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# Pile Replacement Project



# Fall 2023

Piles identified in the 2020 underwater inspection that were deemed in poor condition were replaced.

We had 31 wooden piles removed and 23 new steel piles driven. Eight of the steel piles were 16” across and took the place of 2 wood piles, which saved some space in the fairways. The ones removed were the ones listed as "poor" on the marina survey. The cost was \$279,332, which included new pile hoops and Manual observers. (\$12,173/ pile)



Wormholes in a pile that broke off while pulling.

In 2023, we disposed of 52 tons of creosote piles, for which we received mitigation credits that will help reduce our overall price. We will apply the credits to mitigation costs for the West Breakwater, D Dock replacement, and Dredging projects.



# Oct 2024 Project

The plan is to replace 18 creosote piles in the B-C fairway, that have concrete tops and defects, and to replace the remaining creosote piles in conjunction with West Breakwater and the New D Dock.

This year's projected cost is approximately \$200,000, not including Mamul observers. We will know the total once it is finished. We will install sacrificial zinks on all the new steel piles to get the maximum life out of them, approximately 40-50 years.



New hoops and pile