# Condit Dam Decommissioning PACIFICORP **Decommissioning Overview**



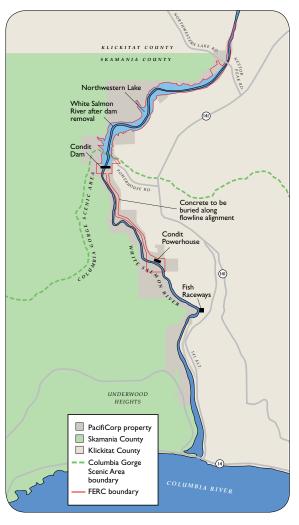
## Condit Dam decommissioning work ongoing

Preparations and planning to decommission the Condit Dam have been underway for many years as necessary studies and management and design plans have been presented to local, state and federal agencies for approval. With all necessary permits and regulatory approvals in hand, the physical work to remove the Condit Dam began in the summer of 2011. Earlier this summer, PacifiCorp initiated efforts to stabilize the Northwestern Lake Bridge and began funding the relocation of the City of White Salmon's water supply line, which previously was located underneath Northwestern Lake.

The work at the Northwestern Lake Bridge consists of drilling new piers into the river bottom to further stabilize the bridge. Additional trusses are being added to the bridge in order to provide support for the river crossing of the City of White Salmon's water supply line.



In early August 2011, Northwestern Lake and its associated boat ramps were closed to all activities, in order to ensure public safety. The water level was also drawn down 10 feet in order to allow the drain tunnel at the base of the dam to be constructed prior to the breaching of the dam in late October.



### Multiple project facilities and materials to be removed

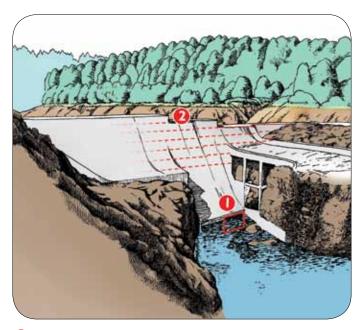
The Condit Dam facilities consist of the 125-foot high, 471-foot long concrete gravity diversion dam, an intake structure that directs the water into a 13.5 foot diameter by 5,100-foot long wood-stave flowline (wooden barrel-like pipeline), and through a 40-foot diameter concrete surge tank. The flowline splits into two 9-foot diameter penstocks inside the surge tank, which directs water into the turbines in the powerhouse. The powerhouse contains two double horizontal turbines with an installed capacity of 13.7 megawatts – enough to power approximately 7,000 average homes for a year. The dam creates the reservoir, Northwestern Lake, which extends 1.8 miles upstream of the dam and covers approximately 92 acres. All facilities, with the exception of the powerhouse, will be removed.

continued

Final regulatory approvals that were required to remove the dam include Clean Water Act permits issued under Section 401 by the Washington Department of Ecology, and issued under Section 404 by the U.S. Army Corps of Engineers; Biological Opinions from the U.S. Fish and Wildlife Service and National Marine Fisheries Service, and a Surrender Order from the Federal Energy Regulatory Commission. PacifiCorp has received these documented regulatory approvals and is moving forward with decommissioning.

#### Plan of action for Condit Dam removal

Significant actions to remove the dam began in late August 2011. Blasting and boring work will create a 13-foot high by 18-foot wide drain tunnel on the downstream side, near the base of the dam. When the final section of the tunnel is removed by blasting in the fall, the drain tunnel will discharge water at a rate of approximately 10,000 cubic feet per second. For perspective, the flow rate will be approximately one-quarter of the estimated peak discharge during the February 1996 flood event on the White Salmon River. It is anticipated that Northwestern Lake will drain in approximately six hours. Rapid draining of the lake is expected to mobilize much of the 2.4 million cubic yards of sediment that is estimated to have accumulated behind the dam since 1913. This work is specifically planned for late October, when fisheries are expected to be minimally affected.



- The water will be drained through a 13-foot high by 18-foot wide drain tunnel drilled in the base of the dam.
- The dam will be broken into rubble.

#### **Work continues into 2012**

Once Northwestern Lake is drained, activities will focus on addressing the sediment and slope stability within the area of the former lake. Starting in the spring of 2012, the dam structure will be removed along with the wood-stave flowline, surge tank and penstocks. Concrete from the dam will be broken into rubble and buried onsite; other materials will be salvaged or transported to the Klickitat County waste facility. The powerhouse will be left intact. The temporary upstream dam (cofferdam) that was used during the initial construction of the dam will be removed from the White Salmon River as soon as practicable, after the breaching.

PacifiCorp expects the full dam removal process to take approximately one year. Meanwhile, in the fall of 2012, work will begin on re-vegetation of the former lake bottom with native trees and grasses, along with restoration of the wetlands. Long-term monitoring and work to control invasive plants is also planned to ensure a successful restoration on the riverbanks and reclamation of Northwestern Lake.



Scan code here with your smart phone to link to PacifiCorp's Condit Dam page or go to pacificorp.com/condit