

Whitman Lake Hydro

Grantees	Ketchikan Public Utility (Utility-Government), City of Ketchikan (Utility-Government)
Technology Type	HYDRO
Region	Southeast
AEDG Project Code	10040

REF Grants Received

Round	App	Grant Title	Grant #	AEA Project #	Phase	Start Date	End Date	Status
1	37	Whitman Lake Hydro Construction (reconnaissance)	2195441	407046	Final Design	8/20/08	12/31/11	Active
4	620	Whitman Lake Hydroelectric Project	7040044	407046	Construction	7/1/11	12/31/14	Closed

Grant 2195441: Whitman Lake Hydro Construction (reconnaissance)

Project Scope: The Ketchikan Public Utilities - Electric Division (KPU-Electric) received a license to construct from the Federal Energy Regulatory Agency (FERC) on March 17, 2009 for the Whitman Lake Hydroelectric project. The KPU-Electric will use the grant funds to prepare final design documents for the Whitman Lake Hydroelectric project. Grant funds will also be used to complete all remaining activities needing to be accomplished before construction bidding. This includes preparation of final drawings and specifications for the project, review and approval of these documents by the FERC Regional Office and preparation of a final construction cost estimate and project construction schedule. The project design work will be divided into three separate contracts; site preparation work, equipment procurement, and general civil engineering work.

Project Status: The project was completed in December 2014 & closed out. Some warranty work will extend through 2015.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	\$1,300,000.00	\$1,300,000.00
Other State Funding	\$0.00	\$0.00
Total State	\$1,300,000.00	\$1,300,000.00
Required Local Match	\$320,000.00	\$320,000.00
Federal Grant Funding	\$0.00	\$0.00
Total Project Costs	\$1,620,000.00	\$1,620,000.00

Grant 7040044: Whitman Lake Hydroelectric Project

Project Scope: Project is to install 4.6 MW of generating capacity at an existing dam, supporting near term load demand increases in the Ketchikan area and displacing diesel generation as the existing Swan-Tyee resources become fully utilized. Ketchikan Public Utility (KPU) will also replace the aging water supply system of the Southern Southeast Regional Aquaculture Association Whitman Lake Hatchery, providing increased water quality, reliability and redundancy to a facility that is critical to the region's commercial fishing, seafood processing and sportfishing industries. The project will be located approximately four miles from the City of Ketchikan. It will generate up to an average of 16,000,000 kWh displacing up to 1,100,000 gallons of diesel fuel annually. Penstocks will lead to a new powerhouse containing two hydro turbine-generators: Unit 1, at 3.9 MW will generate power that would otherwise be spilled; Unit 2, at 0.7 MW will generate power from the water delivered to the fish hatchery located adjacent to the hydroelectric project.

Project Status: At the beginning of 2014, construction was underway. Fabrication of valves, turbines and generators in progress and testing of units had commenced. Switchgear had been delivered to site. Powerhouse, excavation for penstock and access road, concrete foundation for new hatchery head tank, demolition and replacement of valves at dam were completed. KPU had begun installing conduit for transmission and communication, and powerhouse electrical system. KPU had submitted applications for construction of the Achilles Diversion at an alternate site and is awaiting approvals from FERC, USFS, DNR, and ACOE. The project was completed in December 2014 & closed out. Some warranty work will extend through 2015