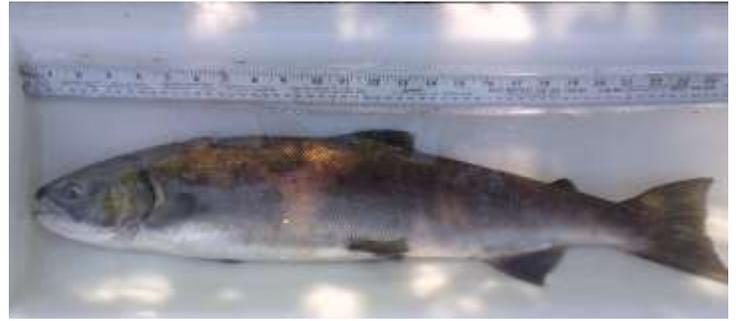


Historic Sockeye Smolt Release Celebration April 20, 2017



Adult Coquitlam Sockeye

Photo: S. Ducharme

Some History

The Coquitlam River Watershed has been home territory for Kwikwetlem First Nation (KFN) for millennia. Salmon runs returned annually to the river in abundance and supported their way of life. The sockeye salmon were an especially prized food source and trade item. The Kwikwetlem people proudly took their name, which translates as “Red Fish up the River”, from these fish. Construction of the first Coquitlam Dam by Vancouver Power Company in 1905 incorporated a fish ladder, designed by the Department of Fisheries and Oceans (DFO) on the easterly part of the dam. This dam was reconstructed and enlarged in 1913, over objections from the Kwikwetlem Chief and the local federal fisheries officer, when it was built without provisions for fish passage and blocked all access to salmon spawning and rearing areas. This changed the Kwikwetlem people’s ancestral fishing grounds. The sockeye run was thought to be eliminated and other salmon species returned to the lower river in reduced numbers.

Vancouver Power Company private corporate interests are now held by BC Hydro -- a provincial crown corporation. BC Hydro organized the Kwikwetlem Salmon Restoration Program (KSRP) team in 2002 in response to urgings from KFN to establish a community based organization to address salmon restoration above the dam. The KSRP team includes representatives from Kwikwetlem First Nation, Fisheries and Oceans Canada (DFO), B.C. Ministry of Environment (MOE), BC Hydro, Metro Vancouver, local Municipalities and stewardship organizations. The KSRP team continues to work through the Fish Passage Decision Framework (FPDF) to conduct studies that investigate conditions in the reservoir and possibilities for restoring the Coquitlam Sockeye run. This work has been funded annually since 2002 through the Fish and Wildlife Compensation Program (FWCP).

During Coquitlam Dam upgrades in 2008 and 2009, adult sockeye were discovered in the recently completed DFO salmon trap at the base of the dam. DNA tests determined that most of these fish were survivors of the “eliminated” sockeye stock. A few adult sockeye (1 to 4 fish) have returned to the trap almost annually since 2009. DNA tests again confirmed that the majority of these fish had matured from resident Coquitlam kokanee which would be survivors of the “eliminated” stock.

Coquitlam Reservoir eggs and spawners



Future Hopes for the Watershed

While the continuing return of small numbers of adult Sockeye to the base of Coquitlam Dam encouraged hope that it might be possible to rebuild the sockeye run, these returns have not been consistent enough to provide fertilized eggs for this purpose. A decision was made in 2015 to attempt to produce hatchery reared smolts from Coquitlam Kokanee eggs and milt, though FWCP funding. To our knowledge, this is the first time that this process has been attempted anywhere. Today, the first of some 5,000 young fish will be released. Their fresh water incubation and rearing time has been completed in DFO's Rosewall Hatchery on Vancouver Island. They are now imprinted to return to Coquitlam Reservoir and they are ready to go to sea. Based on the few adult returns, this release could well be the largest release of Coquitlam sockeye smolts in over 100 years. We hope that enough of these smolts will survive their ocean travels to return as adults, in 2019, to advance the sockeye restoration program.

As the fish from this first release are maturing and completing their ocean journeys, ongoing FWCP funded work will continue on smolt movement and behavior tests in the reservoir as well as on engineering design feasibility investigations for safe passage options for smolts leaving the reservoir. A tagging and telemetry study is in progress to evaluate attraction and survival possibilities for smolts attempting to leave through existing Low Level Outlet Gates and tunnel conditions. The engineering study is expected to identify preliminary designs and completion cost estimates for the identified smolt passage options. It is hoped that the information generated from this work will create the knowledge base necessary for considering passage improvements to support continuing progress on restoring Coquitlam sockeye and lead to completion of two way fish passage facilities on Coquitlam Dam.

For information on Coquitlam Projects including this one go to: <http://fwcp.ca/region/coastal-region/>

For more information on Fish Passage please go to: <http://fwcp.ca/fish-passage-decision-framework/>

