

RECLAMATION

Managing Water in the West

U.S. Department of the Interior
Bureau of Reclamation

When the Levee Breaks

Tyee Ranch Habitat Restoration Project, Entiat River, WA

[music]

Kurt Hosman: Tyee Ranch (is) a fairly large piece of private property owned by a family trust. It's in a very important spawning reach for endangered spring Chinook Salmon in the Middle Entiat River.

[music]

Steve Kolk: A number of levees were built along private property up here, and those levees tended to simplify the habitat. They didn't let the river meander around and kind of create the variety of salmon habitat that would normally be found in this area.

Jeff Peterson: And so by putting the large wood back in the river we've created an opportunity to create pools and to make the river live and thrive and be able to spread out and function again.

Kurt: And so we're putting a number of wood structures either in or adjacent to the stream, and we're breaching a levee that dates back to the early 1970s, and we're enhancing to old high-flow side channels that were blocked by that levee.

[machinery]

[music]

Kurt: We've got several large wood structures already installed. We're trying to install some wood there to provide cover for fish during high flow, some cover for juveniles during low-flow conditions or year-round or over wintering.

Steve: And so what we're doing is improving the habitat based on what the Entiat River no longer has in terms of habitat.

[chain saw]

Kurt: So we'll get to a scenario where more naturally-occurring wood will rack up against this structure; that's the intent. And it will then delay this erosion which we expect to continue. But it will delay it over time and give this excavation footprint time to re-vegetate and sort of naturally reestablish a normal rate of erosion here.

Steve: One of the advantages of an engineered log jam as opposed to a natural log jam is (that) we're able to study the log jams, the natural ones that persist in nature and survive over time and create a lot of habitat. Say, the best of what nature provides at a random basis and replicate it through an engineered model.

Jeff: People who work in this region have a respect and a love for the fish and for natural things and for the river, and people who live on the Entiat and our partners love the river also and want to see the fish return in big numbers.

[music]