First Phase of Eklutna Dam Removal Project Completed

November 23, 2016  By Frank Baker

The low-pitched drone of bulldozers echoed off the cliffs deep in Eklutna canyon, a place that for decades has remained silent and unvisited by humans.

Lowered into the canyon by a large crane in October of this year, the dozers were clearing a staging site to begin a dam removal project that is intended to re-establish a salmon run in Eklutna River -- a five-species run that existed prior to 1929 when the 61-foot high concrete dam was built.

The dam served an early hydroelectric project that became obsolete in 1955 with the completion of a 4.5-mile diversion tunnel from Eklutna Lake to the Knik River. The tunnel was part of a $32 million federal hydroelectric project (1951-55) that is still in operation today. Since then the old dam has filled with river sediments and silt and has served no useful purpose.

Removal of the dam was initiated this year by The Conservation Fund – in partnership with the Native Village of Eklutna and Eklutna, Inc. The dam and adjacent property are owned by Eklutna, Inc. The Native Village of Eklutna has been trying for years to increase salmon numbers in Eklutna River and in 2002, it initiated a planning effort to remove the dam.

One of the bulldozers used to create a work space for the dam removal next year is hoisted by crane from Eklutna Canyon. Photo by Frank E. Baker

Other agencies and parties involved include U.S. Corps of Engineers, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, the Alaska Dam Safety Program in the Department of Natural Resources and HDR, Inc., a global engineering consultant.

Brad Meiklejohn, Alaska State Director of the Conservation Fund, a private and national non-profit organization, says preliminary phases of the project have gone well this year in preparation for dam removal early in 2017.
"In September we cleared a 1.5-acre site on the canyon rim about a mile from the old Glenn Highway," he says. "We then moved a large crane onto the site, built a 400-foot aluminum staircase to the bottom of the canyon; and then lowered two bulldozers and skid-steer loaders onto the valley floor, where a workpad and helipad were cleared."

Meiklejohn says that the crane, with a 400-foot boom, is the largest in Alaska.

"It took 40 flatbed truckloads to get the crane and ballast to the site," he notes.

Eklutna Construction and Maintenance, LLC, a subsidiary of Eklutna, Inc., is managing the site construction work.

"I'm really pleased with the great work by Eklutna Construction and others to keep this project on schedule," he adds. Meiklejohn says they began demobilizing in mid-October and expect to resume operations in May of 2017.

Historical Background

There were no laws requiring environmental protection or development mitigation when the dam was built in 1929. But that changed in 1991 when the new hydroelectric facility was transferred to a consortium of electric utilities. That transfer triggered a 1991 agreement between the State of Alaska, municipal and private electric utilities, and federal and state resource agencies that required the new owners to mitigate damage to fish and wildlife caused by dams or other man-made structures. Under terms of the agreement, the owners had 30 years from the transfer to comply. That means that rehabilitation must be initiated by 2027. Since Eklutna Lake serves a major hydroelectric project and today constitutes about half of Anchorage's water supply, a major issue in re-establishing salmon runs in the river system is securing an adequate flow of water. And even with the lower dam removed and additional water flowing downriver, full restoration would require a fish ladder or another way around the upper dam (spillway) at the lake's outlet to allow fish passage into the lake for rearing.
With a 400-foot boom, the crane used in the Eklutna River dam removal project is the largest in Alaska. Photo by Frank E. Baker
"We're taking it one step at a time, one challenge at a time," says Meiklejohn. "This project has a lot of support from many stakeholders, and I'm optimistic that when the time comes we'll be able to reach a satisfactory agreement with the utilities."

This winter Eklutna canyon will again fall silent. The shallow stream will freeze beneath a covering of snow. But this coming spring, as work resumes, the rumble of heavy equipment will again echo off the cliffs.

And perhaps someday, not that far in the future, the canyon will come alive with the splashing sounds of salmon—a sound that has not been heard in this area for more than 85 years.

Editor's Note: Frank E. Baker is a member of the ECHO News team and a freelance writer who lives in Eagle River.

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