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Puyallup River

STATES: Washington

THREAT: Outdated dam management

AT RISK: Endangered salmon, steelhead and bull trout

SUMMARY

The Puyallup River flows from Mount Rainier and supports many species of fish and wildlife. It also provides critical resources for the Puyallup Tribe of Indians, the Muckleshoot Indian Tribe and local communities. Chinook salmon are a keystone species and part of the social and ecological fabric of the region — their spawning and migration support the entire web of life in the Puyallup River. Chinook also are the primary food source for critically endangered Southern Resident orcas. But Chinook, wild steelhead and bull trout — all protected as threatened under the Endangered Species Act — are in steep decline due to outdated management practices at the Electron Dam in Pierce County, Washington. The National Marine Fisheries Service and the U.S. Fish and Wildlife Service should ensure that all three fish species can recover by enforcing the requirements of the Endangered Species Act and demanding expedited correction of the fish-killing aspects of the Electron Hydropower Project.



PHOTO: USGS

THE RIVER

The Puyallup River and its largest tributaries, the White and Carbon rivers, have their origins in the glaciers of Mount Rainier. The Puyallup River flows roughly 65 miles to Commencement Bay in Puget Sound. The Puyallup River watershed forms the third largest tributary to Puget Sound and encompasses approximately 1,050 square miles. The river flows through Mount Rainier National Park, wilderness and other forested lands, and Pierce and King counties. The watershed includes the cities of Tacoma, Fife, Puyallup, Auburn, Sumner, Enumclaw and Orting.

The Puyallup and Muckleshoot tribes have lived on and stewarded the river since time immemorial. Both tribes are sovereign nations and have treaty rights that ensure the tribes' ability to hunt and fish in their usual and accustomed areas. They both play leadership roles in river and salmon restoration efforts in the watershed.

The Puyallup River, its estuary and Commencement Bay together support several species of native fish and are home to the only spring Chinook salmon population in the South Puget Sound region. The Chinook salmon, steelhead and bull trout native to the Puyallup are listed as threatened with extinction under the Endangered Species Act.

THE THREAT

The Electron Hydropower Project is located on the Puyallup River in the foothills of Mount Rainier and is owned by Electron Hydro, LLC and Tollhouse Energy Company. It is a run-of-the-river hydropower project constructed in 1904 that utilizes water diverted from the Puyallup to generate electricity. Because the facility predates the Federal Power Act, the Electron Hydropower Project does not have a hydropower license under the Federal Energy Regulatory Commission. Currently, the facility is also not compliant with the Endangered Species Act.

Electron Dam diverts river water into a 10-mile long wooden flume that carries water into a 20-acre forebay (an artificial body of water). Water from the forebay then enters several penstocks, which drop 873 vertical feet into a powerhouse and turbines to generate power.

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TAKE ACTION:

[AmericanRivers.org/
Puyallup2020](http://AmericanRivers.org/Puyallup2020)



Built without fish passage, the dam blocks salmon from accessing 26 miles of habitat in the mainstem Puyallup River and 10 miles of tributaries. A 215-foot-long fish ladder was built in 2000 and requires regular maintenance after heavy rains to ensure sediment and debris do not block the intake or the ladder cells. Migrating salmon cannot use the fish ladder when it is obstructed.

Furthermore, the flume intake is not screened, so fish that enter it are sent down the flume and into the forebay. Salmon, steelhead and bull trout smolts are preyed upon within the forebay by cutthroat and rainbow trout that thrive there due to the abundance of prey. Fish are also killed when the forebay is drained for periodic sediment removal. In addition to fish mortality in the forebay, the penstocks and turbines are improperly screened and many fry, fingerlings and smolts are drawn into the turbines and killed.

The Electron facility is estimated to kill 40 percent of Chinook juveniles on their way to Puget Sound. It restricts the potential of the Puyallup River system's federally protected salmon and steelhead populations by about 34 percent.



WHAT MUST BE DONE

The National Marine Fisheries Service and the U.S. Fish and Wildlife Service must use their authorities under the Endangered Species Act to demand expedited correction of all causes of fish mortality associated with the Electron Hydropower Project. These federal agencies should declare that Electron is in continuing violation of the Endangered Species Act, and they must ensure the project ceases killing endangered wild fish by requiring a habitat conservation plan for continued operation of Electron. It is time for the Electron Hydropower Project to implement measures that have meaningful, on-the-ground results for endangered Chinook salmon, steelhead and bull trout.