Administrative Report

H.10., **File #** 24-1695 **Meeting Date:** 10/29/2024

To: **MAYOR AND CITY COUNCIL**

From: PATRICK BUTLER, FIRE CHIEF AND ANDY WINJE, PUBLIC WORKS DIRECTOR

TITLE

APPROVE THE PURCHASE OF A USED 32-FOOT SEAWAY BAYWATCH FIRE-RESCUE BOAT FOR AN AMOUNT OF $77,000 (INCLUDING SALES TAX) FROM NEWPORT HARBOR TOURS C/O JEFF KLEID TO REPLACE FIRE BOAT #808 IN THE CITY'S FLEET INVENTORY

AUTHORIZE THE PURCHASE OF BOAT UPFITTING MATERIAL AND SERVICES FROM KING HARBOR MARINE CENTER IN AN AMOUNT NOT TO EXCEED $79,836

ADOPT BY 4/5TH VOTE AND TITLE ONLY RESOLUTION NO. CC-2410-104 A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDONDO BEACH, CALIFORNIA, AUTHORIZING A 2024-2025 FISCAL YEAR BUDGET MODIFICATION TO APPROPRIATE $156,836 FROM THE VEHICLE REPLACEMENT FUND TO THE PUBLIC WORKS DEPARTMENT 2024-2025 FISCAL YEAR OPERATING BUDGET TO FUND THE PURCHASE OF THE FIRE RESCUE BOAT

EXECUTIVE SUMMARY

The City Fire Department Harbor Patrol Division currently operates two vessels to serve the City's waterfront in support of water-based emergency needs in the vicinity of King Harbor. One of these vessels, a 27-foot Boston Whaler is due for replacement in FY 2026-27 and has a projected replacement cost of $1.5M to $4M. The Boston Whaler's configuration presents challenges during water rescue due to the location of its outboard motors, limited deck space, and inability to safely back into incidents.

To address this pending issue, Fire Department staff have identified a replacement vessel available through a private party that would better suit the functional needs of the Harbor Patrol Division and is a fraction of the cost of a new, contemporary rescue boat. The used vessel purchase price has been negotiated at $70,000 plus taxes and would also require upfitting with modern equipment, including a firefighting pump and advanced maritime search and rescue electronics, along with minor repairs that are estimated to cost $80,000.

The used vessel is a 1974 32-foot Seaway Baywatch rescue-fire boat. Staff has performed sea trials and had a marine (hull and engines) survey performed on the vessel, which showed that, with modest repairs, the vessel's propulsion train, hull and structure will be seaworthy and fit for duty as the City's next Harbor Patrol vessel for decades to come. The seller is holding the negotiated price for the vessel until December 1, 2024.

Although replacement is not due for three years, the City will not be in a position to replace the boat with a new vessel at that time as the cost of a new boat is exorbitant and beyond the Tidelands Fund capacity. Additionally, the Harbor Patrol's current 27-foot Boston Whaler is designed for law enforcement and fire response and, as mentioned, is relatively inefficient and ineffective for Harbor Patrol rescue operations, especially to both crew and victims in the water during those operations. The 32-foot Seaway vessel proposed for purchase is far superior to the Boston Whaler in serving Harbor Patrol's mission and can be put into service almost immediately. The opportunity to purchase a Seaway boat of this type is unique and is unlikely to be available when the Boston Whaler is scheduled to be replaced.

To accomplish this early but strategic replacement, the City Council is being asked to approve the purchase of the vessel for $77,000 (including taxes) from the private party. While no warranty is offered, the marine survey supports the quality and seaworthiness of the vessel for its intended service life of 20 years from the date of purchase. As noted above, certain upfitting of the vessel will need to be made to bring it into Harbor Patrol service, including replacement of firefighting equipment, new electronics for operations and communication, paint, badging, and other emergency service appurtenances. The total cost of the upfit is expected to not exceed $80,000 and staff recommends approval of a corresponding purchase order from King Harbor Marine Center.

While no money was specifically appropriated in the FY 2024-25 Budget to purchase a new boat, $243,080 of Tidelands funding has been reserved in the Vehicle Replacement Fund for the eventual replacement of the Boston Whaler (Unit #808). In order to access the reserved funds, staff is recommending the City Council adopt a budget modification resolution to appropriate money from the VRF for both the purchase and upfitting of the 32-foot Seaway vessel in the amount of $156,836. As part of the mid-year budget review, staff will recommend returning any of the unit's residual savings to the Tidelands Fund.

BACKGROUND

The Fire Department operates two fire rescue boats in King Harbor, a 2004 32' Crystaliner and a 2008 27' Boston Whaler. The Crystaliner is past its scheduled replacement but has been held over due to the prohibitive costs of a full vessel replacement. Unfortunately, the increasing cost of new replacement vessels have significantly outpaced the accumulated savings rate defined in the Vehicle Replacement Fund funding mechanism. Staff has taken an approach to bridge these gaps by investing VRF funds in replacing or updating motors, fire pumps and apparatus, and operational and communication electronics.

A significant savings to full vessel replacement costs can be realized by continuing to perform proactive maintenance to the hull and structure of the vessel, extending the useful life of these more durable components. This is currently happening with the Crystaliner. However, because of the nature of the Boston Whaler's intended services platform, this approach will be less effective in delivering the right vessel to meet need of the Harbor Patrol's mission into the future. By contrast, inclusion of the proposed 32-foot Seaview Baywatch boat to the City's fleet would fit well within this adaptive strategy. Due to its excellent hull condition, this boat should last another 20 years, eliminating the need to replace it in that period, and perhaps beyond. The Boston Whaler is due for replacement in four years, but likely will require extensive maintenance and upgrades if the City were to keep it until a replacement is ready for service.

The Boston Whaler was purchased in 2008 through a partial grant to fund a vessel configured for a single use as a fire boat with a small fire pump. It was not designed for paramedic services or open water rescues.

Figure 1: Current configuration of 2008 Boston Whaler

The Boston Whaler is designed for law enforcement and fire response, not rescue, towing, or dive operations. It is great for pulling up next to another boat to board, or to provide a water stream for burning boats or structures from sheltered waters. However, when used for towing, rescue, and dive operations it is inefficient, ineffective, and, for some activities, poses a safety risk.

The Boston Whaler is propelled by two outboard engines with a safety cage. Due to the exposure of the propellors beyond the transom of the vessel, the outboards represent a potential hazard during rescue operations in which the vessel must operate in close proximity to crew and victims in the water. All rescues must be accomplished through a small door on the starboard side of the boat, which exposes the broadside of the vessel to waves. Loading victims from a large swim step on the stern of the vessel is far superior. It is much easier to drag a victim onto the swim step than over, or through, the side of a vessel. Typically, the aft (rear) of the vessel is far calmer than the bow or broad sides of the vessel with the rolling side-to-side of a vessel being far more pronounced than the pitching motion bow-to-stern, further complicating rescue and extrication from the water from the starboard (right) side of the Boston Whaler.

Once onboard, the deck is laid out with the helm mid-vessel and a large tow bar and safety equipment severely limiting the space available on deck to stage rescue gear, such as the AutoPulse, or treat victims. In operational responses, if a Baywatch vessel is available at the scene, victims will be treated and transported on the Baywatch vessel instead of the Boston Whaler due to its superior configuration and ample space on deck for multiple victims.

The Boston Whaler has a custom-built towing structure at the aft of the vessel that is designed to clear the outboard motors.

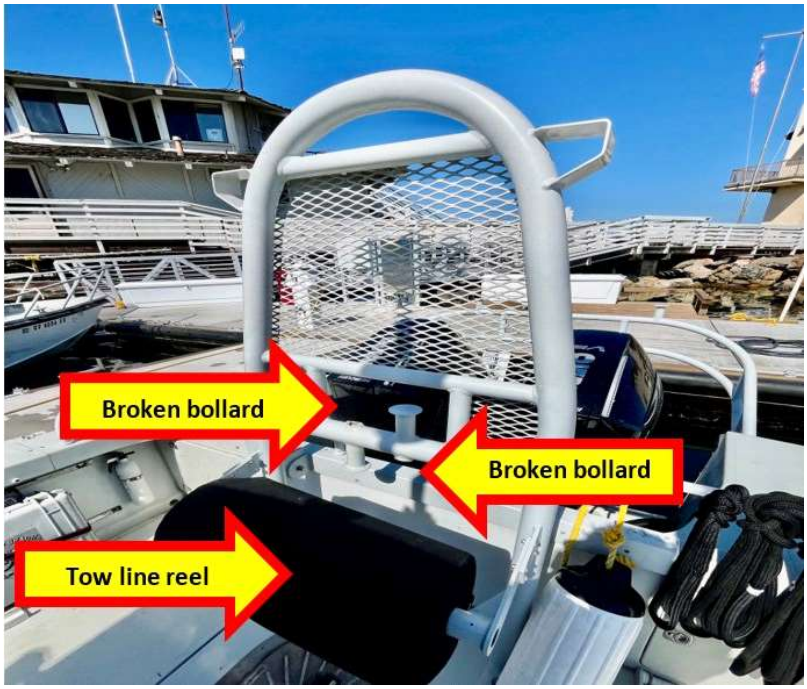

Figure 2: Custom designed towing structure

Access to deploy the tow line is difficult due to the expanded metal mesh between the structural tubing. The configuration of the line reel is dangerous as there is no locking mechanism and crew must get their hands and arms between the line and structure around the bollards to reel out, tie off, or retrieve the tow line. The bollards have proven to be under-designed as two have broken off in operation, creating potentially dangerous conditions for the crew aboard the vessel.

Compared to Baywatch, or other similarly configured vessels, the Boston Whaler has low freeboard (the distance between the waterline and the upper deck of a ship) which represents a swamping hazard when the vessel must be operated in high seas or in proximity to the outside of the breakwall where the boat encounters wave and chop from the seaward side of, and reflected waves from, the breakwall creating a turbulent environment for the vessel. While the Boston Whaler will not sink, it can swamp which would render it useless for response, force it into the rocks, or require it to be towed back by another rescue vessel. The low bow also exposes the crew to waves and spray creating uncomfortable conditions.

SEAWAY 32 RESCUE

The proposed replacement vessel is a 1974 Seaway 32 Rescue, which is currently owned by a private party who has used the vessel for charter tours. It was Rescue Boat #7 for Los Angeles County Baywatch before it was bought by the current private party. Ten of these vessels were built and seven are still in service with Los Angeles County. The other two vessels were damaged in operation. The current owner is seeking a buyer, offering the City a rare chance to acquire a proven, more effective rescue boat in a cost-effective manner. Harbor Patrol staff were able to perform sea trials and had favorable reports, as discussed in the attached report.

Figure 3: 1974 Seaway 32 Rescue as currently configured

The Seaway 32 Rescue was designed from bow to stern for rescue and fire operations. The high freeboard and protected helm are made to handle any sea conditions. The forward helm maximizes cockpit space for the treatment of rescued victims. The full width swim step provides an easy platform to pull the rescued victim from the water, and the inboard engine configuration makes for a wide open aft and keeps the propellers far from crew and victims in the water. The configuration is also well-proven in towing situations.

While the Seaway is 50 years old, it has been well maintained and has newer engines. Seaway Boats are known for being high-quality, durable boats, often crafted by small shipyards and local builders with a deep heritage in boatbuilding. The 32' Seaway is designed for the rugged conditions of the North Atlantic, with a focus on practicality, seaworthiness, and efficient handling in harsh weather.

It is not uncommon for similarly-built fire-rescue boats to remain in frontline service for decades. As an example, LAFD Fireboat #2 was placed into service in 1925 and went through many modifications over 77 years of continuous service so that it would retain a maximum capability in firefighting and rescue operations until it was replaced in 2003.

Staff for the Redondo Beach Harbor Patrol have inspected the Seaway and support its acquisition, noting its superior capabilities for water-related emergencies and paramedic services. Staff with experience operating on Baywatch Redondo, a similar boat, have long requested a boat like the Seaway, though previous budget constraints made this unattainable. The boat has been professionally surveyed by Ocean Marine Surveyors, with an engine and mechanical assessment conducted by South Coast Shipyard, with each confirming the boat's condition. Both reports

provided recommendations for repairs that have been included in the upgrade costs, with an expected remaining service life of 15 to 20 years, with proper maintenance. The only notable consideration is that there is minor termite damage to the instrument panel and the boat will need to be tented for termites.

Staff evaluated the benefits of diesel engines versus gasoline engines and concluded that the existing gasoline engines are more suitable and cost effective for Redondo Beach Harbor Patrol's mission. Since most operations are performed at idle within the harbor and do not require long-distance travel, gasoline engines were deemed a better fit. Diesel engines cost three times more to purchase than gasoline engines and can weigh 1,600 pounds more. While more fuel-efficient and better for long distance travel, diesel engines are prone to long-term damage when operated at low temperatures and idle, leading to issues like carbon buildup, wet stacking, oil contamination, cylinder glazing, and cavitation erosion on the cylinder walls creating metal pitting which causes long-term, irreversible damage. Therefore, there is no need to replace the engines at this time.

The City has negotiated a purchase price with the seller of $70,000 (plus taxes). The vessel would have to be re-outfitted with the necessary electronics, firefighting pump, and water cannon. The equipment has been priced-out with a local installer at $79,836. With tenting for termites and taxes, that brings the total cost of getting the vessel on the water at $156,836.

The following table shows the cost buildup.

ITEM	COST	TAX
Fire pump	$8,500	$850
Pump accessories	$1,300	$130
Deck gun	$2,200	$220
Hull repair and paint	$6,000	
Graphics	$3,500	
Radar arch	$3,500	$350
VHF/AIS	$1,000	$100
Chartplotter	$3,800	$380
High definition radar	$7,000	$700
Side Scan, high definition sonar	$2,500	$250
Antennae and cabling	$2,500	
FLIR night vision	$8,000	$800
Fabrication materials - brackets, mounts	$2,600	$260
Sirens	$1,000	$100
Emergency lights	$2,500	$250
PA/Fog horn	$500	$50
Spot/Search light	$1,000	$100
RBFD radio (reinstall Whaler radio)	$1,200	
Add 8D House Battery (electronics)	$500	$80

Termite Tenting	$1,100	
Labor	$15,016	
Sub-total electronics and firefighting equipment	**$75,216**	$**4,620**
1974 Seaway 32 Rescue	$70,000	$7,000
Total Vessel + Electronics/firefighting equipment	**$145,216**	$**11,620**
TOTAL COST	**$156,836**	

Typically, when vehicles are replaced in the City's fleet their residual value at auction is nominal. However, surplus sale of the Boston Whaler is an exception. The Boston Whaler is outfitted with new outboard motors and, based on input from our local shipyard service center, it is valued at $50,000 to $75,000. The Boston Whaler can be designated as surplus government equipment and may be sold. Staff worked with the Financial Services Department to research the surplus sale through sealed bids as one of the authorized disposal methods that is available for the Council to consider. Proceeds from the sale are anticipated to significantly offset the purchase price of the Seaway, an important detail when considering that the funding source for these vessels is the Tidelands Fund.

In addition to the purchasing the Seaway, staff considered two available alternatives: to replace the Boston Whaler to provide some context to the recommended action. First is the purchase of a used 2020 Crystaliner hull requiring a $1.5M full build-out without modern electronics and powered by gasoline engines from Willard Marine (Figure 4). Second is the purchase of a new Anderson Custom Boat (Figure 5) priced at $2.5 to $4M, with a 42-month build time. In seeking a used market comparison to the Baywatch Seaway, staff located a 1969 31-foot Seaway with small diesel engines and an enclosed cabin for $120,000. Staff also approached the County to see if the City could acquire one of their used boats, but they do not have replacements for their fleet of eight boats and are extending the life of their current vessels through on-going maintenance and repairs.

Figure 4: 2020 Crystaliner Hull

Figure 5: Anderson Boats Rescue Vessel

Of the available options, staff has determined that the purchase of the 1974 Seaway 32 Rescue offers a cost-effective solution to improve Harbor Patrol operations by providing a proven platform for firefighting and maritime search and rescue missions. Vendors no longer build boats to the same standards as the Seaway, and the current market for fire-rescue boats is limited in the Western United States. Even Los Angeles County Baywatch has been unable to secure contracts for their next generation of rescue boats. As such, staff recommends Council approval to purchase and upfit the Seaway.

COORDINATION

The Fire Department coordinated this purchase with Public Works, Finance, and the City Attorney's Office.

FISCAL IMPACT

Approval of staff recommendations will result in an appropriation of $156,836 from the fund balance of the VRF. While money is not sequestered for each vehicle or vessel in the City's fleet, the cost associated with this decision is less than the scheduled replacement accumulation value for the Boston Whaler and undoubtedly represents a significant savings to the Tidelands Fund versus any reliable purchase options likely to be available in three years. The potential sales proceeds of the Boston Whaler as surplus, will further improve the financial position of the Vehicle Replacement Fund in the long term. Adjustments to the ongoing fund balances will be presented to Council as a part of the Mid-Year Budget process. Electing to purchase this used vessel as opposed to continuing to plan for the acquisition of a new replacement vessel will save the City well over $1M.

APPROVED BY:
Mike Witzansky, City Manager

ATTACHMENTS

- Survey - Boat Survey Report by Ocean Marine Surveyors, 1974 30' Seaway Lobster Vessel
- Survey - Engine Survey Report by Ocean Marine Surveyors, 1974 30' Seaway Lobster Vessel
- Diagram - Willard Marine Build-Out of Orange County Sheriff 33' Crystaliner
- California DMV Seaway Registration
- Report - Harbor Patrol Staff Sea Trial with Photos
- Resolution No. 2410-104 - VRF Boat Appropriation