

The Seattle Times

Sunday, September 19, 2010 - Page updated at 08:20 PM

Permission to reprint or copy this article or photo, other than personal use, must be obtained from The Seattle Times. Call 206-464-3113 or e-mail resale@seattletimes.com with your request.

First step in removal of Elwha River dams begins

By Lynda V. Mapes
Seattle Times staff reporter

LAKE MILLS, Clallam County — It doesn't look like much, this bunch of heavy equipment chewing away at an alder forest, but it's actually the start of something big: the largest dam-removal project ever in North America.

After decades of talk and planning and debate, the \$744,000 project by a Vancouver, Wash., contractor is the first work on the Elwha River in the dam-removal project. It's intended to get the river pointed in the right direction once the two dams start to come down about a year from now.

And with that, officials expect, the prized but threatened chinook salmon population also will head in the right direction — upriver by the tens of thousands.

About 750 dams have been taken out around the country. But the Elwha dams are the largest ever; Glines Canyon stands more than 200 feet tall. The dam removal is intended to allow salmon and steelhead to recolonize more than 70 miles of pristine habitat within Olympic National Park and restore the natural functioning of the ecosystem, from headwaters to the mouth of the river at the Strait of Juan de Fuca.

Chinook are coming back to the Elwha in record low numbers this season, with fewer than 500 adults counted. Mike McHenry, fish-habitat manager for the Lower Elwha Klallam Tribe, sees a deadly combination of forces taking a toll — from the dams, which confine the fish to the lower five miles of the river and don't allow them to get to traditional spawning grounds, to state hatchery practices and bad flooding in 2006 that affected the number of fish coming back this year.

"It's not good," said McHenry, who sees 2,000 chinook come back in a typical year.

Scientists hope fish populations will rebound when the dams are out, with as many as 20,000 to 30,000 chinook returning each year. The fish are listed for protection under the Endangered Species Act.

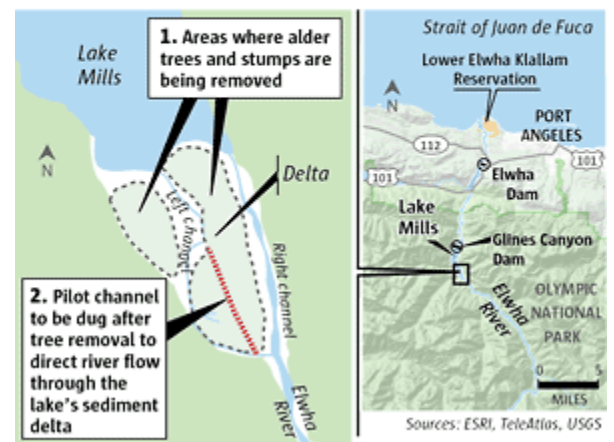
To start the dam-removal project, a 12-person crew this month started working 12-hour days with equipment barged to the south end of Lake Mills, about 16 miles upriver. They're clearing a 37-acre forest grown up on a delta of sediment behind



STEVE RINGMAN / THE SEATTLE TIMES
Workers are taking out alders on a delta of sediment, clearing the way for a pilot channel to redirect the Elwha's flow.

First step toward dams' removal on the Elwha

Contractors are felling trees and digging a pilot channel in a delta of sediment backed up behind Glines Canyon Dam, to help get the river started in the right direction when dams' removal begins a year from now on the Elwha River.



MARK NOWLIN / THE SEATTLE TIMES

Glines Canyon Dam, the uppermost of the dams.

Soon, they will begin excavating a 1,100-foot-long, 50-foot-wide, 6-foot-deep channel in the middle of the delta, running north and south, toward the dam.

The channel is important because it will help the sediment caught behind the dam flow evenly downriver. Modeling experiments have shown that without the channel, as much as 80 percent of the sediment could be left behind when the dam comes down.

One of the goals of the \$350 million dam-removal project is to end up with a natural-looking landscape. The channel will help limit the potential that hunks and pillars of sediment could be left behind as unstable ground that couldn't support vegetation.

"The pilot channel is like a surgical tool, to just get things started in the right place," said Tim Randle in the Bureau of Reclamation's Denver office. "We thought that if we don't get it started in the right spot, you could have a lot of trouble later."

An estimated 20 million cubic yards of sediment, or 1 million dump trucks' worth, is locked up behind the dams. That sediment, once rinsed downriver, is expected to replenish spawning gravel needed by fish in the river, as well as beaches and clam beds long since starved for material impounded by the dams, which have been in place for nearly 100 years.

Dredging the material was ruled out because it would take an estimated 10 years of continuous truck traffic and cost too much, Randle said.

Work on the pilot channel is expected to be finished by early October. Crews are expected to begin taking the dams down next September, removing them gradually over more than two years.

Lynda V. Mapes: 206-464-2736 or lmapes@seattletimes.com

Copyright © The Seattle Times Company



STEVE RINGMAN / THE SEATTLE TIMES

Trees and logjams will give way to a new channel designed to wash away sediment at Glines Canyon Dam. The dam's removal will help reopen the drainage to salmon.