I  
18 could call so we could make a plan for this?

19 BRAD ZUBECK: You can see me afterwards.

20 JJ KAIZER: Okay. Terrific.

21 BRAD ZUBECK: Other questions or comments?

22 Mr. Luttrell?

23 MARK LUTTRELL: I have one last thing. I'm  
24 part of the Resurrection Bay Conservation Alliance. And  
25 our group and also the Alaska Center for the Environment

1 put together a brochure I'd like to pass out to the  
2 group here tonight. It just describes some of the  
3 reasons why we oppose it and sources of more information  
4 about the web site -- about the project.

5 BRAD ZUBECK: Sir?

6 MIKE CORREA: Mike Correa, Crown Point. If  
7 the whole community was against this project, would it  
8 make a difference on the final outcome?

9 BRAD ZUBECK: It certainly could.

10 MIKE CORREA: Could we put a squash on it?

11 BRAD ZUBECK: I couldn't tell you.

12 MIKE CORREA: Would it go ahead as planned?

13 BRAD ZUBECK: I could not tell you.

14 MIKE CORREA: I just was curious. Thank you.

15 SPEAKER: FERC has the final say, yea or nay?

16 BRAD ZUBECK: On a license for the project.

17 SPEAKER: And you get to then decide whether  
18 you want to do it or not after that point; correct?

19 BRAD ZUBECK: Correct.

20 SPEAKER: FERC is a government agency on  
21 government land somewhere. I mean, there's no office  
22 here of FERC, so anything -- there's no representative  
23 of said FERC except through these meetings. So  
24 essentially there is no face of FERC besides going to  
25 meetings and the letters.

1 BRAD ZUBECK: At this time in the process.

2 I'll remind you that if the study plans go ahead, FERC  
3 has agreed to early scoping, which means that they would  
4 be involved early, which means they would conduct  
5 scoping meetings to address and more or less finalize  
6 issues in parallel with our study plans.

7 So we would issue draft study plans, FERC  
8 would issue a scoping document, plans would be finalized  
9 based on FERC's finalizing of the issues through that  
10 scoping process; the scoping document one, holding a  
11 meeting here that FERC would conduct more or less along  
12 the same lines where they would seek to take comments.  
13 And they will, I believe, take the comments from  
14 tonight. The comments that you have brought to us  
15 tonight would be rolled into their scoping document one  
16 as a preliminary draft of issues related to the project.  
17 So, yes, FERC would be involved early on in  
18 this process if we were to move forward with the study  
19 plan.

20 SPEAKER: Am I correct that even though FERC  
21 is involved, the ultimate needs to be -- all the  
22 permitting agencies still need to approve it before the  
23 project would be put forth?

24 BRAD ZUBECK: Correct.

25 JENNA BOROVANSKY: All the local, state, and

1 federal agency representatives are FERC relied upon, all  
2 of their requirements.

3 SPEAKER: I think sometimes there's a  
4 misconception that once you get a FERC permit, you get  
5 to go do whatever you want. And I think a lot of times  
6 people don't understand that there's also other permits  
7 that are still going to be required.

8 BRAD ZUBECK: Mr. Aigeldinger?

9 JASON AIGELDINGER: You got it. Thanks, Brad.  
10 Real quick. So would I be correct in saying that HEA at  
11 this time is using their own money to -- like all the  
12 research your contractors have done through the '08  
13 field season and -- well, of '09 -- I apologize -- and  
14 then gearing up for 2010, those are all private funds  
15 from Homer Electric, HEA?

16 BRAD ZUBECK: Again, see me afterwards to talk  
17 about funding.

18 JASON AIGELDINGER: I guess I have an interest  
19 as a taxpayer. I'm wondering if you're using any  
20 federal dollars.

21 BRAD ZUBECK: I think we've said, no, we do  
22 not have any federal monies involved with financing the  
23 project at this time.

24 Mr. Cooney?

25 MIKE COONEY: I have a question related to

1     that.  Is it true that the Denali Commission originally  
2     contributed \$200,000, HEA added \$4,000, and used that  
3     for the Falls/Grant Project?

4                 BRAD ZUBECK:  No.  Denali Commission has had  
5     absolutely no involvement in funding this project.  
6     Funding questions, see me afterwards.  Comments on  
7     issues need to be studied, we'll be glad to take them.

8                 Mr. Deacon?

9                 JON DEACON:  If this project doesn't work out  
10    the way you hope, where would be your next project site?

11                BRAD ZUBECK:  At this time we have no other  
12    plans for other hydro projects.

13                TOM BARNETT:  What happened to Ptarmigan Lake  
14    and the Cooper Lake ideas?

15                BRAD ZUBECK:  We surrendered those permits and  
16    are no longer pursuing those projects.  They didn't look  
17    to us to be attractive economically or environmentally.

18                Mr. Thomas?

19                DAVID THOMAS:  David Thomas, Kenai, to clarify  
20    a point.  Cooper Lake is not an HEA facility.  It is not  
21    and would not be anticipated to be --

22                BRAD ZUBECK:  I'm sorry, did you say Cooper --

23                DAVID THOMAS:  Tom said Cooper.

24                TOM BARNETT:  I'm sorry.

25                DAVID THOMAS:  On Crescent Lake.  That was one

1 of the permits that we surrendered.

2 BRAD ZUBECK: Thanks for the clarification.

3 TOM BARNETT: And what was the economic and  
4 the environmental considerations on those?

5 BRAD ZUBECK: They were not attractive  
6 economically and not attractive environmentally. We  
7 didn't want to pay for the cost of the power to come out  
8 of them and we didn't want to pay for the cost of the  
9 environmental impact.

10 JON DEACON: How was the environmental impact  
11 there different than here?

12 BRAD ZUBECK: I couldn't tell you at this time  
13 exactly what those details are.

14 JON DEACON: Because you haven't quite studied  
15 it far enough?

16 BRAD ZUBECK: I'm not prepared to answer  
17 tonight that particular question.

18 TOM BARNETT: Where can that be found?

19 BRAD ZUBECK: I couldn't tell you at this  
20 time.

21 TOM BARNETT: When can you? That would be  
22 interesting to see --

23 BRAD ZUBECK: See me afterwards. It's not  
24 related to this particular project, the Grant Lake/Falls  
25 Creek Project. So if you have questions related to

1 issues or study topics for this project, we'd be glad to  
2 take additional comments. Otherwise, we'll close the  
3 meeting and let these folks get on home. See me  
4 afterwards if you want to talk some more about those  
5 details.

6 Ma'am?

7 RACHEL SCHUBERT: Rachel Schubert, Moose Pass.  
8 I feel like the questions about the Grant Lake Project  
9 are directly related to the questions about the Crescent  
10 Lake Project because that project came about kind of at  
11 the same time this project came about and now that  
12 project is no longer in question.

13 That project no longer exists, but this  
14 project does. So something happened to that project,  
15 but something has not happened with this project. So, I  
16 mean, in order to better understand what is going on  
17 with these projects, it would be pertinent information  
18 to understand what happened with the other project.

19 BRAD ZUBECK: Tonight, for the purpose of  
20 tonight, we'll just say that those decisions have no  
21 bearing on the issues that we're going to study on the  
22 Grant Lake/Falls Creek Project.

23 Mr. Shadura?

24 PAUL SHADURA: This is the last one. I'm  
25 sorry to make people wait. But, you know, just as a



1 cooperative member of HEA since 1969 I'm just wondering  
2 why comparison analysis hasn't been done to put another  
3 turbine in the Bradley Lake facility, which it was  
4 designed to do, instead of using this and going through  
5 all this situation when basically the Bradley Lake  
6 Project would be a no-brainer, easy.

7 I mean, have you made that comparison to other  
8 projects as a representative of HEA?

9 BRAD ZUBECK: Again, that's probably -- that's  
10 an after the meeting type question to address with HEA  
11 and not for this forum tonight. We'll be glad to answer  
12 it afterwards.

13 Other questions for the night for issues  
14 related to Grant Lake/Falls Creek? If not, I thank you  
15 all very much for turning out tonight. I appreciate  
16 your attendance. I appreciate your comments.

17 As a reminder, again, you can find information  
18 on the back of your agenda, the sites to FERC and Kenai  
19 Hydro.

20 (Proceedings adjourned at 9:00 p.m.)  
21  
22  
23  
24  
25

## 1 REPORTER'S CERTIFICATE

2 I, Valerie Martinez, Notary Public in and for  
3 the State of Alaska do hereby certify:

4 That the proceedings were taken before me at the  
5 time and place herein set forth; that the proceedings  
6 were reported stenographically by me and later  
7 transcribed under my direction by computer  
8 transcription; that the foregoing is a true record of  
9 the proceedings taken at that time; and that I am not a  
10 party to nor have I any interest in the outcome of the  
11 action herein contained.

12 IN WITNESS WHEREOF, I have hereunto subscribed  
13 my hand and affixed my seal this \_\_\_\_ day of \_\_\_\_\_,  
14 2009.

15

16

17 \_\_\_\_\_  
Valerie Martinez  
18 Notary Public for Alaska

19

19 My Commission Expires: June 22, 2010  
20

21

22

23

24

25

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**From:** Jenna Borovansky  
**Sent:** Monday, December 07, 2009 12:53 PM  
**To:** 'Luttrell Mark'  
**Subject:** RE: Grant Lake/Falls Creek Project Joint Meeting Transcript and Public Comment Period  
**Attachments:** 2009-11-12 Joint Meeting Sign-In Sheet.pdf

Hi Mark,

The Powerpoint is posted on the website, sorry if that was not clear from the link. I will see if the web folks can switch the "what's new" link to the page that has all the information instead of the direct link to the transcript file.

To access all the information (materials and transcript), see this page:  
<http://www.kenaihydro.com/documents/pad/index.php>

I have attached the sign-in sheet. I will consult with Brad about posting the sign-in sheet to the web. It is a part of the full public record with FERC, though I think we have tried to be sensitive to posting private citizens' contact information on the KHL website, and have only provided sign-in sheets by request.

Thanks, Jenna

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**From:** Luttrell Mark [<mailto:prufrock@arctic.net>]  
**Sent:** Monday, December 07, 2009 12:44 PM  
**To:** Jenna Borovansky  
**Subject:** Re: Grant Lake/Falls Creek Project Joint Meeting Transcript and Public Comment Period

Hi Jenna

Thanks for providing the transcript of the November 12 2009 meeting. Is it possible to post on the KHL website the KHL powerpoint and the public meeting sign-in names and contacts?

Thanks

Mark

Mark Luttrell, President  
Resurrection Bay Conservation Alliance  
Box 1092  
Seward, AK 99664  
907 224-4621  
[prufrock@arctic.net](mailto:prufrock@arctic.net)  
[rbca-alaska.org](http://rbca-alaska.org)

On Dec 7, 2009, at 10:54 AM, Jenna Borovansky wrote:

Dear Interested Parties,

Following Traditional Licensing Process requirements, Kenai Hydro, LLC held a public meeting on November 12, 2009 to discuss proposed project information, potential resource effects, and proposed study issues for the Grant Lake/Falls Creek hydroelectric project (FERC Project No. 13211/13212). The transcript and presentation materials from this meeting were filed with FERC and are posted on the Kenai Hydro, LLC website ([www.kenaihydro.com](http://www.kenaihydro.com)). A 60-day public comment period was initiated on November 12, 2009. Written comments on the Pre-Application document and proposed study issues identified at the November 12 meeting may be submitted to FERC at [www.ferc.gov](http://www.ferc.gov). Kenai Hydro, LLC would appreciate copies of comments as well (email to [comments@kenaihydro.com](mailto:comments@kenaihydro.com)).

If you have any questions, please contact me or Brad Zubeck, Kenai Hydro Project Manager (907.335.6204, [bzubeck@homerelectric.com](mailto:bzubeck@homerelectric.com)).

Thank you for your continued interest in the Grant Lake/Falls Creek Project.

Jenna Borovansky  
Long View Associates, Inc.  
On Behalf of Kenai Hydro, LLC  
208.765.1413 (phone)  
208.699.3993 (cell)

| KENAI HYDRO, LLC. SIGN IN SHEET |           |           | Joint Meeting | LOCATION: SEWARD AVTEC Center              |  | DATE: November 12, 2009 |                        | PAGE# 1/3                         |                |    |       |
|---------------------------------|-----------|-----------|---------------|--|--|-------------------------|------------------------|-----------------------------------|----------------|----|-------|
| N                               | Signature | FirstName | LastName      | Email                                      | Company/Agency                             | Division                | Title                  | Address                           | City           | St | Zip   |
| 1                               |           | Jenna     | Borovansky    | jborovansky@blonguiewaassociates.com       | LVA  | —                       | —                      | PO Box 3844<br>COA, ID            | COA            | ID | 83816 |
| 2                               |           | Amanda    | Prevel-Ramos  | aprevel@hdrinc.com                         | HDR  |                         | Fisheries<br>Biologist | 2525 CST<br>Suite 305             | Anchorage      | AK | 99503 |
| 3                               |           | KATIE     | McCafferty    | katharine.a.mccafferty2@usa.cc.army.mil    | USACE                                      | Reg                     | Project Mgr            | 805 Frontage Rd<br>Suite 200      | Kenai          | AK | 99611 |
| 4                               |           | Robin     | Collman       | Collman@GCI.net                            |  |                         |                        | P.O. Box 161                      | Seward         | AK | 99664 |
| 5                               |           | MIKE      | COONEY        | mcooney@arctic.net                         | PUT  |                         |                        | P.O.B. 169                        | MOOSEPASS      | AK | 99651 |
| 6                               |           | Mart      | Luttrell      | prufrock@arctic.net                        | RBCA                                       |                         |                        | Box 511                           | Seward         | AK | 99664 |
| 7                               |           | JJ        | Kaiser        | jj-kaiser@yahoo.com                        | RBCA                                       |                         |                        | 29800 Seward Hwy                  | Sew            | AK | 99664 |
| 8                               |           | Harvey    | Ambrose       | hambrose@homerelectric.com                 | AEEC                                       | PPT                     | Director               | 1013 Alaska Ave #45               | Kenai          | AK | 99611 |
| 9                               |           | Don       | SMITH         | dsmith@homerelectric.com                   | HA   | EXO                     | DIRECTOR               | 280 Airport Wly                   | Kenai          | AK | 99669 |
| 10                              |           | Robert    | Atkinson      | bob@arctic.net                             |  |                         |                        | 29785<br>Seward Hwy               | Seward         | AK | 99664 |
| 11                              |           | Billy     | Dowley        | AKWATERCRAFT@GMAIL                         | Nawi                                       |                         |                        | 29796 Seward Hwy                  | Crown<br>Point | AK | 99664 |
| 12                              |           | ADRIENNE  | MORETTI       | adrienne.moretti@gmail.com                 | NOWE                                       |                         |                        | PO Box 204<br>MOOSEPASS           | MOOSEPASS      | AK | 99631 |
| 13                              |           | MARK      | Stanble       | Stanble@arctic.net                         |  |                         |                        | PO Box 156<br>MOOSEPASS           | "              | "  | "     |
| 14                              |           | KAREN     | OLEARY        | kaoleary@fs.fed.us                         | USFS                                       |                         |                        | 3301 C Street #300<br>Anch 99503  |                |    |       |
| 15                              |           | Mike      | Glaser        | glaser@seward.net<br>34270 Lakestar Seward | self                                       |                         |                        | 34270 Lakestar<br>Seward AK 99664 | Seward         | AK | 99664 |
| 16                              |           | Kate      | Glaser        | glaser@seward.net                          | none                                       |                         |                        | 34270 Lakestar Ln.                | "              | "  | "     |
| 17                              |           | Laurie    | stuart        | lkstuart@hotmail.com                       | RBCA                                       |                         |                        | P.O. 1691                         | Seward         | "  | 99664 |
| 18                              |           | Pamela    | Russell       | Pamela.Russell                             | State Parks                                |                         |                        | 514 Funny River Rd                | Soldotna       |    | 99669 |
| 19                              |           | Christine | Brandt        | cbrandt1960@gmail.com                      | <del>Kodiak Park</del><br>Eck Inlet Aquac. | <del>Director</del>     | Director               | PO Box 504 <del>Soldotna</del>    | Soldotna       | AK | 99669 |
| 20                              |           | mike      | CORREA        | FARNORTH68@gmail.com                       | (NA)                                       |                         |                        | PO Box 2016                       | Seward         | AK | 99664 |







**Kenai Hydro, LLC**

2525 C Street, Suite 500

Anchorage, AK 99503

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December 17, 2009

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

Filed electronically

Subject: December 9, 2009 Filing of Friends of Cooper Landing, Inc Regarding Dockets  
P-13211 and P-13212 for the Grant Lake/Falls Creek Project

Dear Ms. Bose,

On December 9, 2009, the Friends of Cooper Landing (FOCL) filed comments and protests regarding the above referenced docket. Among the comments made by FOCL was that incorrect contact information was discovered on the footer of our licensing webpage at [www.kenai-hydro.com](http://www.kenai-hydro.com) (Comment 1B).

While reserving the right to respond more extensively on the FOCL filing of December 9, Kenai Hydro, LLC (KHL) acknowledges that the footer of the website did indeed contain erroneous information which has since been corrected. The incorrect address was a placeholder from the web design team which was not updated when the site was launched. However, valid contact information for the KHL project team is on the "Contact Us" link and has been since the site was launched.

Furthermore, with the exception of the webpage footer noted in the FOCL filing, all filings with the Commission have included the correct address for KHL, in addition to designated contacts' valid mailing addresses, emails and phone numbers, and KHL has published (including in all public notices as required by the Commission) numerous methods of contacting the project team. This information continues to be valid.

KHL appreciates FOCL calling the error to our attention.

Sincerely,

/Brad Zubeck/

Brad Zubeck  
KHL Project Engineer

cc: Service Lists for P-13211 and P-13212



Document Content(s)

P13211\_13212KHLcontactInfo.PDF.....1-1

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**From:** mike cooney [mcooney@arctic.net]  
**Sent:** Monday, December 21, 2009 2:21 PM  
**To:** Zubeck, Brad; Jenna Borovansky; debbie@debnam.com  
**Subject:** Request for Grant/Falls Public Meetings  
**Attachments:** FERC Early Scoping Mtng. LTR.doc; KHL Joint and Early Scoping Mtngs.LTR.doc

All,

Please see the attached letter documents. Copies of both letters have been posted to Mr. Schutt in today's regular mail since I do not have an email contact for him. Any of you are more than welcome to electronically forward these letters to him via email.

Thanks, Mike

# Michael Cooney

Forestry Consultant - Registered Guide No. 1162

[mcooney@arctic.net](mailto:mcooney@arctic.net)

907 288 5022

P.O. Box 169

Moose Pass, Alaska 99631

December 21, 2009

Filed Electronically

Mr. Ethan Schutt, Project Manager  
Kenai Hydro LLC  
2525 C Street, Suite 500  
Anchorage, Alaska 99501

**RE: Joint Meeting in Moose Pass – January 2010  
Early Scoping Meeting in Cooper Landing – February 2010**

**FERC Project Dockets P-13211/13212, Grant/Falls Creek Dams**

Dear Mr. Schutt,

Thank you for your statements at the October 9, 2009 Legislative Energy Hearing in Anchorage explaining that CIRI would end its involvement in Kenai Hydro LLC hydropower projects proposed for Kenai River headwaters near the communities of Moose Pass and Cooper Landing because the projects are not locally acceptable or commercially viable.

Until such time CIRI is no longer officially involved in these projects, please support the following requests for public meetings related to the Grant/Falls hydropower project.

## Joint Meeting

At the Joint Meeting held in Seward on November 12, 2009, Kenai Hydro LLC representative Brad Zubeck responded to a request from local project area resident J.J. Kaiser to hold an additional Joint Meeting in Moose Pass by stating; "Thanks for the comment and the invitation. And we will endeavor to hold a meeting there and bring the information to the community." (Ref: pg. 100, 11/12/09 Joint Meeting Transcript).

Mr. Ethan Schutt, Kenai Hydro LLC  
December 21, 2009  
Page 2

In her recent e-mail (attached) to Brad Zubeck/Homer Electric Association and Jenna Borovansky/Longview Associates following the meeting, Ms. Kaiser has invited Kenai Hydro LLC to conduct the Joint Meeting at the Moose Pass School during the latter half of January 2010.

Your support for a Kenai Hydro LLC-conducted Joint Meeting in Moose Pass, including a formal written filing with the FERC to that effect, and public notice of the meeting date for a Joint Meeting at the Moose Pass School to be held sometime during the latter half of January 2010, will be very much appreciated.

Early Scoping Meeting

As a condition of the FERC allowing Kenai Hydro LLC to use the Traditional Licensing Process (TLP) the FERC is requiring Early Scoping in relation to the Grant/Falls hydropower project. The purpose of the Early Scoping Meeting(s) is to identify issues and concerns related to the project so that formal studies can be planned and completed by Kenai Hydro LLC to publicly disclose project impacts, including negative impacts to; fisheries, wildlife, water quality, recreation, cultural resources and socio-economics, including damage to the tourism-dependent economies of local communities.

In a separate request filed with the FERC today, I have requested that the FERC hold at least one Early Scoping Meeting for the Grant/Falls project at the Cooper Landing School. Cooper Landing is the largest community central to the project, will bear many of the negative impacts, and its school building's multi-purpose room can safely and comfortably accommodate over 150 people.

Your support for a FERC-conducted Early Scoping Meeting in Cooper Landing, including a formal written filing with the FERC to that effect, will be very much appreciated. February 2010 would be a good time for the Early Scoping Meeting.

Sincerely,

/Mike Cooney/

Attachment: J.J. Kaiser E-mail to Brad Zubeck/Homer Electric Assoc., and Jenna Borovansky/LongView Associates  
(Please See Pg. 3)

CC:

Ms. Kimberly D. Bose, Secretary, FERC  
Ms. Deborah Debnam, President, Homer Electric Association Board of Directors  
Mr. Brad Zubeck, Project Engineer, Homer Electric Association  
Ms. Jenna Borovansky, Licensing Consultant, Longview Associates

**Attachment: J.J. Kaiser E-mail to Brad Zubec/HEA, and Jenna Borovansky/LVA**

On Fri, 12/11/09, JJ Kaiser <[jj\\_kaiser@yahoo.com](mailto:jj_kaiser@yahoo.com)> wrote:

From: JJ Kaiser <[jj\\_kaiser@yahoo.com](mailto:jj_kaiser@yahoo.com)>

Subject: Moose Pass meeting dates confirmed for KH LLC

To: [BZubeck@HomerElectric.com](mailto:BZubeck@HomerElectric.com)

Cc: [jborovansky@longviewassociates.com](mailto:jborovansky@longviewassociates.com), [debbie@debnam.com](mailto:debbie@debnam.com), [ann.miles@ferc.gov](mailto:ann.miles@ferc.gov), [joseph.adamson@ferc.gov](mailto:joseph.adamson@ferc.gov)

Date: Friday, December 11, 2009, 1:04 PM

Hello Brad;

As was discussed during the November meeting in Seward for the Kenai Hydro project at Grant Lake, the Moose Pass residents can offer mid- to late January as the agreed window for an opportunity to discuss with business owners and private individuals those issues most important for all, as was so professionally presented outside of the community.

We welcome you to this continued collaboration on the project licensing, to outline and emphasize leading points and information, and to allow time for the community to voice their concerns and to be aware of the process.

Please let us know at your earliest convenience what evening would be most favorable, and we will manage the details.

Sincerely,

JJ Kaiser

[jj\\_kaiser@yahoo.com](mailto:jj_kaiser@yahoo.com)

# Michael Cooney

Forestry Consultant - Registered Guide No. 1162

[mcooney@arctic.net](mailto:mcooney@arctic.net)

907 288 5022

P.O. Box 169

Moose Pass, Alaska 99631

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

December 21, 2009

Filed Electronically

**RE: Request for Early Scoping Meeting in Cooper Landing**

**FERC Project Dockets P-13211/13212, Grant/Falls Creek Dams**

Dear Secretary Bose,

I respectfully request the Commission hold an Early Scoping Meeting for the Grant/Falls hydropower project in the community of Cooper Landing this winter - February 2010 would be optimal for the residents of project area communities:

- The Cooper Landing School's multi-purpose room can safely accommodate over 150 people, and is the largest public meeting facility available within the communities most directly impacted by the project.
- The project is highly controversial, and project area residents of Cooper Landing, Moose Pass, Crown Point, Primrose, and Seward will bear most of the project's negative impacts, but not enjoy any new electrical power benefits. Project area residents should be afforded maximum opportunity to express their concerns and to identify project related issues to inform comprehensive formal study plans for the project.
- A winter meeting is specifically requested to be "early", and to accommodate the majority of interested and concerned local residents who typically work long hours in tourism related businesses from early spring (March/April) through late fall (October).

Thank you for your consideration of this request.

Sincerely,

/Mike Cooney/

CC:

Mr. Ethan Schutt, Project Manager, Kenai Hydro LLC  
Ms. Deborah Debnam, President, Homer Electric Association Board of Directors  
Mr. Brad Zubeck, Project Engineer, Homer Electric Association  
Ms. Jenna Borovansky, Licensing Consultant, Longview Associates

**From:** Jenna Borovansky

**Sent:** Thursday, December 31, 2009 2:30 PM

**To:** 'Zubeck, Brad'

**Subject:** Moose Pass Informational Meeting on the Grant Lake/Falls Creek Hydro Project - January 13, 2010

**BCC:** 'bluewagon82@yahoo.com'; 'joseph.adamson@ferc.gov'; 'berungia@yahoo.com'; 'jasonaigeldinger@mac.com'; 'jeffry\_anderson@fws.gov'; 'Finlay Anderson'; 'dave@renewableresourcescoalition.org'; 'gbaker2@arctic.net'; 'kenailake@arctic.net'; 'rwbarnwell@yahoo.com'; 'robert.begich@alaska.gov'; 'jhpbt@yahoo.com'; 'mbest@borough.kenai.ak.us'; 'todd.bethard@hdrinc.com'; 'rbirk@fs.fed.us'; 'bruncobwl@yahoo.com'; Jenna Borovansky; 'tbristol@tu.org'; 'mlbrittain@ak.net'; 'phil\_brna@fws.gov'; 'info@ciri.com'; 'nwad20@yahoo.com'; 'thomas.cappiello@alaska.gov'; 'info@salamatof.com'; 'dave.c.casey@usace.army.mil'; 'susan.chihuly@alaska.gov'; 'valerie@akcenter.org'; 'mcooney@arctic.net'; 'jczarn@borough.kenai.ak.us'; 'js2dixon@hotmail.com'; 'kdoroff@princesstours.com'; 'andrea@rareheron.com'; 'jeavis@fs.fed.us'; 'jack.erickson@alaska.gov'; 'jestes@cityofseward.net'; 'jletma@arctic.net'; 'gfandrei@ciaanet.org'; 'jim.ferguson@alaska.gov'; 'epfisheads@yahoo.com'; 'jgabler@borough.kenai.ak.us'; 'ricky@kenairiversportfishing.com'; 'dawn.germain@ogc.usda.gov'; 'SteveG@enxco.com'; 'glaser@seward.net'; 'glaser@seward.net'; 'mgrayrbca@gmail.com'; 'lance@lancehankins.com'; 'nhardigg@akcf.org'; 'info@riverwranglers.com'; 'alli@akcenter.org'; 'khelgren@princesstours.com'; 'jjh@seward.net'; 'caitlin@akvoice.org'; 'dwellinsecretplace@yahoo.com'; 'hgrandella@hotmail.com'; 'sondrakey8@msn.com'; 'hotbanana76@hotmail.com'; 'ikerdhome@gmail.com'; 'jaffa@eagle.ptialaska.net'; 'joe\_klein@fishgame.state.ak.us'; 'ejohansen@fs.fed.us'; 'lynnda\_kahn@fws.gov'; 'jason.kent@hdrinc.com'; 'tkerns@tundratech.net'; 'Mary.King@alaska.gov'; 'kolodziejski@yahoo.com'; 'jan@hydroreform.org'; 'caesar.kortuem@kiewit.com'; 'dwimar@gci.net'; 'kkromrey@fs.fed.us'; 'mk2l@arctic.net'; 'lavin@nwf.org'; 'adele.lee@alaska.gov'; 'jraelindquist@hotmail.com'; 'noemail@noemail.com'; 'ginny.litchfield@alaska.gov'; 'prufrock@arctic.net'; 'wamacfarlane@fs.fed.us'; 'scott.mclean@alaska.gov'; 'DMahalak@borough.kenai.ak.us'; 'katherine.a.mccafferty2@usace.army.mil'; 'akbronze@arctic.net'; 'lee.mckinley@alaska.gov'; 'paul.mclarnon@hdrinc.com'; 'dmichels@princesstours.com'; 'jmohorci@borough.kenai.ak.us'; 'sunrise@arctic.net'; 'smorsell@northernecological.com'; 'jmorsell@northernecological.com'; 'tmoseley@fs.fed.us'; 'jason.mouw@alaska.gov'; 'kmushovi@blm.gov'; 'douglas\_mutter@ios.doi.gov'; 'niceinalaska@yahoo.com'; 'dnelson@borough.kenai.ak.us'; 'redoubtreporter@alaska.net'; 'north.phil@epamail.epa.gov'; 'mnovy@fs.fed.us'; 'mikeo@cosmichamlet.net'; 'jjodhner@arctic.net'; 'melinda.odonnell@alaska.gov'; 'cohare@popud.org'; 'kaoleary@fs.fed.us'; 'DOtt@aidea.org'; Steve Padula; 'painter@arctic.net'; 'douglas\_palmer@fws.gov'; 'jason.pawluk@alaska.gov'; 'mightykenai@arctic.net'; 'alecl@arctic.net'; 'todd@sewardrealestate.com'; 'noemail8@noemail.com'; 'gary.prokosch@alaska.gov'; 'ronaklo@att.net'; 'noemail2@noemail.com'; 'montesfishing@alaska.net'; 'robert@kenaiwatershed.org'; 'Pamela.Russell@alaska.gov'; 'kimberly.sager@alaska.gov'; 'gydaric@yahoo.com'; 'jseebach@americanrivers.org'; 'keeper@inletkeeper.org'; 'benbo61@gmail.com'; 'rlsimmons@fs.fed.us'; 'jack.sinclair@alaska.gov'; 'bobbiejaskibo@yahoo.com'; 'ace@akcenter.org'; 'info@kenailake.com'; 'rspangler@fs.fed.us'; 'noemail3@noemail.com'; 'stauble@arctic.net'; 'stetsonj@americanfast.com'; 'youth@qutekcak.net'; 'bstock@arctic.net'; 'moosepassrosie@yahoo.com'; 'pdt205@nyu.edu'; 'qenqay@arctic.net'; 'cassie\_thomas@nps.gov'; 'jmtjohnt@yahoo.com'; 'mtracy@homerelectric.com'; 'btrefon@kenaitze.org'; 'susan.walker@noaa.gov'; 'rebew@att.net'; 'Heidi.Weigner@hdrinc.com'; 'willie9470@hotmail.com'; 'davidwerner74@gmail.com'; 'jrwerner@mtaonline.net'; 'rdw1@gci.net'; 'gwilliams@borough.kenai.ak.us'; 'russianriv@yahoo.com'; 'sherry.wright@alaska.gov'; 'zengobys@hotmail.com'; 'bzubeck@homerelectric.com'; 'kenairivcenter@borough.kenai.ak.us'; 'collman@gci.net'; 'jj\_kaiser@yahoo.com'; 'boba@arctic.net'; 'akwatercraft@arctic.net'; 'adrienne.moretti@gmail.com'; 'lkstuart@hotmail.com'; 'cbrandt1960@gmail.com'; 'farnorth68@gmail.com'; 'wrbrennan@gmail.com'; 'stay@stoneycreekinn.net'; 'sabaka@ptialaska.net'; 'poleary3374@gmail.com'; 'modi27@hotmail.com'; 'kailuafour@gmail.com'; Gallagher, Joe

To the Grant Lake/Falls Creek Project Contact List,

**Public Meeting Notice**

Moose Pass Residents  
are invited to an

**Informational Meeting**

**Wednesday, January 13<sup>th</sup>, 2010  
6 p.m. to 8 p.m.**

At the Moose Pass Community Hall

Regarding the Proposed

**Grant Lake/Falls Creek Hydro Project**

This meeting will be conducted by  
**Kenai Hydro, LLC**

This meeting is being held in response to requests for a meeting in Moose Pass to provide information on the Grant Lake/Falls Creek Hydroelectric Project (FERC P-13211/13212). Similar to the meeting held in Seward on November 12, 2009, Kenai Hydro, LLC will present a summary of the information contained in the project Pre-Application Document and identified resource study issues. KHL will invite public comment on objectives of the identified studies and take suggestions for additional study topics.

Thank you for your continued interest in the Grant Lake/Falls Creek Hydroelectric Project. Please do not hesitate to contact me, or Brad Zubeck ([bzubeck@homerelectric.com](mailto:bzubeck@homerelectric.com)) if you have any questions about the upcoming meeting or the proposed Project.

Sincerely,

Jenna Borovansky  
Long View Associates (On Behalf of Kenai Hydro, LLC)  
208.765.1413





December 31, 2009

Ms. Kimberly Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street NE  
Washington, DC 20426

FILED ELECTRONICALLY

**Subject:** Grant Lake/Falls Creek (FERC Project No. 13212/13211) Joint Meeting Affidavits and Notice of January 13, 2010 Public Informational Meeting in Moose Pass, Alaska

Dear Secretary Bose,

Pursuant to 18 CFR §4.38, Kenai Hydro, LLC (KHL) held a Joint Meeting to discuss the proposed Grant Lake/Falls Creek Project with the public, agencies, and Tribes on November 12, 2009. A transcript of this meeting and proof of the public notice was filed with the commission on December 7, 2009. Additional publication affidavits for the public notice in the Homer Tribune and the Seward Public Log are attached to this filing.

KHL will be holding an additional public information meeting in Moose Pass, Alaska, in response to requests from local residents. The meeting will be held January 13, 2010 from 6:00 – 8:00 pm at the Moose Pass Community Hall, Mile 29.5, Moose Pass, Alaska. A copy of the meeting notice that is posted at the Moose Pass Post Office to inform local residents of the meeting is attached. Meeting notice was emailed to KHL's email contact list and posted on [www.kenaihydro.com](http://www.kenaihydro.com).

If you have questions about this filing, please contact Brad Zubeck, Kenai Hydro (907.335.6204, [bzubeck@homerelectric.com](mailto:bzubeck@homerelectric.com)).

Sincerely,

A handwritten signature in black ink, reading 'Jenna Borovansky'.

Jenna Borovansky  
Long View Associates, Inc.  
On Behalf of Kenai Hydro, LLC

cc: Mailing and Service Lists, P-13211 and P-13212  
Jennifer Hill, FERC  
Joseph Adamson, FERC

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Power, Production & Transmission  
Homer Electric Assoc. Inc.  
Attn: Gail Sather  
3977 Lake Street  
Homer, AK 99603

Date: November 9, 2009  
CASE/PO/AIO:  
INVOICE(S): 100900774376  
PAPER: SEWARD PHOENIX LOG

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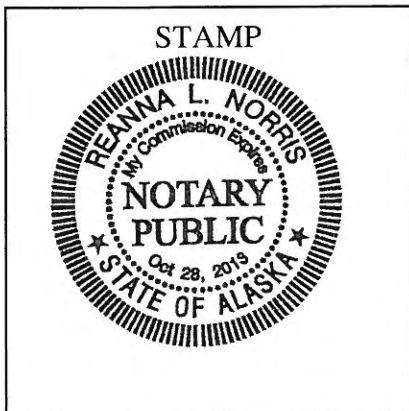
## AFFIDAVIT OF PUBLICATION

UNITED STATES OF AMERICA, STATE OF ALASKA, THIRD DIVISION

BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC THIS DAY PERSONALLY APPEARED CHRISTINA RITTER WHO, BEING FIRST DULY SWORN, ACCORDING TO LAW, SAYS THAT SHE IS THE ACCOUNTING ASSISTANT OF ALASKA NEWSPAPERS, INC. DBA THE SEWARD PHOENIX LOG PUBLISHED AT ANCHORAGE IN SAID DIVISION THREE AND STATE OF ALASKA AND THAT THE ADVERTISEMENT, OF WHICH THE ANNEXED IS A TRUE COPY, WAS PUBLISHED IN SAID PUBLICATION ON 10/29/2009 AND THEREAFTER FOR A TOTAL OF 1 CONSECUTIVE ISSUE(S), THE LAST PUBLICATION APPEARING ON 10/29/2009, AND THAT THE RATE CHARGED THEREON IS NOT IN EXCESS OF THE RATE CHARGED TO PRIVATE INDIVIDUALS.

*Christina Ritter*

CHRISTINA RITTER  
ACCOUNTING ASSISTANT, ALASKA NEWSPAPERS



SUBSCRIBED AND SWORN BEFORE ME ON  
November 9, 2009

*Reanna L. Norris*

REANNA L. NORRIS  
NOTARY PUBLIC FOR THE STATE OF ALASKA  
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To apply: Send, fax, or email a cover letter, detailed resume and references to: City of Pilot Point, P.O. Box 430, Pilot Point, Alaska 99849, Fax (907) 797-2211.

Email cityofpilotpoint@yahoo.com

Closing Date: Until Filled

(73457 10/08-10/29)

## PUBLIC NOTICE

On August 6, 2009 Kenai Hydro, LLC filed with the Federal Energy Regulatory

## LEGAL NOTICE

Notice of Petition to Change Name  
A petition has been filed in the Superior Court (Case #3W-09-68 C) requesting a name change from (Current name)

## REQUEST FOR PROPOSALS

Social Service agency seeking Request for Proposals for an architectural design of a small food service operation. For RFP application call 224-5604 or email ssc@seward.net (74538 10/29-11/05)

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For Domestic Violence or Sexual Assault questions, concerns or assistance, call 224-5257 or the 24-hour crisis line at 224-3027 provided by SeaView Community Services.

(314929 10/29 TFN 11/19)

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12199 MERIDIAN AVE, 3Bd., 2Ba., custom cottage \$138,000  
33485 VINEWOOD LN, 5Bd., 2Ba., greenhouse, great family home, great yard. \$240,000  
335 6TH AVE., Four-upper cottage. \$95,000  
526 6TH AVE., 3Bd., 2Ba., 1,600 sq. ft. SOLD  
709 3RD AVE., 3Bd., 1Ba., furnished. \$149,900  
32530 JUDAN, Lost Lake custom home or vacation getaway. 1188 sq. ft. garage. 2Bd., 2Ba., furnished. \$235,000  
510 RAILWAY AVE., 7Bd., 7Ba., Bayview. \$239,000  
2009 DORA WAY, 2Bd., 1Ba., newer home-REDUCED \$165,000  
13714 LESLIE PL., 3Bd., 2Ba., mobile home on .85 acres SOLD  
607 ASH STREET 3 Bd., 1 Ba., large fenced yard, heated shop garage. \$215,000  
1994 FORGET ME NOT CIRCLE, private in town location, 4Bd., 3Ba., sunroom, 2 car garage. 2 greenhouses. \$315,000  
33574 NASH RD., 2 cabins. \$80,000  
33932 NASH RD., 2-3 Bd./Ba., 232 acres. \$139,000  
BEAR LAKE, 168 ac., 4 Bd., 2Ba., 2,000 sq. ft. + 400 sq. ft. partial lake view. REDUCED \$245,000  
1907 DORA WAY, 4 Bd., 2.5 Ba., 1,490 sq. ft., 1 car garage, nice master suite. \$189,000  
EXIT GLACIER, 3 Bd., 2.5 Ba., custom home w/ master suite. REDUCED \$275,000  
14812 WILLOW DR., 4 Bd., 2.5 Ba., 2 car on 1.77 acres, 5-star energy rating. REDUCED \$325,000  
521 FIRST AVE., 3 Bd., 1.5 Ba., + 1 Bd. apartment or B&B. REDUCED TO \$225,000

## LOTS/LAND

FOX ISLAND, 1.21 acres. \$22,500  
WOODLAND HILLS, 68 acres. \$26,900  
8 ACRES, on Exit Glacier Rd. \$149,000  
2ND AVE., 2 lots, southern exposure. \$60,000 EACH  
CAMELOT ROUNDABOUT DR. 13 Bld. 11. \$17,500  
MOOSE PASS TOKLAT WAY 2.2 acres. \$45,000  
MOOSE PASS TOKLAT WAY 4.5 acres. \$69,000

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## RESIDENTIAL

33363 Stonery Creek Ave: 3bd, 1.75 ba, att. garage, 1 acre, beautiful views, new paint inside & out! \$235,000  
2614 Birch St. Comfortable family home, private lot, 3 bdrm, 1.75 ba, detached garage, storage shed, woodstove, deck, large picture windows with mt. views. Fire pit, lawn & picnic area. \$235,000

13038 Rough Dr. Cute home on private lot, 2 bdrm, 2 ba, covered deck, new updates Sept. 2009 PENDING

33750 Nash Rd.: Unique Multi-family home, 1 bdrm, 1 ba apartments plus extra 2 bedroom, 1 ba area for rental. All have private entrances. Landscaped perennial gardens. Nice deck with mt. views. \$220,000

231 Third Ave. 3 bdrms. 1.75 ba. Beautifully remodeled kitchen, rest of house needs work. \$125,000

13625 Beach Dr.: Lowell Point cabin, propane stove, cooking, lights, loft bedroom. Wonderful views of Resurrection Bay, surrounding mountains & glaciers. Recreational cabin or build beautiful home or lodge to your taste. No zoning. \$175,000

1011 Third Ave: Comfortable home on Third Ave. 3 bdrm., 1 ba, att. garage. Mt. Views! \$165,000

2012 Dora Way: SOLD

402 Second Ave: Modern Motors Building completely remodeled into 4 units, the owners apartment is the penthouse floor with beautiful views of Resurrection Bay, three ground floor rentals, two with long term leases, one brand new never been leased. Beautiful perennial gardens surround it, large storage carport building. \$650,000

310 Jefferson: Wonderful opportunity for a small business owner. This property has two 2 bdrm, 1 ba, apartments and a walkout basement level business area. Right now Forget-Me-Not Flowers are flourishing at this location. Lots of foot & vehicle traffic on 4th Ave. and Jefferson. ONLY \$275,000

309 Third Ave: Orca Inn, a unique 4-plex with bay & mt. views, 1 block from the Sealife Center & downtown Seward. Summer nightly rentals, winter monthly rentals. \$339,000

Bell-in-the-Woods B&B: Beautiful B&B with 3 guest rooms/private baths, 2-1 Bd, 1 ba, guest booking system, bookings in place. Named #1 B&B in Seward by Trip Advisor.com

10490 Bear Paw Dr: Beautifully maintained home in wonderful private setting. Great layout for entertaining! Sauna, two carports, storage. Mt. Alice view! \$650,000

33961 Romack Ct: Duplex, 2 units or one large single family home! Unit one is 2 bdrm, 1 ba, handicapped designed, unit two, 3 bdrm, 1 ba, both units have kitchen with breakfast bars, dining area, living room, separate boilers & laundry rooms. Great location close to Bear Lake. \$279,500

Great recreation year round from your door!

2013 Dora Way: PENDING

13692 Bruno Rd: Great family home on .91 acre, remodeled, 4 bdrm, 3ba, family room, or mother-in-law apt. oversized 2 car garage, great southern exposure, beautiful mountain views! \$235,000

510 6th Ave: SOLD

316 Third Ave: Single family home in Central Business District! Many uses allowed! 4 bdrm, 2.5 ba, fireplace, fenced yard, Bay and mountain views. \$269,900

101 Ravina St.: SOLD

Tri-Plex! Beautiful townhouse style tri-plex, each unit 2 story, 3 bdrm, 2 ba, office, attached garage, utility room, deck & storage unit. Great rental history! \$495,000

## LAND

Waterfront Property! One of a kind Lowell Point beach lot. .46 acre with unobstructed views of Resurrection Bay, city lights, mountains & glaciers. Build to suit. Boat ramp nearby. No Zoning! \$145,000

Clearview Sub: two lots on Resurrection Blvd. Mt. views, city utilities, zoned R2. \$48,000 EACH

214 Brownell St: Beautiful view property that can be multi-family or single family home, 9000-sq. ft. lot. Small house on property now a rental, backs up to Bear Mt. \$125,000

409 6th Ave: In town 6000-sq. ft. lot with potential bay & mt. views. \$70,000

Bear Paw Rd., .87 acre, level building lot, potential views of Mt. Alice with clearing. Electric, cable and telephone adjacent to the lot. \$48,000

Resurrection Bay View! Build your dream home on this spectacular piece of property.

Beautiful views of Resurrection Bay, 360 degree views of the surrounding mts.

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Clear View Sub: 6 in town view lots for sale, city utilities, zoned R2 duplex, \$45,000 - \$65,000

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# HOMER TRIBUNE

## Affidavit of Publication

Comes now, April Stover,  
being duly sworn in, says that the following:

Legal Public Notice,  
of which a true copy has been attached, has been published    /    week(s)  
in the Homer Tribune, a weekly paper of general circulation, published in the  
city of Homer, Alaska, and that the date of the first paper containing said legal,  
was   10/20  , 20  09   and the last day was  
  10/28  , 20  09  .

April Stover

Notary Public           )  
State of Alaska       )  
Third Judicial District )

SS.

SWORN AND SUBSCRIBED to before me this \_\_\_\_\_ day of  
\_\_\_\_\_, 20\_\_.

NOTARY PUBLIC:

\_\_\_\_\_

MY COMMISSION EXPIRES:

RECEIVED

DEC 04 2009

Notary Public



## roomballers hit the road for 'Northern Championship'

Homer team travels to Whitehorse for competition

By Catriona Lowe  
For the Homer Tribune

When Deschamps bounds onto the ice, blowing a whistle and sliding to a stop. "K, we're going to work on defense tonight," he rounds up his team of broomballers. An intense hour of drills commences, with members of Duggan's Pub Homer Broomball team enthusiastically hurtling across the rink. This has not been standard for Homer Broomball practices in the 15 years since its inception, and during the first rehearsal practice, it took me by surprise. Until the typical warm-up consisted of whacking shots in a general direction of the goal for a few minutes, the stragglers finished in the locker room. Then, they launched directly into games. Broomball activities around Homer are sliding to a new level with this year's decision to send a team to compete in the inaugural Bob Park Northern Broomball Championship in Whitehorse. In early 2009, Deschamps said he initially considered having the Homer team compete in tournaments out of state as Minnesota and Vancouver. It quickly became apparent, however, that the travel costs were prohibitive. At first, Deschamps thought, "Where could we drive

Whitehorse entered the picture. It certainly seemed possible, especially since "they have a lot of broomball there," according to Deschamps. Turns out, the Yukon and Northwest Territories Broomball Associations traditionally hold a local tournament at the start of the season — and they had been dreaming of expanding it. The result is the Northern Broomball Championship. Seven Yukon teams, two from the Northwest Territories and one from Anchorage are also participating. Teams are guaranteed four games in this co-ed tournament, and the intention is that the championship will be held biennially. Plans are to have Whiteknife host the tournament in 2011, and Homer in 2013. With the Yukon and Northwest Territories have established broomball teams with decades of experience, forcing Homer to adopt the ramped-up



Homer Broomball stops for a team photo after practice at Kevin Bell Arena. Pictured (L-R) are Amanda Neal, Lillian Sloth, Catriona Lowe, Mark Wayne, Brandon Young, Brandon Grochow, Daniel Deschamps, Ryjil Christianson, Stephanie Anderson and Jennifer Bando. Not pictured are: Liz, Josiah, Jedd and Terry.

training program.

Several Homer team members are newcomers to the strategies of playing organized team sports, making for an intense — and relatively steep — learning curve. Others are working at perfecting the unique set of skills involved in a game based on running around on the ice.

The 14 players from Homer will head north in two rental vans Nov. 12. An overnight stop in Tok allows for a practice and demonstration game at the new Tok Ice Arena. Homer's first game in Whitehorse is on Friday night against one of the Yukon teams.


Chip Duggan, who played broomball in Homer in 2006, is sponsoring the team, and the Kevin Bell Arena and Homer Broomball Association also assisted

by providing some additional ice time for practices.

The 2009-10 broomball season is well underway at Kevin Bell Arena, with pick-up games continuing once or twice a week. Excitement builds as the league season is about to begin, and broomball shoes and equipment are now available at Homers' Jeans. Even better, profit from these sales will be donated to Homer Hockey Association.

A fundraising event — including a costume contest, games and live music by Anchorage band, "The 11:20s" — will get underway around 10 p.m. Halloween at The Down East Saloon.

For more info. on broomball, e-mail homerbroomball@gmail.com. Game schedules are also available by calling 235-8ICE.



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incorporated in Alaska

### PUBLIC NOTICE

On August 6, 2009 Kenai Hydro, LLC filed with the Federal Energy Regulatory Commission (FERC): 1) a Notice of Intent (NOI) to file an application for original license under Part I of the Federal Power Act for the Grant Lake/Falls Creek Hydropower Project (FERC No. 13211/13212), and 2) a Pre-Application Document (PAD) which summarizes existing information on the Project, describes a proposed environmental study program to determine potential Project impacts, and identifies steps to developing appropriate protection, mitigation, and enhancement measures for inclusion in the license application. On September 15, 2009, FERC approved KHL's request to use the Traditional Licensing Process (TLP) with early scoping.

The proposed Project will be located on Grant Creek, near the outlet of Grant Lake, and on Falls Creek. The proposed Project will be located near the community of Moose Pass, Alaska, approximately 25 miles north of Seward, Alaska, and just east of the Seward Highway (State Route 9). The proposed Project location is in the Kenai Peninsula Borough. Additional Project information is available at: [www.kenaihydro.com](http://www.kenaihydro.com).

A joint meeting to discuss the proposed Project with the public, agencies, and Tribes will be held:

November 12, 2009  
6:00pm to 9:00pm  
Seward AVTEC Student Services Building, 2nd Floor Auditorium  
809 Second Avenue  
Seward, Alaska 99664

The purpose of the meeting is to explain the Project proposal presented in the PAD and its potential environmental impact, to review the information provided, and to discuss the data to be obtained and studies to be conducted by KHL in order to support consultation with the public, agencies, and Tribes regarding the development of a license application to be filed FERC. The major issue areas to be addressed include: fisheries and aquatic resources, water resources, terrestrial resources, visual and recreation resources, and cultural resources. A general schedule of activities pre-licensing will be discussed, and KHL will invite comments on the objectives of the identified studies and suggestions for any additional studies that the public, agencies, or Tribes may have.

# **Public Meeting Notice**

Moose Pass Residents  
are invited to an

## **Informational Meeting**

**Wednesday, January 13<sup>th</sup>, 2010**  
**6 p.m. to 8 p.m.**

At the Moose Pass Community Hall

Regarding the Proposed

## **Grant Lake/Falls Creek Hydro Project**

This meeting will be conducted by  
**Kenai Hydro, LLC**

This meeting will present a summary of the information contained in the project Pre-Application Document and identified resource study issues. KHL will invite public comment on objectives of the identified studies and take suggestions for additional study topics.