Allison Lake Hydropower

Allison Lake Drainage looking North.
Photo by Steve Hart

On March 3, CVEA filed an application for a preliminary permit with the Federal Energy Regulatory Commission (FERC) to undertake an Allison Lake Hydroelectric Project. For CVEA the project holds the potential for increased hydropower generation which could displace over 20,000 MWHs of fossil fuel generation and provide members of the Cooperative long-term, sustainable, environmentally clean energy.

Allison Lake has been studied as a potential source of hydroelectric power since the 1980s. The Allison Lake drainage, which sits west of the Solomon Gulch hydroelectric project, has long been seen as a promising location for hydropower development.

Since 2004, soaring oil prices have dramatically raised the cost of electricity in Valdez and the Copper River Valley which has led CVEA to look at potential alternatives for power generation.

Changing the Generation Mix (MWHs)

	Existing	*Alt. 1*	*Alt. 2*	*Alt. 3*
Hydro	*57,700*	*78,400*	*82,500*	*78,800*
Fossil Fuel	*28,600*	*8,100*	*3,900*	*7,700*
Total	*86,300*	*86,500*	*86,400*	*86,500*
Benefit	*N/A*	*20,500*	*24,700*	*20,900*

In 2006, CVEA prepared a reconnaissance level study of power supply alternatives. This study, titled the *Alternative Generation Review*, evaluated the potential for geothermal, fuel cells, solar, wind, coal, and hydro via Allison or Silver Lake. The study recommended Allison Lake be further evaluated.

In 2007, CVEA completed a pre-feasibility study of Allison Lake alternatives. The purpose of the pre-feasibility study was to evaluate the economic viability of alternative arrangements for the addition of the Allison Lake drainage to the generating resources within the existing CVEA electric system.

As part of the study, previous reports prepared by the Army Corps of Engineers and HDR Engineers were reviewed and a field reconnaissance site visit was conducted.

The pre-feasibility study identifies three potential alternatives for using Allison Lake water to generate electricity. The alternatives include (1) an intake and diversion tunnel from Allison Lake to the Solomon Gulch reservoir in order to allow increased generation at the existing Solomon Gulch powerhouse, (2) an

independent development of Allison Lake including an intake, tunnel, power conduit and a new powerhouse near tidewater on Allison Creek, and (3) an independent development of Allison Lake including a low dam at the outlet of Allison Lake, siphon intake, a surface power conduit and a new powerhouse near tidewater on Allison Creek.

The three options were evaluated on the basis of their ability to contribute to the CVEA load, the potential cost of power and the environmental/regulatory issues associated with their development.

The conclusions of the study indicate that each of the three alternatives appears to be technically feasible and each appears to deliver power to CVEA at less than the current cost of fossil fuel generation, assuming the project is commercially financed. Grants or other attractive financing products would enhance the economics of each of the three alternatives.

The recommendation of the study was to proceed with the initial steps toward licensing a hydropower project at Allison Lake.

CVEA's application to FERC for the preliminary permit immediately follows the expiration of the permit recently held by Green Power Development, which expired on February 29, 2008.

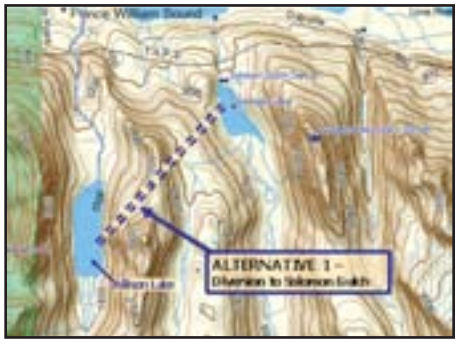
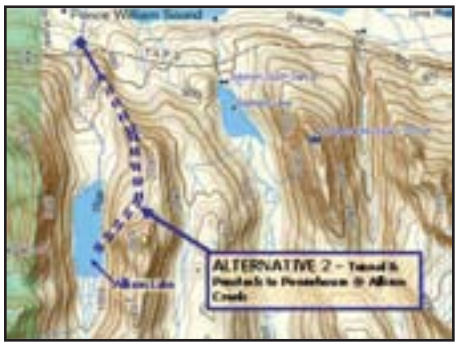
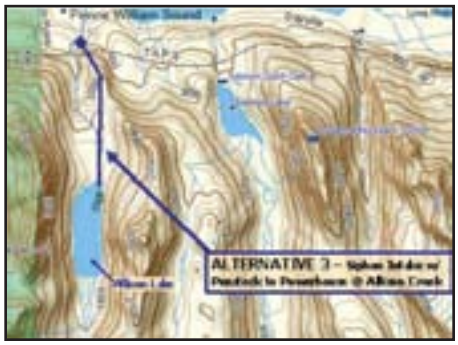
The purpose of a preliminary permit is to secure and maintain priority to allow CVEA to study the power potential of Allison Lake and to develop information necessary to support a license application. The term of the requested permit is three years.

During this time, CVEA will study the potential regulatory and environmental considerations associated with developments of this type.

At the conclusion of the three year permit, CVEA expects to file a license application for the project. Once FERC reviews the application and issues a license, construction on the project would begin.

Jim Manning, Board President, said the Board of Directors has been working toward this announcement since early 2007 and that the Board looks forward to discussing the potential Allison Lake has for the Cooperative's membership.

The application for the preliminary permit is available for inspection and reproduction during regular business hours at both CVEA offices and at the public libraries in Valdez and Glennallen.

For more information, please contact Sharon Crisp, Director of Communications at 835-7005, 822-5506, or crisp@cvea.org.

Allison Lake Drainage looking South. Photo courtesy of Hatch Acres