

Reynolds Creek Hydroelectric Project

Project Status

November 17, 2009

**By : Alvin Edenshaw, President
Haida Corporation and Haida Energy, Inc.
Mike Stimac, P.E.
Vice President, HDR Engineering, Inc.
Project Manager**



Haida Corporation

- ❧ **Located in Hydaburg on Prince of Wales Island in SE Alaska**
- ❧ **Hydaburg population = 350 people (called Kaigani Haida)**
- ❧ **Hydaburg is largest Haida Village in Alaska**
- ❧ **Subsistence and Commercial Fishing Lifestyle**
- ❧ **Substantial Timber Holdings**
- ❧ **Hydaburg has Excellent School System**



Haida Energy, Inc.

- ⌚ **Joint Venture**
- ⌚ **Incorporated October 15, 2009, in Alaska**
- ⌚ **Ownership: 75% Haida Corporation, 25% Alaska Power & Telephone Company (local utility)**



Reynolds Creek Project Team

- ∩ **Lead Consultant – HDR Engineering, Inc.**
- ∩ **Economic Feasibility/Financing – Financial Engineering Company**
- ∩ **FERC Licensing – GKRSE Law Firm, Washington, D.C.**
- ∩ **JV Agreements – Kemppe Huffman & Ellis law firm, Anchorage**
- ∩ **Pentec – Fisheries**
- ∩ **Sentec – Surveying**
- ∩ **Shannon & Wilson – Geotechnical Studies**

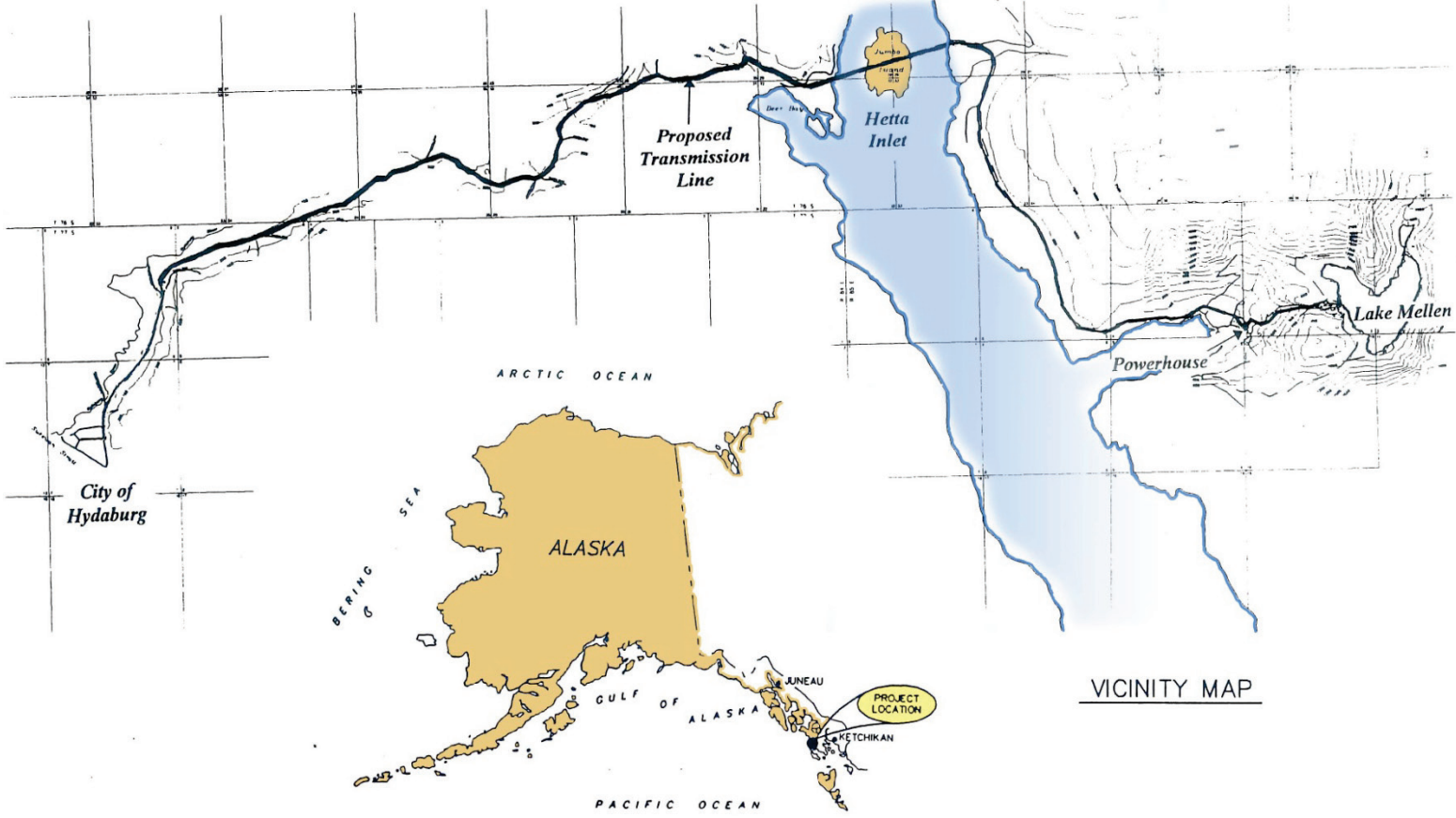
November 17, 2009



Prince of Wales Island

- ❧ **Third Largest Island in United States**
- ❧ **135 miles x 45 miles**
- ❧ **Population = 6,000**
- ❧ **Economy Centers on Fishing, Timber, & Tourism**
- ❧ **2008 Energy Consumption = 26,313 MWh**
- ❧ **Two Existing Hydro Projects: Black Bear Lake (4.5 MW) and South Fork (2.3 MW)**
- ❧ **Remainder of Generation is Diesel-fired**

Project Location



November 17, 2009



Principal Project Components

- ⌚ **28-ft-long, 6-ft-high Diversion Structure at Outlet of Rich's Pond**
- ⌚ **Lake Mellen/Rich's Pond provide 600 acre-feet of storage**
- ⌚ **42-inch diameter, 3200-ft-long Penstock**
- ⌚ **Powerhouse (One 5 Megawatt Unit)**
- ⌚ **34 kV, 10.9-mile-long Transmission Line**

Lake Mellen Outlet



November 17, 2009

Rich's Pond Inlet



November 17, 2009

Rich's Pond



November 17, 2009

Rich's Pond Outlet



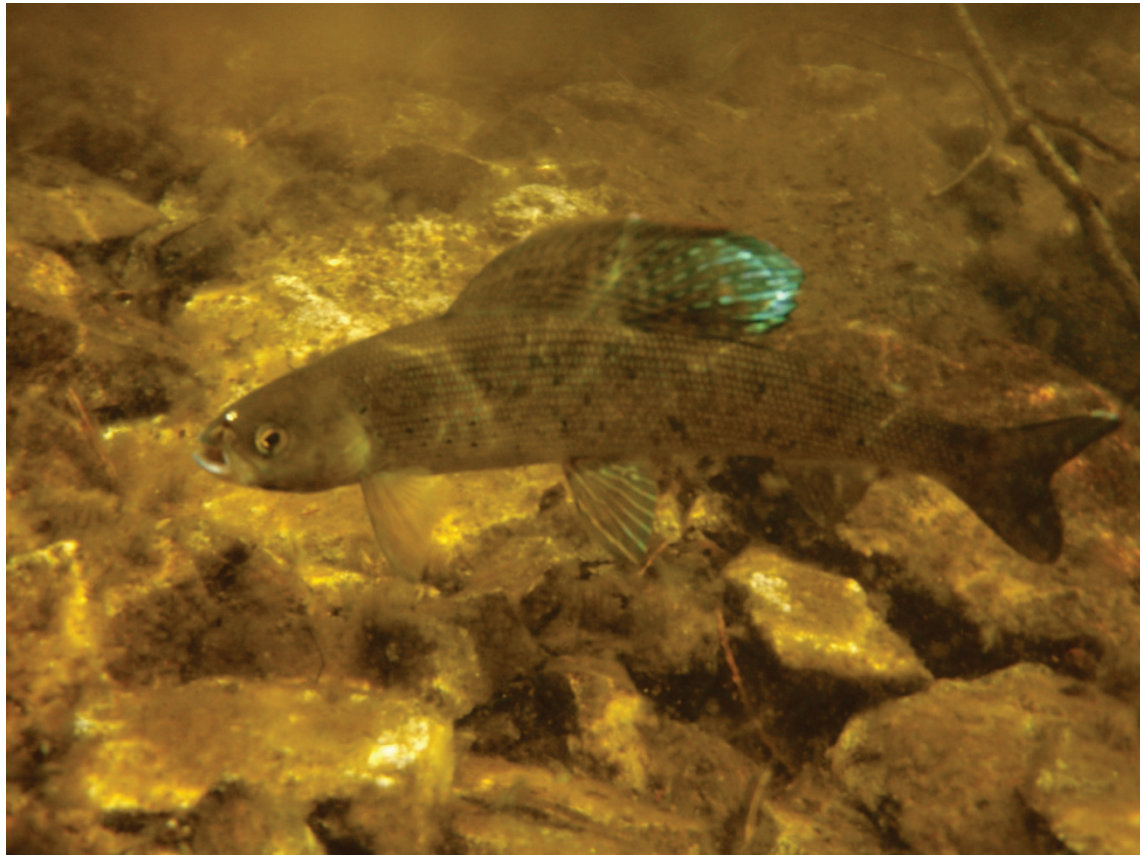
November 17, 2009

Snorkeling



November 17, 2009

Grayling in Rich's Pond



November 17, 2009

Upper Reynolds Creek



Bypass Reach



November 17, 2009

Anadromous Barrier



November 17, 2009

Lower Reynolds Creek



November 17, 2009

Copper Harbor



November 17, 2009



Project Characteristics

- ❧ **Approximately 750 feet of Head**
- ❧ **Average Annual Energy Production =
19.3 million kilowatt-hours**
- ❧ **Land Owned by Haida Corporation and Sealaska –
both Alaska Native Corporations**
- ❧ **Alaska Power Company will Construct, Operate,
and Purchase Power**
- ❧ **Will Allow All Interconnected Portions of Prince of
Wales Island to be Supplied by Hydropower**

Project Characteristics (Continued)

- **Minimal Environmental Impact**
- **Will Utilize Existing Logging Roads for Access**
- **Fish in Reynolds Creek drainage = arctic grayling, Dolly Varden, cutthroat trout, pink and chum salmon, and steelhead**
- **Terrestrial species include Sitka black-tailed deer and black bear**



Major Approvals Received

- ❧ **FERC License (Project No. 11480)**
- ❧ **Corps of Engineers Permit**
- ❧ **Fish Habitat Permit**
- ❧ **Coastal Zone Consistency Determination**



Current Activities

- ❧ **Completing Final Design**
- ❧ **Construction Planning**
- ❧ **Transferring FERC License and Permits to Haida Energy**
- ❧ **Completing Remaining Submittals Required by FERC License**
- ❧ **Completing Land Lease Agreements**
- ❧ **Applying for Easements from Alaska Department of Natural Resources**
- ❧ **Completing Project Financing**



Project Cost Estimate

∩	Prepare for Construction	\$ 4,145,000
∩	Construction Management	\$ 500,000
∩	Mobilization	\$ 700,000
∩	Access Facilities	\$ 1,000,000
∩	Diversion Structure	\$ 1,000,000
∩	Penstock	\$ 3,000,000
∩	Powerhouse	\$ 4,000,000
∩	Transmission Facilities	\$ 2,500,000
∩	Completion	\$ 300,000
∩	TOTAL COST	\$ 17,145,000



Major Future Milestones

- ⌚ **Complete Final Design - December 2009**
- ⌚ **Order Turbine/Generator – January 2010**
- ⌚ **Begin Construction – April 2010**
- ⌚ **Begin Operation – Late 2011/Early 2012**