

# CHITTENDEN LOCKS—LAKE WASHINGTON SHIP CANAL



## Background

The U.S. Army Corps of Engineers (Corps) completed construction of the Chittenden canal and locks in 1917. The intent of the project was to maintain Lake Washington and Lake Union water levels at 20 to 22 feet above sea level, prevent saltwater from the Puget Sound from infiltrating the freshwater lakes, and assist vessels navigating from the water lakes to the Puget Sound, and back. The system includes one small and one large lock, a spillway with six gates, and a fish ladder for adult anadromous fish to return to their spawning grounds. The facility provides a range of benefits to the Pacific Northwest region, including:



Navigation – The Chittenden Locks are the busiest locks in the nation, in terms of vessel traffic. They are used by the Alaskan Fishing Fleet, which passes through the locks to moor in the freshwater at Fishermen’s Terminal, and utilizes shipyards along Lake Washington Ship Canal for repairs in the off season. In addition, nearly 50,000 recreational boats pass through the locks each year and the locks ensure that public safety vessels are able to respond quickly between Lake Washington, Lake Union and the Puget Sound.

Protects Freight Infrastructure – The locks control water levels in Lake Washington and Lake Union, and protect the Washington State Route 520 and the Interstate 90 floating bridges. Maintaining the water levels also protects other municipal, residential, and commercial infrastructure.

Fish Passage – The locks protect salmon habitat restoration work previously completed to benefit the Sockeye, Chinook (King), and Coho (Silver) salmon that pass through the locks each year, and ensures treaty trust responsibilities are met for two federally recognized Tribes.



## Current Status and Funding Needs

Annual maintenance is performed to keep the locks in working order. In a typical year, the large lock is closed for approximately three weeks in November and the small lock is closed for approximately two weeks in the early spring. It is anticipated the small lock chamber is forecasted to close March 6 - 20, 2023. Also in 2023, an extended lock closure is anticipated for the large lock center gate between October 16, 2023 - November 14, 2023 with single chamber navigation from November 15 - 29, 2023. Another closure of the large lock center gate is expected November 30 - December 29, 2023 with single chamber navigation from December 30, 2023 - January 13, 2024. Additional large lock center gate closures are expected in 2024 with the system being fully operational by December 29, 2024.

In the FY2022 omnibus appropriations package, the Lake Washington Ship Canal project received \$11.199 million. The project also received \$10.8 million in FY2022 Infrastructure Investment and Jobs Act (IIJA) funding for long overdue deferred maintenance projects. In FY2023 omnibus appropriations, the project received \$11.634 million which included regular and additional maintenance work, generator and electrical upgrades, implementation of the Biological Opinion for the project, and an ArcFlash update for safety purposes. An additional \$5.2 million from the FY2024 IIJA spend plan was secured for the replacement of the small lock machinery and controls. For FY2024, PNWA is supporting the Corps’ capability for \$5.5 million for the Lake Washington Ship Canal project to perform work on the small lock emergency closure system.

