

CHITTENDEN LOCKS – LAKE WASHINGTON 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 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 can 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. Also in 2024, an extended lock closure is anticipated for the large lock center gate between October 15, 2024, to November 13, 2024, for gate installation. Full chamber navigation is expected from November 14 to 28, 2024. Another possible large lock center gate closure may take place November 29, 2024, to December 28, 2024. The system is expected to be fully operational by December 29, 2024. On the horizon, the small chamber is anticipated to close February 24, 2025, to March 13, 2025, for scheduled maintenance.



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.



For FY2024, the project received a total of \$16.163 million which included \$5.2 million from the FY2024 IIJA spend plan for the replacement of the small lock machinery and controls.

For FY2025, the President's budget includes \$12.057M. PNWA is supporting \$13.462M for the Corps' Lake Washington Ship Canal capability to include routine operations and maintenance, installation of a downstream boat barrier, an Arc Flash update, fish ladder and system, and an adult salmon study.