

Fish passage flumes installed at Chittenden Locks in Ballard



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SEATTLE—Visitors to the Chittenden Locks in Ballard can now see the smolt passage flumes on the Locks spillway again. The Seattle District, U.S. Army Corps of Engineers, which operates the Locks, is reinstalling the four flumes in spillway gates 4 and 5 this week to help baby salmon and steelhead move through the project quickly and safely.

Fish passage at the Locks is key to salmon survival in the Lake Washington watershed, with every salmon and steelhead going in and out through this route. Because of its importance, local, state and federal agencies, local governments and the Muckleshoot Tribe joined together to improve fish passage at the Locks.

The flumes are part of an overall project to improve fish passage, including:

- seasonal installation of smolt passage slides in two spillway gates to help smolts safely out to sea
- strobe lights around the filling culvert entrances to discourage small fish from the entrance area, where smolts may be pulled into and injured or killed in the culverts
- controlled large lock fills to reduce the force that pulls smolts into the filling culverts

Studies in the 1990s showed that young salmon passing through the Locks from Lake Washington to Puget Sound had a difficult journey. Salmon were pulled into the filling culverts for the large locks, where some are injured or killed. Other salmon had a difficult time getting over the spillway near the fish ladder.

The fish passage improvement project addressed these findings, and less than 3 percent of outmigrating fish were pulled into the culverts last year. Scientists, who have been monitoring fish passage at the Locks, estimate that 740,153 fish passed safely over the flumes during daylight hours from April 18 to 5 Aug. 5, 2001. In that same period, 17,876 fish were pulled into the filling culverts (where some are injured or killed).

Key contributors to the smolt flume construction project included King County, the City of Seattle, Muckleshoot Tribe, the Lake Washington and Sammamish forums, and the Puget Sound Naval Shipyard.

The Army Corps of Engineers has been working with state and federal resource agencies, King County, the Muckleshoot Tribe, Seattle, and watershed forums to improve fish passage at the Locks as well as fish survival in the Lake Washington watershed. This successful project is the outcome of extensive study and coordination among these agencies, the Washington State Department of Fish & Wildlife and the National Marine Fisheries Service.