



Staff Report

TO: Board of Harbor Commissioners

FROM: John Moren, Director of Operations
THRU: James B. Pruett, General Manager

DATE: September 29, 2026

SUBJECT: Pillar Point Harbor Patrol Vessel Radon

Recommendation/Motion:

Motion: Authorize the General Manager to approve the re-power of the Pillar Point Harbor Patrol vessel Radon for the amount of \$201,178.61, with an additional 20% contingency to be approved by the General Manager in the event there are additional repairs found needed, and approve an increase in Capital Expenditure Appropriations of \$241,414, to be funded by available working capital.

Policy Implications:

Consistent with District's goal to assure the public is provided with water rescue/emergency services when District staff are available.

Background:

The District's 32' Radon Harbor Patrol Vessel is stationed at Pillar Point Harbor and has been a staple of the Harbor's rescue/vessel assist fleet for many years. It continues to be an excellent tool for the conditions staff face in this severe weather coastal area. The Radon was re-powered 9 years ago with twin Mercury 8.2 Mag HO inboard gas engines coupled to Bravo 2 outdrives. While the engines performed well for the first few years, the engines and drives have been plagued by many mechanical issues, which not only cost the District a substantial amount of money, close to \$100,000 in mechanical repairs since 2018, but also put the vessel out of commission for months at a time. Since 2023, as the motors have further aged, the District has spent approximately \$50,000 on powertrain repairs and the vessel has been down for approximately 8 months, thus limiting our abilities to respond to some emergencies. The Radon vessel is again currently out of

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service and unable to operate, this time due to significant and unrepairable engine and outdrive failures noted in the attached mechanic's report.

Staff also had a professional, comprehensive 3rd party survey of the vessel and the surveyor found the vessel in very good condition, other than the powertrain. The survey report is attached and stated the Radon was a good candidate for repower and continuing in its current mission. Therefore, it was determined that the best recourse was to re-power this vessel instead of paying over a million dollars more for a new vessel. Staff explored many options for re-power, see below, and found that Santa Barbara Marine Patrol had the same hull and recently re-powered with the Volvo Penta Diesel option. After thorough consideration, staff agreed that the Volvo Penta option would best fit our needs.

- *Mercury 8.2 Mag HO IB & Bravo 2 Drive: \$165,113.22*
 - Not recommended by mechanic for reasons already stated and longevity/service life. Would likely incur the same problems again.
 - The only way to continue with the current propulsion package would be like for like replacement given the inability to repair making this a lower value choice.
 - Difficulty in local service.
- *Yamaha XTO Outboards: \$189,722.02*
 - A potential alternative to IB/IO gasoline motors for better serviceability, reliability, and cost of ownership. EPA compliant.
 - Quote does not realize the total scope of the alterations needed to successfully complete the change of propulsion from inboard i/o power to outboards. This type of vessel requires specific alterations to maintain trim and running surface and outside consulting and engineering will be needed to design transom for outboard installation.
 - Fuel costs would remain high similar to Gas IB.
 - Will have shorter overall service life compared to diesels.
 - Difficulty in local service.
- *Volvo Penta Diesel D-6 IB & DPI Drive: \$201,178.61*
 - Most cost-effective option offering highest value.
 - Preferred option of other harbor agencies with similar craft in the same commercial/response operating conditions. Santa Barbara completed the same repower of their similar 32 Radon last year with positive and documented results.
 - Recommended repower option by the builder to achieve intended goals.
 - Long life span on motors and better life span for the drives over current Bravo 2.
 - Longer service intervals (2x) on motors and drives & initial 3-year commercial warranty, resulting in lower maintenance costs.
 - Increased efficiency over gas options, resulting fuel burn reductions approaching 50% at operating speed with significant savings annually.
 - EPA/ CARB Tier 3 compliant.
 - Local dealers/distributor can remote service in HMB in most cases.

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Staff received attached quote from Helmut's Marine Services, Inc. for the negotiated down cost of \$201,178.61 to remove the current powertrain and install the new Volvo Penta engines, drives and electronics.

Summary/Recommendation:

Staff recommends the Board approve aforementioned motion to authorize the GM to re-power the rescue vessel Radon.

Attachments:

[Helmut's Marine Services, Inc. Quote for Volvo Penta Replacement Powertrain](#)

[Radon Engine Survey](#)

[Radon Hull Survey](#)