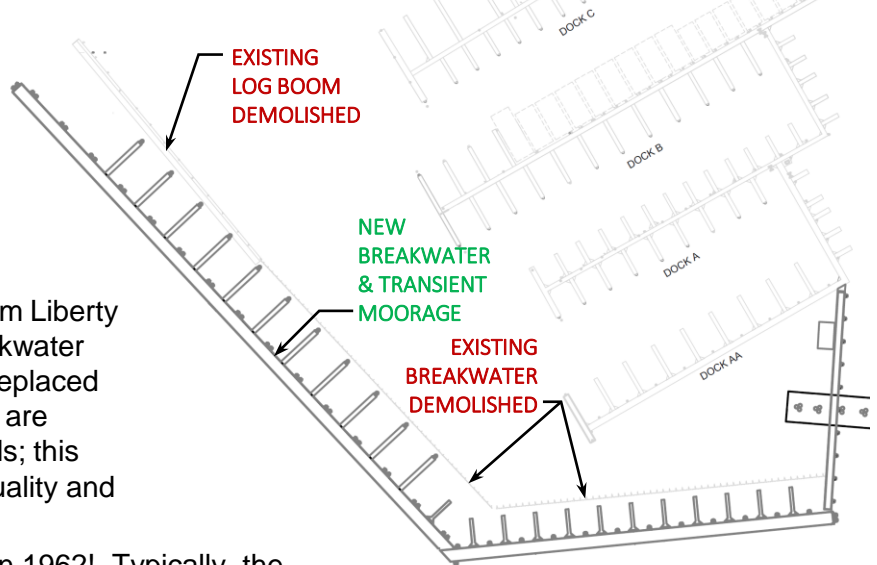


BREAKWATER REPLACEMENT PROJECT UPDATE

OCTOBER 15TH, 2021

Project Purpose

- The existing marina breakwater at the Port of Poulsbo is severely deteriorated and must be replaced. The Port has been in the process of planning this important project for several years and is now moving forward with a comprehensive Breakwater Replacement Project!
- This project will remove 898 creosote piles from Liberty bay which currently make up the existing breakwater pile wall and log booms. The pile wall will be replaced with a floating breakwater using materials that are compliant with current environmental standards; this provides a significant improvement in water quality and ecological processes in Liberty Bay.
- The existing timber pile wall was constructed in 1962! Typically, the useful life of a breakwater structure of this type is on the order of 30 to 40 years, and with this one reaching 59 years, there is significant concern and numerous component failures that have already occurred.
- The breakwater replacement project has been made possible by grant funding, which is awarded to exceptional projects that provide a direct benefit to recreational transient vessels. The Port's vision for the new breakwater has always been centered around creating an outstanding public amenity for Poulsbo, and as a result of the public access and moorage amenities planned, the Port's project ranked high enough in national competition to receive significant funding!



WIDESPREAD BREAKWATER COMPONENT FAILURE

Project Funding

- The Breakwater Replacement Project is expected to cost between \$6.4 and \$7.3 million to construct.
- The Port has been very fortunate to receive a materials donation in the form of used concrete breakwater floats. The floats will be completely refurbished with a life expectancy of 30 years and provide a very significant cost savings to the project!
- Additionally, through a competitive grant process, the Port has received approximately \$2.5 million in grant funds to be used for construction of the breakwater!



EXISTING CREOSOTE TIMBER PILE BREAKWATER

Project Schedule

- Planning & Conceptual Design; Complete
- Engineering Design Development; Complete
- Permit & Regulatory Review; Ongoing
- Public Bidding & Construction; Planned for 2021-2022
- Available to the Public; Planned for 2023

Questions & Comments: Breakwater@portofpoulsbo.com

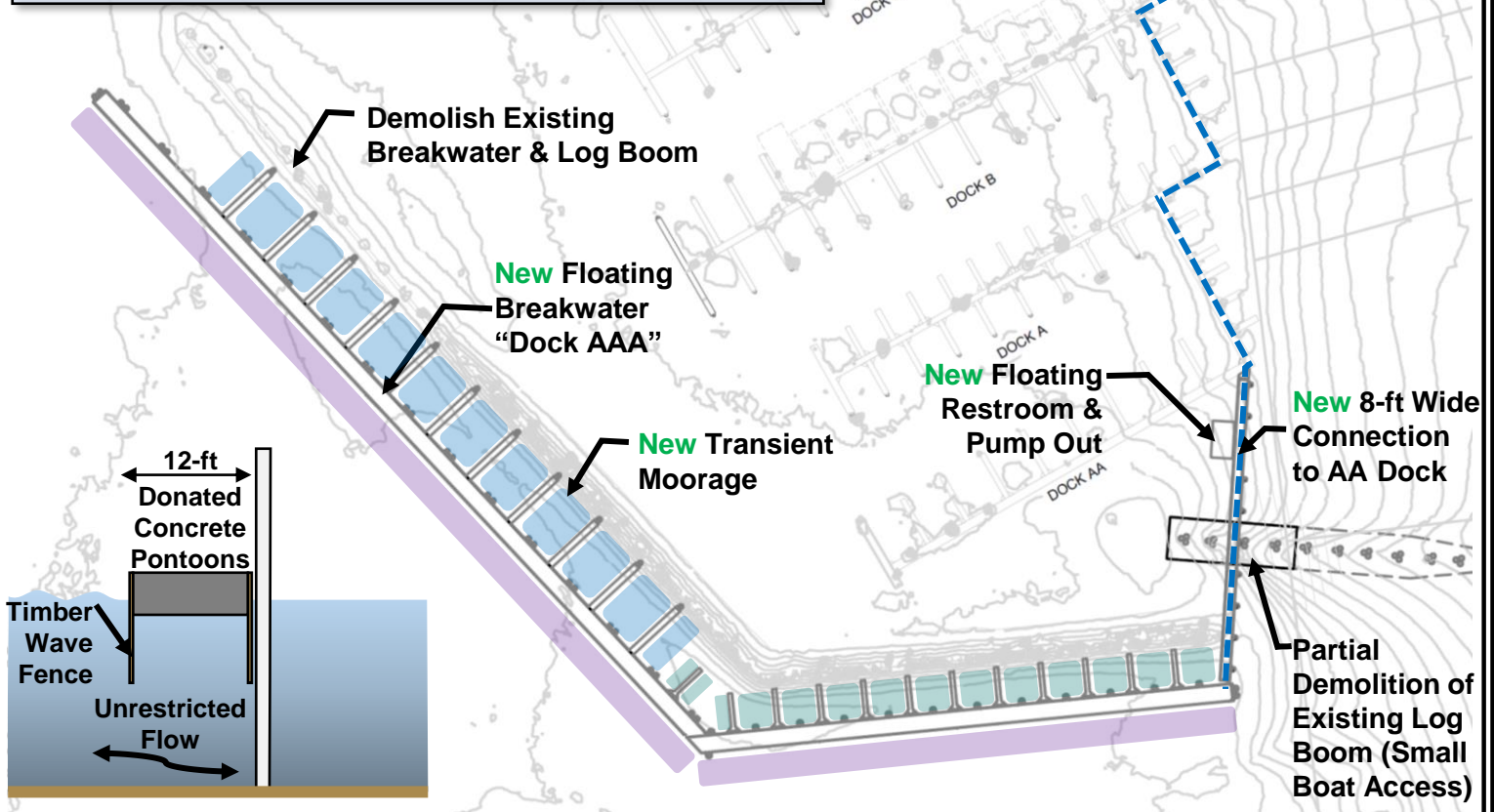


BREAKWATER REPLACEMENT PROJECT UPDATE

OCTOBER 15TH, 2021

DESIGN & CONSTRUCTION HIGHLIGHTS

- The floating breakwater will be constructed using completely refurbished donated breakwater pontoons in combination with some new pontoons. The breakwater will be anchored with steel piles centered on each double slip.
- The new breakwater will be located 60-ft SE & 40-ft S (seaward) of the existing breakwater and log boom.
- Installation of the new breakwater will occur prior to removal of the existing breakwater to maintain marina protection.
- Wave attenuation of the floating breakwater is expected to provide “moderate” performance. A structurally sound pile wall like the existing breakwater provides “good” performance. Following construction of the new breakwater, wave energy inside the marina is expected to increase by 10 to 20% as a result of unrestricted flow beneath the floating breakwater.



BREAKWATER AMENITIES

- Power pedestals provided (30A and/or 50A, see legend). The Port is maximizing electrical hookup options within the available electricity service limits.
- A new floating restroom & pump-out boat is also planned.
- Lighting will be provided on the New Breakwater (Dock AAA) & connection to Dock AA.
- Safety ladders & equipment, and a fire suppression system will be installed to meet current requirements.
- Security upgrades are planned for separation between transient and permanent moorage.

Legend

- 50-ft double slips (42 ft. clear berthing width) incl. 30A & 50A service & potable water at ea. slip (22 total slips)
- 30-ft double slips (32 ft. clear berthing width) incl. 30A service & potable water at ea. slip (25 total slips)
- Variable LOA side tie slips for vessels up to 75' LOA incl. 30A & 50A service & potable water
- Public Pedestrian Access