

Westwood Village Homeowners Association
Waterfront Committee Breakwater Recommendation
December 6th, 2021

Summary

The marina breakwater at Westwood Village has been in place for over forty years and needs to be replaced. Ongoing maintenance has become problematic because the waterlogged and rotted logs will no longer hold the lag bolts used to keep everything together. The committee believes the entire breakwater can be replaced over the next two winters for approximately \$348k.



Breakwater Segment	Size (feet)
West	216
South Short	56
South Main	361
East	191
Total	824

Recommendation

The committee recommends acceptance of bid #1315 dated 11/10/21 from R&R Northwest to replace all four sections of the marina breakwater. Phase I would begin immediately and replace both South sections before Memorial Day, 2022. Phase II would begin after Labor Day, 2022 to replace the remaining sections before Memorial Day, 2023. The company appears to have a good reputation and is well equipped to handle this project.

Company	Bid	Proposal scope	Cost / foot
R&R Estimate 1315	\$348k for the entire breakwater	Replace entire 824' breakwater with like material and design in two phases, finish prior to Memorial Day 2023.	\$422.92
Laneco Estimate 1653	\$210k for approximately 280'	Replace the west and short south floating log breakwater with a rigid upright attenuator in 20' sections.	\$750.00
Kramer Estimate of May 4, 2021	\$125k for approximately 130'	Replace the southern 70' of the west section and the 60' short south with steel and styrofoam design.	\$961.54
Kropf Estimate of 24 Aug 21	\$945k for material only	Replace entire 824' breakwater with 15 sections of 55 foot proprietary design. Installation and removal of old breakwater would be additional.	\$1146.84

Finance

The committee believes the work can be paid for through our normal budgeting of special assessments over the next few years. A cash flow analysis projects the bank account low balance point of \$67k in January 2023. This would slightly exceed the minimum recommended balance under generally accepted accounting practice that suggests having 20% of our \$325k annual operating expenditures, or \$65k available.

Per the budget approved at this past annual meeting, special assessments for 2022 will be \$120 per month. Budgeting for 2023 would add \$60 - \$80 per month.

Options exist for a line of credit from our current financial institution to provide an additional margin of security if the board desires.

Background

The purpose of the breakwater is to dampen the waves entering the marina in order to protect the docks and boats. As illustrated above, the breakwater is constructed in four large sections. Each section is made up of logs that are secured together and around the pilings. Each layer of logs is four across, and held together with lag bolts and lumber cross braces. The west and south sections of the breakwater are made up of two layers of logs, because most of our weather and the bigger waves come from those directions. The east section is a single layer.

The breakwater was started in the 1970's and built to its current form in the mid 1980's. Historically, the Association spends between \$10k and \$15k per year for maintenance in the marina, depending on what needed to be done. Significant improvements in material have helped reduce some costs. Most of the wooden pilings (aka dolphins or pylons) in the breakwater have been replaced by metal over the years, and there are none that need to be replaced now.

Bern Sheldon has been working with contractors for months collecting bids for repairing or replacing the breakwater. The east end of the south side, and the south end of the west side are mostly submerged because the logs have absorbed so much water. Most of the logs are too rotted to hold the lag bolts keeping the breakwater together. The poor condition and appearance of the breakwater has been noted for years. Bernard pointed out that a recent survey of the owners identified the breakwater as the item most needing attention at Westwood, with 37 yes votes and 5 no votes for replacing it.

The committee recommends continuing with the current design because of its strength, longevity, and proven economy. However, the design makes it difficult, expensive, and ill advised to replace just a portion of a section. Each of the four sections needs to be replaced in its entirety.