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

February 8, 2010

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

Subject: Summary of comments received on the PAD and proposed studies for the Grant Lake/Falls Creek Project (FERC Project No. 13212/13211)

Dear Secretary Bose,

On August 6, 2009, Kenai Hydro, LLC (KHL) submitted its Pre-Application Document (PAD) and Notice of Intent to file a License Application for the Grant Lake/Falls Creek Hydroelectric Project. The Commission approved the use of the Traditional Licensing Process, with early scoping, on September 15, 2009. Pursuant to 18 CFR §4.38, KHL held a Joint Meeting to discuss the proposed Grant Lake/Falls Creek Project with the public, agencies, and Tribes on November 12, 2009 in Seward, Alaska. The Joint Meeting initiated a 60-day comment period on the PAD and proposed studies for the licensing process. The meeting was attended by local resource agency representatives and the public, and comments received are captured in the transcript of the meeting filed with the Commission on December 4, 2009.

A summary of the potential resource issues that have been identified by KHL taking into consideration existing information summarized in the PAD and comments received at public meetings is included as **Attachment A**. This issues list also takes into consideration consultation with an Instream Flow Technical work group and fisheries and water quality baseline study report results from 2009 work, and will inform the draft study plans to be developed by KHL as the next step in the Traditional Licensing Process consultation. KHL has committed to establishing resource specific work groups to review draft study plans for the identified issue areas.

In response to requests received at the November 12, 2009 meeting, KHL held an additional public meeting in the community of Moose Pass on January 13, 2010. KHL shared the materials presented at the November Joint Meeting and accepted additional public comment on the proposed studies. A summary of questions and comments received, a copy of the sign-in sheet, and the presentation from the January 13 meeting in Moose Pass are included with this letter (**Attachment B**). KHL also met with and provided a summary of Project information and study issues to the Kenai-Soldotna Alaska Department of Fish and Game Advisory Committee Meeting on January 11, 2010 and the Kenai River Special Management Area Board Meeting on January 14, 2010.

In response to KHL's PAD and proposed study issues, the U.S. Army Corps of Engineers, Alaska Center for the Environment, the Resurrection Bay Conservation Alliance, Friends of Cooper Landing, Mike Cooney, the Aigeldnger Family, Adrienne Meretti, Marion Glaser, and William Brennan have provided comments to KHL on the Project proposal, and filed these comments directly with the Commission. In addition, KHL received comments and additional

information on the proposed Project area from the City of Seward, William Coulson, Brita Mjos, Bruce Jaffa, and Irene Lindquist. Copies of the comments provided to KHL that have not been filed with the Commission are included with this letter (**Attachment C**).

At this time, KHL is suspending major activities to consider how best to proceed with its schedule and scope of work given its financial constraints and reorganization. KHL will continue to keep the Commission apprised of its plans, progress and timeline for developing draft study plans, so that the Commission may plan and schedule its early scoping meeting.

If you have questions about this filing, please contact Brad Zubeck, Kenai Hydro (907.335.6204, bzubeck@homerelectric.com).

Sincerely,

/s/ Brad Zubeck

Brad Zubeck
Project Engineer
Kenai Hydro, LLC

Enclosures

Attachment A

Potential Resource Impacts – Grant Lake/Falls Creek Project (FERC No. 13211/13212)

Geology and Soils

- Impact of Project construction and operation on possible erosion and sedimentation in the zone above normal full pool in Grant Lake.
- Impact of Project operation (changes in Grant Lake levels) on the Inlet Creek delta.
- Impact of Project construction on sediment releases into Grant Lake, Grant Creek, and Falls Creek, Trail Lake and Trail Creek.
- Impact of Project road and transmission line construction and operation on erosion in the Project area.

Water Resources

- Impact of Project construction and operation (lake level fluctuations, changes in flow) on Grant Lake, Grant Creek, and Falls Creek water quality, hydrology, and water temperature.
- Impact of Project construction and operation on water quality, hydrology, and ice conditions of Lower Trail Lake and Trail Creek.
- Impact of Project operation (changes in flows) on domestic water use in Falls Creek.

Fish and Aquatic Resources

- Impact of Project operation on sediment transport (relative to the availability of spawning gravels) due to changes in flow in Grant Creek.
- Impact of Project operation (fluctuating flows in Grant Lake, changes in seasonal flow on Grant and Falls Creek, reduced flows between the dam and powerhouse on Grant Creek, reduced flows below the Falls Creek diversion) on fish abundance and distribution
- Impact of Project construction and operation on biological productivity and abundance of fish food organisms in Grant Creek and Grant Lake.
- Impact of Project intake structure operation on fish populations.
- Impact of Project construction on fish habitat in Grant Creek.
- Impact of Project facilities (increased access) on fish populations due to potential increased recreational fishing.
- Impact of Project construction and operation on commercial, sport, and subsistence fisheries supported by the Kenai River watershed.

Botanical, Wildlife, and Wetland Resources

- Impact of Project studies, construction and operation (including potential disturbance to wildlife) on wildlife distribution and abundance.
- Impact of Project construction and operation on wildlife during critical life stages.
- Impact of Project construction and operation (lake level fluctuations) on Grant Lake shoreline vegetation and/or habitats used by wildlife species.
- Impact of Project construction and operation (lake level fluctuations, Project roads and facilities) on distribution and abundance of invasive plant species
- Impact of Project construction and operation (lake level fluctuations, Project facilities) on distribution and abundance of rare plant species.
- Impact of Project operation on abundance and distribution of fish used by wildlife species.
- Impact of Project construction and operation on breeding and rearing habitat and nesting success of waterbirds in Grant Lake and Inlet Creek.
- Impact of Project construction and operation (lake level fluctuations, hydrologic changes in Grant and Falls Creek, road and facilities construction and maintenance) on wetland, forest/scrub, riparian, and littoral habitats on Grant Lake (including at Inlet Creek), Grant Creek, and Falls Creek.
- Impact of Project construction and operation on wildlife use of wetland, riparian, and littoral habitats.
- Impact of Project operation on littoral habitats at the narrows between Upper and Lower Trail Lakes.
- Impact of Project construction and operation on wildlife movement across the bench between Grant Lake and Trail Lake.
- Impact of Project transmission lines on bird populations (potential collision deaths).

Quality of Life, Recreation, Land Use, and Visual Resources

- Impacts of Project construction and operation on distribution of local and tourist recreational use, access, and experience on Grant Lake, Grant Creek, Vagt Lake, and Falls Creek.
- Impacts of Project construction and operation on the distribution and abundance of fish and wildlife for anglers and hunters.
- Impacts of Project construction and operation (including facilities) on visual quality in the area.

- Impacts of Project roads and transmission line corridors on aesthetic and visual resources (including impacts on Scenic Byway viewpoints and views from existing recreational trails and use areas).
- Impacts of Project construction and operation on local and regional recreation resources.
- Impacts of Project facilities and operation (including road access, safety, and use) on local residential land use on Grant Creek and Falls Creek.
- Impact of Project construction and operation on quality of life characteristics of the area (i.e., noise, changed access to remote area, light pollution).
- Socioeconomic overview of potential effects of Project construction and operation on the area economy.

Cultural Resources

- Impacts of Project construction and operation (including changes in flows and lake level fluctuation and potential for increased recreational use and access in the area) on cultural resources in the Grant Lake, Grant Creek, and Falls Creek area.
- Assessment of existing subsistence use, and impacts of Project construction and operation on subsistence use in the area.

Attachment B - Materials from January 13, 2010 Meeting in Moose Pass, Alaska

- **Summary of Issues**
- **Power Point Presentation**
- **Sign-In Sheet**

KHL Grant Lake/Falls Creek Hydro Project
Public Meeting, Moose Pass Community Center, Moose Pass, Alaska
1-13-10

1. Transmission Line underground option? Consider an underground transmission line between the powerhouse and the grid intertie.
2. Visual-aesthetic study.
3. Will an in-stream flow study be performed for Falls Creek?
4. When will comments/issues be addressed?
5. Will there be follow-up studies, assuming the project is constructed, that will verify study impacts or predicted results/trends?
6. Will the studies or project address Kenai River Special Management Restrictions?

Fish, Aquatics & Water Resources

7. What affect will the project have on Vagt Lake?
8. What affect will the project have on water temperature, changes?
9. Water quantity study out of Grant Lake/Falls Creek? (i.e., how much does Grant Creek contribute to the water flowing out of Lower Trail Lake?)
10. Who quantifies parameters of flow studies?
11. Concern about Falls Creek resources?
12. What remediation/reclamation would be required if project is decommissioned?
13. Water quality certification – would KHL consider obtaining a 404(??) water quality certification?
14. Relationship of AEA Hydro projects to KHL project?

Terrestrial/Plant Resources

15. Will trees be cleared on the banks of Grant Lake due to raising the lake level, what affect will this have?
16. How do you mitigate loss of habitat due to raising level of Grant Lake (e.g., nesting bird habitat in particular)?
17. How will the project affect brown bears (Brown Bear Denning Study)?
18. Are lynx being studies for impact from project?
19. What affects on Ptarmigan (birds)?

Recreational/Visual Resources

20. How will the project affect access by Airplane, ski-planes, hiking? What affect or impact to Grant Lake Portage Trail?
21. How will the project affect the active mining claim on north side of Grant Lake, the “Case” mine and cabin.
22. What affect would project traffic noise have on recreation at Vagt Lake?
23. Value: Public integrity values considered… Residents would like to see scenic integrity values put in terms of local residents.
24. Impact of road construction of Falls Creek residents (e.g., dust, noise, increased traffic, etc)?
25. Studies address local interests in balance with overall project.

26. Look at existing amount of public use in area.
27. Consider giving increased weight to localized interests and opinions.
28. Could the dam structure be designed to look “natural”?

Cultural Resources

29. Be aware that a group has received grant monies to designate or recommend sites in the area for a National Heritage Site. The group is call “Community Corridor Association” (see Bruce Jaffa).
30. Look at easements south of Falls Creek. Re-route access south of Falls Creek (rather than the north side of the creek where it is currently proposed).
31. Possibly deal directly with Falls Creek Road residents (i.e., consider individual negotiations with each resident along Falls Creek).
32. Electrical Conservation (i.e., demand-side management) needs to be a priority.

GRANT LAKE / FALLS CREEK PROJECT

Kenai Hydro, LLC

Moose Pass Presentation

January 13, 2010

Agenda

- Goals for Joint Meeting & Project Progress & Status
- Project Drivers
- FERC Traditional Licensing Process (TLP) & Early Scoping
- Filing Comments with FERC
- Project Description
- Resource Area Existing Information and Potential Effects
  - Fish and Aquatic Resources
  - Water Resources
- Break
  - Terrestrial Resources
  - Visual and Recreation Resources
  - Cultural Resources
- Wrap-Up and Additional Time for Additional Public Comments

Goals for the Meeting

- Summarize Existing Information
- Review & Identify Study Topics
  - Studies and information gathering efforts will focus on information needed to assess potential resource impacts of the proposed Project in a license application to FERC
- Gather Feedback on Identified Study Topics

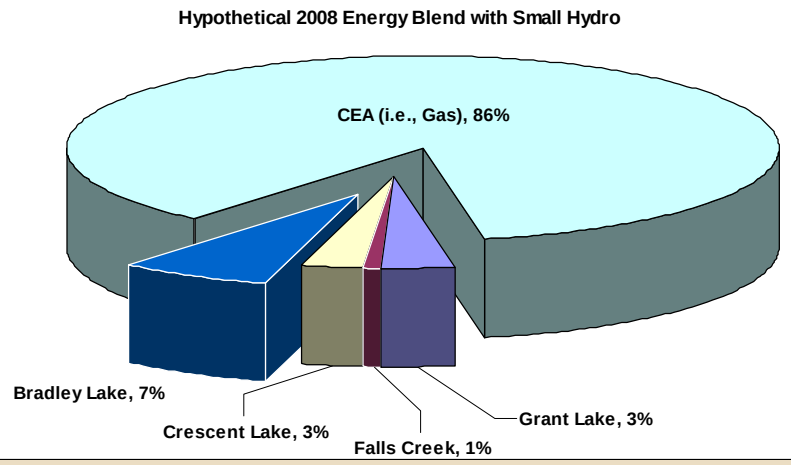
Project Progress & Status

- Finalize 2009 Baseline Study Work & Report
- Receive, Summarize and File Public Comments
- Schedule beyond tonight is tentative and dependent on obtaining additional funds to implement studies
  - Wind Energy Alaska is in the process of withdrawing from the KHL partnership

Project Drivers

- Diversify HEA's Generation Portfolio
- Desire to Add Renewable Generation
  - Wind and Hydro – reliable, utility-ready technologies
  - Displaces fossil fuels
  - Reduces carbon emissions
  - Stabilize energy prices, near & long term

Why bother with 4.5MW?



Benefits of Small Hydro

- Hydro energy displaces fossil fuels & associated emissions
  - Could displace 182,000 to 225,000 Mcf of gas per year
  - Could save ~$760,000 to $1,870,000 (w/gas at $4 to $8/Mcf)
  - Could offset the equivalent of 12,000 - 15,000 tons per year of CO2
- With Storage (i.e., Ability to fluctuate the lake level)
  - HEA can provide more power when needed during winter months
  - Provide consistent and increased winter stream flows to potentially benefit aquatic life… without storage this is *not* possible
- Strategic Benefit – When debt is retired, it is the cheapest power available (< $0.05/kWh).

Why Moose Pass?

- Simply, that's where the resource is…
- Bradley Lake Comparison
  - Located at the head of Kachemak Bay near Homer
  - Serves all Railbelt Utilities: Anchorage (CEA, ML&P), Valley (MEA), Fairbanks (GVEA), and the Peninsula (HEA and Seward)

Meeting Process and Comments

- Please hold questions until the end of each resource segment
- Please be concise
- Please focus comments on identifying or clarifying potential issues that should be studied
- If you have extensive additional existing information on the Project area please submit in writing

FERC Process

- Federal Energy Regulatory Commission (FERC) has jurisdiction over hydroelectric development, guided by the Federal Power Act
- FERC outlines detailed licensing processes for applicants to use that include opportunities for agency, tribal, and public input throughout the Project development
  - Kenai Hydro requested, and received authorization from FERC to use the Traditional Licensing Process (TLP) with early scoping
  - TLP has three stages of consultation

TLP: First Stage Consultation

File Notice of Intent and Pre-Application Document (PAD)	**August 6, 2009**
Public and Agency Comments on Use of the TLP	**August 6 - September 6, 2009**
FERC approval of request to use TLP	**September 15, 2009**
Joint Meeting	**November 12, 2009**
Public Comment on Study Issues and Available Information • Parties provide comments on study determination on necessary studies, and additional study requests with explanation how the studies and information requested will be useful to the agency, Tribe, or member of the public in furthering its resource goals and objectives	**November 12, 2009 – January 11, 2010**
Dispute Resolution Process • This is a formal step in the TLP regulations for the applicant or other parties to request FERC input if there is disagreement over which studies should be conducted. • FERC has committed to Early Scoping for this Project, so FERC will engage in reviewing the range of issues to be studied whether dispute resolution is requested or not.	**Following end of comment period**

FERC Early Scoping

- Timing - Prior to initiation of study program
- FERC issues Scoping Document 1 and Meeting Notice at least 30-days prior to public meeting date
- Two meetings to be held (at least one will be held in close proximity to the Project area)
- An environmental site review will be scheduled in coordination with the early scoping meeting
- 60-day Comment Period follows scoping meeting
- If necessary, Scoping Document 2 with expanded range of studies to be conducted will be issued by FERC within 45-days following close of public comment

TLP Second Stage Consultation (Tentative Schedule)

KHL Files Summary Response to Comments on Study Requests	January 2010
KHL Issues Draft Study Plans for Agency and Public Review	February - March 2010
Public Workgroup Meeting(s) to discuss 2010 draft study plans	March - April 2010
KHL Issues final study plans	May 2010
Conduct studies per study plans and provide updates to workgroups	May 2010 – January 2011
Consultation with workgroups regarding development of Draft License Application	January – April 2011
File Draft License Application • Includes study results to date • Include response to study requests received at Joint Meeting	May 2011
Public Comment Period on Draft License Application	May – July 2011 [90-days following filing of draft license application]
FERC Dispute Resolution Process	As requested

TLP Third Stage Consultation (Tentative Schedule)

File Final License Application	September 29, 2011
Expiration of Preliminary Permit	September 30, 2011
FERC Dispute Resolution Process and Requests for Additional Information	As requested

Proposed Work Groups

- Fish and Aquatics, Water Quality and Hydrology
  - Includes water quantity
- Human Environment
  - Recreation
  - Land use
  - Socioeconomics
  - Aesthetics
  - Quality of Life
- Cultural Resources
- Terrestrial Environment
  - Wildlife
  - Vegetation
  - Wetlands

Purpose of Work Groups

- KHL will engage work groups during the development and implementation of study plans
- Draft study plans will be discussed with the work groups prior to study implementation
- Study results will be provided to the work groups
- Once study information is available, potential Protection, Enhancement, and Mitigation Measures for the License Application will be discussed with the work groups

Filing Comments with FERC
Use P-13211 and P-13212

- FERC e-filing at www.ferc.gov
- Three ways to comment:
  - Written correspondence
  - Electronic "Quick Comment" [limited to 6,000 characters]
  - Register on ferc.gov to e-file longer documents
- Copy comments to applicant (KHL)
- Questions?
  - FERC's Project Manager is Joe Adamson (joseph.adamson@ferc.gov)

Tracking Project Progress and Comments

Kenai Hydro, LLC website

(www.kenaihydro.com)

FERC E-Subscription Service

(www.ferc.gov)

Summary of Comments Rec'd after Nov. 12th Public Meeting

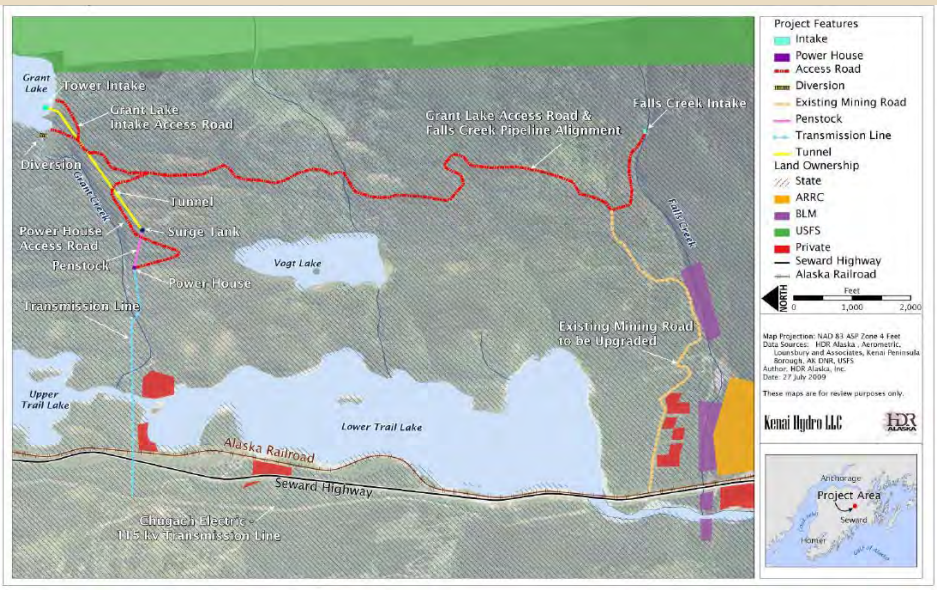
- Potential impacts of Project facilities and construction on traffic, access road alignment, and potential road improvements on residents along Falls Creek
- Potential impacts of Project operation on local domestic water use in/near Falls Creek (wells and surface water use)
- Potential impacts of noise (e.g., change in Creek sounds and masking of traffic noise) due to changes in flow in Falls Creek
- Potential impacts of Project construction and operation of facilities on dark skies/potential light pollution from Project facilities
- Potential impacts of Project construction and operation on quality of life in Moose Pass and surrounding socioeconomic considerations – impacts on local business, tourism, and resident use of area
- Potential impacts and changes in accessibility to Falls Creek, Grant Creek, and Grant Lake (roads, trails, etc)

Summary of Comments Rec'd after Nov. 12th Public Meeting (continued)

- Potential impacts of Project operation on ice formation in Grant Lake and Trail Lake
- Potential impacts on commercial fisheries resources in the local area and in the Kenai River watershed
- Potential impacts of Project construction and operation on wild fish production and the Grant Creek/Falls Creek population contribution to the Kenai River watershed
- Potential aesthetic impacts of Project facilities (including transmission line placement [location and above vs. underground], road alignment, and Falls Creek to Grant Lake diversion pipe)
- Potential impact of Project construction activities (i.e., lowering of lake level for dam construction purposes; construction of a temporary coffer dam) on Grant Lake outlet and wildlife and wetland habitat
- Potential for residential service expansion in the local area and/or grid connection benefits from the Project
- (Note: A full transcript of the November 12 meeting was filed with FERC, and individuals and organizations have also filed written comments with FERC that are not included in this summary.)

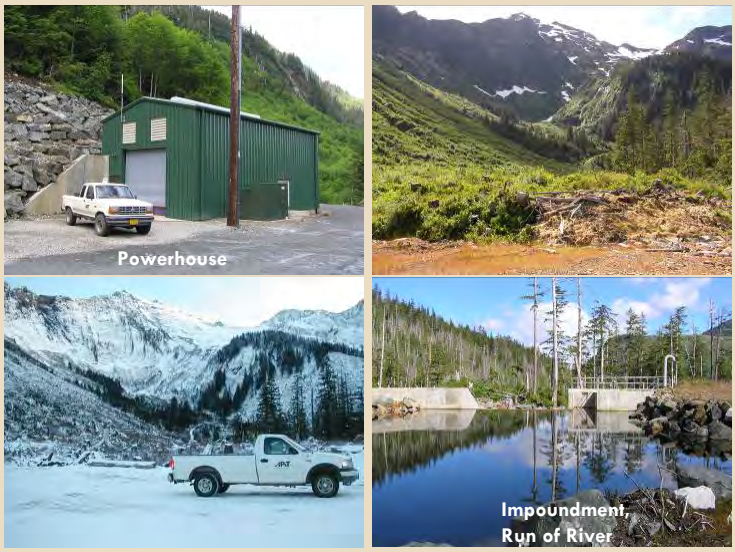
Project Area

Proposed Project Facilities



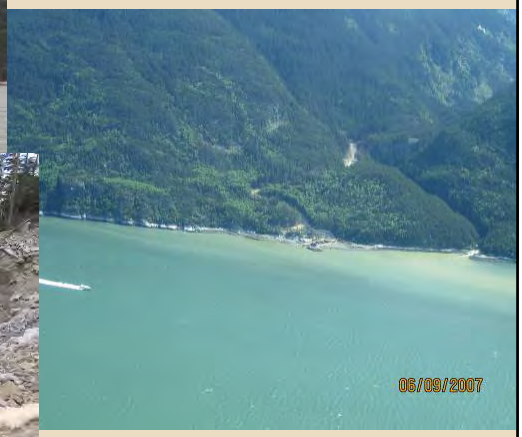
Goat Lake Hydro 4MW

South Fork Hydro 2MW

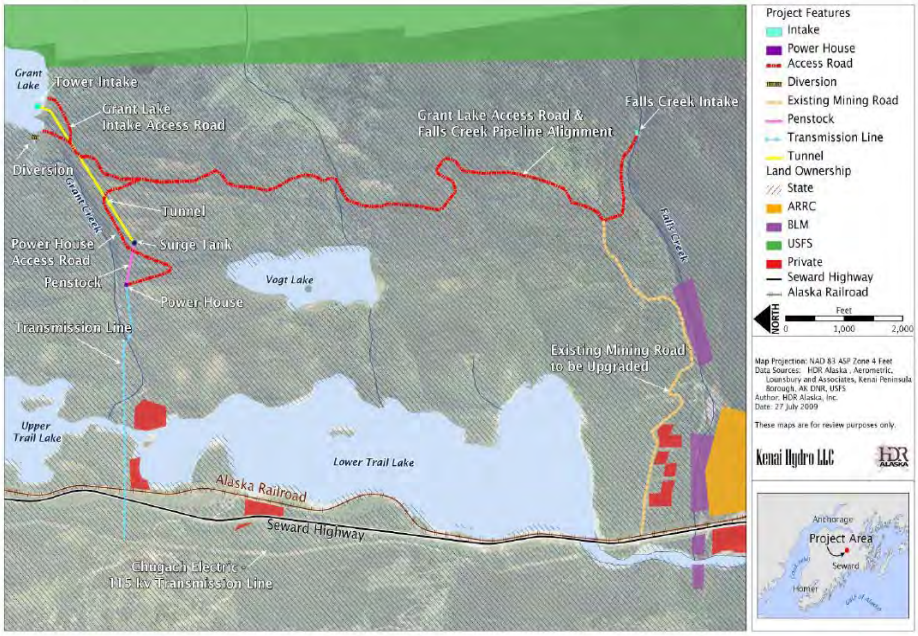


Kasidaya Creek Hydro 3MW

A Run-of-River Project



Questions and Comments?



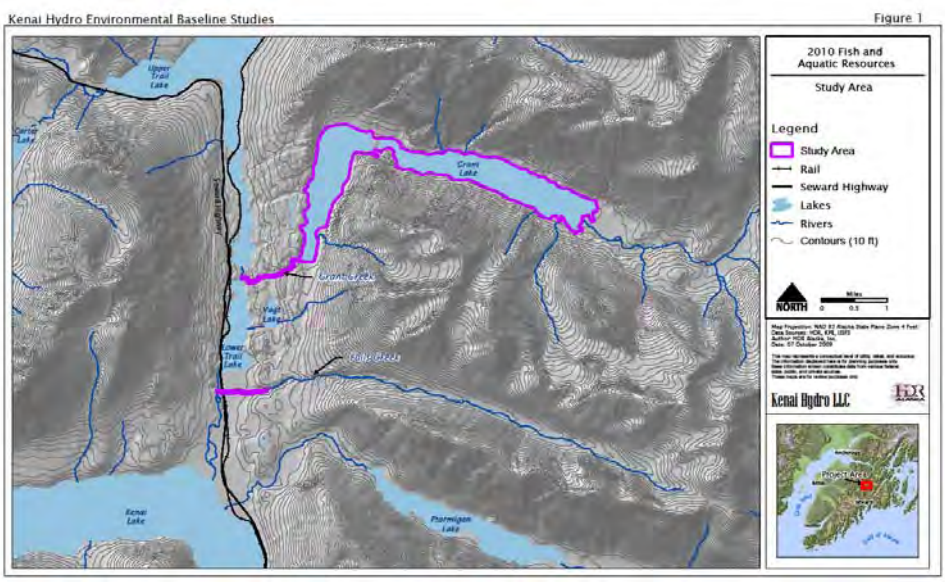
Fish and Aquatic Resources

Fish and Aquatic Resources
Existing Information

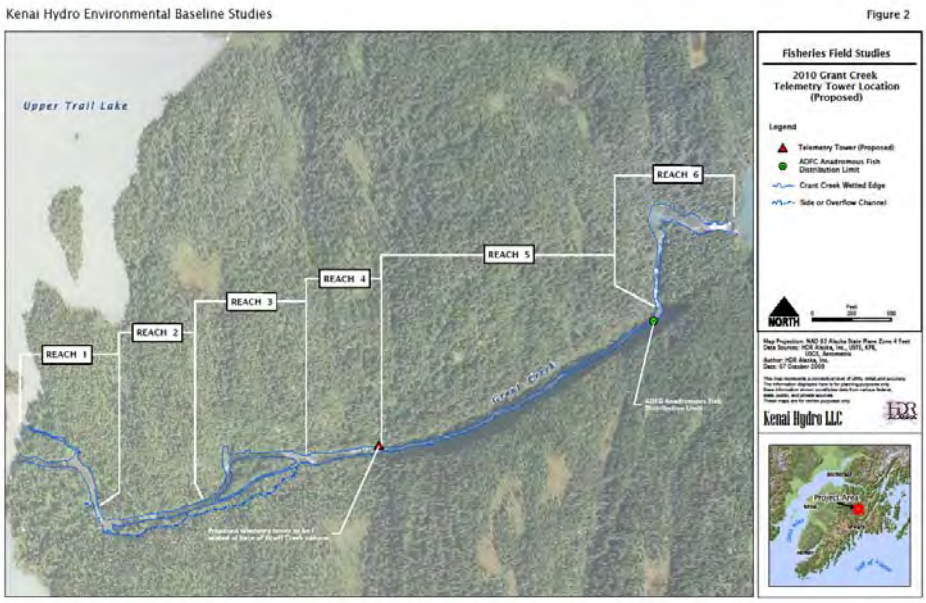
Sources of existing information

- Fish and aquatic habitat data were collected in Grant Lake and Grant Creek as part of various studies in the 1960's and 1980's by USGS, USFS, USFWS, ADFG, and AEIDC
- Resource information derived from the above studies has been summarized in the Preliminary Application Document (PAD)
- Pre-licensing study program conducted by HDR in 2009
- A final report of the 2009 studies should be available on the KHL web site soon.
- Information sources are available on the Kenai Hydro Project web site (www.kenaihydro.com)

Study Areas



Grant Creek



Fish and Aquatic Resources
Summary of Habitat Values

Grant Lake

Sticklebacks and sculpins present. No salmon, trout, or Dolly Varden have been captured in the lake or its tributaries.

Grant Creek

Adult Salmon

- Lower 0.8 miles mapped as anadromous fish habitat by ADF&G; upstream passage blocked by an impassable waterfall
- Sockeye Salmon – Escapement estimates have ranged from 400 to 2,500 adult spawners
- Chinook Salmon – Escapement estimates have ranged from 33 to 230 adult spawners
- Coho – Count numbers have ranged from 55 to 300 adult spawners

Fish and Aquatic Resources
Summary of Habitat Values (cont.)

Grant Creek (cont.)

Juvenile Salmon

- Lower reach of Grant Creek contains limited scattered slow water habitats suitable for juvenile salmon rearing
- Rearing habitats consist mainly of undercut bank, side channel and backwater areas
- Chinook and coho fry abundant within limited available habitats
- Most juvenile salmon are fry suggesting limited use by older juveniles

Resident Fish

- Dolly Varden most abundant fish in stream. All size classes present.
- Adult and subadult Rainbow trout also common

Fish and Aquatic Resources
Summary of Habitat Values (cont.)

Falls Creek

- Lower 1/3 mile mapped as anadromous habitat by ADF&G
- 2009 minnow trapping captured Dolly Varden only
- Spawning surveys in 2009 found no adult salmon present

Fish and Aquatic Resources
Issues

- What are the potential effects of increased lake level fluctuation on Grant Lake fish resources?
- What are the potential effects of the project intake structure on Grant Lake fish resources?
- What are the potential effects of changes to the seasonal flow regime on the abundance and distribution of fish in Grant Creek?
- What are the potential effects of changes to Grant Creek flows on the availability of spawning gravels and/or sediment deposition rates in Grant Creek?

Fish and Aquatic Resource Issues (cont.)

- What are the potential effects of project construction or operation on the overall productivity of Grant Creek as determined by the abundance of aquatic insects (macroinvertebrates) and/or algae (periphyton)?
- What are the potential effects of project construction activities on fish habitats in Grant Creek, Falls Creek, or Grant Lake?
- What are the potential effects of reduced flow in lower Falls Creek on the abundance and distribution of fish in the creek?
- What are the potential effects of increased access resulting from project roads on fish resources through increased recreational fishing opportunities?

Fish and Aquatic Resources Proposed Studies

- Grant Creek Salmon Spawning Distribution and Abundance
- Grant Creek Resident and Rearing Fish Distribution and Abundance
- Grant Creek Aquatic Habitat Mapping and Critical Factors Analysis
- Grant Creek Instream Flow Study
- Falls Creek Fish Distribution and Abundance
- Baseline Study of Benthic Invertebrates and Periphyton in Grant Creek
- Baseline Study of zooplankton and phytoplankton in Grant Lake

Other Issues and Comments

??????????????????

Water Resources

Water Resources
Hydrology

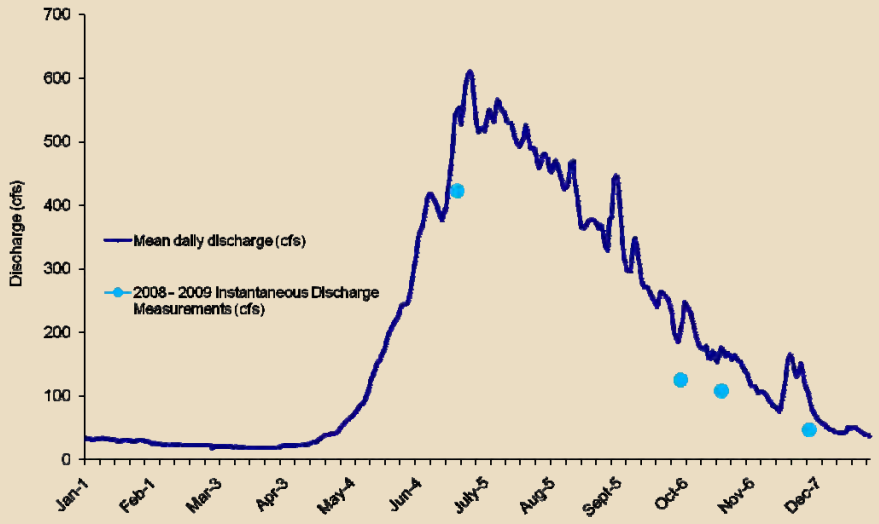
Sources of Existing Information

- Historical Grant Creek stream gage data (USGS 15246000) – 11 years of continuous stream gage data from 1947-1958.
- Grant Lake Hydroelectric Project Detailed Feasibility Analysis, EBASCO, 1987, that includes modeled Falls Creek data.
- Historical Falls Creek discharge data includes continuous measurements during one summer in the mid-1980s and several instantaneous discharge measurements made over various years including 1963-70, 1976, and 2007- 2008.
- HDR Stream Gage data at USGS Station - 2009

Water Resources
Hydrologic Characteristics

- Grant Lake fed by several tributary streams, most of which terminate at glaciers
- Grant Lake water level fluctuates naturally over a several foot range
- Seasonal flow characteristics typical of glacial systems
- Most summer flow derived from snow and glacial melt
- Most winter flow derived from ground water

Historical Grant Creek (GC200) Hydrograph (1947 -1958)



Water Resources
Water Quality

Sources of existing information

- Water chemistry and temperature data collected in Grant Lake and Grant Creek as part of various studies in the 1960's and 1980's by USGS, USFS, USFWS, ADFG, and AEIDC
- HDR's ongoing 2009 study has collected seasonal water chemistry data and continuous temperatures in Grant Creek and Grant Lake at several stations

Water Resources
Water Quality Characteristics

- Water quality typical of cold Alaska drainages with glacial input
- Nutrient levels are generally low, indicating low biological productivity
- Turbidity varies with the season – moderately high in the summer during glacier melt and low during winter and spring
- No indication of water pollution or other unusual conditions

Water Resources
Issues

- What are the potential effects of Project construction and operation on Grant Lake, Grant Creek, and Falls Creek water quality, hydrology, and water temperature?
- What are the potential effects of Project construction and operation on water quality and hydrology of Lower Trail Lake and Trail Creek?
- How will physical changes to Grant Creek, Falls Creek, and downstream water bodies affect fish resources?

Water Resources
Proposed Studies

Hydrology

- Continue the ongoing stream gaging in lower Grant Creek to increase the period of record, confirm earlier data, and provide essential input to the instream flow study
- Continue the ongoing stream gaging of Falls Creek

Water Resources
Proposed Studies

Water Quality

- Collect water chemistry data in Grant Creek, Falls Creek, and Grant Lake to define baseline water quality conditions.
- Continue the collection of continuous water temperature data in Grant Creek, Falls Creek, and Grant Lake to provide input to aquatic resource impact assessment models.

Other Issues and Comments

??????????????????

Terrestrial Resources

Existing Information:

- Previous studies and agency surveys
- AEIDC, APA, US Forest Service, ADF&G
- Summarized in PAD

Terrestrial Resources
Plant Community Characteristics

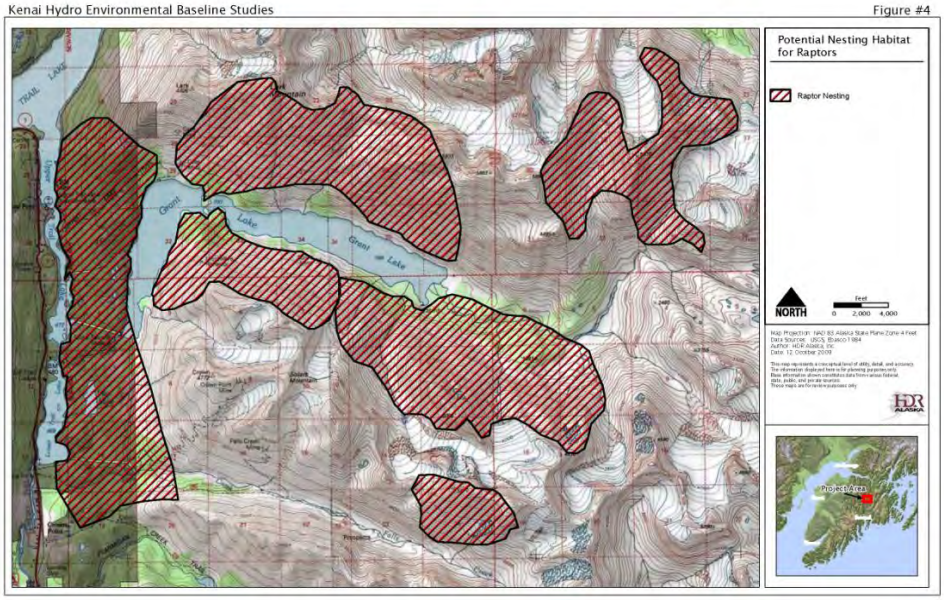
- Wide range of plant communities represented in Project area
  - Coniferous, deciduous, and mixed forest
  - Shrublands, grasslands, and alpine tundra
  - Muskeg, wetlands, and riparian areas
- Spruce bark beetle has affected spruce in the past 15 years
  - Areas of dead trees are in or near the Project area
- Plant communities of special interest include:
  - Forested areas with harvestable timber
  - Wetland and riparian communities
  - Rare or sensitive plant habitats

Project Area: Grant Lake, Vagt Lake, Trail Lakes

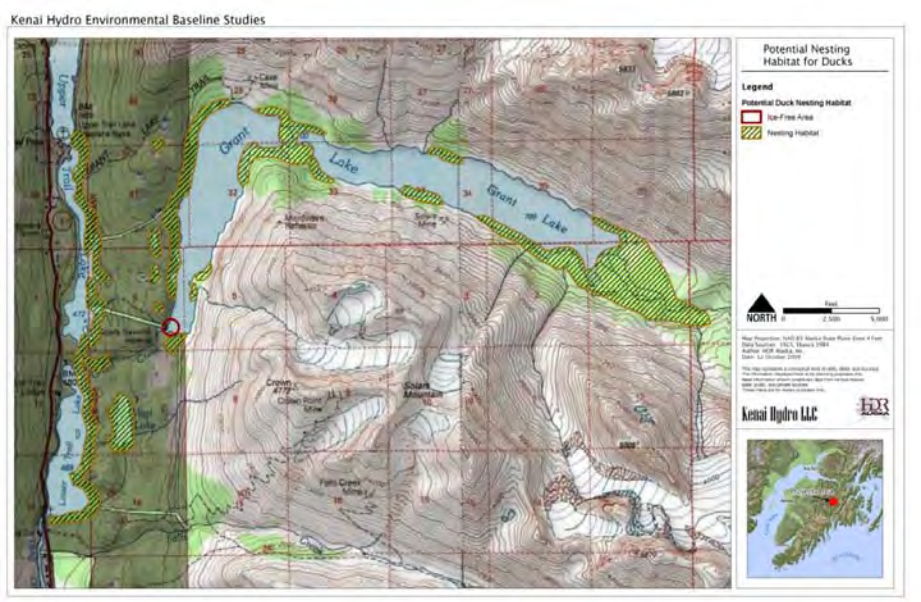
Terrestrial Resources
Wildlife Community Characteristics

- Studies from the 1980's estimated 108 bird species, 34 mammal species, and one amphibian
- Habitats of interest: inlet delta, outlet area, bear use habitats, moose range, raptor nesting areas, and potential waterbird nesting areas

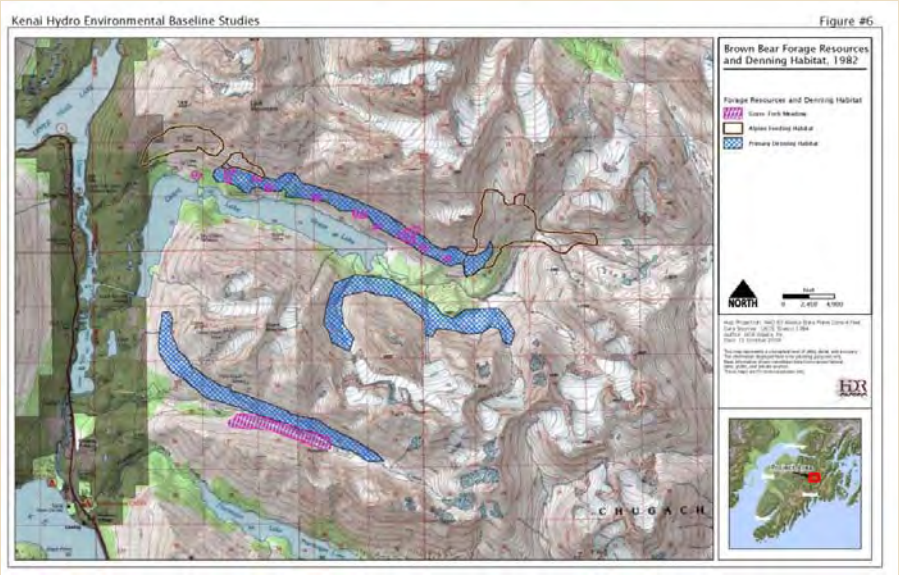
Grant Lake Outlet



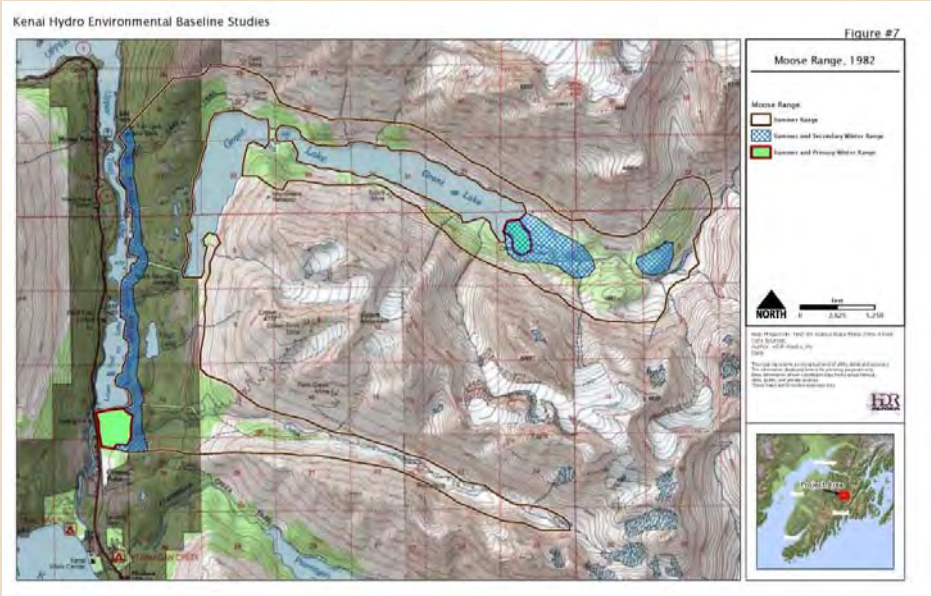
Potential Raptor Nesting Habitat, 1982



Potential Waterbird Nesting Habitat, 1982



Brown Bear Foraging and Denning Habitats, 1982



Moose Range, 1982

Terrestrial Resources
Special Status

- USFS has identified two sensitive plant species that may be present in the Project area, but no sensitive, rare, threatened or endangered plants have been documented in Project area.
- No threatened or endangered animals occur in the Project area.
- The USFS identifies three management indicator species: brown bear, moose, and mountain goat; and eight species of special interest.
- The state list of Species of Special Concern has several species that may occur in the Project area(e.g., Brown Bear).

Terrestrial Resources Issues

- What are the potential effects on wildlife from general disturbance associated with studies, construction, and operation?
- What are the potential effects of increased water level fluctuation in Grant Lake?
- What are the potential effects of changes in flow in Grant Creek and Falls Creek?

Terrestrial Resources Issues (cont.)

- What are the potential effects of construction of the Project facilities?
- What are the potential effects on wildlife if the distribution and/or abundance of salmon changes?
- What are the potential effects of construction and maintenance of access roads and transmission lines?

Terrestrial Resources
Proposed Studies: Plants

Studies will be designed to gather information for accurate evaluation of how the Project will affect terrestrial resources.

Study topics:

- Refining existing vegetation mapping
- Conducting a timber stand survey in areas not previously surveyed
- Conducting a sensitive plant survey to produce a Biological Evaluation for Plants
- Conducting an invasive plant survey (concurrent with sensitive plant survey)
- Conducting wetland delineations
  - The wetland survey will include a detailed survey of Project activity areas and a general survey of the larger Project area.

Terrestrial Resources
Proposed Studies: Wildlife

Study topics:

- Quantifying the distribution and abundance of target wildlife species during key seasons of activity in the Project area
  - Documenting the species composition of avian communities, particularly landbirds, shorebirds, and waterbird
  - Classifying and mapping wildlife habitat in the Project area in conjunction with the Botanical Resources Study
- Conducting bear denning survey

Other Issues and Comments

??????????????????

Recreational and Visual Resources

Existing Information:

- Previous studies and agency surveys
  - ADNR, KPB, AEIDC, APA, USFS, ADF&G
- Summarized in PAD

Recreational and Visual Resources: Land Use

- **USFS Land Use Designation** (USFS Plan)
  - Most of Project area watershed is on USFS land
  - Grant Lake area (within FS boundaries) is Fish, Wildlife, and Recreation Prescription
  - East end of Grant Lake is Backcountry Prescription
- **State lands** on either side of Trail Lakes
  - includes locations of tunnel, penstock, powerhouse, access roads, and transmission line
- **KPB** has selected lands between Grant Lake and Upper Trail Lake
  - Use to be determined by KPB
- **Private property** in Moose Pass, and along shores of Upper and Lower Trail Lakes

Project Area Land Ownership

Recreational and Visual Resources: Recreation

- **Trails**
  - Iditarod National Historic Trail traverses the Project area
  - Grant Lake Trail, Falls Creek Road, Vagt Lake Trail, and Crown Point Mine Road and Trail
- **Access**
  - Boat in summer
  - Snowmachine or cross-country ski in winter
  - No developed trailhead or signs
- **Use Level** – currently, both summer and winter use is light

Falls Creek Area Hiking Trail

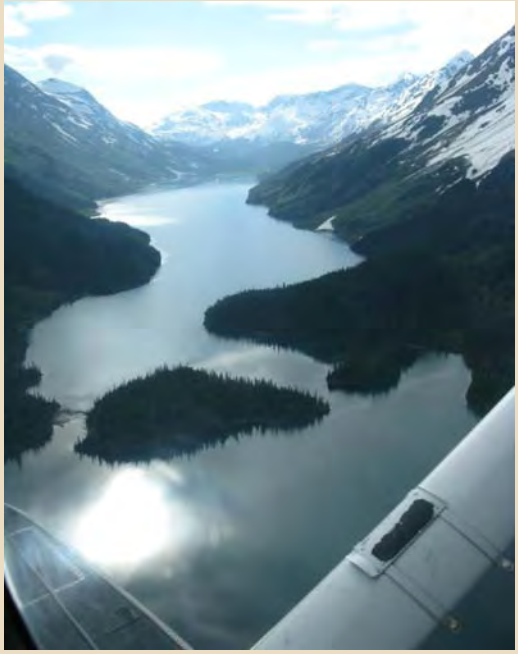
Recreational and Visual Resources: Recreation

- **Hunting and Fishing**
  - No game fish in Grant Lake
  - Some hunting and fishing in area
- **Mining**
  - Abandoned mine in the area
  - Active mining claims near Falls Creek
  - Area designated for mining use with approved plan near Falls Creek Road
- **Access Type**
  - Motorized travel in winter permitted, except in Backcountry area where only helicopters are approved
  - Limited motorized travel during summer on Falls Crk/Crown Pt mining trail
  - Helicopter use permitted all year

Recreational and Visual Resources: Visual and Aesthetics

- Scenic designation by USFS
  - Scenic Integrity Values are "moderate" except in eastern Backcountry Prescription area where values are "high"
- Scenic features described by ADNR
  - Waterfall at the outlet of Grant Lake
  - High mountain walls surround lake on east shore
- Visibility
  - Project area not visible from Seward Highway, ARRC line, or other easily accessible vantage points

Cascade Below Outlet of Grant Lake



Grant Lake Looking East to Backcountry

Recreational and Visual Resources Issues

- What are the potential effects of increased water level fluctuation in Grant Lake?
- What are the potential effects of changes in flow in Grant Creek and Falls Creek?
- What are the potential effects of construction of the intake, sluiceway, penstock, tunnel, and powerhouse?
- What are the potential effects on recreation if the distribution and/or abundance of fish changes?
- What are the potential effects of construction and maintenance of access roads and transmission lines?

Recreation and Visual Resources Proposed Studies

- Studies will be planned to gather information for accurate evaluation of how the Project will affect recreational and visual resources
- Study Topics
  - Determine level of recreational use, and predict trends
  - To understand public use and perception of recreational opportunities
  - To determine recreational opportunities in terms of the USFS Recreational Opportunity Spectrum (ROS) and other designations as defined by the Chugach National Forest Plan (2005)
  - To determine the visual quality of the Project area in terms of the USFS Scenic Integrity Values
  - To understand public perception of the visual and aesthetic quality of the area

Other Issues and Comments

??????????????????

Cultural Resources

Existing information:

- Thirteen previous cultural resource surveys in general project area
- AEIDC, APA, USFS, State Historic Preservation Office (SHPO)
- Summarized in PAD

Cultural Resources

- Kenai Peninsula occupied prehistorically and historically by Eskimo and Dena'ina Athapaskan groups.
- Historic mining, logging, and settlement in Project area.
- Nine historic properties in Project area; several on the shores of Grant Lake.
- One site determined eligible for listing in the NRHP: the Solars Sawmill on Grant Lake at head of Grant Creek.
- No prehistoric archaeological sites recorded in Project area.

Cultural Resources Issues

- Are there any cultural sites that may be affected by Project activity, construction, or operation?
- Are there any cultural sites that may be affected by the construction and maintenance of access roads and transmission lines?
- Are there any cultural sites that may be affected by increased lake level fluctuation?
- Do subsistence activities occur in the Project area and will there be any effects on subsistence?

Cultural Resources
Proposed Studies

The Project must meet the requirements of the National Historic Preservation Act and consult with tribal entities with interest in the Project.

Study topics:

- Determining if historic properties are present in the proposed project Area of Potential Effect (APE)
- Determining if the Project will have an effect on identified historic properties (those cultural resources evaluated and recommended eligible for listing in the NRHP)

Cultural Resources
Proposed Studies

Study topics continued:

- Determining if additional investigations are necessary for evaluation historic properties, and determining a recommendation on potential mitigation and consultation strategies in resolving any possible adverse effects
- Determining if the Project will have an effect on either sites of cultural significance or subsistence activity

Other Issues and Comments

??????????????????

Filing Comments with FERC
Use P-13211 and P-13212

- FERC e-filing at www.ferc.gov
- Three ways to comment:
  - Written correspondence
  - Electronic "Quick Comment" [limited to 6,000 characters]
  - Register on ferc.gov to e-file longer documents
- Copy comments to applicant
- Questions?
  - FERC's Project Manager is Joe Adamson (joseph.adamson@ferc.gov)

Tracking Project Progress and Comments

Kenai Hydro, LLC website

(www.kenaihydro.com)

FERC E-Subscription Service

(www.ferc.gov)

Thank You!

- Comments and Questions?

KENAI HYDRO, LLC. MOOSE PASS PUBLIC MEETING SIGN IN SHEET LOCATION: MOOSE PASS DATE: 1-13-2010 PAGE# 1/2

N	Signature	FirstName	LastName	Email	Company/Agency	Division	Title	Address	City	St	Zip
1		James	Ambrose	hambrose@homereletric.com	AE&EC	PP&T	Director	1013 Alaska Ave. #4S	Kenai	AK	99611
2		Ian	Blake	tele-skier@hotmail.com				1746 Logan St.	Anchorage	AK	99508
3		MARK	Stauble	Stauble@arctic.net							
4		JOHN	EAVIS	JAE@ACTICT.NET							
5		TOM	BARNETT	kailuafour@gmail.com							
6		Jason	Aigeldinger	jasonaigeldinger@mnc.com							
7		MIKE	COONEY	mcooney@arctic.net				P.O. BOX 169	MOOSE PASS	AK	99631
8		Paula	Moseley	pjmoseley@mac.com				PO Box 238	Moose Pass	AK	99631
9		Valerie	Connor	valerie@akcenter.org	ACE		Conservation Director	807 G St Suite 100 Anchorage		AK	99501
10		Jeff	Estes	JE@cityofseward.net	City of Seward		oper super	Box 167 Seward		AK	99664
11		JJ	Hetrick	jjh@seward.net	citizen						
12		SHAWN	MCDONALD	ARBRONZE@ARCTIC.NET				P.O. BOX 74 M.P.	MOOSE PASS	"	99631
13		MARK	MCDONALD	"				"			
14		ADRIENNE	MORETTI	adrienne.movetti@gmail.com				PO Box 204 MOOSE PASS →		AK	99631
15		Will	Brennan	wbrennan@gmail.com				"	"	"	"
16		Julie	Lindquist	jraelindquist@hotmail.com				31087 Seward Hwy, Sw	Seward	AK	99664
17		David	Pearson	davidelipearson@gmail.com							
18		Russell	Burnard	Mi 24.5 Seward Hwy				39201 Sew Hwy	Crown Point	AK	99664
19		David	Shafer	hoper@arctic.net				30519 Toklat Way	Moose Pass	AK	99631
20		TODD	PETERSEN	todd@sewardrealestate.com				11694 Seward Hwy	Seward	AK	99664

KENAI HYDRO, LLC. MOOSE PASS PUBLIC MEETING SIGN IN SHEET LOCATION: MOOSE PASS DATE: 1-13-2010 PAGE# 2/2

N	Signature	FirstName	LastName	Email	Company/Agency	Division	Title	Address	City	St	Zip
1	JJ Kaiser	JJ	KAISER	jj_KAISER@yahoo.com				29800 Seward Hwy	Seward	AK	99664
2	Russ Maddox	Russ	Maddox	russmaddox@yahoo.com				3385 Nash Rd	Seward		
3	[illegible]	BRUCE	JAFFA	JAFFA@EAGLE.PTIALASKA.NET				POB 101	MOOSE PASS	AK	99631
4	[illegible]	Laura	Aigeldinger	burungia@yahoo.com				PO BOX 207	Moose Pass	AK	99631
5	[illegible]	Irene	Lindquist	toshi@arctic.net				PO BX - 63	MP	AK	99631
6	Travis C Mosley	Travis	Mosley	tmosley@fs.fed.us				P.O. Box 238	MP	AK	99631
7	W M Luttrell	Mark	Luttrell	prufrock@arctic.net	IRBCA			Box 511	Seward	"	99664
8	JJ ODHNER	JAN	ODHNER	JJ ODHNER@ARCTIC.NET				BOX 176	MP		99631
9	M Glaser	Mike	Glaser	glaser@seward.net				34270 Lakestar	Seward		
10	C Jaffe	Carole	Jaffe	jaffa@ptialaska.net				PO Box 107	Moose Pass	AK	99631
11	[illegible]	BRAD	ZUBECK		KHL/HEA						
12		BRAD	VANDERSCHUE		HEA						
13		JOE	GALLAGHER		HEA						
14											
15											
16											
17											
18											
19											
20											

Attachment C – Comments Received on PAD and Study Issues Not Filed with the Commission

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.

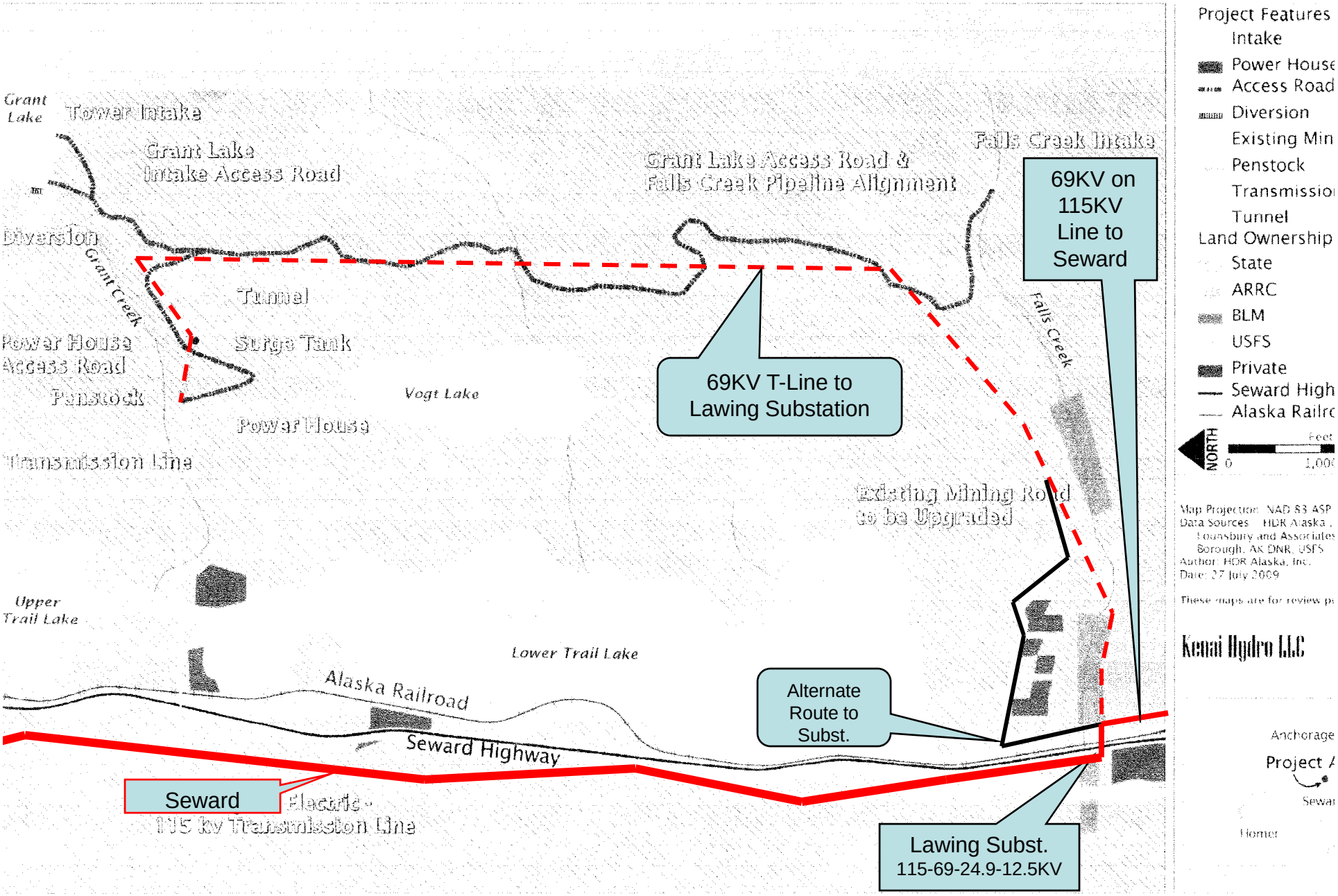
Thanks again for the information and willingness to work with Kenai Hydro as the concept develops. Have a Happy Thanksgiving!

Best Regards,
Brad Z.

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.

oposed project facilities and land ownership



From: William Coulson [mailto:william@alaskanscooperlanding.com]
Sent: Sunday, January 03, 2010 7:47 AM
To: Zubeck, Brad
Subject: Power project.

The only thing that matters is that this project absolutely does not happen. The cost vs. benefit is ridiculous.
Bill Coulson

From: Zubeck, Brad [BZubeck@HomerElectric.com]
Sent: Friday, January 08, 2010 4:18 PM
To: 'Brita Mjos'
Cc: Jenna Borovansky
Subject: RE: Grant Creek Hydro Proposal Comments

Ms. Mjos,

Thank you for your comments. Kenai Hydro will include them in a summary that will be sent to FERC.

Sincerely,
Brad Z.

From: Brita Mjos [mailto:britamjos@care2.com]
Sent: Friday, January 08, 2010 3:05 PM
To: Zubeck, Brad
Subject: Grant Creek Hydro Proposal Comments

Mr. Zubeck,

I am writing to share my opposition to the proposed Grant Creek/Falls Creek hydro project. Alternatives exist that would have a significantly lighter impact on the environment. The proposed project woul disturb salmon streams and lakes and introduce intrusive pipes to a popular and scenic recreation area. A hydroelectric system on Lowell Creek in Seward, or windmills closer to utility lines would be much more economical and have an ecologically lighter footprint. Please consider these comments along with the public meeting next week.

Sincerely,

Brita Mjos
1725 E. 24th Ave.
Anchorage, AK 99508

-----Original Message-----
From: Bruce Jaffa [mailto:jaffa@eagle.ptialaska.net]
Sent: Thursday, January 14, 2010 12:09 PM
To: Zubeck, Brad
Cc: Janorschke, Brad; Ambrose, Harvey
Subject: Re: Grant Lake

Brad,

I wish I knew the full history. Maybe Jeff or Lee Estes know more. This is an old and crude shack at the end of the lake. We used to have "poker" runs up to it in the winter. The walls are chinked with old Harper Bazarre magazines and I have found as many as a half dozens novels along with abandoned tools and misc. I think someone may have wintered there one year. I have stayed over nite only once but there are usually new signs of people coming and going. I do go up there summer and winter because, frankly its beautiful and very peaceful and just by chance out of cell phone range. There is no question this cabin would be impacted by raising the lake.

The 4th photo is several years ago (before KHL) in the inlet stream area at the head of the Lake. This is a large fairly flat area that is slightly above the lake. Certainly there will need to be clearing in the area, but boat access may not be extended with the the higher lake level. Maybe some type of landing will need to be created for summer use. I would expect that there would be a increase in use if only due to the notoriety. This may also suggest the intake structure will need some thought paid to safety.

I will ask around when I can and give you more on what I can learn.

BJaffa

Jaffa Construction, Inc.
P.O. Box 107 Moose Pass, Alaska 99631
Jaffa@Eagle.PTIAlaska.net
907-224-8002

Zubeck, Brad wrote:
> Tell me more about the "Social Club" cabin... I'm guessing that we'll
> be looking at it in our studies, but some background on use would be
> good to know. Thanks! BZ
>
> -----Original Message-----
> From: Bruce Jaffa [mailto:jaffa@eagle.ptialaska.net]
> Sent: Thursday, January 14, 2010 11:14 AM
> To: Zubeck, Brad
> Cc: Janorschke, Brad; Ambrose, Harvey
> Subject: Re: Grant Lake
>
> Yup,
>
> Eastern Grant Lake near the Grant Lake "Social Club" cabin.
>
>
> Jaffa Construction, Inc.
> P.O. Box 107 Moose Pass, Alaska 99631
> Jaffa@Eagle.PTIAlaska.net
> 907-224-8002
>
>
>
>
>
> Zubeck, Brad wrote:
>
>> Hi Bruce,
>>
>> You are welcome. Thanks for your participation, comments last night, and follow-up email & photo. I'm pretty sure that it is photo of Carole alongside your plane on Grant Lake! We will capture your related comment in our summary when we send it to FERC.
>>
>
>
>> Thanks again and best wishes for a prosperous New Year!
>> Brad Z.
>>
>> -----Original Message-----
>> From: Bruce Jaffa [mailto:jaffa@eagle.ptialaska.net]
>> Sent: Wednesday, January 13, 2010 10:17 PM
>> To: Zubeck, Brad; Janorschke, Brad; Ambrose, Harvey
>> Subject: Grant Lake
>>
>> Thanks to you all for a honest presentation. Good luck with this and
>> when there is some place to invest in this project let me know where.
>>
>> Bruce Jaffa
>>
>> Jaffa Construction, Inc.
>> P.O. Box 107 Moose Pass, Alaska 99631 Jaffa@Eagle.PTIAlaska.net
>> 907-224-8002


MK

From: Zubeck, Brad [BZubeck@HomerElectric.com]
Sent: Thursday, January 14, 2010 1:41 PM
To: 'David Lindquist'
Cc: Jenna Borovansky
Subject: RE: Comments on Grant/Falls

Hi Irene,

Thanks again for comments on the project. Your comments will be included on our summary that will be filed with FERC.

Regards,
Brad Z.

From: David Lindquist [mailto:toshi@arctic.net]
Sent: Thursday, January 14, 2010 12:13 PM
To: Zubeck, Brad
Cc: Lindquist Irene & Dave
Subject: Comments on Grant/Falls

Hi Brad,

Please include my comments in your file for Grant Lake/Falls Creek Hydro project. After your presentation last night for Grant Lake and Falls Creek Hydro project I have come to the conclusion that the scope of this project is tremendous, much more than should be put upon any community in such close proximity to a Hydro project.

While a person on the Seward Hwy might not see the footprints of all that's proposed, the visual impact is not reasonable for a person in the immediate area to have to see. Most of the project area is easily reached on foot and is in an area that is valued for hiking, hunting, berry picking, birding, canoeing, fishing, sight seeing and ice skating. I was there 4 days ago and enjoyed the wonderful ice skating on Grant Lake

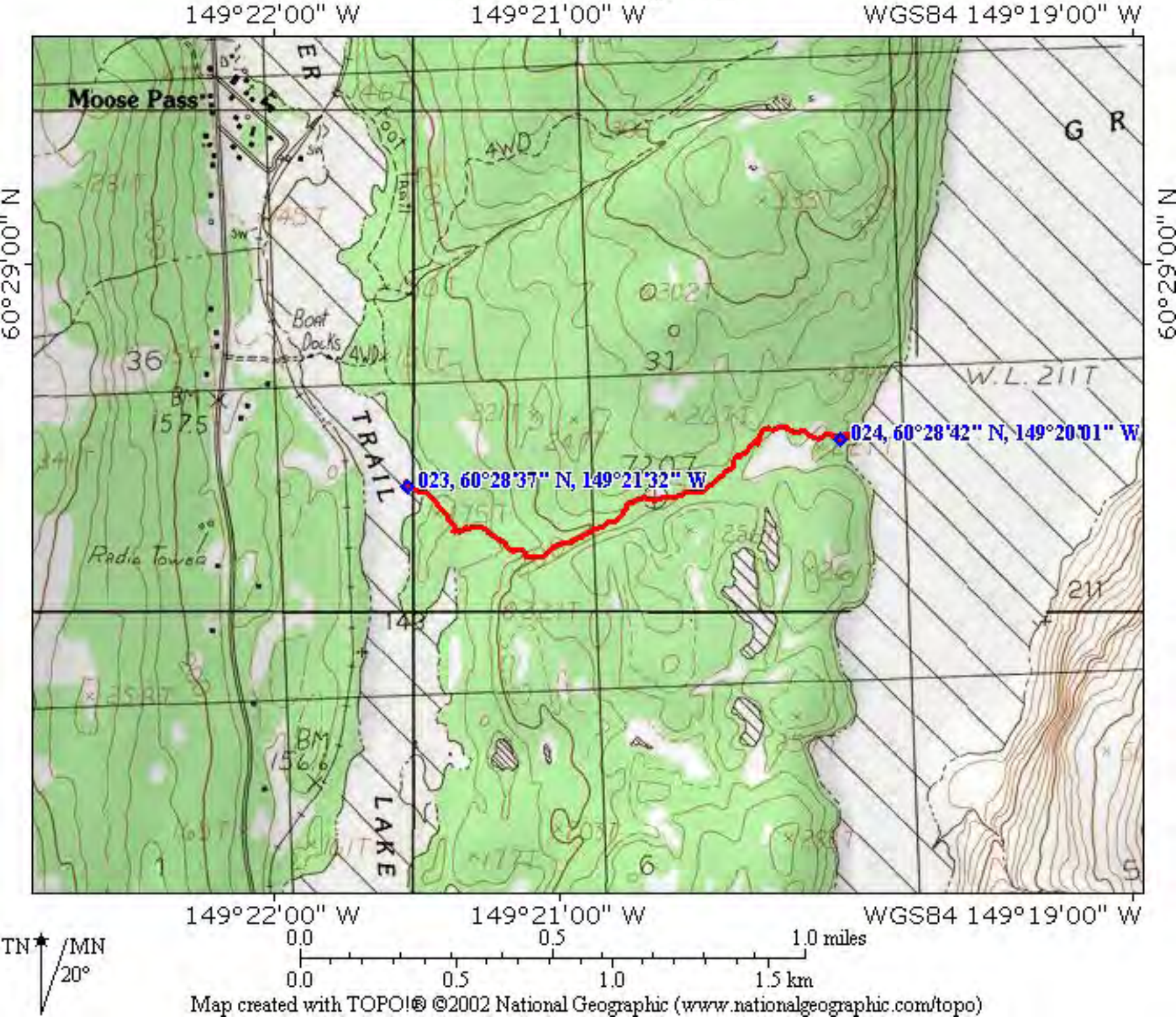
I have traveled the project area on many occasions over the past 28 years. I do not support this proposal and wish you luck in other areas. Much of the project area is easily accessible within an hours hike.

In addition to the visual and recreational impacts I am concerned for to the wildlife/fish/terrestrials/avian this project WILL have.

Please direct any funding in other directions that may be more appropriate and have less impact on local communities.

Sincerely,
Irene Lindquist
PO Box 63
Moose Pass, Alaska 99631

Grant Lake Portage Trail



Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)