INITIAL RELEASE

Rye Harbor Marine Facility
Rye, NH

Assessment & Recommendations for Improvements

Pease Development Authority
October 14, 2025

Tighe&Bond

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Executive Summary

The Rye Harbor Marine Facility, located in Rye, New Hampshire, is a state-owned and operated, publicly accessible working waterfront managed by the Pease Development Authority (PDA) through its Division of Ports and Harbors (DPH). The facility serves a wide range of user groups, including commercial fishermen and lobstermen, charter, whale watch and excursion operators, recreational boaters, seafood buyers, emergency services, and visitors to the New Hampshire seacoast. With only 4.7 acres of usable upland at the Facility, the site supports a highly active and overlapping mix of water dependent, water related and water enhanced uses.

In late 2024, the PDA Board of Directors initiated this facility assessment study (The Study) to evaluate the condition of the Facility and identify recommendations for its long-term resiliency, safety and operational effectiveness. The consultant team, led by Tighe & Bond with support from DRG Advisory Services, was tasked with conducting a multi-faceted assessment, gathering stakeholder input, and preparing actionable recommendations supported by high-level capital cost estimates.

The study was conducted in five phases:

- Project kick-off and background research;
- Environmental and infrastructure data gathering;
- Vulnerability and needs assessment;
- Development of recommendations and opinion of probable construction costs (OPCCs);
- Presentation and implementation planning.

This process was informed by field work, review of previous studies and collaboration with PDA, DPH, and stakeholders.

A robust public engagement process was central to the study. Through meetings, site walks, interviews, and surveys, the project team gathered input from commercial operators, permit holders, recreational users, emergency responders, local officials, and community members. Key themes included the need to preserve Rye Harbor's quaint and historic working waterfront identity, improve the reliability of infrastructure, enhance ADA accessibility, and maintain equitable and fair access across user groups.

Findings from the assessment revealed infrastructure vulnerabilities, particularly related to aging buildings, undersized utilities, deteriorating piers and floats, and exposure to coastal storm impacts and projected sea level rise. Parking, restroom and septic capacity, management of private commercial "shack" agreements, and enforcement of rules and procedures were also identified as areas needing improvement.

This report presents a comprehensive set of recommendations across four major categories:

- Environmental Resiliency & Impact Mitigation
- Facility Infrastructure & Accessibility Enhancements
- Private Commercial Use & Future Development Opportunities
- Operational Management & Administrative Improvements

Each recommendation is supported by planning-level cost estimates and organized to guide the PDA and DPH in pursuing capital investment, grant funding, permitting, and phased implementation over time. The findings of this study are intended to serve as a roadmap for future decisions, ensuring Rye Harbor remains a safe, functional, and inclusive coastal asset for New Hampshire residents, visitors and maritime industries.

Section 1 Introduction

The Rye Harbor Marine Facility is a key coastal access point owned by the State of New Hampshire and managed by the Pease Development Authority (PDA) through its Division of Ports and Harbors (DPH). It supports a wide range of commercial, recreational, and emergency services that serve not only the local community, but also visitors and marine industries throughout the region. With only a limited amount of usable upland acreage and increasing demands on its infrastructure, the Harbor faces ongoing operational and environmental challenges that require coordinated planning and thoughtful investment.

This study was commissioned to provide PDA and DPH with a comprehensive assessment of current conditions at the Facility and to support the development of strategic recommendations for its future. The assessment considers environmental factors, infrastructure capacity, user needs, and operational practices. It is intended to serve as a foundational resource for planning future capital investments, exploring funding opportunities for more significant upgrades, and ensuring that the Harbor continues to function as a resilient and accessible public asset for years to come.

1.1 Location Map

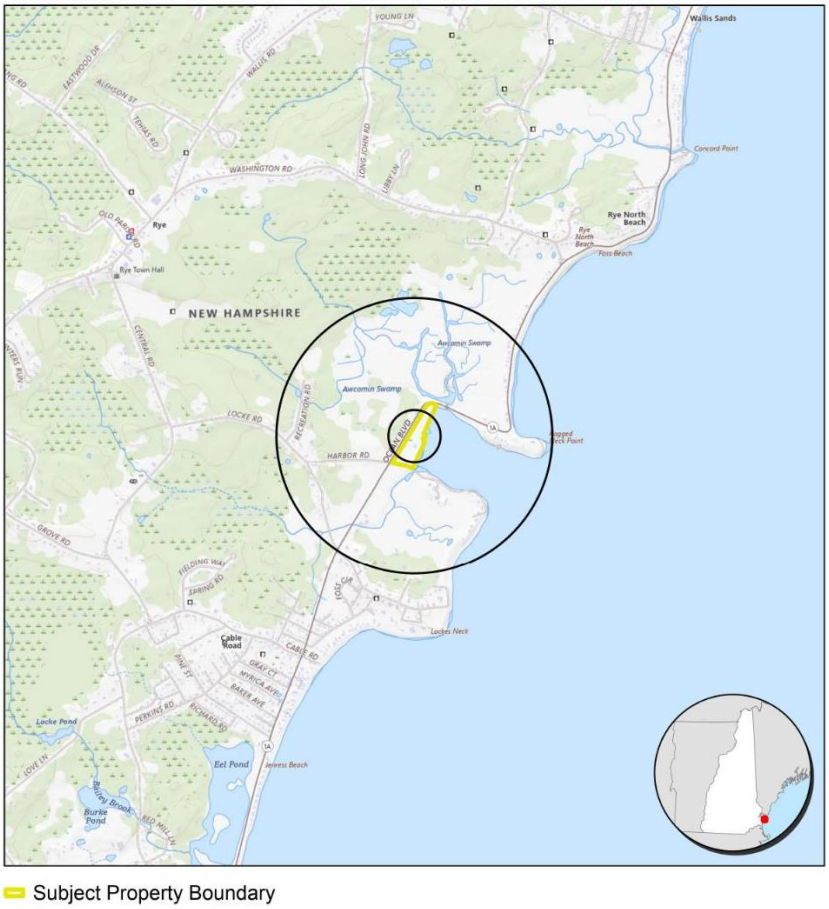


FIGURE 1-1

Location Map

1.2 Key Points & Findings

Critical coastal access point: The Rye Harbor Marine Facility supports commercial fishing, charter services, recreational boating, and emergency operations. With only 4.7 acres of upland area, the site accommodates a wide range of overlapping uses and is under increasing operational pressure.

Existing infrastructure is aging and vulnerable: Restrooms, fueling systems, commercial and recreational equipment, piers, floats, parking lot, boat ramp and the revetment seawall, all require repair, replacement or upgrades.

Environmental Risks: The Facility faces growing environmental risks with regular tidal flooding already impacting parking, utilities and site access. Projected sea level rise and storm surge events further highlight the need for resilient infrastructure design and phased investment.

Restroom and Septic System inadequacies: Particularly during peak season, accessibility concerns, aging and inadequate systems, and stakeholder feedback, suggest the need for replacement and potential connection to municipal sewer.

Parking Challenges: Parking is insufficient, poorly drained and ineffectively managed. Especially during the busy summer months, stakeholders raised concerns about fee structures, emergency access, allocation of spaces and the need for clearer enforcement.

Harbor Identity: Private commercial operations are central to Rye Harbor's identity and activity. Lease and permit structures (Right of Entry and Pier Use Permits) require updates for consistency, fairness and improved operational clarity.

Public Engagement: Extensive public engagement played a central role in shaping the study's findings, with strong support for preserving the Harbor's 'working waterfront character' while making targeted improvements to safety, infrastructure and operations. Stakeholders emphasized the importance of transparency, equitable access and improvements to existing offerings, and not expansive development.

1.3 Recommended Next Steps

Following the issuance of this report, the PDA and DPH may consider the following next steps:

Review and Prioritize Recommendations: Utilize the Study findings to identify and prioritize short, medium and long-term improvements based on operational need, funding potential, and stakeholder input.

Update Existing Capital Improvements Plan (CIP): Utilize the Opinions of Probable Costs (OPCs) and infrastructure recommendations to inform updates to a phased capital improvements plan for the Rye Harbor facility.

Pursue Funding Opportunities: Investigate and pursue appropriate funding sources, including federal and state grant programs, to support the implementation of recommended projects that fall outside the CIP.

Coordinate with Regulatory Agencies: Coordinate with applicable permitting authorities to confirm regulatory pathways and timelines associated with proposed infrastructure upgrades.

Engage Stakeholders During Implementation: Maintain communication with key user groups, permit holders, and the public to ensure ongoing transparency and support as projects move forward.

Incorporate Findings into Operational Planning: Apply the recommendations related to management practices, Right of Entry agreements, fee structures and accessibility improvements into DPH's broader planning and administrative efforts.

Section 2 Project Background

2.1 Purpose

For this project, the PDA Board of Directors requested an assessment of existing Facility conditions and operations, along with recommendations for potential improvements to the Facility that best serve the PDA, DPH, users of the Facility, and the public at large. The assessment examined existing conditions and operations (including current private commercial operations) at the Facility and, in presenting such conditions and operations, provided recommendations for potential improvements and modifications to both the Facility and its operations.

The resulting assessment established a baseline report intended to serve as a resource to the PDA and DPH. In the request for this study, the PDA Board of Directors identified four essential goals to guide the evaluation of future development activity at the Facility. These goals were as follows:

- **To ensure that the Harbor is an asset open to use by all, including commercial and sport fishing and lobstering, recreational boating, ocean sightseeing, and visitors who want to enjoy the Harbor and oceanfront;**
- **To ensure that any existing and future improvements at the Harbor do not cause environmental degradation to the immediate and surrounding areas;**
- **To provide the public with clear, transparent, and fair rules and procedures that provide equal opportunity to make use of any facility or to seek a right of entry/concession that may be offered at the Harbor, and;**
- **To increase DPH's income potential at the Harbor in order to sustain necessary maintenance and improvements to the Harbor over time.**

2.2 Project Team

The PDA under the direction of its Division of Ports and Harbors (DPH) served as the client and provided overall direction throughout the assessment.

To support the assessment, the PDA retained a consultant team consisting of Tighe & Bond and DRG Advisory Services. Tighe & Bond was responsible for evaluating facility conditions, leading public engagement efforts, and developing recommendations for facility improvements. DRG Advisory Services provided financial assessment and planning support.

Additional information about the consultant team, including firm overviews for Tighe & Bond and DRG Advisory Services, is provided in Appendix J. These overviews summarize each firm's relevant qualifications, areas of expertise, and experience supporting similar projects.

2.3 Project Overview

Following contract award, the Rye Harbor Marine Facility Assessment was formally initiated in February 2025 with a project kick-off meeting between the Pease Development Authority (PDA), its Division of Ports and Harbors (DPH), and the consultant team. This meeting established the foundation for the study by aligning on project goals, deliverables, key milestones, and communication protocols. Soon after, the consultant team conducted a site tour of the Facility and commenced preliminary background research to inform the various technical assessments.

The project was carried out in a series of phased tasks designed to perform a comprehensive evaluation of the Facility's environmental, infrastructure, operational, and economic conditions, and to develop recommendations that would guide future decision-making.

2.3.1 Phase 1: Project Kick-off & Background Research

In the initial phase, the team reviewed relevant drawings and plans, studies, GIS datasets, and other available background information related to the Rye Harbor Marine Facility. This work informed the creation of base maps and helped frame the scope of field investigations.

2.3.2 Phase 2: Data Gathering

This phase encompassed on-the-ground assessments across several key areas:

Environmental Assessment: The team conducted a site walk, wetland delineation and interviews with Facility staff to evaluate environmental baseline conditions. Tighe & Bond obtained relevant building and environmental records to understand the historical and regulatory context by contacting the Rye Town Clerk's Office and the Building Department and by utilizing the New Hampshire Department of Environmental Services (NHDES) OneStop Viewer. Sea level data and projected future impacts were also documented based on available information.

Infrastructure Assessment: All major Facility assets – including DPH and privately owned buildings, utilities (including water, electric and telecommunications), waste disposal and collection systems (including Facility septic system), piers, floats and gangways, boat ramp, fueling facilities and equipment, guardrails, revetment and other protective structures – were evaluated for condition, compliance with safety and ADA Standards, and functionality.

Parking & Boat Storage Assessment: Conditions were reviewed against the 2022 Rye Harbor Parking Study, with attention to operational flow, accessibility and potential reconfiguration needs. Consideration was also given to parking rates, boat storage rates, ADA parking requirements, ingress/egress to the facility, and parking controls, including the possibility of automated systems.

Private Commercial Operations Assessment: The Facility's commercial tenants were reviewed through an evaluation of the services offered, lease terms, operational impacts, and compatibility with the Facility's goals. Interviews and outreach with PDA/DPH staff and business operators were conducted to collect qualitative and quantitative insights.

2.3.3 Phase 3: Vulnerability & Needs Assessment

Extrapolating on data collected during Phase 2, the team identified vulnerabilities in existing infrastructure and operations, including those posed by environmental factors such as sea level rise and storm surge. The assessment examined the adequacy of restroom facilities, septic capacity, business needs, and user experience. Opportunities for new structures or modifications to existing development and structures on site were studied to reduce potential environmental impacts. Lastly, opportunities for operational improvements and strategic investment were also outlined during this phase.

2.3.4 Phase 4: Recommendations & Capital Costs

Drawing on the Vulnerability and Needs Assessment, the team developed a set of recommendations to improve the Facility's resilience, functionality, and equity. The program addresses environmental mitigation, targeted upgrades to infrastructure and utilities, and operational and process improvements for managing commercial activities at the Facility. Rather than prescribing which services should be offered or setting fee structures, the report presents alternatives and decision considerations for future adoption by the PDA. Recommendations are accompanied by an Opinion of Probable Construction Cost (OPCC), a suggested implementation timeline, and a permitting matrix outlining applicable regulatory pathways.

2.3.5 Phase 5: Presentation & Implementation Planning

The consultant team supported the PDA with public engagement, including a final public presentation of the study's findings, and provided assistance for early implementation planning.

This report presents the final results of the feasibility study and is intended to serve as a guiding document for the PDA and DPH in the years ahead. Its findings and recommendations aim to inform thoughtful, phased planning and strategic investment at Rye Harbor, while balancing the environmental, operational, and public use needs of this critical coastal facility.

2.4 Study Area Overview

The focus of this Study is the Rye Harbor Marine Facility (the Facility), located in the Town of Rye, New Hampshire. The study area is generally bounded by Ocean Boulevard (NH Route 1A) to the west and north, Harbor Road to the south, and Rye Harbor to the east. The Facility encompasses a diverse and active coastal setting that includes a wetland marsh, tidal mooring field, navigational channel, and multiple public access points to the water. On land, the Facility includes approximately 4.7 acres of usable area that supports

a range of marine-related functions, such as a public boat launch, vehicle and trailer parking, seasonal and year-round boat storage, and "shack" facilities leased to private commercial businesses. The following figure depicts the limit of the study area.

FIGURE 2-1

Study Area

2.5 Facility Users

Rye Harbor serves a variety of users on a daily basis throughout the year. The facility's busiest time of year is between mid-April and October. For purposes of this assessment, the facility's uses are classified into three categories:

- water dependent use,
- water related use
- water enhanced use

These uses are an important factor in the economic viability of the ports and harbors in New Hampshire and are often prioritized in legislation pertaining to them. Additionally, these uses are accounted for in planning and development of the Harbor at the federal, state and local levels.

2.5.1 Water Dependent Use

Water dependent uses are activities that require direct access to the water to function. Without water access, these activities could not occur. In the context of the ports and harbors in New Hampshire these examples include:

- **Shipping and Cargo Handling**: The loading and unloading of goods from vessels.
- **Fishing**: Commercial and recreational fishing activities.
- **Marine Transportation**: Ferries, cruise ships, excursion boats and other vessels that transport passengers or goods.
- **Public Safety**: Services such as fire/rescue and law enforcement that are responsible for protecting the public and the environment.
- **Moorings**: Device used to secure a watercraft to the bottom of the tidal waters on a permanent or seasonal basis. These are located in specifically determined areas of the water sheet and are accessible by skiff or other means.

The Rye Harbor facility includes the following water dependent uses:

Commercial Fishing

In 2024, there were approximately 20 commercial fishing boats moored in Rye Harbor, most of which were utilized on a regular basis, either daily or multiple times a week. The large majority of these are lobster boats, with 2-3 groundfish boats (trawlers or gill netters), that are served by the commercial pier and fueling operation.

According to data published by the Atlantic Coastal Cooperative Statistics Program (ACCSP), there were 32 Fishers that utilized Rye Harbor in 2024, landing nearly 200,000 pounds of lobster and 480,000 pounds of other species, with a total value of nearly $1.8 million. Between 2019 and 2024, a total of over 2 million pounds of catch (all species) were landed at Rye Harbor with a total value of nearly $10 million. Lobster accounted for 72.2 percent of poundage and 83.5 percent of value. Other major commercial species included Bluefin Tuna and Atlantic Haddock, along with minor amounts of Goosefish, Pollack and Acadian Redfish. Many of the lobster boats also target Bluefin Tuna during that species' season. Reported landings of these lesser-known species has increased in recent years. This data includes commercial fishing operations that are not based at Rye Harbor but utilize this facility to land their catch.

Most commercial fishers are small businesses that operate on a part-time basis and often employ one or more other individuals. The exact number of jobs associated with the commercial fishing operations at Rye Harbor are difficult to quantify given that activity varies during the fishing seasons and these businesses operate on part-time basis. Based on available data gathered during this assessment, it is estimated that the commercial fishing operations result in 20 to 40 FTE (full-time equivalent) jobs. These users require access to the wharf, fuel and parking for their employees. Most commercial fishers keep their boats on a mooring in the harbor, except for a few small operations that may trailer their boats.

Charter Operators

- Large Boat: Excursion (whale watch, sightseeing)
- Small Group: "6-Pack Charter"
- Transportation to/from Isles of Shoals

There are approximately 10 operators based at Rye Harbor that take passengers either fishing or sightseeing for a fee and have obtained a Pier Use Permit from DPH. Typically known as "6-Pack Charters" due to the limit imposed by Coast Guard licensing, these

boats often travel offshore to fish for cod, haddock and other deep-water species, pursue striped bass along the coastline, look for whales or take groups of people on tours of Portsmouth, the Isles of Shoals or Great Bay. Some even pursue bluefin tuna during the season. No hard data was found to estimate the number of trips or the number of passengers these charter operators take in a season, as some operate frequently while others do so on a more sporadic basis. Customer groups reportedly often arrive in 1 to 3 cars, paying the $10 daily fee for parking.

Charter captains typically charge on a flat rate basis, which varies due to season, time (half or full day), species sought and overall demand. Captains often work alone, although some of the larger boats may bring a mate along to assist customers.

There is some overlap with the commercial fishing fleet since some charter captains also fish for lobster or other species on a commercial basis. Three of the charter operators maintain a "shack" at the harbor by way of a Right of Entry (ROE) agreement with the state of New Hampshire. Several captains maintain a mooring, while others launch their boats by trailering them in from elsewhere or by keeping them stored on the Facility property.

Granite State Whale Watch (GSWW) operates two boats out of the harbor. GSWW operates the 95-foot M/V Granite State which is licensed for up to 123 passengers with a crew of 3-4 and is used primarily for whale watches. GSWW also operates the M/V Uncle Oscar which is licensed for up to 49 passengers and is used for Isles of Shoals sightseeing tours and water taxi services. These boats operate one or two trips per day from early June to September. According to their published schedules, the M/V Granite State had 224 trips planned in 2025 and M/V Uncle Oscar had 158. These scheduled trips could accommodate nearly 35,000 customers during the operating season but trips are cancelled due to weather and are not always operated at full-rate capacity. Thus, it is estimated that GSWW brings over 15,000 people to Rye Harbor over the course of a typical season. This operation employs approximately 10 people during the season

Fees are charged on a per passenger basis ranging from $39 to $52 for whale watches and $30 to $45 for tours. According to the owner, approximately half of the passengers come from outside of New Hampshire including many from outside of New England. Customers generally park at the facility, typically arriving with 3-4 people per vehicle. Each vehicle currently pays a $10 daily parking rate in addition to the per passenger fee that is charged to each customer.

Recreational Boaters: These include boat owners who either keep their boat at the harbor or trailer it in and out for recreational use. Most of the recreational boaters use power boats, many of which focus on fishing, while a few use sailboats. Boaters who keep their boats at the harbor, or trailer their boats on a regular basis, pay an annual fee that covers parking and launching, while others pay a daily use fee. Use of the harbor by this group is highly variable, concentrated on weekends, holidays and during good weather. Recreational fishers typically pursue cod and haddock offshore (up to 26 miles to Jeffrey's Ledges) or striped bass near shore.

Emergency Services: The Rye Fire Department maintains a jet ski at the harbor for rapid response to marine emergencies. The harbor is also utilized by other public safety agencies including the NH Marine Patrol, NH State Police, Coast Guard and the NH Department of Environmental Services. These agencies will launch boats for patrol or emergency response. Rye Harbor is considered the nearest port of landing to area hospitals and is the first response destination for emergencies that occur at the Isles of Shoals.

Moorings: Although administered separately from daily Harbor operations, moorings are integral to the activities supported at Rye Harbor and contribute directly to revenue generation through associated Pier Use Permits, Skiff Permits, and parking fees. As of 2024, there were 141 permitted moorings located in Rye Harbor, including 62 (44%) designated as Commercial, 78 (55%) as General Use and 1 not classified. Of the General Use moorings, 36 are classified as Near Shore, with use limited by tidal conditions.

All moorings are assigned to specific vessels, with Commercial mooring holders typically operating boats averaging 31.1 feet in length (ranging from 10 to 64 feet). Deep water General Use moorings support boats averaging 22.4 feet (ranging from 11 to 38 feet). While General Use moorings are non-transferable, Commercial moorings may be sold or reassigned – a practice with very low turnover and reported market values in the $50,000 range.

As of 2024, there were 103 individuals on the waiting list for a deep water mooring at Rye Harbor, with applications dating back to 1993. An additional 32 individuals were waitlisted for Near Shore moorings. This longstanding demand highlights the critical importance of harbor access and the high value placed on limited mooring availability – both in Rye and across the New Hampshire coastline.

FIGURE 2-2

Example: Water Dependent Use

2.5.2 Water Related Use

Water related uses are activities that do not necessarily require direct access to water but benefit from proximity to water bodies. While these activities can exist without direct water access, their success is often linked to their location near the water. These uses operate in areas near ports and harbors, such as:

- **Marine Support Services**: Firms or individuals that supply or service water dependent uses such as fuel sales, repair shops, bait sellers, marine and fishing equipment sales and buyers of seafood products from the fisheries.
- **Marine Research and Education**: Institutions that study marine environments or provide educational programs related to water.
- **Waterfront Development**: Residential and commercial developments that enhance the aesthetic and functional value of waterfronts.

The Rye Harbor facility includes the following water related uses:

Marine Services

Several independent service providers operate at Rye Harbor in support of commercial and recreational users. Some of these businesses maintain active Right of Entry (ROE) agreements with the Division of Ports and Harbors (DPH), while others operate on a more transient or project-specific basis. Services include boat hauling operations that launch and retrieve larger vessels, bulk fuel delivery to commercial fishing boats, marine cleaning and detailing, and general boat maintenance and repair. In addition, one firm currently holds an ROE agreement to use a designated portion of the site for the storage and movement of large stone materials used in revetment wall construction and shoreline stabilization efforts around the harbor.

Seafood Buyers

A small number of wholesale seafood buyers operate at Rye Harbor, purchasing catch directly from the commercial fishing fleet. These entities also supply provisions such as ice and packaging materials and typically operate on an on-call basis – meeting vessels upon their return to port. Product is then distributed to a variety of outlets, including retail stores, restaurants, pop-up sales locations, or sold to other wholesale distributors, depending on market demand and seasonal conditions.

Equipment/Bait Sales

While many commercial fishing operators supply their own bait, some rely on third-party vendors who deliver bait directly to the harbor. In addition, several charter operators sell recreational bait and basic fishing gear from their assigned "shacks" under Right of Entry agreements, offering added convenience for visiting anglers and seasonal users.

FIGURE 2-3

Example: Water Related Use

2.5.3 Water Enhanced Use

Water enhanced uses are activities that are improved or made more viable by the presence of water, but they do not depend on it. These uses can include:

- **Tourism and Recreation**: Hotels, restaurants, and recreational facilities that attract visitors to waterfront areas.
- **Real Estate Development**: Properties that gain value due to scenic water views or waterfront access.
- **Cultural Events**: Festivals, concerts, and other events that utilize the waterfront for ambiance and attraction.
- **Public Spaces**: Parks and recreational areas that enhance community engagement and quality of life by being near water.

The Rye Harbor facility includes the following water enhanced uses:

Food Service Providers

There are two food service outlets currently operating at the harbor. Rye Harborside is a small, limited-service take-out booth which operates on a limited schedule, opening for breakfast and lunch only. The Rye Harbor Lobster Pound is business that has operated at the harbor for several years, offering take-out items such as lobster (live or cooked),

lobster rolls, steamers, soups and chowders, and other seafood items. Rye Harbor Lobster Pound (RHLP) operates 5 or 6 days per week, generally serving during lunch and dinner hours. During busy summer afternoons and evenings, the Rye Harbor Lobster Pound attracts dozens of customers, most of whom utilize the free 30-minute parking spaces. During especially busy times, patrons often must wait 30 minutes or more to place and/or receive their take-out orders, creating an issue with the availability of free parking and the unwillingness to pay the fixed $10 rate for long-term parking.

Tourism/Sightseeing

According to DPH staff, a number of visitors enter the harbor area simply to explore, observe the activity, or inquire about nearby attractions. While Rye Harbor State Park is located just north of the facility, many tourists are drawn into the harbor by the visible presence of boats, commercial activity, and the appeal of a working waterfront. Current parking policies allow for up to 30 minutes of free parking; however, visitor amenities are limited. Aside from observing the harbor or purchasing food from one of the on-site concessions, there are few designated opportunities or resources available to engage casual visitors. Visitors also have visual access to the harbor from the adjacent Rye Harbor State Park, which charges a $3 per hour parking fee in season.

FIGURE 2-4

Example: Water Enhanced Use

2.5.4 Permits & Agreements

All active users of the Rye Harbor Marine Facility are subject to the rules and regulations set forth in state statute, which require specific permits and agreements for various types of use. These include mooring permits, Pier Use Permits, parking and storage permits, Right of Entry (ROE) agreements, and food concession licenses. Collectively, these instruments help regulate access, manage operations, and generate revenue to support ongoing facility maintenance and administration. All permits and associated fees are overseen and administered by the Division of Ports and Harbors (DPH).

Right of Entry (ROE) Agreements

The Right of Entry agreements (ROEs) authorize the use of a defined area of state-owned property for a specific purpose, subject to terms outlined by the DPH. Each of the ten "shacks" operates under an annually issued ROE agreement that specifies allowable uses, spatial boundaries, and related conditions such as parking limitations.

Currently, eight businesses operate under these ROEs, with two businesses each occupying two adjacent shacks. Additional ROEs are issued to other users, including a boat service provider that performs haul and launch operations for larger vessels and a construction firm utilizing a portion of the lot to store and move rock materials used for revetment work in the harbor.

An additional 10 ROE agreements are held by charter fishing operators who do not occupy shacks but require access to the facility and parking accommodations for their clients. These users pay standard parking rates and are subject to general facility regulations.

Pier Use Permits

All vessels utilizing the commercial or recreational piers are required to obtain a valid Pier Use Permit, issued on either an annual or short-term basis. Permit fees are calculated based on vessel length and the number of associated employee parking permits. Transient vessels accessing only the fueling facilities are not required to obtain a Pier Use Permit.

Skiff Permits:

Skiff Permits allow mooring holders to moor small vessels at the commercial dock for access to moored boats. These permits are commonly held by both commercial and recreational mooring users.

Parking & Storage Permits:

All vehicles using the harbor must obtain either a daily or annual parking permit. Boat trailers and vessels stored on site also require storage permits. Daily permits are typically issued by on-site attendants or the facility manager. The current lot configuration provides areas designated for short-term, long-term, and trailer parking. Fees for boat trailers include use of the launch ramp. A 30-minute free parking allowance is currently offered for brief visits or food concession customers.

Concession Fees:

Food concessionaires (any entity offering ready-to-eat, restaurant style food items) operating at the Rye Harbor Marine Facility under a Right of Entry agreement, have in the

recent past, been required to pay a monthly concession fee equal to ten percent (10%) of gross revenues, excluding sales tax and gratuities. This fee structure applies to businesses offering ready to eat, restaurant style food items to the public and is intended to compensate the State for the use of public land and facilities. Fees are calculated monthly and submitted to the Division of Ports and Harbors (DPH) each month during the operational term. Minimum monthly fees may apply, and partial-month adjustments or waivers are considered under limited circumstances at the discretion of DPH. This arrangement is consistent with standard practices across other state-managed waterfront properties.

Mooring Permits:

Approximately 141 moorings are located within Rye Harbor, including 62 commercial and 78 general-use (recreational) moorings, plus 1 not-classified. All moorings require annual permits from DPH. Most commercial ROE holders also maintain one or more moorings for their vessels, as do a number of recreational users. Mooring availability is limited, and demand remains high.

Seasonality:

Use of Rye Harbor varies considerably over the course of the year, with peak activity concentrated in the summer months. Recreational fishing shows the highest levels of use during June through August, while charter operators and tour boats extend their activity across a slightly longer season, from spring through early fall. The following figures illustrate these seasonal patterns.

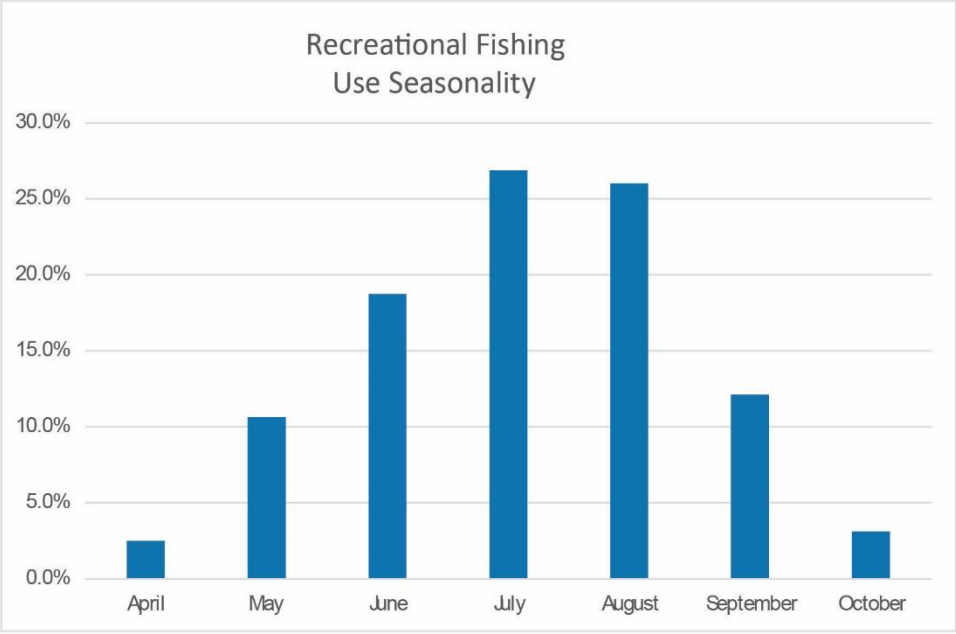


FIGURE 2-5

Recreational Fishing Use Seasonality

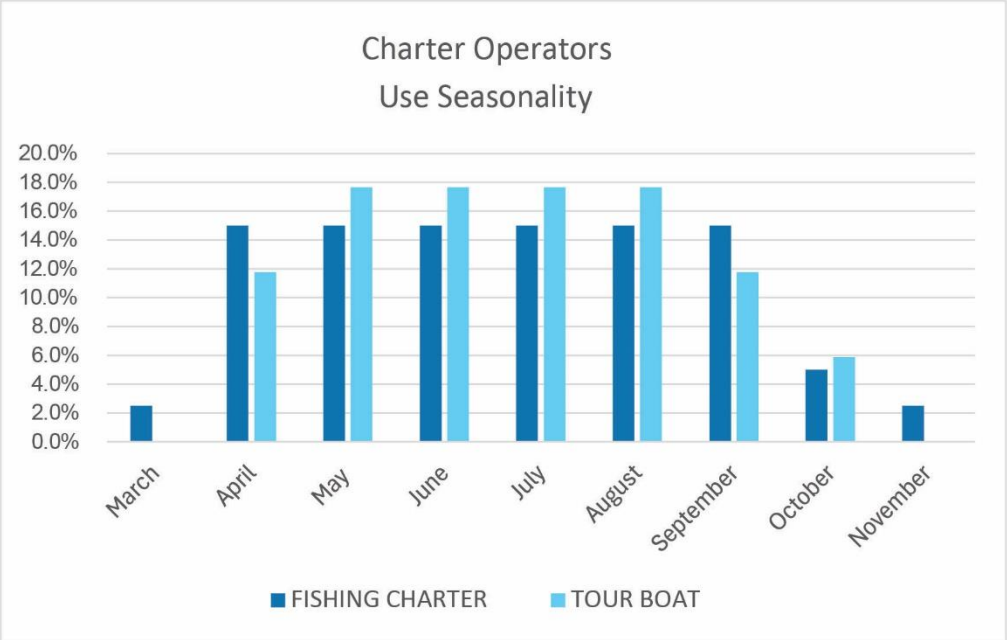


FIGURE 2-6

Charter Operators Use Seasonality

2.5.5 Facility Use Summary

While examples of all these uses can be found along the coastline of New Hampshire and major tributaries, Rye Harbor can be classified as a "working waterfront" that primarily serves water dependent uses including commercial and recreational fishing and marine transportation services. The major users of the harbor include several lobster and ground fishing businesses, a tourist-oriented transportation business that runs services to the Isles of Shoals and provides whale watch tours, several small (fewer than 6 passengers) charter fishing operations that target a variety of species, and a large mix of recreational boaters, both sail and power. These water dependent uses support a variety of other business activities on and off the water both directly and indirectly such as boat repair, bait sellers, fishing equipment suppliers and seafood wholesalers that purchase directly from the sources. Rye Harbor also has two active and one inactive food service outlets that cater to both customers and employees of the water dependent users and to the general public.

The harbor also serves as an "tourist attraction" to a certain extent. With public access limited along the NH coast to a few public beaches and three state parks, many visitors pull into the harbor just to see what's there or to ask for directions. Looking at the boats and the water is part of the "experience" of visiting the New Hampshire coast. Clientele of the tour and charter boats also experience the marine environment in a unique and educational way.

Based on observations made over several weeks and on different days and times, Rye Harbor appears to accommodate the various user groups. The commercial fishing users typically utilize the harbor early in the mornings and then return early to mid-afternoon

during the week. Recreational boaters are primarily weekend users, arriving early and returning later in the day. Charter boat activity is more varied throughout the day, with increased usage on weekends. The whale watch and sightseeing boats run two trips per day during the peak summer season and once daily during the shoulder season. The food service outlets have peak use during breakfast and lunch and in the early evening.

Section 3 Methodology

3.1 Field Data Collection

Field data collection was a foundational component of this study and was conducted by the project team beginning in February 2025. Field data collection was performed to document baseline physical, environmental, and operational conditions at the Rye Harbor Marine Facility, in accordance with the scope of work outlined in the PDA's RFP.

3.1.1 Environmental Conditions Assessment

The environmental data collection process included both desktop research and field-based investigation. Key tasks included:

- **Tidal and Sea Level Documentation**: Observations of current sea levels and the mean high tide line were collected using GPS-enabled devices and reference tide data from NOAA.
- **Wetland Delineation**: On-site wetland delineation was conducted in accordance with U.S. Army Corps of Engineers and NHDES guidelines. Delineated areas were mapped using GPS and compared against existing regulatory datasets.
- **Environmental Records Search**: An environmental database search was performed to identify known aboveground storage tanks (ASTs) and underground storage tanks (USTs), remediation sites, or regulatory records associated with the site or adjacent areas. The NHDES OneStop Data Viewer was also used to identify mapped resources or areas of environmental concern.
- **Site Inspections**: Field teams documented observable environmental features, drainage patterns, and potential areas of concern related to coastal resilience and site management. Observations were supplemented by interviews with DPH staff and the Harbormaster.

3.1.2 Facility Infrastructure and Operations Assessment

The team conducted visual inspections and site walks to assess the layout and condition of major infrastructure, including:

- Facility owned and privately owned buildings and structures
- Piers, floats, gangways, ramps, guardrails, equipment, boat ramp and seawalls
- Utilities (water, electric, telecommunications, stormwater, septic)
- Fueling systems and storage facilities
- Parking, entry drives, and boat storage areas

Visual documentation, including photographs and field notes, were compiled and organized by location and facility type. Summary field logs and representative photos are included in Appendix A.

3.2 Analytical Tools & Limitations

A range of planning-level analytical tools and resources were used to support data evaluation throughout this study. These tools were selected based on their applicability to assessing environmental risks, infrastructure needs, and operational dynamics at coastal harbor facilities.

Sea Level Rise & Storm Exposure Scenarios

The team utilized publicly available sea level rise (SLR) projection data from the National Oceanic and Atmospheric Administration (NOAA) and the New Hampshire State Hazard Mitigation Plan. These projections were used to evaluate potential future exposure to flooding and coastal storm impacts. Exposure zones were overlaid on site mapping using GIS software to identify infrastructure potentially at risk under various SLR scenarios.

Mapping & Spatial Analysis

GIS mapping was used throughout the project to organize and analyze spatial data. GPS-collected points from field investigations were integrated with existing topographic mapping, property boundaries, regulatory datasets (e.g., wetlands, flood zones), and historical site information provided by PDA. These tools supported visual analysis of site layout, access, and environmental context.

Parking Demand and Circulation Modeling

Parking demand and circulation needs were evaluated using planning-level tools and assumptions based on seasonal use patterns. These tools incorporated input from previous studies (including the 2022 Rye Harbor Parking Study), observed usage data, and feedback gathered through public engagement.

Financial Assessment Tools

DRG Advisory Services applied standard financial analysis methods to evaluate facility-related revenue streams, lease structures, and market benchmarks. This included a review of rates, operating costs, and lease/permitting agreements. These tools informed planning-level opinions of cost and potential revenue enhancement strategies.

Limitations

The study relied on a combination of publicly available data, existing plans, and qualitative feedback from stakeholders. As such, the following limitations should be noted:

- No new full-topographic or bathymetric surveys were commissioned for this study; existing mapping was used where available.
- Sea level rise and storm exposure scenarios are not site-specific engineering models but rather planning-level projections based on accepted regional forecasts.
- Parking demand modeling reflects observational and seasonal data, which may not capture atypical or one-time peak conditions.
- Financial analysis was limited to the scope of available data and interviews and does not represent a full forensic accounting of Harbor operations.
- Stakeholder input, while extensive, may reflect individual experiences or perspectives that are not universally held.

These limitations are typical for a feasibility-level assessment and were accounted for in the development of recommendations and planning-level cost estimates.

3.3 Other Data Collection

In addition to field assessments and available resources, the project team reviewed a wide range of existing materials and stakeholder-provided information to support this study. These supplemental data sources helped establish context, inform baseline conditions, and support planning-level evaluations across the Facility's environmental, operational, and administrative systems. Key sources of data included:

- **Previous Planning Studies**: The 2022 Rye Harbor Parking Study and the 2023 Rye Harbor Facility Overview Report (prepared by PDA/DPH staff) were reviewed in detail. These documents provided relevant background on facility layout, usage trends, infrastructure challenges, and recent operational adjustments.
- **Administrative Records**: PDA and DPH provided lease agreements, utility service data, parking use figures, Right of Entry (ROE) agreements, Pier Use Permit data, and financial summaries that were used to evaluate current management practices and revenue structures.
- **Regulatory & Environmental Datasets**: Information from the NHDES OneStop database, FEMA flood mapping, USGS mapping, and publicly available GIS data were reviewed to evaluate jurisdictional constraints and environmental context. Additional environmental records were accessed through commercial environmental database services.
- **Municipal File Review**: Tighe & Bond contacted the Rye Town Clerk's Office and the Building Department to obtain records relevant to this assessment.
- **User-Provided Information**: Input gathered through interviews, surveys, and written comments from stakeholders was used to document facility usage, identify operational needs, and supplement observational data. PDA staff, Harbormaster personnel, ROE holders, and permittees contributed historical context and user-specific insights.
- **Aerial Imagery and Base Mapping**: High-resolution aerial images, LiDAR-derived elevation data, and publicly available base mapping were used to verify site features, support infrastructure mapping, and contextualize spatial relationships within the facility.

These sources were reviewed and synthesized in conjunction with field observations and analytical outputs to support a comprehensive understanding of the Facility's existing conditions and future needs.

3.4 Summary of Methodology

Together, the data collected through fieldwork, mapping, stakeholder engagement, and document review provided a comprehensive foundation for evaluating existing conditions at the Rye Harbor Marine Facility. These complementary sources allowed the project team to assess infrastructure conditions, environmental vulnerability, user needs, and operational practices in a holistic manner. While planning-level in nature, the methods employed were tailored to the scale and goals of this feasibility study and are intended to inform realistic and implementable recommendations for future decision-making.

Section 4 Public Engagement

4.1 Introduction

As part of the assessment for the Rye Harbor facility, Tighe & Bond conducted a robust public engagement process to ensure a thorough understanding of current facility uses and future needs directly from the users themselves. Engaging stakeholders and community members provided invaluable insights into their experiences, priorities, and concerns, allowing us to identify gaps, opportunities, and improvements which are aligned with actual user demands. By incorporating public input, we aimed to enhance transparency, foster community buy-in and develop informed recommendations that reflect both the practical requirements and long-term aspirations of those who regularly depend on and benefit from Rye Harbor.

4.2 Public Engagement Methodology

The public engagement methodology for this assessment was designed to be thorough, inclusive, and reflective of diverse stakeholder perspectives. The process included two information-gathering meetings to introduce the project's scope and goals, allowing attendees to voice their initial concerns, experiences, and suggestions related to harbor usage. These meetings were complemented by two guided site walks at the facility, providing participants with a direct opportunity to physically identify and discuss site-specific challenges and opportunities in real-time. Additionally, two Pease Development Authority (PDA) board meetings were integrated into the process, to promote transparency, accountability, and alignment with overarching management objectives.

To further expand community involvement, an information-sharing meeting was conducted to communicate preliminary findings, solicit additional feedback, and validate initial insights gathered through the earlier 'information gathering' phase of engagement. Moreover, a questionnaire was made available at the facility to capture input from a broader segment of the community, ensuring that users unable to attend in-person sessions could still provide their perspectives. Lastly, targeted in-person interviews with Right-of-Entry and Pier Use Permit holders, as well as Public Officials, were conducted to gain focused insights into operational requirements, experiences, and specific facility-related needs. Collectively, these varied engagement methods ensured robust public participation and allowed the project team to comprehensively understand and respond to the needs and expectations of harbor users and stakeholders.

4.3 Stakeholder Identification

A comprehensive approach was employed during the public engagement phase of this study to ensure representation from all relevant stakeholder groups associated with the Rye Harbor facility. The identified stakeholders encompassed a diverse range of interests and perspectives to capture the complete spectrum of harbor uses, needs, and concerns. Key stakeholder groups engaged throughout this process included:

- **Recreational Users**: Individuals and groups utilizing the facility for boating, recreational fishing, kayaking, paddleboarding, and other leisure activities.

- **Commercial Users**: Businesses and operators conducting commercial fishing and shellfishing, charter services, tourism-related enterprises, and other harbor-dependent commercial activities.
- **Public Officials**: Local elected and appointed officials representing municipal governance bodies and other relevant governmental authorities.
- **Emergency Services**: Representatives from local and regional emergency response teams, including marine rescue, fire departments, police departments, and Coast Guard units, who rely on the harbor for safety, enforcement, and emergency operations.
- **Right of Entry and Pier Use Permit Holders**: Specific stakeholders who maintain formal agreements or permits for regular or specialized use of harbor facilities and infrastructure.
- **Local Residents**: Members of the immediate community who have a direct interest in the harbor's operations, amenities, environmental health, and potential impacts on local quality of life.
- **Regional Residents of New Hampshire:** Individuals and groups residing within the broader region who rely on or benefit from the harbor facility for commercial, recreational, or environmental reasons.
- **Environmental and Conservation Groups**: Organizations and individuals focused on environmental stewardship, sustainability, habitat protection, and water quality concerns related to harbor operations and development.

Engaging these various stakeholder groups provided critical insights, facilitating a balanced and informed understanding of the harbor's existing conditions and future possibilities, ensuring the study's recommendations align with community and user expectations.

4.4 Engagement & Outreach Activities Conducted

A structured independent public engagement process was conducted, comprising various activities designed to collect comprehensive input from stakeholders. These activities included:

4.4.1 Meetings:

PDA Board Meeting #1:

Held on April 15, 2025, at the PDA Board Room in Portsmouth, NH, this meeting introduced the study's objectives and engagement strategy. Attendance included PDA board members, public officials, and community representatives.

Materials Presented:

- Digital versions of large format boards containing information on existing site conditions and identified site challenges (see Appendix F). This meeting was recorded and is available for viewing on PDA website.

Listening & Gathering Meeting #1:

Conducted on April 17, 2025, in the PDA Classroom, Portsmouth, NH, this session involved open discussion, providing stakeholders with the opportunity to voice initial concerns, ideas, and priorities. There were approximately 60 participants in attendance.

Materials Presented:

- Large format boards containing information on existing site conditions and identified site challenges as well as prompted questions to gather feedback on specific questions such as harbor use, access and user residency. Sticky notes and colored dots were provided to gather comments and identify successful and problem areas on the physical boards. (See Appendix F).
- This meeting was not recorded, however we received feedback that it would be desired for future meetings to be recorded and this feedback was incorporated into subsequent meetings at the PDA facility.

Site Walk at Rye Harbor #1:

Held on April 22, 2025, at Rye Harbor in Rye, NH, participants conducted an on-site assessment to identify operational challenges and opportunities firsthand. (See Appendix F for photos from site walk). There were approximately 25 participants in attendance.

Listening & Gathering Meeting #2:

On April 23, 2025, stakeholders reconvened at the PDA Board Room in Portsmouth, NH, to gather additional input. The format of this meeting was modified to be more of a 'Town Hall' style meeting. There were approximately 30 participants in attendance.

Materials Presented:

- Digitally displayed versions of existing conditions and site challenges maps.
- Large notepad easel to transcribe all feedback received, in public view.
- This meeting was voice recorded and the audio recording is available on PDA website.

Site Walk at Rye Harbor #2:

Conducted on May 8, 2025, at Rye Harbor, this follow-up site walk allowed further exploration of facility-specific issues raised during previous engagements. (See Appendix F for photos from site walk). There were approximately 40 participants in attendance.

PDA Board Meeting #2:

On May 20, 2025, at the PDA Board Room in Portsmouth, NH, Tighe & Bond presented a status update, discussed attendance at prior engagement activities, and provided direction on next steps.

Materials Presented:

- No graphic materials were presented at this meeting. This meeting was recorded and is available for viewing on PDA website.

Information Sharing Meeting:

This final session on June 26, 2025 at the PDA Board Room in Portsmouth, NH, summarized the input received throughout the engagement process, gathered new input and highlighted stakeholder consensus and areas needing further attention. This meeting provided clarity and transparency regarding how stakeholder feedback informed study outcomes and recommendations. There were approximately 25 participants in attendance.

Materials Presented:

- Digitally displayed slide show summarizing input received throughout the engagement process.
- Large notepad easel to transcribe all additional feedback received, in public view.
- This meeting was recorded and the audio/video recording is available on PDA website.

4.4.2 Additional Outreach

Input Request Email

On May 16, 2025, an input request email was sent to Rye Harbor users by DRG Advisory Services. The email was sent to individuals whose contact information was either provided by the PDA from the list of Right of Entry (ROE) agreements or from sign-in sheets from the two PDA held information gathering meetings. The email requested detailed input from Rye Harbor users regarding their usage patterns, client interactions, and specific operational concerns or issues they have experienced at the harbor. Additionally, it requested user suggestions on potential improvements to harbor operations, emphasizing the importance of obtaining feedback reflective of each distinct user group (commercial, recreational, etc.).

Interviews

DRG Advisory Services conducted interviews with Right of Entry holders occupying the shacks at the harbor, as well as with other users and staff. The interviews focused on documenting current harbor activities, identifying user needs, and gathering input on potential improvements to facility operations and infrastructure.

Questionnaire

DRG Advisory Services prepared a two-page questionnaire that was distributed by staff to charter operators, commercial fishermen, and recreational boaters at the harbor. A limited number of responses were received, including two from charter operators and eight from recreational users; no responses were submitted by commercial fishing operators. The feedback received generally aligned with themes raised during listening sessions and interviews, including the need for improved parking and launch ramp access, as well as upgraded restroom facilities. Recreational user responses indicated regular seasonal use, with most respondents reporting boat outings several times per month, lasting four to twelve hours per trip. Nearly all respondents brought family or friends during the season, resulting in additional parking needs, and more than half indicated that they keep their boats at the harbor.

4.5 Key Findings from Public Engagement

The public engagement process included over 200 comments, received both in person during the meetings listed above as well as by email. All comments and feedback were organized into three facility areas (Commercial Pier; Recreational Pier & Boat Ramp; Parking & Entry Drive) along with other miscellaneous comments. These were then distilled into ten recurring themes per facility area. These themes consist of stakeholder priorities, concerns, and suggestions and are summarized below for each facility location:

Commercial Pier:

- **Hoists**: Current hoists are undersized and have electric controls which fail frequently. Hoists should be up sized and upgraded to a more reliable system. Consider alternate location for second hoist to allow multiple boats to offload simultaneously.
- **Pier & Dock Repairs**: There is damage to pilings due to missing rollers on pile guides and flotation is missing from some docks.
- **Fueling Systems**: Fueling systems (gas and diesel pumps) are unreliable and are frequently non-operational. Consider raising fuel tanks for future resiliency as current tanks are below grade.
- **Utilities**: Insufficient and limited access to fresh water and power for daily needs (washing, charging batteries, powering tools for minor repairs, etc).
- **Commercial Pier Safety**: Commercial pier lacks important safety features such as railing at edge and catwalks between ladders
- **Commercial Access & Priority**: Concerns that non-commercial users are taking over key areas such as shack ROEs, parking, and access to commercial zones. Desire to prioritize commercial fisherman and their specific needs.
- **ROEs & Contract Terms**: Desire for longer term ROEs as the 1-year term creates a barrier to long-term investment and stability. Ensure fair and consistent ROE/fee structure so that small, local businesses are not priced out.
- **Communication & Maintenance Response**: current protocol for reporting broken/malfunctioning equipment is slow and inefficient. Many users would like to see backup equipment available for immediate use and on-call contracts for emergency maintenance.
- **Parking & Storage**: Not enough dedicated parking for commercial fisherman, especially in the summer. Commercial mooring holders also expressed desire for priority winter boat storage as storage space is limited.
- **Commercial Operations Support**: Desire for operational waste oil management system (current waste oil shed has been non-operational for many years), and desire for ice machine at the facility.

Recreational Pier & Boat Ramp:

- **Restroom Facility**: Strong desire for restroom facilities to be upgraded to be ADA accessible with both hot and cold water. Ensure future resiliency is considered as location of current structure is susceptible to storm damage. Look at nearby Jenness Beach and North Beach for examples of new bath house facilities.
- **Harbormaster Facility**: Desire for harbormaster facility office space to be upgraded to current day standards. Potential separate single stall restroom with

year-round use as current winter restroom is porta-potty with no running water. Consider future resiliency as the location of the current structure is susceptible to storm damage.

- **Septic System**: Concerns about the challenges associated with permitting and installing a new septic system. Consider tying into Town sewer instead.
- **Fueling Systems**: Fueling systems (gas and diesel pumps) are unreliable and are frequently non-operational. Additionally, consider raising fuel tanks for future resiliency as current tanks are below grade.
- **Dinghy Dock**: Current dinghy dock is at/over capacity. It was noted that priority should be given to mooring holders as this is the only way they can access their moored vessels.
- **Utilities**: Insufficient and limited access to fresh water and power for daily needs (washing, charging batteries, powering tools for minor repairs, etc). Current water service is severely undersized and when a boat is being washed and toilet flushes, water pressure is lost almost entirely.
- **Boat Ramp**: Ensure boat ramp is maintained/improved to continue to support recreational and commercial access as well as provide harbor/ocean access for emergency rescue equipment and Coast Guard.
- **Harbor Character & Future Development**: Strong desire to preserve Rye Harbor's current character while still making improvements to infrastructure. Maintain "quaintness" and avoid over-development. No "food court" style building. "Keep shacks as is."
- **Harbor Management & Fees**: Strong desire to keep Rye Harbor accessible to all users. Ensure that no user group is priced out.
- **Regional Use**: With such limited coastline in NH, Rye Harbor supports the entire state with recreational and commercial access. Ensure access remains safe and reliable.

Parking & Entry Drive:

- **Seawall & Stormwater Management**: Storm surge consistently overtops revetment seawall and wave action contributes to significant parking lot damage. Desire for seawall to be raised and for parking lot surface to be replaced with a pervious material.
- **Parking Lot Issues**: Parking lot floods frequently, has large potholes and has very poor drainage. Puddles remain for weeks after storms.
- **Facility Access & Entry Confusion**: The single entry/exit off Rt-1A creates safety and traffic flow issue. Consider shifting entry drive to the north and pedestrianizing the area adjacent to the shacks to reduce pedestrian/vehicular conflicts.
- **Winter Boat Storage**: Desire for more winter boat storage. Many noted a "missed revenue opportunity". Priority should be given to mooring holders. Additionally, consider alternate location for recreational boat storage that is currently occurring along Rt-1A edge of parking lot. Many boats haven't moved in years, is there a better/higher use for this real estate?
- **Environmental Concerns**: Ensure boat maintenance activity taking place in the parking area is permitted and that proper protocols are being followed.

- **Emergency Access & Fire Lane at Entry Drive**: Prevent users from occupying Fire Lane to maintain emergency access to the facility. The Rye Fire Department expressed the importance maintaining a clear fire lane to allow access to the boat ramp for emergencies such as the boat fire that occurred last summer.. Maintain parking and access for emergency vehicles, Ocean Rescue teams and Coast Guard.
- **Overcrowding & Tourism Impact:** COVID had a significant impact on tourism, shacks and recreational boating attracted more visitors, exacerbating parking issues. Study the threshold for when a use has outgrown the facility.
- **Parking Lot Allocation & Prioritization**: Crew members and commercial fisherman now have to park further from their work areas due to shift in parking priorities. Priority shouldn't be given to just one use.
- **Parking Fee Adjustments**: Parking fees have not been raised in 20 years. Fees could have been increased incrementally to help offset costs over the years instead of doubling this year. Suggestion to use parking meters to streamline finances and reduce labor costs.
- **Parking Enforcement**: There is a lack of parking enforcement. Additional paid police detail might be required during peak season weekends.

Other Comments:

- **Shoreline Infrastructure**: Widespread concern about storm related damage with many comments to raise/reinforce seawall and to repair/raise both breakwaters (first) before repairing/raising seawall (second) and parking lot (third).
- **Environmental & Coastal Resilience**: Strong desire to protect sensitive ecological areas including wildlife habitat and salt marsh. There does not need to be a large expansion. Current operations, location of shacks, and the maintenance of vessels may be impacting the environment. Ensure environmental and archaeological review before any improvements take place.
- **Mooring & Channel Issues**: Mooring placement after dredge operations have blocked the navigable channel (it is hardly navigable now). Requests for better enforcement of mooring regulations including ensuring that boats with oversized equipment are not impeding navigation.
- **Working Waterfront**: Maintain Rye Harbor's historic, rural and working waterfront character. Recognize the ripple effect Rye Harbor has on the economy of the State of NH (hotels, restaurants, etc). Preserve and promote younger generation's interest in lobstering and fishing. Maintain public's ability to view and observe the commercial operations at the facility.
- **Public Safety & Emergency Services**: Ensure Rye Police, Rye Fire, Coast Guard, NOAA, NH Fish & Game, and other government agencies who rely on access to Rye Harbor for emergency uses and rescue operations are able to maintain their current uses. Ensure space remains available for storage of jet ski for Ocean Rescue program. Ensure fueling operations remain available for emergency watercraft.
- **Protect & Preserve**: Keep Rye Harbor as is but improve existing components to ensure the facility is kept in good working order. "We need to protect what we have", "Best Use" of the facility doesn't mean monetizing the harbor – protect the harbor so it is the best use for all.
- **Critical Access Point**: With only about 18 miles of coastline, Rye Harbor provides a critical access point for the State of NH residents and visitors for commercial and recreational uses. Rye Harbor is one of only three publicly accessible, state owned

and operated harbors in the state of New Hampshire. It is critical to ensure that Rye Harbor maintains its current uses and public benefits..

- **Financial Transparency & Governance**: Desire for better management. Desire for financial audit beyond parking or ROE fees (Example: where does fishing license revenue go? Is it helping Rye Harbor?).
- **Character & Community Identity**: Ensure that the quaint character of Rye Harbor is preserved. Strong opposition to Rye Harbor becoming a commercialized or privatized harbor (like Wentworth by the Sea). Avoid any expansion or major changes that alter the identity of Rye Harbor.
- **State Role & Responsibility**: Rye Harbor is a State of NH facility and should receive State funds for maintenance. Much frustration has been expressed over the neglect of the facility "a gem treated at the lowest quality".

4.6 Influence on Project Feasibility

Public and stakeholder input was critical in guiding the analysis and decision-making process. Through comprehensive engagement, it became clear that stakeholders strongly preferred preserving the existing facility's character and scope, emphasizing minimal to no additional development. The overarching sentiment favored improving the current infrastructure to ensure functionality, reliability, and safety while preserving its existing condition and usage.

In direct response to this feedback, the study adjusted its recommendations to prioritize maintenance, refurbishment, and incremental enhancements focused on safety, resiliency, and operational improvements. Specific project components such as infrastructure repairs, updates to accessibility features, and enhancement of existing amenities were directly informed by public engagement outcomes.

4.7 Challenges & Limitations

The initial public meeting employed an open-house style format with physical graphic boards, sticky notes, and colored dots to gather feedback. The meeting was not recorded. Community feedback indicated that this format was not favorable, as stakeholders felt it lacked transparency and meaningful interaction. In response, the project team quickly pivoted, adopting a more community-preferred approach for subsequent meetings. Additional on-site meetings were added, and the format of subsequent meetings at the PDA shifted to a 'town hall' style format, featuring active, visible note-taking and comprehensive recording to better capture public concerns and discussions. This adjustment significantly enhanced participation and improved stakeholder satisfaction in the public engagement process.

4.8 Conclusions & Next Steps

The extensive public engagement process provided critical insights into the needs and expectations of stakeholders regarding the Rye Harbor facility. Stakeholders emphasized preserving Rye Harbor's historical character and ensuring minimal yet effective improvements to enhance safety, operational reliability, and resilience to environmental impacts. Specific needs identified include upgrading key infrastructure such as hoists, fueling systems, restroom facilities, and enhancing utilities and parking conditions.

Additionally, clear priority emerged for maintaining equitable access across commercial, recreational, and emergency services, underscoring Rye Harbor's vital role as a statewide resource.

Section 5 Existing Conditions & Operational Assessment

5.1 Natural Resources Assessment

Wetland Resources

Field delineation identified tidal and non-tidal wetlands within and adjacent to the study area (the Highest Observable Tide Line (HOTL) – the farthest landward limit of regular tidal flow – was used to establish tidal jurisdiction). See Appendix B for complete Natural Resources Assessment.

- **Tidal Wetlands (E2EM1P)**: Present along the Rye Harbor shoreline from the Harbor Road bridge through the Ocean Boulevard bridge and along the northwest side of Ocean Boulevard, and within the vegetated area at the Ocean Boulevard/Harbor Road intersection (tidal flow via culvert). Representative vegetation includes saltmeadow cordgrass with localized common reed.
- **Non-tidal palustrine emergent wetlands (PEM1R)**: Occur on the west side of Ocean Boulevard and near the Ocean Boulevard/Harbor Road intersection; vegetation includes cattail and common reed.

Tides & Water Levels

Local tidal datums indicate a mean tide range on the order of 8-9 feet with MHHW near +4.4 feet (NAVD88), consistent with nearby long-record NOAA controls. The difference between MHHW and the approximate FEMA 10-year still-water level (approximately 7.2-7.3 feet NAVD88) is under three feet, meaning that even modest storms coincident with peak tides can produce nuisance flooding of low-lying uplands and apron areas. See Appendix C for Coastal Vulnerability Assessment.

5.2 Regulatory & Land-Use Constraints

Local (Town of Rye): As a state-owned facility managed by PDA/DPH, projects at Rye Harbor are generally not subject to municipal zoning or site plan review on state property. However, Town review and permits apply where specifically required (e.g., Floodplain Development Permit, Wetlands Conservation District Overlay, work within Town rights-of-way, utility connections, traffic control). Work within the Special Flood Hazard Area requires a Floodplain Permit, and activities in the Wetlands Conservation District Overlay – including tidal and non-tidal wetlands and associated buffers – are subject to local review. The Town applies a 100-ft buffer from tidal wetlands and a 75-ft buffer from non-tidal wetlands; projects in these areas typically require Conservation Commission and ZBA review.

State (NHDES): State jurisdiction includes tidal and non-tidal wetlands, the 100-ft Tidal Buffer Zone (from HOTL), and the 250-ft Protected Shoreland. Activities in wetlands or the Tidal Buffer Zone require a Wetlands Permit; work between the 100-ft and 250-ft limits requires a Shoreland Permit. State review also includes threatened/endangered species screening (NHB/NHFG) and Alteration of Terrain permitting where disturbance exceeds 100,000 sf (50,000 sf within Protected Shoreland).

Federal (USACE/EPA/FEMA): Federal programs that may apply include Sections 401 and 404 of the Clean Water Act, and Sections 10 and 408 of the Rivers & Harbors Act. USACE's New Hampshire General Permits govern typical in-water work; projects exceeding thresholds may require an Individual Permit and Section 106 historic review via the State Historic Preservation Officer. Alterations to breakwater structures require Section 408 review. Land disturbance over one acre requires NPDES Construction General Permit coverage with a SWPPP and eNOI.

Life Safety Codes & ADA Review: For this assessment, existing conditions and needs were reviewed against the ADA Standards for Accessible Design (accessible routes, gangways, and restrooms), the State/Town-adopted building, fire, electrical, plumbing, and mechanical codes (e.g., IBC/IFC/NEC/IPC/IMC as adopted by the Authority Having Jurisdiction (AHJ)), and petroleum storage/fueling rules and best practices applicable to marine facilities. Fuel-system references include the facility's obligation to maintain an SPCC Plan (40 CFR 112) and to inspect aboveground tanks to STI SP001 where applicable. These references are used here to frame planning-level observations only; project-specific code analysis and confirmation of the currently adopted editions will occur during design and permitting in coordination with the AHJ. See the Fueling Systems Memo in Appendix D for fuel-system standards noted above.

A full description of all applicable regulatory considerations and detailed permitting overview table and resource figures are provided in Appendix B.

5.3 Existing Facility Infrastructure

On April 22, 2025, Tighe & Bond conducted site reconnaissance of the Rye Harbor Marine Facility to document existing infrastructure conditions. The field team was accompanied by the Facility Manager, Mandy Huff, and the Operations Manager, Tom Maciel, and performed a visual assessment of on-site conditions as observed on the day of the visit.

Representative photographs from the reconnaissance are included in Appendix A. The subsections below summarize existing conditions for each infrastructure asset and system; Section 6 identifies associated vulnerabilities and needs, and Section 7 outlines recommendations and implementation considerations for each.

Harbormaster Facility

The main harbor office, located west of the recreational pier, is a wood-framed building with a gable roof that operates year-round with electric heat. Electrical service is provided via overhead lines from a nearby pole-mounted transformer (fluid type not verified), and a Veeder-Root UST alarm panel is installed inside; an exterior hose bib is located on the east wall. The facility is not ADA accessible, is poorly insulated and does not serve the current needs of the Harbor.

Restrooms

Two single-stall restrooms on the south exterior of the Harbor Office are supplied by municipal water, with waste routed to an underground holding tank pumped as needed by a contractor. The restrooms are accessed by steps (not ADA-accessible) and do not have hot water.

FIGURE 5-1

Existing Restrooms

Privately Owned "Shacks"

Ten privately owned buildings, referred to as "Shacks," are located on the site and operate under Right of Entry agreements with the State. Tighe & Bond did not review shack interiors as part of this assessment as they are privately owned and operated. According to staff, the businesses are seasonal and operate primarily during summer months, however, owners can have access to the shacks throughout the year.

Each shack is served by overhead electrical utility lines, but none of the shacks have traditional heating, ventilation, or air conditioning systems. Only Rye Harbor Lobster Pound are connected to the municipal water system. Only Rye Harborside is connected to the on-site wastewater holding tank and includes sinks and a restroom. The Lobster Pound has interior and exterior sinks for food preparation and wastewater is directed to an aboveground polyethylene holding tank that was observed on its southern exterior, maintained by the business owner. See Figure 4 in Appendix E for shack locations and identification.

As noted above, Tighe & Bond did not enter the privately owned shacks, however, we conducted a review of code compliance from the exterior of the buildings. During normal operating hours, shacks are open to and serve the general public. Tighe & Bond made the following high-level observations on ADA, life safety and code compliance on the shacks.

- The shacks are not ADA compliant. There are grade issues, steps, and changes in levels that do not comply with ADA Standards.
- Fire alarms and suppressions systems should be evaluated to confirm that the systems meet current standards and codes.
- There are no wastewater collection systems that are designed and up to current codes.
- Head clearance in some of the buildings is limited and does not meet codes creating safety issues.
- The shacks reside in a flood zone and are frequently inundated with floodwaters and damaged.

Utilities

The site is serviced by municipal water from the Town of Rye, overhead electric by Eversource, and telecommunications by a local supplier. The site is not serviced by municipal sewer and all wastewater is stored on site in holding tanks before being pumped and hauled off site.

Stormwater Management System

There is no existing stormwater management at the facility. All stormwater on the site sheet-flows into low-lying areas or infiltrates on site. During storm events, large ponds form in the parking lot, causing safety concerns and increases the deterioration of the parking lot.

Waste Disposal & Collection System

The Facility relies on a holding tank for wastewater. Two single-stall restrooms located on the south side of the harbor office discharge wastewater to an underground holding tank situated just south of the building; staff report the tank is pumped as needed by a licensed hauler. Rye Harborside ties into the same underground holding tank for sinks and a single restroom. The Lobster Pound maintains a separate aboveground holding tank serving interior/exterior sinks; that tank is owned and maintained by the operator. No municipal sewer connection is present on site. Solid waste is managed via on-site dumpsters, including an 8-yard unit located at the marsh edge near the commercial pier.

Fueling Facilities

- **Fuel Storage Tanks**: Rye Harbor operates two USTs, each with 6,000-gallon capacity (one gasoline, one diesel), located in a gravel area south of the main facility. The tanks supply two pier-mounted dispensers via underground piping. Based on recent observation, the USTs are approaching the end of their useful service life. See Appendix D (Fueling System Memo).
- **Fuel Dispensers & Sheds**: Two dual-hose dispenser locations serve the recreational and commercial piers, each within an operator shed equipped with security lighting and cameras. The recreational dispenser was recently upgraded; the commercial dispenser is near end of service life. See Appendix D (Fueling System Memo).
- **Fuel Piping, Transition Sumps & Monitoring**: Fuel product is conveyed from the UST area to the pier dispensers through underground lines and transition/containment sumps; a tank management/monitoring panel is in place for system oversight. Historical information notes flooding of transition sumps

during high-water events. Additional system configuration details are provided in Appendix D (Fueling System Memo).

Waste Oil Shed

A small shed located on the west side of the access roadway about 60 feet west of the commercial pier formerly served as the Rye Harbor Waste Oil Shed. A posted notice states the shed is not currently functional and that no oil is to be left at the facility; the door was locked during the April 22, 2025 reconnaissance and the interior could not be inspected, so contents were not verified. Per facility staff, the shed has been out of service for several years; the last documented waste disposal manifest associated with the facility is dated December 10, 2018 (20 gallons used oil). A concrete pad immediately south of the shed held five empty, inverted 55-gallon polyethylene drums and one 20-lb propane cylinder; staining was observed at the base of the shed foundation and on the pad.

FIGURE 5-2

Existing Waste Oil Shed

Revetment and other protective structures

Harbor shorelines are armored with stone revetment and protected offshore by the USACE north and south breakwaters. These structures substantially reduce incident wave energy under typical conditions. Detailed performance and overtopping considerations are addressed in Section 6.

Parking Lot

The primary parking lot is located north of the paved access roadway, with boat yard/storage areas situated along the western lot perimeter. The surface is predominantly gravel, with limited vegetated patches along the western edge near the roadway guardrail. An in-ground water spigot with a connected hose is located along the southwestern portion of the access road and, per staff, is used to support boat washing and maintenance activities.

The parking lot was constructed on filled tidelands, raised to its current elevation with harbor dredge material prior to adoption of current regulations. Subsurface conditions reflect legacy fill and present geotechnical considerations related to long-term performance and structural integrity.

The overall condition of the parking lot is fair, but routine maintenance is required following storm events, including periodic regrading and spot repairs to address localized surface erosion and ponding. Parking is generally unorganized when there is not an attendant onsite.

FIGURE 5-3

Existing Parking Lot – Looking South

Entry Drive

Land access is provided by two entrances; the public entrance from State Route 1-A (Ocean Boulevard) serving most users, and a separate commercial entrance from Harbor Road that primarily serves commercial fishing operations. The main access road from Route 1-A is approximately 24 feet wide, two-way, and functions as a constrained corridor during the summer, particularly between the entrance and the main parking lot. Along the south side of the entry drive, adjacent to the shacks, the frontage is posted No Parking; along the north side of the entry drive a designated emergency access (fire) lane runs the length of the drive and must remain clear.

Under peak conditions, the narrow width and high pedestrian activity near the shacks lead to pedestrian-vehicle conflicts and limited passing/turning space for vehicles with trailers. The entry drive also serves to queue vehicles before entering the parking lot. By contrast, the Harbor Road commercial entrance and internal drive generally operate effectively for commercial users.

Boat Storage

The perimeter of the parking lot along Ocean Boulevard functions as the area for storage, repair, and maintenance of privately owned vessels. For the 2024 season there were approximately 60 boats stored during the summer and 74 stored for the winter. During the reconnaissance performed on April 22, 2025, exterior observations were consistent with a typical boat-maintenance yard, including vessels on stands and/or trailers and the presence of common materials and equipment (e.g., fuel containers, paints, cleaning supplies, tools, tarps, hoses). Due to vessel density and layout, only limited observation of the ground surfaces beneath the individual boats could be performed during the site walk, and the assessment did not include testing for potential releases. It should be noted that some of the current boat storage along Rt-1A is within the State ROW.

Commercial Pier & Operations Equipment

The commercial pier functions as the primary off-loading and working platform for commercial vessels. Based on the April 22, 2025 site reconnaissance, the commercial pier is equipped with two electric hoists along the waterside edge for handling catch and gear; utility service (electric and water) is present on/near the pier. A forklift is used for landside material handling, and ladder access is provided at intervals along the waterside edge of the pier. User input and field observations indicate hoists are near the end of their usable life expectancy, are undersized. In addition, the electric controls frequently fail, putting the entire hoist out of commission. The actual concrete pier itself and the support piles are relatively new (as of 2008) and appear visually to be in good condition.

The commercial pier has open deck edges without continuous guardrails along its perimeter. Ladders (with no catwalk access/protection between) provide water access at intervals, and hoisting/gear handling occurs immediately adjacent to these unguarded edges. During public engagement, users specifically identified the lack of edge protection and lack of catwalk access between ladders as a major safety concern and asked for railings and protected catwalk access between ladders.

This assessment did not include verification of hoist capacity, certification dates, or a structural inspection. Representative photos of the commercial pier are provided in Appendix A and fuel-system context is summarized separately above under **Fueling Facilities**.

FIGURE 5-4

Existing Commercial Pier & Operations Equipment

Recreational Pier

The recreational pier provides public access to the floating docks and serves as the interface for recreational fueling. The fixed pier/deck, railings, and utilities appear in serviceable condition based on the April 22, 2025 reconnaissance. Localized wear typical of a marine environment was observed. Fueling equipment associated with the recreational side is addressed under **Fueling Facilities**. Photos of the recreational pier are provided in Appendix A.

Floats & Gangways

Floating docks and aluminum gangways connect to both the commercial and recreational piers. Gangway slope varies with tide, and freeboard at the floats is consistent with small-craft use; DPH maintains the gangways and floating docks. Localized issues were noted during site reconnaissance and user input included roller wear at pile guides and loss of flotation at select sections. These are recorded for maintenance planning and photographs included in Appendix A.

Boat Ramp

The Facility includes a bituminous concrete public launch ramp that serves recreational and commercial users. The ramp is also the primary water access for emergency response. The ramp is adjacent to the recreational pier and has a slope of approximately 20-25%.

Stakeholder input underscored keeping the ramp dependable for recreational and commercial launching while preserving direct access for Ocean Rescue and Coast Guard. The Fire Department specifically highlighted maintaining a clear Fire Lane and approach to the ramp following a boat-fire response last season. During the April 22, 2025 site reconnaissance, the ramp surface appeared intact with typical marine wear. Staging and queuing space at the head of the ramp is limited, which constrains trailer maneuvering and can create short backups during peak periods. A drop-off at the bottom of the ramp inhibits low-tide launching and retrieval activity. Representative photos are included in Appendix A.

FIGURE 5-5

Existing Boat Ramp

Wetland Area

An undeveloped wetland marsh of approximately 3.5 acres lies south of the parking lot and entry drive. Observations were made from accessible vantage points along the access road and behind select commercial buildings. Along the wetland edge, particularly adjacent to leased areas, assorted materials were present, including a rusted 55-gallon steel drum of unknown contents within the wetland, several empty 55-gallon polyethylene drums and 5-gallon pails near the wetland boundary, an 8-yard dumpster at the marsh edge, and various fishing-related totes and miscellaneous debris (e.g., nets/line, traps, bins, buoys, wood/metal/plastic items).

FIGURE 5-6

Existing Wetland Edge

5.4 Commercial Operational Assessment

Rye Harbor supports a year-round mix of commercial, recreational, and public service uses. Day-to-day activity is concentrated at the boat ramp, the commercial and recreational piers (and associated floats), the mooring field, and the shared parking/restroom facilities. Use intensifies during the summer season, when passenger movements, gear handling, and vehicle turnover are highest.

Commercial fishing: The commercial fleet uses the commercial pier and wharf on a near-daily basis for loading and unloading catch, staging traps and gear, and routine vessel servicing. Hoists and a forklift support deck-side handling. Fuel is obtained on site and, for some vessels, by permitted truck delivery over the wharf. Crews also rely on employee parking and, where applicable, skiff access to moored vessels. Occasional launch-ramp use occurs for smaller craft.

Charter fishing: Charter operators primarily stage at the recreational pier, where passengers queue and board according to scheduled departures. Typical operations include loading coolers, bait, and rods, and unloading passengers and catch on return. Refueling and minor servicing occur between trips. Some operators intermittently use the

commercial pier/wharf for turnaround needs. Customer parking and short-term drop-off are integral to these operations.

Whale-watch and tour vessels: Passenger loading occurs at the recreational pier with time-specific boarding and disembarkation. Fuel is generally supplied by off-site delivery and transferred at the wharf under existing allowances. These trips generate concentrated pedestrian flows at the pier head and along the access drive.

Recreational boating: Recreational users rely on the public launch ramp for trailer launching and retrieval and use the recreational floats for short-term tie-ups to load passengers and gear and to purchase fuel. Many visitors are mooring holders who also depend on dinghy access for routine trips. Use is heaviest on weekends and fair-weather days.

Public safety and law enforcement: Ocean Rescue, the Coast Guard, and local responders use the boat ramp and piers for emergency access and training. Maintaining a clear fire/emergency access lane and an unobstructed approach to the ramp is essential to these activities.

Non-water-dependent concessions: Food and related concessions operate seasonally and draw pedestrian traffic to the entrance corridor. These businesses primarily utilize parking and public restrooms and do not require access to the floats and piers.

Across all user groups, the shared parking lot functions as staging for customers and crews, trailer maneuvering, and seasonal storage. The entrance corridor adjacent to the shacks concentrates pedestrian and vehicle movements, and conditions at the recreational pier head and launch ramp govern much of the daily rhythm of arrivals and departures.

The table below indicates reported parking and launch activity at the harbor for the past three fiscal years (ending June 30, 2025).

TABLE 5-1
Parking & Launch Activity

	FY25*	FY24	FY23
Cars Parked (qty)	6,764	7,938	7,468
Revenue ($)*	$44,450	$39,090	$37,340
Launchings (qty)	574	591	726
Revenue ($)	$7,040	$5,910	$7,260

*Note: Parking revenue listed above excludes annual passholders

5.5 Facility Current Financial Overview

Operating statements for Rye Harbor covering Fiscal Years 2022 through 2025 were obtained from the PDA and reviewed by DRG Advisory Services. Financial data for the Harbor is maintained separately from the broader Division of Ports and Harbors (DPH) operating budget and reflects most of direct revenues and expenses associated with Harbor operations. Indirect or overhead costs associated with overall DPH administration

are not included. The PDA fiscal year runs from July 1 through June 30. A summary of these revenues and expenses is provided below.

5.5.1 Revenues

Gross operating revenue has remained relatively stable over the past four years, rising by 10.4 percent from $325,091 in FY2022 to $358,880 in FY2025. Net revenue, which subtracts out the cost of fuel purchased for resale, rose 44.6 percent in the same time frame from $191,226 to $276,599. As illustrated in Figure 5-1 below, the primary cause of this increase came in the last two fiscal years with the addition of the concession fee revenue from the food service operators at the harbor. Also shown in the figure, net fuel sales dropped in the last two fiscal years, reportedly due to a decrease in the volume of fuel pumped. The margin on fuel sales has remained relatively stable at around 25 percent. Over the last four years, the largest revenue source at 31.7 percent, is generated from the Rights of Entry and Pier Use Permits. Revenue from these streams has generally been steady but there was a slight decrease in FY2025 - possibly due to a decrease in commercial fishing activity experienced throughout the northeast.

The Right of Entry fee for the ten "shacks", currently set at $1,250 per season, serves as land rent, allowing the ROE holders to own and operate their shacks, which vary from 140 square feet to 640 square feet in size. While the land is owned by the State of New Hampshire and therefore not subject to local property taxes, the Town of Rye does tax the shacks based on their assessed value, as determined by the Rye Tax Assessor. These assessed values range from $1,400 to $11,500, averaging just over $15 per square foot. The fit-out of the shacks vary widely, from little to kitchen and serving areas.

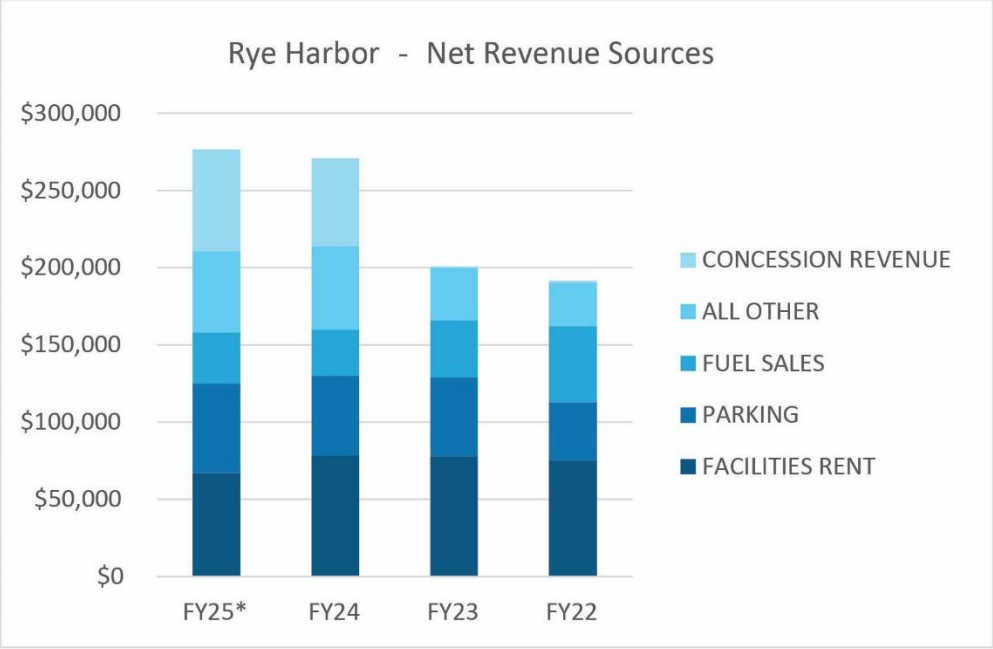


FIGURE 5-7

Net Revenue Sources

Parking revenue is the next largest source of revenue at just over 21 percent. The FY2025 total of $58,129 only partially reflects the increase in hourly fees that went into effect in July 2024, with the seasonal total expected to be somewhat higher than previous years. As noted earlier, there has been little if any change in usage of the facilities due to the increased parking fees.

The data for FY2025 reflects only 2 months of parking at the newly increased higher daily rate ($10 versus previous $5 per day). These data points are also highly dependent on weather and economic conditions and reflect primarily recreational fishing and boating users. Although these numbers average approximately 50 vehicles parked per day (and 4-5 launches) over the roughly 145 day season, they are much higher on peak fair-weather days in the summer and on holidays. According to a parking attendant, the first peak-use day in June 2025 saw over 130 vehicles parked in the lot, with many additional vehicles turned away due to the lack of additional spaces. It should be noted that the data above does not reflect use of parking or the launch ramp by annual passholders, which include several of the recreational boaters as well as employees of the businesses located at the harbor.

Overall, the Rye Harbor facility operates smoothly and efficiently at most times. During peak usage periods, typically summer weekends and holidays, the facility experiences conflicts in the use of the parking lot, launch ramp and recreational pier. The commercial pier sees less conflict due to the limited number of users and staggered timing of their activities, although at times multiple vessels may need to be tied up at the same time, resulting in possible wait periods.

The 'All Other' category, at an average of 17.9 percent of revenues, includes boat storage fees and other miscellaneous revenues collected at the harbor. It has increased in the past two years due to increases in the rates charged for summer and winter boat storage.

Concession revenue (see Section 2.5, Permits & Agreements), was based on a payment of 10 percent of gross food sales from both Rye Harbor Lobster Pound and Rye Harborside was suspended in early 2025. The FY2025 reported fee of $66,090 indicates that these food service operations declared sales over $660,000 in prepared food from July 1, 2024 through June 30, 2025. Food sales are likely highly seasonal with the bulk of sales activity occurring in June, July and August.

The financial statements for Rye Harbor also included Non-Operational Grant Revenue of $271,230 in FY2025, representing income from one or more grants received by the PDA.

TABLE 5-2
Operating Costs & Revenues

	FY25*	FY24	FY23	FY22
REVENUE				
Facilities Rent	$66,830	$78,133	$77,815	$75,043
Concession Revenue	$66,090	$56,824	$1,000	$1,000
Parking Fees	$58,129	$51,820	$50,840	$37,671
Net Fuel Sales	$33,116	$29,644	$37,133	$49,435
All Other	$52,434	$54,245	$33,790	$28,077

	FY25*	FY24	FY23	FY22
NET OPERATING REVENUE	$276,599	$270,666	$200,578	$191,226
COSTS				
Labor	$138,041	$131,207	$146,807	$112,700
Buildings & Facilities	$204,954	$178,790	$69,343	$130,485
General & Admin	$63,388	$19,652	$35,368	$13,073
Utilities	$11,156	$12,304	$11,427	$11,233
TOTAL OPERATING COSTS	$417,539	$341,953	$262,945	$267,491
NET OPERATING INCOME	($140,940)	($71,287)	($62,367)	($76,265)
Grant Revenue	$271,230	$0	$0	$0
NET INCOME BEFORE DEPRECIATION	$130,290	($71,287)	($62,367)	($76,265)

Notes: FY25* - preliminary (unaudited) estimates

5.5.2 Expenditures

Overall operating expenditures remained relatively stable in FY2022 and FY2023 at approximately $265,000, with the majority of costs included in Labor and Buildings & Facilities. Costs rose in FY2024 and FY2025, driven by increases in Buildings & Facilities and General & Administrative Costs.

Labor costs remained fairly stable over the four years. The increases in facility costs stem primarily from the need for additional repairs and maintenance due to storm activity and the related contracting and replacement of damaged parts and equipment. Included in FY2025 were large expenditures for Professional Services related to studies completed or underway, however these and some of the repair costs were believed to be covered by the grant revenue received in that year.

Labor costs have remained stable over the past four years with increases reflecting additional non-benefit hourly staffing to accommodate peak activity periods. Utility costs for water, wastewater and electricity have remained very stable. Within the facility cost group, snow removal saw a dramatic decrease due to a change in vendors while repairs to the parking lot showed the largest variation due primarily to winter storm damage in FY2024 and FY2022.

The other major cost category was fuel purchases which ranged from $75,000 to $150,000, but when netted from fuel sales, showed a relatively consistent gross margin of 19 to 28 percent of sales.

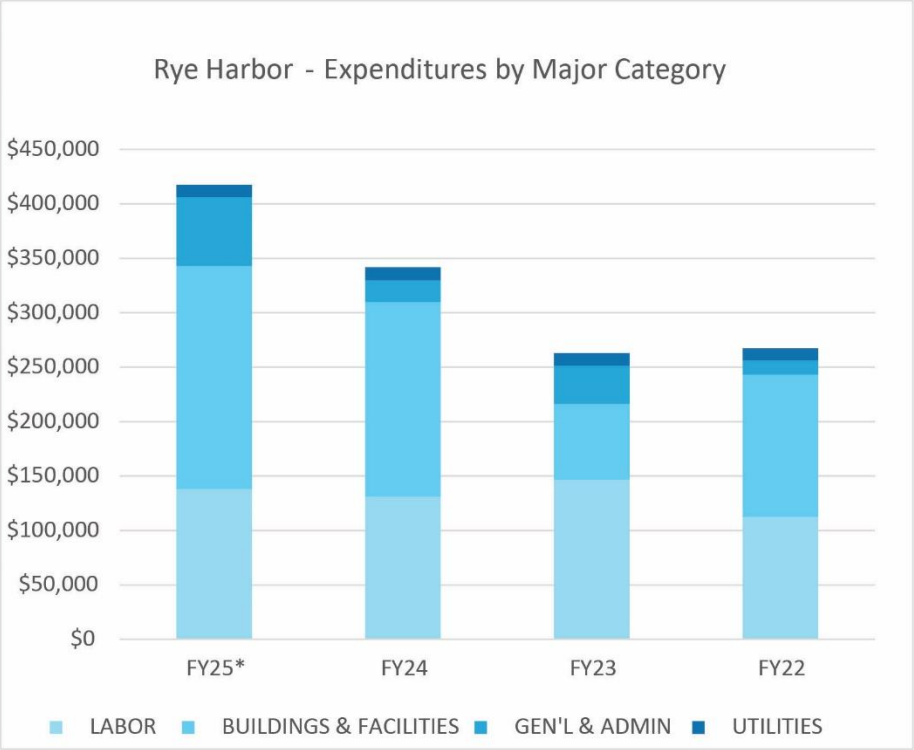


FIGURE 5-8

Operating Expenditures

5.6 Economic Overview

5.6.1 Economic Impact

The economic impact of Rye Harbor considers the broader role of the facility within the local and regional economy. This includes its function as a working waterfront supporting commercial fishing, charter operations, and recreational boating, as well as its role in tourism and related spending in the surrounding community. The Harbor also generates secondary economic impacts through supply chains, service providers, and associated businesses operating within and around the facility. A summary of these economic contributions is provided below.

Economic impacts are typically broken out into three categories – direct, indirect and induced.

- **Direct impacts**: Refers to the immediate economic benefits generated from spending within the harbor, such as sales of fish, ticket fees paid to tour operators, fees paid to charter boat captains, employee wages, and the purchases by visitors to the businesses at the harbor.
- **Indirect impacts**: Refers to the secondary economic benefits of spending where initial expenditures lead to further economic activity such as purchases of fuel for boats and food from the concessions by customers.

- **Induced impacts**: Refers to more widespread economic benefits of spending that result from employees, who have incomes that are derived from the harbor, spending money in the local economy for goods and services.

Direct Economic Activity

Rye Harbor generates direct economic value through its mix of activities supported at the harbor including commercial fishing, charter operators, whale watch excursions, recreational boating, and seasonal food concessions. Together, these activities provide a steady flow of revenue and user fees that support both Harbor operations and the local visitor economy. Fees for parking and launching, as well as Rights of Entry fees, flow to DPH and help support its statewide mission. Fees paid to operators and purchases by customers of the various businesses directly support local employment and purchases of supplies.

Indirect and Supporting Businesses

The Harbor also sustains a network of supporting enterprises including seafood buyers, bait and equipment suppliers, marine repair and maintenance services, and bulk fuel providers. These businesses rely on Harbor users and, in turn, reinforce the role of the Harbor as an essential hub in maritime economy of New Hampshire.

Tourism & Visitor Spending

Tourism is a major contributor to the economic footprint of the Harbor with whale watch and sightseeing cruises alone bringing more than 20,000 passengers through Rye Harbor annually. Visitors also generate secondary spending at nearby restaurants, lodgings and attractions extending the Harbor's economic influence beyond its immediate operations.

Employment & Workforce

Commercial fishing, charter services, concessions, and other Harbor-related businesses provide employment opportunities including seasonal and part-time jobs. While many fishing operations are small, they collectively support dozens of full-time equivalent positions as well as supplemental income for charter captains, deckhands, and concession workers.

Direct employment at Rye Harbor is difficult to estimate due to the seasonality of activity and the part-time nature of many of the users. The DPH employs one full-time manager, a harbormaster and several part-time parking attendants. The tour boat operator employs approximately 6 to 8 people throughout much of the season, fewer during the slower "shoulder" seasons.

The charter fishing boats typically include the captain and occasionally a mate to assist customers. The commercial fishing boats typically operate with a crew of 1 to 3. Since these uses are somewhat sporadic, these cannot be considered full time jobs. The food service outlets likely employ 1 to 4 people at any given time, staffing up during busy periods and reducing employment during slower times.

The other users with ROE include a site contractor and boat hauling company which directly employ one or more personnel when active at the harbor. All together, it is estimated that Rye Harbor supports between 20 and 40 full-time equivalent jobs (FTE) during the 6-to-7-month active season.

Regional & Community Impacts

As one of only three state-owned and operated harbors in New Hampshire, Rye Harbor plays a critical role in maintaining the limited working waterfront within the State. Its operations and identity contribute to the cultural, economic, and recreational fabric of the region, supporting a mix of traditional marine industries and public access that benefits residents and visitors statewide.

Economic impacts are often measured using multipliers – factors derived from complex econometric models that calculate how $1 of direct spending (impact) grows over time throughout the regional economy through the indirect and induced spending described above. Localized impacts are difficult to quantify since there is significant "leakage" into and out of the local area – for example fish landed by the commercial boats at Rye Harbor are sometimes sold locally to markets or restaurants but are also sold to wholesalers that take the catch of the area for resale.

Studies in Maine indicate that the lobster industry (which is reported to be valued at over $1 billion) has an economic multiplier of approximately 1.8 – 2.0. This means that for every $1 dollar spent at the dock to buy lobster from the fisherman, an additional $1.80 to $2 is generated in economic value. More widespread studies have shown that general tourism – visitors spending on a variety of activities, goods and services, generate a 1.5 to 2.0 multiplier. Although the actual direct impacts of Rye Harbor in dollars cannot be accurately quantified, the activity there can be said to have a much broader impact in the Seacoast region and throughout the State of New Hampshire.

5.6.2 Regional Competitive Assessment

The Rye Harbor Marine Facility provides direct access to the ocean and is the closest port to the Isles of Shoals. It "competes" with a small number of other access points along the New Hampshire Seacoast including Hampton Harbor, the greater Portsmouth and Kittery riverfront and harbor areas and with locations up the Piscataqua River as far as Dover, Durham and Newmarket.

These locations offer moorings (controlled by DPH or the individual Maine towns) and limited launching, berthing and fueling facilities. For commercial activities, only Portsmouth/Kittery and Hampton offer locations for loading, unloading, hauling and fueling of vessels. For recreational uses, there are several boat launching ramps, both private and public, many with tidal access restrictions. A handful of private marinas offer slips and other services such as fuel. Other facilities serving commercial or recreational boaters are located several miles south in Newburyport, Massachusetts and north up the coast of Maine.

Although comprehensive analysis of other facilities was beyond the scope of services for this report, a comparison of rates and charges at select private facilities in the seacoast area indicated that the cost for recreational boaters to launch and park at Rye Harbor is less than other locations.

For example, this year Great Bay Marina in Newington charged $40 daily to launch a boat (commercial is higher), compared to $20 at Rye Harbor. Annual passes were $450 to launch and $1,095 to launch and leave the boat and trailer at the marina, compared to $300 at Rye. Moorings were $1,900 for the season, which includes parking and skiff storage. DPH statewide mooring rates were $12 per linear foot, with boat owners required to find their own access. There is also a significant waiting list for annual passes. Fees and demand at other private marinas are believed to be similar.

For the non-water dependent uses found at Rye Harbor, there are many locations on or near the seacoast that offer food services or the sale of bait, tackle or other needs. Within 2 miles of the Harbor are a few restaurants and snack bars, typically offering seafood dishes, along with gifts and other items.

Other state agencies, in particular the NH State Parks, operate or allow others to operate a variety of concessions including food service, retail sales and ski area operations, utilizing a Right of Entry format or other legal means. These concession agreements typically include a fixed fee paid to the state as well as a percentage of revenues.

A high level review of some state-owned park concessions and bids indicated a range of payment structures by private operators for concession agreements. For example, older data from 2003 thru 2018 indicated that the operator of food concessions at Cannon Mountain and the Flume paid a varying percentage of sales plus 3 percent of gross revenue. The lessee of the Mt. Washington Observatory paid a nominal fee of $1 plus 10 percent of gross sales and utilities, and the operator of Sunapee Ski Area paid a base fee of $150,000 plus 3 percent of gross sales. It is believed that these agreements have been renegotiated since that time, but current data could not be acquired. A more recent request for bids by NH Parks to operate a food truck at Odiorne State Park sought the highest base fee plus percentage of sales from bidders.

A high-level comparison of launch, parking, and/or fueling practices at other select facilities is provided in the table below:

TABLE 5-3

Peer Facility Offerings & Fees

Facility	Parking (day)	Launch (day/season)	On-Site Fuel
Rye Harbor (DPH)	Car $10; Combo $20; Bus $50	Combo day rate vehicle + trailer parking, Seasonal $300	Gas & diesel on site, seasonal restaurant
Hampton Harbor (DPH)	Car $10; Combo $20; Bus $50	Combo day rate vehicle + trailer parking	Gas & diesel available
Portsmouth – Prescott Park Municipal Dock (City)	City Lots (separate)	No public ramp	No fuel dock on site
Portsmouth – Peirce Island Boat Launch (City)	On-site City lot; pass/receipt required (managed by City)	Daily: $10 non-motorized / $20 motorized; Commercial $50/launch. Season: passes available	No fuel dock on site
Newburyport (MA) - Public Docks/Cashman Park	Included with day launch at Cashman	Day $15; Season $150 (Cashman Park)	No fuel on public dock
Kittery, ME – Pepperrell Cove (Kittery Port Authority)	(KPA manages facilities; parking local)	Res $15 / Non-res $25 (day); Season	Fuel nearby (private marinas)

Facility	Parking (day)	Launch (day/season)	On-Site Fuel
		Res $50 / Non-res $125	
Great Bay Marine (Newington, NH)	On-site marina parking	Daily launch/park $40, season $1,150	Gas and diesel available, marine services, ships store, seasonal restaurant
Wentworth by the Sea (New Castle, NH)	On-site marina parking	No public ramp	Gas & diesel available, seasonal restaurant
Portsmouth Yacht Club – Public Fuel Dock (New Castle, NH)	N/A	N/A	Gas & diesel available

Notes: Information in table obtained September 5, 2025

Section 6 Vulnerabilities & Needs Assessment

6.1 Facility Vulnerabilities

Coastal hazards – sea-level rise, tidal inundation, and design-event storm and wave conditions – govern risk at Rye Harbor. Using the methods summarized in Section 3 and detailed in the Coastal Vulnerability Assessment (Appendix C), exposure is framed by planning thresholds of +1 ft, +2 ft, and +3 ft sea-level rise together with FEMA still-water/wave conditions. These thresholds indicate when core functions (access and circulation, launching, utilities and fueling, and shoreline protection) begin to be compromised and provide the basis for the vulnerability findings that follow.

6.1.1 Facility-Wide Hazards & Thresholds

Sea Level Rise & Tidal Inundation Thresholds

- **+1 ft SLR (+/- 2050, intermediate)**: There is frequent spring-tide flooding at the ramp apron and low spots in the parking lot. Minor storm surges overtop more often. Launch/parking functionality is compromised several times per year, and splash zones shift into routine tidal flooding of the lowest ground.
- **+2 ft SLR (mid-century under higher scenarios; late-century under moderate)**: The ramp is tidally flooded multiple times per month. Parking and circulation areas are regularly inundated, and safe trailer launching becomes unreliable without elevation/grade changes.
- **+3 ft SLR (late-century, high)**: Near-daily flooding of the apron and parking areas; the facility is largely inoperable without major reconfiguration or relocation.

Asset-specific implications are summarized in Section 6.2. See Appendix C Coastal Vulnerability Assessment, for methods and figures.

Coastal Storms & Wave Exposure

Wave modeling indicates the north and south breakwaters substantially limit transmission of storm waves. However, the harbor entrance still admits energy that disperses across the basin, reducing significant wave heights from offshore values (8–10 ft) to roughly 4–4.5 ft near the boat ramp under a present-day 100-year still-water level. With sea level rise, the breakwaters continue to break waves, but overtopping becomes more frequent, causing a temporary rise in water levels inside the harbor (water piling up) and short-lived ponding. See Appendix C Coastal Vulnerability Assessment for methods and figures.

6.1.2 Asset-Level Vulnerabilities

Waterfront Structures (revetments, breakwaters, piers, docks, gangways, boat ramp)

- **+1 ft SLR**: Top of ramp/apron begins to nuisance-flood on spring tides, shortening usable launch windows. Gangway slopes/freeboard push toward operational limits at higher highs. Minor overtopping at the revetment leads to localized scour at the ramp toe and small areas of ponding landward of the armor.
- **+2 ft SLR**: Tidal flooding of the ramp/apron occurs multiple times per month; trailer launching becomes unreliable without elevation/grade changes. Gangways/docks experience reduced freeboard and steeper approaches for longer

portions of the tide cycle. More frequent overtopping accelerates toe scour and revetment settlement. Shoaling at the ramp toe begins to affect drainage and surface performance.

- **+3 ft SLR**: Near-daily flooding of the ramp/apron renders waterfront operations largely inoperable at high tides without major reconfiguration. Gangway/dock slopes and freeboard fall outside typical operating ranges for much of the day. Routine overtopping produces persistent ponding behind the revetment and increases maintenance needs (armor settlement, surface repairs).

Utilities & Fueling Systems (USTs, transition sumps, above and below ground piping, transformers)

- **Aging equipment**: Two underground fuel storage tanks (USTs) – one gasoline and one diesel, 6,000 gallons each – and the commercial fuel dispenser are all near the end of useful service life.
- **Flood Exposure & Proximity to Resources**: The UST area lies within the FEMA 100-year flood zone and within the tidal buffer zone, with open water about 40 feet to the east and freshwater wetland about 70 feet to the west. These conditions significantly elevate inundation and access risks during storm events.
- **Regulatory & Physical Constraints on Replacement**: Whether tanks remain underground or move aboveground, tanks must consider flood anchoring, setbacks and NHDES review. USTs carry higher ongoing testing/monitoring burdens.
- **Operational Dependency**: Daily fueling demand is modest on average but sees episodic demand increase during peak season, highlighting the need for reliable on-site fueling to support commercial and recreational operations.
- **+1 ft SLR**: Nuisance flooding risk begins for low-lying transition/containment sumps and conduit junctions during spring high tides and minor surge, increasing the likelihood of water intrusion and short cycling of leak-detection/monitoring equipment. Splash and deck wash at dispenser locations become more frequent during storm-tide peaks.
- **+2 ft SLR**: Transition sumps that have experienced episodic flooding begin to see frequent tidal wetting, elevating corrosion and infiltration risks for below-grade piping and electrical runs. Access to the UST field and dispenser sheds is periodically constrained on high tides with moderate surge, and routine protective measures (pump-outs, temporary shutdowns) may be required.
- **+3 ft SLR**: Regular tidal inundation of the lowest fueling system components during peak tides and many storm events, with increased overtopping and spray exposure at the piers. Sustained loss of reliable operation likely without elevation/relocation and hardening (secondary containment, sealed penetrations, elevated cabinets). Note the UST area lies within FEMA mapped flood zones, so buoyancy and anchorage/resilience requirements govern replacement decisions.

Access & Circulation

- **+1 ft SLR**: Low spots in the parking lot and entry drive begin to tidally flood on spring highs, shortening reliable access/egress windows. Splash and minor overtopping during modest storms increase cleanup and delay.
- **+2 ft SLR**: Monthly to weekly high-tide inundation of parking aisles and the approach road. Two-way circulation and trailer maneuvering become unreliable at peak tides, and emergency access is periodically constrained.

- **+3 ft SLR**: Frequent high-tide flooding of the parking lot and entry drive (and secondary access off Harbor Road) occurs with routine loss of trailer staging/parking and narrowed egress windows. Without elevation or regrading, maintaining dependable site circulation is not feasible under many tide/storm combinations.

Buildings & Services

- **+1 ft SLR:**
    - **Harbormaster Office & Exterior Restrooms:** Short-duration ponding can limit door/step access. Steps-only entry (no ramp) is especially susceptible during overtopping/ponding events.
    - **Right-of-Entry (ROE) "Shacks":** Shallow ponding along the access road/frontage creates intermittent access issues at entries and around near-grade utilities.
    - **Waste-Oil Shed area:** Pad and adjacent grade are exposed to splash/ponding during overtopping, increasing contact with residual staining observed at the base/pad.
    - **Sitewide context:** Overtopping and poor drainage already produce nuisance flooding behind the revetment during storms. Even +1 ft increases frequency of those conditions at building frontages.
- **+2 ft SLR:**
    - **Harbormaster Office & Exterior Restrooms:** Access disruptions become routine at high tides and minor surge. Step landings and adjacent walk/grade experience repeat inundation that constrains daily operations.
    - **ROE "Shacks":** More consistent flooding at doors/near-grade service connections and along the shack frontage. Periodic isolation of individual units during spring tides/minor surge.
    - **Waste-Oil Shed area:** Regular wetting of the concrete pad and footing area during higher tides/surges. Housekeeping sensitivity increases.
- **+3 ft SLR:**
    - **Harbormaster Office & Exterior Restrooms:** Routine loss of dry egress around entrances during spring tides and storm tides. ADA non-compliance is exacerbated by frequent inundation at steps/landings.
    - **ROE "Shacks":** Recurrent tidal encroachment occurs at entries and near-grade utilities. Access windows narrow around high tides and minor surge.
    - **Waste-Oil Shed area:** Regular tidal wetting around the shed pad and foundation during high-water events, with associated housekeeping and containment vigilance required.

Environmental Interface

- **+1 ft SLR**: Spring tide overtopping and backwash reaches low margins more often, producing nuisance ponding behind the revetment. With site runoff sheet-flowing to the harbor, unsecured materials and debris stored near the wetland edge (e.g., drums, totes, miscellaneous gear, etc.) face increased mobilization risk during high water and minor storms.

- **+2 ft SLR**: Storm overtopping/short-lived impounding inside the harbor basin become more common, prolonging standing water at the back of the armor and across the access road. Repeated wetting/drying and shallow flow increase edge erosion potential and vegetation stress along the marsh fringe. Securement of dumpsters/containers becomes critical.
- **+3 ft SLR**: Routine tide-related inundation reaches low upland pockets. The functional buffer between working areas and the marsh narrows significantly, with elevated risk of pollutant transport from facility yard activities to wetlands and a need to relocate storage/housekeeping zones away from the marsh edge.

6.2 Facility Needs

Facility needs reflect conditions documented by the consultant team (Sections 3 and 5) and themes raised through public and user input (Section 4). The items that follow focus on physical and capital improvements required for safe, reliable operations; they complement, but are distinct from, the hazard-based vulnerabilities summarized in 6.1 and later inform project scopes in Section 7.2.

Waterfront Structures (piers, floats, gangways, ramp, revetment)

- **Commercial Pier functionality**: Hoist locations and frequent downtime create off-loading delays during peak landings. Localized wear at pile-guide rollers and flotation loss introduces safety/maintenance concerns.
- **Safe working edges**: Edge exposure and limited protected movement between ladders increase fall risk for crews moving gear and catch.
- **Dinghy access for mooring holders:** Existing dinghy space and turnover are at/over capacity, constraining routine access to moored vessels.
- **Boat ramp reliability**: Ramp geometry/surface condition and limited staging/queuing space constrain reliable launch/retrieval and emergency access across the tide cycle. Low tide launches or recoveries can be difficult due to the drop off at the end of the ramp.
- **Shoreline protection**: Overtopping and wave reflection contribute to damage and sediment movement into parking areas, indicating a need for greater crest effectiveness and tie-ins along exposed edges. Additionally, users cited inadequate conditions at the federal breakwaters. Outside the Facility footprint, coordination needs with USACE were noted.

Utilities & Fueling Systems

- **Fueling continuity**: Fuel dispensing reliability is inconsistent. High-water exposure of fuel system components contributes to outages. A dependable, year-round fueling capability is needed.
- **Pier utilities capacity**: Hose bib availability, water pressure, and electrical distribution at the piers are undersized for current activity. Pressure drops occur during concurrent uses.
- **Wastewater capacity**: Restroom/service expansion is constrained by lack of sewer. On-site holding/septic limitations affect operations and maintenance.

Access & Circulation (parking, drives, entry/egress)

- **Parking lot performance**: Low areas pond for extended periods after storms. Surface degradation and poor drainage reduce reliability of trailer maneuvering and day-to-day operations.
- **Entry configuration and conflicts**: A single entry/exit and pedestrian activity near the shacks create recurring conflicts and safety issues during peak periods.
- **Winter boat/trailer storage**: Demand for organized on-site storage exceeds capacity. Long-term roadside storage along Route 1A occupies valuable frontage and complicates circulation.

Buildings & Services (harbormaster, restrooms, public services)

- **Year-round workspace and sanitary needs**. Harbormaster office and restroom provisions are below current operational needs. Public restrooms lack ADA access and hot water and are undersized for peak use.
- **Working-waterfront supports**: On-site solutions for waste-oil handling and ice remain gaps for day-to-day commercial operations.

Environmental Interface (marsh edge, housekeeping)

- **Housekeeping at the wetland boundary**: Storage, wash-down, and debris accumulation at the marsh edge need clearer organization and containment to reduce environmental risk.

6.3 Operational & Process Improvement Needs

Operational needs were identified through field observations and stakeholder feedback demonstrating a need for policies, procedures, and management practices for items such as parking, enforcement, communication, emergency access, and other similar functions, that affect day-to-day performance of the facility.

The following items address how the facility is used, allocated and maintained and provide the programmatic basis for recommendations in Section 7.4.

Access & Allocation Management

- **Parking priorities and enforcement**: Allocation among commercial crews, charter patrons, and recreational users lacks clarity; enforcement and payment approaches are uneven relative to demand and seasonality. Policy clarity is needed for prioritizing commercial working-waterfront functions in the areas adjacent to the commercial pier and along the secondary access drive to Harbor Road.
- **Visitor management & wayfinding**: Peak-season congestion and limited wayfinding near the shacks and entry points reduce safety and efficiency.
- **Dinghy policy**: Eligibility and turnover rules for dinghy space do not fully reflect mooring-holder access needs.
- **Mooring/channel management**: Post-dredge mooring placement and oversized gear occasionally encroach on navigable widths, reducing reliability of the channel.

Operations, Maintenance & Readiness

- **Issue reporting and response**: Current reporting/repair pathways are slow, and a lack of backup equipment and on-call emergency maintenance extends downtime

for critical functions. Clearer and more efficient protocols would improve operability.

- **Peak-day management**: Overcrowding occurs during high season stresses circulation, staging, and staffing. Thresholds for when uses exceed site capacity are not defined.

Safety & Emergency Access

- **Responder access and staging**: The Fire Lane and adjacent staging areas are frequently obstructed. Maintaining reliable access for Rye Fire, Ocean Rescue, Coast Guard, and similar responders is a recurring need.
- **Emergency fueling & equipment staging**: Ensure reliable access to fueling for emergency craft and maintain space for responder equipment staging.

Environmental Practices & Compliance

- **BMP clarity and training**: Operators need clearer guidance on permitted maintenance practices, wash-down/containment expectations, and routine compliance checks.
- **Pre-project resource checks**: Clarify expectations for environmental and/or archaeological review prior to capital or maintenance work.

Governance, Fees & Transparency

- **ROE terms and fee consistency**: Short ROE durations (for shacks) create uncertainty for small, local businesses. Users seek predictable terms and fair market value rental fees.
- **Financial visibility and access equity:** Stakeholders want clearer visibility into harbor revenues/uses and a framework that keeps the state-owned facility accessible across user groups.
- **State role & reporting**: Clarify State vs. facility funding roles and improve visibility into revenues/uses through periodic reporting.

Section 7 Recommendations

The following provides recommendation for facility improvements which are grounded in the field inventory, public and user input, the financial/economic review, and the vulnerabilities and needs described above in Sections 4 through 7.

Measures for environmental resiliency and impact mitigation are outlined in Section 7.1 and serve as the design basis for facility improvements. Asset-specific projects for the facility that are recommended in Section 7.2 are guided by the measures identified in Section 7.1. Recommendations for supporting policy and operating measures are then identified in Section 7.3 and 7.4 and supporting planning-level costs and delivery guidance (permitting, phasing, and potential funding sources) are summarized in Section 7.5 through 7.8.

7.1 Environmental Resiliency & Impact Mitigation

Planning Thresholds & Elevation Targets

Design and phasing are tied to the facility wide thresholds (+1 ft, +2 ft, +3 ft SLR and FEMA still-water/wave conditions) described in Section 6.1. Target elevations for apron and low parking areas, freeboard for docks/gangways, and control elevations for utilities and critical equipment should be selected to maintain functionality across those thresholds. Criteria will be updated as state or federal guidance is revised.

Floodproof Critical Utilities & Fuel Systems

Critical equipment (power, communications, controls, fueling appurtenances) should be elevated or otherwise protected to the selected design water levels; provide anchoring, rated enclosures, and dry or wet-floodproofing as appropriate. Fuel storage and dispensing systems should incorporate secondary containment, elevated controls/sensors, protected conduit, and access that remains safe during flood conditions. SPCC documentation should be maintained and updated.

Stormwater Management

Regrade low areas to reduce ponding and formalize overland flow paths away from building entries and accessible routes. If resurfacing or reconfiguration increases impervious area above NHDES thresholds, provide pretreatment and water-quality controls (e.g., stone swales, forebays, infiltration where feasible) and obtain applicable permits. Final design will coordinate with shoreline crest elevations and ADA routes identified for resiliency.

Shoreline Protection & Boat Ramp Toe Stability

Plan for a full revetment reconstruction to achieve a continuous target elevation tied to the planning thresholds. Reconstruct the boat ramp to be wider and longer for operational capacity and tidal reliability. Coordinate with USACE where work relates to federal structures or dredged areas.

Wetlands & Water Quality Protection

Establish storage setbacks from wetland edges, consolidate materials in designated areas with secondary containment, and remove legacy debris along the marsh boundary. Implement wash-down and housekeeping BMPs to prevent tracking and mobilization during flood events and maintain spill response materials at appropriate locations.

Resilient Access & ADA Under Rising Tides

Maintain safe, accessible routes to the extent practicable as water levels rise. Use adjustable gangway landings or modular approaches to keep slopes within ADA tolerances and provide durable surface treatments at approaches and thresholds. Identify short-term detours or alternate staging/parking areas for high-water days.

Spill Prevention & Emergency Readiness

Keep spill kits at fueling points and other locations with potential for releases. Train facility staff on shutdown, containment, and notification procedures. Establish storm-day checklists (pre-event, closure, and re-opening) and coordinate with emergency responders on access and staging during flood conditions.

Monitoring, Maintenance & Triggers

Adopt an O&M plan with event-based and periodic inspections for revetments, ramps, docks/gangways, sumps and electrical/fueling systems. Define simple operational triggers (e.g., predicted tide level at which closures or partial closures occur) and maintain an event log to track recurrence and inform adaptive management.

Permitting & Environmental Compliance Pathway

Use a coordinated pre-application meeting to confirm jurisdiction and sequencing with various regulatory agencies. Maintain a permitting matrix and reference it regularly to streamline submittals and anticipated review times.

Nature-Based & Habitat Enhancements

Where applicable and feasible, evaluate small-scale opportunities compatible with site operations – such as invasive species control, targeted plantings at low-energy edges, or limited living-shoreline elements – without compromising navigation, access or flood performance.

Construction-Phase Environmental Controls

Require SWPPP measures, erosion and sediment controls, protected fueling and materials management, and appropriate dewatering practices. Observe seasonal work windows where applicable and restore disturbed areas promptly to minimize temporary impacts.

7.2 Facility Infrastructure & Accessibility Enhancements

Harbormaster Facility

Replace the existing office with a modest, energy-efficient structure located further inland to reduce flood exposure and improve year-round operations. Provide ADA-compliant access, dedicated workspace for staff and records, a small public counter, and secure storage for equipment and spill response materials. Site utilities should be elevated to the planning thresholds in Section 6.1 and configured for rapid re-start after coastal events. Tie siting and floor elevation to the +2 ft SLR operating target, with envelope durability for storm spray. A specific study should be conducted to determine a new location on site, balancing flood protection and ADA access.

Restrooms

Decommission the current non-accessible, exterior, single-stall units and construct new, code-compliant, ADA accessible restrooms with ADA-accessible fixtures and hot/cold water. If municipal sewer connection is feasible, pursue that option; otherwise, provide a

code-compliant alternative (e.g., engineered tank) sized to peak-season demand. Locate the new facility further inland (attached to new harbormaster facility) with accessible routes that remain functional across the design tide range; include year-round single-user access for staff and emergency responders.

Privately Owned "Shacks"

Maintain existing ROE footprints and require basic life-safety, accessibility, and housekeeping standards (clear entry/egress, electrical tidy-ups, labeled utility shutoffs). Establish a simple tenant alteration application/review process for tenant improvements (e.g., minor interior/exterior repairs, ADA ramps/handrails) and standardize expectations for graywater handling, water usage, and outdoor material storage setbacks from the marsh edge. It is recommended that the State requires each ROE holder to complete an independent evaluation of the building prior to renewing their ROE agreement.

Utilities

Upgrade facility water and power distribution to meet current demand with redundancy for peak days. Add additional hose bibs and GFCI-protected receptacles at logical locations. Confirm conductor/conduit elevations and weatherproofing for splash/ponding conditions consistent with Section 6.1 thresholds. Where practical, meter distinct user areas to improve cost allocation and leak detection.

Stormwater Management System

Regrade low areas to reduce ponding, formalize sheet-flow paths away from building entries and accessible routes, and add simple surface drainage features where needed (e.g., stone swales, stabilized outlets). If future paving or facility reconfiguration increases impervious area, identify thresholds that trigger permitting early in the design process and incorporate pretreatment and water-quality best practices consistent with site constraints.

If parking lot is reconfigured (see Parking Lot recommendations), an engineered stormwater management system should be designed to meet NHDES standards. This would include pre-treatment, and treatment to remove Total Suspended Solids (TSS), Phosphorous and Nitrogen.

Waste Disposal & Collection System

- **Solid Waste**: Consolidate solid-waste containers in a signed, hard-surface pad, located away from the wetland edge. Add enclosure screening where feasible and institute a regular housekeeping checklist (pad washing, lid closure, etc.).
- **Sanitary Waste**: Review options to replace existing holding tank, including the following potential solutions:
    - Replace existing holding tank with new increased capacity holding tank that meets NHDES Env-Wq 1022.03 minimum standards (2000 gal min). Ensure standards are met for water tightness and provide required alarm systems.
    - Tie into municipal sewer (feasibility). Conduct a feasibility study to explore tying into municipal sewer. Municipal sewer currently terminates about 0.3 miles south of the facility access drive. The review should outline downstream capacity, permitting/easement needs, provide order-of-magnitude capital and O&M costs, plan for decommissioning the existing holding tank, and summarize benefits and constraints.

Fueling Facilities (See Appendix D for complete Fueling Systems Memo)

- **Replace USTs with ASTs:** Install two 6,000-gallon aboveground storage tanks (one gasoline, one diesel) and a new dual-hose dispenser with shed and updated tank management system. The same general area is suitable, leveraging the existing transfer basin.
- **Temporary fueling for continuity:** Stage temporary ASTs north of the office building (near the recreational dock) during removal/installation to keep fueling operational.
- **Dispenser siting**: Reinstall the commercial dispenser in its current general location (familiarity and minimal cost difference versus alternatives).
- **Permitting & compliance**: Decommission and close USTs. Obtain Town permits (building, electrical, plumbing, demolition) and NHDES registration/permits. If the facility shifts to use of ASTs, the existing license(s) shall be amended which will likely require a public hearing. Update the SPCC Plan for new ASTs and follow STI SP001 for inspection/integrity protocols.
- **Flood-resilience criteria**: Anchor tanks for flood conditions, provide secondary containment, and design appurtenances for the mapped FEMA flood zone and site water-level thresholds summarized in Section 6.1.
- **Capacity note**: Plan for and adhere to the 95% maximum fill requirement regulated by Fire Code (e.g., a 6,000-gallon tank allows 5,700 gallons of usable capacity).

Waste Oil Shed

Either decommission or re-establish compliance for the water oil shed. If the shed is removed, the non-functional structure and associated tank, pad and staining shall be removed under a managed waste closure plan. If the shed is to be re-used, a compliant collection point shall be provided with secure hours, secondary containment, signage, and a retained hauler under a recurring pickup contract. Until either option is pursued, continue to implement the "no oil left on site" policy and post contact information for proper disposal options.

Revetment/seawall and other protective structures

Develop a design package to raise/reconstruct the shoreline revetment to a continuous target crest elevation tied to the planning thresholds in Section 6.1 with improved tie-ins at ends and stabilized back-slope to reduce overtopping and back-of-armor ponding. Coordinate with USACE where federal structures or dredged areas are affected. Include spot toe repairs and armor re-setting where settlement or loss has occurred.

It should be noted that due to the hydraulic connectivity to the adjacent low-lying wetlands and waterways to the north and west of the site, the site will continue to be inundated via back-flooding from these areas. The goal of raising the shoreline revetment is to reduce damage and erosion on site due to reduction in wave action and velocity.

Parking Lot

Reconfigure the main lot to consolidate boat storage and establish clear circulation aligned with a new primary two-way entry/exit on Route 1-A. Regrade and resurface the gravel lot to eliminate chronic low spots, improve drainage, and formalize circulation aisles and accessible routes. Consider a durable surface in heavy-use aisles with stabilized shoulders elsewhere to balance performance and cost. Stripe/mark seasonal zones (trailers, short-

term, ADA) and provide wayfinding and fire-lane markings consistent with emergency access needs. Coordinate final elevation of resurfaced parking lot with proposed crest elevation of improved shoreline revetment and any proposed facility upgrades (harbormaster facility, restrooms, shacks, etc.). If automated parking controls are pursued, select equipment that can be seasonally adjusted and is resilient to marine exposure. See Appendix G for Parking Lot Layout Alternatives.

Entry Drive

Construct a new two-way driveway connection to Route 1-A, within the limits of the parking lot, with turning radii sized for vehicles with trailers and clear sight lines. Convert the existing entry drive to Emergency Vehicle Access (EVA) only, using a gate or removable bollards and continuous "Fire Lane – Keep Clear" markings. Maintain a 20-foot clear width along the EVA corridor and add simple pedestrian delineation near the shacks to reduce conflicts. Coordinate the new curb cut and any signage/pavement marking changes with NHDOT. Layout should be designed to balance queueing, trailer maneuvering, and pedestrian safety. See Appendix G for Parking Lot Layout Alternatives.

Boat Storage

Consolidate seasonal boat storage into organized blocks at the western perimeter of the reconfigured parking lot, with marked stalls to keep circulation aisles and accessible routes clear. Use a simple enforcement approach so storage remains within designated areas and does not obstruct parking or trailer movements. Limit the storage footprint to avoid conflicts with day-use parking and trailer staging during the April through October seasonal pattern of use. In the off-season, allow most of the lot to be used for winter storage, provided all boats are removed by an agreed upon date determined by DPH (likely on or around May 1) to restore full peak-season parking operations.

It is recommended that DPH review which vessels currently located on the site have not been launched in several years as on-site boat storage is intended to be seasonal and not long-term.

Commercial Pier, Gangway, Floats & Operations Equipment

- **Commercial Pier (structure & integrated elements)**: Rehabilitate the working deck and edge details to improve safety (to comply with OSHA regulations) and durability while preserving clear working width. Add continuous edge protection (guardrail system) along non-loading edges and integrate guarded catwalks between ladder locations to reduce fall hazards while maintaining working clearances. Install consistent ladder markings and rescue rings, refresh fendering/chafe protection, replace worn pile-guide rollers at fixed interfaces, and update pier deck with markings to delineate off-load zones, pedestrian paths, and storage areas.
- **Commercial Gangways**: Realign gangways as needed to maintain workable slopes over the tide range and support hand-carried loads and carts. Ensure both commercial gangways are regularly inspected and properly maintained.
- **Commercial Floats**: Replace the current commercial float system with substantially stronger, commercial grade float system appropriate for the current commercial uses at the facility, supported by steel guide piles sized for anticipated berthing loads. Configure the floats for secure tie-up with uniform freeboard suited to boarding and line handling, continuous working-edge fendering, and standardized cleats sized for the commercial fleet, including dinghy cleats on back side of floats to avoid lines crossing floats. Coordinate float geometry with fueling

hose reach and pier utilities to minimize cross-overs and trip points. Provide heavy-duty pile guides with polymer rollers and reinforced corners. Align gangway landings for safe pedestrian access to and from the pier. Include provisions for winter operations (removal or ice-load design) and signage/markings reflecting commercial use and tie up policies.

- **Commercial Operational Equipment:** Users requested the availability of commercial ice machine. It is recommended that DPH evaluate the user needs and demand regarding commercial ice at this facility.

  Where appropriate, improve lighting (full cut-off fixtures). Clean up and/or integrate power and water supply along the pier in appropriate locations. Replace legacy hoists with higher-capacity units and weather-protected controls that are coordinated with the float layout and user input.

Recreational Pier, Gangway, & Floats

- **Recreational Pier**: It is recommended that the existing fixed recreational pier be evaluated and the following repair/replacement options be considered:
  - Immediately conduct short term repairs to allow for continued pier use.
  - Replace the current recreational fixed pier (approximate dimensions: 12’ x 65’) with a new fixed pier comprised of a concrete deck on steel piles. Size and configuration of pier to be evaluated and determined through DPH and user input during design.
- **Recreational Gangways**: Realign gangways as needed to maintain workable slopes over the tide range and support pedestrian use and transport of recreational gear to and from vessels. Ensure both recreational gangways are regularly inspected and properly maintained.
- **Recreational Floats**: Maintain safe, functional access for small craft by replacing worn deck panels, cleats, and fendering as needed, and by keeping freeboard consistent across float modules. Inspect pile guides, connections, and walking surfaces seasonally (and after major storms), add slip-resistant surface where warranted.
- **Whale Watch/Charter Floats**: Maintain safe, functional access for charter and whale watch vessels by replacing worn deck panels, cleats, and fendering as needed. Inspect pile guides, connections, and walking surfaces seasonally (and after major storms), add slip-resistant surface where warranted. Confirm that the boarding interface meets operational needs across typical tidal ranges.

Boat Ramp

It is recommended that the vessel launch ramp be evaluated and the following repair/replacement options be considered:

- **Maintain Existing**: Maintain existing ramp in its current condition with routine maintenance only; continue operational and accept existing constraints (single-lane use, limited queueing, toe wear) and occasional closures as needed.
- **Repair in place**: Stabilize the ramp toe and repair/resurface the ramp itself to address bumps and settlement. Reconfigure the upland apron to create additional queueing/staging, and refresh guidance signage/lighting to improve safety within the current footprint.

- **Redesign**: Replace the +/- 35’×120’ ramp with an +/- 80’×150’, two-lane configuration separated by a central float system to allow side-by-side launching/retrieval, reduce wait times, improve trailer maneuvering, and support larger vessels. Design should include a protected toe, appropriate slope across the tidal range, and updated traffic controls/lighting. A boat ramp redesign will have a higher capital cost than maintenance or repair, permitting requirements, and seasonal construction constraints.

Wetland Area

Remove legacy debris and unsecured materials from the marsh edge. Demarcate existing wetland edge with signage to clearly establish limits of resource area to not be impacted. Incorporate invasive management or native plantings where compatible with operations.

7.3 (Private) Commercial Use & Future Development Opportunities

No new private development is being proposed. The focus is on maintaining a safe, efficient working waterfront within existing footprints and potentially improving siting of public facilities.

Public Facility Siting (Harbormaster & Restrooms)

It is recommended to relocate the harbormaster office and public restrooms to a more upland position to improve year-round functionality and reduce flood exposure, with utility connections and access planned for daily operations and emergency response. Final siting and concept design will be coordinated with Section 7.1 (criteria) and Section 7.2 (project scopes).

Framework for Private Commercial Use (within existing ROE use areas)

Continue private commercial operations within current ROE use areas (shacks and commercial/charter/whale watch operations), with clearer standards for:

- Allowed uses and hours
- Accessibility and life safety code compliance
- Maintenance/housekeeping and material storage boundaries
- Utility service expectations and metering where applicable
- Safety responsibilities (e.g. edge awareness near working areas) and insurance/indemnification
- Transparent, consistent fee logic aligned with comparable uses on site. Longer ROE terms may be considered where performance standards are met.

Shared-Space Management & Access Priority

Clarify priority for working-waterfront functions in shared zones (loading, short-term staging, and adjacent parking). Protect the emergency access lane and define simple rules for delivery windows, gear staging durations, and charter/visitor queuing to reduce conflicts at peak times.

Tenant Improvements (In-Place, Low-Build)

Allow minor, in-place improvements by ROE holders that enhance safety and usability without expanding footprints (e.g., lighting/electrical tidy-ups, utility connection cleanup, accessibility improvements, resiliency improvements, life-safety code updates, and modest façade/wayfinding updates) subject to tenant alteration application, applicable permits, and coordination with sitewide criteria.

Working-Waterfront Supports (Programmatic)

Address day-to-day needs that support commercial activity (reliable fueling, ice access, and organized dinghy policies) through operating and capital measures outlined elsewhere in Section 7 (see 7.2 and 7.4).

Character & Public Interface

Maintain the harbor's working-waterfront character and modest scale. Where feasible, improve basic wayfinding and pedestrian safety near the shacks without changing ROE locations or expanding commercial footprints.

Adaptive Review

Revisit shared-space priorities and tenant standards, as thresholds in Section 6 are approached (e.g., recurring nuisance flooding), or when capital projects change circulation, berthing, or queuing patterns.

7.4 Operational Management & Administrative Improvements

Right of Entry (ROE) Agreements for "Shacks"

Develop a long term and mutually agreed upon ROE agreement that provides stability for the users and the State. Develop a variable ROE lease rate that accounts for the size/value of the structure or lease area to accommodate for the additional land use occupied by the lessee.

Right of Entry (ROE) Charter Boats

Develop a long term and mutually agreed upon ROE agreement that provides stability for the users and the State. Similar to the ROE agreement of the "Shacks", develop a lease rate schedule based on the impact (use of the facility, utilities, restrooms, etc.) that operation will have on the Harbor.

Pier Use Permits/Embarkation Fee

Evaluate implementing an embarkation fee on the customers and passengers utilizing the piers to access charter and tour boats. These fees, which could be collected by the operators would provide an additional revenue source for the ongoing and long-term maintenance of the facility. Such fees are common in other transportation systems, including the Portsmouth tour boats and at airports.

ROE/Permit/Mooring Ownership and Transfer of Ownership

It is recommended that a clear, transparent, and consistent plan be developed and implemented for users to obtain or transfer ROE Agreements, Pier Uses, and Moorings. There is currently no clear system in place, and it may be beneficial to have different ROE agreements depending on the allowed use of the ROE (ie: land use ROEs vs charter ROEs).

Rate & Concession Recommendations

Consistent with other state-owned facilities, develop and implement a concession fee for the food service outlets. To be consistent with other state agencies such as the NH Parks Department, use bidding procedures for obtaining services, such as food concessions. This process can include the utilization of Requests for Proposals or more simple Requests for Bids with open and transparent procedures for acquiring the most competitive and appropriate facilities services.

Parking Fee Rates

Develop a parking management and fee collection system that better accommodates the short- and longer-term usage patterns of the Harbor. Utilizing a system similar to those used in parking garages, with a ticketing system or mobile app system and incremental pricing based on time used. Allowing payment by credit or debit card would facilitate and improve user interaction and eliminate (or minimize) the need for handling cash. Below is a recommended fee schedule consistent with other state facilities.

TABLE 7-1
Recommended Parking Fees

Time Limit	Parking Fee (day)	Notes
First 30 Minutes	$1	
Next 30 Minutes	$2	Equivalent to $3/hour at other state facilities
Each Additional Hour	$1/hour	6 hours = $8; 8 hours = $10
Over 8 hours & Overnight	$10	

Note: Recommended parking fees above are for single vehicles.

Reporting Procedures

During the public engagement process, stakeholders consistently cited slow or inconsistent maintenance response, unplanned downtime for fueling and hoist operations, and uncertainty about where and how to report problems. Establishing simple, consistent reporting procedures will improve safety, reduce equipment and utility downtime, and provide DPH with better information for staffing, maintenance planning, and capital decision-making. It is recommended that PDA/DPH consider the following reporting procedure improvements:

- **Create a unified reporting channel**: Offer a short web based/mobile form via a website or QR code, a single 24/7 phone line with after-hours forwarding, and a walk-up option at the Harbormaster office or parking kiosk. All methods should feed one queue so that issues are reported once and routed appropriately.
- **Standardize asset identification and signage**: Tag critical equipment and utilities (e.g., hoists, dispensers, panels, gangways) and post QR codes that link to a prefilled report for that specific asset. Include a one-page "How to Report an Issue" at high-use locations.
- **Define clear issue categories and targets**: Use three levels, "Safety-Critical", "Operations-Critical", and "Service-Impacting", with response targets set by DPH that reflect seasonal demand and risk.

- **Clarify roles and coverage**: Designate a lead person, maintain an up to date on-call list for specialty vendors (fuel, hoists, electrical, plumbing), and confirm expected response windows.
- **Review performance and improvement**: During the peak season, compile a simple monthly snapshot (organized by category, time to restore, repeat issues) and use trends to guide preventive maintenance and capital planning.
- **Implement in phases**: Pilot on fuel systems, hoists, and restrooms; refine categories/targets; then expand to utilities, floats/gangways, and other amenities.

7.5 Opinions of Probable Construction Costs

To support implementation planning, Opinions of Probable Construction Costs (OPCCs) have been developed for the recommended improvements identified in this study. These OPCCs provide high-level budgets of anticipated investment needs, including both standalone projects that may pursue grant or other funding sources, as well as improvements that could be incorporated into broader capital improvement planning efforts. Costs are organized by category (e.g., infrastructure, equipment, and site improvements), and where applicable, a suggested timeline for implementation and potential phasing is provided. Detailed OPCC information is included in Appendix H.

7.6 Permitting & Compliance Pathway

Permitting for recommended projects should follow the regulatory and land-use framework summarized in Section 5.2. A coordinated pre-application meeting is recommended to confirm jurisdiction, submittal requirements, and sequencing by construction package. Supplemental detail and anticipated timelines are provided in Appendix B (Natural Resources Assessment, Permitting Matrix & Regulatory Pathways) and Appendix C (Coastal Vulnerability Assessment).

7.7 Implementation & Phasing

Implementation should be organized by operational criticality and the planning thresholds established in Section 6 (+1 ft, +2 ft, +3 ft SLR and FEMA still-water/wave conditions). Near-term work focuses on safety, continuity of operations, and readily implementable site housekeeping. Mid-term packages address core infrastructure (e.g., ramp/apron, fueling system, drainage, access/ADA). Long-term packages deliver shoreline protection upgrades and remaining elevation targets. Construction staging should maintain harbor operations where feasible (e.g., temporary fueling during fuel system replacement). Phasing logic is outlined below in Section 8.3 and tied to costs in Appendix H (OPCCs).

7.8 Potential Grants & Funding Sources

Multiple external funding avenues may be applicable to recommended projects, including coastal resilience and hazard-mitigation programs, state coastal and shoreland grants, and maritime/water-access infrastructure funding, alongside PDA/DPH capital budgeting and user-fee revenues. Each funding source carries eligibility, match, and schedule requirements that influence packaging and delivery. A preliminary inventory of potential programs, match assumptions, and application windows is provided in Appendix I

(Potential Grants & Funding Sources). This list should be updated as new opportunities and guidance are released.

Section 8 Conclusions & Next Steps

8.1 Facility Analysis Takeaways

Rye Harbor remains a high use, working waterfront supporting commercial fishing, charter/tour operations, and public access. Field assessments and user input confirm several core assets are at or beyond their useful life and vulnerable to coastal flooding and storm events. Priority needs include structural repair/replacement of piers and floats, improved gangway alignment and ADA access, targeted boat-ramp upgrades, and upgrades to critical utilities (fueling systems, electrical distribution, restrooms, and drainage). Operational constraints center on parking capacity/circulation during peak days, clarity of priority for working-waterfront functions, and consistent housekeeping/safety practices in shared spaces. Reporting procedures for equipment and utilities should be simplified and standardized to reduce downtime and improve transparency. Environmental and resiliency considerations should be incorporated into facility projects. Such considerations include but are not limited to design elevations, materials, and tie-ins should anticipate sea-level rise, wave/overtopping, and drainage improvements. Facility projects should be designed with attention to wetland/tidal jurisdictional regulations and ADA/life-safety compliance.

8.2 Financial Analysis Takeaways

Overall revenues are stable with recent gains from percentage-of-sales concessions. However, the current ROE land-use fee structure does not fully align charges with use intensity or shared-asset impacts. A tiered ROE approach synchronized with Pier Use Permit requirements would improve equity and predictability while supporting O&M. Modernizing parking revenue collection (time-based pricing, credit/debit acceptance) and evaluating a pier-passenger embarkation fee (subject to approvals) present near-term opportunities to better match revenues to demand and maintenance. Capital investments should be sequenced to protect safety and revenue continuity, with external grants pursued to offset larger replacements (piers, fueling, utilities, resiliency).

8.3 Future Steps

The following phased action plan translates this report's recommendations into implementation while maintaining safe, reliable harbor operations. It prioritizes safety-critical and high-value items, sequences design/permitting and construction to minimize peak-season disruption and aligns with available funding and regulatory windows. Roles, milestones, and schedules should be confirmed by PDA/DPH at project initiation and revisited annually based on performance, permitting outcomes, and budget.

- **Near-Term (0–12 months):** Advance priority safety/operations items to design/permitting (e.g., fueling reliability, hoist/float repairs, boat-ramp toe stabilization, reporting-procedures rollout). Initiate ROE/Pier Use policy updates for upcoming seasons and pilot parking technology in a limited zone. Confirm program and preferred location for new Harbormaster facility (and attached restroom facilities), establish utility/parking/ADA needs, develop concept drawings, and begin funding strategy and permitting pre-checks. If urgent code/safety issues arise then elevate enabling repairs to Near-Term.

- **Mid-Term (12–36 months):** Complete design/permitting and construct highest-value projects with limited seasonal disruption (e.g., pier and gangway replacements, Harbormaster/restroom facilities, utility upgrades, stormwater BMPs). Implement tiered ROE and standardized Pier Use Permit processes with a clear transition for incumbents; formalize competitive procurement where applicable.
- **Long-Term (36+ months):** Phase larger replacements and resiliency elements (e.g., raise key structures and utilities above future flood elevations, shoreline protection, major utility corridors) consistent with sea-level rise and permit conditions; monitor performance metrics (uptime, safety, ADA, revenue capture) and update maintenance plans and fee schedules accordingly.

Section 9 References & Data Sources

Prior Studies & Internal Materials

Pease Development Authority – Division of Ports and Harbors (DPH). (2022). *Rye Harbor Parking Study.* Internal report; on file with PDA/DPH.

Pease Development Authority – Division of Ports and Harbors (DPH). (2023). *Rye Harbor Facility Overview Report.* Internal report; on file with PDA/DPH.

Pease Development Authority – Division of Ports and Harbors (DPH). (2025). *Operating Statements, FY 2022–FY 2025 (preliminary FY 2025)*. Internal records on file.

Town of Rye – Building Department. (2025). *Local permits and records for Rye Harbor Facility (building, electrical, plumbing, demolition).* On file with PDA/DPH.

Datasets & Map Services (web) — Accessed March-October 2025

Atlantic Coastal Cooperative Statistics Program (ACCSP). (2025). *Commercial landings for Rye Harbor, 2019–2024.*

Federal Emergency Management Agency (FEMA). (2021). *National Flood Hazard Layer (NFHL) / Flood Insurance Rate Maps (FIRM) – Rockingham County, New Hampshire; Panels 33015C0269F, 33015C0288F, 33015C0451F (effective January 29, 2021).*

National Oceanic and Atmospheric Administration (NOAA) – CO-OPS. (2025). *Tidal datums and sea-level trends for Stations 8419870 (Seavey Island/Portsmouth) and 8443970 (Boston Harbor).*

National Oceanic and Atmospheric Administration (NOAA). *Global and Regional Sea Level Rise Scenarios* (latest release referenced).

State of New Hampshire. *New Hampshire State Hazard Mitigation Plan* (sections addressing coastal flood/SLR).

New Hampshire Department of Environmental Services (NHDES). (2025). *OneStop Data & Mapping Viewer – Wetlands, UST/AST, spills, and facility records.*

U.S. Geological Survey (USGS). (2020). *3DEP LiDAR and base mapping – New Hampshire Coast (2019–2020).*

Codes, Standards & Regulations (planning-level references)

U.S. Department of Justice (DOJ). (2010). *2010 ADA Standards for Accessible Design.*

U.S. Environmental Protection Agency (EPA). (2025). *40 CFR Part 112 – Oil Pollution Prevention (SPCC Rule).*

U.S. Environmental Protection Agency (EPA). (2025). *NPDES Construction General Permit (CGP) – Coverage and SWPPP requirements.*

New Hampshire Department of Environmental Services (NHDES). (2025). *Env-Or 400 – Underground Storage Tank Facilities (operators, testing, closure).*

New Hampshire Department of Environmental Services (NHDES). (2025). *Env-Wt 400 and Env-Wt 600 – Tidal wetlands classification and coastal rules.*

New Hampshire Department of Environmental Services (NHDES). (2025). *Env-Wq 1022.03 – Minimum standards for wastewater holding tanks (≥ 2,000 gallons).*

New Hampshire Department of Environmental Services (NHDES). (2025). *Env-Wq 1500 – Alteration of Terrain (AoT) Rules.*

New Hampshire Revised Statutes Annotated (RSA). (2025). *RSA 482-A – Fill and Dredge in Wetlands; RSA 483-B – Shoreland Water Quality Protection Act.*

U.S. Army Corps of Engineers (USACE), New England District. (2025). *General Permit – New Hampshire; Sections 10, 404, and 408 guidance.*

Operations & Use Data / Personal Communications

Granite State Whale Watch (GSWW). (2025). *Schedules, capacities, and staffing for 2025 season.* Personal communication, June 2025.

Preferred Citation

Pease Development Authority – Division of Ports and Harbors (PDA/DPH), Tighe & Bond, & DRG Advisory Services. (2025). *Rye Harbor Marine Facility Assessment & Recommendations for Improvements,* October 2025.

Appendix A:

Field Inspection Log & Photos

Job Number: P-5015

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 1	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Staged revetment in the parking lot.		

Photograph No.: 2	**Visit Date:** 6/20/25	**Direction Taken:** Northwest
Description: Staging of material in the parking lot.		

Job Number: P-5015

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 3	**Visit Date:** 6/20/25	**Direction Taken:** Southeast
Description: Harbor at low tide.		

Photograph No.: 4	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Revetment along Route 1A with Harbor to the right.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 5	**Visit Date:** 3/20/25	**Direction Taken:** North
Description: Parking Lot (from top of boat ramp).		

Photograph No.: 6	**Visit Date:** 3/20/25	**Direction Taken:** South
Description: Entrance to Commercial Pier area.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 7	**Visit Date:** 6/20/25	**Direction Taken:** West
Description: Revetment on north side of the harbor.		

Photograph No.: 8	**Visit Date:** 6/20/25	**Direction Taken:** South
Description: Rye Harbor at low tide from the north.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 9	**Visit Date:** 6/20/25	**Direction Taken:** South
Description: Harbor looking from the south.		

Photograph No.: 10	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Parking lot viewed from the edge of Ocean Blvd.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 11	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Center of the parking lot viewed from the edge of Ocean Blvd.		

Photograph No.: 12	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: South side of parking lot viewed from the edge of Ocean Blvd.		

Client: Pease Development Authority

Site: Rye Harbor

Photograph No.: 13	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Southern edge of the parking lot viewed from the edge of Ocean Blvd. Note the boat maintenance.		

Photograph No.: 14	**Visit Date:** 6/20/25	**Direction Taken:** South
Description: Petey's Lobster Pound & Gifts building.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 15	**Visit Date:** 6/20/25	**Direction Taken:** South
Description: Harvester Fishing Charters building.		

Photograph No.: 16	**Visit Date:** 6/20/25	**Direction Taken:** South
Description: Tontine Charter Boat building.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 17	**Visit Date:** 6/20/25	**Direction Taken:** South
Description: Black Dog Charters building.		

Photograph No.: 18	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Harbor Master building.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 19	**Visit Date:** 6/20/25	**Direction Taken:** South
Description: Granite State Whale Watch building.		

Photograph No.: 20	**Visit Date:** 6/20/25	**Direction Taken:** West
Description: Harbor Master storage shed.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 21	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Rye Harborside building.		

Photograph No.: 22	**Visit Date:** 6/20/25	**Direction Taken:** Southeast
Description: Rye Harborside shed.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 23	**Visit Date:** 6/20/25	**Direction Taken:** South
Description: Vintage Fish Company building.		

Photograph No.: 24	**Visit Date:** 6/20/25	**Direction Taken:** West
Description: East facing side of Granite State Whale Watch building.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 25	**Visit Date:** 6/20/25	**Direction Taken:** North
Description: Revetment along the Harbor facing north.		

Photograph No.: 26	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Commercial fishing pier and hoists.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 27	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Rye Harbor looking east towards the bridge.		

Photograph No.: 28	**Visit Date:** 6/20/25	**Direction Taken:** Southeast
Description: Southern end of Commercial pier looking southeast.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 29	**Visit Date:** 6/20/25	**Direction Taken:** North
Description: Looking north from northern edge of Commercial pier.		

Photograph No.: 30	**Visit Date:** 6/20/25	**Direction Taken:** North
Description: Fueling station on Commercial Pier		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 31	**Visit Date:** 6/20/25	**Direction Taken:** South
Description: Revetment looking south.		

Photograph No.: 32	**Visit Date:** 6/20/25	**Direction Taken:** Southeast
Description: Standing on the commercial pier looking southeast.		

Photograph No.: 33	**Visit Date:** 6/20/25	**Direction Taken:** West
Description: Waste oil shed.		

Photograph No.: 34	**Visit Date:** 6/20/25	**Direction Taken:** West
Description: Tidal wetland on the west side of the Harbor.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 35	**Visit Date:** 6/20/25	**Direction Taken:** West
Description: View of tidal wetland from edge of access road.		

Photograph No.: 36	**Visit Date:** 6/20/25	**Direction Taken:** Southwest
Description: South side of tidal wetland viewed from access road.		

Photograph No.: 37	**Visit Date:** 6/20/25	**Direction Taken:** Southwest
Description: Dumpster and barrels on access road.		

Photograph No.: 38	**Visit Date:** 6/20/25	**Direction Taken:** North
Description: View of Commercial Pier looking north.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 39	**Visit Date:** 6/20/25	**Direction Taken:** South
Description: East side of access road looking south. Commercial parking on east side of road.		

Photograph No.: 40	**Visit Date:** 6/20/25	**Direction Taken:** Southeast
Description: Revetment on south side of the Harbor.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 43	**Visit Date:** 6/20/25	**Direction Taken:** North
Description: Tidal wetlands looking north from Harbor Rd.		

Photograph No.: 44	**Visit Date:** 6/20/25	**Direction Taken:** West
Description: North side of Harbor Rd. viewed from the east.		

Photograph No.: 45	**Visit Date:** 6/20/25	**Direction Taken:** North
Description: Tidal wetlands viewed from the center of Harbor Rd.		

Photograph No.: 46	**Visit Date:** 6/20/25	**Direction Taken:** Northwest
Description: Southwestern corner of tidal wetlands viewed from Harbor Rd.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 47	**Visit Date:** 6/20/25	**Direction Taken:** West
Description: Western side of Harbor Rd.		

Photograph No.: 48	**Visit Date:** 6/20/25	**Direction Taken:** Northeast
Description: Weeds marking the boundary of tidal wetlands from Ocean Blvd.		

Photograph No.: 49	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Southern side of tidal wetlands seen from across Ocean Blvd.		

Photograph No.: 50	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Northern side of tidal wetlands seen from across Ocean Blvd.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 51	**Visit Date:** 6/20/25	**Direction Taken:** East
Description: Northwestern corner of wetlands with west facing side of Petey's Lobster Pound.		

Photograph No.: 52	**Visit Date:** 6/20/25	**Direction Taken:** Southeast
Description: Northeastern corner of Rye Harbor Lobster Pound building.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 53	**Visit Date:** 3/20/25	**Direction Taken:** East
Description: Looking east at boat launch near wooden piers and piles.		

Photograph No.: 54	**Visit Date:** 3/20/25	**Direction Taken:** Southeast
Description: Beginning of dock, looking southeast.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 55	**Visit Date:** 3/20/25	**Direction Taken:** Northeast
Description: Northern side of commercial pier with ramp leading to floating dock.		

Photograph No.: 56	**Visit Date:** 3/20/25	**Direction Taken:** Southeast
Description: Southern side of commercial pier with ramp leading to floating dock.		

Client: Pease Development Authority
Site: Rye Harbor

Photograph No.: 57	**Visit Date:** 3/20/25	**Direction Taken:** East
Description: View of southern side ramp and commercial pier with fueling station.		

Photograph No.: 58	**Visit Date:** 3/20/25	**Direction Taken:** Southeast
Description: Underground fueling tanks located off the northern end of the commercial pier.		

Appendix B:

Natural Resources Assessment, Permitting Matrix & Regulatory Pathways

Rye Harbor Marine Facility
Assessment & Recommendations
for Improvements

Rye Harbor Resource Area Delineation

TO: Paul Brean, Executive Director, Pease Development Authority

FROM: Stefanie Tetreault, CWS, PWS, Tighe & Bond
Lucas Acaba, Tighe & Bond

DATE: October 6, 2025

1 Wetland Resource Area Investigation

On March 19, 2025, a Tighe & Bond wetland scientist visited the project site to identify and delineate wetland resource areas and evaluate the jurisdictional status of each relative to local, state, and federal criteria. Wetlands are defined at RSA 482-A:2, X as "…an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

1.1 Methodology of Resource Area Investigation

Jurisdictional wetland resource areas in the vicinity of the proposed work were delineated in accordance with the United States Army Corps of Engineers' (USACE) *Wetlands Delineation Manual and Regional Supplement* (2012), Field Indicators for Identifying Hydric Soils in New England (Version 4, 2017), the New Hampshire Code of Administrative Rules: Delineation and Classification of Jurisdictional Areas (Chapter Env-Wt 400), and the New Hampshire Code of Administrative Rules: Coastal Lands and Tidal Waters/Wetlands (Chapter Env-Wt 600). The evaluation also included a review of publicly available resources such as local tidal and LiDAR elevation data, and historic aerial imagery. Wetland resources were mapped using a hand-held Eos Aero GPS unit with sub-meter accuracy.

A Site Map showing the wetland delineation boundary locations is provided in Attachment A. Representative photographs of the site are provided in Attachment B.

1.2 Summary of Wetland Resource Areas

The following wetland resource areas were observed at and near the project site: Highest Observable Tide Line (HOTL), tidal wetlands, and non-tidal wetlands which are subject to jurisdiction under New Hampshire Statutes Title L – Water Management and Protection, Fill and Dredge in Wetlands (Chapter 482-A) and Shoreland Water Quality Protection Act (Chapter 483-B). The wetland resource areas observed in the field are described herein. A summary of wetland flag series is presented in Table 1.

TABLE 1
Summary of Wetland Delineation Series

Series	Points	Resource Area Type
1A	1A-1 through 1A-97	HOTL / Tidal E2EM1P[1] Wetland
1B	1B-1 through 1B-19	Non-tidal PEM1R[1] Wetland
1C	1C-1 through 1C-67	HOTL / Tidal E2EM1P[1] Wetland
1D	1D-1 through 1D-37	Non-tidal PEM1R[1] Wetland

[1]"Classification of Wetlands and Deepwater Habitats of the United States" by Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979.

1.2.1 Highest Observable Tide Line / Tidal Wetlands

The HOTL is defined at Env-Wt 602.23 as "… a line defining the farthest landward limit of tidal flow, not including storm events, that can be recognized by indicators such as the presence of a strand line of flotsam and debris, the landward margin of salt-tolerant vegetation, or a physical barrier that blocks inland flow of the tide."

Tidal wetlands are defined at Env-Wt 602.60 as "…wetlands whose vegetation, hydrology, and soils are influenced by periodic inundation of the tides."

1.2.1.1 Series 1A

Series 1A defines the HOTL from the Harbor Road bridge, along the eastern edge of Rye Harbor, through the Ocean Boulevard bridge, and along the northwest side of Ocean Boulevard. The HOTL between the Harbor Road bridge and Ocean Boulevard bridge (1A-1 through 1A-50) is defined by a revetment that blocks inland flow of the tide. Observed indicators of the HOTL included water staining and algae growth on rocks of the revetment.

The HOTL from the Ocean Boulevard bridge and along the northwest edge of Ocean Boulevard was delineated at the edge of a tidal wetland by the landward extent of salt-tolerant vegetation. Vegetation within the tidal wetland in this area consisted primarily of saltmeadow cordgrass (*Spartina patens*; FACW) along with small amounts of common reed (*Phragmites australis*; FACW) and switch panicgrass (*Panicum virgatum*; FAC). Soil observed within the tidal wetland consisted of eight inches of peat (10YR 2/2) underlain by fine, sandy loam (2.5Y 4/1). Landward of the delineated HOTL, the plant community shifted to predominately switch panicgrass (*P. virgatum*; FAC) and Canada goldenrod (*Solidago canadensis*; FACU). The wetland is classified as estuarine, intertidal, emergent, persistent, and irregularly flooded (E2EM1P).

1.2.1.2 Series 1C

Series 1C defines the HOTL within a vegetated area south of Rye Harbor at the intersection of Ocean Boulevard and Harbor Road. Tidal flow enters this area through a culvert located in the southeast corner near the Harbor Road bridge. The HOTL was delineated at the edge of the tidal wetland by the landward extent of salt-tolerant vegetation. Vegetation within the tidal wetland in this area consisted primarily of saltmeadow cordgrass (*S. patens*; FACW) along with small amounts of common reed (*P. australis*; FACW). Soil observed within the tidal wetland consisted of 24 inches of peat (10YR 3/1 and 10YR 2/2). Landward of the delineated HOTL, the salt marsh transitioned to the paved roadway and compact shoulder of Ocean Boulevard and Harbor Road, or to a freshwater wetland to the north dominated by common reed (*P. australis*; FACW); Series 1D. The wetland is classified as estuarine, intertidal, emergent, persistent, and irregularly flooded (E2EM1P).

1.2.2 Non-tidal Wetlands

Non-tidal wetlands are defined at Env-Wt 103.49 as "…a wetland that is not subject to periodic inundation by tidal waters."

1.2.2.1 Series 1B

Series 1B defines the southwestern boundary of a non-tidal wetland located south of the HOTL Seres 1A along the west side of Ocean Boulevard. The wetland is classified as palustrine, emergent, persistent, and seasonally flooded-tidal (PEM1R). The wetland is bounded by Ocean Boulevard to the east, Harbor Road to the south, and a transition to the salt-tolerant vegetation within HOTL Series 1A to the north. Vegetation within the wetland consisted of cattails (*Typa sp.*; OBL), white wood-aster (*Eurybia divaricata*; NL), and woolgrass (*Scirpus cyperinus*; OBL). Soil observed within the wetland consisted of five inches of peat underlain by loam (2.5Y 4/2 and 2.5Y 5/2) with redoximorphic concentrations (5YR 3/4).

1.2.2.2 Series 1D

Series 1D defines the boundary of a non-tidal wetland located within the vegetated area south of Rye Harbor at the intersection of Ocean Boulevard and Harbor Road. The wetland is classified as palustrine, emergent, persistent, and seasonally flooded-tidal (PEM1R). Vegetation within the wetland consisted entirely of common reed (*P. australis*; FACW). The wetland is bounded by Ocean Boulevard to the west, infrastructure of Rye Harbor to the east, and a transition to the salt-tolerant vegetation within HOTL Series 1C to the south. The northern boundary was delineated by a change in slope that coincided with a shift in vegetative community to upland species including bigtooth aspen (*Populus grandidentata*; FACU), Morrow's honeysuckle (*Lonicera morrowii*; FACU), and glossy buckthorn (*Frangula alnus*; FAC). Soil observed within the wetland consisted of two inches of mucky sand (10YR 2/1) underlain by sand (10YR 4/2 and 2.5Y 5/1) with redoximorphic concentrations (7.5YR 4/4) starting within eight inches of the soil surface.

2 Regulatory Considerations

The project site is located within the vicinity of tidal and non-tidal wetland resource areas, and within a Federal Emergency Management Agency (FEMA) Special Flood Hazard Area (SFHA) Zone AE, as shown on Flood Insurance Rate Map Number 33015C0269F (effective January 29, 2021), indicating that Rye Harbor is within a 100-year flood zone with a Base Flood Elevation (BFE) at 11-feet (NAVD88). This BFE is associated with coastal flooding, not riverine flows.

Impacts to these areas, and within their associated buffer zones and setbacks, are subject to local, state, and federal jurisdiction as described in the following sections. A list of the anticipated environmental reviews and authorizations is included in Table 2, below. Refer to the Environmental Permitting Overview table provided in Attachment C for a detailed summary of anticipated permitting requirements for the project.

2.1 Town of Rye

Chapter 60 and Chapter 190 of the Zoning Ordinance of the Town of Rye, New Hampshire establish local regulatory jurisdiction within the Flood Hazard District, the Coastal Area District, and the Wetlands Conservation District.

Flood Hazard District

The site is located within the Flood Hazard District. In accordance with §60-9, all building and non-building development activities within the SFHA shall be designed in compliance with the Town of Rye's floodplain development requirements. Notably, structures built within the SHFA are required to be built at least two feet above the BFE or be floodproofed at least two feet

above the BFE and be capable of resisting hydrostatic, hydrodynamic, and buoyancy forces associated with the anticipated flood conditions. Proposed developments within the SFHA require a Floodplain Development Permit from the Town of Rye Floodplain Administrator.

Wetlands Conservation District

In accordance with §190-3.1, the Wetlands Conservation District, local jurisdiction includes wetland areas (such as tidal and non-tidal wetlands), a 100-foot Buffer Zone from tidal wetlands, and a 75-foot Buffer Zone from non-tidal wetlands. Work within tidal and non-tidal wetlands or their associated Buffer Zones is subject to review and approval by the Town of Rye Conservation Commission and Zoning Board of Adjustment.

Coastal Area District

Projects in the Coastal Area District, including Rye Harbor, must be designed in a manner that balances the public's right to the preservation of coastal resources with the property rights of private landowners. Article III, Chapter 190 (§190-3.4) outlines the development standards for projects in this overlay district.

The regulations established Zoning Ordinance of the Town of Rye are generally designed to accomplish the goals, objectives, and recommendations of the Rye Master Plan.

2.2 State Authorizations

The State of New Hampshire Department of Environmental Services (NHDES) establishes regulatory jurisdiction over wetland resource areas in accordance with New Hampshire Statutes Title L – Water Management and Protection, Fill and Dredge in Wetlands (RSA 482-A) and Shoreland Water Quality Protection Act (RSA 483-B). Jurisdictional areas include tidal and non-tidal wetlands, a 100-foot Tidal Buffer Zone, and an overlying 250-foot Protected Shoreland. The reference line for the Shoreland Water Quality Protection Act and the 100-foot Tidal Buffer Zone is the delineated HOTL.

Activities within tidal wetlands, non-tidal wetlands, and the Tidal Buffer Zone will require a Wetlands Permit from the NHDES Wetlands Bureau. In addition to the requirements of the Wetlands Permit, activities within the Tidal Buffer Zone must also comply with the requirements of the Shoreland Water Quality Protection Act (RSA 483-B). Activities landward of the 100-foot Tidal Buffer Zone and up to the 250-foot Protected Shoreland require a separate Shoreland Permit from the NHDES Wetlands Bureau. In addition, projects that disturb greater than 100,000 square feet of contiguous terrain (or 50,000 square feet within the Protected Shoreland) require an Alteration of Terrain (AoT) Permit from the NHDES AoT Bureau.

Any project requiring federal, state, or local permitting will also require review for the potential presence of threatened and endangered species or habitat as administered by the NHDES Ecological Review Section in accordance with Section 7 of the federal Endangered Species Act, the New Hampshire State Endangered Species Conservation Act (RSA 212-A), and the New Hampshire Native Plant Protection Act (RSA 217-A).

To minimize impacts to project budget and schedule, Tighe & Bond recommends a coordinated pre-application meeting with other related state and federal review agencies including the NHDES Ecological Review Section, NHDES Wetlands Bureau, U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (EPA), NHDES Shoreland Program, and NHDES AoT Bureau. The objective of the meeting would be to present the existing conditions and resource area assessment, present the proposed project and approximate jurisdictional impacts, and obtain feedback from the review agencies on the appropriate design and permitting strategy.

2.3 Federal Authorizations

Wetlands and land below the High Tide Line (HTL) are subject to protection and jurisdiction under Sections 401 and 404 of the Clean Water Act, and Sections 10 of the Rivers and Harbors Act, as "Wetlands and Waters of the United States" (WOTUS). Additionally, Section 408 of the Rivers and Harbors Act regulates USACE Civil Works Projects, including portions of Rye Harbor. Federal authorizations also require review of potential impacts to historical and archaeological resources by the State Historic Preservation Officer (SHPO), which is the New Hampshire Division of Historical Resources (NHDHR), in accordance with Section 106 of the National Historic Preservation Act of 1966 and the New Hampshire regulation for Historic Preservation (NH RSA 227C:9).

Section 401 of the Clean Water Act

This program is administered by the NHDES Watershed Management Bureau. Activities that require a federal permit and that may result in a discharge to surface waters of the state or WOTUS fall within Section 401 jurisdiction. If USACE were to require an Individual 404 Permit, then an Individual 401 Water Quality Certificate would also be required.

Coordination with the NHDES Watershed Management Bureau and additional conditions, modifications, or monitoring and reporting requirements may be imposed under the Section 401 Water Quality Certification (WQC). NHDES may request that the USACE include special conditions in the NH General Permit authorization under Section 404 of the Clean Water Act (i.e., additional monitoring and reporting requirements). If NHDES believes that an individual WQC is necessary, they may request that USACE use its discretionary authority to require an individual permit and an individual WQC.

Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act

These programs regulate discharges of dredged or fill material into WOTUS and the construction of structures in or over navigable WOTUS. Section 404 is administered by the USACE and it is assumed that authorization by the USACE under Section 404 of the Clean Water Act would be completed jointly with the NHDES Wetlands Bureau under the NH General Permit (NH GP). The NH GP establishes thresholds and conditions for work in WOTUS that include, but are not limited to, time of year restrictions relative to the use of in-water controls (e.g., coffer dams) and work that may impact rare species or critical habitats. Projects that exceed impact thresholds of the NH GP require Individual Permit (IP) review.

In a Public Notice published June 18, 2025, the US Army Corps of Engineers announced that it is considering revocation of the New Hampshire General Permit to replace it with a Nationwide Permit. This may affect thresholds for federal permitting and a change of process, and is expected to go into effect early in 2026.

Section 408 of the Rivers and Harbors Act

This program is administered by the USACE. Activities that alter a USACE Civil Works project must be reviewed under the Section 408 program for impacts to the existing project or public interest. As such, alterations to breakwater structures in Rye Harbor will require review under Section 408. Section 408 authorization is required prior to authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act.

Section 402 of the Clean Water Act

In addition to the programs described above, projects that disturb more than one acre of land require a Construction General Permit under Section 402 of the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES). This program is administered by the EPA and includes the development of a Stormwater Pollution Prevention Plan (SWPPP) and filing of an electronic Notice of Intent (eNOI) to the EPA.

TABLE 2
Summary of Environmental Regulatory Permits and Authorizations

Regulatory Agency	Statute /Authority	Permit / Authorization
Local		
Town of Rye, NH	Zoning Ordinance Chapter 60 and Chapter 190	Special Exception or Variance
State		
NH Department of Environmental Services (NHDES)	RSA 482-A, Dredge and Fill in Wetlands Act	Wetlands Permit
	RSA 483-B, Shoreland Water Quality Protection Act	Shoreland Permit
	RSA 485-A:17, Water Pollution and Waste Disposal, Terrain Alteration	Alteration of Terrain Permit
	RSA 212-A, NH Endangered Species Conservation Act	Ecological Review Datacheck Report
	RSA 217-A, NH Native Plant Protection Act	
	Water Quality Certification (WQC); Clean Water Act 33 U.S.C §1251 et. seq, Section 401, WQC #2022-404P-001	Water Quality Certification (WQC)[±]
Federal		
US Army Corps of Engineers	Clean Water Act 33 U.S.C §1251 et. seq, Section 404	NH General Permit[†]
	Clean Water Act 33 Section 408	Categorical Permission
US Environmental Protection Agency	Clean Water Act 33 U.S.C §1251 et. seq, Section 402	Construction General Permit (CGP)
NH Division of Historical Resources, State Historic Preservation Officer	National Historic Preservation Act 54 U.S.C. §3001 et. seq, Section 106	Determination of "no adverse effect"
US Fish & Wildlife Service and the National Marine Fisheries Service	Federal Endangered Species Act 16 U.S.C §1531-1544 et. seq, Section 7	Determination of "no adverse effect"

[†] In a Public Notice published June 18, 2025, the US Army Corps of Engineers announced that it is considering revocation of the New Hampshire General Permit to replace it with a Nationwide Permit. This may affect thresholds for federal permitting and a change of process and is expected to go into effect early in 2026.

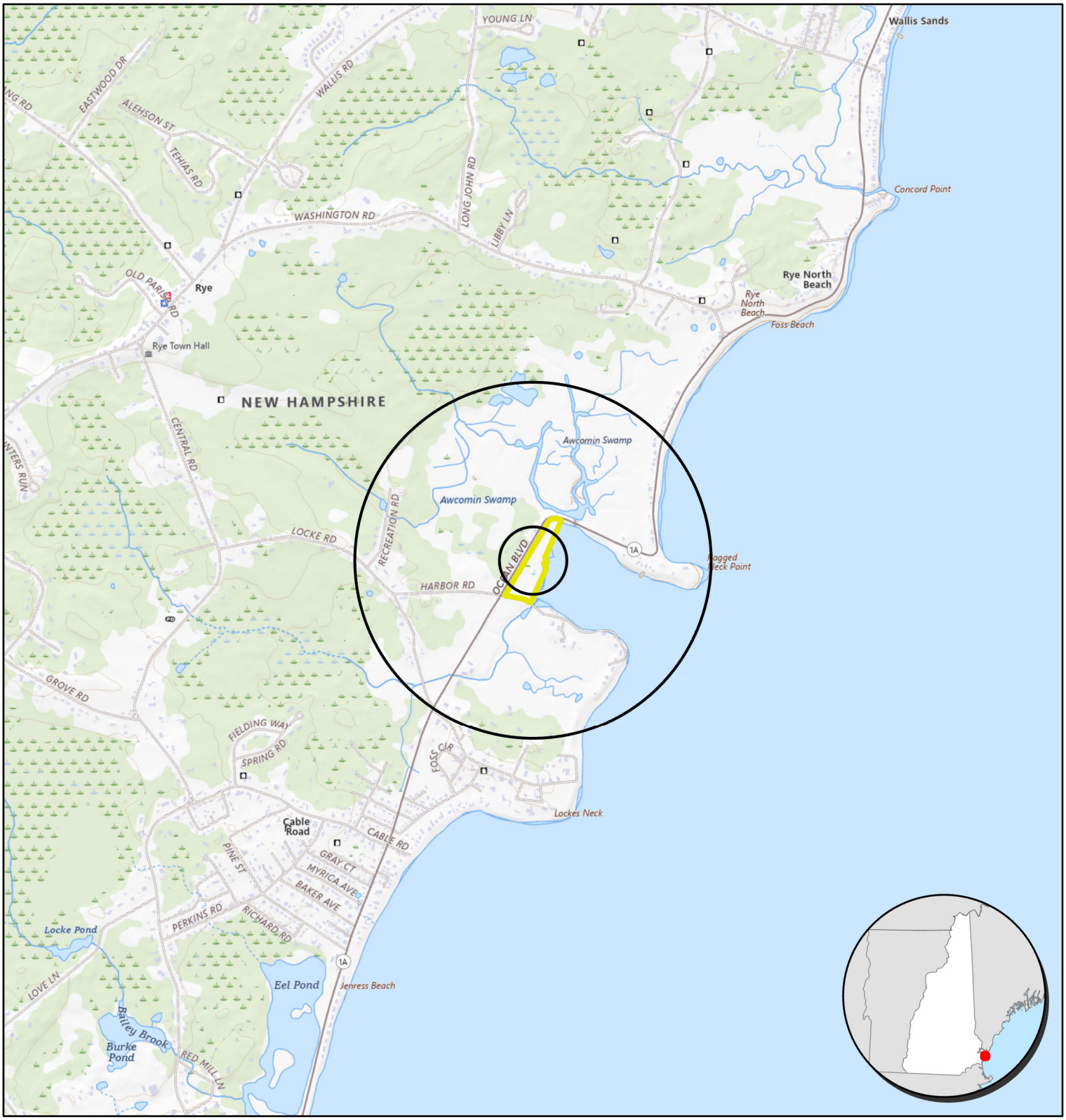
[±] Authorization under Section 401 of the Clean Water Act (WQC) is administered by the NHDES Watershed Management Bureau.

3 Summary

Wetland resource areas in the vicinity of the Rye Harbor project site have been delineated in accordance with applicable local, state, and federal criteria. These areas consisted of the HOTL, tidal wetlands, and non-tidal wetlands. The required permits for the project will depend on the extent of alterations proposed to wetland resource areas and their associated buffer zones and setbacks. Coordination with local, state, and federal regulatory agencies early in the project development process is recommended to minimize impacts to project budget and overall schedule.

FIGURE 1
SITE LOCATION
May 2025

Rye Harbor
1870 Ocean Boulevard
Rye, New Hampshire



Subject Property Boundary

Tighe&Bond

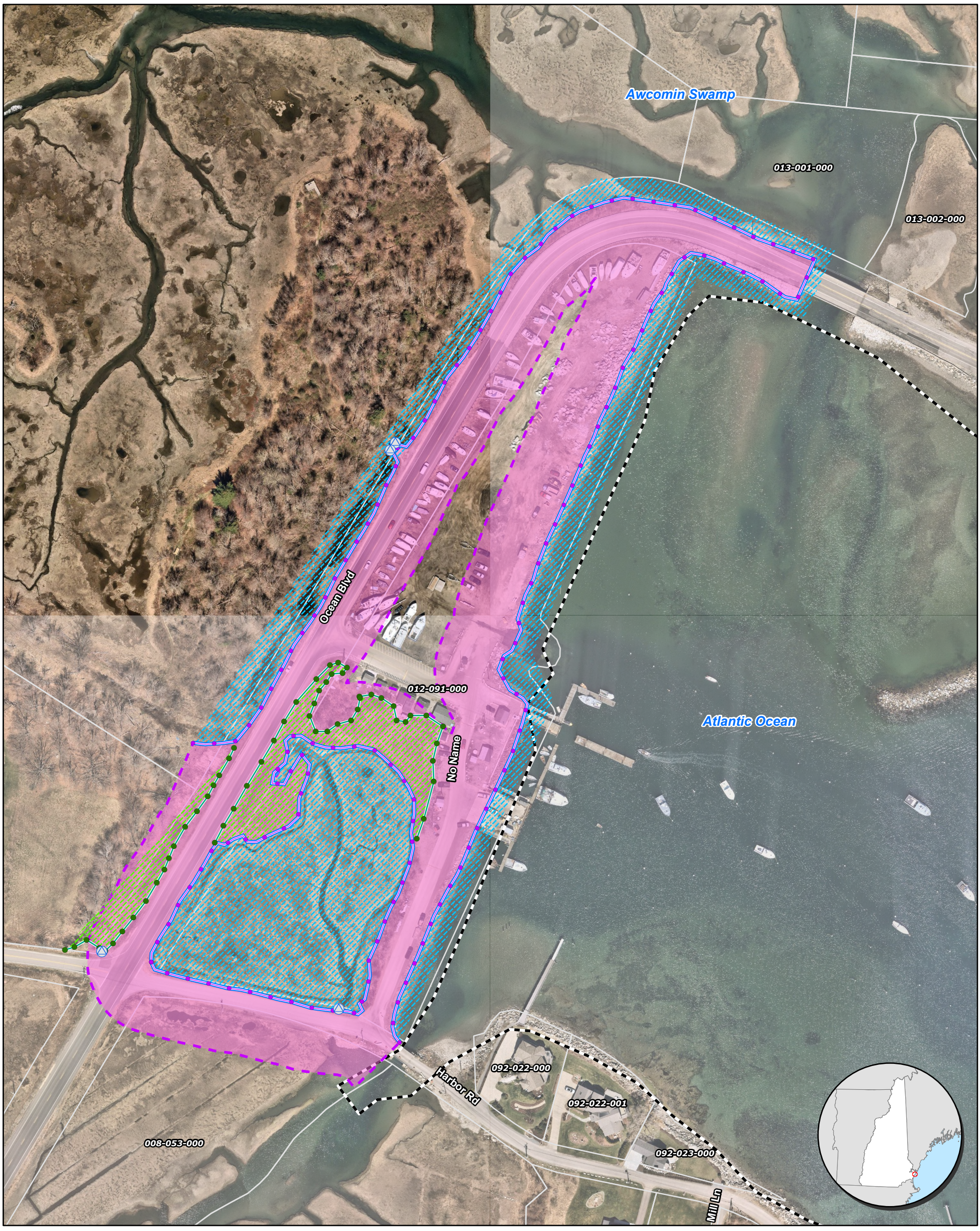
Based on USGS The National Map Topo Basemap.
Contour Interval Equals 10-Feet.
Circles indicate 500-foot and half-mile radii.

N

1:24,000
0 1,000 2,000
Feet

FIGURE 2
AERIAL
April 2025

Rye Harbor Assessment
Ocean Boulevard
Rye, New Hampshire



- Wetland Flag
- Culvert
- Highest Observable Tide Line (HOTL)
- Delineated Wetland Boundary
- Freshwater Wetland
- Tidal Buffer Zone
- Tidal Water/Tidal Wetland
- Approximate Parcel Boundary
- Town Boundary

N

1:1,800

0 75 150

Feet

Tighe&Bond

Based on latest Nearmap Imagery.

National Flood Hazard Layer FIRMette

FEMA

70°45'26"W 43°0'21"N

70°44'49"W 42°59'55"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/6/2025 at 1:52 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Photographic Log

Client: Pease Development Authority **Job Number:** P-5015-0002

Site: Rye Harbor Wetland Delineation
Rye, New Hampshire

Photograph No.: 1	**Date:** 03/19/2025	**Direction Taken:** Northeast

Description: View of the delineated Highest Observable Tide Line along the existing revetment from Harbor Road.

Photograph No.: 2	**Date:** 03/19/2025	**Direction Taken:** Northeast

Description: View of the delineated Highest Observable Tide Line along the Rye Harbor parking area. Ocean Boulevard is visible in the background.

Photographic Log

Client: Pease Development Authority **Job Number:** P-5015-0002

Site: Rye Harbor Wetland Delineation
Rye, New Hampshire

Photograph No.: 3	**Date:** 03/19/2025	**Direction Taken:** West

Description: View of the delineated Highest Observable Tide Line and tidal wetland north of Ocean Boulevard.

Photograph No.: 4	**Date:** 03/19/2025	**Direction Taken:** Southwest

Description: View of the delineated Highest Observable Tide Line and tidal wetland along the west side of Ocean Boulevard.

Photographic Log

Client: Pease Development Authority **Job Number:** P-5015-0002

Site: Rye Harbor Wetland Delineation
Rye, New Hampshire

Photograph No.: 5	**Date:** 03/19/2025	**Direction Taken:** Southwest

Description: View of the transition from the delineated Highest Observable Tide Line / tidal wetland west of Ocean Boulevard to non-tidal wetland 1B.

Photograph No.: 6	**Date:** 03/19/2025	**Direction Taken:** Southwest

Description: View of the delineated Highest Observable Tide Line and tidal wetland along the east side of Ocean Boulevard.

Photographic Log

Client: Pease Development Authority **Job Number:** P-5015-0002

Site: Rye Harbor Wetland Delineation
Rye, New Hampshire

Photograph No.: 7	**Date:** 03/19/2025	**Direction Taken:** South

Description: View of the transition from the delineated Highest Observable Tide Line / tidal wetland east of Ocean Boulevard to non-tidal wetland 1D on the right side of the photo.

Photograph No.: 8	**Date:** 03/19/2025	**Direction Taken:** North

Description: Non-tidal wetland 1D south of the Rye Harbor facilities.

Environmental Permitting Overview: Pease Development Authority Rye Harbor Assessment

Permit/ Review Required	Regulatory Agency	Required?	Regulated Activities	Jurisdiction/Purpose
Local Authorizations				
Site Plan Review, Floodplain Permit, Building Permit, Zoning Special Exception or Variance, Septic Installation Application	Town of Rye Planning Board, Building Inspector/Department, Conservation Commission, Zoning Board of Adjustment, Rye Water District	Required	▪ Grading, repaving, and site improvements ▪ Construction of new drainage system ▪ Construction of new restroom facility ▪ Installation of new septic tank ▪ Reconstruction of revetment ▪ Breakwater improvements ▪ Waste oil shed removal and remediation ▪ Removal and remediation of subsurface storage tanks ▪ Development activites in the Coastal Area District	The Project should consider applicable land use and environmental regulations in the Rye Town Ordinances in design and planning which include, but are not limited to: ▪ The Town of Rye Floodplain Management Ordinance (Chapter 60). Note that a local Floodplain Permit will be required. ▪ The construction and/or renovation of buildings will require review from the Town of Rye Building Inspector and a local Building Permit will be required under the Building Code Ordinance (Chapter 35). ▪ New subsurface stormwater infrastructure will need to comply with the Town of Rye Illicit Discharge Detection and Elimination Ordinance (Chapter 70). ▪ A new septic system will require a septic installation application reviewed by the Rye Building Department and Rye Water District and must comply with the Town of Rye Land Development Standards for septic systems (Chapter 202-6.7). ▪ The Wetlands Conservation District Overlay (Chapter 190-3.1), which includes wetland areas (e.g., tidal lands, freshwater wetlands, streams, ponds, etc.), and established Buffer Zones. Alterations of these areas, including fill, excavation, and dredging, is prohibited without review by the Conservation Commission and Zoning Board of Adjustment.
State Authorizations				
Alteration of Terrain Permit	NHDES Alteration of Terrain (AoT) Bureau	Required - For disturbances greater than 50,000 square feet of contiguous terrain within the Protected Shoreland (250-feet from the Highest Observable Tide Line)	▪ Grading, repaving, and site improvements ▪ Construction of new drainage system ▪ Construction of new restroom facility ▪ Installation of new septic tank ▪ Reconstruction of revetment ▪ Waste oil shed removal and remediation ▪ Removal and remediation of subsurface storage tanks	RSA 485-A:17 Terrain Alteration and Env-Wq 1500 Alteration of Terrain Purpose: To protect NH surface waters, drinking water supplies and groundwater by controlling soil erosion and managing stormwater runoff from developed areas.
Shoreland Permit	NHDES Wetlands Bureau	Required - For work within the Protected Shoreland (250-feet from the Highest Observable Tide Line)	▪ Grading, repaving, and site improvements ▪ Construction of new drainage system ▪ Construction of new restroom facility ▪ Installation of new septic tank ▪ Reconstruction of revetment ▪ Waste oil shed removal and remediation ▪ Removal and remediation of subsurface storage tanks	RSA 483-B Shoreland Water Quality Protection Act and Env-Wq 1400 Purpose: To protect surface water quality by limiting soil erosion, nutrient pollution, reduction in vegetated areas, and creation of new impervious areas within lands adjacent to the state's larger waterbodies. The protected shoreland are those lands that are located within 250 feet (measured using a horizontal surveyors line) from the reference line of protected waterbodies.

Environmental Permitting Overview: Pease Development Authority Rye Harbor Assessment				
Permit/ Review Required	**Regulatory Agency**	**Required?**	**Regulated Activities**	**Jurisdiction/Purpose**
State Authorizations (continued)				
Wetlands Permit	NHDES Wetlands Bureau	Required - For direct impacts to freshwater and tidal wetlands, and for impacts within the Tidal Buffer Zone	▪ Grading, repaving, and site improvements ▪ Construction of new drainage system ▪ Construction of new restroom facility ▪ Installation of new septic tank ▪ Reconstruction of revetment ▪ Breakwater improvements ▪ Waste oil shed removal and remediation ▪ Removal and remediation of subsurface storage tanks	RSA 482-A and Env-Wq 100-900 Wetlands Rules Purpose: To protect and preserve submerged lands under tidal and freshwaters and wetlands. Applies to both minor and major impact projects. Required for any impact to regulatory wetlands, including the Tidal Buffer Zone. Requires consultation with local Conservation Commission, NH F&G and NH DHR. Tiered permit thresholds require varying levels of compensatory mitigation and agency review depending on the amount and type of wetland involved.
Threatened & Endangered Species Consultation	NHDES Ecological Review Section	Required - Consultation as required by local, state or federal agencies that will issue a permit for the project.	▪ All activities within proximity to listed threatened, endangered, or special concern species or their habitats.	Native Plant Protection Act of 1987 (RSA 217A) and data collection for NH Fish & Game's Nongame and Endangered Wildlife Program. RSA 212-A "Endangered Species Conservation Act" NHB is not a regulatory agency. However, if permits are required from a federal, state or local agency, those agencies can require consultation with NHB regarding the potential presence of these resources within or in the vicinity of a project area. The NH Natural Heritage Bureau (NHB) finds, tracks, and facilitates the protection of New Hampshire's rare plants, wildlife, and exemplary natural communities (types of forests, wetlands, grasslands, etc.). NHB and NHFG work primarily with landowners and land managers to help them protect rare plants, wildlife, and exemplary natural communities while meeting their land-use needs.
New Hampshire State Historic Preservation Office (SHPO) Review	New Hampshire Division of Historical Resources (NH DHR)	Required - If the project requires a federal permit/funding or state permit/funding.	▪ The entire limits of work	Section 106 - National Historic Preservation Act Purpose: Protection of the public's interest in preserving historic and archaeological properties. NH Division of Historical Resources determines whether the project will have any adverse effect, direct or indirect, on any property listed in the State and National Register of Historic Places.
New Hampshire Building Code Permit	New Hampshire State Fire Marshal's Office (NH Division of Fire Safety)	Required - For construction or renovation of buildings on State-owned property.	▪ Construction of new restroom facility	RSA 155-A:1 IV - New Hampshire Building Code Purpose: To establish minimum standards for new building construction. The NH Fire Marshal will give due consideration to any written recommendations of the municipal fire chief, building official, or designee in the Town of Rye.
Notification of Hazardous Waste Activity	NHDES Waste Management Division	Required - For hazardous waste activities	▪ Waste oil shed removal and remediation ▪ Removal and remediation of subsurface storage tanks	Env-Hw 504.02(a) Any activities relating to hazardous waste or storage facilities (undergound and above ground) on the site must be reported to NHDES Waste Management Division.
Septic System Design/Installation Permit	New Hampshire Subsurface Systems Bureau	Required - For construction of a subsurface septic system.	▪ Installation of new septic tank	RSA 147, RSA 485-A, and Env-Wq 1000 Subdivisions; Individual Sewage Disposal Systems Purpose: To review and approve the design of individual septic systems in order to prevent pollution of all public or private water supplies, whether underground or surface sources.

Environmental Permitting Overview: Pease Development Authority Rye Harbor Assessment				
Permit/ Review Required	**Regulatory Agency**	**Required?**	**Regulated Activities**	**Jurisdiction/Purpose**
Federal Authorizations				
Clean Water Act Section 404 / Rivers and Harbors Act Section 10 General Permits (GPs) or Individual Permit (IP)	U.S. Army Corps of Engineers	Required - For direct impacts to Waters of the United States and structures in or over navigable Waters of the U.S.	▪ Discharge of dredged or fill material to Waters of U.S., including areas seaward of the high tide line and delineated wetlands	Section 404 of the Federal Clean Water Act and Section 10 of the Rivers and Harbors Act; 33 CFR 320-332. Regulates discharges of dredged or fill material into Waters of the U.S. (Section 404) and the construction of structures in or over navigable Waters of the U.S. Purpose: Seeks to protect public health and restore and maintain the chemical, physical, and biological integrity of the water resources of the U.S. Revetment reconstruction may be eligible as a maintenance activity under the NH General Permit. An Individual Permit from the Army Corps of Engineers may be required for breakwater improvements should impacts exceed thresholds outlined in the General Permit (e.g., >1 acre of impacts in tidal waters, >1000 square feet of tidal Special Aquatic Sites (SAS), or >100 square feet of submerged aquatic vegetation (SAV) or areas containing shellfish). The Corps retains discretionary authority to elevate eligible activities on concerns for the aquatic environment or any other factor of the public interest (33 CFR 320.4 (a)).
Rivers and Harbors Act Section 408 Authorization	U.S. Army Corps of Engineers	Required - for alterations to breakwaters	▪ Breakwater improvements	33 U.S.C. §408 Activities conducted by an entitiy (e.g., a local government, company, or individual) that alter a U.S. Army Corps of Engineers Civil Works project must be reviewed under the Section 408 program for impacts to the existing project or public interest. Section 408 authorization is required prior to authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act.
401 Water Quality Certification	NHDES Watershed Management Bureau	Required - If the project involves discharge into Waters of the U.S. in New Hampshire	▪ Discharge of dredged or fill material to Waters of U.S., including areas seaward of the high tide line and delineated wetlands	Section 401 of the Federal Clean Water Act and NH Code of Administrative Rules - Ws 451-455 Activities that require a federal permit and that may result in a discharge to surface waters of the state. If the Corps were to require an Individual 404 Permit, then an Individual 401 Water Quality Certificate would also be required.
National Pollutant Discharge Elimination System (NPDES) Construction General Permit	U.S. Environmental Protection Agency	Required - For the disturbance of greater than 1 acre of land	▪ Discharge of dredged or fill material to Waters of U.S., including areas seaward of the high tide line and delineated wetlands▪ Grading, repaving, and site improvements ▪ Construction of new drainage system ▪ Construction of new restroom facility ▪ Installation of new septic tank ▪ Reconstruction of revetment ▪ Waste oil shed removal and remediation ▪ Removal and remediation of subsurface storage tanks	Clean Water Act, 33 U.S.C. §1251 et. Seq.; 40 CFR Part 122.26 Purpose: Required for projects that disturb greater than 1 acre of land. Requires development of a Stormwater Pollution Prevention Plan (SWPPP) and filing of an electronic Notice of Intent (eNOI) to the EPA.

Appendix C:

Coastal Vulnerability Assessment

Rye Harbor Marine Facility
Assessment & Recommendations
for Improvements

Rye Harbor – Coastal Vulnerability Assessment

TO: Paul Brean, Executive Director, Pease Development Authority

FROM: Michael Larner, Tighe & Bond

COPY: Dennis Moran, Tighe & Bond
Shannon Jamieson, Tighe & Bond

DATE: October 7, 2025

The following provides an overview of the coastal vulnerability assessment for the boat ramp and marine facility located within Rye Harbor in Rye, New Hampshire. Specifically, this memo details the relative exposure thresholds and risks to harbor facilities and infrastructure associated with sea level rise (slr), coastal storm impacts, and typical coastal processes including erosion and shoreline change.

1 Introduction

Located along the northern coast of New Hampshire, Rye Harbor is a protected estuarine basin located about five miles south of Portsmouth Harbor. The harbor is sheltered from the open Atlantic Ocean by two large stone breakwaters. Rye Harbor's inner basin and public boat ramp are critical access points for commercial and recreational boating, emergency response, and community use. However, the facility is increasingly vulnerable to sea level rise, coastal storms, and tidal flooding, as identified by NOAA, the New Hampshire Coastal Risk and Hazards Commission, and UNH Sea Grant analyses.

The boat ramp and adjacent infrastructure (parking, seawalls, docks, and circulation space) currently operate effectively under today's tidal regime but are subject to overtopping during storm surges and will face increasing impacts as mean higher high water (MHHW) rises. Historical records from nearby tide gauges (e.g., Portsmouth, NH and Boston Harbor, MA) indicate approximately 1 foot of sea level rise since the early 1900s, with accelerated rates projected over the next century. These accelerated rates have the potential to substantially impact daily operations of the harbor and adjacent facilities:

- +1 ft SLR (by 2050 under intermediate projections): The ramp apron and parking low spots will see frequent tidal flooding at spring tides, with storm surges overtopping more often. Functionality will be compromised several times per year.
- +2 ft SLR (mid-century under higher scenarios, late-century under moderate): The ramp will be tidally flooded multiple times per month. Parking and circulation areas will be regularly inundated, and safe trailer launching will become unreliable without upgrades.
- +3 ft SLR (late-century under high scenarios): Daily flooding of the apron and parking will render the facility largely inoperable without major reconfiguration or relocation.

1.1 Site Description

Rye Harbor opens into a protected basin that is rectangular in shape roughly 2,000 ft long and 900 ft wide, covering about 39 acres. The stone breakwaters sheltering the harbor, built

by the US Corps of Engineers (USACE) in 1939, are approximately 540 feet long on the north side and 530 feet long on the south. The breakwaters have a crest height of approximately 9-12 feet NAVD88.

Access in and out of the harbor and basin is maintained through a narrow, dredged federal navigation channel. The channel is approximately 2,300 feet long and has a width of 100 feet, with a primary depth of eight feet of thefrom the inner basin, fishing pier, and boat launch facility to the head of the channel (1,700 feet of the channel). The remaining 600 feet of the channel has a dredge depth of 10 feet. On the north and south sides of the channel there are two anchorage basins, each approximately 5 acres in size. The anchorage to the north has an average depth of 6 feet and the anchorage to the south is maintained at 8 feet.

The upland immediately adjacent to the harbor is a mix of parkland (Rye Harbor State Park) and a gravel parking area supporting seasonal marine facilities, including the boat ramp, launching area, and operator buildings. Rye Harbor State Park is an open grassy area with paved and gravel parking situated at approximately 7.0 feet NAVD88. To the south the upland area is at a similar elevation and modestly developed with small service structures and seasonal marine operations. The wider landscape beyond the park includes the 150 acre salt marsh, Awcomin Swamp, north of the harbor and a roughly 40-acre marsh to the south, separated from the harbor uplands by the low-lying development. Typical marsh platform elevations within the marsh are approximately 3-4 feet NAVD88.

1.2 Shoreline Change

New Hampshire's Atlantic coastline is short and heavily managed with seawalls, revetments, and inlet structures; consequently, "natural" long-term shoreline-change rates are less diagnostic than along open, unarmored beaches. In Rye Harbor, adjacent shorelines (Jenness Beach, Ragged Neck, and the harbor entrance spits) have experienced episodic change driven by inlet dynamics, storms, and sediment management. Up-drift armoring can starve nearby beaches of littoral sediment, while the inlet can trap or redirect sand bars, periodically altering navigation shoals and ebb-delta morphology that influence wave climates inside the harbor.

Harbor-side behavior. Within the inner basin, change expresses as bank trimming along revetments, settlement of armor stone, shoaling at the ramp toe, and periodic dredging needs. Because the facility is low-lying, even small shifts in bed level and shoreline position affect drainage and operational uptime. Unlike Massachusetts' long, consistent shoreline-change datasets, Rye Harbor relies on more from site-specific bathymetric and topographic time-series: annual ramp toe soundings, RTK surveys of the apron and parking lot, and photogrammetric mapping after large storms.

Around the boat ramp, banks are largely engineered edges: concrete ramp, riprap revetments, and short sections of vegetated fringe. Erosion occurs via overtopping and backwash on spring tides and storm-driven wave attack during elevated water levels. Reflected energy from steep, smooth structures accelerate scour at the ramp toe and unraveling of revetments. Where the shoreline transitions to vegetated margins, prop-wash and drawdown from vessels can mobilize fine sediment, stressing fringe marsh and exposing roots.

2 Tides

Rye Harbor sits on New Hampshire's short open coast reach between Hampton and the mouth of the Piscataqua River. The region lies on the southwest flank of the Gulf of Maine, which is well known for a large, semi-diurnal tide (two highs and two lows most days) with modest

diurnal inequality, meaning that the area around Rye Harbor experiences a reliable twice-daily (12.4-hour cycle) rise and fall of the tide. Typically, there is only a small difference between the day's two highs or two lows. However, the tide range during spring tides is notably larger resulting in higher high tide levels and lower low tide levels than during neap tides. NOAA's glossary and datum guidance frame the key measures: "mean range of tide" (MN) is the average difference between mean high water (MHW) and mean low water (MLW) over a 19-year epoch, while the "great diurnal range" is the average difference between mean higher high water (MHHW) and mean lower low water (MLLW). These are the standard, comparable ways to describe how much typical tidal influence a region like Rye Harbor experiences.

Because there is no long-running primary NOAA water-level station inside Rye Harbor itself, a standard practice is to characterize its tide using nearby, quality-controlled CO-OPS stations with long, continuous histories and well-defined tidal datums. The two active long-term water-level stations proximate to Rye Harbor are the Boston Harbor, MA gauge (NOAA Station 8443970) to the south, and Seavey Island, ME (NOAA Station 8419870) at the Portsmouth Naval Shipyard just northeast of Rye Harbor. Both are operated by NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) with full datum control, long records, and a suite of products (water levels, predictions, extremes, and trends), making them the most defensible long-term benchmarks for Rye Harbor.

Standard tide datums computed from the Boston Harbor and Seavey Island tide records are presented in Table 1 and corroborated with datums calculated for Rye Harbor using NOAA's VDatum. Boston's published tidal datums (referenced to NAVD88) show a mean range of 9.49 feet and a great diurnal range of 10.27 feet (MHHW–MLLW). The relatively large tide range is characteristic of Massachusetts Bay and the southwest Gulf of Maine. To the north of Rye Harbor, Seavey Island's datums present a mean range of 8.16 feet and a great diurnal range of 8.89 feet, slightly smaller than Boston, which fits the geographic pattern as you move north toward the open Gulf and away from the bay's modest tidal amplification. Together, these two stations bracket Rye Harbor and provide a realistic envelope for the harbor's typical mean tide range (roughly 8 to 9 feet on average, with springs running larger) which is in good agreement with Vdatum calculations.

A nearby check helps confirm that envelope is appropriate for Rye Harbor specifically. Previously NOAA maintained a station at Fort Point, NH (removed in April, 2020), with an accepted set of tidal datums (mean range of 8.63 feet and great diurnal range of 9.39 feet). Fort Point is closer to Rye Harbor than Boston is, and its mean range sits right between Seavey Island and Boston, reinforcing the expectation that Rye Harbor's average range is around 8 to 9 feet. While Fort Point serves as additional useful corroboration to validate output datums from Vdatum, its accepted status dates to 2016 and the record length is shorter than Boston Harbor and Seavey Island, making them defensible "long-term" controls for planning, engineering, and historical comparison.

Table 1. Comparison of tidal elevations at Rye Harbor (NH), Boston Harbor (MA), and Seavey Island (ME)

Datum	Description	Rye Harbor*	Boston Harbor (Sta. 8443970)	Seavey Island (Sta. 8419870)
MHHW	Mean Higher High Water	4.41	4.77	4.18
MHW	Mean High Water	3.98	4.32	3.76
MTL	Mean Tide Level	-0.39	-0.42	-0.32
MSL	Mean Sea Level	-0.28	-0.30	-0.25
MLW	Mean Low Water	-4.75	-5.17	-4.39
MLLW	Mean Lower-Low Water	-5.10	-5.50	-4.71
MN	Mean Tide Range	8.72	9.49	8.16

**Values obtained through NOAA Vdatum (Lat: 42.999859, Lon: -70.745004)*

3 Coastal Storms

Seasonal and meteorological effects (i.e., storm surge, setup, or seiches) modulate observed water levels above and below the predicted tide. Here again, the long-term NOAA stations offer robust context. Boston Harbor's extremes and exceedance curves show how often certain high-water thresholds are reached, including the notable January 4, 2018, event. While Rye Harbor's exact surge response depends on local exposure and inlet geometry, the shape and statistics of extremes from Boston and Seavey Island are the most reliable long-term proxies for planning thresholds (e.g., dock freeboard, parking-lot overtopping) at Rye Harbor.

Rye Harbor is partially sheltered by natural spits and engineered shorelines, but the harbor mouth and inner basin are still exposed to storm surge, long-period swell refracting around the headlands, and wind setup within the basin. The impacts associated with coastal storms often result from compounded events, such as elevated water levels during nor'easters or strong fall/winter storms that enable waves to reach the ramp apron and lower lot, while wave reflection from stone revetments can intensify local turbulence and scour. The large tidal prism and narrow entrance also generate strong currents that can mobilize sediment and subject floating infrastructure to additional loading.

3.1 Water Levels

Historical water levels obtained from the long-term records at Boston Harbor (established in 1921) and Seavey Island (established in 1926) are presented in Table 2. While the ranking of the largest flooding events vary between Boston and Seavey Island, the ten largest events all correspond to extra-tropical winter storms, highlighting the risks associated with easterly storms (commonly referred to as nor'easters).

Seavey Island exhibits lower extreme water levels than those experienced at Boston Harbor, likely due to it's sheltered location and south facing orientation. Notably, all the recorded water levels in Table 2 at Boston Harbor exceed the benchmark for the 10-year return period still water level of 7.24 feet for Rye Harbor, as calculated by The Federal Emergency

Management Agency (FEMA)[1]. Inundations depths under uniform static water levels at the FEMA 10-year still water level for Rye Harbor are present in Attachment 1.

Table 2. Comparison of the 10 highest recorded water levels in Boston Harbor, MA and Seavey Island, ME

	Boston Harbor (NOAA Sta. 8443970)		Seavey Island (NOAA Sta. 8419870)	
Rank	Water Level (ft, NAVD88)	Date	Water Level (ft, NAVD88)	Date
1	9.66	January, 2018	8.35	January, 2024
2	9.59	February, 1978	7.88	February, 1978
3	9.13	March, 2018	7.68	December, 2022
4	8.91	January, 2024	7.21	November, 1944
5	8.69	January, 1987	7.21	December, 1959
6	8.63	October, 1991	7.20	March, 2024
7	8.53	January, 1979	7.17	January, 1978
8	8.52	December, 1992	7.13	March, 1976
9	8.47	December, 1959	7.03	January, 2010
10	8.47	December, 2022	7.01	January, 2014

The return period water levels provided in the most recently revised Flood Insurance Study for York County, Maine[2] are higher than the statistical analysis calculated using the water elevation record from Seavey Island by more than 1 foot (Table 3). However, it is important to note that the NOAA elevations are based exceedance probability levels for the mid-year of the 1983-2001 tidal epoch (1992) calculated only from water levels measured by the gauge and are not adjusted for the change in sea level that has occurred over the past 30 years, nor do these calculations consider static high water marks or USACE tidal profiles. Projections for the 10% and 1% exceedance probabilities in 2025, assuming a linear rise in relative sea level since 1992, are 7.3 feet and 8.0 feet respectively.

[1] Federal Emergency Management Agency, Flood Insurance Study, Rockingham County, New Hampshire (All Jurisdictions), Effective January 29, 2021

[2] Federal Emergency Management Agency, Flood Insurance Study, York County, Maine (All Jurisdictions), Effective July 17, 2024

Table 3. Return period still water elevations predicted by FEMA for Rye Harbor and Seavey Island compared with water levels calculated from data record for the Seavey Island NOAA tide gauge station.

Return Period	Still water Elevations (ft, NAVD88)		
	Rye Harbor (FEMA)	Seavey Island (FEMA)	Seavey Island (NOAA)
10-Year (10% annual chance)	7.24	8.2	7.18
50-Year (2% annual chance)	7.98	8.8	7.58
100-Year (1% annual chance)	8.36	9.2	7.78
500-Year (0.2% annual chance)	9.43	9.8	NA

The 100-year Base Flood Elevations (BFEs) defined by FEMA, which are the basis for the National Flood Insurance Program, are generally much higher than the coastal still water annual exceedance levels because still water thresholds do not include superposition of wave crest elevation or the influence of wave setup and runup. However, the

The BFEs located within Rye Harbor, established by FEMA and shown as Flood Zone AE Special Flood Hazard Area (SFHA) on Flood Insurance Rate Maps (FIRMs) 33015C0269F, 33015C0288F, and 33015C0451F, are EL 12, EL 11, and EL 10 (Figure 1). These BFEs are associated with coastal flooding, not riverine flows. All elevations shown and referenced are based on the 1988 North American Vertical Datum (NAVD 1988).

Figure 1. FEMA flood map (effective 1/29/2021) for Rye Harbor

3.2 Waves

As wave energy propagates into shallower water near shore, the height of the shoaling waves will change, and they will gradually change direction to conform to the bathymetry in that area. Likewise, waves will bend or spread as they encounter structures such as breakwaters or jetties which further increases the complexity of predicting nearshore wave characteristics. In order to obtain realistic estimates of how offshore storm waves are transformed as they propagate into Rye Harbor and interact with the jetties at the mouth of the harbor, the two-dimensional numerical spectral wave model SWAN ("Simulating Waves Nearshore") was used.

SWAN is a third-generation steady state, numerical wave model developed at Delft University of Technology of the Netherlands[3] for predicting the generation, propagation, and transformation of wind waves in coastal regions, estuaries, lakes, and harbors. SWAN is a flexible and efficient program based on the wave action balance equation that can quickly solve wave conditions in a two-dimensional domain using the iterative Gauss-Seidel technique. Unlike simple spectral models designed for deep water (such as WAM), SWAN is tailored to the shallow coastal zone, where complex physical processes strongly modify wave conditions.

The computational domain for Rye Harbor was developed on two regular cartesian grids (*x* and *y* cell dimensions are equal) with different resolutions and used the steady state finite-difference scheme to determine fully developed wave parameters and characteristics during 100-year return event conditions. To increase runtime and reduce computational cost, a coarse grid with 328-foot (100-meter) spacing was used to simulate the offshore region between the harbor and the location of the WIS hindcast station where deep water conditions result in longer wave lengths and closely spaced grid nodes are not necessary. A higher resolution grid with 16.4-foot (5-meter) spacing encompassing Rye Harbor was nested within the domain of the coarse grid, so that spatially varying output from the coarse grid could be used as the boundary condition of the nearshore higher resolution grid.

The coarse grid consisted of 33,592 computational cells (247 cells along the *x*-axis and 136 cells along the *y*-axis). Bathymetry for the coarse grid domain was obtained from the GEBCO_2024 15 arc-second interval grid for the Northeast (Figure 2). The 5-meter resolution grid consisted of 41,904 computational cells (216 cells along the *x*-axis and 194 cells along the *y*-axis). The composite topographic and bathymetric data interpolated to the nested grid consisted primarily of data from the 2018 USACE NCMP Topobathy LiDAR project for the East Coast, and was supplemented with updated topography from the 2019-2020 USGS LiDAR: NH Coastal data (Figure 3).

[3] Booij, N., Ris, R.C., and Holthuijsen, L.H., 1999. A third-generation wave model for coastal regions, part 1: Model description and validation. Journal of Geophysical Research 104 (C4), 7649-66.

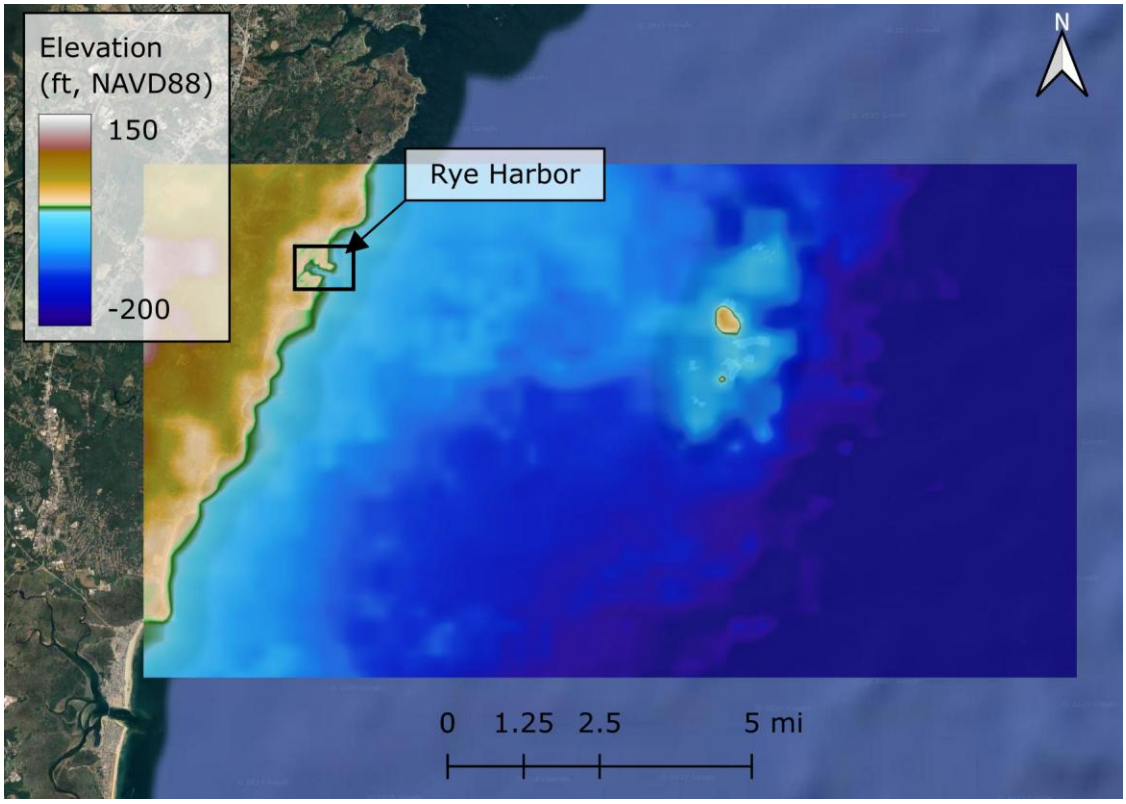


Figure 2. Interpolated bathymetry for the coarse grid SWAN model domain

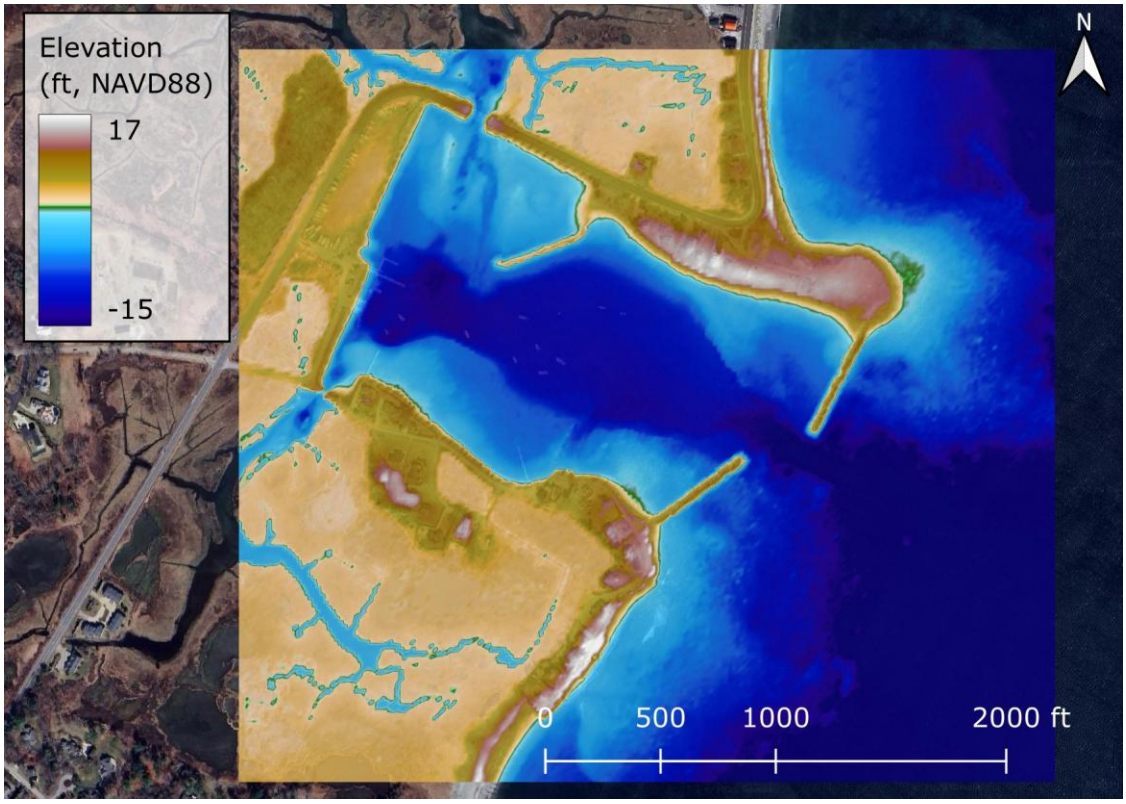
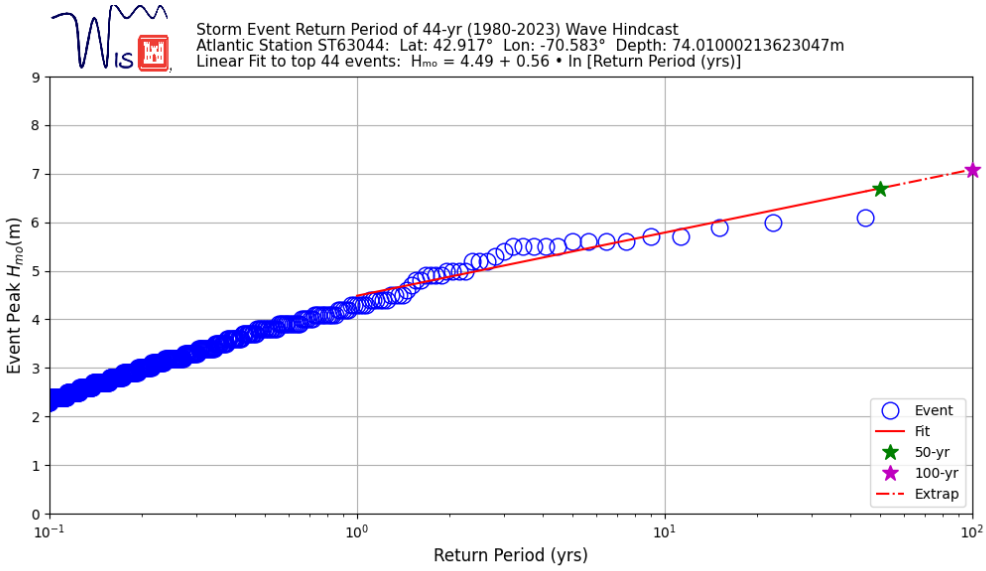


Figure 3. Interpolated bathymetry for the nested grid SWAN model domain

Wave conditions were generated using the data available from the WIS hindcast database from station 63044. The WIS data were used to develop offshore wave boundary conditions.

The WIS station is located approximately 10.2 miles southeast of the jetties at Rye Harbor and has a record that spans the 44-year period between January 1980 and December 2023. Each hourly WIS time step includes parameters that describe the wave conditions (i.e., wave period, T_p; wave height, H_s; and direction, θ) and wind (direction and speed) at the station. The recurrence intervals for the largest significant wave heights spanning the entire hindcast wave record is presented in Figure 4. There were no waves in the hindcast recorded that reached the calculated 100-year return period wave height, so the extrapolated 100-year significant wave height of 7.1 meters (23.3 feet) was used as the boundary wave height parameter. Additionally, a peak period of 12.5 seconds was approximated based on the top 10 events based on peak wave height (bottom panel of Figure 4). The boundary condition wave height and wave period was applied to the south, east, and north boundaries of the course grid domain with an angle coming from the east-southeast compass sector. This angle was chosen because the east-southeast sector presented greatest amount of exposure due to the orientation of the harbor and location of the Isle of Shoals relative to the harbor. The wave spectrum resolution specified for the nested model runs included the full 360-degree compass circle divided into 72, five-degree segments, with 40 discrete frequencies, between 0.06 and 1.00 Hz (corresponding to periods of between 16.7 and 1.0 seconds).

The water level in the model was set to the 100-year FEMA still water level of 8.36 feet (2.55 meters) and a uniform wind field with adjusted winds obtained from the ASCE Hazard tool was applied across the model domain.



Top 10 Events based on Peak H_{mo}

Event	Date/Time(UTC)	H_{mo}	T_p	θ_{mean}	Event	Date/Time(UTC)	H_{mo}	T_p	θ_{mean}
1	2012/10/30 01:00	6.1	12.3	102.2	6	2022/01/17 16:00	5.6	10.6	111.1
2	2010/02/26 07:00	6.0	11.6	99.8	7	2013/02/09 08:00	5.6	10.7	64.5
3	1980/01/16 12:00	5.9	11.8	75.1	8	1993/03/14 09:00	5.6	11.2	109.7
4	2007/04/16 15:00	5.7	10.6	99.2	9	2021/02/02 12:00	5.6	11.1	82.0
5	2014/12/10 02:00	5.7	11.4	98.9	10	2023/12/18 22:00	5.5	11.7	133.1

An event is defined as any period when H_{mo} > 1.95m

θ_{mean} is the direction that waves are arriving from

Figure 4. Extreme analysis plot (top panel) for significant wave height at WIS Hindcast Station ST63044, in meters. The extrapolated 100-year wave height is 7.1 meters (23.3 feet). Ten largest wave height events in the 44-year record at ST663044 (bottom panel). The largest wave height in the hindcast record is 6.1 m (20.0 feet). Source: US Army Corps of Engineers (USACE) Wave Information Study (WIS).

Examples of wave model output are presented in Figure 5 and Figure 6, from coarse and fine grids, for the 100-year event model simulation. In these plots the color contours indicate wave height, and wind/wave directions are coming from the east-southeast. The wave model output suggests that during a current 100-year event the breakwaters at the mouth of the harbor are sufficiently sized to limit wave transmission over the structures and into the harbor. However, the entrance does provide a conduit for wave energy to enter the harbor. Dispersion of the wave energy as is spreads after entering the harbor reduces the wave heights from 8-10 feet down to approximately 4-4.5 feet in the vicinity of the boat ramp. Current breakwater crest elevations will also significantly reduce wave energy under future storm events given 'high-intermediate' slr projections because of their relative influence on wave breaking, but overtopping rates will increase and likely result in greater storm setup and water impounding within the harbor basin.

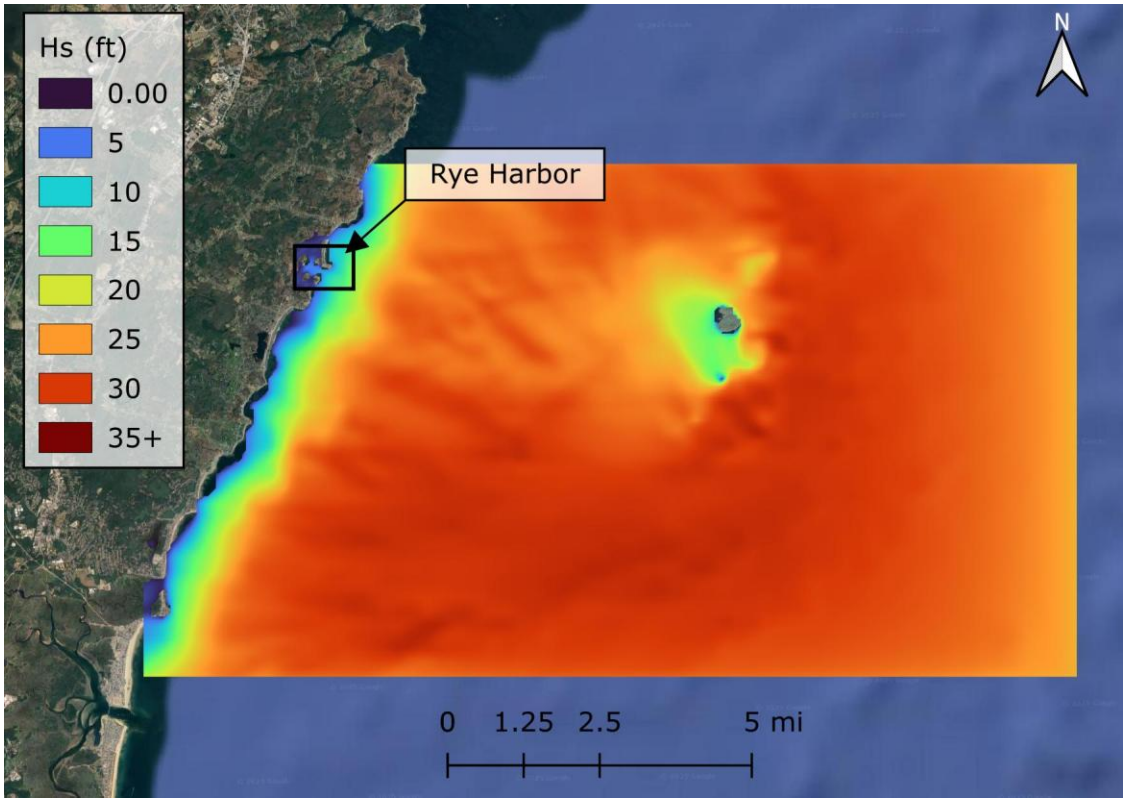


Figure 5. Wave height (Hs) output for the coarse grid SWAN model

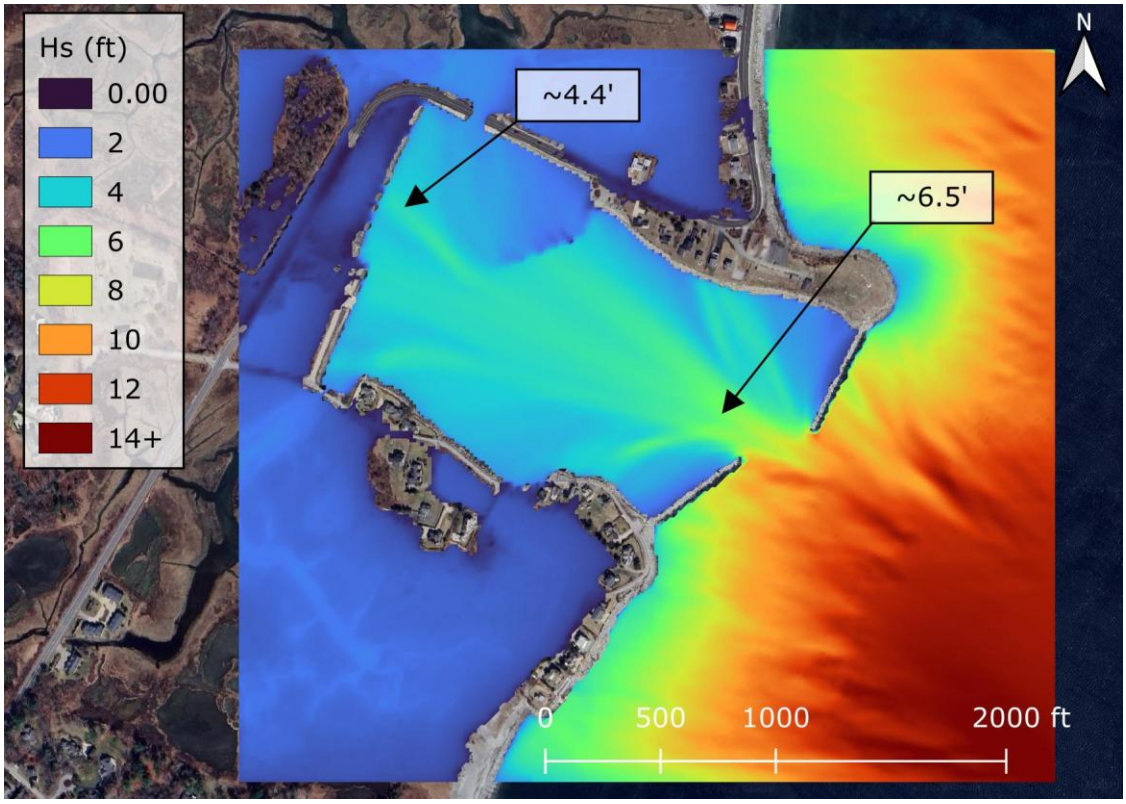


Figure 6. Wave height (Hs) output for the nested SWAN model

4 Sea Level Rise

Sea level is rising globally due to thermal expansion of seawater and land-ice loss from glaciers and the Greenland/Antarctic ice sheets. The latest U.S. Interagency Sea Level Task Force Report (2022) suggests U.S. coastlines will see approximately 10-12 inches of rise by 2050 relative to 2000–2020 baselines, largely independent of emissions in the near term. Beyond 2050 slr scenarios begin to diverge significantly as ice-sheet responses introduce greater uncertainty. For New England, dynamic ocean processes and modest land subsidence can nudge local slr above or near the global mean.

The nearest long-record NOAA tide gauge is the formerly existing station at Fort Point, NH (8423898), which shows a relative sea-level trend of approximately 2.04 mm/yr (±0.19), or about 8 inches per century, from 1926 to 2019. By comparison, Boston's century-scale trend is approximately 2.97 mm/yr (about 1.0 foot/century), underscoring that variability in the impacts and rate of slr can exist across relatively short stretches of coastline. A mean tidal range of approximately 8.6 feet (discussed in Section 2) will strongly modulate flooding and access around the harbor. Inundation of the upland area begins at water levels approximately equaling the 10-year flooding event. As such, even modest storms coinciding with peak high tides can trigger flooding impacts due to the less than 3-foot difference between MHHW and the 10-year still water level; coupled with wave action, and consistent nuisance flooding will be likely.

New Hampshire's Coastal Flood Risk Summary from the New Hampshire Department of Environmental Services (NHDES) and earlier Coastal Risk & Hazards Commission (CRHC) work provide locally adopted planning values and guidance. The 2014 Science & Technical Advisory Panel summarized likely ranges of approximately 0.6 feet to 2.0 feet by 2050 and approximately 1.6 feet to 6.6 feet by 2100 (relative to 1992 MSL) for coastal NH; the State

has since issued guidance on using these projections for risk-informed decisions and is in the process of updating them.

Because the boat ramp, float system, and adjacent parking occur at low elevations within a large tidal range, modest SLR causes disproportionately large increases in the frequency and duration of tide-driven inundation of the lower apron, approach road, and storm-drain outfalls. With approximately 1 foot of SLR (a plausible 2050 lower bound nationally), current spring-tide splash zones can shift into routine tidal flooding of the lowest ground; with just above 2 feet (well within the States 2050 projection window), high-tide flooding and saltwater backflow through drains could occur monthly to weekly, complicating launch operations, parking, and emergency access. Add storm surge: even modest nor'easters riding on an elevated mean sea level lift waves higher onto the apron, increasing overtopping and scour at the toe of adjacent revetments.

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Tighe&Bond

ATTACHMENT 1

Coastal Flood Impacts

LEGEND

10-year Flood Depths (ft)

- 0.50
- 1.00
- 1.50
- 2.00
- 2.50
- 3.00
- 3.50
- 4.00
- 4.50
- 5.00

LOCUS MAP

0 100 200

Feet

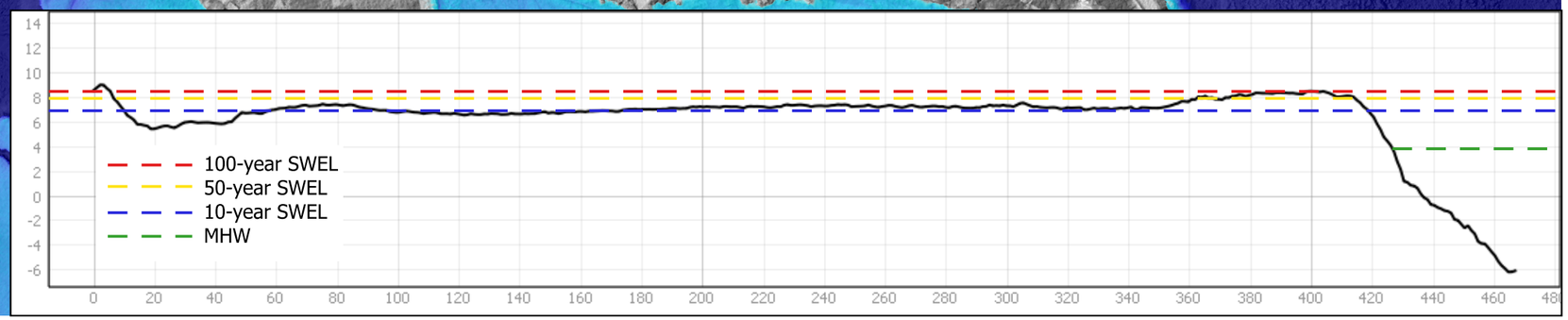
1:2400

NOTES

1. Imagery Based on NearMaps Orthophotography (April, 2025)

2. Elevation Data Based on 2018 USACE TopoBathy LiDAR

3. Annual Exceedance Probability Sill Water Levels Defined by FEMA FIS, Rockingham County, New Hampshire (Effective January 29, 2021)



Rye Harbor
Rye, New Hampshire

August 2025

Tighe&Bond

Appendix D:

Fueling Systems Memo

Rye Harbor Marine Facility
Assessment & Recommendations
for Improvements

Rye Harbor Marine Facility – Fuel Tank Replacement Assessment

TO: Paul Brean, Executive Director, Pease Development Authority

FROM: Tighe & Bond

DATE: October 8, 2025

Executive Summary

Tighe & Bond has evaluated potential replacement options for Rye Harbor Marina Facility's (Rye Harbor) underground storage tanks (USTs) that were used to store diesel and gasoline for onsite marina fueling. We reviewed the existing equipment and facility layout and developed this preliminary assessment for replacement of the existing tanks, which includes rough order of magnitude conceptual construction budgets for the project.

We recommend that Rye Harbor replace the existing USTs with a new 6,000-gallon aboveground storage tank (AST) for gasoline and 6,000-gallon AST for diesel. As detailed in this memorandum, placement of the fuel tank aboveground minimizes permitting costs, reduces overall project costs, and overall lower inspection and maintenance costs.

The preliminary opinion of cost developed for the proposed project is summarized in this memorandum and a detailed Opinion of Probable Construction Cost (OPCC) for each option that was evaluated is provided as an attachment. Based on our preliminary review, which includes removal of the existing USTs, installation of two (2) new aboveground tanks, one (1) new dispenser pump with shed, and installation of a new tank management system would cost approximately $616,000.

Project Background

Rye Harbor currently has two (2) underground storage tanks (USTs) storing gasoline and diesel fuel. The two (2) tanks have a capacity of 6,000 gallons each. The tanks are connected to a series of underground pipes with two (2) dual hose dispenser pumps located near the end of the marina docks. Each dispenser pump is located underneath a fueling shed with security lighting and cameras. One (1) dispenser is dedicated to recreational equipment fueling, which has recently been upgraded, and the other is dedicated to commercial equipment fueling. The two (2) USTs and the commercial dispenser pump were observed to be near the end of their useful service life.

1. Site Conditions

The project site is located off Ocean Boulevard in Rye, New Hampshire. The USTs are located in a grassy area south of the main facility. The USTs feed the facility's two (2) dispensers for marina fueling located on two (2) piers, one (1) for commercial and one (1) for recreational equipment.

The site is located within a tidal buffer zone. The nearest wetland areas to the project site are open waters from Rye Harbor and a freshwater wetland area. The Atlantic Ocean is located approximately 40 feet east and the freshwater wetland area is located 70 feet west of the project site. A wetland area map is included as Figure 1 in Attachment A showing the immediate surroundings of the project site.

FEMA maps of the project site indicate that the USTs are located within a 100-year flood zone. The FEMA Flood Insurance Rate Map (FIRM) is included as Figure 2 in Attachment A.

2. Anticipated Fuel Storage Needs

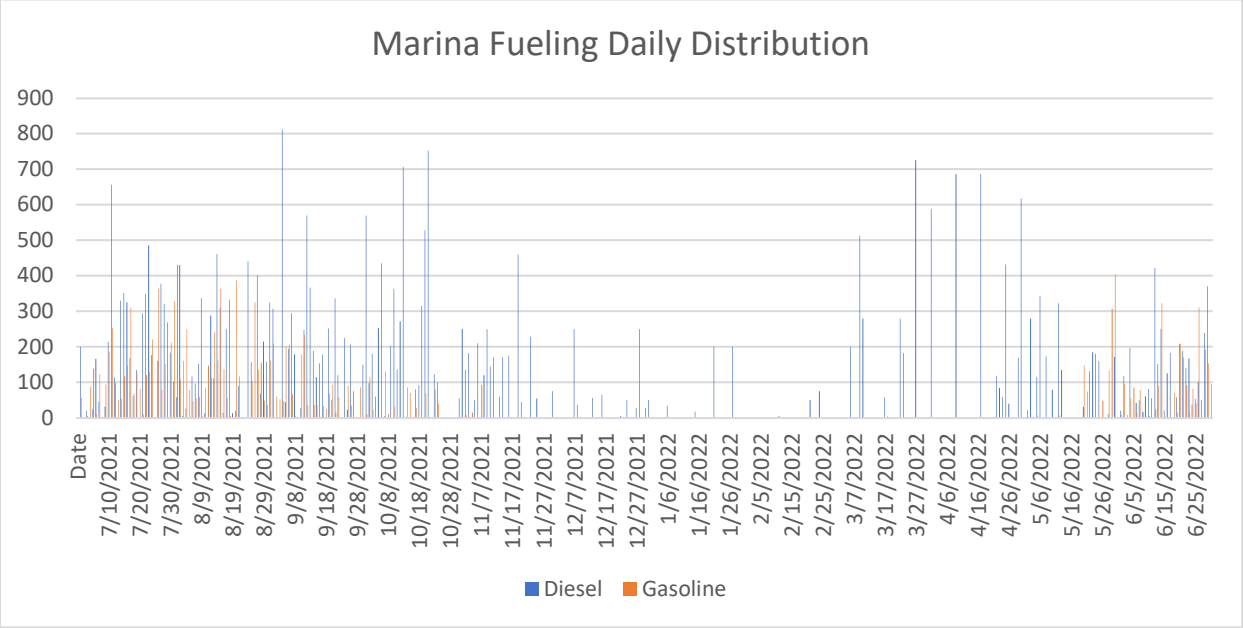
The fuel storage required for marina fueling was determined based on the needs of the facility. Rye Harbor needs to provide fuel to marina vehicles as outlined in Table 2-1.

Table 2-1
Estimated Fuel Storage Needs for Marina Fueling

Equipment	Fuel Distribution Average per Day (Gallons)	Max Fuel Distribution in One Day (Gallons)	Average Daily Tank Capacity (Gallons)	Average Fuel Delivery (Gallons)	Minimum Required Tank Capacity (Gallons)
Gasoline Dispenser Pumps	37.5	431	2,746	872	5,000
Diesel Dispenser Pumps	100.1	812	2,768	1,377	5,000

Notes:
1. *Daily Fuel Distribution data was provided by Rye Harbor (July 1, 2021 – June 30, 2022)*

Figure 2-1
Marina Fueling Daily Distribution (July 1, 2021-June 30, 2022)



Based on typical fuel distribution provided by Rye Harbor (July 1, 2022-June 30, 2022), we were able to determine the average and maximum daily distribution for both products. On average, Rye Harbor distributed 37-gallons of gasoline and 100-gallons of diesel a day. During this same time period, Rye Harbor had distributed a maximum 431-gallons of gasoline and 812-gallons of diesel in one day. On average, Rye Harbor stored 2,746-gallons of gasoline and 2,768-gallons of diesel a day. Rye Harbor had 16 deliveries of gasoline and 27 deliveries of diesel during this time period, averaging 872-gallons and 1,377-gallons per delivery, respectively. Adding the average daily capacity and the average delivery capacity together for each product, the total average capacity needed would be 3,618-gallons for gasoline and 4,144-gallons for diesel. A 5,000-gallon tank at a minimum would be adequate to facilitate the demands for Rye Harbor. However, due to this demand, average storage required, and potential for increase in fueling demand, Tighe & Bond recommends the installation of **one (1) 6,000-gallon tank for gasoline and one (1) 6,000-gallon tank for diesel** as a replacement to the current USTs that are dedicated to marina fueling.

It should be noted that the Fire Code limits the maximum storage capacity to 95% of the tank volume. As such, the 6,000-gallon tanks will be filled to a maximum of 5,700-gallons.

3. Replacement Options

Multiple fuel tank replacement options were reviewed to determine the optimal placement and orientation for Rye Harbor and its current operations. Both aboveground and underground tank placements were assessed.

3.1 Underground and Aboveground Tank Placement

The existing fuel storage tanks are two (2) USTs. Typically, placing a tank underground protects the tank from weather and potential damage. However, underground tanks typically require a higher annual cost to operate and maintain, due to mandated testing. The New Hampshire UST Regulations, Env-Or 400: *Underground Storage Tank Facilities*, require certified operators and regular testing of containment structures and monitoring equipment.

ASTs are, in general, easier to maintain than USTs as inspection of the tanks and related systems can be completed visually, and any tank leaks can be noticed quickly. However, aboveground tanks are more susceptible to weather damage, vandalism, and accidents.

Replacing the current USTs with new tanks presents a few challenges regarding distances to wetlands, surface waters, and flooding considerations. Both underground and aboveground tanks have their limitations. Both systems would be required to be properly anchored to provide protection against known flooding conditions, have different setback requirements, and would need to go through a stringent review and approval process from New Hampshire Department of Environmental Services (NHDES) prior to installation. Due to the more stringent review and approval process for UST installation, setback requirements, the ease of maintaining ASTs, and minimal inspection requirements for ASTs, we recommend that Rye Harbor replace the existing USTs with new ASTs.

3.2 Tank and Equipment Orientation

As described in Section 1, to replace the current USTs with the same or less capacity tank aboveground or underground, the replacement tanks would need to be oriented horizontally. The new ASTs or USTs would be able to fit within the existing location. Table 3-1 shows example tank capacities, diameters, and lengths.

Table 3-1
Tank Capacities and Dimensions

Aboveground, Horizontal			
Tank Capacity	**Construction Material**	**Tank Diameter**	**Total Tank Length**
6,000 gallons	Steel	8'-6"	16'-7"
Underground, Horizontal			
Tank Capacity	**Construction Material**	**Tank Diameter**	**Total Tank Length**
6,000 gallons	Fiberglass	8'-0"	19'-6"
6,000 gallons	Steel	8'-0"	16'-0"

3.3 Tank Location

Tighe & Bond reviewed multiple options for permanent storage tank placement and factored in the cost of various piping configurations. The current USTs utilize an updated transfer basin nearby that could be retrofitted to support the transition from aboveground to underground piping. Due to the proximity of the current transfer basin and piping cost considerations we recommend replacing the current USTs with ASTs in the same general area.

We also reviewed multiple options for temporary ASTs utilized during demolition and construction phases. We recommend the placement of the temporary ASTs north of the office building, closer to the recreational dock area to avoid the construction area surrounding the current USTs.

3.4 Dispenser Location

Tighe & Bond reviewed two (2) locations for the commercial dispenser, one (1) being in a similar location as the current dispenser and shed, and the other location being near the crab traps that are just east of the dispenser shed. Due to the familiarity of the current location and the minimal cost difference associated with the two locations, we recommend installing the commercial dispenser in the same general area as the current dispenser. The cost for each dispenser location is provided in Table 4-2 and included in Attachment B.

4. Preliminary Construction Costs

Tighe & Bond developed an Opinion of Probable Construction Costs (OPCC) for the removal of the two (2) existing USTs and replacement with two (2) new ASTs. The costs were developed based on previous experience on similar tank replacement projects as well as vendor estimates. The OPCC incorporates estimates for the following three (3) options:

Option 1

- Removal of two (2) USTs, existing dispenser, and operator shed
- Installation of two (2) ASTs
- Installation and removal of two (2) temporary ASTs
- Installation of exterior tank stairs for ASTs
- Installation of tank monitoring and fleet monitoring equipment
- Site Work
- Local and State permitting

Option 2

- Same as Option 1
- Installation of one (1) new dispenser and operator shed near crab traps

Option 3

- Same as Option 1
- Installation of one (1) new dispenser and operator shed near current dispenser

The OPCC does not include the following:

- Environmental consultant services, should contaminated material be identified

The OPCCs for the removal and replacement of the two (2) USTs with two (2) ASTs are included in Attachment B. A summary of the estimated costs is below in Table 4-1.

Table 4-1
Summary of Opinion of Probable Construction Costs for Fuel Equipment (Option 1)

Activity Description		Estimated Cost
1. Contractor mobilization, bonding, and insurance		$19,500
2. USTs Removal		$31,000
3. Site Work		$153,500
4. Replacement Tank and Equipment		$164,000
5. Electrical		$38,000
	Subtotal	**$406,000**
6. 10% General Conditions		$40,600
	Subtotal	**$446,600**
7. 20% Contingency		$89,320
	Subtotal	**$535,920**
	Total (Rounded to Nearest $1,000)	**$536,000**

Table 4-2
Summary of Opinion of Probable Construction Costs for Fuel Equipment (Option 2 & 3)

Activity Description		Option 2 Estimated Cost	Option 3 Estimated Cost
1. Contractor mobilization, bonding, and insurance		$22,000	$22,500
2. USTs Removal		$31,000	$31,000
3. Site Work		$167,500	$167,500
4. Replacement Tank, Dispenser Shed, Dispenser and Equipment		$198,500	$204,000
5. Electrical		$41,500	$42,000
	Subtotal	**$460,500**	**$466,500**
6. 10% General Conditions		$46,050	$46,650
	Subtotal	**$505,550**	**$513,150**
7. 20% Contingency		$101,310	$102,630
	Subtotal	**$607,860**	**$615,780**
	Total (Rounded to Nearest $1,000)	**$608,000**	**$616,000**

5. Regulatory Compliance

Rye Harbor will be required to appropriately decommission and close the fuel tanks prior to the installation of any replacement tanks. Depending on the type of replacement tanks, different regulatory requirements apply, as detailed in this section.

5.1 Tank Permitting and Licensing

Two (2) regulating agencies are responsible for permitting and licensing of fuel storage tanks:

- **Town of Rye** – Building, electrical, plumbing, and demolition permitting for tank installation can be found on the town of Rye Building Department website: https://www.town.rye.nh.us/building-department
- **New Hampshire Department of Environmental Services (NHDES)–** Permitting and registration forms for tank installation can be found on the NHDES website: https://onlineforms.nh.gov/Home/f701180d-1973-491f-aecb-a596c789476b

Tighe & Bond has assumed that the current tanks are properly permitted and licensed with the appropriate Town departments. Replacement of the USTs with aboveground tanks would likely require that the existing license be amended, which would require a public hearing.

5.2 AST Regulatory Compliance

5.2.1 Construction Permit and Inspection Requirements

All aboveground storage tanks require a Construction Permit. The Construction Permit requires an engineer or surveyor certified plot plan, foundation and footing plans, secondary containment, mechanical drawings, and potentially a fire safety analysis reviewed by a professional engineer.

5.2.2 Spill Prevention, Control, and Countermeasure Plan

Aboveground storage tanks that contain fuels and oils are required to be included in Rye Harbor's SPCC Plan. SPCC requirements for ASTs can be found in EPA regulations 40 CFR Part 112, Oil Pollution Prevention. Regularly inspecting the tanks, pipes, and associated equipment are required activities in a SPCC Plan. Shop fabricated tanks are subject to integrity testing requirements. STI SP001 Standard for the Inspection of Aboveground Storage Tanks checklist may be used to satisfy EPA SPCC requirements. SPCC Plans are required to be updated every 5 years and signed by a Professional Engineer.

6. Recommended Next Steps

Replacing the two (2) USTs with new 6,000-gallon ASTs for gasoline and diesel is recommended. In addition to installing the new ASTs, a new dual hose dispenser and shed are recommended to be installed in the general area as the current dispensers and shed.

Enclosures:

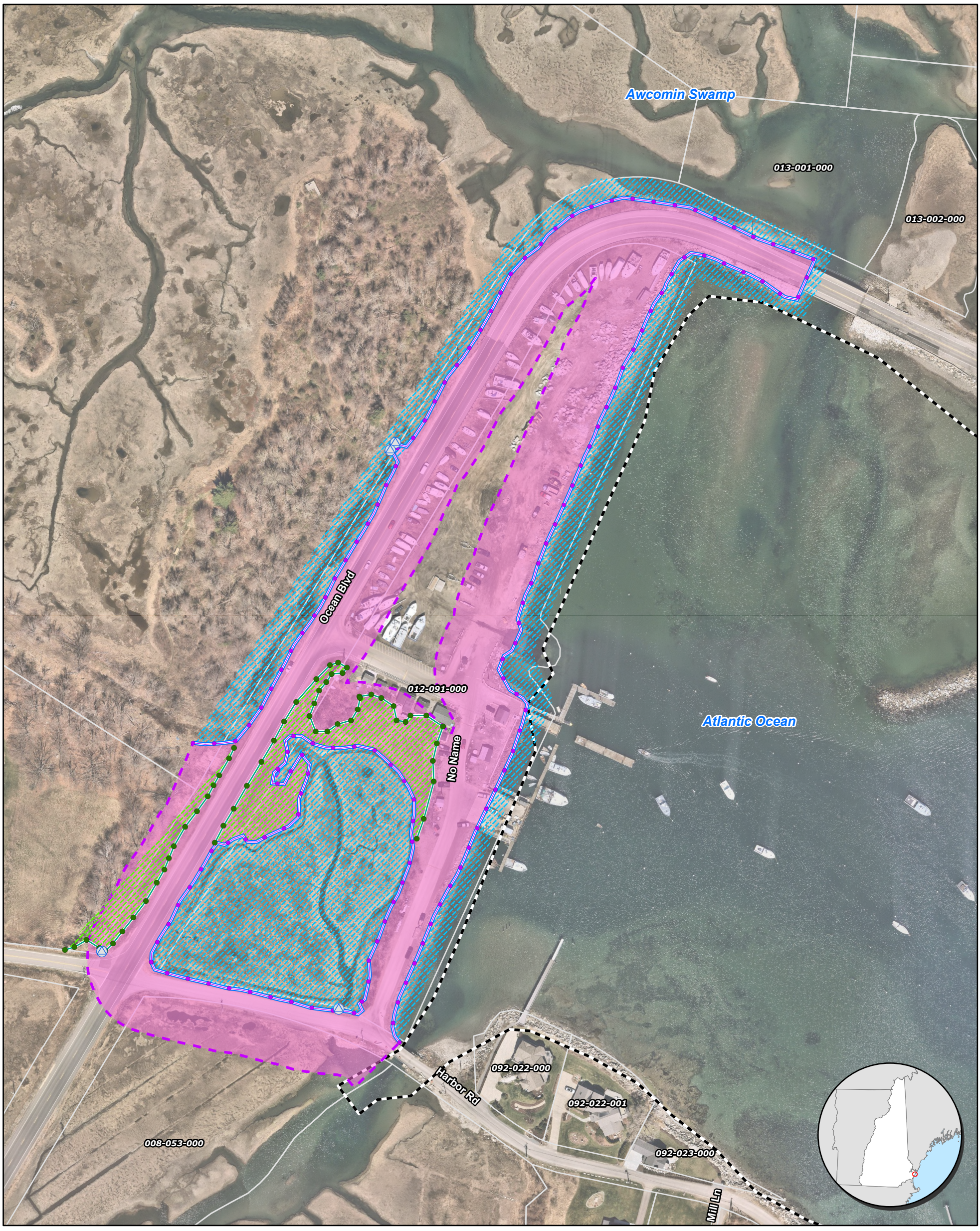
Attachment A - Figures

- Figure 1. Project Area Wetlands
- Figure 2. FEMA Flood Map

Attachment B – Opinion of Probable Construction Costs

FIGURE 1
AERIAL
April 2025

Rye Harbor Assessment
Ocean Boulevard
Rye, New Hampshire



- Wetland Flag
- Culvert
- Highest Observable Tide Line (HOTL)
- Delineated Wetland Boundary
- Freshwater Wetland
- Tidal Buffer Zone
- Tidal Water/Tidal Wetland
- Approximate Parcel Boundary
- Town Boundary

Tighe&Bond

Based on latest Nearmap Imagery.

N

1:1,800

0 75 150

Feet

FIGURE 2
FEMA FLOOD ZONES
June 2025

Rye Harbor Marina
1868 Ocean Boulevard
Rye, New Hampshire

100 Year Flood Zone

Tighe&Bond

Based on latest Nearmap imagery.
Data source: FEMA.

N

1:2,400
0 100 200
Feet

G:\GIS\NH\RyeNH\RyeHarbor\RyeHarborStorageTankReplacement\RyeHarborStorageTankReplacement.aprx\Fig2_FEMA [Exported By: MHarris, 6/16/2025, 5:53 PM]

P-5015

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

Project: **Rye Harbor - Fuel Tank Replacement**
Location: **Rye, NH**
Two (2) ASTs, No Dispenser - Option 1

Estimate Type: Conceptual / Preliminary Design / Design Development / Construction / Change Order / % Complete

Prepared By: BY, TH, AM & DPH
Date Prepared: 7/11/2025
T&B Project No.: P5015

Item No.	Description	Qty	Units	Material/Installed Cost	
				$/Unit	Total
	Contractor Mobilization, bonding, and insurance				
	Mobilization (5%)	LS	1	$ 19,038.50	$ 19,039
	UST & Piping Removal				
	GPR Services	DAY	2	$ 1,000	$ 2,000
	UST Cleaning and residual fuel/sludge disposal	EA	3	$ 6,800	$ 20,400
	Demolition of piping	LS	2	$ 1,000	$ 2,000
	UST Removal, transportation and disposal	EA	2	$ 2,000	$ 4,000
	Electrical Demolition	LS	1	$ 2,500	$ 2,500
	Site Work				
	Backfill	CY	275	$ 100	$ 27,500
	Trench	LF	145	$ 20	$ 2,900
	Concrete Pad for AST	CY	24	$ 1,000	$ 24,000
	Shoring	LS	1	$ 7,000	$ 7,000
	Bollards	EA	14	$ 800	$ 11,200
	Crane Rental	LS	2	$ 10,000	$ 20,000
	Manual Labor	DAY	16	$ 3,500	$ 56,000
	Replacement Tank and Equipment AST				
	6,000 Gallon AST	EA	2	$ 53,000	$ 106,000
	2" C/S Piping (Vent)	LF	10	$ 12	$ 120
	1" C/S Piping (Supply & Return)	LF	60	$ 5	$ 300
	1" DW piping	LF	30	$ 90	$ 2,700
	Piping supports	EA	6	$ 150	$ 900
	Two Hose/Two Product Dispensers	EA	0	$ 12,500	$ -
	Transition Sump	EA	1	$ 4,000	$ 4,000
	Temp tanks	EA	2	$ 15,000	$ 30,000
	Miscellaneous equipment	LS	1	$ 20,000	$ 20,000
	Electrical				
	Interstitial leak detection sensors - Tank & Dispensers	EA	2	$ 500	$ 1,000
	Veeder root TLS 450	EA	1	$ 19,000	$ 19,000
	High Level Alarm	EA	1	$ 1,250	$ 1,250
	Conduit and cable	ALLOW	1	$ 5,000	$ 5,000
	Miscellaneous equipment	ALLOW	1	$ 11,000	$ 11,000
					$ 400,000
				Estimate Contingency (10%)	$ 40,000
				Material & Bidding Contingency (20%)	$ 88,000
				Opinion of Probable Construction Cost[1]	**$ 528,000**

NOTES:

[1] This is an engineer's Opinion of Probable Construction Cost (OPCC). Tighe & Bond has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the estimates of probable construction costs are made on the basis of Tighe & Bond's professional judgment and experience. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from this estimate of the Probable Construction Cost.

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

Project: **Rye Harbor - Fuel Tank Replacement**

Location: **Rye, NH**

Two (2) ASTs, Dispenser Near Crab Trap - Option 2

Estimate Type: Conceptual / Preliminary Design / Design Development

Construction / Change Order / % Complete

Prepared By: BY, TH, AM & DPH

Date Prepared: 7/11/2025

T&B Project No.: P5015

Item No.	Description	Qty	Units	Material/Installed Cost	
				$/Unit	Total
	Contractor Mobilization, bonding, and insurance				
	Mobilization (5%)	LS	1	$ 21,656.00	$ 21,656
	UST & Piping Removal				
	GPR Services	DAY	2	$ 1,000	$ 2,000
	UST Cleaning and residual fuel/sludge disposal	EA	3	$ 6,800	$ 20,400
	Demolition of piping	LS	2	$ 1,000	$ 2,000
	UST Removal, transportation and disposal	EA	2	$ 2,000	$ 4,000
	Electrical Demolition	LS	1	$ 2,500	$ 2,500
	Site Work				
	Backfill	CY	275	$ 100	$ 27,500
	Trench	LF	145	$ 20	$ 2,900
	Concrete Pad for AST	CY	24	$ 1,000	$ 24,000
	Shoring	LS	1	$ 7,000	$ 7,000
	Bollards	EA	14	$ 800	$ 11,200
	Crane Rental	LS	2	$ 10,000	$ 20,000
	Manual Labor	DAY	20	$ 3,500	$ 70,000
	Replacement Tank and Equipment AST				
	6,000 Gallon AST	EA	2	$ 53,000	$ 106,000
	2" C/S Piping (Vent)	LF	10	$ 12	$ 120
	1" C/S Piping (Supply & Return)	LF	60	$ 5	$ 300
	1" DW piping	LF	70	$ 90	$ 6,300
	Piping supports	EA	6	$ 25	$ 150
	Two Hose/Two Product Dispsensers	EA	1	$ 12,500	$ 12,500
	Transition Sump	EA	2	$ 4,000	$ 8,000
	Temp tanks	EA	2	$ 15,000	$ 30,000
	Dispenser Shed	EA	1	$ 20,000	$ 20,000
	Miscellaneous equipment	LS	1	$ 15,000	$ 15,000
	Electrical				
	Interstitial leak detection sensors - Tank & Dispensers	EA	3	$ 500	$ 1,500
	Veeder root TLS 450	EA	1	$ 19,000	$ 19,000
	High Level Alarm	EA	1	$ 1,250	$ 1,250
	Security Video Camera	EA	1	$ 3,500	$ 3,500
	Conduit and cable	ALLOW	1	$ 5,000	$ 5,000
	Miscellaneous equipment	ALLOW	1	$ 11,000	$ 11,000
					$ 455,000
				Estimate Contingency (10%)	$ 46,000
				Material & Bidding Contingency (20%)	$ 101,000
				Opinion of Probable Construction Cost[1]	**$ 602,000**

NOTES:

[1] This is an engineer's Opinion of Probable Construction Cost (OPCC). Tighe & Bond has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the estimates of probable construction costs are made on the basis of Tighe & Bond's professional judgment and experience. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from this estimate of the Probable Construction Cost.

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

Project: **Rye Harbor - Fuel Tank Replacement**

Location: **Rye, NH**

Two (2) ASTs, Dispenser at end of Dock - Option 3

Estimate Type: Conceptual | Preliminary Design | Design Development | Construction | Change Order | % Complete

Prepared By: BY, TH, AM & DPH

Date Prepared: 7/11/2025

T&B Project No.: P5015

Item No.	Description	Qty	Units	Material/Installed Cost $/Unit	Material/Installed Cost Total
	Contractor Mobilization, bonding, and insurance				
	Mobilization (5%)	LS	1	$ 21,933.50	$ 21,934
	UST & Piping Removal				
	GPR Services	DAY	2	$ 1,000	$ 2,000
	UST Cleaning and residual fuel/sludge disposal	EA	3	$ 6,800	$ 20,400
	Demolition of piping	LS	2	$ 1,000	$ 2,000
	UST Removal, transportation and disposal	EA	2	$ 2,000	$ 4,000
	Electrical Demolition	LS	1	$ 2,500	$ 2,500
	Site Work				
	Backfill	CY	275	$ 100	$ 27,500
	Trench	LF	145	$ 20	$ 2,900
	Concrete Pad for AST	CY	24	$ 1,000	$ 24,000
	Shoring	LS	1	$ 7,000	$ 7,000
	Bollards	EA	14	$ 800	$ 11,200
	Crane Rental	LS	2	$ 10,000	$ 20,000
	Manual Labor	DAY	20	$ 3,500	$ 70,000
	Replacement Tank and Equipment AST				
	6,000 Gallon AST	EA	2	$ 53,000	$ 106,000
	2" C/S Piping (Vent)	LF	10	$ 12	$ 120
	1" C/S Piping (Supply & Return)	LF	60	$ 5	$ 300
	1" DW piping	LF	130	$ 90	$ 11,700
	Piping supports	EA	12	$ 25	$ 300
	Two Hose/Two Product Dispensers	EA	1	$ 12,500	$ 12,500
	Transition Sump	EA	2	$ 4,000	$ 8,000
	Temp tanks	EA	2	$ 15,000	$ 30,000
	Dispenser Shed	EA	1	$ 20,000	$ 20,000
	Miscellaneous equipment	LS	1	$ 15,000	$ 15,000
	Electrical				
	Interstitial leak detection sensors - Tank & Dispensers	EA	3	$ 500	$ 1,500
	Veeder root TLS 450	EA	1	$ 19,000	$ 19,000
	High Level Alarm	EA	1	$ 1,250	$ 1,250
	Security Video Camera	EA	1	$ 3,500	$ 3,500
	Conduit and cable	ALLOW	1	$ 5,000	$ 5,000
	Miscellaneous equipment	ALLOW	1	$ 11,000	$ 11,000
					$ 461,000
				Estimate Contingency (10%)	$ 47,000
				Material & Bidding Contingency (20%)	$ 102,000
				Opinion of Probable Construction Cost[1]	**$ 610,000**

NOTES:

[1] This is an engineer's Opinion of Probable Construction Cost (OPCC). Tighe & Bond has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the estimates of probable construction costs are made on the basis of Tighe & Bond's professional judgment and experience. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from this estimate of the Probable Construction Cost.

Appendix E:

Hazardous Materials Assessment & Reporting History

Rye Harbor Marine Facility
Assessment & Recommendations
for Improvements

Rye Harbor Environmental Records Review

TO: Paul Brean, Executive Director, Pease Development Authority

FROM: Tighe & Bond

DATE: October 6, 2025

1 Site Background and Setting

Rye Harbor (the Site or the Facility) at 1870 Ocean Boulevard (Plat 012, Lot 091) is approximately 8.52 acres owned by the State of New Hampshire and operated by the Division of Ports and Harbors (DPH). The Site is improved with various buildings, parking areas, a boat ramp, and docks and floats. The Site has been developed for waterfront use since at least 1962.

There are nine privately owned buildings (the Shacks) on the site that are identified as 012-091-001 through 012-091-009 by the Rye Tax Assessor. The owners of the Shacks operate under Right of Entry (ROE) agreements issued by the State of New Hampshire. They have not included in this environmental assessment and interior observations of the buildings were not made on the day of site reconnaissance. For reference, the Shacks are identified as #1 through #9 on Figure 4.

The Site is zoned Public Recreation and within the Federal Emergency Management Agency (FEMA) Flood Insurance Map of the area, it indicates that the Site is located within flood zone AE, which is defined as special flood hazard areas that present a 1% annual chance of flooding.

According to the NHDES OneStop Environmental Data Viewer Map, the wetland marsh area is comprised of three wetland types: Estuarine and Marine Wetland, Freshwater Emergent Wetland, and Freshwater Forested/Subshrub Wetland. Tighe & Bond has completed a natural resource delineation that is included as a separate attachment to this report. The Site is also mapped as State Conservation Land under Rye Harbor State Park.

1.1 Methodology, Limitations, and Data Gaps

The following data gaps and limitations were encountered following the site reconnaissance and/or file review research completed by Tighe & Bond

- Tighe & Bond was unable to access or observe the interior portion of the former waste oil shed because the door was locked and keys were not available. It is unknown if waste oil remains inside the shed.

- Vessels and boats stored on the property are privately owned and not included in the review. Owners were observed performing maintenance on vessels and it is possible that areas of environmental concern (i.e., stained soils, leaking vessels or containers, mismanagement of OHM, etc.) exist on Site.

- No documentation or information pertaining to the registration, operation, and/or maintenance of the underground graywater holding tank associated with the main harbor office and Harborside Concessions (Shack #3). Based on discussions with New Hampshire Port Authority staff, no incidents or releases associated with the holding tank have been documented at the facility.

1.2 Site Reconnaissance

Tighe & Bond conducted site reconnaissance on April 22, 2025. Photographs taken during the reconnaissance are included in Appendix A. Tighe & Bond was accompanied during our site visit by the Facility Manager and Operations Manager of Rye Harbor. The site reconnaissance included a visual assessment of on-site conditions on the day of the site visit.

Waterfront – Piers and Surrounding Exterior Area

The waterfront marina comprises of commercial and recreational piers and fueling stations, a mooring field, a public boat launch, and a navigational channel. A revetment seawall exists along the coastline across the Site, extending from the approximate mean low water above the mean high water elevation.

The recreational fueling shed is a prefabricated metal structure equipped with gasoline/diesel dispensers and hose reels. The fuel piping system runs above ground and parallel to the south side of the recreational pier, from the transition sump to the dispenser sump located underneath the fueling station. The ground surface underneath the dispenser sump was observed to be in good condition with no signs of staining. The dispenser sump is not equipped with secondary containment, and a spill kit was not observed within or near the fueling shed on the day of reconnaissance.

The commercial fueling shed is a wooden structure equipped with gasoline/diesel dispensers and hose reels. The fuel piping system runs above ground and parallel to the north side of the commercial pier, from the transition sump to the dispenser sump located underneath the fueling station. The ground surface underneath the dispenser sump was observed to be in fair condition with minor evidence of staining around the sump. The wooden fuel shed was observed to be in fair to poor condition with signs of water damage and deterioration along the exterior.

The dispenser sump is not equipped with secondary containment; however, a spill kit was adjacent to the shed on the day of reconnaissance. One forklift with an affixed propane tank, several 55-gallon polyethylene drums, polyethylene totes, and metal traps were stored on the pier. The 55-gallon drums and polyethylene totes were visually inspected on the day of reconnaissance and did not appear to contain OHM; in general, the contents included fishing scraps, netting, fishing line, mooring/docking lines, buoys, and miscellaneous solid waste/debris. Three 5-gallon gasoline canisters were also observed to be stored adjacent to the gangway; the canisters were in good condition and stored in secondary containment.

The 6,000-gallon gasoline UST and 6,000-gallon diesel UST concrete pads are located within a gravel area, approximately 40 feet northwest of the commercial pier. The concrete pads and ground surface immediately surrounding the pads appeared to be in good condition, with no overt signs of staining. As discussed in UST file review section of this report, diesel and gasoline are delivered to the commercial and recreational fueling stations from the USTs through transition containment sumps and piping systems. The locations of the commercial and recreational piers, fueling sheds, piping systems, transition sumps, and USTs are shown on Figure 4. The transition sumps have flooded in the past due to high tide or storm surge events. The transition sump and associated piping on the recreational side was exposed and damaged during a storm event in 2018.

Buildings & Building Features

On the day of reconnaissance, two buildings were observed on Site, that are owned and operated by the State. This building is primarily utilized by the Habor Master and is located directly west of the recreational pier. The building was observed to have a wood frame with

a wooden gable roof and several windows. The interior of the building includes the USTs Veeter-Root alarm system. A utility pole with an affixed pole-mounted transformer was observed southwest of the office building. The transformer visually appeared in good condition; however, Tighe & Bond was unable to see the nameplate or labeling on most of the unit from the ground and could not identify if the transformer contained polychlorinated biphenyl (PCB) mineral oil dielectric fluid (MODF) or non-PCB MODF.

A water spigot and gardening hose was observed along the eastern exterior of the building, and two single stall bathrooms are located along the southern exterior of the building. The restrooms contain a toilet, sink, and floor drain. The restrooms are connected to the municipal water system, and that wastewater is directed into an underground holding tank located south of the building. The wastewater holding tank is pumped as needed by a contractor.

A small shed is located along the access roadway approximately 60 feet west of the commercial pier. This shed was formerly the Rye Harbor Waste Oil Shed. The door to the shed was locked on the day of reconnaissance and it is unknown whether waste oil remains stored in the shed at this time. However, the waste oil shed has not been operational for several years, and to our knowledge, the waste oil shed does not contain waste oil.

The last documented waste disposal manifest associated with the facility was dated December 10, 2018, at which time 20 gallons of used oil was transported off Site. The wooden shed is situated on top of an exposed concrete foundation, and a concrete pad storing five 55-gallon polyethylene drums and one 20-pound propane tank was observed abutting the shed to the south. The 55-gallon polyethylene drums were observed to be empty and stored upside down, and two of the drums had labels: LD-300 (Foaming Chlorinated Detergent) and FORTES (Caustic Cleaner). Some evidence of staining was observed at the base of the concrete foundation and on the concrete pad, around the base of the 55-gallon drums.

Parking Lot and Boat Storage

The parking lot is located north of the paved entrance way, and the boat storage area is located along the perimeter of the lot. A majority of the lot is gravel. Small patches of grass/vegetation exist along the western edge of the lot, near the roadway guardrail. An in-ground water spigot and connected hose was also observed along the southwestern portion of the access roadway, which is utilized for boat washing and maintenance activities within the Facility.

In general, the boat yard is an area where privately owned boats are stored, repaired, and maintained. On the day of reconnaissance, exterior observations were consistent with those which would typically be encountered at a boat maintenance yard, and included the presence of boats on cradles and/or trailers, fuel containers, paints, cleaning supplies, tools, tarps, hoses, etc. Tighe & Bond was unable to visually observe the ground surface around each individual boat stored in the lot, however, given the nature of operations at the boat yard, it is likely that incidental leaks and/or spills have occurred over time.

Undeveloped Wetland Area

The undeveloped, wetland resource area is located south of the parking lot and boat yard and encompasses approximately 3.5 acres of land. Tighe & Bond made visual observations of the wetlands from afar, from several vantage points along the access roadway and from behind accessible portions of the commercial buildings.

Miscellaneous solid waste/debris and storage were observed stored along the edge of the wetland area, most concentrated along the exterior of the leased areas. Most notably, one

55-gallon steel drum was observed within the wetland area along the western exterior of the storage shed adjacent to Shack Building #9. The drum appeared to be in fair to poor condition, with severe exterior rusting around the top and base of the drum. The drum appeared to be full, however, there was no label indicating the contents.

Four empty 55-gallon polyethylene drums and several 5-gallon pails were observed to be stored on their side within or near the wetland area along the southern exterior of Shack Building #2. The drums and pails were observed to be in good physical condition, however there were no labels indicating their contents. One 8-yard metal dumpster was observed within a gravel area along the edge of the wetland marsh, southwest of the commercial pier. Other miscellaneous items observed along the boundary between the wetland area and the access roadway or behind the commercial buildings include several plastic totes containing fishing line and netting, trash bags, metal traps, empty plastic bins, buoys, and miscellaneous metal, wood, and plastic debris.

Shacks

As discussed in the Site background section, there are nine privately owned buildings known as Shacks on the site. Owners of these buildings have a Right of Entry Agreement with the State and Tighe & Bond did not review the interior of the buildings.

The State said commercial businesses are seasonal and only operate in the summer months. Electricity is delivered to each building via overheard electrical utility lines; however the buildings are not heated. For reference, the commercial building owners and/or business names are listed below:

Commercial Building No. (Figure 5)	Assessor's ID	Business Name
#1	12-091-009	Petey's Lobster Pound & Gifts
#2	12-091-001	Granite State Whale Watch
#3	12-091-007	Tontine Charter Boat
#4	12-091-006	Black Dog Charters
#5 and #6	12-091-004; 12-091-005	Lobster Pound
#7	12-091-002	Vintage Fishing Co.
#8	12-091-001	Granite State Whale Watch
#9	12-091-003	Harborside Concessions

Harborside Concessions (#9) and the Lobster Pound (#5 and #6) are the only buildings connected to the municipal water system. Harborside Concessions is improved with sinks and one bathroom, and waste water from the building is directed into the underground holding tank that is also connected to the main office building.

The Lobster Pound is improved with interior and exterior sinks associated with food preparation. On the day of reconnaissance, an aboveground polyethylene holding tank was observed along the southern exterior of the Lobster Pound. This aboveground holding tank is managed and maintained by the owner of the Lobster Pound

2 Environmental Database Report (EDR) and NHDES OneStop Review

EDR issued an environmental database report for the Site (7929904.2s) on March 18, 2025, which utilized the standard database search radii that are used when conducting an American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment (ESA). The database report identified the following database listings for the Site:

- Federal Emergency Response Notification System (ERNS) list – 7 listings
- State (and Tribal) Registered Underground Storage Tank (UST) – 1 listing
- Local Lists of Hazardous waste/Contaminated sites, ALLSITES – 1 listing
- Records of Emergency Release Reports, SPILLS – 1 listing
- Resource Conservation and Recovery Act (RCRA) Non-Generator – 1 listing

Tighe & Bond reviewed available NHDES files for the Site maintained on the NHDES OneStop Environmental Data Viewer website. The database lists the Site under various names, including "Sunken Vessel", "New Hampshire Port Authority", "Sunken Boat", "Rye Harbor", "Pinney", "Miss Emma Vessel", "Rye Harbor/Lobster Pound", "NHDOT DRED", and "Vessel Slayer". The following listings for the Site, however, only events associated with the land Facility are included in this report. Events and releases that occurred in the waterbody of the Harbor are not included.

- Initial Response Spill (IRS) Site – 9 listings
- Submerged Vehicles – 1 listing
- Hazardous Waste Generator – 2 listings
- UST Program – 1 Listing
- Non-Hazardous, Non-Sanitary Holding Tank – 1 listing

Relevant information from the NHDES OneStop file review and the EDR Report is summarized in the subsections below.

Summary of Release History

Documented releases of oil and/or hazardous material (OHM) at the Site related to accidental releases from vessels operating near at the Facility. As discussed above, the EDR report lists the Site under the Federal ERNS list, Records of Emergency Release Reports (SPILLS), and Local Lists of Hazardous waste/Contaminated sites (ALLSITES), and the NHDES OneStop database lists the Site under IRS Sites and Submerged Vehicles. Files reviewed in the EDR report and online the NHDES OneStop database are generally consistent, and are associated with the following four incidents summarized chronologically in the table below.

As noted above, only events directly related to the Facility are included in this report. Various events that may have occurred in the waterbody of the Harbor have been excluded in this report.

Site Name and/or File Number	Date	Description/Status	Database Listing
Rye Harbor Petroleum Incident Discharge Report	9/15/10	• Anonymous caller reported a discharge at the Rye Harbor by the Kay Sea Lyn Vessel. • The caller indicated that the vessel at dock turned its bilge pump and discharged black engine oil into the harbor. A thick sheen was reported in the harbor. • NHDES responded to the scene, at which time the subject vessel was not in the water. NHDES observed no evidence of discharge at the time of visit. • NHDES notified the United States Coast Guard (USCG) of findings and indicated no action necessary. The site is listed as Closed.	SPILLS, IRS
Miss Emma Vessel NHDES Waste Management Division Case No. 199912055	7/17/11	• An estimated 25-50 gallons of bilge discharge released to the ground surface around the vessel Miss Emma and petroleum odors were noted in the vicinity. Soil staining extended from the rear of the vessel along the unpaved parking lot measuring an area approximately 50 feet long by 5 feet wide. • The vessel owner was advised to bring in a contractor, remove the contaminated soil, and test to assure removal complete. • The area directly below the bilge discharge was excavated by TMC Services Inc. (TMC) via mini excavator and hand tools on 7/22/11. Soils were field screened using a photoionization detector (PID). Approximately 1.5 tons of soil was transported off Site for proper disposal. • TMC submitted a response action summary report to NHDES on 8/23/11. • NHDES issued a certificate of no further action on 9/19/2011.	SPILLS, IRS
Rye Harbor NRC Report #985979	8/15/11	• Caller reported an unknown sheen near the recreation boat pier at Rye Harbor. • A grayish sheen was reported in Rye Harbor, measuring approximately 100 feet long. • USCG was notified. No sheen or source was found. • NHDES indicated no action necessary. The site is listed as Closed.	ERNS, SPILLS, IRS
Pinney	10/21/11	• Vehicle and boat trailer reportedly submerged during boat launch. • The vehicle was recovered and removed from the water with no signs of fuel discharge. • NHDES indicated no action necessary. The site is listed as Closed.	SPILLS, IRS

Hazardous Waste Generator

The EPA ID No. NHD510205008, with handler name New Hampshire Port Authority, is listed as an RCRA Non-Generator in the EDR report and as a Hazardous Waste Generator on the NHDES OneStop database.

According to the Environmental Protection Agency (EPA) Enforcement and Compliance History Online (ECHO) database, the RCRA ID is inactive. NHDES OneStop records indicate that the New Hampshire Port Authority was classified as an active RCRA-regulated generator from September 28, 2010 until November 23, 2010, at which time the status was listed as inactive; the state-regulated generator status was effective on December 10, 2018. Uniform Hazardous Waste Manifest (UHWM) No. 018723603 JJK, indicates that 20 gallons of waste oil was transported off Site under the generator name New Hampshire Port Authority on December 10, 2018. No additional information was available following 2018 for the EPA generator ID in

the EDR report or on the NHDES OneStop database, however, the current generator status remains active on the NHDES OneStop database.

The Site is also listed on the NHDES OneStop database under a small quantity generator (SQG), ID No. NHD510068935, with handler name NH DOT DRED. According to the EPA ECHO database, the RCRA ID for NH DOT DRED is inactive. No information was available pertaining to historic hazardous waste generation or disposal under the generator name NH DOT DRED.

UST

The EDR report lists two inactive USTs, Tank ID NH199912055_1 (Tank No.1) and NH199912055_2 (Tank No. 2) and two active USTs, Tank ID NH199912055_3 (Tank No. 3) and NH199912055_4 (Tank No. 4) at the Site.

Tighe & Bond reviewed four USTs files on the NHDES OneStop database. Relevant information is summarized below:

Tank No.	Description
No. 1	• **Capacity & Fuel:** 3,000-gallon – Gasoline – Installed 1/1/1962 • **Construction Material:** Galvanized Steel • **Permanently closed:** Removed – 4/12/1990; failed precision tightness test on 11/27/1989
No. 2	• **Capacity & Fuel:** 3,000-gallon – Diesel – Installed 1/1/1962 • **Construction Material:** • **Permanently closed:** Removed – 4/12/1990; failed precision tightness test on 11/27/1989
No. 3	• **Capacity & Fuel:** 6,000-gallon – Gasoline – Installed 11/1/1990 • **Construction Material:** Doubled-walled fiberglass • **Primary Overflow device:** Automatic shut off valve - Installed 6/2/2010
No. 4	• **Capacity & Fuel:** 6,000-gallon – Diesel – Installed 11/1/1990 • **Construction Material:** Doubled-walled fiberglass • **Primary Overflow device:** Automatic shut off valve - Installed 11/1/1990

A UST Facility Permit Application dated July 9, 1990, contaminated water and soil existed in the excavation where the original tanks (Tank Nos. 1 and 2) were removed; the impacted groundwater was reported to be pumped out, and the contaminated soil was to be excavated and taken off Site, however no other documentation was available pertaining to the soil/groundwater remediation efforts.

Tank No. 3 and Tank No. 4 are utilized for vessel fueling operations on Site. The USTs supply gasoline and diesel to two fueling stations (commercial and recreational), each of which is equipped with a fueling station. Gasoline and diesel are delivered to each fueling station from the USTs via transition containment sumps and fuel piping. The fueling stations on the commercial and recreational docks each have two dispensers (one gasoline, one diesel) as well as secondary dispenser sumps. The location of the commercial and recreational docks/fueling stations and associated transition sumps/fuel piping are shown on Figure 4.

A letter titled "Coastal Storm Repairs on Underground Fuel Piping – 2018", addressed to Mr. to the PDA from Lakes Region Environmental Contractors Inc. (LRE), the piping system from the USTs to the transition sumps were exposed during a storm event. The existing piping was tested/reinstalled on May 10, 2018. During the excavation to reset the existing piping to their

original elevation and pitch, random headspace samples/readings were taken at various locations using an Organic Vapor Meter, and all readings ranged from 0.1 parts per million (ppm) to 1.2 ppm. No indication of a release was detected throughout the repair process.

NHDES OneStop records, the transition sump and fuel piping system connected to the dispenser at the commercial dock was replaced in May 2022, and the transition sump and fuel piping system connected to the dispenser at the recreational dock was replaced in September 2023. LRE prepared a "piping closure" report dated July 29, 2022, for the fuel piping and transition sump to the dispenser on the commercial dock. LRE prepared a "piping closure" report dated December 22, 2023, for the fuel piping and transition sump to the dispenser on the recreational dock.

In 2022 and 2023 random headspaces samples/readings were collected at various locations during a pipe removal. These samples were collected at each excavation at the top of the tank and fuel piping, including below the excavation, sidewalls, and piping sumps entry points using an Organic Vapor Meter.

Two composite soil samples were collected from each of the excavations and analyzed for total petroleum hydrocarbons (TPH). Analytical results indicted that TPH was detected below the laboratory detection limit in samples collected from within the excavation near the sump/piping proximate the commercial dock, and from within the excavation near the sump/piping proximate the recreational dock.

Additionally, a Record of Telephone Conversation from the Groundwater Protection Bureau dated March 16, 1990 states that "there's a waste oil tank against grass marshy [area], spillage/leakage evident". There was no other information pertaining to the waste oil tank in the EDR report or on the NHDES OneStop database.

Off-Site Non-Hazardous, Non-Sanitary Holding Tank

A non-hazardous, non-sanitary holding tank, is registered under the ownership of Lobster Pound. The aboveground graywater holding tank associated with the Lobster Pound is considered "off-Site" for the purposes of this assessment. The Lobster Pound holding tank is not managed by the DPH, and is the responsibility owner. The 1,500-gallon polyethylene tank located behind the building on the ground surface was registered in June 2018.

It should also be noted that according to an email conversation between the PDA and NHDES dated November 15, 2020, there were complaints that the tank had been emptied into the marsh during the summer season. Following the complaint, NHDES requested pumping/disposal records for the holding tank for 2019 and 2020 from the owner of the Lobster Pound, via email, however there is no record of response from the Owner on file.

2.1 Town of Rye Municipal Review

Tighe & Bond contacted the Rye Town Clerk's Office and the Building Department to obtain environmental records relevant to this assessment. In general, several electric permits, building permits, and wetlands permits were provided for the Site.

The majority of building permits reviewed are related to the construction/improvements of several of the Shacks since these buildings are not included in the study and under separate ownership, for the purposes of this assessment, their associated permits/documents are not discussed in this section. Relevant records pertaining to the Rye Harbor are summarized below. Note that permits related to dredging of the Harbor and channel are not included in this summary.

Permit Number or Document Type	Date	Description
Permit by Notification Form	4/18/11	• Notification submitted by Appledore Marine Engineering, Inc. on behalf of PDA DPH to repair the Rye Harbor Boat Ramp.
Wetlands Permit Application	2/11/13	• Application submitted by Appledore Marine Engineering, Inc. on behalf of PDA DPH to replace floating dock that was damaged by Superstorm Sandy on October 25, 2012.
Building Pemit No. 002967	6/7/13	• Replace floating docks and repair the fuel system (replace underground piping).
Emergency Authorization Verification File no. 2018-01178	4/26/18	• Emergency authorization concerning the UST pipe fuel delivery system, requesting permission to remove the remaining crushed stone over the fuel delivery system, and repair and recover the system with crushed stone.
Expedited Minimum Impact Wetlands Permit Application	4/5/22	• Permit states "the existing fuel system at Rye Harbor commercial pier has a bad connection to the sump, located before the line go out to the pier, and approximately 30 feet of fuel lines between the sump and tanks need to be replaced", and "requires excavation within the developed tidal zone."

3 Summary

In summary, the results of this assessment revealed several areas of environmental concern at the Site. Tighe & Bond recommends that PDA considers these areas of concern prior to future development or improvements at the facility. These areas of concern are summarized below and include, but are not necessarily limited to:

- **Parking Lot & Boat:** Tighe & Bond observed a variety of chemicals and fuel products stored within the parking lot on the day of reconnaissance, including paints, cleaners, and fuel (diesel/gasoline). Historical files document the release of oil on Site on several occasions, including to exposed soils on the ground surface from vessels stored within the boat yard. Mismanagement and/or poor housekeeping of OHM in the boat yard presents a potential for releases to the environment. Tighe & Bond recommends considering paving of the parking lot and boat yard lot to minimize potential incidental releases from maritime maintenance activities directly to the ground surface.

- **Waste Oil Shed:** Minor staining was observed along the perimeter of the concrete foundation and around the 55-gallon drums stored on the adjacent concrete pad, and historical documentation reviewed on the NHDES OneStop database reported that "there's a waste oil tank against grass marshy [area], spillage/leakage evident". In addition, it is unknown whether waste oil remains inside the shed; proper management and of disposal of any remaining waste oil would be recommended prior to development activities on Site.

- **UST System & Fueling Stations:** The transition containment sumps have previously flooded during high tide/storm surges, and historical records document damage to the UST system and/or fueling sheds during storm events on multiple occasions. If the UST system is not properly managed and maintained, damage to the tanks, sumps, piping, or fueling station could result in releases to the environment, especially given their proximity to the Rye Harbor. Consumer misuse of the fueling hoses/dispensers coupled with the lack of spill kits available at the fueling shed presents a potential threat of release of gasoline or diesel to the harbor.

  Tighe & Bond recommends upgrades and improvements to the current fueling system be considered during future development at the Site to ensure that future activities do not cause environmental degradation to the immediate surrounding area. It should also be noted that historical documentation indicated that contamination of soil and groundwater

existed in the holes where the two former 3,000-gallon tanks existed, however no additional information was available pertaining to remediation of the observed contamination. If future development activities involve excavation in the vicinity of the former tanks, proper management and disposal of soil and/or groundwater would be necessary if contamination is encountered in the area.

Undeveloped Wetlands Area & OHM Storage: Several containers were observed to be stored haphazardly near or within the boundary of the wetlands area on the day of reconnaissance. Most notably, one full 55-gallon steel drum in poor condition was observed along the western exterior of the storage shed adjacent to commercial building #1, and several empty 55-gallon polyethylene drums and 5-gallon pails were observed stored on their side along the southern exterior of commercial building #8.

The containers also did not have labels indicating their contents. The presence and condition of these containers with unknown material proximal to the wetlands area present potential for releases of OHM to the environment. Tighe & Bond recommends containers storing OHM be kept in a covered area and within secondary containment. In addition, file review records document that the 1,500-gallon aboveground graywater holding maintained by the owner of the Lobster Pound was reportedly illicitly emptied into the marsh in the summer of 2020. Although this holding tank is not owned and maintained by the PDA, recommendations for the location of this tank in relation to the wetlands area may warrant discussion with the Lobster Pound owner during future developments on Site

Appendix F:

Public Engagement Summary

Rye Harbor Marine Facility
Assessment & Recommendations
for Improvements

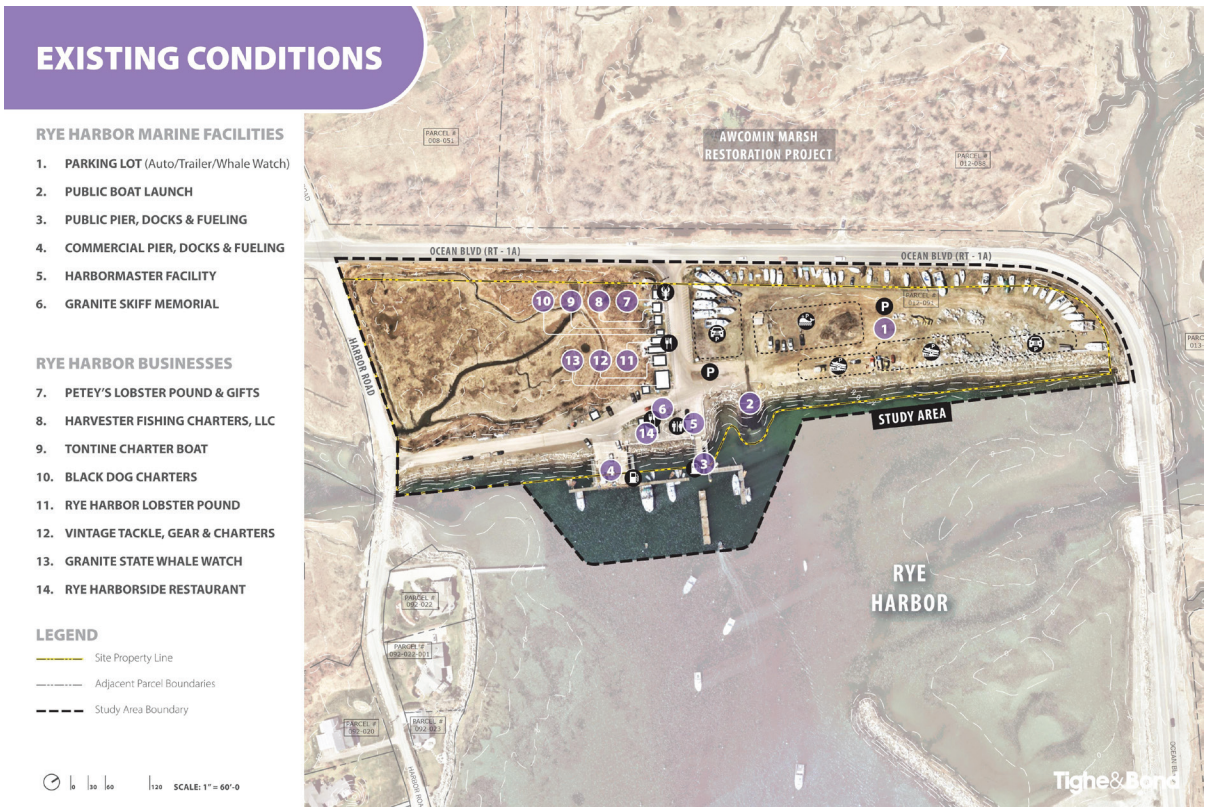


Image 1: Public Engagement Boards #1-4 - Existing Conditions Diagram

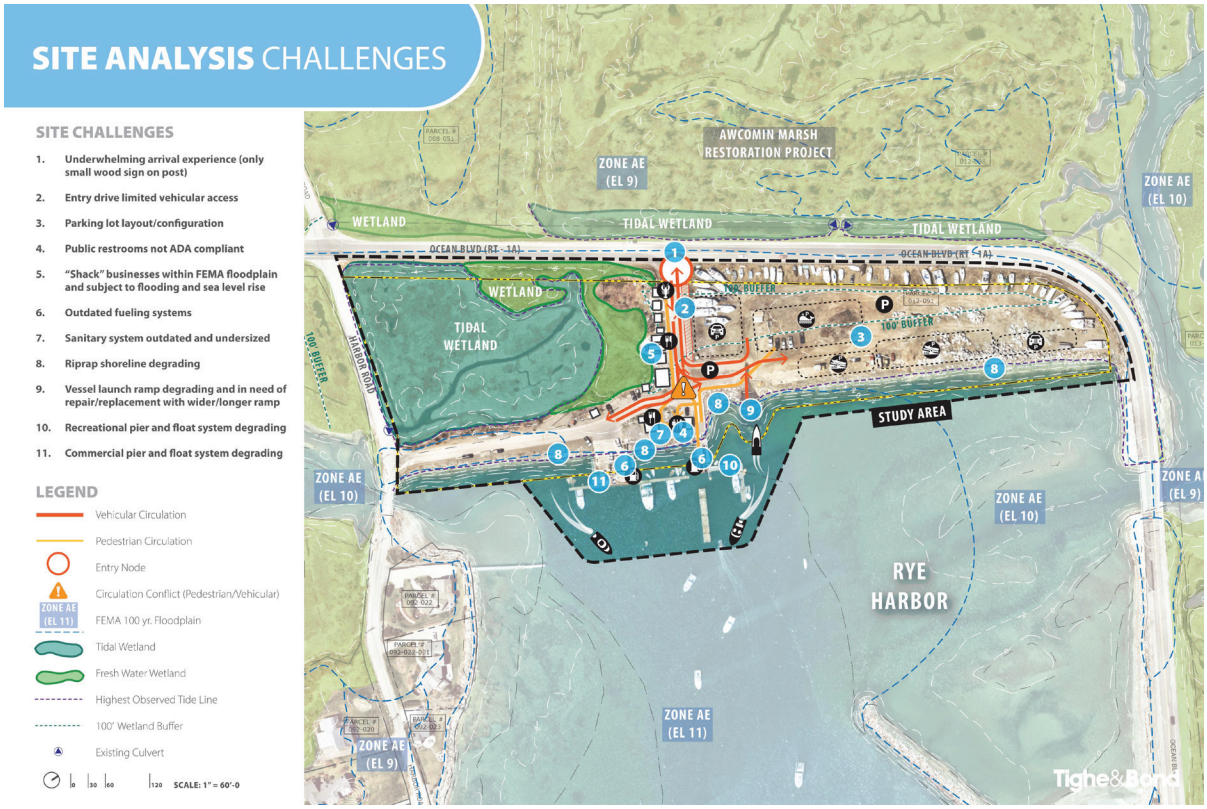


Image 2: Public Engagement Boards #1-4 - Site Analysis Challenges

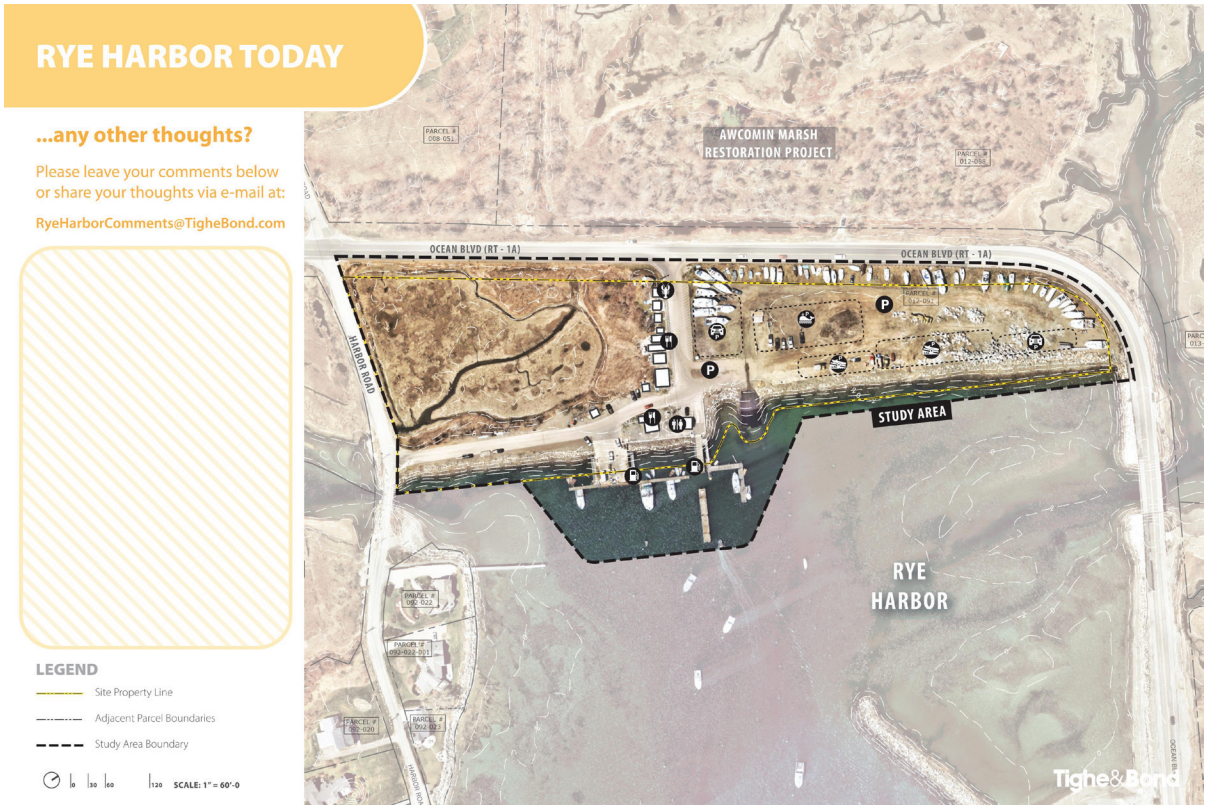


Image 3: Public Engagement Boards #1-4 - Rye Harbor Today

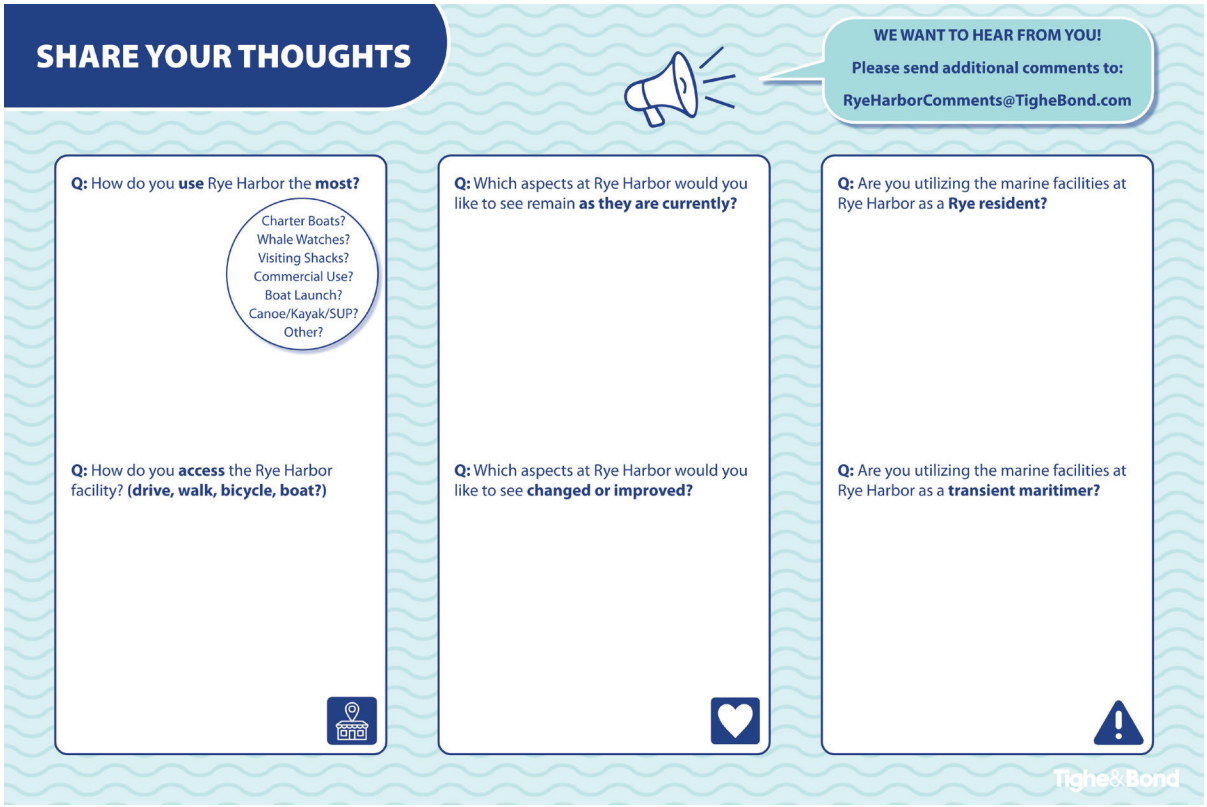


Image 4: Public Engagement Boards #1-4 - Share Your Thoughts

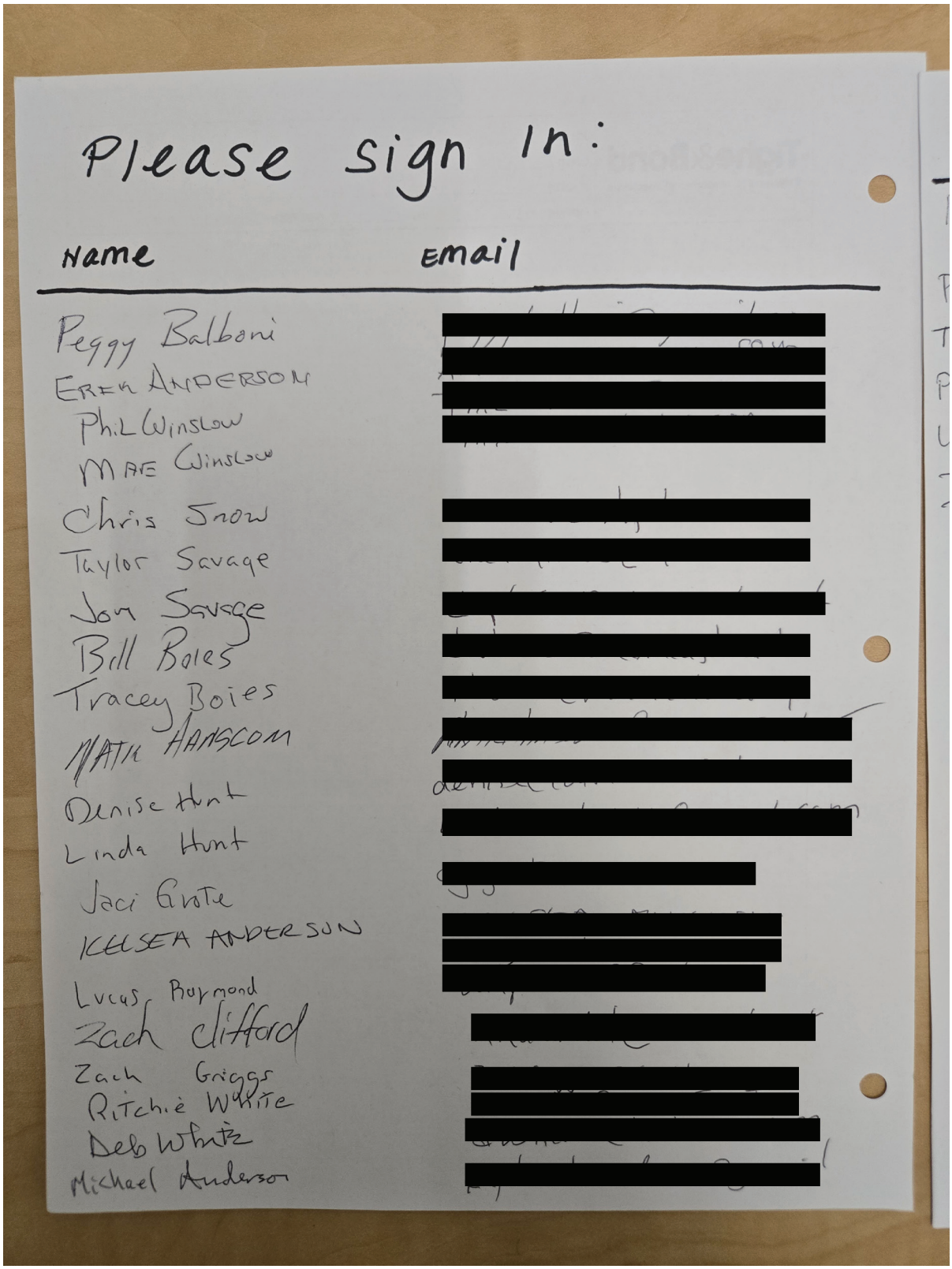


Image 5: Public Engagement Meeting #1 Sign in Sheet 1

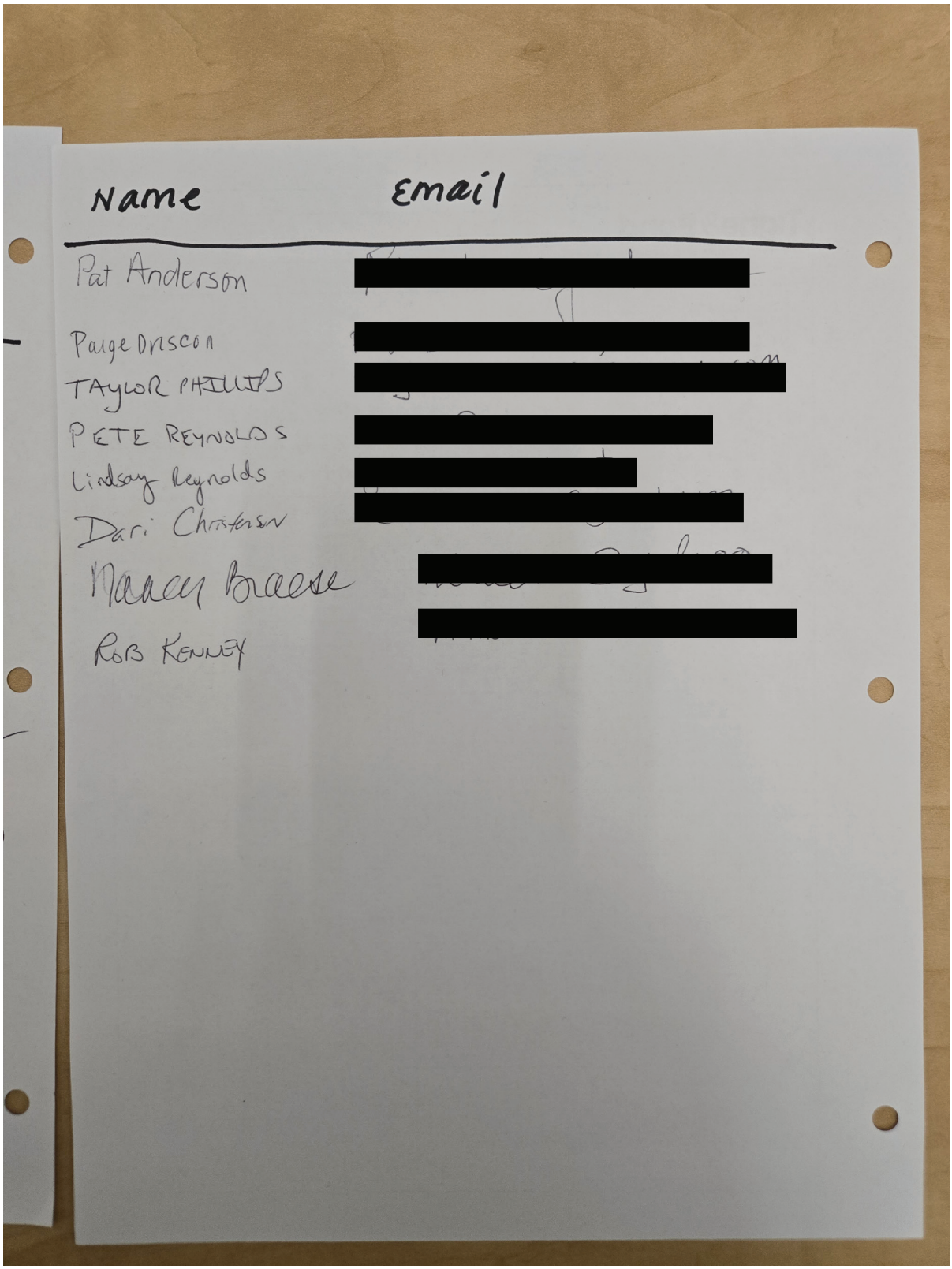


Image 6: Public Engagement Meeting #1 Sign in Sheet 2

Image 7: Public Engagement Meeting #1

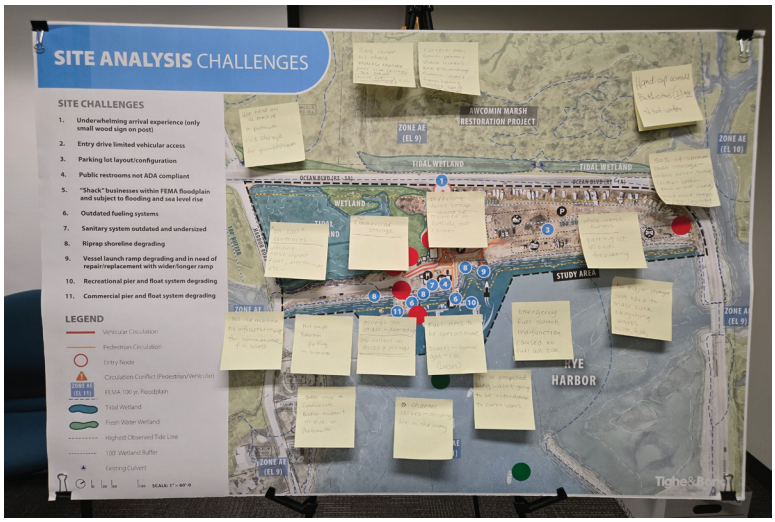


Image 8: Public Engagement Meeting #1

Image 9: Public Engagement Meeting #1

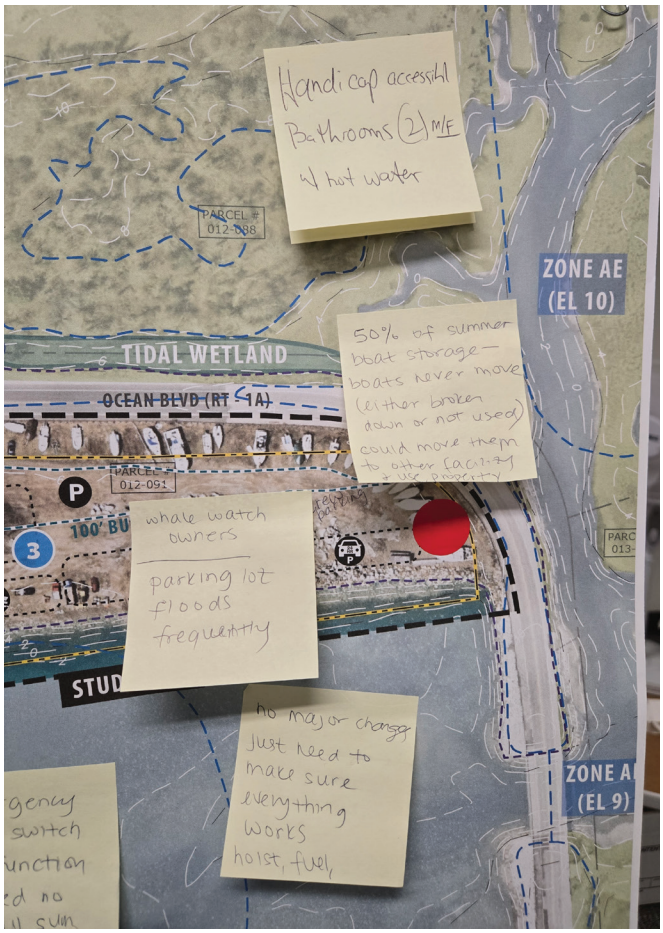


Image 10: Meeting #1 Comments

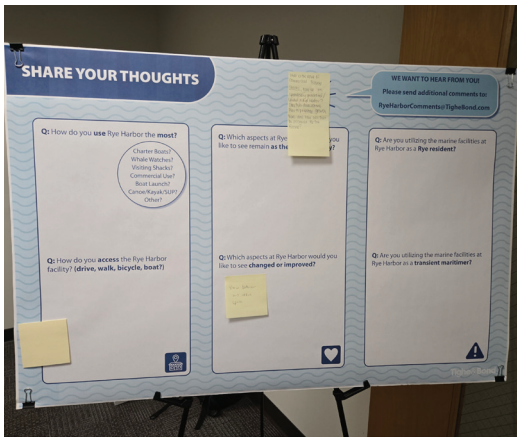


Image 11: Meeting #1 Comments

Image 12: Meeting #1 Comments

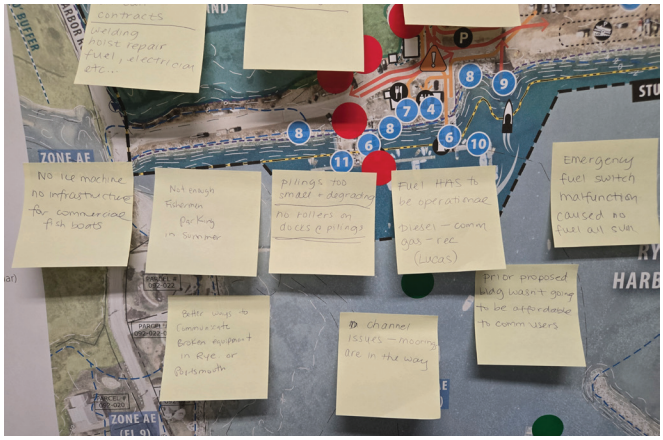


Image 13: Meeting #1 Comments

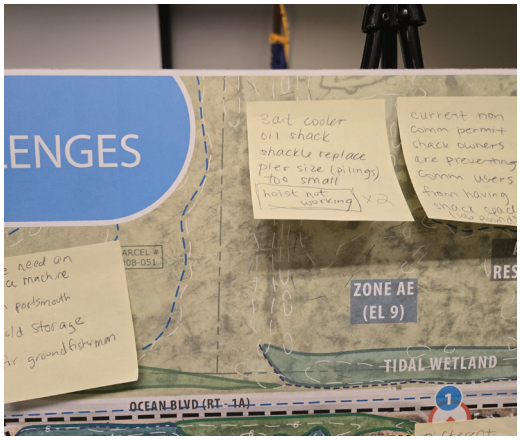


Image 14: Meeting #1 Comments

Rye Harbor

4/17/2025 Rye Harbor Public Engagement Meeting #1

Topic: Listening/Gathering

Location: PDA Large Classroom, 55 International Drive

What we heard:

- Need communal bait cooler
- Need oil shack to be operational
- Pier size (pilings) too small and damaged because docks don't have rollers on them
- Dock/float shackles need replacing, docks can flip over
- Hoist often doesn't work

- Current non commercial permit shack owners are taking up all the shack real estate and preventing commercial guys from having a place to sell their catch (ie: rye lobster pound)

- Need an ice machine – closest one is Portsmouth
- Need cold storage for ground fisherman
- Need infrastructure for commercial boats (power, water, etc)

- Need to have "on call" contracts in place for things like welding, fuel system technician, hoist technician, marine electrician, etc.

- Currently no commercial storage for equipment that the commercial fisherman use and would like to be able to store at the harbor

- Need different hoist setup – one where controls are mounted on the outside of the hoist, not in the center. This would also allow multiple boats to offload at same time.

- Not enough fisherman parking in summer

- Fuel system HAS to be operational. Mainly Diesel by Commercial and Gas by recreational users. Commercial system is often non operational.

- Develop better system (operationally) for communicating broken equipment in Rye and Portsmouth

- Channel issues – moorings are not located properly after dredging occurred and

are blocking the channel

- Prior “condo” proposal was not going to be affordable to the commercial users.
- Last summer the fuel emergency switch malfunctioned and caused no fuel operation all summer.
- Whale watch owners experience frequent issues with parking lot flooding, causes major issues for them
- An estimated 50% of the recreational boats being stored along Ocean Blvd never move, are either broken down or not used. They are taking up precious (dry) real estate that could serve better purposes. Could they be moved to a different facility?
- Need ADA accessible bathrooms – (2) male/female with HOT water
- Desire to have new restroom facility and new office space
- Generally users don’t want to see any major changes at RH – just want all components to operate as they should and not be broken
- Question asked “what is the value of commercial fisheries, shacks, ramp use, etc. specifically generated/landed in Rye Harbor? Does this development plan to

Image 15: Public Engagement Meeting #1 Notes

Notes from Rye Harbor input session – 4/17/25 - Craig Seymour DRG

I introduced state reps Peggy Bilboni and Jaci Grote … who said "prioritize the PDA goals" expressed in the RFP that Dennis read … Peggy asked about the timing of the process, when our report would be completed.

- Look at both direct and indirect revenues, e.g. fishing license fees, local expenditures.
- Physical infrastructure assessment – how much ($$) is available, left over, for work?
- Site is non-conforming, nothing can be built there. Current uses are not allowed (former marsh)
- Is PDA liable if they (PDA decisions) go against public opinion? State legislation dictates what PDA can do.

I asked for ideas on how it can operated better (rather than just complain ..)

- This is the first time someone has asked for input (Nate Hanson). Needs: seawall work, new office for HM, restrooms (leach field). Old plan (condo shacks) … need to take in costs to move buildings and cost to maintain them.
- How large an area are we surveying (public input) for comments? What is the timeline for taking comments? When is our report due?
- What about the Marine Advisory Panel, are we including them? Chris Snow introduced himself as chair of the panel
- Need to reach out to other agencies …. Who are business owners, fishermen? (I said I have a list of all ROE's and will be contacting them)
- Need to coordinate with Rye Master Plan (ongoing update)
- Capital improvement plan needs to be done (priority) ….. complained about $1M ARPA grant was squandered away on engineering and design for new building facility, which could have been used for current infrastructure needs.
- Meeting should be recorded (endorsed by others) so everyone gets heard
- (note) don't let making the harbor cost neutral drive discussion that force users and service providers to leave.
- (note) remain quintessential harbor with upgraded facilities.

Rep. Jaci Grote asked attendees to work with us

- Fishermen think PDA doesn't want them (Taylor Phillips)
- (meeting is?) not a friendly format to get things done
- Richard Hartley spoke – new director of DPH

Other comments ….

- Pat Anderson – started party fishing boat business many years ago, owned first shack, has operated several fishing businesses
- Need to talk to buyers (in parking lot … names on sigh up sheet)

In-person contacts

Cpt. Adam Parker (Vintage Fish)

Lucas Raymond (603-498-9922 fisherman (Witchcraft)

Image 16: Public Engagement Meeting #1 Notes from DRG

Image 17: Public Engagement Meeting #2 - Site Walk at Rye Harbor

Image 18: Public Engagement Meeting #2

Image 19: Public Engagement Meeting #2

Rye Harbor

4/22/2025 Rye Harbor Public Engagement Meeting #2

Topic: Informal Information Gathering Session/Facility Visit & Assessment

Location: Rye Harbor

What we heard:

- Entry into harbor off of Rt 1-A too confusing – people pull in and don't know where to go
- The addition of the 'fire lane' only added to the confusion
- Feels like there is a missed opportunity for generating revenue via winter boat storage in parking lot – why not fill entire parking lot with winter boat storage (ensuring they are all removed by April)
- 30 minute parking lot isn't enforced – people are setting up tables and chairs there and in front of shacks
- PDA can't enforce parking violations – they can't write tickets (is there desire to change this in the RSA???)…TBD
- No current police agreement, but there could potentially be an agreement. Rye PD doesn't have man power to handle, would need to pay for police detail/presence for parking enforcement.
- If Beach Patrol could issue tickets, that could be a potential option
- Current bathroom facility – no hot water and not ADA accessible (steps up)
- Parking lot in SEVERE decline and floods frequently
- Limitations for installing/permitting new septic system
- Closest sanitary sewer tie in is at condos to the southwest
- New sea wall – we need to protect what we have. The Jan 2024 nor easter storm overtopped the seawall and had such velocity to it that there were 4-6ft waves in the parking lot – this is where the damage comes from. If we could dissipate the wave action, we could greatly reduce the damage.
- Parking lot material is very poor, dredge material, does not drain, puddles remain for weeks.
- Raise seawall
- Improve parking lot surfacing – dig out and replace with free draining material to be more pervious
- Look at Genesse Beach and North Beach for examples of new bath house
- Fire lane is a waste of real estate
- Covid had major impacts, everyone bought a boat and the Lobster Pound was advertised in the Boston Globe – became a tourist destination. "They have outgrown the facility".
- There used to be a natural stagger with the parking uses but Lobster Pound now attracts too many visitors and is throwing a wrench in the parking situation
- If someone did a true audit of the financials, they would need to account for all

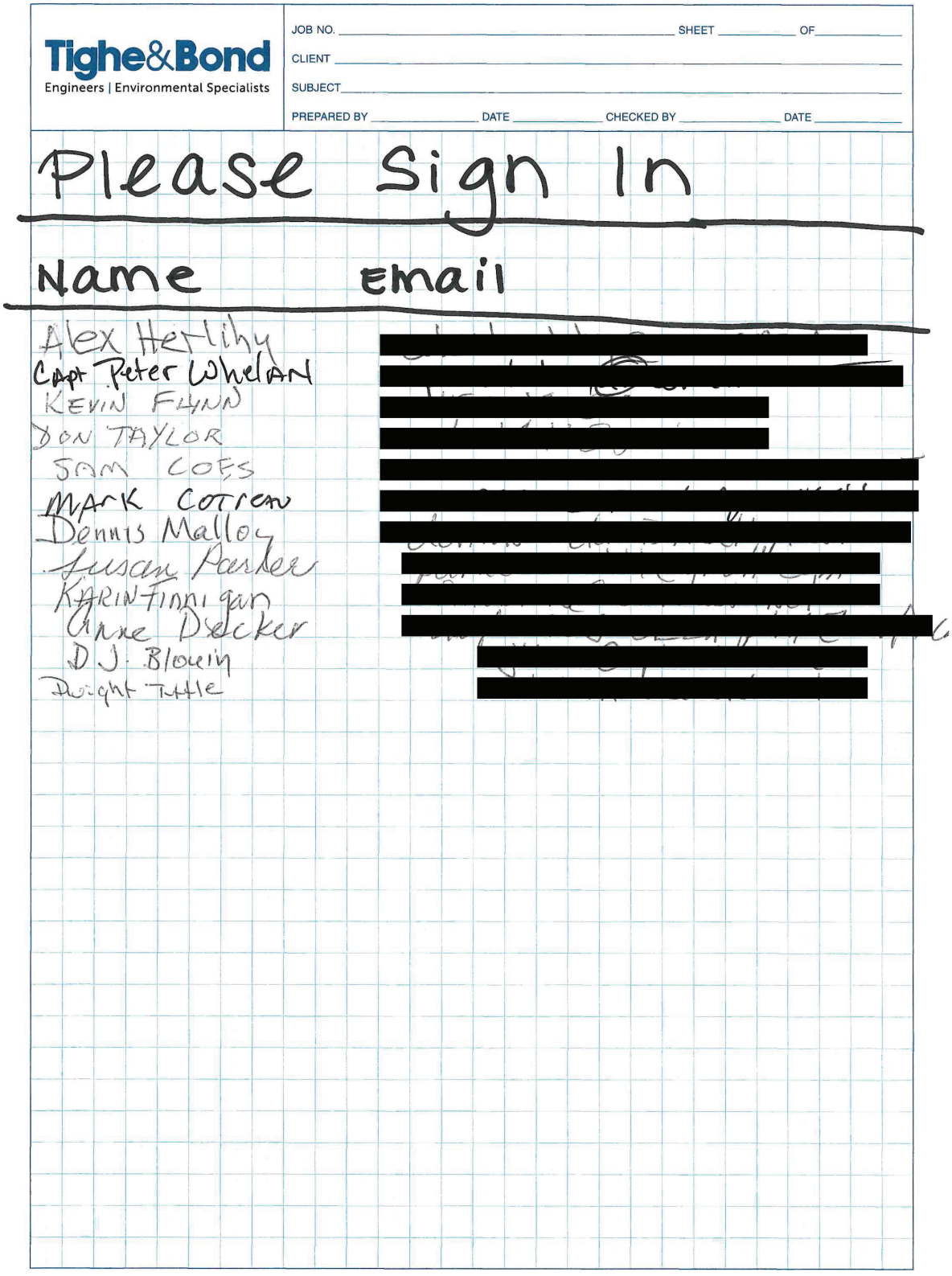
of the fishing licenses, travel, support to hotels, etc. 75% of Capt Jon's business is from out of state.

- "non buildable" lot
- Fuel tanks may need to be raised in future
- Goal of preventing damage and getting water out as soon as possible after storms
- "want to keep harbor as is but improve"
- Commercial Needs: hoists that work (modernize to hydraulic instead of electric – the electric controls constantly break/fail just due to the seaside location).
- Barricades were installed during covid to direct users/prevent ped access to commercial uses, this just deterred patrons and hurt businesses
- Jan 2024 storm unearthed old mill stones, Goss Family, this site was part of old farm, should consider archeological research prior to any construction
- Identify priority of improvements once recommendations are made
- Fuel systems did not work last year
- Tom Maciel – Jan 2024 storm wiped out fuel systems for 9 months – worked with FEMA to secure funds to fix
- Pilings at commercial docks are chaffed beyond repair due to there being no rollers on docks/floats. They need replacement.
- Current hoists are located in the center of the commercial pier and swing to corners, they should be located at corners and swing to center to allow multiple boats to offload at same time
- Ice machine either here or at Hampton would be great. Ice sold by ton. $120/ton today. Ice machines/storage also comes with maintenance costs.
- Communal bait cooler would be great but may not make sense. It's like a giant walk in cooler that forklift can be driven into – (4) 55 gal drums of bait to a pallet, moved via forklift. But due to flooding, cooler would need to be elevated and then forklift can't enter.
- Waste oil building – hasn't been operational for 10-12 years at least. Has 350 gal tank with crack. Has secondary containment which is DES approved so not an environmental issue. Roof would need to be removed to crane existing tank out, or tank gets cut up in place and removed. Could potentially do this for short money and just put (4) 55 gal drums in there for commercial waste oil. Commercial users would need to inform DPH when barrels were getting full for emptying.
- Rec fuel dock lost it's power – need a few 120v GFI outlets for maintenance and for boats to charge batteries.
- Pier use fees cover Hampton and Portsmouth use as well.
- Need fresh water at rec doc (also water line to facility is undersized – when whale watch is washing boat and toilets flush they lose almost all water pressure). Needs upgraded/upsized overall water service, and need at least two spigots down at rec pier.
- Moorings located incorrectly, preventing navigation through channel
- Lack of mooring enforcement (some boats have equipment much too large on moorings blocking the channel)
- Parking lot dangerous, large pot holes that fill with water, people have gotten hurt
- 30 min parking area used to be the crew parking – now crew is expected to park

all the way across the lot. Priority not given to them, but to shacks (mainly concession)

- $10/car parking – in mud puddles, then mud tracked into charter/whale watch boats, and then no way to wash with no water on dock
- Prior "food court" plan to use $1 mil ARPA funds sat on a shelf for 2 years, received zero input/support from any users/business owners
- $300k of PDA dollars then used on studies, etc when ARPA funds fell through.
- NH state facility so why can't the state contribute funds for maintenance. Where does all of the fishing license $ go? Does RH receive any portion of that for maintenance?
- ROE 1 year extension, expires April 30, 2026
- Lobster Pound has contributed $115k in past 2 years – where has that $ gone?
- Lobster Pound owner thinks there should be set rate concession fee for anyone who sells food but it should not be a % of gross sales. The 10% is also being applied to uncooked live lobsters which are not prepared menu item, they are losing a lot of $.
- Language in contracts is outdated. Shacks are referred to as "movable buildings" but they are not really movable. There should be longer term leases to encourage continued investment. 10-15 year lease or 5 year with (2) 5-year extension options would be appropriate.
- No incentive to keep spending $ on shacks with 1 year lease
- Whale watch owner shared great example – if he needs to replace engine in boat and tries to get a loan from bank for $200k they won't give one with 1 year lease as proof of business agreement
- Can't grow businesses or purchase inventory not knowing if leases will be extended
- Greg Bauer – construction ROE – using state land to run construction staging/operations for private development. Why is this allowed?
- Taylor Phillps (Sea Hag boat) would be a good person to talk to about the needs

Image 20: Public Engagement Meeting #2 Notes



Tighe&Bond
Engineers | Environmental Specialists

JOB NO. _____ SHEET _____ OF _____
CLIENT _____
SUBJECT _____
PREPARED BY _____ DATE _____ CHECKED BY _____ DATE _____

Please Sign In

Name	Email
Alex Herlihy	[redacted]
Capt Peter Wheldan	
Kevin Flynn	
Don Taylor	
Sam Cofs	
Mark Cotrew	
Dennis Malloy	
Susan Parker	
Karin Finnigan	
Anne Decker	
D.J. Blowin	
Dwight Tuttle	

Image 21: Public Engagement Meeting #3 Sign in Sheet

Rye Harbor

4/23/2025 Rye Harbor Public Engagement Meeting #3

Topic: Listening/Gathering

Location: PDA Board Room, 55 International Drive

What we heard:

Town Historian

- Facility used by Seacoast and beyond
- Site built on salt marsh
- Improvements to parking lot (parking lot is at max capacity)
- Fin. Considerations
- Fair fees for all users
- Fair and open process

Rye Fire

- Jet Ski and Dock
- Must maintain ocean rescue program (absolute necessity)
- Fire Department manages lifeguards
- Boat has limitations. Jet ski doesn't.
- Maintain emergency vehicle parking for ocean rescue
- Sam – parking attendant @ RH
    - Two families of bald eagles in the pine trees at Harbor Road
    - Diverse wildlife
    - Must maintain habitats
    - Wildlife preserves across 1A
    - Group of bird watchers – identify unusual species
    - 1904 – Rt 1A Ocean Blvd
        - 1939/40 Jettie
- Rye Harbor not funded properly by State of NH
- "Gem" treated at lowest quality
- People with docks shut out by NH
- Residents are getting new seawalls, RH seawall has sand dumped

Peter – Portsmouth

- Coastal Conservation of NH
- Concord → North – use boat ramp
- Quaint, NE character, Shacks
- Limited access to our coastline – must maintain!
- NH Fisheries Access Council
    - Need hoist, fuel docks, etc.
    - Need support from PDA to keep access for comm. fish

Beth – Rye

- Launch ramp – Hampton Beach, Downtown Points – Rye is safe
- Rye Harbor open to everyone today – must maintain!
- Dredging
- ROE contacts – interviews to occur

Michael – Port Advisory Board

- DRG – perception of real estate developer (NOT)
- Gino and Brad may want to be interviewed

Existing Report – Manmade Harbor

- Boring logs
- Stakeholders were all in agreement about platform
- 52' of marine clay
- Seawall in desperate need of repair
- Study should start at the breakwater to ensure protection of RH – seawall may be taking a beating due to breakwater
- Parking lot needs desperate attention
- Shoreline needs attention (raised) before parking improvements
- Could lot support stormwater management?
- Septic – pursue funds to extend sewer line
- Port Adv. Council wants to work closely with PDA

Lucas – Commercial

- Importance to comm. fisherman and OPEN TO ALL!
- More money allocated to maintaining what is there
- Not playground for wealthy
- RH more = to park not business
- True audit – not just parking money and ROE fees
- EVERYONE is against new buildings

Other

- Parking hadn't been up in 20 years
    - Could have increased overtime
- Does Rye Harbor operate in deficit?
- Pollution and trash around Rye Harbor is a problem
- Portland, ME Commercial Street – working waterfront (reference this model)
- Protect and preserve what's there
- Cleanup behind shacks

- Improve infrastructure to support uses
    - Parking Lot
    - Pilings
    - Shoreline protection
    - Holding tank vs. sewer

- Maintain ability to view comm. operations
- Coast Guard uses boat ramp
    - 28' and 20' – outboard, rigid inflatable boats
    - NOAA – research boats launched here
- Fire lane NOT useless – used last summer during boat fire on ramp with traffic jammed up on entry drive
- No Rye Chamber of Commerce – many people come to RH just to get a t-shirt, lunch, etc.
- Parking gets cars from all 50 States
    - Can't distinguish parking fees b/t NH residents and Non (not allowed)

Image 22: Public Engagement Meeting #3 Notes

Rye Harbor

5/8/2025 Rye Harbor Public Engagement Meeting #4

Topic: Informal Information Gathering Session/Facility Visit & Assessment

Location: Rye Harbor

What we heard:

- What was the goal when PDA issued this RFP? What's the point of this study?
- Will meeting notes be made public?
- RFP made it seem negative like certain groups are being excluded from using Rye Harbor at the moment. Is that true?
- Peggy (State Rep) – what is the timeline of the study? Give Peggy advance notice of next public meetings so she can share with her constituents
- Next time post the meeting notice in the newspaper – Portsmouth Herald?
- Where is the $ coming from for this study, and for the future recommended improvements? (Richard confirmed Ports & Harbors budget)
- Boat storage in parking lot – customers pay double for summer storage
- People coming from northern NH should also have a say
- "Best Use" of the property – best use doesn't mean monetizing the harbor. Protect the harbor so it is the best use for ALL.
- Highest and best use doesn't mean money
- Richard Hartley – lessons learned here with this study could be shared with Hampton and Portsmouth
- Limited NH coastline
- Don't think PDA should manage Rye Harbor – should go back to the state under NH Department of Natural and Cultural Resources
- Rye Harbor used to be run by DRED (looks like DRED was broken up in 2017)
- ARPA funds could have been used for seawall repairs
- $ coming into port, salt shipments, etc all contribute to budget
- Richard – will help find grants for various projects at Rye Harbor
- There is currently no reserve $ for storm cleanup or repairs – this caused a $ loss
- Parking fees hadn't increased in 20 years, could have gone up incrementally to help balance funds
- Irving and other boats coming into Portsmouth – ½ the cost of going to Boston.
- Traffic patterns work well currently – allowing commercial guys to come in off Harbor Rd and more recreational traffic to come in off main entry near shacks
- Winter boat storage should give priority to mooring holders
- Need to get PD and FD chief input for Emergency Response
- Shack leases should be similar to mooring wait list and grandfather existing leases
- Rye Master Plan – may 20 meeting – will share final version with T&B for review
- RDA Administration act – ensure we are complying

- Non commercial people are parking in the way – dangerous
- Single entry/egress off 1A is very problematic
- Close commercial area off for commercial traffic only
- Fix both breakwaters first then seawall then parking lot
- Chris Pappas – has been talking with FEMA about breakwaters
- Prior Parking Study Opt #1 looks best
- Docks and pilings – missing, chaffed, docks are missing shackles and floatation
- Fix floats on docks
- Make lifts better
- Railing around commercial pier (see Yankee)
- Winter dock repair – pull docks out and replace pilings
- Rec gangway was broken and fixed promptly – commercial equipment often stays broken
- Have spare equipment (like an extra hoist)
- Have proper size hoists – and make them hydraulic, not electric
- Current process is to go to Mandy when something is broken (Mandy or Tom)
- Moorings not in correct locations – channel is blocked. They were misplaced after dredging
- Pad lock on breaker box, cant reset breaker when hoists aren't working – guys getting electrocuted on hoists – control malfunctions frequently
- Docks missing floatation
- Oil shack non operational for 12+ years
- Peter from Petey's (son owns Harvester next door) – suggested moving entry drive to the north to allow current entry drive area near shacks to be pedestrian-ized, open space.
- Mandy needs bathroom in winter with running water – doesn't currently have
- Richard – talk to coast guard commander local unit command in New Castle
- Pat Anderson, abutter and commercial user – very knowledgeable, has been down there since the 70s
- Commercial catwalk between ladders – this is needed – super dangerous right now
- Central fuel and water between hoists
- Move second hoist to right corner of commercial pier so they both point north, could allow 2 boats to offload at same time
- Better commercial setup to all

Image 23: Public Engagement Meeting #4 Notes

Notes from 5/8/25 Info gathering meeting

Rye Harbor Study

I counted ~38 people including 8 PDA or T&B staff

1/3 of attendees had attended an earlier session

- Any thoughts about expanding the zone off input (to include more of state or out-of-state users)?
- Comment regarding data points, need for feedback
- What does "access for all" mean? Purpose of study?
- What is T&B timeline? How will people know about upcoming meetings? Let NH Reps know so they can spread the word. Publish notice in Portsmouth Herald.
- Where are $$$ for this study coming from? (DPH)
- What about boat storage? Are summer rates higher? Areas used could be used for car parking.
- "Best Use" – not necessarily best monetized use
- Need to consider visitors from outside the Seacoast – many from Northern NH or other states (charter boats, whale watching)
- Suggest taking management away from PDA and put back with PAC
- Rib rap stored at northern end of site (Greg Bauer) – entire harbor waterfront should have been done with the $1M grant they had
- Finances – port operating at a loss, and included capital items. Response from DPH – DPH budget not tied to Pease airport – overall need to bring it in across all port activities
- Harbor Road resident – no issue with his road
- Mooring holders should have first priority for storage
- Moorings have waitlist – ROE's for shacks should be treated similarly with existing owners grandfathered in.
- What about RSA 541(a) – Administrative Services Act - in compliance?

Commercial fishermen

- Should have railing around dock – like at Yankee
- Maintenance (lacking) – pilings, docks, floats, lifts – location of lifts (should be on ends)
- State should redo/repair floats and piers in winter
- Commercial users are low end of totem pole … just don't take anything away.

Image 24: Public Engagement Meeting #4 Notes from DGR

Image 25: Public Engagement Meeting #5 - Information Sharing Session Slide 1

Image 26: Public Engagement Meeting #5 - Information Sharing Session Slide 2

SUMMARY OF MEETINGS

PUBLIC ENGAGEMENT MEETINGS

#1	PDA BOARD MEETING	April 15th 2025	PDA Board Room Portsmouth, NH
#2	LISTENING & GATHERING	April 17th 2025	PDA Classroom Portsmouth, NH
#3	SITE WALK AT RYE HARBOR	April 22nd 2025	Rye Harbor Rye, NH
#4	LISTENING & GATHERING	April 23rd 2025	PDA Board Room Portsmouth, NH
#5	SITE WALK AT RYE HARBOR	May 8th 2025	Rye Harbor Rye, NH
#6	PDA BOARD MEETING	May 20th 2025	PDA Board Room Portsmouth, NH
#7	WHAT WE HEARD	TODAY!	

Image 27: Public Engagement Meeting #5 - Information Sharing Session Slide 3

ADDITIONAL OUTREACH

#1	INPUT REQUEST	Input request Email sent to Right of Entry (ROE) and Pier Use Permit holders, Public Officials and facility users (from contact information obtained at meeting sign-in sheets and PDA distribution lists).
#2	INTERVIEWS	Direct outreach to individual Right of Entry and Pier Use Permit holders and Public Officials for informal interviews.
#3	QUESTIONNAIRES	Questionnaire available at Harbormaster office to gather additional feedback from users of the facility.
#4	PUBLICATION	Presentation materials presented at public meetings, published on project website.

Image 28: Public Engagement Meeting #5 - Information Sharing Session Slide 4

Image 29: Public Engagement Meeting #5 - Information Sharing Session Slide 5

Image 30: Public Engagement Meeting #5 - Information Sharing Session Slide 6

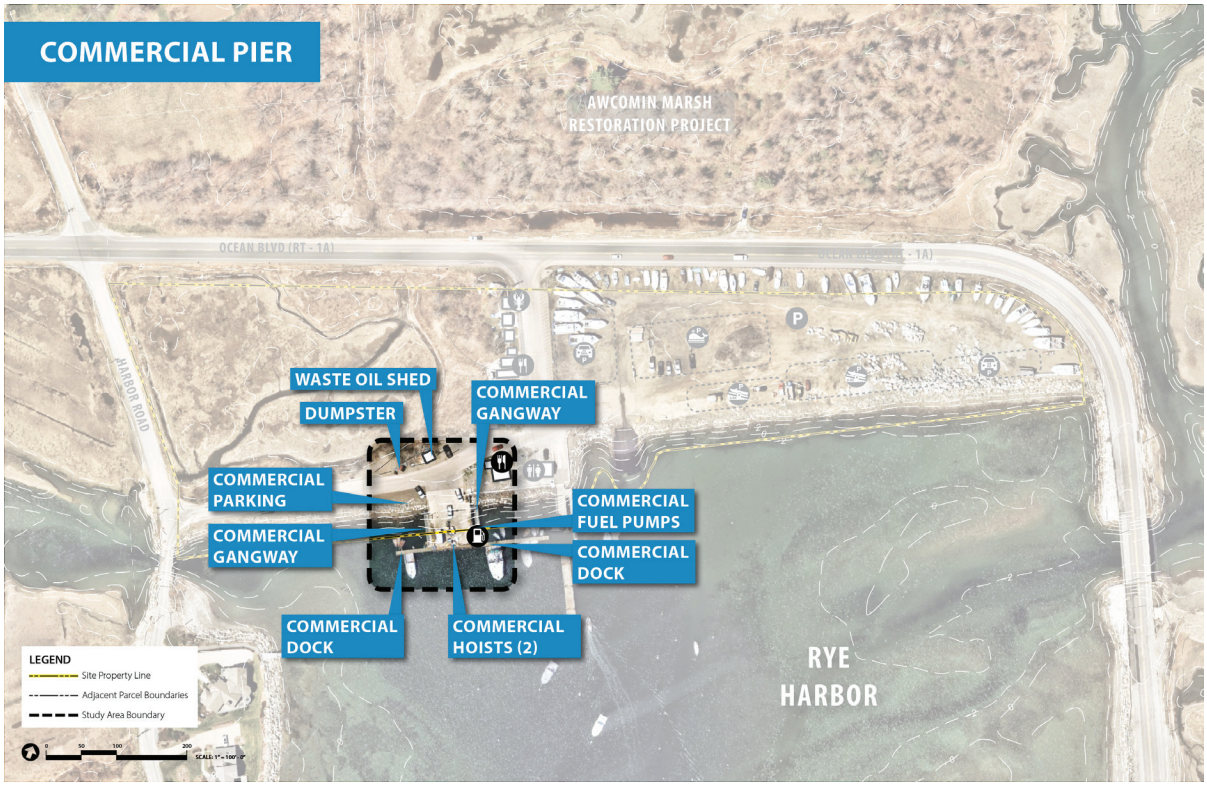


Image 31: Public Engagement Meeting #5 - Information Sharing Session Slide 7

WHAT WE HEARD...

Community Comments

1. **Hoists:** Current hoists are undersized and have electric controls which fail frequently. Hoists should be up-sized and upgraded to a more reliable system. Consider alternate location for second hoist to allow multiple boats to offload simultaneously.
2. **Pier & Dock Repairs:** There is damage to pilings due to missing rollers on pile guides and flotation is missing from some docks.
3. **Fueling Systems:** Fueling systems (gas and diesel pumps) are unreliable and are frequently non-operational. Consider raising fuel tanks for future resiliency as current tanks are below grade.
4. **Utilities:** Insufficient and limited access to fresh water and power for daily needs (washing, charging batteries, powering tools for minor repairs, etc).
5. **Commercial Pier Safety:** Commercial pier lacks important safety features such as railing at edge and cat walks between ladders
6. **Commercial Access & Priority:** concerns that non-commercial users are taking over key areas such as shack ROEs, parking, and access to commercial zones. Desire to prioritize commercial fisherman and their specific needs.
7. **ROEs & Contract Terms:** Desire for longer term ROEs as the 1-year term creates a barrier to long-term investment and stability. Ensure fair and consistent ROE/fee structure so that small, local businesses are not priced out.
8. **Communication & Maintenance Response:** current protocol for reporting broken/ malfunctioning equipment is slow and inefficient. Many users would like to see backup equipment available for immediate use and on-call contracts for emergency maintenance.
9. **Parking & Storage:** Not enough dedicated parking for commercial fisherman, especially in the summer. Commercial mooring holders also expressed desire for priority winter boat storage as storage space is limited.
10. **Commercial Operations Support:** Desire for operational waste oil management system (current waste oil shed has been non-operational for many years), and desire for ice machine at the facility.

Image 32: Public Engagement Meeting #5 - Information Sharing Session Slide 8

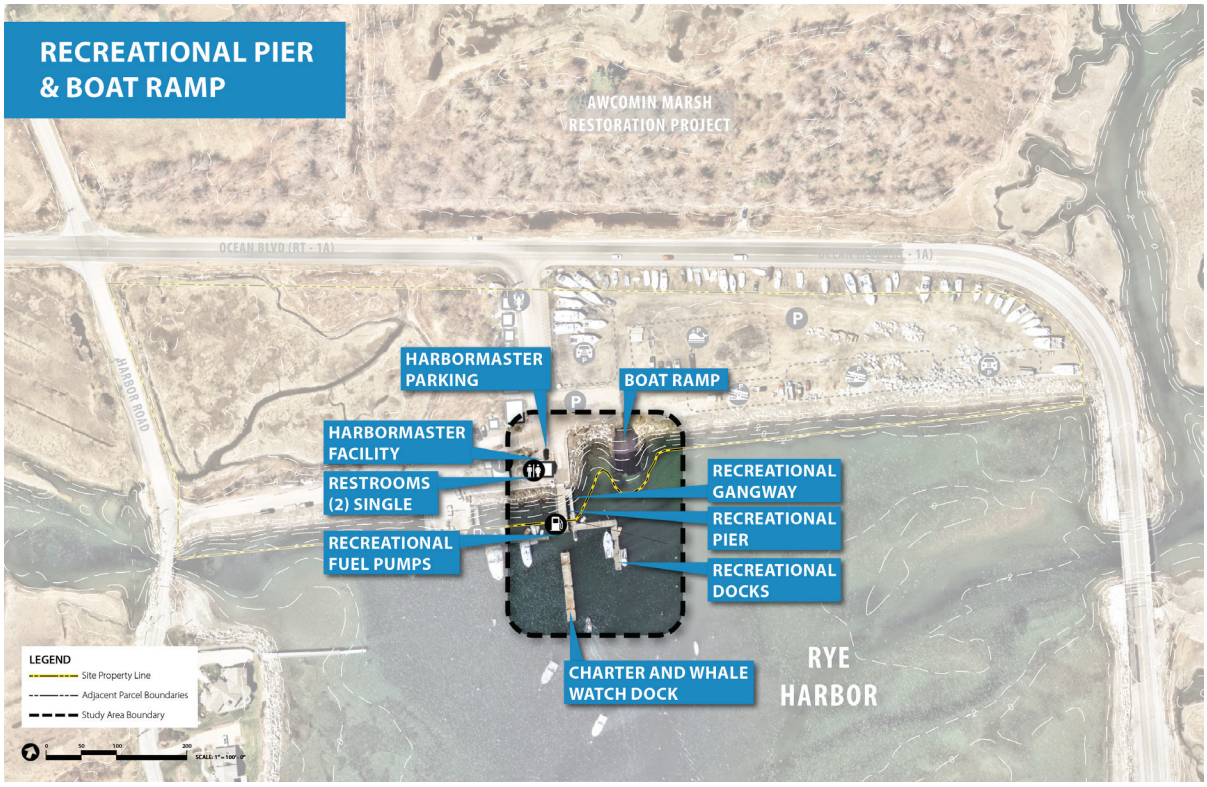
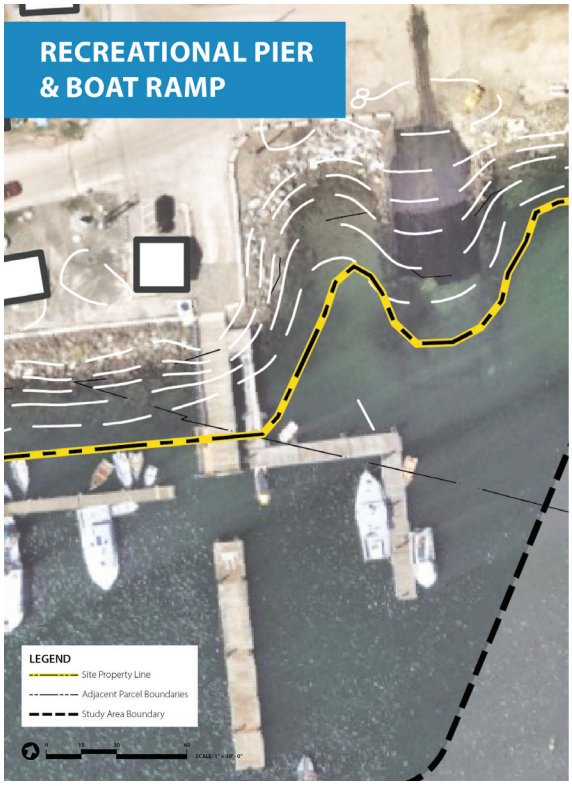


Image 33: Public Engagement Meeting #5 - Information Sharing Session Slide 9



WHAT WE HEARD...

Community Comments

1. **Restroom Facility:** Strong desire for restroom facilities to be upgraded to be ADA accessible with both hot and cold water. Ensure future resiliency is considered as location of current structure is extremely susceptible to storm damage. Look at nearby Jenness Beach and North Beach for examples of new bath house facilities.
2. **Harbormaster Facility:** Desire for harbormaster facility office space to be upgraded to current day standards. Potential separate single stall restroom with year-round use as current winter restroom is porta-potty with no running water. Ensure future resiliency is considered as location of current structure is extremely susceptible to storm damage.
3. **Septic System:** Concerns about the challenges associated with permitting and installing a new septic system. Consider tying in to Town sewer instead.
4. **Fueling Systems:** Fueling systems (gas and diesel pumps) are unreliable and are frequently non-operational. Additionally, consider raising fuel tanks for future resiliency as current tanks are below grade.
5. **Dinghy Dock:** Current dinghy dock is at/over capacity. It was noted that priority should be given to mooring holders as this is the only way they can access their moored vessels.
6. **Utilities:** Insufficient and limited access to fresh water and power for daily needs (washing, charging batteries, powering tools for minor repairs, etc). Current water service is severely undersized and when a boat is being washed and toilet flushes, water pressure is lost almost entirely.
7. **Boat Ramp:** Ensure boat ramp is maintained/improved to continue to support recreational and commercial access as well as provide harbor/ocean access for emergency rescue equipment and Coast Guard.
8. **Harbor Character & Future Development:** Strong desire to preserve Rye Harbor's current character while still making improvements to infrastructure. Maintain "quaintness" and avoid over-development. No "food court" style building. "Keep shacks as is."
9. **Harbor Management & Fees:** Strong desire to keep Rye Harbor accessible to all users. Ensure that no user group is priced out.
10. **Regional Use:** With such limited coastline in NH, Rye Harbor supports the entire state with recreational and commercial access. Ensure access remains safe and reliable.

Image 34: Public Engagement Meeting #5 - Information Sharing Session Slide 10

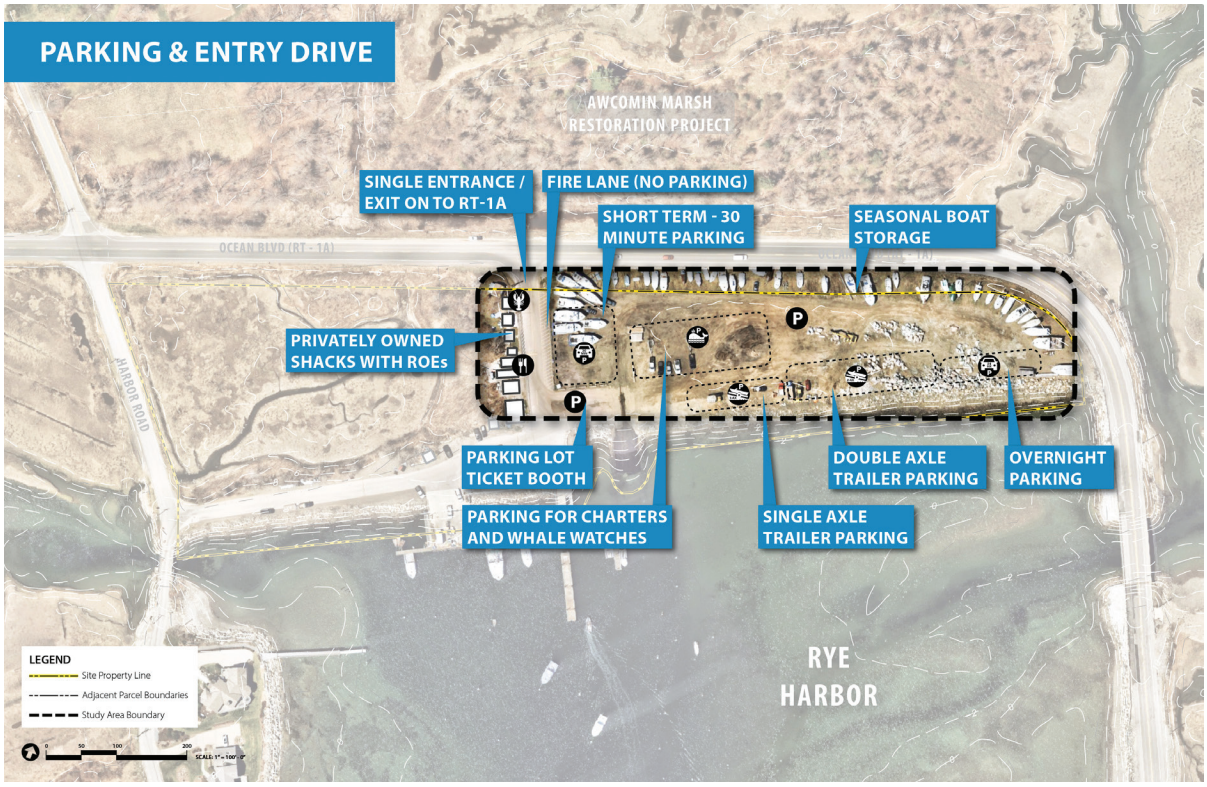
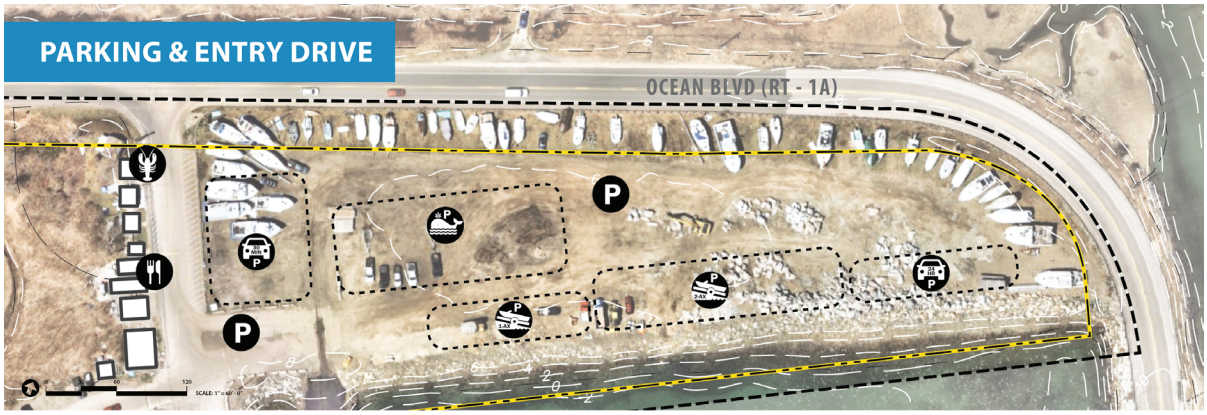


Image 35: Public Engagement Meeting #5 - Information Sharing Session Slide 11



WHAT WE HEARD...

Community Comments

1. **Seawall & Stormwater Management:** Storm surge consistently overtops revetment seawall and wave action contributes to significant parking lot damage. Desire for seawall to be raised and parking lot surfacing to be replaced with a pervious material.
2. **Parking Lot Issues:** Parking lot floods frequently, has large potholes and has very poor drainage. Puddles remain for weeks after storms.
3. **Facility Access & Entry Confusion:** The single entry/exit off Rt-1A creates safety and traffic flow issue. Consider shifting entry drive to the north and pedestrianizing the area adjacent to the shacks to reduce pedestrian/vehicular conflicts.
4. **Winter Boat Storage:** Desire for more winter boat storage. Many noted a "missed revenue opportunity". Priority should be given to mooring holders. Additionally, consider alternate location for recreational boat storage that is currently occurring along Rt-1A edge of parking lot. Many boats haven't moved in years, is there a better/higher use for this real estate?
5. **Environmental Concerns:** Ensure boat maintenance activity taking place in parking area is permitted and following proper protocols.
6. **Emergency Access & Fire Lane at Entry Drive:** Ensure the importance of Fire Lane is known so that users don't occupy this space. Rye Fire Dept expressed importance of its use to access a boat fire on the boat ramp last summer. Maintain parking and access for emergency vehicles, Ocean Rescue teams and Coast Guard.
7. **Overcrowding & Tourism Impact:** COVID had a significant impact on tourism, shacks and recreational boating attracted more visitors, exacerbating parking issues. Study the threshold for when a use has outgrown the facility.
8. **Parking Lot Allocation & Prioritization:** Crew members and commercial fisherman now have to park further from their work areas due to shift in parking priorities. Priority shouldn't be given to just one use.
9. **Parking Fee Adjustments:** Parking fees had not been raised in 20 years, they could have been increased incrementally to help offset costs over the years instead of doubling this year. Suggestion to use parking meters to streamline finances and reduce labor costs.
10. **Parking Enforcement:** There is a lack of parking enforcement. Additional paid police detail might be required during peak season weekends.

Image 36: Public Engagement Meeting #5 - Information Sharing Session Slide 12

WHAT WE HEARD...

Community Comments

1. **Shoreline Infrastructure:** Widespread concern about storm related damage with many comments to raise/reinforce seawall and to repair/raise both breakwaters (first) before repairing/raising seawall (second) and parking lot (third).
2. **Environmental & Coastal Resilience:** Strong desire to protect sensitive ecological areas including wildlife habitat and salt marsh. There does not need to be a large expansion. Current operations, location of shacks, and the maintenance of vessels may be impacting the environment. Ensure environmental and archaeological review before any improvements take place.
3. **Mooring & Channel Issues:** Mooring placement after dredge operations have blocked the navigable channel (it is hardly navigable now). Requests for better enforcement of mooring regulations including ensuring that boats with oversized equipment are not impeding navigation.
4. **Working Waterfront:** maintain Rye Harbor's historic, rural and working waterfront character. Recognize the ripple effect Rye Harbor has on the economy of the State of NH (hotels, restaurants, etc). Preserve and promote younger generation's interest in lobstering and fishing. Maintain public's ability to view and observe the commercial operations at the facility.
5. **Public Safety & Emergency Services:** Ensure Rye Police, Rye Fire, Coast Guard, NOAA, NH Fish & Game, and other government agencies who rely on access to Rye Harbor for emergency uses and rescue operations are able to maintain their current uses. Ensure space remains available for storage of jetski for Ocean Rescue program. Ensure fueling operations remain available for emergency watercraft.
6. **Protect & Preserve:** Generally keep Rye Harbor as is but improve to ensure all components are in good working order. "We need to protect what we have", "Best Use" of the facility doesn't mean monetizing the harbor – protect the harbor so it is the best use for all.
7. **Critical Access Point:** with only about 18 miles of coastline, Rye Harbor provides a critical access point for the State of NH residents and visitors for commercial and recreational uses. Rye Harbor is one of only three publicly accessible, state owned and operated harbors in the state of New Hampshire. It is critical to ensure that Rye Harbor maintains its current uses and offerings.
8. **Financial Transparency & Governance:** Desire for better management. Desire for financial audit beyond parking or ROE fees (Example: where does fishing license revenue go? Is it helping Rye Harbor?).
9. **Character & Community Identity:** Ensure that the quaint character of Rye Harbor is preserved. Strong opposition to Rye Harbor becoming a commercialized or privatized harbor (like Wentworth by the Sea). Avoid any expansion or major changes that alter the identity of Rye Harbor.
10. **State Role & Responsibility:** Rye Harbor is a State of NH facility and should receive State funds for maintenance. Much frustration has been expressed over the neglect of the facility "a gem treated at the lowest quality".

Image 37: Public Engagement Meeting #5 - Information Sharing Session Slide 13

WHAT WE HEARD... SUMMARY OF TOPICS

COMMERCIAL PIER & PARKING

1. Hoists
2. Pier & Dock Repairs
3. Fueling Systems
4. Utilities
5. Commercial Pier Safety
6. Commercial Access & Priority
7. ROEs & Contract Terms
8. Communication & Maintenance Response
9. Parking & Storage
10. Commercial Operations Support

RECREATIONAL PIER & BOAT RAMP

1. Restroom Facility
2. Harbormaster Facility
3. Septic System
4. Fueling Systems
5. Dinghy Dock
6. Utilities
7. Boat Ramp
8. Harbor Character & Future Development
9. Harbor Management & Fees
10. Regional Use

PARKING & ENTRY DRIVE

1. Seawall & Stormwater Management
2. Parking Lot Issues
3. Facility Access & Entry Confusion
4. Winter Boat Storage
5. Environmental Concerns
6. Emergency Access & Fire Lane at Entry
7. Overcrowding & Tourism Impact
8. Parking Lot Allocation & Prioritization
9. Parking Fee Adjustments
10. Parking Enforcement

OTHER COMMENTS

1. Shoreline Infrastructure
2. Environmental & Coastal Resilience
3. Mooring & Channel Issues
4. Working Waterfront
5. Public Safety & Emergency Services
6. Protect & Preserve
7. Critical Access Point
8. Financial Transparency & Governance
9. Character & Community Identity
10. State Role & Responsibility

*Note: Refer to each category 'what we heard' slides for summary of comments received on each topic

Image 38: Public Engagement Meeting #5 - Information Sharing Session Slide 14

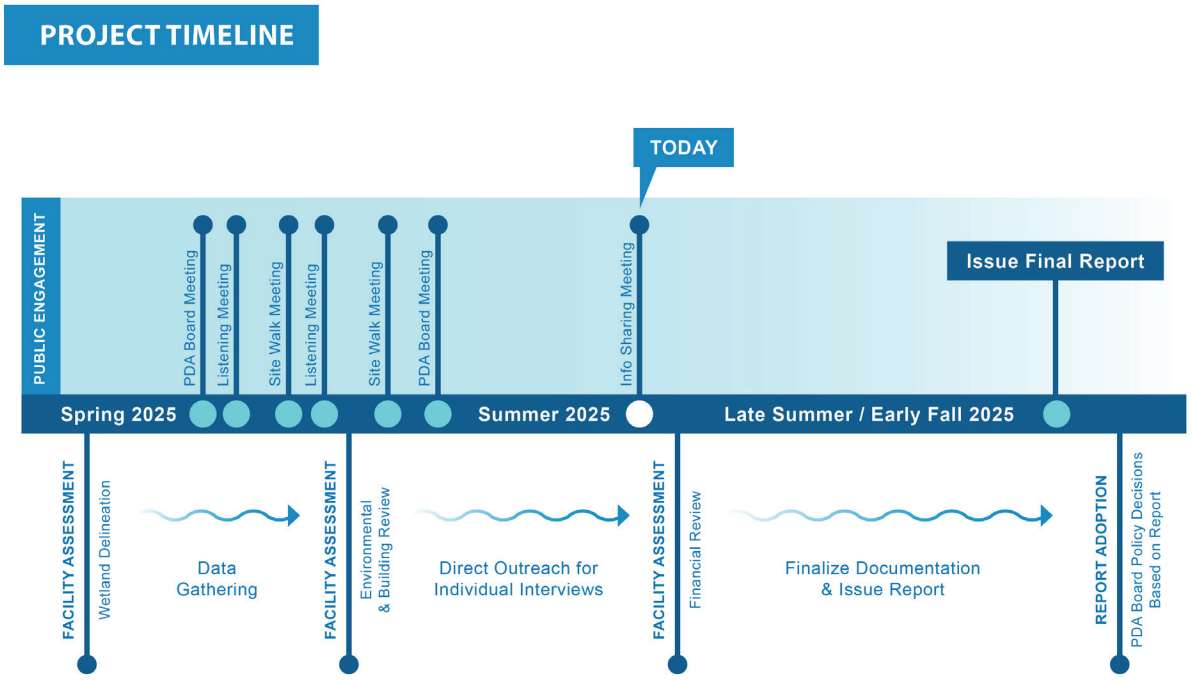


Image 39: Public Engagement Meeting #5 - Information Sharing Session Slide 15

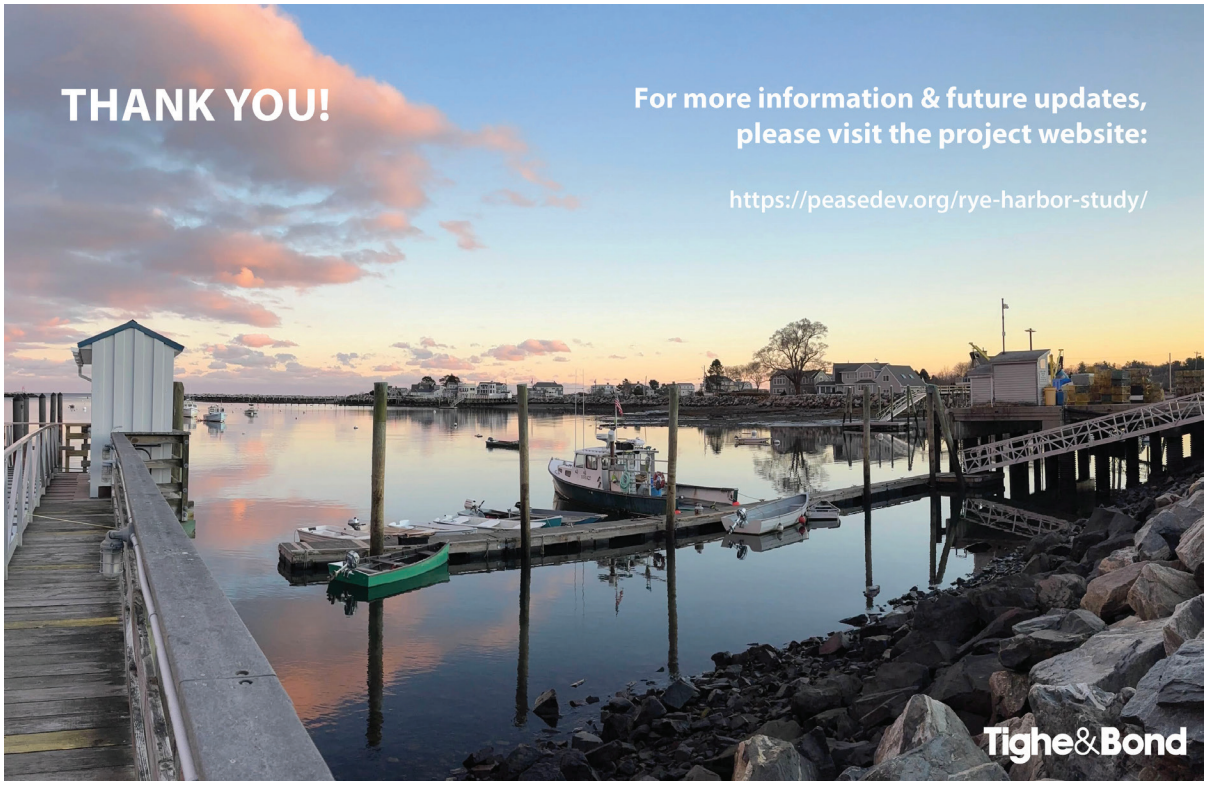


Image 40: Public Engagement Meeting #5 - Information Sharing Session Slide 16

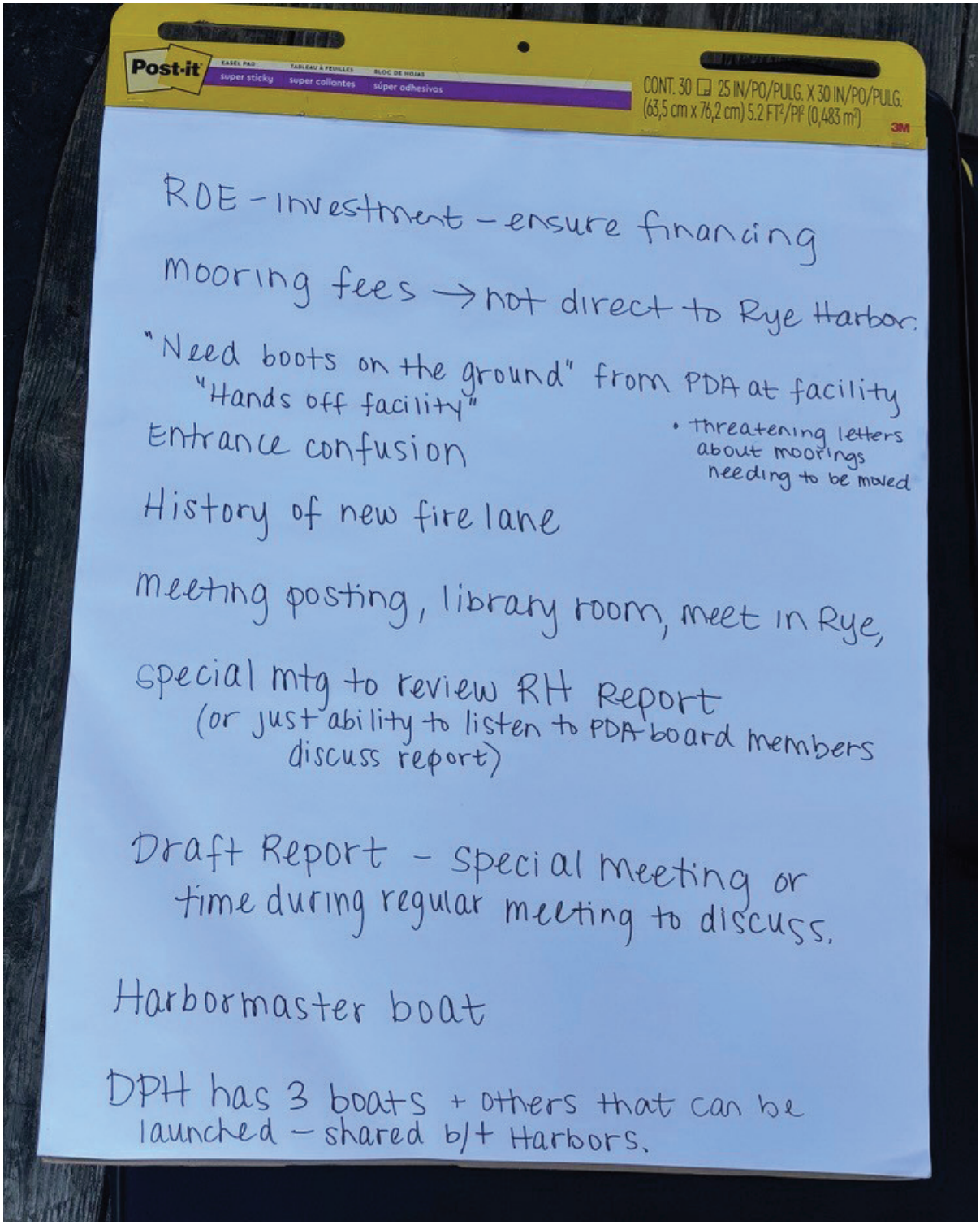


Image 41: Public Engagement Meeting #5 Notes

From: Craig Seymour <craig@drgadvisory.com>
Sent: Friday, May 16, 2025 11:37 AM
To: Craig Seymour
Cc: Dennis G. Moran; Shannon Jamieson
Subject: Rye Harbor Study - input

[Caution - External Sender]

Dear Rye Harbor User –
As many of you are aware, the firm of Tighe & Bond has been engaged by Pease Development Authority to undertake an independent analysis of the harbor that includes looking at potential improvements – both in the physical layout as well as in the operations of this important resource. As a part of the consulting team, I have been asked to look into the management and financial aspects of the harbor.
Four information gathering sessions have been held and the attendees have provided a lot of great insight for this analysis.

Your name (and email address) was provided by PDA from the list of Right of Entry (ROE) agreements and from sign-in sheets from two of the four public information gathering sessions that have been held. Unfortunately, the list does not include all of the regular users or phone numbers or other information for contacting you. I ask that you please share this email with other users you may know so that I can get as many responses as possible.

My goal is to get as much data as possible on the day-to-day operations at the port – who uses it, when and how often they use it, the number of customers or clients they bring to the harbor, etc. I am also looking at for your input on how things could be improved – since you're there on a regular basis. What are the issues and how would you resolve them? We have heard much from the information sessions but would like more information. Keeping in mind that there are many uses for Rye Harbor, some of which may conflict from time to time.

Since the information I need will differ by type of user, I have come up with a list of the main user groups. They are:

a. Commercial fishing
b. Charter (fishing, sightseeing, etc.)
c. Seafood buyer (wholesale)
d. Food service provider (selling your products or others on-site)
e. Recreational boating
f. Service Contractor (marine repair, maintenance, launching, etc.)
g. Government agency
h. Other: _____

Please respond to this email letting me know what type of user you are and what the best way to reach out to you is – email, text, snail mail, phone call or in-person (if schedules can be arranged).

Thank you. I look forward to hearing from you.

Craig Seymour
DRG Advisory Services
North Hampton NH 03862
(603) 781-0935 (voice & text)

Appendix G:

Parking Lot Layout Alternatives

Rye Harbor Marine Facility
Assessment & Recommendations
for Improvements

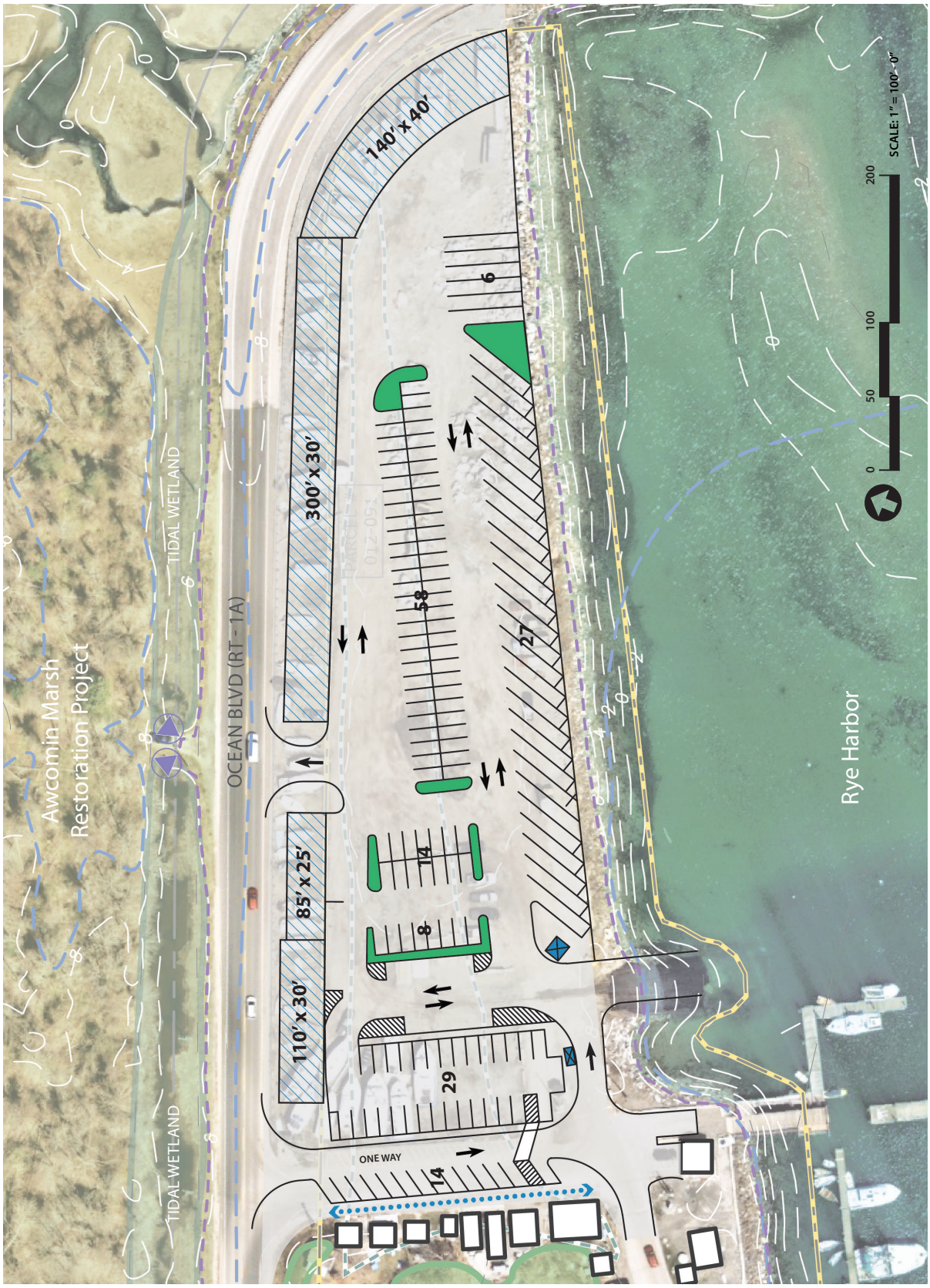


Image 1: Parking Lot Layout Option 1

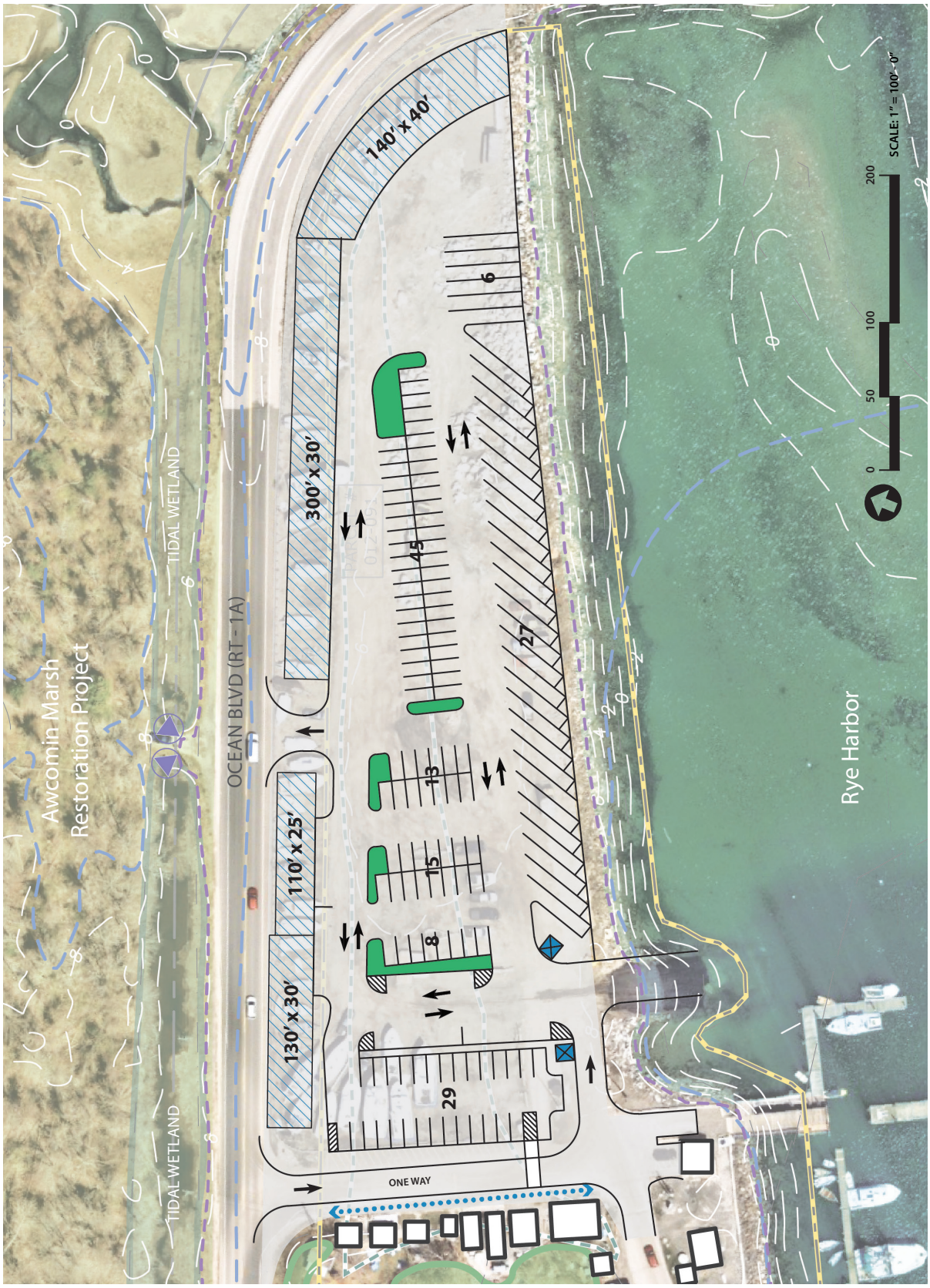


Image 2: Parking Lot Layout Option 2

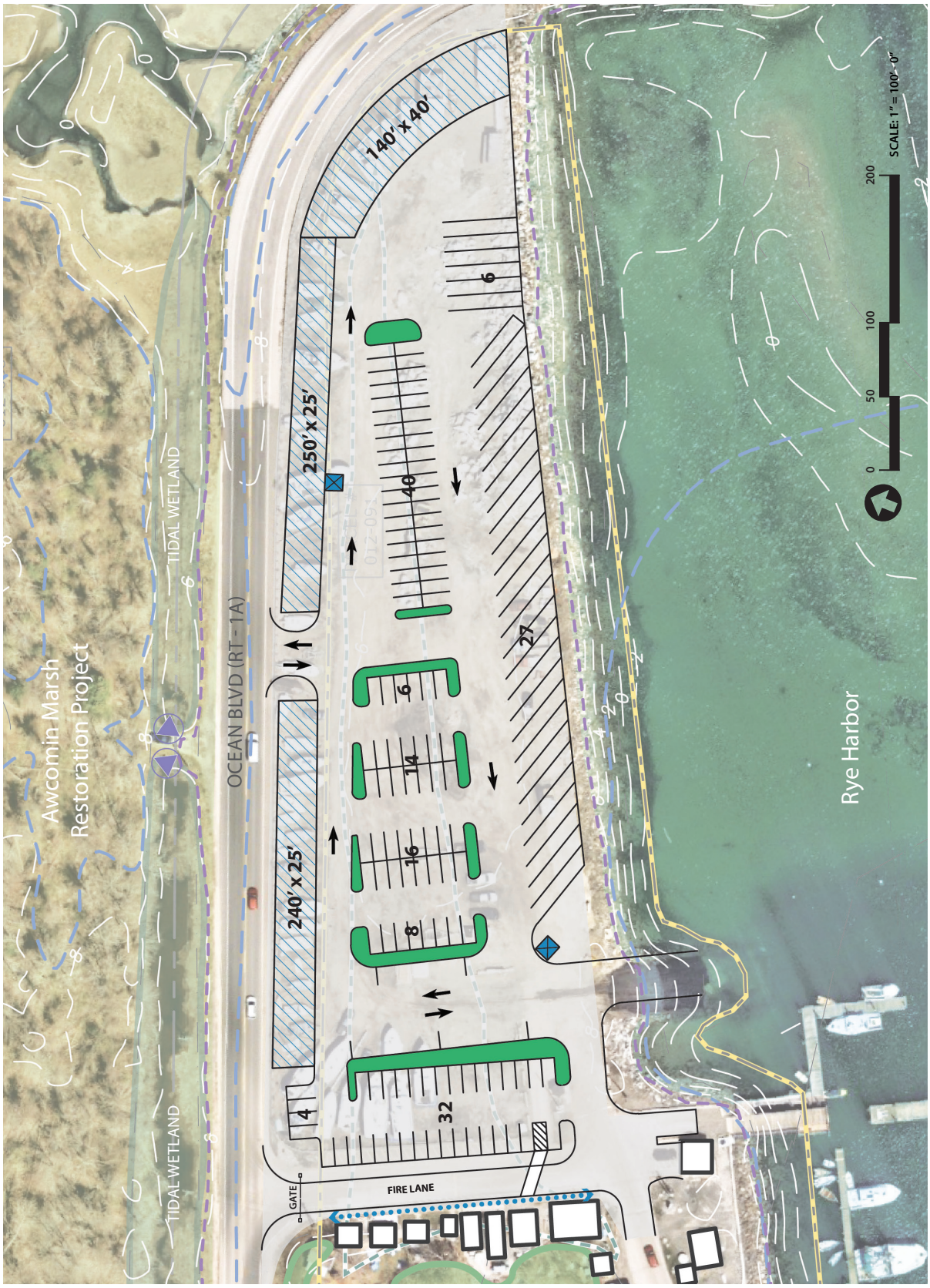


Image 3: Parking Lot Layout Option 3

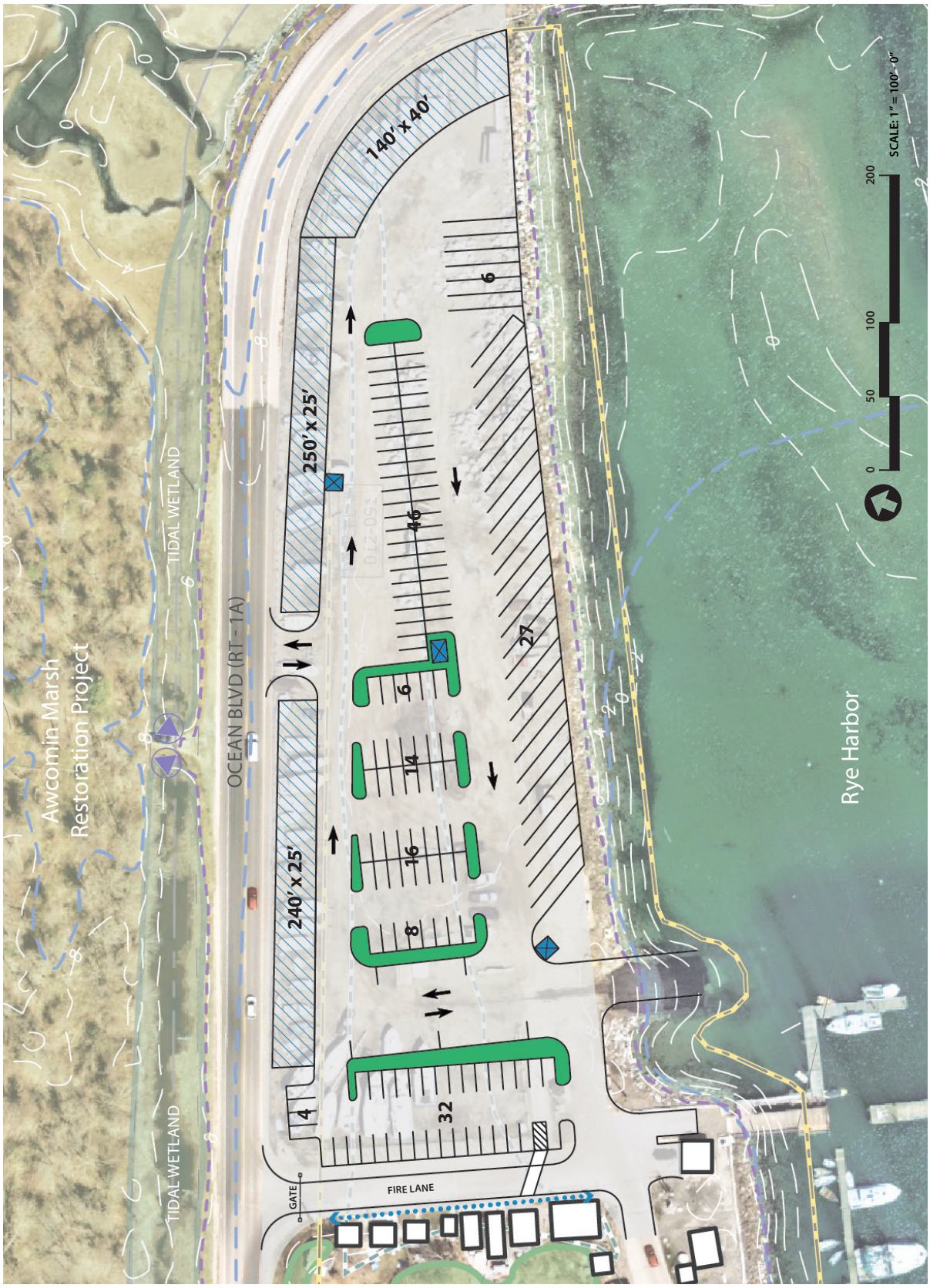


Image 4: Parking Lot Layout Option 4

Appendix H:

Opinion of Probable Construction Costs

Rye Harbor Marine Facility
Assessment & Recommendations
for Improvements

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST
Project: Rye Harbor - Boat Ramp Repairs
Location: Rye, NH

Estimate Type: Conceptual / Preliminary Design / Design Development
Construction / Change Order / ____ % Complete
Prepared By: DGM
Date Prepared: 10/9/2025
T&B Project No.: P5015

Item No.	Description	Qty	Units	Material/Installed Cost $/Unit	Material/Installed Cost Total	References/Notes
	Contractor Mobilization, bonding and insurance					
	Mobilization (5%)	1	LS	$ 9,350.00	$ 9,350	
	Erosion Control					
	Silt curtin	300	LF	$ 40	$ 12,000	
	Site Work					
	Stabilize the toe of the ramp	1	LS	$ 50,000	$ 50,000	
	Signaage/Lighting	1	LS	$ 40,000	$ 40,000	
	Resurface Ramp to water line	1	LS	$ 85,000	$ 85,000	
					$ 197,000	
				Estimate Contingency (10%)	$ 20,000	
				Material & Bidding Contingency (20%)	$ 44,000	
				Opinion of Probable Construction Cost[1]	**$ 261,000**	

NOTE:
This is an engineer's Opinion of Probable Construction Cost (OPCC). Tighe & Bond has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the estimates of probable construction costs are made on the basis of Tighe & Bond's professional judgment and experience. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from this estimate of the Probable Construction Cost.

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST
Project: Rye Harbor - Boat Ramp Replacement
Location: Rye, NH

Estimate Type	Conceptual		Construction	Prepared By:	DGM
	Preliminary Design		Change Order	Date Prepared:	10/9/2025
	Design Development		% Complete	T&B Project No.:	P5015

Item No.	Description	Qty	Units	Material/Installed Cost		References/Notes
				$/Unit	Total	
	Contractor Mobilization, bonding and insurance					
	Mobilization (5%)	1	LS	$ 80,550.00	$ 80,550	
	Demolition					
	Demo existing boat ramp		LS	$ 50,000	$ -	
	Erosion Control					
	Silt curtin	400	LF	$ 40	$ 16,000	
	Site Work					
	Ramp base construction	1	LS	$ 100,000	$ 100,000	
	Cofferdam	1	LS	$ 75,000	$ 75,000	
	Concrete boat Ramp	12000	SF	$ 110	$ 1,320,000	
	Dewatering	1	LS	$ 50,000	$ 50,000	
	Signaage/Lighting	1	LS	$ 50,000	$ 50,000	
					$ 1,692,000	
				Estimate Contingency (10%)	$ 170,000	
				Material & Bidding Contingency (20%)	$ 373,000	
				Opinion of Probable Construction Cost[1]	**$ 2,235,000**	

NOTE:
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ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST
Project: Rye Harbor - Rebuild Revetment Seawall
Location: Rye, NH

Estimate Type: Conceptual / Preliminary Design / Design Development
Construction / Change Order / ____ % Complete
Prepared By: DGM
Date Prepared: 10/9/2025
T&B Project No.: P5015

Item No.	Description	Qty	Units	Material/Installed Cost $/Unit	Material/Installed Cost Total	References/Notes
	Contractor Mobilization, bonding and insurance					
	Mobilization (5%)	1	LS	$ 87,075.00	$ 87,075	
	Demolition					
	Remove and Stockpile Revetment	1500	SY	$ 50	$ 75,000	
	Erosion Control					
	Tribuity Curtin	1300	LF	$ 30	$ 39,000	
	Aggregate					
	Bedding/Core Stone	6000	TONS	$ 175	$ 1,050,000	
	Imported Stone/Reset/Install	2400	TONS	$ 225	$ 540,000	
	Geotextile Farbic	1500	SY	$ 25	$ 37,500	
	Exclusions					
	No ledge excavation					
	No major utility removal/relocation					
					$ 1,829,000	
				Estimate Contingency (10%)	$ 183,000	
				Material & Bidding Contingency (20%)	$ 403,000	
				Opinion of Probable Construction Cost[1]	**$ 2,415,000**	

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ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST
Project: Rye Harbor - Recreational Pier Improvements
Location: Rye, NH

Estimate Type	Conceptual		Construction	Prepared By:	DGM
	Preliminary Design		Change Order	Date Prepared:	10/9/2025
	Design Development		% Complete	T&B Project No.:	P5015

Item No.	Description	Qty	Units	Material/Installed Cost		References/Notes
				$/Unit	Total	
	Contractor Mobilization, bonding and insurance					
	Mobilization (5%)	1	LS	$ 35,962.50	$ 35,963	
	Demolition					
	Demo Existing Pier	1	LS	$ 50,000	$ 50,000	
	Metals Work					
	Replace Pile Caps	5	EC	$ 250	$ 1,250	
	Site Improvements					
	Replace Pier with Pipe Supported Concrete Pier	1050	SF	$ 600	$ 630,000	
	Repair Rec Floats (rollers, cleats, etc)	1	LS	$ 10,000	$ 10,000	
	Singage	3	EC	$ 1,000	$ 3,000	
	Utilities					
	Electrical Improvements	1	LS	$ 20,000	$ 20,000	
	Additional Seasonal Water Service	1	LS	$ 5,000	$ 5,000	
	Exclusions					
	Gangways will be reused					
					$ 756,000	
				Estimate Contingency (10%)	$ 76,000	
				Material & Bidding Contingency (20%)	$ 167,000	
				Opinion of Probable Construction Cost[1]	**$ 999,000**	

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ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST
Project: Rye Harbor - Commercial Pier Improvements
Location: Rye, NH

Estimate Type: Conceptual / Preliminary Design / Design Development — Construction / Change Order — _____ % Complete
Prepared By: DGM
Date Prepared: 10/9/2025
T&B Project No.: P5015

Item No.	Description	Qty	Units	Material/Installed Cost $/Unit	Material/Installed Cost Total	References/Notes
	Contractor Mobilization, bonding and insurance					
	Mobilization (5%)	1	LS	$ 26,812.50	$ 26,813	
	Demolition					
	Demo Existing Railing System and Ladders	1	LS	$ 5,000	$ 5,000	
	Demo Existing Floats and Piles	1	LS	$ 12,000		
	Demo Lifts	2	EC	$ 7,500	$ 15,000	
	Metals Work					
	Fall Protection	205	LF	$ 150	$ 30,750	
	Ladders	2	EC	$ 5,000	$ 10,000	
	Site Improvements					
	12" pipe guide piles	7	EC	$ 7,500	$ 52,500	
	Concrete Floats, rollers, cleats	1600	SF	$ 150	$ 240,000	
	Concrete Repairs	1	LS	$ 30,000	$ 30,000	
	Singage	3	EC	$ 1,000	$ 3,000	
	Lifts/Hoist	2	EC	$ 50,000	$ 100,000	
	Replace Fender Protection System	1	LS	$ 25,000	$ 25,000	
	Utilities					
	Electrical Improvements	1	LS	$ 20,000	$ 20,000	
	Additional Seasonal Water Service	1	LS	$ 5,000	$ 5,000	
	Exclusions					
	Gangways will be reused					
					$ 564,000	
				Estimate Contingency (10%)	$ 57,000	
				Material & Bidding Contingency (20%)	$ 125,000	
				Opinion of Probable Construction Cost[1]	**$ 746,000**	

NOTE:
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ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST
Project: Rye Harbor - Harbor Master Facility and Restrooms
Location: Rye, NH

Estimate Type: Conceptual / Preliminary Design / Design Development — Construction / Change Order — _____ % Complete
Prepared By: DGM
Date Prepared: 10/9/2025
T&B Project No.: P5015

Item No.	Description	Qty	Units	Material/Installed Cost $/Unit	Material/Installed Cost Total	References/Notes
	Contractor Mobilization, bonding and insurance					
	Mobilization (5%)	1	LS	$ 36,395.00	$ 36,395	
	Demolition					
	Demo existing building	1	LS	$ 50,000	$ 50,000	
	Demo existing holding tank	1	LS	$ 3,000	$ 3,000	
	Erosion Control					
	Silt Sock	80	LF	$ 10	$ 800	
	Earthwork					
	Common Excavation	300	CY	$ 30	$ 9,000	
	Proofroll Subgrade/Fine Grade	120	SY	$ 5	$ 600	
	Site					
	Install new 2,000 Gallon holding Tank	1	LS	$ 18,000	$ 18,000	
	Holding Tank Alarm/Level System	1	LS	$ 5,000	$ 5,000	
	Parking Area and Sidewalks	1	LS	$ 28,000	$ 28,000	
	Signage	3	EC	$ 1,000	$ 3,000	
	Elevated Pile Supported Foundation	1000	SF	$ 40	$ 40,000	4' above grade, 1,000SF
	Utilities	1	LS	$ 7,500	$ 7,500	
	Prefabricated Concrete Building	1	LS	$ 500,000	$ 500,000	
	Building upfit and build out	1	LS	$ 50,000	$ 50,000	
	Landscaping					
	Misc. Landscape Improvements	1	LS	$ 10,000	$ 10,000	
	Loam & Seed	50	CY	$ 60	$ 3,000	
	Exclusions					
	No ledge excavation					
	No unsuitable or HBMA					
	No major utility removal/relocation					
					$ 765,000	
				Estimate Contingency (10%)	$ 77,000	
				Material & Bidding Contingency (20%)	$ 169,000	
				Opinion of Probable Construction Cost[1]	**$ 1,011,000**	

NOTE:
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Appendix I:

Potential Grants & Funding Sources

Rye Harbor Marine Facility
Assessment & Recommendations
for Improvements

Potential Grant & Funding Opportunities

TO: Pease Development Authority

FROM: Tighe & Bond

COPY: Division of Ports & Harbors

DATE: September 22, 2025

This memo identifies external funding and financing pathways relevant to the Rye Harbor improvements program and supports Section 7 (Recommendations) of the assessment report. It summarizes federal and State of New Hampshire opportunities most applicable to shoreline resilience, access and circulation, boat ramp upgrades, utilities/fueling, environmental management, security, and planning/design. For each program, the memo provides a plain-language description, typical cost share, basic eligibility, current timing, and near-term next steps for PDA/DPH. Information is planning-level and subject to change; applicants should confirm requirements and deadlines with administering agencies. Many sources can be combined (e.g., using state loans as match to federal grants), and some opportunities require municipal sponsorship or early coordination with NHDES, NH Fish & Game, USACE, and the Town of Rye. The accompanying matrix in this appendix is intended as a quick reference to help align funding with the sitewide criteria and asset projects outlined in the report.

Grant Opportunities

National Coastal Resilience Fund (NCRF)

NCRF funds planning, design, and implementation of nature-based or hybrid solutions that reduce coastal storm/flood risk while improving habitat.

Applicable to this project:

- Rebuild/raise the shoreline revetment and stabilize marsh edges as part of a resilience package.
- Pair engineering with habitat enhancement along the wetland boundary
- Fund pre-design/design now and phase construction later.

USACE Continuing Authorities Program (CAP) – Sec. 107/103/14

CAP allows small navigation and shoreline protection projects without separate Congressional authorization (study → design → construction) with a non-federal sponsor.

Applicable to this project:

- Evaluate/advance revetment raise or localized shoreline protection.
- Address small navigation/entrance issues if tied to public operations.
- Leverage USACE study and design support with PDA/DPH as sponsor.

Port Infrastructure Development Program (PIDP) – MARAD

Large, competitive USDOT program for port infrastructure that improves safety, efficiency, and reliability.

Applicable to this project:

- Modernize commercial pier utilities, safety systems, and working areas.
- Integrate edge-protection/catwalk and hoist electrical upgrades within a public-benefit frame.
- Bundle with access and security elements for a stronger package.

USDOT RAISE

Funds capital or planning projects that improve multimodal access, safety, and equity with local/regional impact.

Applicable to this project:

- Reconfigure the entry drive, staging, and pedestrian routes to reduce conflicts
- Deliver ADA-compliant connections between parking, ramps, and piers.
- Support wayfinding and circulation improvements tied to harbor access.

FHWA PROTECT (Discretionary)

Supports planning and construction that harden or adapt surface transportation against flooding, SLR, and extreme weather.

Applicable to this project:

- Elevate/fortify critical approach segments that maintain emergency access.
- Implement resilient materials/designs for entry and apron areas.
- Pair with RAISE for safety/ADA co-benefits.

FEMA Port Security Grant Program (PSGP)

Funds security risk-reduction at ports: access control, cameras, cybersecurity, and communications.

Applicable to this project:

- Add security cameras/lighting and access control around the commercial pier.
- Improve incident communications and coordination for emergency response.
- Complement edge-safety and operations upgrades.

USFWS Boating Infrastructure Grant (BIG)

Supports public boat ramps, accessible boarding docks, and associated access/parking.

Applicable to this project:

- Widen/lengthen the public boat ramp and add ADA boarding docks.
- Improve ramp-area circulation and trailer staging.
- Coordinate early with NH Fish & Game on scope and permits.

Clean Vessel Act (CVA) – NHDES

Grants for installation, operation, and maintenance of pumpout systems; New Hampshire administers the program.

Applicable to this project:

- Install/upgrade fixed pumpout or support pumpout-boat service.
- Reduce graywater/overboard discharge risks near the marsh.
- Integrate user education and signage.

EDA Public Works / Economic Adjustment Assistance (incl. FY2025 Disaster Supplemental)

Flexible grants for public-use infrastructure with clear economic resilience/benefit; must align with the regional CEDS.

Applicable to this project:

- Support pier/utility improvements that sustain working-waterfront jobs.
- Fund planning/design for phased harbor upgrades.
- Combine with state/federal matches for construction.

NHDES Clean Water State Revolving Fund (CWSRF) – Loans

Low-interest loans for water-quality projects (stormwater/nonpoint and certain wastewater/graywater solutions).

Applicable to this project:

- Finance graywater holding-tank upgrades and upland stormwater BMPs.
- Use as match with grant programs targeting resilience/water quality.
- Coordinate with NHDES on eligibility and IUP listing

NH CDFA – Community Development Block Grant (CDBG)

State CDBG supports public facilities with community benefit, administered by NH CDFA for municipalities.

Applicable to this project:

- Upland siting and construction of accessible restrooms and related ADA routes.
- Basic public-facility improvements tied to community access.
- Apply through municipal sponsorship (Town/County).

NHDES Section 319 Watershed Assistance Grants

Grant program for nonpoint source pollution control and watershed protection/restoration; timing is periodically adjusted by NHDES.

Applicable to this project:

- Implement stormwater BMPs at the upland edge to protect the marsh.
- Pair with education/housekeeping practices for ROE areas.

NHDES Coastal Resilience Grants

Grant program for coastal community and habitat resilience projects; timing is periodically adjusted by NHDES.

Applicable to this project:

- Rebuild/raise the shoreline revetment and stabilize marsh edges as part of a resilience package.
- Pair engineering with habitat enhancement along the wetland boundary

TABLE 1-1

Potential Grant Funding Sources

Grant Source	Agency	$	2026 Deadline
National Coastal Resilience Fund (NCRF)	NFWF (with NOAA support)	Match encouraged (often ~1:1 leveraged)	2026 TBD (not posted yet). Historically: pre-proposal early May, full proposal mid-July.
NOAA Marine Debris Removal	NOAA Marine Debris Program	Match typically required/encouraged (~1:1 common)	2026 TBD. Expect LOI late Sept 2025 and full proposal late Jan 2026 (based on FY25 cycle).
USACE CAP – Sec 107/ Sec 103/ Sec 14	U.S. Army Corps of Engineers (New England District)	Shared cost; local sponsor provides LERRDs; varies by section	Rolling intake; request a CAP study to initiate
Port Infrastructure Development Program (PIDP)	MARAD (USDOT)	≥20% non-federal (higher match more competitive)	FY2026 TBD. 2025 deadline was extended to 9/10/25.
RAISE (Rebuilding American Infrastructure with Sustainability & Equity)	USDOT	Typically 20% local; rural/underserved flexibilities possible	FY25 applications were due Jan 30, 2025; RAISE historically opens late fall/winter with deadlines in late Jan—use that as a planning proxy for 2026 until DOT posts.
FHWA PROTECT (Discretionary)	FHWA (USDOT)	Up to ~80% federal (higher in specific cases)	Multi-year FY24–FY26 NOFO set the FY26 due date to 2/24/2026.
Port Security Grant Program (PSGP)	FEMA (DHS)	Typically 25% match (check NOFO for waivers/exceptions)	FY25 window was Aug 1–Aug 15, 2025; 2026 dates TBD—expect a similar early-August window.
Boating Infrastructure Grant (BIG)	USFWS (state-led)	Match required; varies by tier (state coordination required)	FY26 Tier 2 due Oct 27, 2025; FY26 Tier 1 due Oct 27, 2025.

TABLE 1-1

Potential Grant Funding Sources

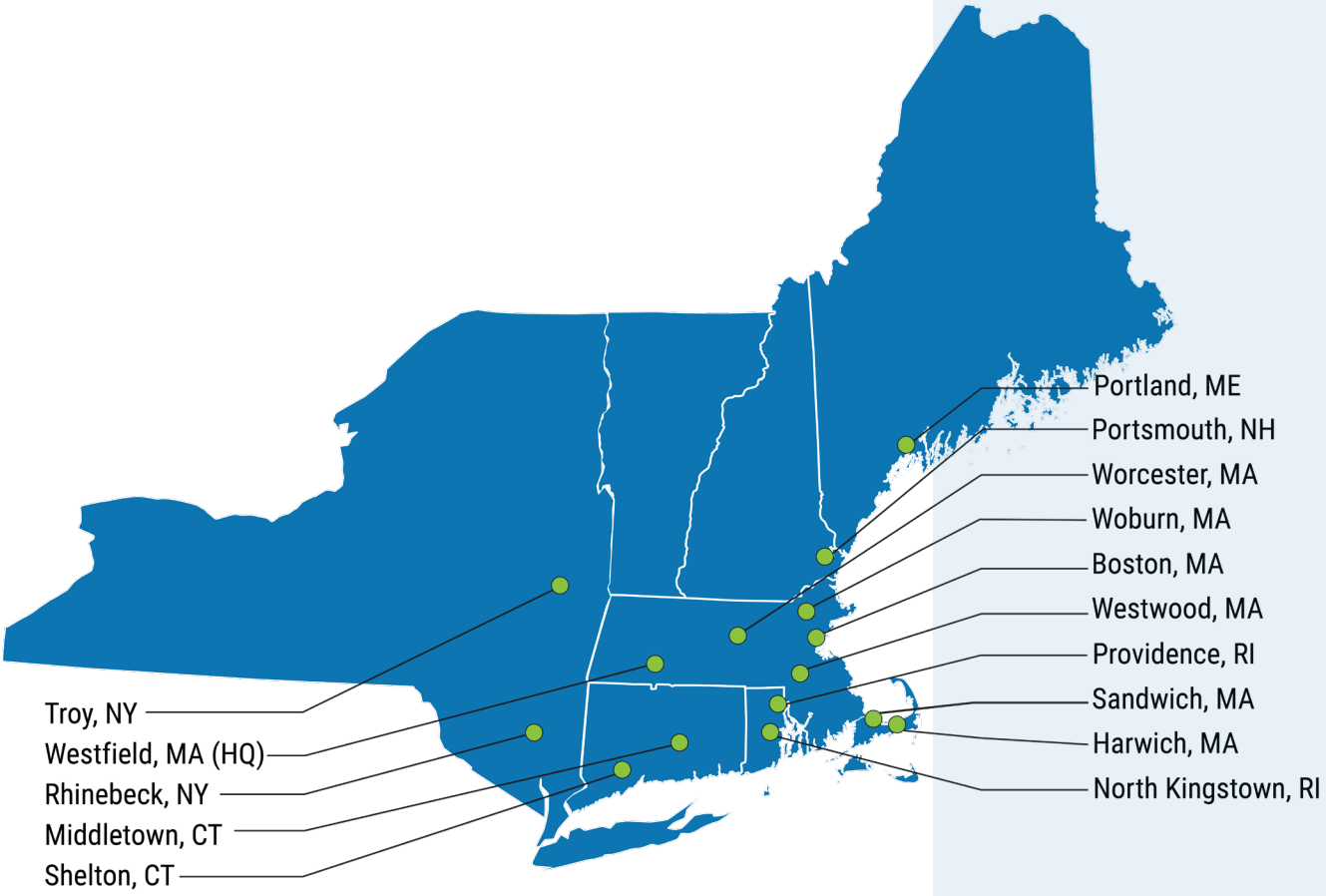
Grant Source	Agency	$	2026 Deadline
Sport Fish Restoration – Boating Access	USFWS via NH Fish & Game	Up to ~75% federal via state (varies)	Ongoing state-led program
Clean Vessel Act (CVA)	NHDES (USFWS funds)	Up to 75% federal / 25% local	Open via NHDES; rolling assistance
EDA – Public Works	U.S. Economic Development Administration	20–50% local match typical (varies by distress and NOFO)	Rolling; FY2025 Disaster Supplemental active
Clean Water State Revolving Fund (CWSRF) – Loans	NHDES	Low-interest loans (can serve as match)	Annual state solicitation – 2026 dates TBD.
NH CDFA – CDBG (Public Facilities)	NH Community Development Finance Authority	No federal match required; leverage helps	Likely late Jan 2026 & late Jul 2026 (anticipated).
NHDES Section 319 – Watershed Assistance Grants	NHDES (EPA pass-through)	Match required (often ~40%)	2026 pre-proposal RFP delayed pending EPA award certainty
NHDES Coastal Resilience Grants	NHDES	Match required (often ~20%)	No CRG opportunity in 2025, monitor page in early spring for 2026 information.

Appendix J:

Consultant Team Firm Overviews

Rye Harbor Marine Facility
Assessment & Recommendations
for Improvements

OUR LOCATIONS



With offices across the Northeast, we are ready to provide responsive, high-quality professional services to efficiently meet your project goals, schedule, and budget.

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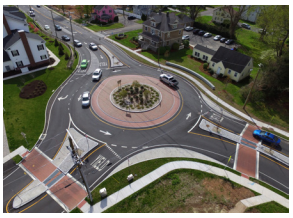
For more than a century, Tighe & Bond has been a leading multi-disciplinary consulting firm in the Northeast, manifesting its clients' vision for a better built environment by providing full-service engineering, landscape design, site planning, and environmental services. Innovative thinking and exceptional service have always been at the core of our work.

In addition to our engineering and environmental expertise, Tighe & Bond's landscape design studio (Halvorson | Tighe & Bond Studio) offers a unique perspective creating more holistic solutions with an eye to unlocking each site's potential.

Our experienced professionals provide concept-to-completion expertise to comprehensively address the needs of our public and private clients. By focusing on bright ideas, green strategies, and clear solutions, the Tighe & Bond team develops creative, collaborative responses to complex challenges. We never stop evolving in order to keep pace with our ever-changing industry because moving forward is what we do.



SERVICES

Building Services: MEP, Structural & Geotechnical Engineering

Coastal & Waterfront Solutions

Environmental Consulting

GIS/Asset Management

Landscape Architecture & Urban Design

Site Planning & Design

Transportation Engineering

Water & Wastewater Engineering

DRG Advisory Services
Craig R. Seymour, Senior Principal

DRG Advisory Services is a consulting firm based in North Hampton that specializes in real estate economics and planning, providing strategic advice to private developers, investors and key public agencies nationwide.

Mr. Seymour has over 40 years of experience in real estate economics, market research, financial analysis, economic development and strategic planning. His primary areas of expertise include economic analysis, financial forecasting, feasibility analysis, real property valuation, transportation and project management. His recent work includes socioeconomic evaluation of major projects, business and community planning and redevelopment financing for clients such as the Commonwealth of Massachusetts, Amazon and numerous cities, towns, and private developers throughout New England. He has been a licensed commercial and residential real estate broker for more than 30 years and is a former certified general appraiser with national contacts and experience.

Mr. Seymour began his career at the University of New Hampshire, providing business assistance services to the state's small businesses, where he helped launch the Small Business Development Center, serving as its first State Director. From 1987 until 2020, Mr. Seymour served as Principal of RKG Associates, Inc., a national economic consultancy, leading the firm as President and CEO for the last 12 years. While at RKG he led dozens of assignments for public and private clients, including working with over 40 military communities impacted by the Base Realignment and Closure process, including master planning, JLUS, EUL and other innovative economic development approaches. He is a lifelong resident of the New Hampshire Seacoast.

Appendix K:

Financial Assessment & Recommendations

Comparative Services							
Business Name	**Location (Distance from Rye Harbor)**	**Type of Service**	**Pricing/Rate Structure**	**Operation Season**	**Marine Dependence (Dependent / Related / Enhanced)**	**Comparable to Rye Harbor Service? (Y/N)**	**Notes/ Distinguishing Features**
Hampton Harbor (DPH)	10 mi South	Boat ramp, fuel, charters, parking	Car $10; Combo $20; Bus $50; fuel on site	Year-round	Marine Dependent	Yes	Larger facility; similar service mix; less food service.
Portsmouth – Peirce Island Boat Launch	7 mi North	Public launch, trailer parking	Daily $10–$20; Annual passes available	Seasonal (Apr–Nov)	Marine Dependent	Yes (partial)	No fuel dock; high launch volume.
Portsmouth – Prescott Park Dock	8 mi North	Transient docking slips, no launch/fuel	$5/hour & overnight rates	Seasonal (May–Oct)	Marine Dependent	Partial	Public transient docks; visitor use.
Newburyport (MA) – Cashman Park	15 mi South	Public launch, transient slips	Day $15; Season $150	Seasonal	Marine Dependent	Yes	No fuel; city-managed facility.
Kittery (ME) – Pepperrell Cove	11 mi North	Public marina with fuel & dining	Parking $15–$25/day; Season $50–$125	Seasonal	Marine Dependent / Enhanced	Yes	Active mixed-use waterfront; similar user base.
Great Bay Marine (Newington, NH)	12 mi NW	Full-service marina w/ launch, fuel, storage	$40/day; $1,150 season; Mooring $1,900	Year-round	Marine Dependent / Related	Yes	Private marina; higher cost; offers restaurant.
Wentworth by the Sea Marina	8 mi North	Private marina, restaurant	Transient $6–$8/ft	Seasonal (May–Oct)	Marine Dependent / Enhanced	Partial	No launch ramp. Luxury private marina; not comparable to working waterfront.
Seaport Fish Market	2.8 mi North	Seafood retail	Market prices	Year-round	Marine Related	Yes	Local retail seafood option near Rye.
Local Seafood & Snack Outlets	≤ 2 mi	Seafood dining and take-out	Menu prices comparable to RHLP	Seasonal	Enhanced	Yes	Regional culinary competitors.
State Park Concessions (Cannon Mtn, Odiorne, Mt. Washington)	Statewide	Public concession operations	Varies. 3–10% of gross + fixed fees	Varies	Enhanced	Benchmark	Used as NH model for concession bidding and revenue structure.

Financial Review: Private Operator Review							
Business Name	**Type of Use**	**Services Provided**	**Pricing/Fee Structure**	**Average Seasonal Transaction**	**Staff Employees**	**Pier Use/ROE/Other Agreement**	**Pier Use/ROE/Other Agreement**
Rye Harborside	Enhanced/Related Use	Breakfast and lunch snack bar adjacent to whale watch operations.	$10–$25 typical order; 10% concession fee to DPH.	~900 transactions per season (est.)	2–3 seasonal staff	ROE / Concession Permit	Co-located with GSWW operations; serves harbor visitors and passengers.
Granite State Whale Watch (GSWW)	Marine Dependent	Whale watch and sightseeing tours to Isles of Shoals on M/V Granite State (123 pax) and M/V Uncle Oscar (49 pax).	$39–$52 per passenger for whale watch; $30–$45 for tours; parking $10/day.	~15,000 passengers per season; 224 + 158 trips scheduled (2025).	Approx. 10 seasonal staff	Pier Use Permit + ROE (shack lease)	Primary tourism generator; 50% non-NH visitors; contributes significant secondary spending in region
Rye Harbor Lobster Pound (RHLP)	Enhanced/Related Use	Seafood take-out restaurant and retail lobster sales.	$10–$50 menu items; 10% concession fee on gross sales; ~ $660K sales (FY25).	~14,000 transactions per season	4–6 seasonal staff	ROE / Concession Permit	Peak lunch and dinner hours; 30-min customer wait at peak times.
Commercial Fishing Fleet	Marine Dependent	Commercial lobstering and groundfishing fleet (~20 boats) landing lobster, tuna, haddock, pollock, etc.	Market-based catch values; total ~$1.8M (2024); 200K lbs lobster + 480K lbs other species	20–40 full-time equivalent (FTE) positions seasonally	Varies by vessel; self-employed captains + 1–2 crew	Pier Use Permit / Commercial Mooring	Core working-waterfront activity; high economic value; contributes ~$10M landings since 2019.
Charter Fishing Operators (10±)	Marine Dependent	6-pack charters and small group recreational fishing trips for cod, haddock, striped bass, tuna.	Flat rate $400–$1,200 per trip depending on duration and species.	~300–500 passengers per operator per season.	Captains + 1–2 crew each	Pier Use Permit / ROE (Charter)	Includes overlap with commercial fishers; key recreational access offering.
Seafood Buyers (Various)	Marine Related	Purchase catch from local fleet; provide ice, packaging, and delivery to wholesale and retail outlets.	Market rate per lb; on-call purchasing.	Transaction volumes vary by season and species.	1–2 per entity	ROE / Purchase Permit	Support supply chain and working-waterfront economy.
Marine Services & Contractors	Marine Related	Boat hauling, repair, fuel delivery, detailing, and shoreline stone storage.	Hourly or project-based rates.	N/A (service contracts).	Small crews (2–5 per contractor)	ROE (Service Use Area)	Includes fueling contractor and stone storage operator; essential support to operations.

Vendor Selection Framework				
Evaluation Step	**Description / Criteria**	**Responsible Party (PDA**	**Scoring / Decision Basis**	**Documentation / Deliverable**
1. Identify Service Need	Confirm service gap or renewal need; define objectives and benefits.	DPH Operations / PDA Board	N/A	Needs Statement or Memo
2. Develop Solicitation (RFP/RFB)	Prepare detailed RFP/RFB describing service, fee, and evaluation criteria. Reference NH State Parks model.	PDA Procurement / Legal	N/A	Public RFP/RFB Notice
3. Proposal Submission	Vendors submit proposals including qualifications, insurance, and financial offer.	Vendors	N/A	Proposal Package
4. Evaluation & Scoring	Score based on: For Example, 20% Experience, 20% Quality, 30% Financial Offer, 30% Community Fit.	Evaluation Panel	0–5 scale per criterion; composite ranking	Evaluation Matrix
5. Interview / Clarification	Q&A to confirm understanding of Harbor operations and DPH policies.	Panel	Qualitative assessment	Interview Notes
6. Selection & Recommendation	Panel recommends highest scoring vendor to PDA Board.	DPH / PDA Board	Highest composite score	Board Resolution / Memo
7. Agreement Execution	Execute ROE, concession, or charter permit defining terms, fees, and performance metrics.	PDA Legal / DPH Manager	N/A	Executed Contract
8. Embarkation Fee Consideration	Include optional embarkation or passenger fee component for charters and tours.	DPH Finance / PDA	Financial ratio evaluation	ROE or Permit Addendum
9. Performance Monitoring & Renewal	Annual review of performance, compliance, and finances; use scoring rubric.	DPH Operations	Pass/Fail or 1–5 scale	Annual Vendor Report
10. Transition Planning	If procurement replaces existing vendor, plan transition to minimize disruption.	DPH / Legal	Qualitative	Transition Memo