



Planning for Resilience in Gouldsboro's Working Harbors: *Bunkers Harbor, Prospect Harbor, and South Gouldsboro Harbor*

December 2025

Prepared by
FB Environmental Associates



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*Bunkers Harbor, Prospect Harbor,
and South Gouldsboro Harbor*

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Prepared by **FB Environmental Associates**



in partnership with Streamworks, PLLC



Prepared for the **Town of Gouldsboro, Maine**



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For additional information about the Gouldsboro Coastal Resilience Committee including project updates and upcoming events, visit the Committee's website:

gouldsboroshore.me

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LIST OF ABBREVIATIONS

BFE	Base Flood Elevation
DACF	Department of Agriculture, Conservation, and Forestry
DEP	Department of Environmental Protection
FBE	FB Environmental Associates
FEMA	Federal Emergency Management Agency
HAT	Highest Astronomical Tide
NOAA	National Oceanic and Atmospheric Administration
NRPA	Natural Resource Protection Act
PBR	Permit-By-Rule
USACE	U.S. Army Corps of Engineers



South Gouldsboro Harbor. © Brett Binns

EXECUTIVE SUMMARY

Supporting working waterfronts in Maine.



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Gouldsboro's working harbors are vital hubs for commercial fishing, aquaculture, and recreation. Corea Harbor is Gouldsboro's largest and most active commercial harbor, however there are numerous harbors that support Gouldsboro's vibrant working waterfront community. This study focused on three critical harbors: **Prospect Harbor**, **South Gouldsboro Harbor**, and **Bunker's Harbor**. Each harbor faces unique challenges, including aging infrastructure, transitional ownership, storm surge, and sea level rise, all of which threaten commercial operations and public access. (Assessment of Corea Harbor is underway under a different funding mechanism.)

The *Planning for Resilience in Gouldsboro's Working Harbors* project evaluated climate-related risks and infrastructure needs in these three harbors. Through data analysis, site visits, and community engagement, this project assessed vulnerabilities to flooding, sea level rise, and storms; documented existing harbor infrastructure and uses; and developed practical, harbor-specific actions to strengthen the long-term resilience of Gouldsboro's working waterfronts. The resulting recommendations are intended to guide future capital investments, inform municipal planning and ordinance updates, and position the Town to pursue funding for priority resilience projects that support commercial fishing and public access. The project deliverables and outcomes are summarized below. Harbor-specific snapshots are provided at the end of the Executive Summary to provide a digestible synthesis of the findings for each harbor.

DELIVERABLES

Current Uses

Prospect Harbor is one of Gouldsboro's most active commercial fishing hubs, after Corea Harbor. It supports a primarily lobster-based fleet alongside shore-side buying stations, fuel access, a Town-owned pier, and some limited recreational use.

South Gouldsboro Harbor supports a mix of commercial fishing, small-scale aquaculture, and recreational boating, with activity constrained by aging public infrastructure, privately owned piers, and limited parking.

Bunkers Harbor serves an active commercial fleet with a public boat ramp heavily used by fishermen from multiple harbors, private piers and a buying station. However, there is limited capacity in the harbor, compounded by shoaling (deposition of sediment on the channel bed) and increasing vessel sizes.

Infrastructure Inventory

In **Prospect Harbor**, the inventory documented the Town-owned pier, floats, hoist, limited parking, and multiple private commercial piers supporting the robust fishing activity and a buying station. The former Stinson's sardine cannery was recently purchased by Bold Coast Seafood and is expected to increase dealer capacity and private infrastructure access including a new private, deep-water boat ramp.

In **South Gouldsboro Harbor**, the inventory documented the Town pier and breakwater (currently closed to access), municipal boat ramp, privately owned commercial piers, limited parking, and supporting aquaculture use. There is currently no buying station in South Gouldsboro Harbor.

In **Bunkers Harbor**, the inventory documented the public boat ramp used for emergency haul-outs, private piers, buying station, navigation constraints from shoaling, and limited staging and parking capacity. The future of the buying stations in Prospect Harbor and Bunkers Harbor remains somewhat uncertain following the death of the owner in 2025.

Vulnerability Assessments

In **Prospect Harbor**, the spatial analysis showed that key infrastructure including piers and floats lie well below current and future flood elevations, making it highly vulnerable to storm surge and sea level rise.

In **South Gouldsboro Harbor**, the assessment identified significant exposure of the pier, ramp, and shoreline infrastructure to wave action and future flood levels, despite relatively secure road access.

In **Bunkers Harbor**, vulnerabilities included low-elevation infrastructure, increasing tidal inundation, navigation limitations from sedimentation, and exposure to storm-driven erosion as well as vulnerable road access points.

Summary of Community Meeting

In **Prospect Harbor**, community input emphasized the urgent need for a public boat ramp to reduce reliance on Bunkers Harbor and improve storm preparedness.

In **South Gouldsboro Harbor**, participants highlighted the deteriorating Town pier, lack of tie-up space, and parking conflicts as major constraints on commercial operations.

In **Bunkers Harbor**, fishermen prioritized relocating or reconfiguring the boat ramp, addressing shoaling through dredging, and improving access and staging space to reduce congestion and storm risk.

Analysis of Focus Group Results

In **Prospect Harbor**, the focus group discussions reinforced strong consensus around constructing a public boat ramp as the highest resilience priority. Harbor users emphasized the necessity of exploring a public boat ramp option in addition to the private deep-water boat ramp planned by Bold Coast Seafood. After considering three alternative design concepts developed by the project team, they suggested a new alternative that places the top of the ramp near the entrance to the Town pier and orients the ramp on angle onto the mudflat. This new design addresses several issues that emerged in their review of the other alternatives.

In **South Gouldsboro Harbor**, feedback centered on restoring or replacing the Town pier, adding a hoist and tie-up floats, and clarifying questions around property ownership in the harbor.

Bunkers Harbor's stakeholders did not attend the focus group meeting. Although upgrading the boat ramp remains a priority, there is hesitation from some of the fishermen about installing a public float in the harbor.

Recommended Climate-Change Response Actions

For **Prospect Harbor**, recommended actions focus on advancing feasibility studies and a preliminary design for a new public boat ramp while planning for long-term maintenance of Town-owned infrastructure.

For **South Gouldsboro Harbor**, recommendations prioritize evaluating alternatives to repair, augment, or rebuild the Town pier and improve operational efficiency through added facilities.

For **Bunkers Harbor**, actions include relocating the public ramp, possibly with the addition of a public float, and addressing shoaling by starting the dredging request process.

Recommended Harbor-Specific Design Recommendations

In **Prospect Harbor**, design concepts illustrate potential boat ramp configurations, orientations, and access improvements that balance usability, cost, and permitting constraints (Map 1 and Map 2).

In **South Gouldsboro Harbor**, conceptual designs outline three pier options ranging from stabilization of the existing structure to full replacement, incorporating resilience to sea level rise and storm surge. Concept designs also outline permitting implications for each alternative (Map 3).

In **Bunkers Harbor**, design recommendations explore ramp relocation and float configurations to improve long-term harbor function, access, and resilience (Map 5 and Map 6).

PROJECT OUTCOMES

Gouldsboro will identify an approach to future investments in all three harbors that reflects Maine Climate Council recommendations and the community's goals and preferences.

This project provides Gouldsboro with a coordinated framework and [*Harbor Resilience Action Plan*](#) for prioritizing future investments across Prospect Harbor, South Gouldsboro Harbor, and Bunkers Harbor that aligns with Maine Climate Council recommendations and locally identified needs. Community input, technical analysis, and climate projections were integrated to ensure that proposed investments reflect both long-term resilience goals and the values and priorities of harbor users.

Gouldsboro will have the data and information required to move on to the preliminary design step for priority projects in each harbor.

The Town now has technical data, vulnerability assessments, and conceptual alternatives needed to advance priority projects into the preliminary design phase. This information positions Gouldsboro to pursue funding, initiate engineering studies, and engage regulatory agencies with a clear understanding of project feasibility, costs, and permitting considerations. The Town has already submitted a Community Action Grant application to fund the feasibility study phases for Prospect Harbor and South Gouldsboro Harbor.

Gouldsboro residents will understand the problems the Town will face at each of these harbors over the coming years.

Through community meetings, mapping, and clear communication of climate risks, residents and harbor users gained a shared understanding of the challenges facing each harbor over the coming decades. The project clarifies how flooding, sea level rise, and infrastructure limitations may affect access and operations, supporting informed decision-making and proactive planning.

HARBOR SNAPSHOTS

Prospect Harbor

	Vessels	28 commercial vessels, 4 recreational vessels.
	Infrastructure	Public boat ramp and pier, limited parking, 5 private piers, buying station, fueling station.
	Flooding and Sea Level Rise Risk	Base flood elevation 16 ft; current infrastructure 2–5 feet below base flood elevation. Highest astronomical tide projected to rise from 8 feet today to 12–14 feet by 2100. Future storm surge on top of sea level rise could reach 16–18 feet by 2100.
	Key Concerns	Lack of boat ramp access for removing vessels prior to storms. Limited parking and competition for limited spaces.
	Proposed Actions	Evaluate construction of a public boat ramp. Implement parking signage and priority access. Monitor infrastructure under projected sea level rise scenarios.

South Gouldsboro Harbor

	Vessels	13 commercial vessels, 14 recreational vessels; kelp aquaculture vessel(s).
	Infrastructure	Town-owned pier/breakwater (closed), municipal boat ramp, 2 private commercial piers, old lobster pound, limited parking, kelp aquaculture operation.
	Flooding and Sea Level Rise Risk	Base flood elevation 14 feet; current pier/shorefront 2-4 feet below base flood elevation. Highest astronomical tide projected to rise from 8 feet today to 12-14 feet by 2100. Future storm surge on top of sea level rise could reach 16-18 feet by 2100.
	Key Concerns	Structural integrity of public pier. Non-local private pier ownership. Competing commercial access and recreational use. Limited parking exacerbating congestion.
	Proposed Actions	Explore three options for public pier: restore/stabilize, improve, or rebuild. Install hoist and tie-up floats for improved functionality. Improve parking management and coordination with Maine Coast Heritage Trust. Coordinate early with Maine DEP and USACE for permitting compliance.

Bunkers Harbor

	Vessels	17 commercial vessels,
	Infrastructure	Town boat ramp (emergency haul-out), 7 functional private piers, limited parking, buying station, fueling station, old lobster pounds.
	Flooding and Sea Level Rise Risk	Base flood elevation is 14-15 feet; current infrastructure 2-5 feet below base flood elevation. Highest astronomical tide expected to rise to 14 feet by 2100.
	Key Concerns	Limited access to boat ramp due to slope, location, and proximity to private pier. Harbor shoaling limits vessel navigation. Parking constraints create congestion.
	Proposed Actions	Reconfigure/relocate boat ramp and add staging/tie-up floats. Dredge to maintain or increase harbor depth (requires coordination with USACE).

INTRODUCTION

Gouldsboro is a coastal town on the Schoodic Peninsula, shaped by more than fifty miles of rocky shoreline, small villages, and a deep reliance on the working waterfront. Its coves, harbors, and tidal flats support one of Maine's important lobstering communities, while also defining the town's character, economy, and way of life.

Among Gouldsboro's many coastal resources, **Prospect Harbor**, **South Gouldsboro Harbor**, and **Bunkers Harbor** stand out as critical vulnerable working waterfronts. These harbors are home to commercial wharves, former lobster pounds, mooring fields, and essential shore-side infrastructure that sustains year-round fishing operations. Lobster is the primary fishery, though some fishermen also harvest menhaden (pogies) for bait, and South Gouldsboro Harbor hosts a kelp aquaculture operation. Vessels have grown larger over time, creating challenges for infrastructure originally built for smaller boats, and fishing effort is moving farther offshore following shifts in the lobster population. Uncertainty surrounds the future of private infrastructure and resources. The low-lying land, access roads, and exposed coves also make these harbors some of the town's most climate-sensitive areas.

Prospect Harbor is the largest and most commercially intensive of the three, with multiple wharves and support facilities clustered along its inner shoreline. South Gouldsboro Harbor hosts a mix of fishing activity and residential properties along a tight shoreline with limited road redundancy. Bunkers Harbor, situated at the eastern edge of Acadia National Park's Schoodic District, serves a smaller but still active fleet and is directly exposed to coastal storms funneled into the harbor entrance. Together, these three harbors illustrate the balance Gouldsboro must navigate: maintaining the productivity and access of its working coastline while managing increasing flood risk, storm impacts, and long-term change along a complex and highly valued shoreline.



Lobster traps in Bunker Harbor. © FBE



Efforts to protect Gouldsboro's working waterfronts and coastal resources are led by Gouldsboro's Coastal Resilience Committee. The Coastal Resilience Committee helps the Town of Gouldsboro understand and respond to changes along its 50-plus miles of shoreline. Through the [Gouldsboro Shore website](#), the committee shares updates, project information, and events so residents can stay informed about coastal conditions and resilience efforts.

The committee's work focuses on three key areas:

1 Restoring Mudflat Health and Productivity

Supporting the shellfish committee and Shellfish Resilience Lab as they confront green crab expansion, warming waters, and shifting ecological conditions that threaten softshell clam harvests.

2 Preserving Shore Access

Responding to development pressures that put traditional access routes at risk by advancing projects that maintain safe, on-foot access for clam harvesters and other shoreline users.

3 Strengthening Coastal Infrastructure

Assessing and preparing for increased storm damage and rising sea levels by identifying risks to roads, wharves, and boat ramps and advancing projects that support a climate-resilient working waterfront.

To support this work, the community voted to establish a \$75,000 resilience fund in June 2025, which the Town can use as a source of matching funds for future grant opportunities. Together, these resources help Gouldsboro protect its coastal economy, maintain public access, and adapt to rapid changes in the Gulf of Maine.

In 2024, Gouldsboro was awarded a Coastal Community Grant through the Maine Coastal Program to assess climate vulnerabilities and infrastructure needs in **Prospect Harbor**, **South Gouldsboro Harbor**, and **Bunkers Harbor** and develop adaptive solutions in each harbor through the *Planning for Resilience in Gouldsboro's Working Harbors* project. FB Environmental Associates (FBE) and Streamworks have worked alongside Gouldsboro's Coastal Resilience Committee to complete this work. This effort builds on FBE's [2022 Gouldsboro Vulnerability Assessment and Action Plan](#), which focused on vulnerabilities

associated with transportation infrastructure across the Town and is complimentary to the ongoing harbor resilience work in Corea Harbor, funded under a separate grant award.

Project Goals

- 1) Inventory the public and private working waterfront infrastructure in the three harbors.
- 2) Assess the waterfront infrastructure's vulnerability to climate-related damage.
- 3) Evaluate existing waterfront infrastructure resilience plans and develop design recommendations to make vital infrastructure more resilient.
- 4) Use what we learn to recommend changes to municipal ordinances.

The project included the following tasks:

Task 1 – Preliminary Data Collection

Review existing studies, GIS data, and flood models for each harbor; identify current infrastructure, public access, and vulnerabilities to sea-level rise and storm events; prepare maps showing existing conditions and potential vulnerabilities.

Task 2 – Initial Site Visit

Conduct site visits at each harbor; evaluate public infrastructure and assess key private infrastructure; focus on South Gouldsboro breakwater and boat ramp, Bunkers Harbor boat ramp, and Prospect Harbor pier, floats, and parking.

Task 3 – Community Outreach: Initial Community Meeting

Hold community meetings at each harbor; present preliminary maps and findings; gather input on harbor use, infrastructure concerns, objectives, and future needs.

Task 4 – Community Outreach: Ongoing Communication

Conduct focus group meetings for each harbor; engage local organizations and the community through Gouldsboro Shore, mailing lists, and social media; collect feedback on draft recommendations and emerging project questions.

Task 5 – Analysis / Recommendations

Synthesize community input and update maps; analyze vulnerabilities and draft recommended actions for each harbor; develop concept-level options for infrastructure improvements (e.g., boat ramps, floats, breakwaters).

Task 6 – Community Outreach: Planning Meeting

Present findings and draft recommendations at follow-up meetings for each harbor; prioritize vulnerabilities and actions; identify funding sources and resources to support implementation.

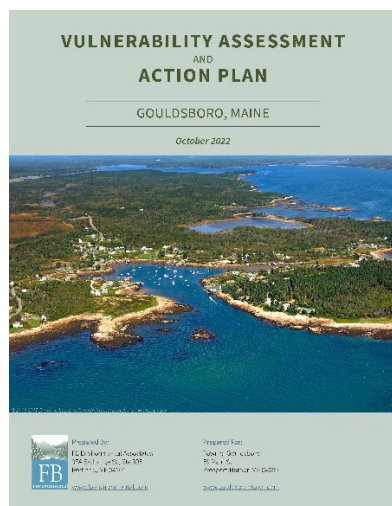
Task 7 – Consider Changes to Land Use Ordinances

Review and propose municipal land use ordinance updates to address current and future climate risks.

Task 8 – Report and Deliverables

Compile all findings, recommendations, and harbor-specific concepts into a final report; include maps, vulnerability assessments, community input summaries, and links to collected data; integrate recommended municipal land use changes and provide the final review to the Town.

2022 VULNERABILITY ASSESSMENT AND ACTION PLAN



The [Gouldsboro Coastal Vulnerability Assessment and Action Plan](#) identifies local infrastructure, natural resources, and community assets most vulnerable to sea-level rise, storm surge, and increasing coastal flooding. The analysis shows that vulnerability varies across the town's eleven coastal areas, but several consistent themes and high-priority risks emerge.

Overall, Gouldsboro's most significant vulnerabilities are concentrated in transportation access, low-lying working waterfronts, and areas with limited backup routes or aging culverts. The assessment also highlights places where natural systems are likely to lose resilience without targeted management or restoration. The major findings of the assessment are as follows:

Below is a summary of key findings from the vulnerability assessment:

- **Transportation Access Is Highly Vulnerable:** Low-lying roads, narrow corridors with limited alternate routes, and undersized culverts increase the risk of flooding, tidal restriction, and loss of access during storms and under moderate to high sea level rise scenarios.
- **Working Waterfronts Face Increasing Exposure:** Critical harbor infrastructure, including wharves, docks, parking areas, and shore-side facilities, are increasingly vulnerable to storm surge and sea level rise, threatening year-round commercial fishing operations and public access.
- **Residential Areas Are Mostly at Low Immediate Risk:** Most residential development is located outside the highest-risk flood zones, though select low-lying shoreline areas remain vulnerable due to erosion, flooding, and dependence on at-risk access roads.
- **Natural Resources Will Experience Habitat Shifts:** Rising sea levels and increased sedimentation are expected to alter coastal habitats, with salt marsh migration constrained in developed areas and potential impacts to intertidal flats and eelgrass beds.
- **Emergency Response and Municipal Services Have Key Weak Points:** Flood-prone roads, undersized culverts, and the exposure of water-dependent municipal facilities to storm surge may limit emergency access and disrupt essential services during extreme weather events.

The Action Plan found in the 2022 Assessment outlines targeted upgrades, such as road elevation, culvert replacements, and shoreline and marsh restoration, as essential to maintaining safe access, protecting the local economy, and preserving natural systems. In the spring of 2024, the Town was awarded a Community Action Grant to advance stream crossing designs at a highly vulnerable coastal access point on Corea Road. This project is ongoing and is separate from the assessment work in this report.

The severe winter storms of January 2024 further highlighted these vulnerabilities as much of the infrastructure identified as at risk was damaged during these back-to-back storms. The town received mitigation funds from the Federal Emergency Management Agency (FEMA) to repair some of the damage and these funds are focused primarily on road repairs.

HARBOR RESILIENCE ACTION PLAN

During the initial community meeting, harbor users identified the following **priority resilience projects**:

PROSPECT HARBOR

Constructing a new public boat ramp.

SOUTH GOULDSBORO HARBOR

Repairing, improving, or rebuilding the public pier.

BUNKERS HARBOR

1) Moving the public boat ramp and 2) dredging the harbor.

FBE collected data related to each of these potential projects, analyzed it, and developed harbor specific design recommendations or next steps to advance each project. The recommendations and next steps were integrated to produce the **Harbor Resilience Action Plan** presented in Figure 1 on the following page.

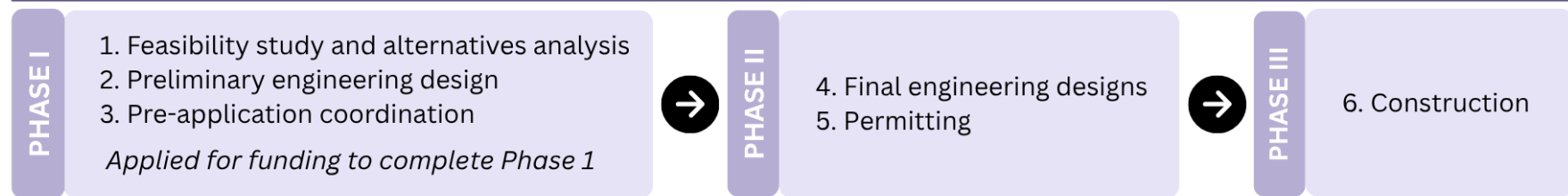
Understanding available funding opportunities is also critical to implementation success. Maine has made substantial investments in climate resilience, infrastructure adaptation, and working waterfronts. In 2024, the National Oceanic and Atmospheric Administration (NOAA) awarded Maine \$69 million through the Climate Resilience Regional Challenge to strengthen communities and critical infrastructure over five years. The Mills administration has strongly supported these efforts, particularly after severe storms in 2024. However, with an upcoming change in administration, long-term state funding priorities may shift. Table 1 outlines current state funding programs, several of which are new or expanded with the NOAA funds. The Maine Office of Community Affairs has also developed the [Maine Community Funding Finder](#) to help communities navigate these funding opportunities. This resource should be consulted for the most up-to-date information. The Town could also consider congressionally directed spending for major initiatives such as rebuilding the South Gouldsboro Harbor public pier.



Dinghies in Prospect Harbor. © FBE

PROSPECT HARBOR

Public boat ramp



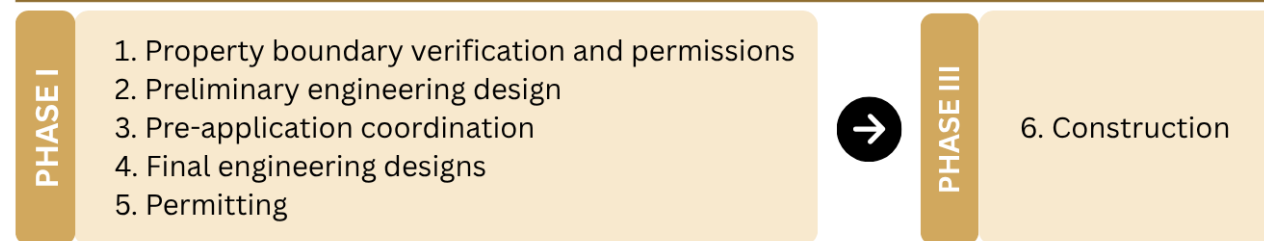
SOUTH GOULDSBORO HARBOR

Public pier



BUNKERS HARBOR

Public boat ramp



Harbor dredging

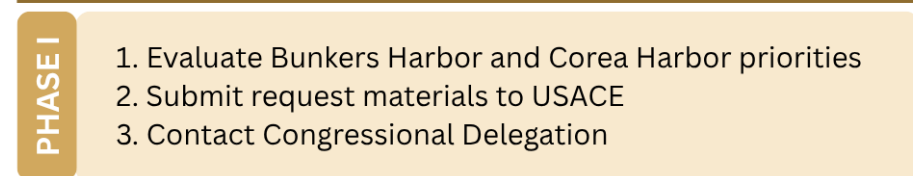


Figure 1. Harbor Resilience Action Plan. Note at USACE has purview over dredging in both Bunkers and Corea Harbors.

Table 1. List of potential funding opportunities for priority projects. Note that the public boat ramp project in Bunkers Harbor is less likely to be competitive for resilience and adaptation focused grants and would align more with programs targeted at working waterfronts.

Funding Opportunities	Prospect Harbor <i>public boat ramp</i>	So. Gouldsboro Harbor <i>public pier</i>	Bunkers Harbor <i>public boat ramp[†] and harbor dredging^β</i>
Community Action Grant	✓	✓	
Shore and Harbor Planning Grant	✓	✓	✓ [†]
Coastal Communities Grant	✓	✓	✓ [†]
Maine Infrastructure Adaptation Fund*	✓	✓	
Maine Public Working Waterfront Infrastructure Fund	✓	✓	
Public Infrastructure Grant Program	✓	✓	✓ [†]
Community Climate Planning Grants (Island Institute)	✓	✓	✓
Congressionally Directed Funding**		✓	✓ ^β

*The Maine Infrastructure Adaptation Fund priorities may change from year to year, so the most recent request for funding should always be consulted to determine if it will be a suitable funding source.

**Congressionally directed funding is fairly flexible but would likely be best suited for a larger scale project.

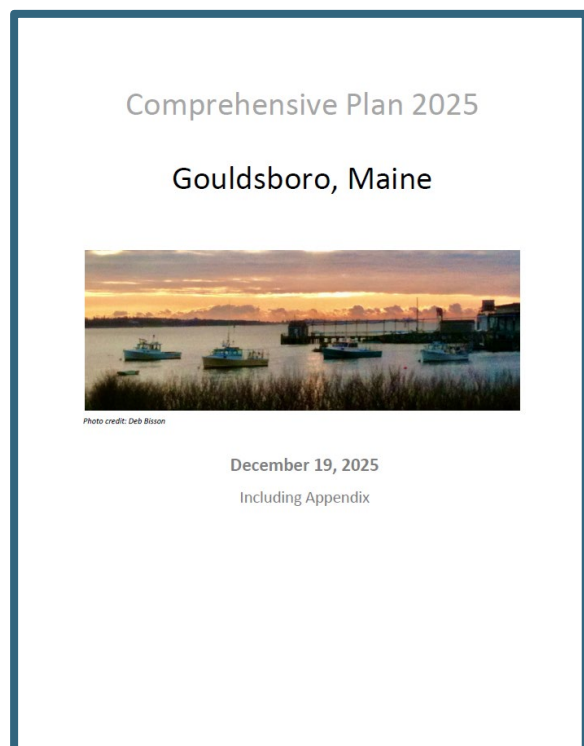
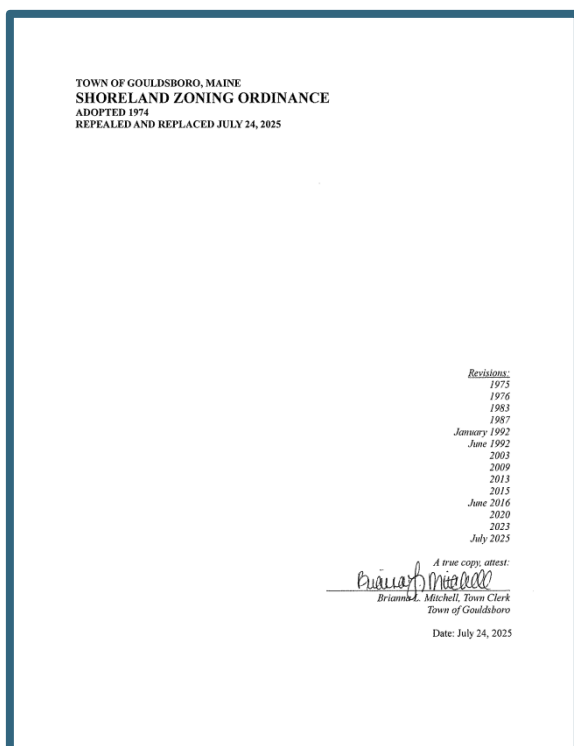
Prospect Harbor. © Brett Binns



RECOMMENDED MUNICIPAL LAND USE CHANGES

Gouldsboro updated its Shoreland Zoning Ordinance through a collaborative process led by the Planning Board with support from the Coastal Resilience Committee. See Appendix A: Consideration of Changes to Land Use Ordinances for a comprehensive description of these changes. The updates aim to support marine uses and commercial access to the coast while protecting vital working waterfront infrastructure from residential conversion. In response to the closure of the former Stinson sardine cannery and concerns that existing zoning no longer reflected the needs of modern marine industries, the Town and Harbor Master worked with the new property owners to evaluate constraints within the Commercial Fisheries/Maritime Activities (CFMA) district. While the CFMA district strictly limits uses to functionally water-dependent activities, the Town created a new, more restrictive General Development (GD) shoreland district that mirrors CFMA protections but allows greater flexibility by permitting non-water-dependent uses to occupy up to 75% of total building floor area. This approach maintained a clear priority for maritime uses while preventing residential redevelopment, and it ultimately made reinvestment in the large, underutilized cannery site financially feasible. The revised zoning directly enabled the site's purchase by new local owners, Bold Coast Seafood, and its return to active use for seafood processing and related commercial operations.

Beyond the immediate ordinance amendment, longer-term land use considerations are closely tied to climate resilience. Gouldsboro recognizes that sea-level rise, storm surge, increased development pressure, and continued northward migration will intensify conflicts along its coastline over the next decade. In response, the Planning Board and Coastal Resilience Committee used the comprehensive plan update to guide future ordinance revisions related to transportation, natural resources, marine infrastructure, climate adaptation, and fiscal planning. By aligning land use policy with climate vulnerability assessments and long-term adaptation goals, the Town aims to protect working harbors, manage growth, and increase resilience across its coastal and shoreland areas in the face of ongoing climate change. The draft comprehensive plan can be downloaded from the [Gouldsboro Shore website](#).



METHODOLOGY

To understand the vulnerabilities and needs of Gouldsboro's working harbors, FBE conducted a comprehensive data collection and community engagement effort. This process combined existing information, coastal hazard data, GIS mapping, and on-site observations to assess infrastructure, flooding, sea level rise, and storm impacts. Working Waterfront Inventories were completed for each harbor to document key metrics and support planning. Site visits allowed the project team to evaluate both public and private infrastructure, document storm damage, and gather detailed insights from the Harbor Master. Two community meetings brought together stakeholders to review preliminary findings, discuss challenges and priorities, and identify opportunities for improvements such as dredging, boat ramp enhancements, and expanded tie-up space. The information collected through these efforts provides the foundation for analyzing harbor conditions and developing targeted actions and design recommendations for long-term resilience and operational sustainability.

INFRASTRUCTURE INVENTORY AND VULNERABILITY ASSESSMENT

FBE collected preliminary data and assessed vulnerabilities for each harbor. Existing information about each harbor, data related to coastal hazards, and GIS data from publicly available sources was collected to map existing conditions and assess the impacts of hazards such as flooding, and sea level rise



FBE also collected existing data about the working waterfront infrastructure and completed a **Working Waterfront Inventory**, using the template developed by the Maine Coast Fishermen's Association. The Working Waterfront Inventory informed the data collection effort and key metrics from the inventory are summarized in the individual harbor sections. See Appendix : Working Waterfront Inventory Table for the Working Waterfront Inventories for each harbor. For the vulnerability assessment, maps were developed to display the Federal Emergency Management Agency (FEMA) static Base Flood Elevation (BFE), the current Highest Astronomical Tide (HAT), and future HAT projections based on several sea level rise scenarios (Appendix Sea Level Rise Maps).

These data help to visualize how sea level rise and flooding will impact waterfront infrastructure and access in the future. The BFE represents the estimated height that floodwaters are expected to reach during a flood event with a 1% chance of occurring in any given year (often referred to as the "100-year flood"). The HAT represents the highest high tide predicted under normal conditions, not including storm surge. Future HAT projections were developed by the Maine Geological Survey and the maps include the HAT plus 1.6 feet (expected by 2050), 3.9 feet (expected by 2100), and 6.2 feet (expected by 2150) sea level rise scenarios. The HAT plus 1.6 feet and 3.9 feet scenarios align with the State of Maine's "prepare to manage" recommendations for 2050 and 2100 respectively. All elevations in this report are relative to NAVD 88.

SITE VISIT

After preliminary data collection and mapping, FBE visited each harbor to complete a study of the public infrastructure and an assessment of the private infrastructure. The site visit occurred on May 1, 2025 and FBE staff members Julia Maine and Lauren Caffé attended the visit with Bill Zoellick, Chair of the Coastal Resilience Committee, and Mike Pinkham, Town of Gouldsboro Harbor Master. The team met at the Town Office to review the working waterfront inventory and discuss critical information about the three harbors. This was followed by a visit to each of the three harbors. Mike and Bill were able to provide extensive information about the maintenance, ownership, and the challenges the fishermen face at each harbor. Joel Ballestero, a coastal engineer from Streamworks, joined for the South Gouldsboro site visit. Photos of critical infrastructure, storm damage, and coastal areas were collected, with some shown below (Bunkers Harbor: top row; Prospect Harbor: middle row; and South Gouldsboro Harbor: bottom row).



INITIAL COMMUNITY MEETING

Two community meetings were held during the project. The first meeting was hosted on May 17, 2025, at the Peninsula School cafeteria. The meeting brought together 32 participants, including approximately 20 commercial fishermen, to discuss challenges, vulnerabilities, and opportunities in Prospect Harbor, South Gouldsboro Harbor, and Bunkers Harbor. The goal of the meeting was to prioritize capital improvements and resilience measures for the town's working harbors over the next five to ten years, considering the impacts of sea-level rise, storms, and changing fisheries.

The meeting began with a presentation of preliminary maps and findings on harbor conditions and vulnerabilities. Attendees then divided into groups, one for each harbor, to discuss their current use of the harbors, their infrastructure needs, and their priorities for future improvements. The project team learned that the most critical need in Prospect Harbor is a launch ramp that can be used to haul boats moored in the harbor's least protected areas in advance of large storms. The Bunkers Harbor group emphasized the need for harbor dredging and proposed a reorientation of the Town launch ramp. The highest priority in South Gouldsboro Harbor is restoring the Town jetty to use in loading and offloading.

DATA ANALYSIS AND RECOMMENDATIONS DEVELOPMENT

After the data collection, site visits, and initial community meeting, all data were analyzed to paint the full picture of each harbor and develop recommendations for climate change response actions and associated design recommendations. The project team reviewed input from the community meeting held in June, aerial and drone photography, bathymetry data, habitat maps, permitting requirements, property boundaries, and existing reports and documentation related to each harbor. The project team then incorporated input from the stakeholders and harbor users provided during the planning meeting and focus groups (described below) to refine the final recommendations and design concepts. The results for each harbor and their respective recommendations are presented in the following sections.

PLANNING MEETING AND HARBOR FOCUS GROUPS

The community was reconvened for a second meeting on November 15, 2025 at the Peninsula School cafeteria. The Coastal Resilience Committee presented the recommended climate change response actions and resilience design concepts developed by the project team. There were 22 participants, including 12 commercial fishermen and representatives from Bold Coast Seafood who purchased the former Stinson Cannery in Prospect Harbor. The Coastal Resilience Committee then facilitated focus groups for each harbor, discussing targeted questions about infrastructure uses and needs, input on design concepts, and property ownership. Unfortunately, no stakeholders from Bunkers Harbor attended the meeting, so focus groups were only held for Prospect Harbor and South Gouldsboro Harbor. Harbor-specific findings from the focus groups are summarized in the following sections. For a complete, detailed report on the focus group analysis and findings, see Appendix E: Report on Focus Group Findings.

PROSPECT HARBOR

CURRENT USES

Prospect Harbor is primarily a lobster fishing harbor and supports some of the highest levels of commercial activity in Gouldsboro, after Corea Harbor. Although approximately 60 acres of mudflats lie at the head of the harbor, clamming is no longer a significant fishery due to declining stocks, and the flats are currently under a municipal conservation closure. The harbor hosts several lobster dealers and buyers (DB Rice, the Lobster Trap, and Inland Seafood) operating from private piers and offering fuel for purchase. Overall, the harbor supports 28 commercial fishing vessels and four (4) recreational vessels. Key municipal infrastructure consists of one town-owned pier with public floats and a hoist, along with a mooring field. Five additional private piers support commercial operations. The harbor does not currently have a boat ramp or haul-out access.

INFRASTRUCTURE INVENTORY

The Prospect Harbor municipal pier (the only currently operational Town-owned dock in Gouldsboro) was built in 2004 on land donated by Stinson and is used regularly by fishermen. The pier is equipped with a hoist and two floats, both in good condition. Four private piers also serve the harbor, owned by local fishermen and businesses; one was destroyed during the January 2024 storms and was rebuilt at a higher elevation.

Parking has historically been limited to a small lot accommodating approximately four vehicles adjacent to the town dock. A separate Town-owned, unpaved lot across the street remains largely unused by fishermen because it is challenging to walk along the narrow, busy road (Main Street) from the lot to the harbor. A recently donated parcel of land in front of the former cannery buildings provides the Town with shore access that it can use if it chooses to build a launch ramp. Several lobster buyers operate in the harbor. Buyers cannot purchase product on the Town-owned pier and must use private piers for commercial transactions. Fuel sales are also limited to the private piers.

The former cannery is no longer operational and has gone through several owners since it closed in 2010. Most recently in 2025, Prospect Holdings LLC sold the facility to [Bold Coast Seafood](#) which will operate as a seafood dealer and processor. The main building was damaged and partially inundated during the January 2024 storms. Wave action pushed boulders onto the shoreline and into the building's east side before the area was subsequently stabilized with riprap. Historically, the Town and the U.S. Army Corps of Engineers explored constructing a 600-foot breakwater to protect the harbor, but the project did not move forward. Notably, Bold Coast Seafood plans to build a private, deep water boat ramp and has discussed allowing fishermen to use this ramp in emergencies.

VULNERABILITY ASSESSMENT

Flood Hazards

Prospect Harbor lies within the FEMA VE flood hazard zone which indicates significant risk from storm surge and wave action. The BFE is 16 feet, and the modeled flood hazard area for a 1% annual chance flood encompasses all major shorefront infrastructure. Around the former cannery buildings, re-modeled BFEs range from 12 to 13 feet. Portions of Main Street (the primary access route) fall below the BFE and are vulnerable to flooding and erosion. The harbor's southeast exposure makes it particularly susceptible to southeasterly storms and more protected from nor'easter storms.

Sea Level Rise

The current HAT elevation in Prospect Harbor is about 8 feet. Based on Maine Geological Survey's sea level rise modeling, the HAT elevation is projected to rise to approximately 10 feet by 2050 with 1.6 feet of sea level rise, 12 feet by 2100 with 3.9 feet of sea level rise, and 14 feet with 6.2 feet of sea level rise. With sea level rise, future flood events equivalent to today's 1% annual chance flood could reach elevations of 18–20 feet or higher, assuming similar increases in BFE. While these are high-level estimates, they offer a useful approximation of long-term flood risk affecting harbor infrastructure and access.



Prospect Harbor. © Brett Binns

SUMMARY OF INITIAL COMMUNITY MEETING

In Prospect Harbor, stakeholders discussed a recent land donation that the Town could use to build a new public launch ramp. Fishermen described this as a “game changer.” During the January 2024 storms, some boats moored in the less protected parts of the harbor were torn from their moorings and washed ashore. A launch ramp would enable fishermen to haul the most vulnerable boats and store them on shore until the storm passes. Attendees highlighted the importance of reducing reliance on Bunkers Harbor for launching boats, since Bunkers Harbor is already crowded and without space for short-term boat storage.

For more than 50 years, Gouldsboro has considered the idea of building a breakwater outside Prospect Harbor to provide additional protection from storms. The Town has commissioned plans only to set them aside. Participants considered the idea again in this meeting and concluded that, given a launch ramp they could use to haul boats in advance of storms, a breakwater would not be worth the expense. They also noted that shifts in recreational use and generational change among fishermen may influence future harbor needs.

SECOND MEETING AND FOCUS GROUP FINDINGS

In preparing for the November Planning meeting, the project team developed three alternative approaches to locating a launch ramp in Prospect Harbor. The focus group facilitator sought to have the group work on the following tasks for each of the design options.

- Describe its ADVANTAGES and DISADVANTAGES regarding getting as many boats as possible out of the water before a storm
- Describe its ADVANTAGES and DISADVANTAGES regarding daily, routine operations in the harbor.

Participants began by considering the launch ramp design that had emerged from the May meeting but quickly identified several problems with that approach. After brief consideration of the two other alternatives that the project team had prepared, they settled on a new approach that emerged from their shared thinking. The new option places the top of the ramp near the entrance to the Town pier and orients the ramp on angle, onto the mudflat. This new design addresses several issues that emerged in the group’s review of the other alternatives. See the Appendix E: Report on Focus Group Findings for more details. Participant’s brainstorming ideas from the initial meeting (left) and second meeting (right) are shown below:



RECOMMENDED CLIMATE-CHANGE RESPONSE ACTIONS AND DESIGNS

Harbor Priorities and Possible Solutions

As described above, Prospect Harbor's most urgent need to strengthen the harbor's resilience is the construction of a public boat ramp. Harbor users consistently emphasized the lack of a convenient haul-out location which forces them to use the Bunkers Harbor ramp. This ramp is tide-dependent, shared between two harbors, and unable to accommodate the volume of vessels that must be removed from the water before major storms. This limitation has resulted in many Prospect Harbor fishermen leaving boats on moorings during extreme weather, contributing to damages during the January 2024 storms, when storm surge between four and seven feet submerged the Town dock and impacted several private piers. While past discussions between the Town and the U.S. Army Corps of Engineers explored building a 600-foot breakwater to provide additional harbor protection, community input and engineering consultation suggest that pursuing a breakwater is a lower priority compared to addressing the immediate need for a haul-out location.

Harbor users also noted that the public floats on the Town Dock could benefit from reorientation, though the Harbor Master expressed operational concerns with alternative configurations, so this was not a primary focus of the project team's analysis. The need for proactive planning was also highlighted: establishing maintenance and capital investment schedules for Town-owned infrastructure, particularly the municipal dock, would reduce the likelihood of costly emergency repairs and support long-term operational reliability.

Three boat ramp design concepts were developed for the harbor users to respond to. Option 1 and 2 extend from the existing Town pier parking area, while Option 3 extends from the access road, across the intertidal mudflat and existing ground-out area. Option 3 was developed by the harbor users during the initial community meeting, however during the analysis the project team identified several site constraints that would limit the feasibility and optimality of this option. Options 1 and 2 were developed as alternatives and were informed by a 2003 Pine Tree Engineering boat ramp design originally proposed as a second phase of the Town dock project. Although that earlier plan was never implemented due to lack of funding, it provides valuable context for current planning efforts. See Appendix : Pine Tree Engineering Design – Design for the original 2003 design.

Note that, as described above, a new design option emerged from the November 15, 2025 focus group meeting. This new option addresses problems that meeting participants identified with the other options. As Gouldsboro moves forward with its planning, it will consider this new option as the preferred option (see Map 2 and Appendix E: Report on Focus Group Findings).

In addition to technical assessments and input from the Harbor Master and Committee, FBE coordinated with the Department of Marine Resources (DMR) and the Department of Environmental Protection (DEP) to understand permitting considerations and consulted with an experienced marine engineer to evaluate design feasibility for a future boat ramp. Map 1 displays the three design concepts that were developed by the project team and presented to the stakeholders during the Planning Meeting and discussed during the Focus Group. Map 2 displays the revised design concept based on harbor users feedback from the Focus Group. These visualizations are not engineering designs and only represent conceptual visualizations to support discussion and planning.

MAP 1
PROSPECT HARBOR
GOULDSBORO, ME



This map is for planning and informational purposes only.
Created by: J. Maine, FB
Environmental, Sept. 2025

 Intertidal Mudflat
 0.5 ft Contours
 Water Line

FEMA BASE FLOOD ELEVATION

— BFE (16 ft)

APPROX. TIDAL DATUMS

— HAT (7.74 ft)

— MHW (5 ft)

— MSL (-0.28 ft)

— MLW (-5.57 ft)

SITE CONSTRAINTS:

Boat ramps require at least a 12% slope and should extend to the Mean Low Water line (MLW=-5.57 ft). Based on these criteria, a boat ramp extending from the existing pier is likely the most suitable solution. The intertidal area is classified as a mudflat by Maine DEP and DMR, so boat ramp construction would require a full individual NRPA permit. (The "tidal mudflat" area on this map is an approximate delineation and does not represent DEP or DMR's official delineation.)

NOTES & DATA SOURCES:

Elevations are relative to NAVD88. Tidal datums are from the Bar Harbor tidal station. Tidal datums were approximated using elevation contours derived from the 2022 preliminary NOAA topo-bathymetry DEM (1ft resolution). Base flood elevation (BFE) is from FEMA flood maps. Drone imagery courtesy of Brett Binns. Coordinate system: NAD 1983 (2011) State Plane Maine East FIPS 1801 (US Feet).



0 10 20 40 60 80 US Feet

OPTION 2:

- Slope greater than 12%
- Some direct impact to mud flat
- Retains access to ground-out space
- Could require parking adjustments
- Could provide turn-around space
- Reduces interference with pier

OPTION 1:

- Slope greater than 12%
- Minimizes direct impact to mud flat
- Retains access to ground-out space
- Bedrock outcrop could be a challenge
- Could require parking adjustments
- Proximity to pier could be pro or con
- Similar to Pine Tree's 2003 design

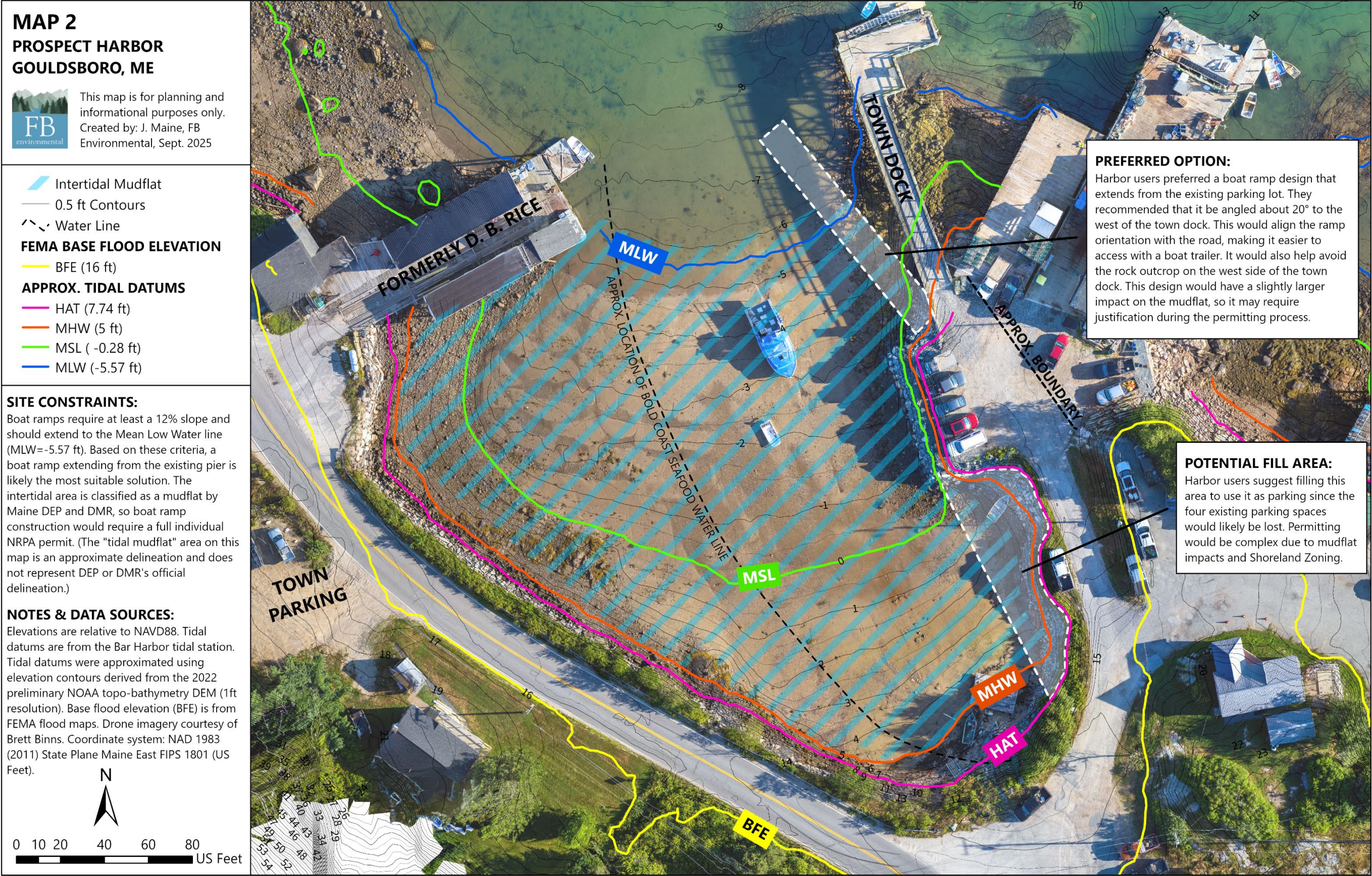
POTENTIAL FILL AREA:

A portion of this area could be filled and leveled to expand parking and improve access to the boat ramp. Permitting would be complex due to mudflat impacts and Shoreland Zoning.

OPTION 3:

- Slope ~4% (12% required)
- ~275 ft to MLW (ramp length approx.)
- ~3,500 sq ft of direct impact to mud flat
- Limits access to ground-out space
- Vehicle access may be challenging
- Unlikely to be cost effective or permissible

Map 1. Options for boat ramp orientations in Prospect Harbor.



Site Conditions and Considerations

The proposed site location for a public boat ramp, adjacent to the Gouldsboro Town Dock provides a combination of beneficial and challenging factors from a design, construction, and regulatory lens. These factors are outlined below.

Benefits

- The Town currently owns all of the parcels adjacent to potential boat ramp locations. The parcel that provides access to the intertidal area was recently gifted to the Town by the owners. Municipal ownership significantly expedites the timeline of the project compared to other site locations that may require the Town to purchase land or acquire a lease for private property.
- The site is located where there is a need for a public boat ramp. Commercial fishing vessels have been damaged in the past storms because the fishermen were unable to haul boats out prior to the storms. Installation of a boat ramp in this location would improve access and resilience and help fishermen mitigate potential damages.
- The site is located in the vicinity of existing marine infrastructure (e.g. Town Dock) and an active commercial anchorage. This proximity would reduce costs by leveraging existing supporting facilities and providing existing harbor users with critical haul-out access.
- Based on an initial review of Maine's Beginning with Habitat data, the project is not located in a mapped critical habitat, and rare, threatened, or endangered species are not mapped in the area. Critical habitats are more strictly regulated. Further consultation with state agencies such as the Maine Natural Areas Program (MNAP), Maine DMR, and Maine Department of Inland Fisheries and Wildlife (MDIFW) is needed to confirm these results.

Challenges

- Maine DEP and DMR confirmed that the intertidal area adjacent to the Town pier and dock is classified as an intertidal mudflat. Building a public boat ramp in an intertidal mudflat requires greater tiers of permitting as these are considered high value resources by state agencies (see more in Permitting Requirements section).
 - Although the area is classified as an intertidal mudflat, the small size of the cove and presence of other pre-existing public and private infrastructure implies that habitats are already impacted when compared with a cove without existing manmade infrastructure and marine activities. It is also closed to shellfish harvesting due to the likelihood of pollution, further implying potentially degraded habitat.
 - A coastal wetland characterization and functional assessment will be needed to further determine the existing coastal resources and projected impacts; however, it seems possible that a boat ramp could be approved with certain conditions.
- Engineers recommend at least a 12% slope for a typical boat ramp to ensure that vehicles remain dry while launching a vessel (Figure 2).
 - The slope of the intertidal area that is currently used as a ground-out space is approximately 4% so it would not be suitable for a boat ramp without substantial alterations. Alterations would likely cause more impact to the intertidal mudflat, making permitting more challenging.

- A boat ramp extending from the existing Town pier (currently used as a parking area) could achieve a slope of 12% to 15%. This is likely the most feasible location for a boat ramp.

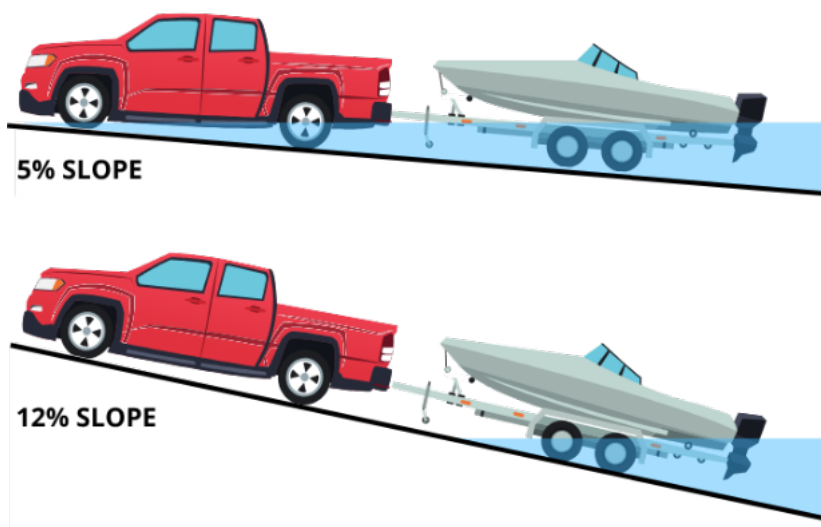


Figure 2. Boat ramp slope options.

- To achieve adequate tidal access, the boat ramp should extend to the mean low water (MLW) mark.
 - The intertidal area that is currently used as a ground-out space is approximately 275 ft from MLW so a boat ramp at this location would have to be long, which would increase costs.
 - The existing Town pier (currently used as a parking area) is approximately 60 to 85 ft from MLW, requiring a shorter ramp to achieve adequate tidal access.
- Currently there are minimal conflicts between commercial and recreational users in Prospect Harbor. A new public boat ramp may increase recreational demand as well as commercial demand, so preempting and managing potential conflicts would be important.
- A boat ramp extending from the existing Town pier (currently used as a parking area) could impact the existing parking area. These impacts would need to be evaluated in more detail. The current access road may be challenging to navigate. A portion of the area adjacent to the pier and access could be filled to create wider access and turn-around space, but would increase costs and permitting effort.

Permitting Requirements

At a minimum, the permits listed below are expected to be required for the construction of a boat ramp adjacent to the existing Town pier. Additional surveys, consultations, or permits may be required pending further agency consultation.

Maine DEP - Natural Resources Protection Act Permit

- The State of Maine regulates impacts to protected natural resources under the Natural Resources Protection Act (NRPA). Boat ramp projects are permitted by the State via two permits, a Permit-by-Rule or an Individual Permit. A Permit-by-Rule (PBR) is a streamlined permitting process for small, low-impact projects, which meet certain applicability requirements and associated standards. A PBR requires submission of a simplified notification form and application fee to Maine DEP, along with some activity specific submissions. Compensation for resource impacts is not required if a project is

eligible for a PBR. An Individual NRPA Permit is required for projects that do not qualify for a PBR. The application process is more intensive and requires specific application submissions, such as a project description, alternatives analysis, and resource functional assessment as a part of application review by Maine DEP.

- To qualify for a PBR under Section 15 - Public Boat Ramps, no part of the ramp can be located in, on, or over intertidal mudflat or emergent marsh vegetation. Due to the proximity of the intertidal mudflat, it is unlikely that a new public boat ramp adjacent to the existing Town pier would qualify for a PBR. If it were to qualify for a PBR, there are certain design criteria the project would be required to meet.
- If the PBR requirements cannot be met, the project will need to file an Individual Permit. As part of this process, additional required components include a pre-application meeting with Maine DEP and other regulatory agencies (DMR and MDIFW). At this meeting, the specific needed submissions for a permit application are discussed, and often include a project description and alternatives analysis, a scaled site plan drawing, a map and photos of the project area, a wetland delineation, coastal wetland characterization checklist, functional assessment, a construction plan, an erosion control plan, and public notification. Depending on the amount and type of resources impacted to achieve the project, compensation for resource impacts may be required by DEP.

Maine Department of Agriculture, Conservation, and Forestry (DACF) - Submerged Lands

- If the ramp extends below mean low water, approval from the Maine DACF Submerged Lands Program must be acquired. They may require a lease or easement, or will send notification if these agreements are not required.

US Army Corps of Engineers (USACE) – Federal Wetlands Permit

- A Federal permit from the USACE will be required due to this project's location in federally navigable waters and impacts to Waters of the United States.
- The USACE Maine Project Office released the Maine Regional General Permits (RGPs) on October 31, 2025. These RGPs serve as an interim permitting tool, and mark a significant change for New England, which has historically maintained its own set of state-specific general permits.
- The Maine RGPs are a set of streamlined authorizations for specific project types that have been determined to have minor environmental impact. Approval using one or a combination of RGPs assumes that a project complies with the specific conditions associated with the selected RGPs, as well as General Conditions associated with the Maine RGP. Authorizations under the Maine RGPs may be either non-reporting, or a Pre-Construction Notification (PCN).
- Based on review of the RGPs, certain boat ramp projects can qualify for *RGP A. Boat Ramps*, if the criteria associated with the General Permit can be met:
 - Discharge of material into waters and wetlands is less than 50 cubic yards of material or pre-cast planks;
 - Ramp does not exceed 20 feet in width;
 - base material is crushed stone, gravel, or other suitable materials;
 - excavation area is limited to area necessary and excavated materials are removed to an area that has no waters of the United States;

- impact is 2,000 square feet or less.
- The amount of impact and compliance with the conditions noted above determines if the project can qualify as non-report or if a PCN is required. FBE recommends a pre-application meeting with Maine DEP and USACE to determine permitting requirements.
- An application to the USACE generally consists of project description, alternatives analysis, project design plans and associated submissions. Along with any permit application, notifications to the Maine Historic Preservation Commission, and all five federally-recognized tribes in the State of Maine are required. An official species list of federally threatened and endangered species that may occur in the activity's action area must also be submitted with the application package. The presence of Federally protected species or habitats, archaeological resources, or other sensitive resources may disqualify a project from permitting under the Regional General Permit.
- If the project does not meet these requirements or the USACE otherwise determines that the project is not eligible for a permit pre-construction notification (PCN), an Individual Permit will be required.

Town of Gouldsboro – Building, Planning Board, and Flood Hazard Development Permits

- The proposed boat ramp is located within the "General Development" overlay of the Shoreland Zone. "Piers, docks, wharfs, bridges and other structures and uses extending over or below the normal high-water line or within a wetland" are allowed within the zone with a permit from the Planning Board. The structure will also require a Building Permit from the Code Enforcement Officer.
- Due to the project's location within Gouldsboro's mapped FEMA flood zones, it will also require a Flood Hazard Development permit.
- State and federal permits should be acquired before Town permits.

Cost and Funding Considerations

The total cost of a new public boat ramp in Prospect Harbor is dependent on the final design, ramp orientation and permitting requirements. Project costs are expected to increase with the length of the ramp and the complexity of modifications needed to get suitable slopes for adequate use of the ramp. Any impacts to the intertidal mudflat will also increase project costs due to additional permitting requirements and potential in-lieu fees. This project would likely require an in-lieu on the order of \$10/square foot. To be approved by Maine DEP, the applicant must demonstrate that any impacts to the intertidal mudflat have been minimized which could constrain possible design options. If an Individual Permit is required through NRPA, the necessary permitting effort would be substantial and could range from \$20,000 to \$35,000 to hire an environmental consultant to prepare and submit the application. The cost for preparing and submitting local permits would likely range from \$5,000 to \$10,000 depending on the project specifics.

In 2004, Pine Tree Engineering developed costs estimates for the construction of a boat ramp extending from the Town pier (see Appendix : Pine Tree Engineering Design – Cost). The full project cost quoted in 2004 was \$390,000, factoring in inflation, this equates to approximately \$665,000 in 2025 dollars. Pine Tree Engineering's plans incorporated additional elements such as a hoist, several floats, and a satellite parking lot. Removing these line items, the costs for the boat ramp alone were in the \$325,000 range, which equates to about \$550,000 in 2025 dollars. Construction costs in Maine have generally increased at a higher rate than inflation, particularly following the COVID-19 pandemic, indicating that this cost estimate is likely low. The Town did receive a quote in 2025 from TR Construction (Kevin Barbee) for

\$400,000 to build a boat ramp in Prospect Harbor. It is unclear exactly what this quote included, but it likely did not incorporate design and permitting costs. A more detailed cost estimate for final design, permitting, and construction will need to be developed to help the Town evaluate design and funding options, but these estimates provide some insight into potential project costs.

Due to the potential construction and permitting costs, we recommend first conducting a feasibility study and alternatives analysis to evaluate several boat ramp design options and understand the expected costs and permitting requirements. The cost to hire a consultant to conduct this type of study and facilitate the decision-making process is expected to range from \$30,000 to \$40,000. This initial planning phase will allow the Town and stakeholders to make an informed decision about whether they want to move forward with a boat ramp project based on a more comprehensive understanding of the project costs and design considerations.

Recommended Next Steps

Based on the site constraints and potential project costs, the project team recommend the following implementation phases.

Phase I

The Gouldsboro Resilience Committee submitted a Community Action Grant application to the State's Community Resilience Partnership in August 2025 to support the completion of Phase I. Award decisions are expected in January 2026. This grant submission includes the following components:

1 Feasibility Study and Alternatives Analysis

The Feasibility Study builds on what Gouldsboro learned from the November focus group meeting. The feasibility study will center on the new alternative design developed in that meeting. A topographical survey will be conducted and potentially a boundary survey to define the site characteristics. Analysis will include cost estimates for final design, permitting, and construction phases for each design option. A decision matrix will outline key factors, including accessibility and ease of use, implementation timeframe, parking and staging area requirements, environmental impacts and permitting complexity, construction and maintenance costs, and long-term durability and resilience to storms.

2 Harbor Charette, Public Presentation, and Report

Gouldsboro will host a charrette session to present designs and findings from the first step to town officials, committee chairs, harbor users, residents, and other key stakeholders. The charrette will gather detailed feedback on design preferences and operational requirements to ensure the proposed solutions truly meet the community's needs and expectations. Following the charrette, the Town will incorporate stakeholder input into a refined design recommendation with cost implications and overall project feasibility. This process aims to build stakeholder consensus on the preferred approach and help determine the project's long-term viability from technical, financial, operational, and community support perspectives.

3 Preliminary Engineering Design

If the Town chooses to move forward, the preferred ramp configuration from step one will be moved into preliminary engineering design. The preliminary engineering design will include additional detail on construction materials, environmental impacts, and estimated costs.

4 Pre Application Coordination

Utilizing the preliminary engineering design, a pre-application meeting will be held with applicable state agency staff. This meeting is a requirement of the Maine NRPA Individual permit. The consultation allows regulatory agencies the opportunity to provide initial feedback on the proposed design. This feedback can be incorporated into the final plan sets that will be used for permitting submission and construction.

Phase II

5 Final Engineering Designs

Utilizing information gathered in Phase I, permit-ready designs will be prepared for submission with required federal, state, and local permits (see Step 5 below). Following the incorporation of any comments from regulatory agencies as part of this process, the construction-ready designs will then be prepared for use by the construction contractor.

6 Permitting

As discussed in the Permitting Requirements section above, it is unlikely this project will qualify for a simplified Permit-by-Rule. Assuming the selected boat ramp design impacts the intertidal mudflat and/or does not meet the PBR design criteria, an Individual Permit through NRPA will need to be prepared. To effectively prepare, plan, and coordinate the project's permitting, collaboration will occur with various state and federal environmental agencies. Additional details about preparing an Individual NRPA Permit are included in Appendix : Individual NRPA Permit Requirements and Preparation.

Local permit applications will be prepared including Building, Planning Board, and Flood Hazard Development permits. This process may also require meetings with the Planning Board to discuss the project. The Gouldsboro Code Enforcement Officer will also be consulted to ensure that the project design and construction adhere to all Town ordinances.

Phase III

7 Construction

The Town of Gouldsboro will issue a Request for Bids for qualified contractors to construct the Prospect Harbor boat ramp. The contractor will adhere to the prepared engineering designs and all applicable regulatory requirements based on the approved project permits. If desired, a project engineer may provide on-site construction guidance to ensure the ramp is installed according to the design specifications.

SOUTH GOULDSBORO HARBOR

CURRENT USES

South Gouldsboro Harbor supports a mix of commercial fishing, aquaculture, and recreational uses. The harbor serves 13 commercial fishing vessels and 14 recreational vessels. A former lobster pound remains at the head of the harbor and is occasionally used as a kelp nursery by the aquaculture operator based in the former factory building across the harbor. The municipal pier and breakwater provide some protection from wave action for the private commercial piers. A small parcel of conserved land owned by the Maine Coast Heritage Trust lies across the harbor and offers an additional point of public shore access. This is the only working harbor in Gouldsboro that provides access to Frenchman Bay.

INFRASTRUCTURE INVENTORY

Key infrastructure in South Gouldsboro Harbor includes a municipal boat ramp, a Town-owned pier and breakwater (currently closed due to structural concerns), two private commercial piers, a private recreational pier, and a mooring field. Public parking is limited to approximately three to five spaces. The Town-owned boat ramp was recently extended by seven planks, reaching the maximum feasible length within the available footprint. The Town pier was constructed by the former owner over a sunken barge, and the attached wooden dock requires substantial repair, reconstruction, or replacement before it can safely be used. There is also no designated public tie-up space.

Two private commercial piers serve the harbor's fishing fleet, both are currently owned by a single non-local entity (Aquashell). The piers were previously owned by the Gouldsboro Bait Company, a local company. Since being purchased by Aquashell, the piers have deteriorated due to insufficient maintenance. A newly built private recreational pier, constructed by Prock Marine, provides access for a landowner to a privately owned island in Winter Harbor. The former lobster pound is largely unused aside from its occasional role as a kelp nursery for the aquaculture operation. Public parking remains limited to a few spaces on the municipal parcel, though private landowners allow additional parking on their property.

The absence of local supporting services adds operational challenges for fishermen. There is no buying station or fuel available in the harbor, so fishermen truck their catch to DC Air's inland facility and obtain fuel elsewhere. In addition to Gouldsboro residents, several fishermen from Sullivan and one from Hampden operate out of the harbor. Frenchman Bay provides productive poggy fishing grounds, drawing fishermen from Prospect Harbor as well.

VULNERABILITY ASSESSMENT

Flood Hazards

South Gouldsboro Harbor lies within FEMA's VE Zone, indicating high exposure to storm surge and wave action during coastal flood events. The BFE is 14 feet, while most working waterfront infrastructure sits between 10 and 12 feet, approximately two to four feet below the BFE. All shoreline facilities fall within the 1% annual chance flood hazard area. Shore Road, which provides primary access to the harbor, remains outside the 1% annual chance flood zone, suggesting a low likelihood that flooding would cut off access to the working waterfront. Beyond the harbor, Shore Road becomes Sea Swept Lane, portions of which are within the 1% annual chance flood hazard zone. However, it does not appear that flooding along Sea Swept Lane would affect working waterfront functionality or access to the harbor.

Sea Level Rise

The current HAT elevation in South Gouldsboro Harbor is about 8 feet. Based on Maine Geological Survey's sea level rise modeling, HAT elevations are expected to rise to approximately 10 feet by 2050 with 1.6 feet of sea level rise, 12 feet by 2100 with 3.9 feet of sea level rise, and 14 feet with 6.2 feet of sea level rise. The existing BFE is approximately 6 feet above the current HAT. In the future, the equivalent of today's 1% annual chance flood could cause water levels to reach 16 to 18 feet or higher, assuming similar increases in the BFE. These values provide a relative approximation of how flood conditions may evolve within the harbor.



South Gouldsboro Harbor. © Brett Binns

SUMMARY OF INITIAL COMMUNITY MEETING

South Gouldsboro Harbor participants highlighted the limited and aging infrastructure, including a rock jetty built around an old barge and inadequate ramps and floats. Fishermen noted the need for a pier, hoist, and float to support lobster fishing and seaweed aquaculture. Parking constraints were cited as a significant challenge, with temporary access relying on private land. Participants also recognized the harbor's potential for recreational boating and kayaking, though limited capacity currently restricts use. Concerns were raised about uncertainty surrounding the future of privately owned waterfront parcels.

SECOND MEETING AND FOCUS GROUP FINDINGS

The South Gouldsboro participants in November planning and focus group meeting were asked to work together to develop answers to the following two questions.

1. How do you hope to use a new pier, jetty, or other structure? What is essential in whatever design that we can come up with?
2. What would you like to see at this location? Do you want a pier (open to water movement beneath it), a jetty (closed underneath its surface), or some combination of these alternatives?

Answers to the first question included having a way to offload traps and catch, a hoist, and a way to fuel up boats. Fueling could be from a tank truck backed onto a wharf if the current jetty/pier was reconstructed so that it could support large trucks.

The groups answer to the second question was unequivocal: the current structure's service as a breakwater is indispensable. The speed of the tidal currents in the harbor make routine harbor operations difficult and dangerous without a breakwater.

See the Appendix E: Report on Focus Group Findings for more details.



South Gouldsboro Harbor Town Pier. © Brett Binns

RECOMMENDED CLIMATE-CHANGE RESPONSE ACTIONS AND DESIGNS

Harbor Priorities and Possible Solutions

South Gouldsboro Harbor faces several immediate concerns related to commercial access and operational efficiency. Public parking is limited to a handful of spaces on the municipal parcel, and recreational users, including kayakers and visitors accessing privately owned islands, compete with commercial fishermen for space. Signage designating spaces for commercial fishermen could help reduce conflicts, while the Maine Coast Heritage Trust's small parcel across the bay provides additional shore access and parking that could help alleviate pressure if recreational users are directed there. Commercial operations are further constrained by the concentrated ownership of private piers, which are in various states of disrepair, and the absence of a lobster buying station or fuel access in the harbor, requiring fishermen to transport catch and fuel to other locations.

The highest-priority concern in the harbor remains the Town-owned pier and breakwater, which provide protection and operational space for commercial activities. The pier has been in despair since the Town acquired it in 2011. The pier sustained damage from the January 2024 storms and is currently closed. Constructed over a sunken barge and maintained piecemeal, it is structurally vulnerable and requires substantial repair or replacement. Harbor users also identified the need for a hoist and tie-up float in addition to the pier to support operations.

Three options exist for addressing the pier's condition ():

Option 1 – Restore and Stabilize the Existing Pier

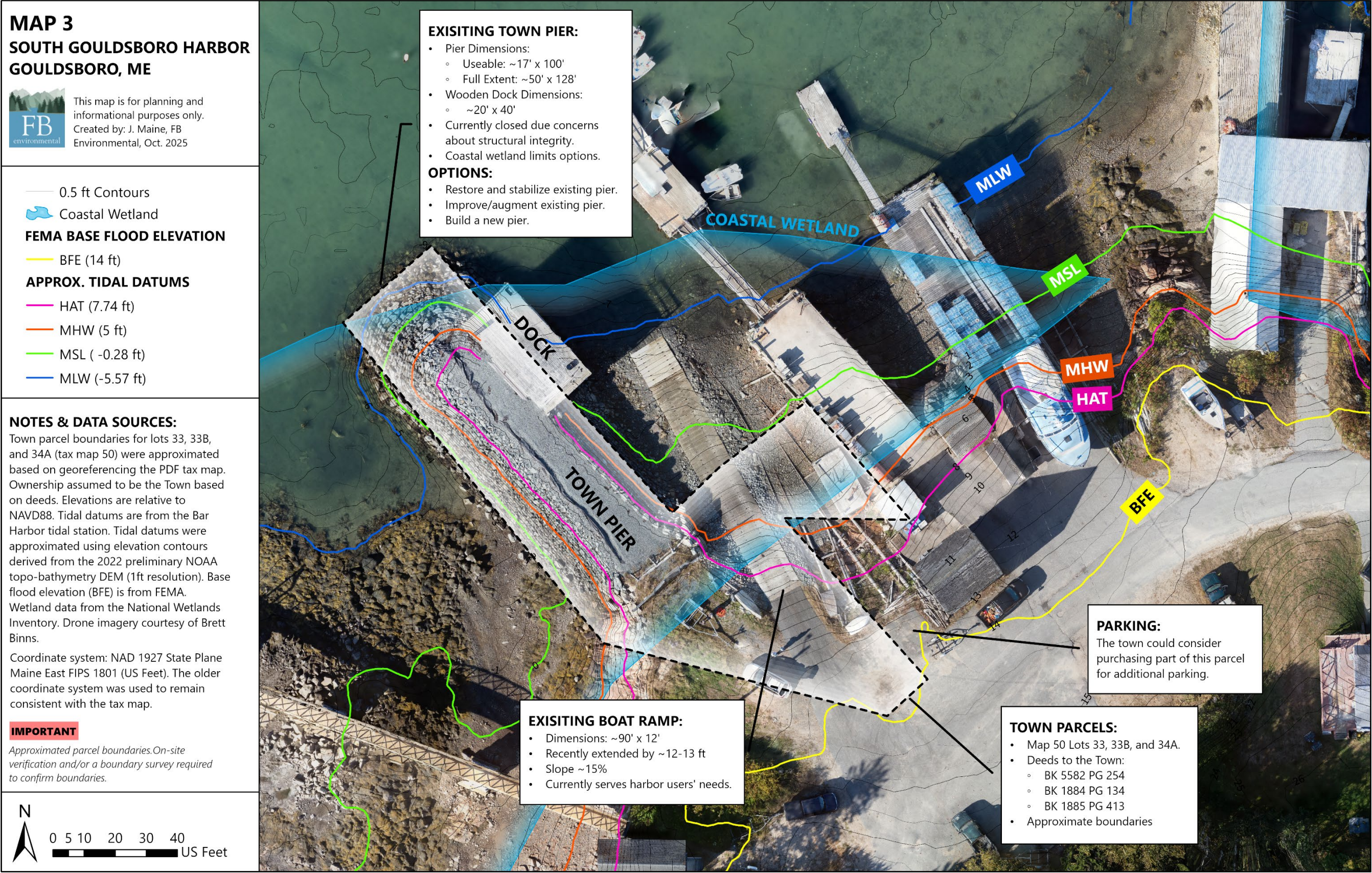
This option maintains the current footprint while restoring stabilization to prevent further undermining and extend the functional life of the pier. Improvements include strengthening the foundation pilings, adding cross bracing, and enhancing the wooden dock to ensure safety and structural integrity.

Option 2 – Improve and Augment the Existing Pier

This option involves expanding the pier's footprint, rebuilding the wooden dock, and adding a float for small boat tie-up, along with the installation of a hoist. The pier's usable width and height could be increased, potentially creating additional parking space on the pier itself. Additional surveys and geotechnical investigations would be required to inform grading, subgrade, and fill requirements. Structural design would account for wave attack, slope stability, storm surge, and sea level rise.

Option 3 – Construct a New Pier

This option entails building a completely new pier, either over the existing structure to retain wave-breaking benefits or following demolition of the current pier. Similar design and engineering tasks as Option 2 are required at a larger scale, including hydraulic analyses and resilient material sizing. As with Option 2, the pier must be designed to withstand storm surge and sea level rise, and permitting considerations under Maine DEP regulations may influence whether the existing structure can be retained.



MAP 4
SOUTH GOULDSBORO HARBOR
GOULDSBORO, ME

 This map is for planning and informational purposes only.
Created by: J. Maine, FB
Environmental, Oct. 2025

NOTES & DATA SOURCES:
Deeds were obtained from the Hancock County Registry to confirm parcel ownership. Lots 33, 33B, and 34A are not listed in the tax bills, so are assumed to be owned by the Town of Gouldsboro. Deeds obtained from the registry, which transfer ownership to the Town, appear to correspond to these three parcels, but this information requires further verification. The PDF tax map (#50) was georeferenced to create the displayed parcel boundaries. Coordinates were also collected for several identified property boundary pins, and the parcel boundaries were adjusted to align with these pins. The parcel lines represent approximate parcel boundaries.

Coordinate system: NAD 1927 State Plane Maine East FIPS 1801 (US Feet). The older coordinate system was used to remain consistent with the tax map.

IMPORTANT
Approximated parcel boundaries. A boundary survey by a licensed surveyor is required to confirm boundaries.

 Identified Property Boundary Markers



01020406080

US Feet

- Ownership History of Town-owned Parcels:**
- **Lot 33:** Transferred to the Town by Jonathan Archer in 2011. See deed book #5582 page #252 in the Hancock County Registry.
 - **Lot 33B:** Transferred to the Town by Janet Klitch in 1991 for construction of the boat ramp. See deed book #1884 page #134 in the Hancock County Registry.
 - **Lot 34A:** Transferred to the Town by Gouldsboro Bait Co. in 1991 for construction of the boat ramp. See deed book #1885 page #413 in the Hancock County Registry.



Map 4. Approximated parcel boundaries in South Gouldsboro Harbor based on Tax Map #50.

During the Focus Group, harbor users expressed their preference for a combination of Option 1 and Option 2. They emphasized the importance of the wave-breaking function of the current pier and that it should remain an effective jetty rather than being rebuilt as a wooden pier, similar to the Town dock in Prospect Harbor. They did not feel that the footprint needed to be expanded but were interested in a design that would optimize the existing footprint. A usable width of 30 to 35 feet would be ideal to accommodate trucks. A hoist and tie-up float would also improve the functionality of the pier. Having fuel available for purchase would be an asset to the harbor, but harbor users recognized that this should probably not be Town's responsibility. Parking remains a challenge, and one user suggested that the Town consider purchasing part of the parcel immediately to the north of the public boat ramp to expand parking. Parking signage designating spots for commercial fishermen could also alleviate parking competition with recreational users. Further structural assessments are required to inform a pier design, but the Town and Committee now have an understanding of the pier's critical uses and harbor users preferences.

Site Conditions and Considerations

Property Ownership

Deeds were obtained from the Hancock County Registry for all parcels in South Gouldsboro Harbor (Table 2). The Town of Gouldsboro owns lots 33, 33B, and 34A, which are contiguous. Parcel boundaries were approximated for this study by georeferencing the PDF tax maps. Committee member Brett Binns also worked with one of the harbor users to collect coordinates for several identified property boundary pins, and the parcel boundaries were adjusted to align with these pins. This provides an adequate visualization of the boundaries for planning purposes, but a boundary survey should be completed by a licensed surveyor during the engineering design phase to confirm the parcel limits. Property ownership was also a main discussion point during the Focus Group. Harbor users confirmed the ownership transitions and associated lots outlined in Table 2 and provided a detailed history of ownership in the harbor. For example, harbor users informed the project team that lot 33B and 334A were transferred to the Town in 1991 for the purpose of the building the public boat ramp.

Table 2. Overview of current parcel ownership in South Gouldsboro Harbor.

Map/Lot	Owner	Deed	Notes
50-27	Aquashell	B7084 P526	Purchased from the bank in 2020.
50-33	Town of Gouldsboro	B5582 P252	Transferred by Jonathan Archer in 2011.
50-33A	John Heist & Michael Neumann	B6208 P330	Purchased from Elizabeth Wiederhold in 2014.
50-33B	Town of Gouldsboro	B1884 P134	Transferred by Janet Klitch in 1991.
50-34	Aquashell	B7084 P526	Purchased from the bank in 2020.
50-34A	Town of Gouldsboro	B1885 P413	Transferred by Gouldsboro Bait Co. in 1991.
50-35	Jerome & Dianne Potter	B2334 P89	Transferred by Everett Potter in 1994.
50-35A	Aquashell	B7084 P526	Purchased from the bank in 2020
50-36	Aquashell	B7084 P526	Purchased from the bank in 2020

Coastal Wetland

The existing pier is located within a coastal wetland which is designated as a protected natural resource under NRPA. Coastal wetlands provide critical ecological functions such as flood storage, water filtration, and habitat for fish and wildlife. Because of their environmental importance, any work in or adjacent to coastal wetlands such as filling, dredging, or construction requires review and permitting by the Maine DEP. This will impact the permitting effort required for certain types of projects at this site and will also impact the types of designs that are permissible.

NRPA Violation

In 2010, the Town of Gouldsboro received a memorandum from Maine DEP Division of Land Resource Regulation (Jonathan Cullen) notifying the Town that fill was placed on the pier without a permit, violating NRPA (Appendix : Maine DEP South Gouldsboro Harbor NRPA Violation Memorandum). DEP staff indicated that the fill could either be removed or permitted after the fact. At this time, the property was owned by Jonthan Archer and was transferred to the Town in 2011. No records of an after-the-fact permit application were found during an initial search, but harbor users confirmed that the fill was removed following this notification.

The Town has done subsequent repair work, following permitting requirements, but was unsure about the status of the 2010 violation. Further clarification is needed from DEP to confirm that the fill was in fact removed and the property is no longer in violation. Regarding future pier upgrades, if the property is still in violation, then it is possible that Maine DEP would require the fill to be removed or permitted after the fact as part of permitting any proposed upgrades. Although a violation would complicate the design and permitting and elevate the costs of pier upgrades, it is unlikely that it would prohibit a project from moving forward.

Permitting Requirements

The permits required for upgrading the Town pier would depend on the specific design but are expected to be similar to those required for a boat ramp in Prospect Harbor (see Prospect Harbor: Permitting Requirements and Appendix : Individual NRPA Permit Requirements and Preparation for more detailed information about these permits). Some upgrades could be eligible for a PBR if they maintained the existing footprint of the pier, however any expansion work would require an individual permit. Below is a non-exhaustive list of the permits that would likely be required:

- Maine DEP - NRPA Individual Permit
- Maine DACF - Submerged Lands Lease (or update to current lease)
- USACE – Federal Wetlands Permit
- Town of Gouldsboro – Building, Shoreland Zone, and Flood Hazard Development Permits

Recommended Next Steps

Based on the site constraints and permitting considerations we recommend the following implementation phases.

Phase I

The Gouldsboro Resilience Committee submitted a Community Action Grant application to the State's Community Resilience Partnership in August 2025 to support the completion of Phase I. Award decisions are expected by the end of 2025. This grant submission includes the following components:

1 Feasibility Study and Alternatives Analysis

The Feasibility Study will involve a structural assessment of the existing pier to determine the practical feasibility of using and repairing the existing structure. Topographical and boundary surveys will be completed to define the site characteristics. Conceptual designs of options 1 -3 will be developed and refined with stakeholders to address key considerations such as parking, hoist installation, and potential float configurations. Sea level rise and storm surge adaptations will also be incorporated into the designs and implementation costs will be estimated. Stakeholders will work together to select their preferred option based on the conceptual designs and other decision-making criteria.

2 Harbor Charette, Public Presentation, and Report

Gouldsboro will host a charrette session to present designs and findings from the first step to town officials, committee chairs, harbor users, residents, and other key stakeholders. The charrette will gather detailed feedback on design preferences and operational requirements to ensure the proposed solutions truly meet the community's needs and expectations. The goal will be to identify a design for further development. Following the charrette, the Town will incorporate stakeholder input into a refined design recommendation with cost implications and overall project feasibility. This process aims to build stakeholder consensus on the preferred approach and help determine the project's long-term viability from technical, financial, operational, and community support perspectives.

2 Pre Application Coordination

Coordination with Maine DEP will begin at the onset of the project to determine if the property is currently in violation of NRPA, and if so, how that would impact implementation. If the property is in violation, the conceptual designs and feasibility study will incorporate Maine DEP's restoration and permitting requirements into the designs and cost estimates to understand the possible options for bringing the property back into compliance. If it is not in violation, then activities eligible for a PBR will also be evaluated as lower cost options. Maine DEP would be consulted again following the development of preliminary engineering designs. Coordination with USACE would also be part of this process.

3 Preliminary Engineering Design

If the Town chooses to move forward, the preferred pier design will be developed into a preliminary engineering design, which will include additional detail on construction materials, environmental impacts, and estimated costs.

Phase II

4 Final Engineering Designs

Utilizing information gathered in Phase I, permit-ready designs will be prepared for submission with required federal, state, and local permits (see Step 5 below). Following the incorporation of

any comments from regulatory agencies as part of this process, the construction-ready designs will then be prepared for use by the construction contractor.

5 Permitting

It seems likely that an individual NRPA permit will be required for any upgrade work to the pier, however specific permitting requirements will be dependent on the Pre-Application Coordination in Phase I. The permitting may also be complicated by the NRPA violation. See Appendix : Individual NRPA Permit Requirements and Preparation for a detailed description of NRPA permitting and submission requirements. In general, this step will include the preparation of all necessary federal, state, and local permits and coordination with the relevant state and federal agencies, Code Enforcement Officer, and Planning Board.

Phase III

6 Construction

The Town of Gouldsboro will issue a Request for Bids for qualified contractors to construct/repair the South Gouldsboro Harbor Town pier. The contractor will adhere to the prepared engineering designs and all applicable regulatory requirements based on the approved project permits. If desired, a project engineer may provide on-site construction guidance to ensure the pier is installed according to the design specifications.



South Gouldsboro Harbor. © FBE

BUNKERS HARBOR

CURRENT USES

Bunker's Harbor is an active working harbor that supports commercial fishing operations, primarily lobster, including 17 vessels. DB Rice operates a buying station that also provides fuel. The future of the station is uncertain following the owner's death. Two former lobster pounds are located in the harbor, including one that previously operated as a municipal clam hatchery under a Limited Purpose Aquaculture (LPA) license, which is no longer active. The harbor was first dredged in 1968 and is listed as one of the U.S. Army Corps of Engineers' designated navigation projects in Maine.

The harbor is narrow and exposed to southeast storms. A headland at the mouth provides some natural protection, though storm surge and flooding remain a significant risk. During the January 2024 storms, private piers and road infrastructure were damaged, and DB Rice's pier and buying station were inundated. The station's generator was flooded and has since been relocated, but fuel tanks were spared. Town Landing Road was also flooded and repaired with FEMA mitigation funds.

INFRASTRUCTURE INVENTORY

Key infrastructure includes a municipal boat ramp, 7-8 private piers (one destroyed by storms and not yet rebuilt), a mooring field, and very limited public parking (2-3 spots). The town-maintained boat ramp is operational but poorly positioned relative to adjacent piers, accessible only at certain tides, and can haul about three boats per tide. Limited parking creates challenges, with very few town spaces and some private parking allowed by property owners. There is no public tie-up space.

VULNERABILITY ASSESSMENT

Flood Hazards

The BFE ranges from 14 feet near the lobster pound to 15 feet near the harbor mouth. The harbor lies within the VE flood zone, indicating high risk from storm surge and wave action. All shorefront infrastructure sits at 10-12 feet, which is approximately 2-5 feet below the BFE. Portions of Bunker Pound Road providing harbor access are also below the BFE and at risk of flood-related isolation. The harbor's shallow depth, narrow shape, and southeast exposure make it particularly vulnerable to flooding during southeasterly storms.

Sea Level Rise

The current HAT elevation in Bunker's Harbor is about 8 feet. Based on Maine Geological Survey's sea level rise modeling, HAT elevations are expected to rise to approximately 10 feet by 2050 with 1.6 feet of sea level rise, 12 feet by 2100 with 3.9 feet of sea level rise, and 14 feet with 6.2 feet of sea level rise. The current BFE is about 6-7 feet above the current HAT. In the future, the equivalent of today's 1% annual

chance flood event could potentially cause floodwater to reach elevations of 16 to 19 feet or higher, assuming a similar rise in the BFE. These elevations represent high level estimates but provide a relative approximation of future conditions in the harbor.

SUMMARY OF INITIAL COMMUNITY MEETING

In Bunkers Harbor, participants emphasized the need for dredging to improve access, as well as improvements to the public boat ramp and additional tie-up space for vessels. The current boat ramp is undersized, located too close to a private wharf, and heavily relied upon by fishermen from both Bunkers and Prospect Harbors. Attendees suggested relocating the ramp slightly north and converting the old ramp footprint into a public float. Storm-driven erosion was also noted as damaging private wharves and the harbor's soft-sediment edges, while younger fishermen increasingly rely on public infrastructure due to limited private property ownership.

SECOND MEETING AND FOCUS GROUP FINDINGS

No stakeholders from Bunkers Harbor attended the Planning Meeting on November 15th so no Focus Group was held for this harbor. Although harbor users are still interested in relocating the ramp to improve functionality, there are some harbor users—especially those who own private piers—who were concerned about the addition of a public float and tie-up area. Their main concern was that a public float would increase recreational usage of the harbor and therefore increase competition in the already congested harbor. The ramp could be relocated without the addition of a float, but users remain hesitant. The Committee is hopeful that the harbor users will be open to conversations about upgrades to the public boat ramp in the future. Unfortunately, no information about harbor users preferences regarding dredging could be collected, but the Town and Committee are interested in pursuing this effort further.



Bunkers Harbor. © Brett Binns

RECOMMENDED CLIMATE-CHANGE RESPONSE ACTIONS AND DESIGNS

Harbor Priorities and Possible Solutions

Bunker's Harbor faces significant operational and resilience challenges that affect commercial fishing and harbor access. The most pressing concern is access to the public boat ramp, which is critical for hauling vessels prior to storms and for daily operations. The ramp's current location and configuration limit efficiency and safety: it is narrow, approximately 10 feet wide and 77 feet long, with a steep slope of 15-16 percent, and terminates at the mean low water line where the ledge drops off into deeper water. Its proximity to a private pier (only about five feet away) creates congestion during launching and retrieval, complicating operations for both Bunker's and Prospect Harbor fishermen who rely on the ramp. Limited parking further exacerbates these challenges, with only two to three town-managed spaces and a few private spaces temporarily available. Tight working areas and unclear signage create additional operational constraints, particularly during busy periods.

Harbor users have emphasized that improvements to the boat ramp would be the most effective way to address these constraints. Shifting the ramp slightly west of its current location would increase separation from the private pier, improve vessel maneuvering, and enhance haul-out safety. Conceptual planning has also explored constructing a new ramp adjacent to the existing one to evaluate interactions with property boundaries (Map and Map). Alongside the ramp, installing floats could provide staging or temporary tie-up space for fishermen who lack access to private infrastructure. The design of these floats must consider whether shore access via a pier or gangway is necessary, whether pilings are required for stability, and how best to align the structure over bedrock. Any modifications would require coordination with adjacent property owners and compliance with intertidal and zoning regulations.

In addition to boat ramp improvements, harbor users identified dredging as a critical resilience measure. Decades of sediment accumulation, compounded by the January 2024 storms, have reduced water depth and limited access to private piers. Bunker's Harbor is part of the USACE Civil Works program, which maintains commercial navigation waterways under Section 107 of the River and Harbors Act. The harbor was first dredged in 1968 to establish a six-foot-deep anchorage covering approximately three acres in the inner harbor, and USACE remains responsible for maintaining this anchorage. Dredging would restore harbor navigation, improve access for larger vessels, and reduce the impacts of future storms. Parking expansion and improved signage would address congestion and clarify available spaces, supporting safer and more efficient daily operations. Town Landing Road and other low-lying infrastructure are also at risk during flood events, and the Town plans to use FEMA mitigation funds for repairs while exploring adaptation measures such as elevating the roadway and installing grates to improve drainage. Together, these actions would enhance operational efficiency, increase resilience to storm and flood events, and improve overall safety and accessibility for the harbor's commercial fishing community.

Site Conditions and Considerations

Boat Ramp

Property Ownership

Deeds were obtained from the Hancock County Registry for all parcels in Bunkers Harbor (Table 3). The Town of Gouldsboro owns lot 8, which was transferred to the Town by Avery Chipman in 1994. A survey of the parcels was completed in 1965, likely when the owner George Chipman subdivided the parcels for his children (Appendix : Bunkers Harbor 1965 Property Survey). Parcel boundaries were approximated for

this study by georeferencing the PDF lot survey, which provides an adequate visualization of the boundaries for planning purposes. Assuming that the georeferenced lot survey is fairly accurate, the existing infrastructure appears to be offset approximately 13° to 16° to the northeast of the lot boundary bearings. This, along with the limited width of the parcel, presents a challenge for constructing a new boat ramp along the western edge of the existing ramp (Map) because it would likely encroach on the adjacent parcel (Lot 9). It may be possible to construct a new ramp along the western boundary of the parcel, shifting the beginning of the ramp about 7 feet to the west and maintaining the same terminus location (Map). However, this approach could still cause some interference with the private pier and could potentially make it worse by angling the ramp towards the pier and float. Further evaluation of these options with harbor users and a marine engineer is required.

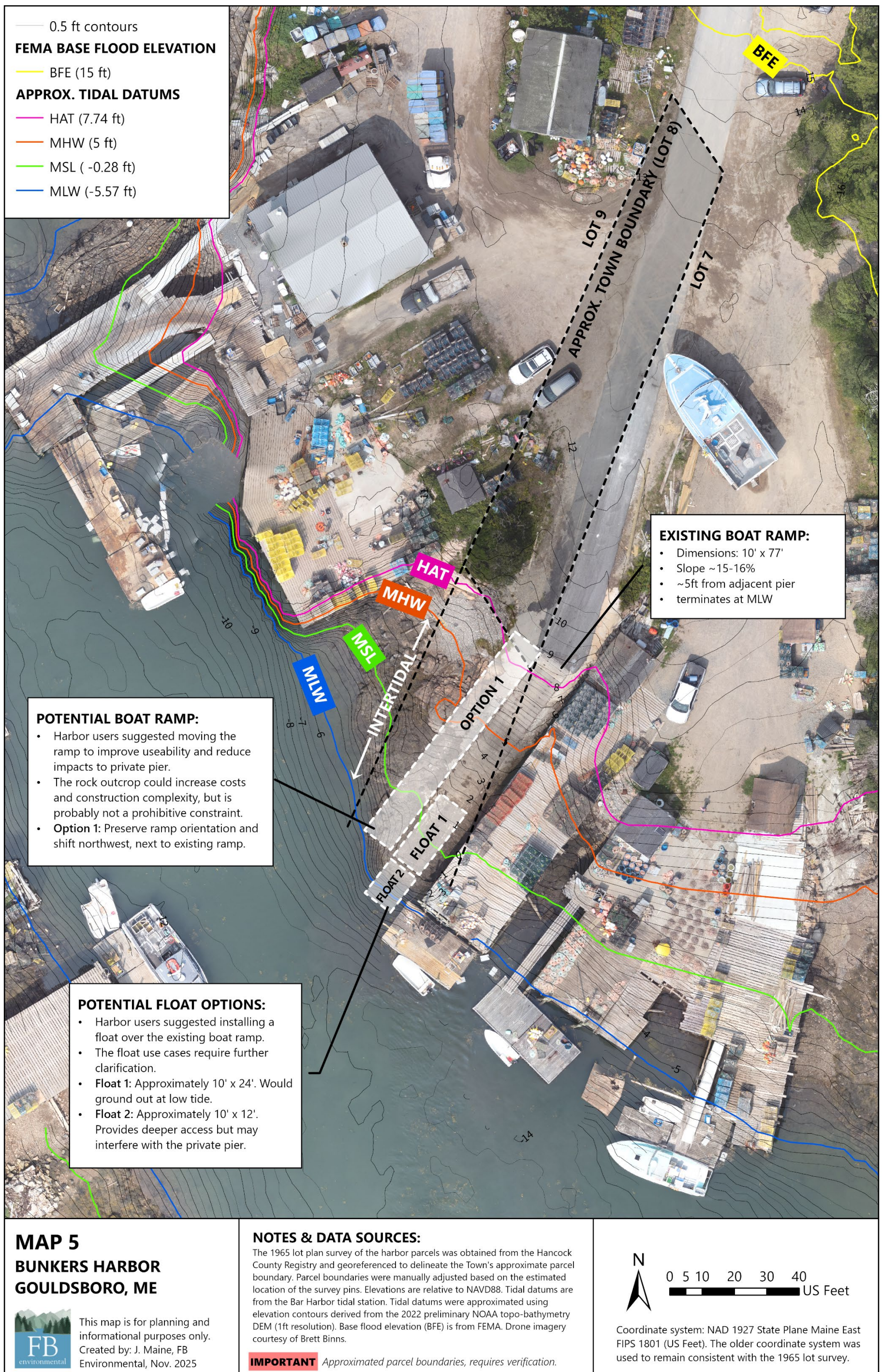
A boundary survey should be conducted by a licensed surveyor to verify the parcel boundaries and inform possible ramp configurations. A quote was obtained from Sewall to conduct a boundary survey, however, they said that they would not complete an independent boundary survey but rather retrace the previous 1965 survey for a fee of \$4,200. At this stage, the 1965 survey appears sufficient for planning purposes, and commissioning a boundary survey was not warranted. The project team recommends that if this project advances to design and engineering, a boundary survey could be coordinated with the topographic survey. The owner of Lot 9 feels confident that there is enough space within the Town's parcel to relocate the boat ramp without encroaching on their property. The project team attempted to locate the property pin based on the owner's description of their parcel boundaries, but no pins could be located.

Table 3. Overview of current parcel ownership in Bunkers Harbor.

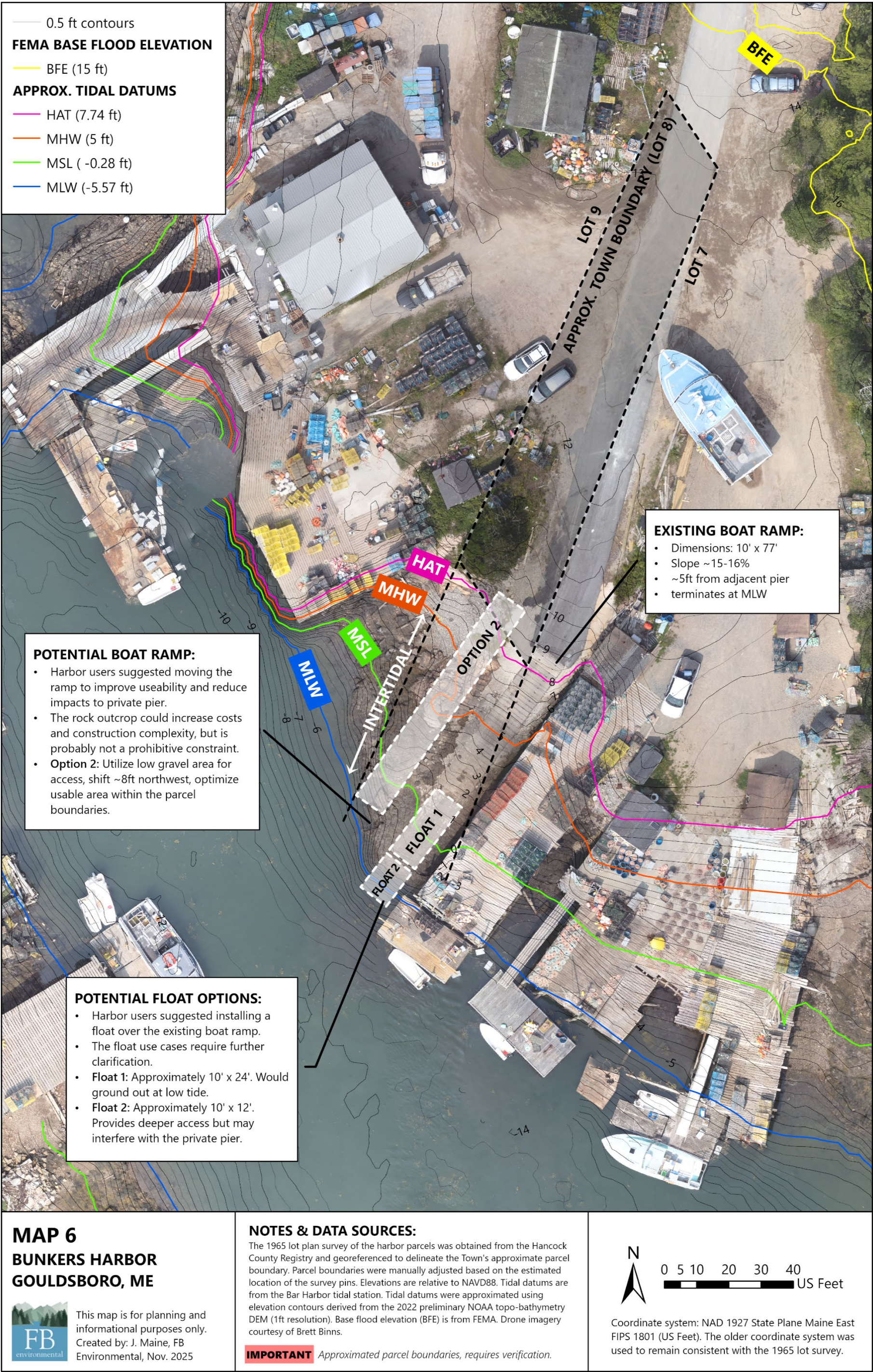
Map/Lot	Owner	Deed	Notes
31-4	Leona Shea	B7251 P131	Purchased from the bank in 2020.
31-5	George Chipman	B966 P5	Purchased in 1964 and then subdivided.
31-6	Dana Rice	B6339 P243	Transferred/sold by Howard Carter in 2014.
31-7	Roger Chipman	B7221 P866	Transferred by Nancy Chipman in 2022.
31-8	Town of Gouldsboro	B2304 P323	Transferred by Avery Chipman in 1994.
31-9	Louann Brenton	B4709 P162	Transferred by Vinton Chipman in 2007.
31-10	Jon Chipman	B4423 P279	Deed not accessible.

Intertidal Ownership

An additional consideration is that any potential encroachment onto Lot 9 would occur in the intertidal zone (mean high water to mean low water). Intertidal ownership in Maine is complex and has had a degree of legal ambiguity for decades. A high-profile court case, *Masucci v. Judy's Moody, LLC*, is currently being litigated by the Maine Supreme Court and is expected to decide who owns and has rights to the intertidal. Generally, the argument is whether the public has rights to use the intertidal for certain activities including fishing, fowling, navigation, and recreation. The Maine Superior Court's decision favored the defendants and private ownership over the intertidal. It is unclear if the construction of a public boat ramp would be considered a public usage right, but most likely not since it involves construction of a permanent structure. If the court decides to turn over all rights to the intertidal to the State, then the Town would most likely have to follow a state process to receive permission to build in the intertidal. Regardless of the court decision, the ideal design from a property rights perspective would avoid encroachment onto the adjacent lot.



Map 5. Reorientation of the public boat ramp, Option 1 for Bunkers Harbor.



Map 6. Reorientation of the public boat ramp, Option 2 for Bunkers Harbor.

Dredging

USACE was contacted to obtain additional information about conditions in Bunkers Harbor. Because this study focuses on Bunkers Harbor, Corea Harbor was not discussed. The Town or Committee may contact USACE directly for further information regarding Corea Harbor. USACE conducts periodic condition assessments of federally maintained harbors to monitor shoaling over time. Bunkers Harbor was most recently surveyed in 2019 and again in December 2024 (see Appendix : USACE Bunkers Harbor Survey Reports). These surveys indicate a moderate degree of shoaling, particularly along the western shoreline. The 2024 survey also shows shoaling along the eastern shore among the piers. Notably, the 2024 assessment was completed following the January 2024 storm events and therefore reflects post-storm conditions.

As of 2024, an estimated 5,248 cubic yards of material could be removed to restore authorized depths in Bunkers Harbor. According to the USACE representative, these conditions suggest that dredging may be necessary, but that shoaling does not appear to be occurring rapidly so a single maintenance dredge may be sufficient to maintain navigability for several decades. Depth requirements were also discussed in the context of increasing vessel sizes over time. USACE is responsible only for maintaining the authorized depth of six feet. Any increase in depth would require a formal modification to the project authorization and a change in federal law.

The US Army Corp of Engineers New England District contact is Christina Comeau, Navigation Section 408 Project Manager (christina.m.comeau@usace.army.mil; 978-318-8705).

Permitting Requirements

Boat Ramp

Unlike both Prospect Harbor and South Gouldsboro Harbor, the Bunkers Harbor boat ramp site is not located within or adjacent to any protected natural resources. There is a coastal wetland located about 175 ft to the northwest (the old lobster pound) and 100 feet to the east. As direct and adjacent wetland impacts are not proposed at this concept stage, the permitting for this project appears to meet a PBR which would substantially reduce the permitting effort required and overall project costs. If the ramp encroaches on the Lot 9 property, then permits would require written permission from the property owner. Below is a non-exhaustive list of the permits that would likely be required, see Prospect Harbor: Permitting Requirements and Appendix : Individual NRPA Permit Requirements and Preparation for more detailed information about these permits:

- Maine DEP - NRPA Permit-by-Rule
- Maine DACF - Submerged Lands Lease (only if the ramp extends below mean low water)
- USACE – General Permit (depending on the design specifications)
- Town of Gouldsboro – Building, Shoreland Zone, and Flood Hazard Development Permits

Dredging

The USACE does not proactively maintain harbors within its navigation portfolio. Communities must notify USACE when a harbor requires dredging and initiate the formal request process. The first step is completing a *Harbor Information Form* (see Appendix : USACE Harbor Information Form) and submitting it to USACE. Following submission, USACE will review the request internally and determine how to

proceed. Before a navigation project can be brought before Congress for funding, USACE must conduct a series of studies and develop a dredging and disposal plan. Securing a place on the list of federally funded navigation projects is competitive and political. Early coordination with Maine's U.S. Congressional delegation is critical, as their advocacy is essential during federal appropriations. Clearly defining the harbor's uses and demonstrating how current conditions hinder navigation or commercial activity will strengthen the case. This is typically a multi-year process requiring coordination between the community, USACE, and federal representatives.

Since Gouldsboro has two harbors within the federal navigation program, the community should consider which harbor is a higher priority for dredging. Additionally, the harbor users should consider whether the current anchorage depth is adequate, and if not, consider the pros and cons of pursuing a modification request. Although it is possible to request an increase in the authorized depth of a federal anchorage, this requires a formal project modification. Such modifications are lengthy and are typically only successful when a significant operational or safety issue exists. The community must provide a justification for the change, after which USACE would evaluate the request through extensive studies. If USACE determines the modification is warranted, they would then advance it to Congress for approval.

Recommended Next Steps

Boat Ramp

Because the permitting for this project is expected to be less complex than either Prospect Harbor or South Gouldsboro Harbor, a feasibility analysis is not warranted so we advise only two implementation phases. Harbor users have noted that work on the Bunkers Harbor boat ramp should not commence until a ramp has been constructed in Prospect Harbor. Early discussions with the adjacent landowner are critical to determine what design options are possible.

Phase I

1 Property Boundary Verification and Permissions

A boundary survey will be completed by a licensed surveyor to confirm the boundaries of the Town's parcel. New property pins could also be set at this time to avoid further confusion about property boundaries in the future. The boundary survey could be conducted as a separate initial step or coordinated with the topographic survey conducted for Preliminary Design and Engineering.

2 Preliminary Design and Engineering

The Town and Harbor stakeholders will work together to decide on a preferred design considering elements such as ramp orientation and possible float configuration. This may require further refinement of the use cases for a new boat ramp and float. Possible design alternatives will also be coordinated with the adjacent lot owner. Working with a marine engineer, the preferred ramp design will be developed into a preliminary engineering design, which will include additional detail on construction materials, environmental impacts, and estimated costs. A topographic survey will also be conducted.

3 Pre Application Coordination

If the preferred design qualifies for PBR, then a pre-application meeting with Maine DEP is not required. However, it would still be advisable to do some initial coordination with Maine DEP and any other relevant agencies to confirm PBR eligibility and discuss any necessary materials needed to confirm permissions from the adjacent landowner, if needed.

4 Final Engineering Designs

Permit-ready designs will be prepared for submission with required federal, state, and local permits. Following the incorporation of any comments from regulatory agencies as part of this process, the construction-ready designs will then be prepared for use by the construction contractor.

5 Permitting

This step will include the preparation of all necessary federal, state, and local permits and coordination with the relevant state agencies. State-level permitting is expected to be less complex for this project, provided that the design qualifies for a PBR through NRPA. A USACE General Permit may need to be prepared if the project design impacts "navigable waters." Local permit applications will be prepared including Building, Shoreland Zoning, and Flood Hazard Development permits, which may require meetings with the Planning Board to discuss the project. The Gouldsboro Code Enforcement Officer will also be consulted to ensure that the project design and construction adhere to all Town ordinances.

Phase II

6 Construction

The Town of Gouldsboro will issue a Request for Bids for qualified contractors to construct a boat ramp and install a float (if included in the final design) in Bunkers Harbor. The contractor will adhere to the prepared engineering designs and all applicable regulatory requirements based on the approved project permits. If desired a project engineer may provide on-site construction guidance to ensure the ramp is installed according to the design specifications.

Dredging

1 Evaluate Bunkers Harbor and Corea Harbor Priorities

The community should first determine whether Bunkers Harbor or Corea Harbor should be prioritized for maintenance dredging. They should also consider whether the authorized depth (six feet in Bunkers Harbor and six to eight feet in Corea Harbor) is adequate for existing and future vessels and if pursuing an increase in depth would be worthwhile.

2 Submit Request Materials to USACE

Once a priority harbor is decided, the community will complete and submit the USACE *Harbor Information Form*. It may also be beneficial to include a letter of intent outlining the specific navigation issues, impacts on commercial or fishing activities, and any safety concerns (see Appendix : USACE Harbor Information Form for an example). USACE will then review the submission and advise on required studies, surveys, and next steps.

3 *Contact Congressional Delegation*

The Town will reach out to Maine's Congressional delegation to inform them of the request and discuss potential support at the federal level. It may also be helpful to consult with other Maine towns that have recently completed USACE navigation requests to gain insight into the process.



Bunkers Harbor. © FBE

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APPENDIX A: CONSIDERATION OF CHANGES TO LAND USE ORDINANCES

Planning for Resilience in Gouldsboro's Working Harbors

Report on Outcomes

Task 7: Consideration of Changes to Land Use Ordinances

December 22, 2025

Bill Zoellick Chairman

Gouldsboro Coastal Resilience Committee

Identification of Issues

Gouldsboro's Planning Board, assisted by its Coastal Resilience Committee, identified two kinds of issues related to Gouldsboro's working waterfront, its coast, and the ordinances that protect them.

- **Near-Term:** Gouldsboro needed to revise its shoreland zoning ordinance to open opportunities for a broader range of marine-related waterfront operations while still protecting waterfront properties from conversion to residential use.
- **Longer-Term:** Gouldsboro needed to develop a plan to guide ordinance review and revisions as it addresses coastal resilience issues in general and working waterfront issues in particular. The plan will guide the Planning Board's work over the next few years.

Addressing the Near-Term Issue

Background

The Stinson sardine canning factory, long one of Gouldsboro's largest working waterfront businesses, ceased operations in 2010. The property changed hands, passing through two lobster processing operations before being sold in 2022 to American Aquafarms, a Norwegian company hoping to create an industrial-scale salmon farm in Frenchman Bay. American Aquafarms announced its intent to repurpose the former cannery as a salmon spawning facility. However, American Aquafarms failed to submit a satisfactory permit application to the Department of Marine Resources. The site was put up for auction in 2023 and was acquired by a trio of local investors who maintained the facility while seeking a buyer who could put it back into operation.

The former canning factory is a large facility with more than 100,000 square feet of commercial space, 1,250 feet of shore frontage, including deep water frontage, and more than 94 acres of land, including easements and upland properties that provide fresh water to the facility. When it was operating as a cannery, everything happening there was either a "functionally water-dependent use," as defined in the State's Guidelines for Municipal Shoreland Zoning Ordinances ("the Guidelines"), or accessory to such water-dependent uses. Consequently, the former Stinson property, operating as a cannery, was a perfect match for its classification as a Commercial Fisheries/Maritime Activities (CFMA) shoreland zone, as defined in the Guidelines.

The investors who purchased the property recognized that large, vertically integrated shoreland operations are much less common now than they were in the 1970s and 1980s,

when the Mandatory Shoreland Zoning Act was enacted and amended. They asked the Town to allow more flexibility in defining permitted uses at the site while still retaining its focus on maritime uses and, most importantly, prohibiting residential uses.

Outreach and Learning

Members of the Coastal Resilience Committee and Planning Board, together with the Harbor Master and Town Manager, met with the site's new owners over several months to gain an understanding of their perceptions of the constraints posed by CFMA zoning and the uses they hoped would be permitted.

The Coastal Resilience Committee and Planning Board learned that the Guidelines anticipated Gouldsboro's need to modify the CFMA district's relatively simple focus on "functionally water-dependent uses" to ensure that other uses do not displace working waterfronts. Page 3 of the Guidelines includes the following note:

NOTE: The development of a waterfront management strategy can be a complex process. There are many different techniques that can be used to tailor an ordinance to reflect local goals and resources. The Commercial Fisheries/Maritime Activities (CFMA) District included in these Guidelines is one approach which is based on allowing as permitted uses only those uses which are functionally water-dependent. But other zoning variations are also possible which may be much more specific about what types of functionally water-dependent uses should be permitted, make use of more than one type of waterfront district, may include standards for assessing the impact of proposed development on water dependent uses, and may include specific provisions to encourage certain types of public benefits.

Actions and Outcomes

The Coastal Resilience Committee and Planning Board worked together to devise a new kind of shoreland zoning district that is a more restrictive version of the General Development (GD) district, as defined in the Guidelines. It is modelled on the CFMA district while providing some additional flexibility regarding permitted activities. Figure 1 illustrates how the new GD district does that.

Figure 1. Example showing the relationship between Gouldsboro's CFMA shoreland zoning district and its new, restricted General Development (GD) district.

<u>LAND USES</u>		<u>DISTRICT</u>				
		SP	RP	LR	GD	CFMA
13.	Agriculture	yes	PB	yes	yes	yes
14.	Aquaculture	PB	PB	PB	yes	yes
15.	Principal structures and uses					
	A. One and two family residential, including driveways	PB ⁴	PB ⁹	CEO	no	no
	B. Multi-unit residential	no	no	PB	no	no
	C. Commercial	no	no ¹⁰	no ¹⁰	PB ¹⁴	PB ⁵
	D. Industrial	no	no	no	PB ¹⁴	PB ⁵
	E. Governmental and institutional	no	no	PB	PB ¹⁴	PB ⁵
	F. Small non-residential facilities for educational, scientific, or nature interpretation purposes	PB ⁴	PB	CEO	CEO	PB ⁵

Note the CFMA district allows Commercial and Industrial land uses, subject to approval by the Planning Board, in compliance with footnote 5. Footnote 5, which appears a page or so later in the ordinance, says, “Functionally water-dependent uses and uses accessory to such water-dependent uses only, except that recreational functionally water-dependent uses such as marinas and recreational fishing and boating facilities are prohibited.”

The Guidelines define “Functionally water-dependent uses” as:

Those uses that require, for their primary purpose, location on submerged lands or that require direct access to, or location in, coastal or inland waters and that cannot be located away from these waters. The uses include, but are not limited to, commercial and recreational fishing and boating facilities, finfish and shellfish processing, fish-related storage and retail and wholesale fish marketing facilities, waterfront dock and port facilities, shipyards and boat building facilities, marinas, navigation aids, basins and channels, shoreline structures necessary for erosion control purposes, industrial uses dependent upon water-borne transportation or requiring large volumes of cooling or processing water that cannot reasonably be located or operated at an inland site, and uses that primarily provide general public access to coastal or inland waters. Recreational boat storage buildings are not considered to be a functionally water-dependent use. (p. 57)

Putting these pieces together, the fragment of Gouldsboro’s Table of Land Uses in Figure 1 is saying that the only commercial or industrial uses allowed on properties in a CFMA district are those that are strictly, directly tied to water-dependent activities. Further, the water-dependent activities cannot be recreational.

Gouldsboro’s Coastal Resilience Committee, Planning Board, and Select Board recognized the importance of restricting parts of its working waterfront to commercial water-dependent activities as defined in Footnote 5 and in the definition of the CFMA district. But the Town had also learned that the old canning factory might be too large for one company to take on unless it could use parts of the property for other revenue-producing activities that might not fit the strict requirements of the CFMA district.

On the other hand, the Town had received inquiries from real estate investors seeking to repurpose the site for high-end shorefront housing and short-term rentals, so it knew it was essential to rule out residential uses.

The solution that emerged from the Town’s deliberations was the creation of a new GD district that mirrored the CFMA district’s approach to constraining land uses in most respects, but that differed in how it constrained activities to functionally water-dependent uses. As shown in Figure 1, Gouldsboro’s GD district replaces footnote 5 with a new footnote numbered 14. Footnote 14 reads, “Floor area for uses that are not functionally water-dependent uses, shall not exceed 75% of the floor area of all principal structures and piers, docks, wharves, bridges and other structures.”

By replacing footnote 5 with footnote 14, Gouldsboro moved away from a black-and-white, all-or-none requirement for functionally water-dependent uses to one that merely requires that a substantial proportion of uses meet this requirement.

Gouldsboro presented the revised Shoreland Zoning Ordinance, including the new GD district,

at a public meeting on July 15, 2025. The revised ordinance was adopted at a special town meeting on July 24, 2025.

In early September 2025, three Maine seafood industry veterans announced that they had partnered to create a new company, Bold Coast Seafood, that had purchased the former Stinson cannery to resume lobster processing operations and to develop a new line of business focused on processing large crabs. Part of what made the purchase possible was the opportunity to lease part of the facility to Wyman's, the Maine-based blueberry company, for frozen storage. This would not have been possible without the Town's work to revise the ordinance.

Although Gouldsboro conceived and designed the new GD district as a tool it can use if it encounters future situations in which the CFMA district is too restrictive for emerging working waterfront needs, it is currently used only to address the former Stinson site.

In the revised shoreland zoning map accompanying the revised ordinance, Gouldsboro's working waterfront areas in its principal commercial harbors other than Prospect Harbor (Bunkers Harbor, Corea Harbor, and South Gouldsboro Harbor) all remain classified as CFMA districts. In addition, most of the shoreland in Prospect Harbor is classified as a CFMA district.

The revised Shoreland Zoning Ordinance and the associated zoning maps are attached to this report.

Addressing the Longer-Term Issues

Addressing the near-term problem was reasonably easy because the problem was well-defined: A large, valuable part of the Town's working waterfront was in danger of becoming a "white elephant" because permitted uses were too restrictive. The solution was relatively straightforward.

Looking ahead to the issues that Gouldsboro will need to address along its shoreline over the next decade, the number of problems and their variety expand.

- Sea-level rise, storm surge, larger storms, and other effects of climate change can have outsized impacts on a small town with so much coastline. Gouldsboro's Climate Change Vulnerability Assessment identifies many of those threats, and its Coastal Resilience Committee has been working to address the most dangerous vulnerabilities. However, much of the Town's response to these vulnerabilities may require changes to its Shoreland Zoning, Site Plan Review, Subdivision, and other land-use ordinances within the Planning Board's domain.
- Gouldsboro's real estate prices have grown at an alarming rate since COVID. Climate change has accelerated this growth. Many new arrivals are from areas that have become hotter or more vulnerable to drought and fires, such as the mid-Atlantic states and California. Another contributing factor is the recent explosion of Gouldsboro's short-term rental market, which has attracted new investment in properties used solely for short-term rentals.

Each of these changes, independently and jointly, threatens not only the three harbors that have been the focus of this project but also the entirety of Gouldsboro's coast. The coast is where the effects of climate change are most readily apparent and where real estate development pressure is the greatest.

Gouldsboro's Planning Board was in the midst of revising the Town's comprehensive plan, which provided an opportunity for the Planning Board and the Coastal Resilience Committee to expand their collaboration beyond near-term threats to consider longer-term issues and to develop strategy and policy recommendations. The partnership focused on the following chapters and topics.

- **Transportation**, to consider climate-related vulnerabilities on Town roads.
- **Fiscal Capacity and Capital Improvement Plan**: consider how incorporating potential climate change impacts requires greater attention to uncertainty and risk in developing the plan and in estimating the timing of probable capital expenditures.
- **Marine Resources**, to consider the probable scale and timing of improvements to harbor infrastructure related to climate change and to assess potential impacts on fishery harvests.
- **Water Resources**, to consider climate-related impacts on groundwater resources.
- **Natural Resources**, to consider the impacts of climate change and residential shoreland development on the Town's natural and scenic resources.
 - **Agriculture and Forestry**, to consider the long-term challenges to farming and forestry posed by climate change.
 - **Climate Adaptation**, to summarize the organizational structures and procedures that Gouldsboro has developed to facilitate climate adaptation and to formulate policies and strategies to guide the Town's work and investment over the next 10 years.
 - **Existing and Future Land Use**, to recommend land use policies and strategies related to the issues described above.

The draft comprehensive plan can be downloaded from the [Gouldsboro Shore website](#).

APPENDIX B: HARBOR MASTER HARBOR PLAN

3 Year Plan for Harbors

- 2024-2025 – Continue to get everyone who has a mooring in Town to pay their mooring fee. Develop a document to be able to search for information on a person's phone numbers, by boat or by harbor. Install ramp blocks at Bunker Harbor. Develop a plan and get a quote to extend the boat ramp at South Gouldsboro.
- 2025-2026 – Create a diagram of each Harbor containing boat location and owner. Work with Bill Zoellick to see if we find some grant money to get an engineering assessment of the South Gouldsboro Town Wharf. If we are successful in securing grant money, after receiving the results, make a presentation to the Town regarding those results.
- 2026-2027 – If we get a favorable response from the Town, we would look to see if we could secure some or all the funds to make the necessary changes to make the South Gouldsboro Wharf usable.

This action would start with year 2024 and 2025 and continue for years to come in looking for ways to prepare our Town Harbor infrastructure for the changes of climate change and sea level rise.

APPENDIX C: WORKING WATERFRONT INVENTORY TABLE

Working Waterfront Inventory Sections Completed for Prospect Harbor, South Gouldsboro Harbor, and Bunkers Harbor:

- (A) Coastal Waters and Access
- (B) Commercial Fishing and Aquaculture*
- (C) Marinas, Moorings, Wharves, and Piers
- (D) Shoreside Support Infrastructure and Businesses

(A) Coastal Waters and Access				
Data points	Measurements	Improvements Needed/ Maintenance Status	Monitoring Frequency	Data/Information Source
Water access points for boats	Prospect - None Bunker's - Town Boat Ramp S. Gouldsboro - Town Boat Ramp	Prospect - construct a boat ramp Bunker's - Insufficient parking - Adjust the location of the ramp to improve accessibility S. Gouldsboro - Insufficient parking - Designated commercial fishing parking spots	Annually	Review State and local boating access: https://www.maine.gov/dacf/parks/water_activities/boating/public_boat_launches/boat_sites.shtml Discussions with the Harbor Master/Shellfish Warden and site visit. Review marine resource section of current comprehensive plan or harbor management plan
Traditional walk-in access points (Intertidal marine resource harvesting, e.g., clams, worms, seaweed, periwinkles, etc.)	Prospect - Walk in access for clams at the head of the harbor	none	Biannually	Discussions with the Harbor Master/Shellfish Warden. https://gouldsboroshore.me/2022/01/18/mapping-and-researching-access-points/ https://gouldsboroshore.me/projects/

(A) Coastal Waters and Access				
Harbor area	Town defines this as the working part of the harbor including the piers and mooring field.	Increasing vessel sizes	Every 3-5 years	Measurements can be taken from a NOAA nautical chart (see page 5 of <i>Brunswick's Harbor Management Plan</i> for an example of this method).¹ Measurements can also be taken using GIS maps and/or Google Earth (to access the extreme low water mark from 2016) Approximate acres can be assessed using the measuring tool in the Community Intertidal Data Portal's Balancing Intertidal Uses web map²
Dredging/ deep-water access	Bunker's - 1 area, dredged in 1976 (boats are bottoming out here, according to the Harbor Master) S. Gouldsboro - None Prospect - None	Bunkers Harbor needs to be dredged. Army Corps confirmed.	Every 3-5 years	U.S. Army Corps of Engineers - List of Maine navigation projects: https://www.nae.usace.army.mil/Missions/Navigation/Maine-Projects/ Review marine resource section of current comprehensive plan or harbor management plan https://www.nae.usace.army.mil/Missions/Navigation/Maine-Projects/

¹ <https://www.brunswickme.org/DocumentCenter/View/1050/Harbor-Management-Plan-PDF>

² Refer to the User Guide on the home page for more information on how to use the measurement tool, which is a ruler icon: <https://community-intertidal-data-portal-gpcog.hub.arcgis.com/>

(A) Coastal Waters and Access				
Water- dependent use zoning and/or exclusive commercial fishing/ maritime districts	Bunker's - Commercial Fisheries/Maritime Activities Prospect - Commercial Fisheries/Maritime Activities - General development (zoning changed in 2025 to allow for more flexibility but maintain maritime uses) S. Gouldsboro - Commercial Fisheries/Maritime Activities	Long term climate adaptation needs to be considered over the long term	Every 3-5 years	Review zoning maps and ordinances, specifically the shoreland zoning and floodplain management ordinances Discussion with the planning/zoning committee Contact town planner or regional planning organization https://d10pnika4r7usm.cloudfront.net/documents/properties/GouldsboroShorelandZone-map.pdf
Submerged lands	Prospect - Pier Bunker's - none S. Gouldsboro - breakwater/pier/jetty	none	Every 5-10 years	Contact the Submerged Lands Program - Maine DACF Bureau of Parks and Lands: https://www.maine.gov/dacf/parks/about/submerged_lands.shtml

(A) Coastal Waters and Access				
Open space/ conserved coastal land	Prospect Harbor - 70.11 acres, Federal, Tract 1 (parcel name) - 52.13 acres, Federal, Tract 1 (parcel name) - 285.41 acres, Federal, Tract 1 (parcel name) - 3.10 acres, Private, Peninsula School Onsite (parcel name) Bunker's - 68.98 acres, Private, Maine Coast Heritage Trust (owner) S. Gouldsboro - Yes, less than 1 acre. MCHT owns it (parking + water access)	Undetermined	Every 5 years	Review conserved lands GIS data in the Maine GeoLibrary Data Catalog: https://www.maine.gov/geolib/catalog.html ³ Review land use sections in current comprehensive plan Discuss with local/regional land trusts https://maine.hub.arcgis.com/datasets/maine::maine-conserved-lands-1/explore?location=44.412644%2C-68.006906%2C14.15
Underwater/ intertidal cultural resources	None	N/A	Every 5-10 years	Review DACF's comprehensive planning data set (this is not necessarily exhaustive data): https://www.maine.gov/dacf/municipalplanning/comp_plans/planning_data.shtml Review the National Register of Historic Places: https://www.nps.gov/subjects/nationalregister/database

³ Open the Maine conserved lands data layer, and zoom in to your town on the ArcGIS hub site or download the data layer:
<https://maine.hub.arcgis.com/datasets/a6797f12a07b4229bc2501d3741c98d4/explore?location=45.199304%2C-69.003000%2C7.97>

(A) Coastal Waters and Access

				-research.htm Review the Maine Historic Preservation Commission: https://www.maine.gov/mhpc/programs/national-register-of-historic-places Contact Tribal Historic Preservation Offices: https://www.mitsc.org/resource-topics/tribal-sites Contact local historical societies https://www.nps.gov/subjects/nationalregister/database-research.htm#table
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*Notes: Open space/conserved land and cultural resources in general are likely to be included in the land use and cultural/historical resources inventory sections of comprehensive plans. Including these topics in the marine resources inventory would be limited specifically to coastal land and cultural resources. Alternatively, this information can be incorporated by reference to other sections in a comprehensive plan.

(B) Commercial Fishing and Aquaculture*

Data points	Measurement	Improvements Needed/ Maintenance Status	Monitoring Frequency	Data/Information Source
Commercial fishing permits/licenses operating from a town	Town of Gouldsboro: - State Fishing Licenses, 2023 (lobster only): 92 - o Prospect Harbor: 12	N/A	Biannually	Federal: NOAA Fisheries has a database of federally-permitted fishing licenses by home port state and city: https://www.greateratlantic.fisheries.noaa.gov/public/public/web/NEROINET/aps/permits/data/index

(B) Commercial Fishing and Aquaculture*

	- State Fishing Licenses, 2023 (all species <i>except</i> lobster): ○ Commercial Fishing: 49 ○ Commercial Shellfish: 13 ○ Elver: 15 ○ Marine Worm: 26 ○ Scallop: 16 ○ Sea Urchin: 4 ○ Green Crab: 2 <i>DMR breaks out some data by harbor, but of the three harbors, only lobster license data for Prospect Harbor was broken out.</i> - Federal Fishing Permits, 2024 (multi species): ○ Bunkers: 2 ○ Prospect: 15 ○ S. Gouldsboro: 3			x.html ⁴ -AND- State: Maine DMR Licensing Division has compiled a spreadsheet that summarizes the number and type of State-issued commercial fishing licenses and standard aquaculture leases (but not experimental or LPAs) in a town. The spreadsheet for 2022 is available on MCFA's website: https://www.maineoastfishermen.org/working-waterfront-inventory ⁵ -AND- Local: Town clerk (for municipal shellfish licenses and/or river herring leases, if applicable)
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⁴ Scroll down to 2022 Vessel Permits, then click on the desired file type (.pdf, .xls, .csv) to download the data file. Once downloaded, sort by "Home Port State" column, then sort by "Home Port City" column to get the list of federal fishing permits operating from a town. This data also includes the number and name of fishing vessels and owners.

⁵ Alternatively, submit a data request to the DMR Licensing Division by filling out the harvester request form, which can be found online - <https://www.maine.gov/dmr/commercial-fishing/licenses/index.html> - or by calling (207) 624-6550.

(B) Commercial Fishing and Aquaculture*				
Commercial fishing vessels	Prospect Harbor - 28 vessels S. Gouldsboro Harbor - 14 vessels Bunkers Harbor - 17 vessels	N/A	Annually	Federal, State, and local: Maine DMR Licensing Division has compiled a spreadsheet that summarizes the number of commercial fishing vessels (by length in feet) in a town. The spreadsheet for 2022 is available on MCFA's website: https://www.maineoastfishermen.org/working-waterfront-inventory ⁶ Harbor Master
Commercial fishing landings and aquaculture harvest⁷	2024 DMR Landings Data: Prospect Harbor - Total Weight: 1,539,170 - Total Value: \$8,013,847 - Total Trips: 2,229 Gouldsboro - Total Weight: 420,605 - Total Value: \$2,866,108	N/A	Biannually	Federal, State, and local: Maine DMR has a fisheries landings data portal. Please read the "About" page first to learn about the data caveats and confidentiality, how to use the portal, and who to contact with questions: https://mainedmr.shinyapps.io/Landings_Portal/ Then download data for ports in your town by following instructions in Appendix B.

⁶ Alternatively, a similar spreadsheet may be accessed through the data packages that Maine DACF/Municipal Planning Assistance Program provides for comprehensive plans (https://www.maine.gov/dacf/municipalplanning/comp_plans/planning_data.shtml). Click on any town listed under the most recent year, and download the data package (zip file). Then open the marine resources folder, select the Excel spreadsheet, and click on the corresponding vessel worksheet, then find your town, and enter total vessel number and, if desired, length categories. DMR compiles these data on a biannual basis from the Inland Fisheries and Wildlife boater registration database, and it represents the vast majority of commercial fishing vessels that hold State and federal fishing licenses.

⁷ At the time of publication, species harvested on aquaculture leases are currently included in the Maine commercial landings, and are not separated out by mode of harvest. This reporting structure started in 2021, and aquaculture harvest may start to be separated from wild harvest species in 2023. When this change occurs, the data source for aquaculture harvest will be revised. Please note landings data for the most recent year are not typically available until March or April of the following year.

(B) Commercial Fishing and Aquaculture*

	- Total Trips: 1,327 <i>DMR breaks out some data by harbor, but of the three harbors, only landings data for Prospect Harbor was broken out. South Gouldsboro and Bunkers Harbor are assumed to be captured under "Gouldsboro".</i> By species for all Gouldsboro's harbors combined: Lobster - Total Weight: 3,297,903 - Total Value: \$20,496,316 - Total Trips: 6,613 Elver - Total Weight: 356 - Total Value: \$428,500 - Total Trips: 124 Menhaden - Total Weight: 499,800 - Total Value: \$257,398 - Total Trips: 53 Sea Scallop - Total Weight: 2,705 - Total Value: \$53,919 - Total Trips: 29 Softshell Clam - Total Weight: 15,779			
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(B) Commercial Fishing and Aquaculture*				
	- Total Value: \$46,175 - Total Trips: 187			
Seafood dealers/buyers	Prospect - DB Rice (buyer), this will be sold and another company to take over - Lobster Trap (buyer) - Inland Seafood (buyer) Bunker's - DB Rice (buyer) S. Gouldsboro - none - Fisherman truck their catch to DC Air	S. Gouldsboro would benefit from an onsite buying station like there used to be in the past. This would have to be a private industry initiative though.	Biannually	Federal: NOAA Fisheries maintains a dealer permit database for federally-managed species: https://www.greateratlantic.fisheries.noaa.gov/public/public/web/NEROINET/aps/permits/data/index.html ⁸ -AND- State: Submit a data request to the DMR Licensing Division by filling out the dealer data request forms, which can be found online (and select all license types): https://www.maine.gov/dmr/commercial-fishing/licenses/index.html or call (207) 624-6550. The spreadsheets for 2022 are available on MCFA's website.
Acres of mudflats	Prospect Harbor* - 198.63 acres - no clamming in the working part of the harbor according to the Harbor Master	N/A	Biannually	Review marine resource section of current comprehensive plan Community Intertidal Data Portal: Shellfish Conservation Map Viewer - use the measurement tool (select area measurement and acres) to measure approximate mudflats between mean

⁸ Scroll down to 2022 Dealer Permits, then click on the desired file type (.pdf, .xls, or .csv) to download the data file, and sort by "state" and "city." This provides information on dealers who are permitted to sell and/or process federally-managed species.

(B) Commercial Fishing and Aquaculture*				
				high water (MHW) and mean low water (MLW) ⁹ * https://community-intertidal-data-portal-gpcog.hub.arcgis.com/apps/b52bffa2d194bff93cb17220407c08b/explore
Water quality status of shellfish growing areas	Prospect Harbor - 198.63. Head of the harbor is open, lower part is closed for OBDs. This is a conservation closure	N/A	Biannually	DMR Public Health GIS map viewer (click on any growing area, and a pop-up window will identify the acreage, classification, and conditional area details): https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=3b3450693fe54bf497004b153e536de8 https://experience.arcgis.com/experience/9a77c51d546247739a7cfc5ed11bd0bf#data_s=id%3AdataSource_1-1947058ae7c-layer-12-1%3A6
Aquaculture leases and Limited Purpose Aquaculture (LPA) licenses	Bunker's - 1 LPA: soft shell clam, inner Bunker's Harbor (CLOSED) for municipal clam hatchery S. Gouldsboro - 1, 20 acre kelp lease outside the harbor held by Springtide Seaweed who operates out of the harbor	none	Biannually	DMR Aquaculture map and lease inventory (search map and/or interactive data tables by town): https://www.maine.gov/dmr/aquaculture/maine-aquaculture-leases-and-lpas/aquaculture-web-map https://www.maine.gov/dmr/aquaculture/maine-aquaculture-leases-and-lpas/aquaculture-web-map

⁹ <https://community-intertidal-data-portal-gpcog.hub.arcgis.com/apps/local-shellfish-conservation-management/explore>. Refer to the User Guide on the home page for more information on how to use the measurement tool, which is a ruler icon. The DACF Bureau of Parks and Lands website provides information on how to determine the MLW mark: https://www.maine.gov/dacf/parks/about/sublands_lowwater.shtml

(B) Commercial Fishing and Aquaculture*

Working Waterfront signage	On Route 1 coming into Gouldsboro, not located at each of the harbors	Could add designated commercial fishing parking signs at the harbors to help with parking congestion and conflicts.	Every 5 years	Contact harbormaster
Recreational boats	Prospect Harbor - 4 vessels S. Gouldsboro Harbor - 14 vessels Bunkers Harbor - none	NA	Biannually	Contact Maine Department of Inland Fisheries and Wildlife Licensing Division to request data for all recreational vessels by town (specify # of boats registered to operate in "saltwater" and "both" [saltwater and freshwater]): (207) 287-8000

(C) Marinas, Moorings, Wharves, and Piers

Data points	Measurement	Improvements Needed/Maintenance Status/Meets Demand	Monitoring Frequency	Data/Information Source
Moorings	150 total* S. Gouldsboro = 20	Bunkers and Prospect Harbor mooring fields are pretty maxed out, but S.	Every 3-5 years	Review comprehensive /harbor management plans Review coastal waters/harbor

(C) Marinas, Moorings, Wharves, and Piers				
	Prospect Harbor = 29 Bunker's Harbor = 20 *2024 Comprehensive Plan	Gouldsboro has additional capacity especially if the layout was planned more strategically.		ordinances Contact harbormaster ¹⁰
Boatyards/marinas	None	NA	Every 3-5 years	Online search Contact harbormaster
Recreational slips/ commercial berthing	None	NA	Every 3-5 years	If privately owned, contact marina owners Review comprehensive/harbor management plans Contact harbormaster and fishing/lobster license holders
Wharves/piers	Prospect Harbor - Total: 6 - Public: 1 - Private Commercial: 5 S. Gouldsboro Harbor - Total: 4 - Public: 1 (currently closed) - Private Commercial: 2	The public pier in S. Gouldsboro is currently closed due to safety concerns. This pier needs to be repaired/rebuilt to ensure fisherman have access. There are also concerns about the ownership and future of the 2 commercial private piers.	Every 3-5 years	Satellite imagery (Google Maps/Earth) Review comprehensive /harbor management plans Contact harbormaster and fishing/lobster license holders Review town-approved wharfing out permits If privately owned, contact owners

¹⁰ If the town utilizes OnlineMooring software, they should be able to query their database for this information.

(C) Marinas, Moorings, Wharves, and Piers				
	- Private Recreational: 1 Bunker's Harbor - Private Commercial: 7-8 - One pier was destroyed in the '24 storm and has not been rebuilt yet.			
Discreet working waterfront¹¹	None, exists in cooperation between people	NA	Every 3-5 years	Contact fishing/lobster license holders and riparian landowners
Anchorage	None	NA	Every 5-10 years	Review harbor/waterfront ordinances Contact harbormaster Review NOAA nautical charts for federal "Special Anchorage" areas
Broadside berthing (used for transient dockage and/or unloading)	None	NA	Every 3-5 years	Contact harbormaster Review comprehensive/harbor management plans

¹¹ It is possible there will be overlap between the 'wharves and piers' data point and 'discreet working waterfront'; however, these are listed separately as to not diminish the importance of discreet working waterfront that may serve a fewer number of harvesters and/or may not be used as an access point or loading/unloading point. Try to reduce any redundancy by defining what wharves and piers would be classified as 'discreet' and only including these in this data point. For more information about discreet working waterfronts, refer to this article: <https://asbpa.org/publications/shore-and-beach/shore-beach-in-2022-vol-90/discreet-working-waterfronts-are-a-lifeline-for-maine-fishermen/>

(C) Marinas, Moorings, Wharves, and Piers				
Marine travel lift	None	NA	Every 5-10 years	Contact harbormaster If privately owned, contact marina/wharf owners
Ground out for maintenance (area to beach/ground boat to conduct maintenance)	Prospect - New land recently donated to the Town, currently used as ground out area Bunker's + S. Gouldsboro - Kind of, located on private land	none	Every 10 years	Contact harbormaster If privately owned, contact marina/wharf owners
Emergency boat landing (in the case of severe weather, e.g., hurricane, where boats may need to be hauled out)	Prospect Harbor - None - Currently use ramp at Bunkers - A private, commercial ramp is planned for the cannery and may provide additional access Bunkers Harbor - Public boat ramp - Configuration is not optimal and only partial tide access (can haul about 4 boats a tide) S. Gouldsboro Harbo - Public boat ramp	Prospect Harbor needs a public boat ramp. Bunkers harbor boat ramp needs to be relocated to avoid interference with other infrastructure and potential increase tidal access.	Every 5-10 years	Contact harbormaster

(C) Marinas, Moorings, Wharves, and Piers

Harbor or bay management plan	Harbor Master has 3-year plan for the harbors	none	Every 10 years	Contact harbormaster
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(D) Shoreside Support Infrastructure and Businesses

Data points	Measurement	Improvements Needed/ Maintenance Status/Meets Demand	Monitoring Frequency	Data/Information Source
Fishing Co-op	None	N/A	Every 3-5 years	Review comprehensive/harbor management plans Contact harbormaster or Co-op
Ice seller (specific to marinas, wharves, etc.)	Truck in ice. DC Air operates out of Winter Harbor (is also biggest buyer of lobster in Gouldsboro)	none	Every 3-5 years	Review comprehensive/harbor management plans Contact harbormaster or fishing/lobster license holders
Bait storage or other cold storage	Refrigerator Trucks	none	Every 3-5 years	Review comprehensive/harbor management plans Contact harbormaster or fishing/lobster license holders and aquaculturists

(D) Shoreside Support Infrastructure and Businesses				
Bait seller	DB Rice	none	Every 3-5 years	Review comprehensive/harbor management plans Contact harbormaster or fishing/lobster license holders
Gear storage (lobster traps, fishing nets, line, aquaculture gear, etc.)	On private wharves	none	Every 3-5 years	Contact fishing/lobster license holders and aquaculturists
Trash disposal (specific to marinas, wharves, etc.)	No	none	Annually	Contact public works department, harbormaster, or fishing/lobster license holders
Fueling station (marine gas/diesel)	Prospect - Yes, DB Rice + inland, maybe lobster trap - a few private fishermen have own fuel S. Gouldsboro - none Bunker's - DB Rice	S. Gouldsboro fishermen would like to be able to purchase fuel in the harbor, so they don't have to lug fuel cans.	Every 3-5 years	Contact harbormaster or fishing/lobster license holders
Commercial offloading (areas designated for commercial fishing/aquaculture offloading)	Prospect Harbor - Town owned pier (not designated, but	none	Every 3-5 years	Contact harbormaster, fishing/lobster license holders, and aquaculturists

(D) Shoreside Support Infrastructure and Businesses

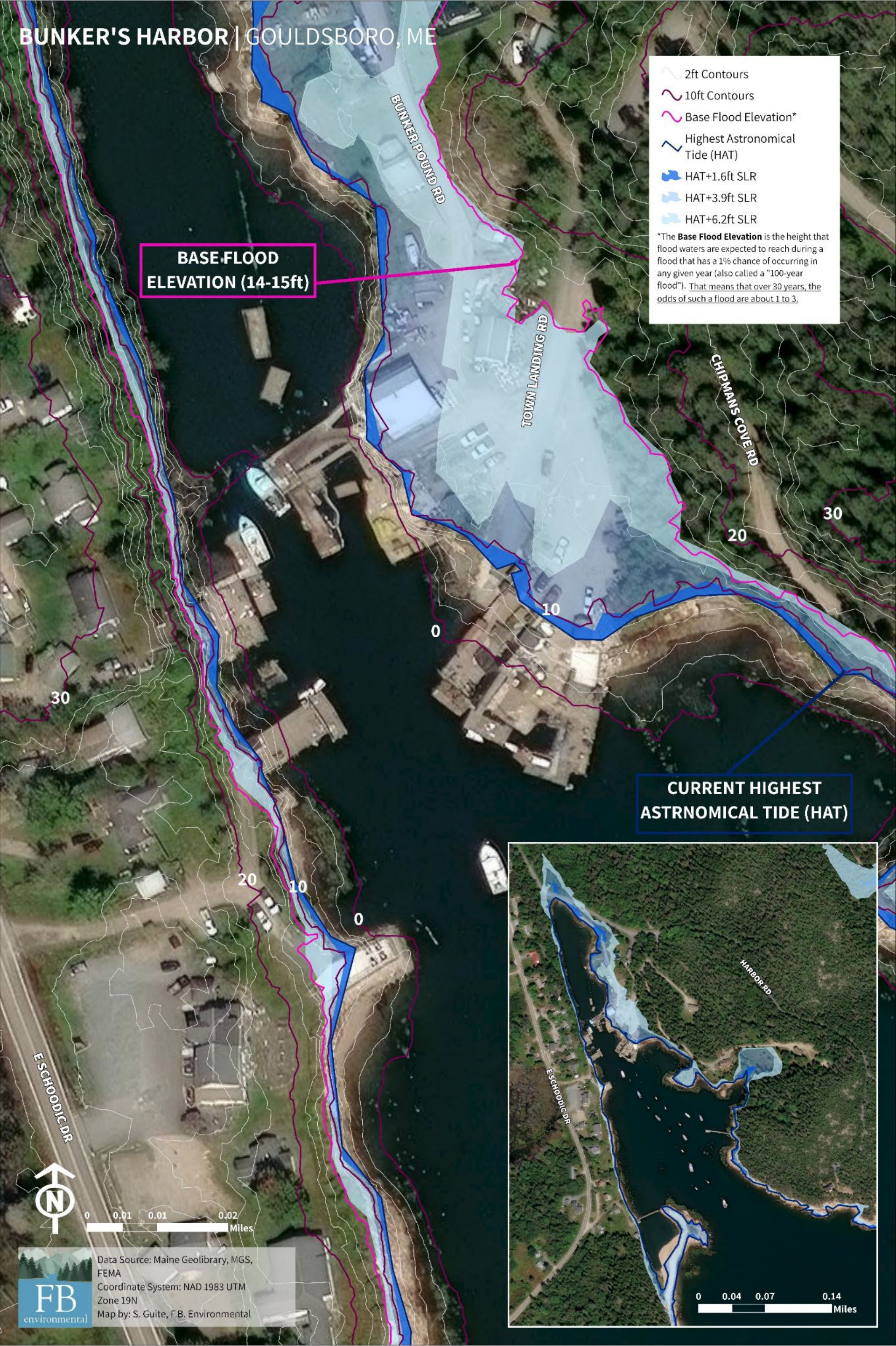
	it happens) - Fishermen's trucks - Can only buy off of a private pier S. Gouldsboro Harbor - Used to use Town owned pier (- Now use public boat ramp - Private commercial piers Bunkers Harbor - use public boat ramp - Private commercial piers - DB Rice buying station			
Crane	Prospect Harbor - Hoist on public town dock	S. Gouldsboro fishermen would like a hoist on the Town pier.	Every 3-5 years	Contact harbormaster If privately owned, contact marina/wharf owners
Utilities	On private piers	none	Every 5 years	Contact public works department If privately owned, contact marina/wharf owners
Shore power (specific to aquaculture or commercial fishing)	None, fishermen use extension cords	none	Every 10 years	Contact harbormaster If privately owned, contact marina/wharf owners

(D) Shoreside Support Infrastructure and Businesses				
Pump out station	None	N/A	Every 10 years	Contact harbormaster If privately owned, contact marina/wharf owners *https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=d7c7e6027dce4109897f95289ac00f40
Parking (for marine-dependent uses, e.g., commercial fishing, aquaculture, etc.)	Prospect Harbor - ~5 spots Bunker's - ~3-5 spots S. Gouldsboro - ~3 spots	Inadequate in all harbors. High recreational use in S. Gouldsboro conflicts with commercial fishing parking needs, but currently private landowners allow additional parking on their property.	Annually	Count parking spaces Contact harbormaster or fishing/lobster license holders and aquaculturists Review comprehensive/harbor management plans
Vessel repair	None, will haul out and go somewhere or do it themselves	none	Every 3-5 years	Review comprehensive/harbor management plans Contact harbormaster
Boat building	None	NA	Every 3-5 years	Review comprehensive/harbor management plans Contact local business

APPENDIX D: COASTAL FLOODING AND SEA LEVEL RISE MAPS







APPENDIX E: REPORT ON FOCUS GROUP FINDINGS

Planning for Resilience in Gouldsboro's Working Harbors

Task 6: Report on Focus Group Findings

December 27, 2025

Bill Zoellick

Chairman

Gouldsboro Coastal Resilience Committee

Introduction

The initial plan for the project was to hold a first meeting with stakeholders from each harbor in the spring to elicit a broad range of concerns, followed by focus group sessions with select participants to narrow the focus to the most pressing and essential concerns. We planned to spend the summer developing proposed actions to address the concerns. In the fall, we would meet again to present the proposed actions to stakeholders for feedback that would serve as the basis for proposals seeking funds to implement them.

The work that fishermen and other stakeholders did during the initial meeting was surprisingly well-focused. Rather than the broad range of issues that we expected, each group identified a single improvement to the Town's harbor infrastructure in that harbor that would make a substantial difference in mitigating climate impacts and, in some cases, improving working waterfront functionality. Here is the list that emerged from that meeting.

- **Prospect Harbor:** A recent donation of additional shorefront property to the Town opened the possibility of building a boat launch ramp in the vicinity of the Town pier. The launch ramp would enable fishermen to haul their boats in advance of large storms. The fishermen described this as a "game-changer."
- **South Gouldsboro:** The Town jetty in South Gouldsboro has been battered and eroded by storms over the past decade. It still serves as a breakwater, but can no longer serve as a wharf that fishermen and seaweed harvesters can use to unload their harvests. Participants told us that restoring the jetty for loading bait and unloading harvests was the most important step the Town could take to return South Gouldsboro's working waterfront to productivity.
- **Bunkers Harbor:** In this harbor, the Town launch ramp is immediately adjacent to a private wharf. If the wharf owner's boat is tied to his float at the end of the wharf, access to the ramp is impossible. In addition, it is sometimes necessary to trespass on the private wharf during launching and hauling boats. The group from Bunkers believed it would be possible to reorient the launch ramp within the Town's property to solve this problem. It might also make it possible to install a badly needed public float at the launch ramp's current location.

These actions were sufficiently specific to enable the project team to spend the summer developing early-stage conceptual plans for what meeting participants hoped the Town would do. Since we did not need the focus group sessions to narrow the focus of participants' requests, we decided to use them during the fall meeting, where we would present our summer's findings to harbor stakeholders. The focus groups would enable us to obtain detailed feedback from fishermen and other harbor stakeholders on our conceptual designs for each harbor.

Method for All Three Harbors

As in the initial May meeting, the November 15 meeting divided participants into three groups, one for each harbor. Of the 22 people participating in the meeting, 11 were in the Prospect Harbor group, and eight were in the South Gouldsboro group. There was only one person in the Bunkers Harbor group, and he was a fisherman on the Coastal Resilience Committee who was prepared to lead the discussion for that group. Two people, harbor master Mike Pinkham and Coastal Resilience Committee Chair Bill Zoellick, circulated among the groups rather than participating in any one of them.

Because there were no fishermen or other stakeholders from Bunkers Harbor, aside from the person who would have led the group, we did not proceed with focus group work for that harbor. This was unfortunate, but not a substantial problem in the short term because, with agreement with the Bunkers Harbor representative on the project team, we have decided to focus near-term investment and action on Prospect Harbor and South Gouldsboro Harbor. The reason for this decision was that the work in Bunkers Harbor would involve replacing and reorienting the launch ramp. Currently, fishermen from both Prospect Harbor and Bunkers Harbor use that ramp. Consequently, we have decided to postpone the Bunkers Harbor work until we have an operational ramp in Prospect Harbor.

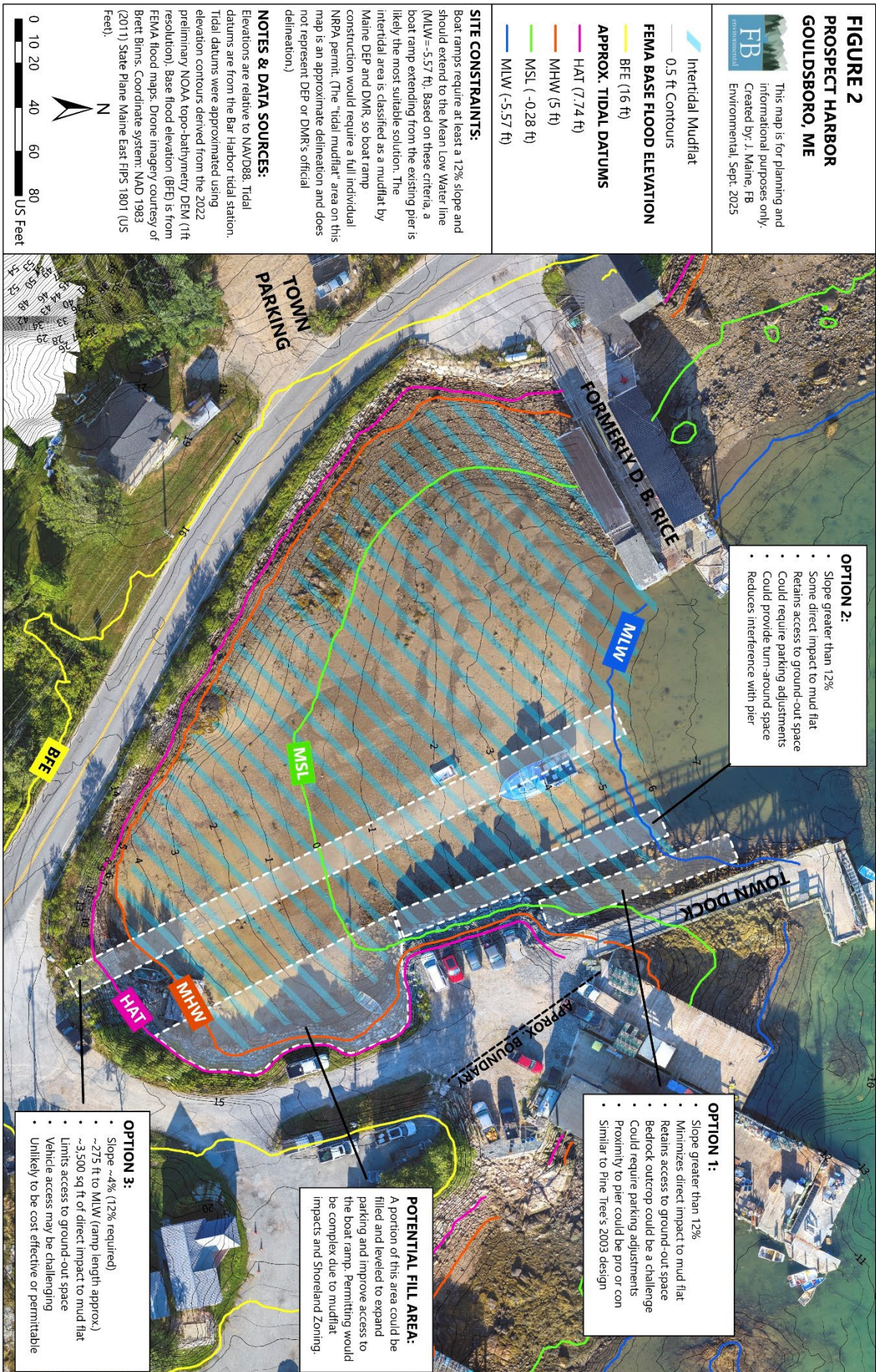
We recorded the discussions in the Prospect Harbor and South Gouldsboro groups and used the Temi online service to generate transcriptions. We used ATLAS.ti, a computer-assisted qualitative data analysis software package, to code participants' responses. Coding used a combination of a priori codes for the focus questions and grounded coding to capture new ideas emerging from the discussions. The analyses considered the frequency of code co-occurrence and the substance of the quotations.

The transcripts of the Prospect Harbor and South Gouldsboro sessions are available in the [Task 6 deliverables folder](#). The folder also contains a file for each harbor that lists all codes, along with the quotations associated with each code.

Prospect Harbor

Focus Questions and Materials

We developed three alternative approaches to locating a launch ramp in Prospect Harbor in our design work over the summer. The annotated orthophoto on the next page summarizes those alternatives. The group used a large version of this photo to anchor their conversation.



The focus group facilitator sought to have the group work on the following tasks.

For EACH of the three design options:

- Describe its ADVANTAGES and DISADVANTAGES regarding getting as many boats as possible out of the water before a storm
- Describe its ADVANTAGES and DISADVANTAGES regarding daily, routine operations in the harbor

The facilitator also inquired about the pros and cons of the potential fill area.

Participants

Most of the participants fish out of Prospect Harbor. Two participants are part of Bold Coast Seafood's senior management team. This new company recently acquired the former Stinson cannery that abuts the potential launch ramp location. Their participation was valuable because the launch ramp could interfere with truck traffic to their site and with other operational aspects. In addition, if the launch ramp were to be used, as we hope it will, for rapidly hauling boats at risk from an oncoming storm, it would be advantageous to use the parking areas around Bold Coast Seafood for temporary boat storage.

In listening to the recording and working through the transcript, we were impressed by the extent of participation by everyone around the table. We came away with the sense that the participants really enjoyed the opportunity to get together and work on this design problem.



Figure 3. The Prospect Harbor focus group participants

Findings

Option 3

The group began the discussion with a focus on Option 3 because this was the idea that emerged from the May meeting. (See the orthophoto.) The conversation quickly turned to identifying the disadvantages associated with this option (coded as “**Opt 3 -**” in our analysis). The most significant disadvantages were:

- At this location, the launch ramp’s slope would be relatively shallow at 4%, well below the recommended 12%. The problem with a shallow slope is that the trailer and truck used to launch or haul the boat need to back more deeply into the water to float the boat.
- The top of the ramp is very close to the highway at the entrance to Bold Coast Seafood’s facility. Consequently, use of the ramp would interfere with truck traffic entering and exiting the plant. One of the representatives from Bold Coast said that the Maine Department of Transportation has met with Bold Coast to express concerns about congestion in that area, noting, “With tractor-trailer trucks coming in and out, we have to keep the lower side open.”

Other concerns related to Option 3 included the possibility that this location for the ramp might interfere with fishermen’s use of the area as a place to beach their boats at low tide so they can work on them, and the possibility of damage to the water line that brings fresh water to the Bold Coast facility for use in seafood processing.

The group also identified a few positive things about this option (coded as “**Opt 3 +**”), including that navigating to the bottom of the ramp would be easy and that one of the people who hauls boats for a living thought it would be a great place for a ramp.

A New Option Emerges

About 16 minutes into the conversation about Option 3, while the group was talking about the potential fill area noted in the orthophoto and the small parking area at the entrance to the Town dock, one of the participants suggested a new location and orientation for the ramp, illustrated in **Figure** on the next page. This New Option quickly emerged, in the group’s view, as the one that best addressed the problems associated with Option 3 without creating new ones. The new option’s advantages (coded as “**New Option +**”) included:

- A slope greater than 12%, similar to the slope for Options 2 and 3.
- Easy entrance to the ramp from the water.
- Easy truck and trailer access to the top of the ramp if a retaining wall and fill were placed in the potential fill area.
- Minimal loss of parking spaces.
- No interference with Bold Coast Seafood’s truck traffic,
- No interference with Bold Coast Seafood’s water line.

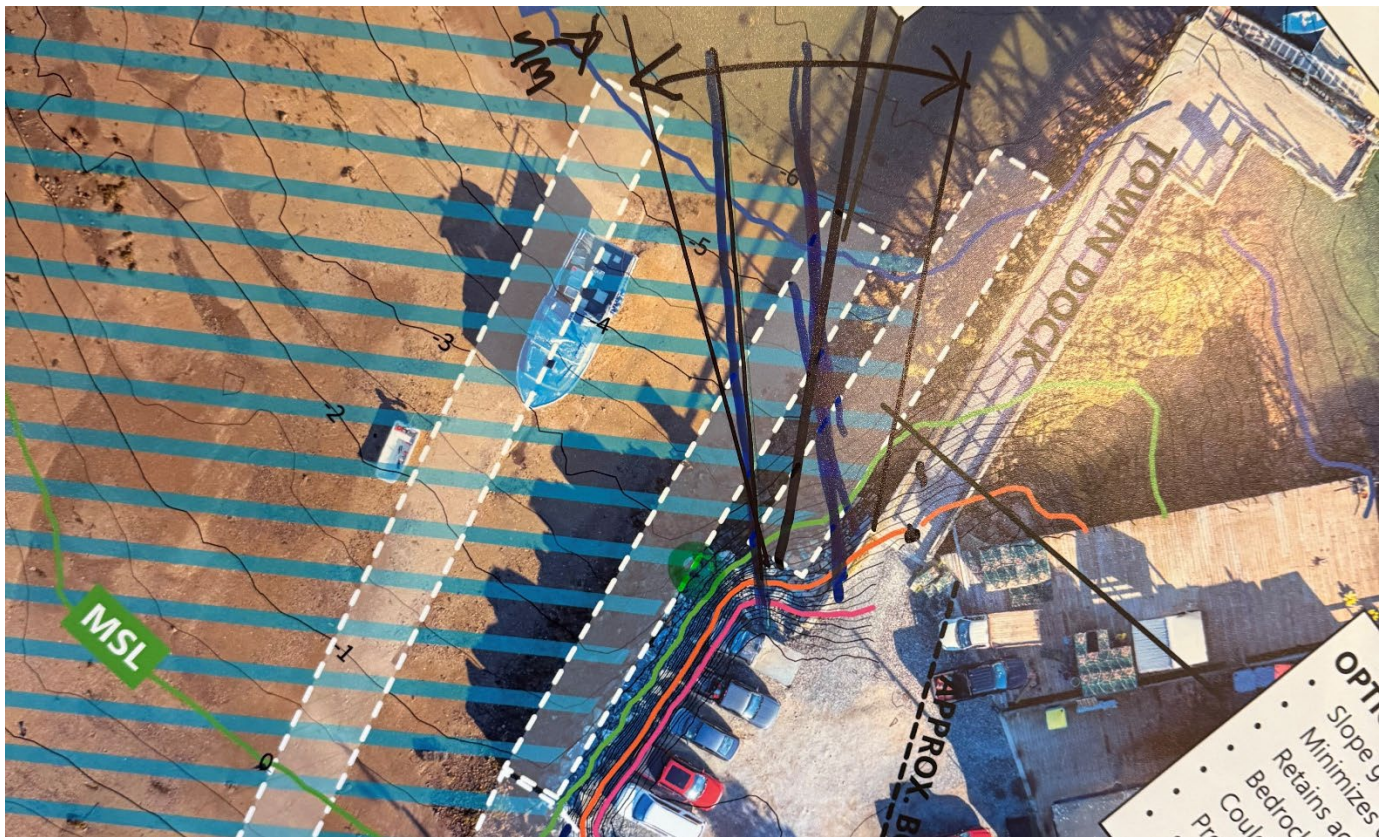


Figure 4. The new option for the launch ramp's location and orientation.

The group also noted that the angle could be “tuned” by either swinging the ramp’s angle out farther onto the mudflat or in closer to the Town dock. They noted that deciding on the best angle would be something engineers could do during the design phase, when considering structural factors, environmental permitting requirements, opportunities to make the ramp accessible over a greater range of the tidal cycle, and other considerations.

The only negative considerations emerging from the conversation were the expense and complexity associated with the retaining wall and fill. However, these issues were not unique to the New Option, since the retaining wall and fill would also be necessary for options 1 and 2.

The Potential Fill Area

Participants suggested that the fill area could be substantially smaller than the area outlined by the white broken line in the orthophoto. **Figure**, on the next page, illustrates the group’s suggested approach, indicated by the black broken line, to minimize the impact of the fill area.

There was broad agreement that filling in the area as suggested in **Figure** provided benefits beyond making the New Option doable. Most importantly, it created more parking space.



Figure 5. Suggested smaller fill area to reduce mudflat impact.

Options 1 and 2

The group gave only brief consideration to Options 1 and 2 after their thorough consideration of the New Option. One participant noted that the New Option combined the best features of Options 1 and 2. It reduced the fill area required for Option 2 and avoided the issues associated with having the water-side entrance to the launch ramp so close to the Town Dock. Also, because access to the ramp was at an angle rather than straight across the filled area, it would be unnecessary to move vehicles parked in the filled area to access the launch ramp.

South Gouldsboro Harbor

Focus Questions and Materials

Defining the design options for the Town's property in South Gouldsboro is more complicated than in Prospect Harbor because the Town jetty (referenced as a "pier" by people who use it) is in poor condition after years of storm damage. In this session, we focused more on "use cases" than design options. We needed a better understanding of the uses that any new design needed to support.

As in Prospect Harbor, we provided a table-sized orthophoto of the area, included in reduced form on the next page, to support and stimulate discussion. The orthophoto was also useful because the project team had difficulty locating survey markers that we hope to use to create an accurate map of ownership boundaries. The meeting provided an opportunity to learn more about maker locations from the group's participants.

FIGURE 4
SOUTH GOULDSBORO HARBOR
GOULDSBORO, ME

This map is for planning and informational purposes only.
Created by: J. Maine, FB
Environmental, Oct. 2025

- 0.5 ft Contours
-  Coastal Wetland
-  FEMA BASE FLOOD ELEVATION
-  BFE (14 ft)
- APPROX. TIDAL DATUMS**
-  HAT (7.74 ft)
-  MHW (5 ft)
-  MSL (-0.28 ft)
-  MLW (-5.57 ft)

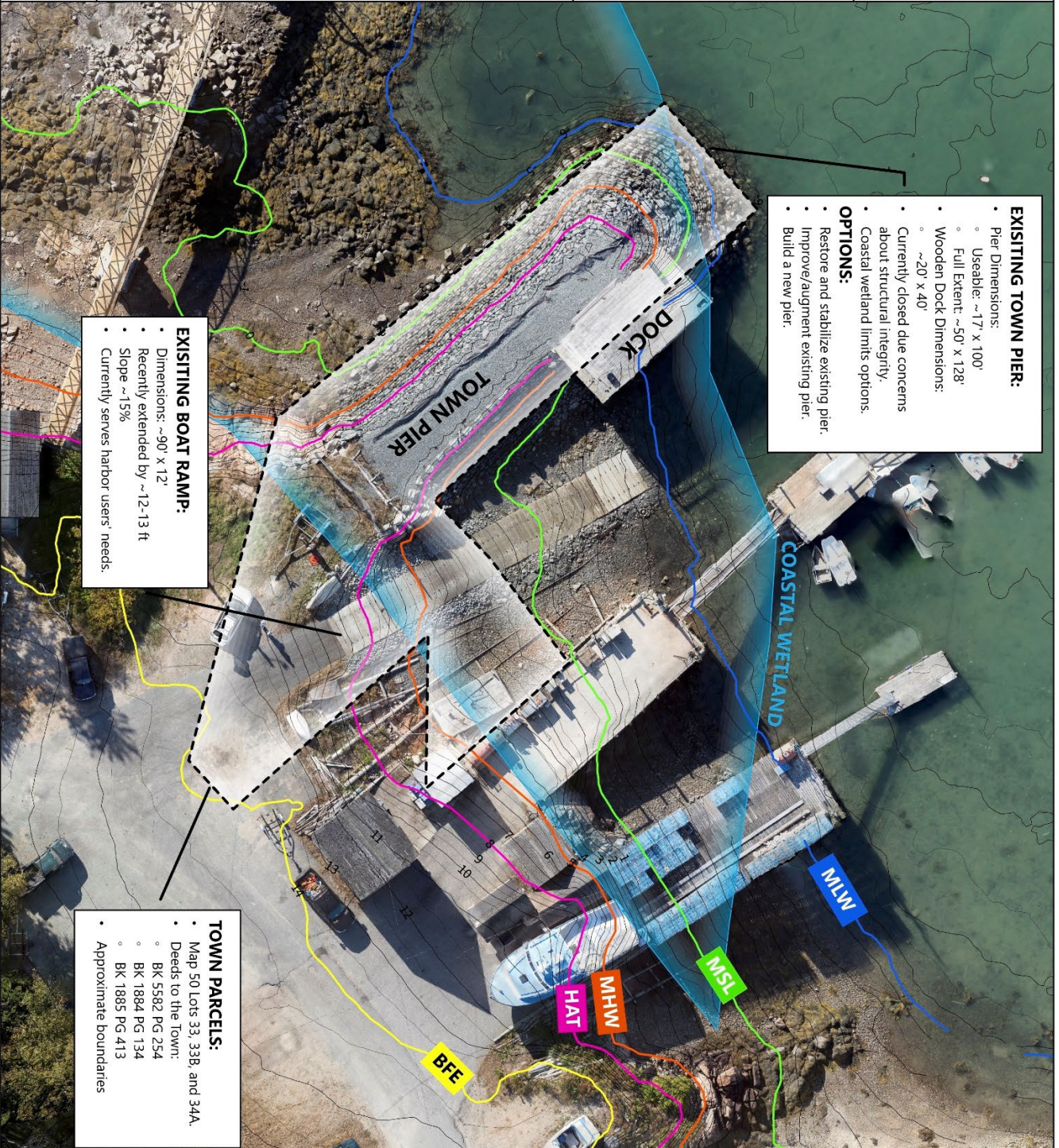
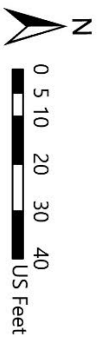
NOTES & DATA SOURCES:

Town parcel boundaries for lots 33, 33B, and 34A (tax map 50) were approximated based on georeferencing the PDF tax map. Ownership assumed to be the Town based on deeds. Elevations are relative to NAVD88. Tidal datums are from the Bar Harbor tidal station. Tidal datums were approximated using elevation contours derived from the 2022 preliminary NOAA topo-bathymetry DEM (1ft resolution). Base flood elevation (BFE) is from FEMA. Wetland data from the National Wetlands Inventory. Drone imagery courtesy of Brett Blinn.

Coordinate system: NAD 1927 State Plane Maine East FIPS 1801 (US Feet). The older coordinate system was used to remain consistent with the tax map.

IMPORTANT

Approximated parcel boundaries. On-site verification and/or a boundary survey required to confirm boundaries.



We opened this session by acknowledging that the Town is not yet sure what is feasible to do with the Town Jetty/Pier shown in the orthophoto or what those actions might cost. We said that the Town has already submitted proposals that, if funded, will provide answers to those feasibility and cost questions. Finally, we explained that an essential element in refining cost estimates and shaping the work we hope to fund through our proposal is developing a better understanding of how fishermen, seaweed harvesters, and others intend to use the Town's investments in South Gouldsboro. Consequently, we hoped that the group would provide answers to the following questions.

1. How do you hope to use a new pier, jetty, or other structure? What is essential in whatever design that we can come up with?
2. What would you like to see at this location? Do you want a pier (open to water movement beneath it), a jetty (closed underneath its surface), or some combination of these alternatives?

Participants

Most of the participants have lived in and around South Gouldsboro for a long time. They were joined by the Town's volunteer drone pilot and photogrammetry expert, and a consultant from FB Environmental to assist in collecting information that the Town can use to develop more accurate surveys of the harbor infrastructure.



Figure 6. The South Gouldsboro group at work.

Findings

The meeting began with a focus on the orthographic photo and a conversation about where the survey markers might be. Brett Binns, our photogrammetry expert, arranged an on-site meeting

with one of the group members who has fished and lived in South Gouldsboro since childhood to see if they could locate the markers.

Needs and Uses

The transcript reads like a chain of overlapping thoughts, with one person starting a sentence and another finishing it. This “adding on” to what someone else is saying, often while they are still saying it, is even more apparent when listening to the audio. The fishermen’s comments are more like a chorus than a statement-by-statement conversation. Here is a small sample, cleaned up only slightly to account for Artificial Intelligence’s inability to make sense of Maine speech.

Speaker 3: It would be nice to have a fuel tank, but they took it. No,
 Speaker 2: It would be very nice to have a fuel tank. We used to buy gas. Everyone,
 Speaker 7: Them boys lugging
 Speaker 2: Fuel, fuel and cans are heavy
 Speaker 7: Probably had to do that a hundred years ago. Yeah.
 Speaker 3: But I don't, I don't think we
 Speaker 2: Get it on town ... probably. No,
 Speaker 3: No.
 Speaker 2: That, but boy it would be nice. Yeah.
 Speaker 3: Mm-hmm <affirmative>.
 Speaker 7: That's the hardest I ever seen the fishermen trying to fish out there now.
 Speaker 3: Yeah. But I mean, if, if, if you had a town pier, good pier, you ... Yeah. They do it everywhere else. They back a fuel truck down to fuel boats ... bulk trucks.
 Speaker 2: Yep. So you need to have a truck and someone able to drive.
 Speaker 3: Well, you'd have to have some of, you know,
 Speaker 2: Somebody and somebody willing to do it.
 Speaker 3: Right. Well, you would buy, you'd hire a company, you'd buy your fuel off whoever, Dead River or whoever, bring a truck down and fuel a boat up.

We have tried to capture some of that in what follows. When the group facilitator asked, “If this [jetty/pier] was a functional thing, what would you use it for?”, the responses rolled out quickly.

- Offloading traps and catch.
- Having a hoist is important.
- It would be nice to have a fuel tank.
- Or, if the Town had a good pier, you could do what they do everywhere else, you would have to back down on the pier to fuel boats up.
- Them boys lugging fuel cans. Them cans are heavy. That’s the hardest I’ve ever seen fishermen work.
- People who live in town, but who don’t fish, also need to use it for loading and unloading when they head out to places on the islands.
- Now people use other wharves, private wharves, to do that loading and unloading. But who knows how long they’ll be able to keep doing that?

Jetty or Pier?

The facilitator turned the conversation to whether it would be better to have a jetty, where water cannot pass beneath it, or a pier, where it can. Again, we attempt to provide a reasonably accurate transcription:

Speaker 3: Well, I was on the committee when this went down. And this is, is in there for a breakwater for this boat ramp. If you tear this out, this will wash out, and there'll be no breakwater for Jerry's wharf, and, and the wharf that Lenny and Joe did own, I don't know who it is that owns it now.

Speaker 6: But, uh, by the same token, when you're taking up a boat. Right. Even a recreational boat, that'd be so much ...

Speaker 3: Yeah, you couldn't even do it.

Speaker 2: That's the safety element. You know, like Jerry said, that they're talking about safety. That's safety. Safety. That's right. The harbor. That's right.

Speaker 3: Yep. I mean, Jerry knows me. He fished there for years and, and it may ... you come in there before that barge was ever put down, and you couldn't even tie up to that float. Oh yeah, yeah. And that was the whole idea of that being put in there, it was for a breakwater

Speaker 3: But it was so good. It was, it was an old barge they broke, and they brought it in there, and we used it for a wharf, and it worked perfect. Worked great.

Speaker 2: So, you would say that a solid thing would be better than ...

Speaker 3: Yep. You gotta have it because if you put anything with water under it, you defeated the purpose.

Other Views and Preferences

Next, the conversation turned to a variety of other topics. They are summarized below.

- **Reuse of the current structure.** The group shared the understanding that a significant amount of money had been spent on building the jetty and that it contained valuable material. They felt that it should be reused and repurposed as much as possible.
- **Length.** One participant recalled that the Town had initially intended to extend the jetty to 80 feet, but later extended it to 120 feet in response to a request from South Gouldsboro fishermen. The consensus was that longer is better, but the current length has been adequate.
- **Shape.** The group's understanding from the DEP was that the jetty needed to stay within its original footprint. In general, they preferred a shape with more vertical sides. However, they also recognize that a more gradual slope on the seaward side might better resist waves.
- **Width.** Participants noted that the jetty takes up a lot of space but provides little functional space on its top. Vertical sides could help correct that. It is clear from other comments that the jetty needs to be wide enough to accommodate fuel trucks and other large vehicles.
- **Float.** Everyone agreed that a float would be nice. However, some participants observed that, with more vertical sides and a hoist, a float might not be necessary.

APPENDIX F: PINE TREE ENGINEERING DESIGN – DESIGN

Nov-03-03 04:26P Pine Tree Engineering

207 442-7029

P.02

Project No. 02058
November 3, 2003

Waterfront Project Prospect Harbor Gouldsboro, Maine

PHASE I

Phase I of the project will include a 12' wide x 120' long concrete pier, with a 30' x 24' "L" at the outer end. The wooden cribwork will be replaced with a 200' section of concrete "T" wall. Granular fill, paving, an electrical service, and lighting will be part of this phase. Demolition of the Red Building will take place prior to starting work. Approximately 10 vehicle parking spaces will be created.

\$49K

PHASE II

This phase will include a 20' wide x 200' long launch ramp next to the new pier. Riprap will be installed along the sides of the ramp. A 6' wide x 20' long concrete abutment will be constructed at the launch ramp in order to secure fourteen 6' x 16' ground-out floats. A satellite parking area will be created on the other side of Route 186. Phase II will also expand the pier with an electric 2-ton hoist, additional lighting, a 4' x 45' aluminum gangway, and three 10' x 20' working floats.

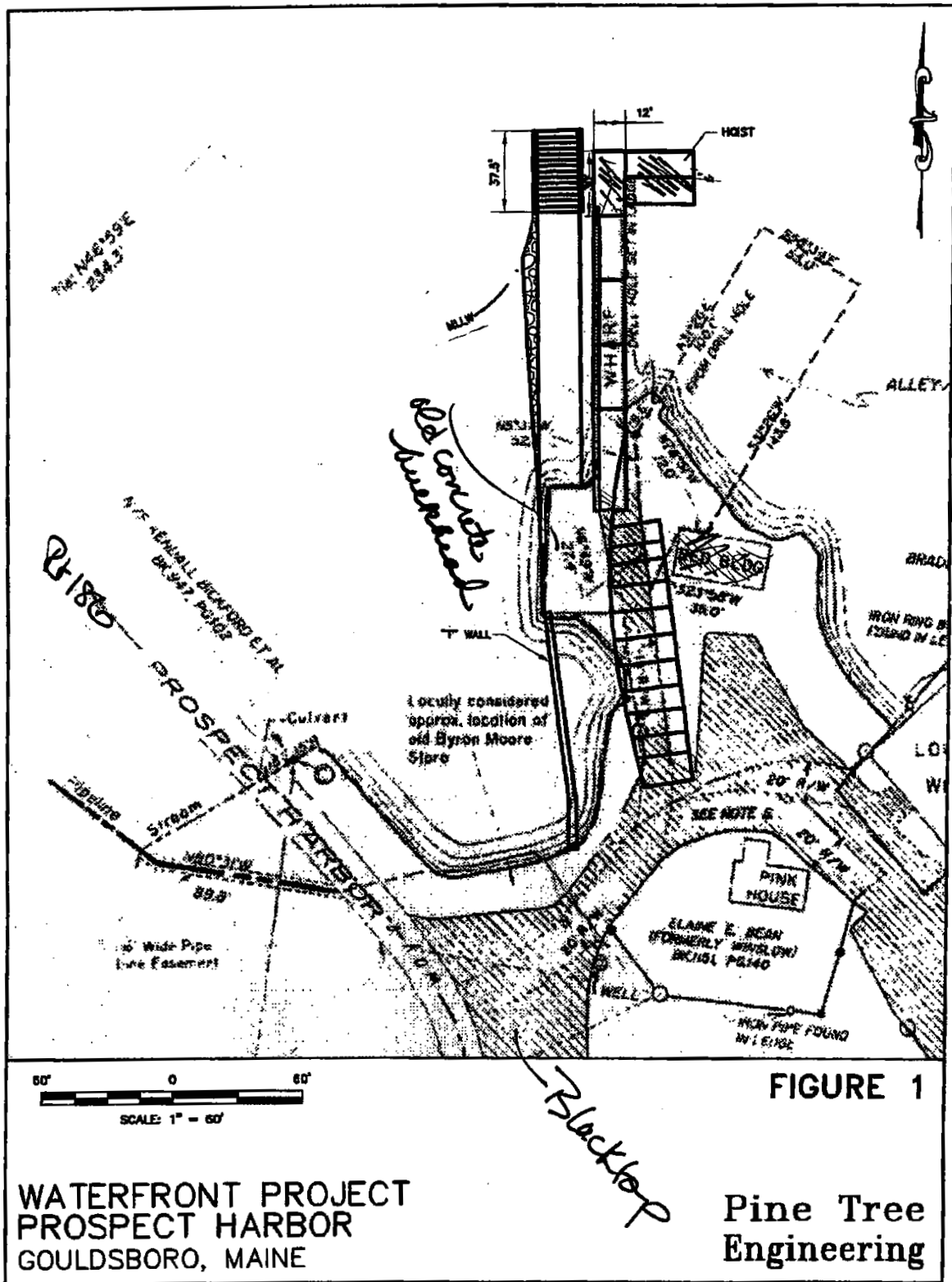
for rigged vehicle ~ 324K

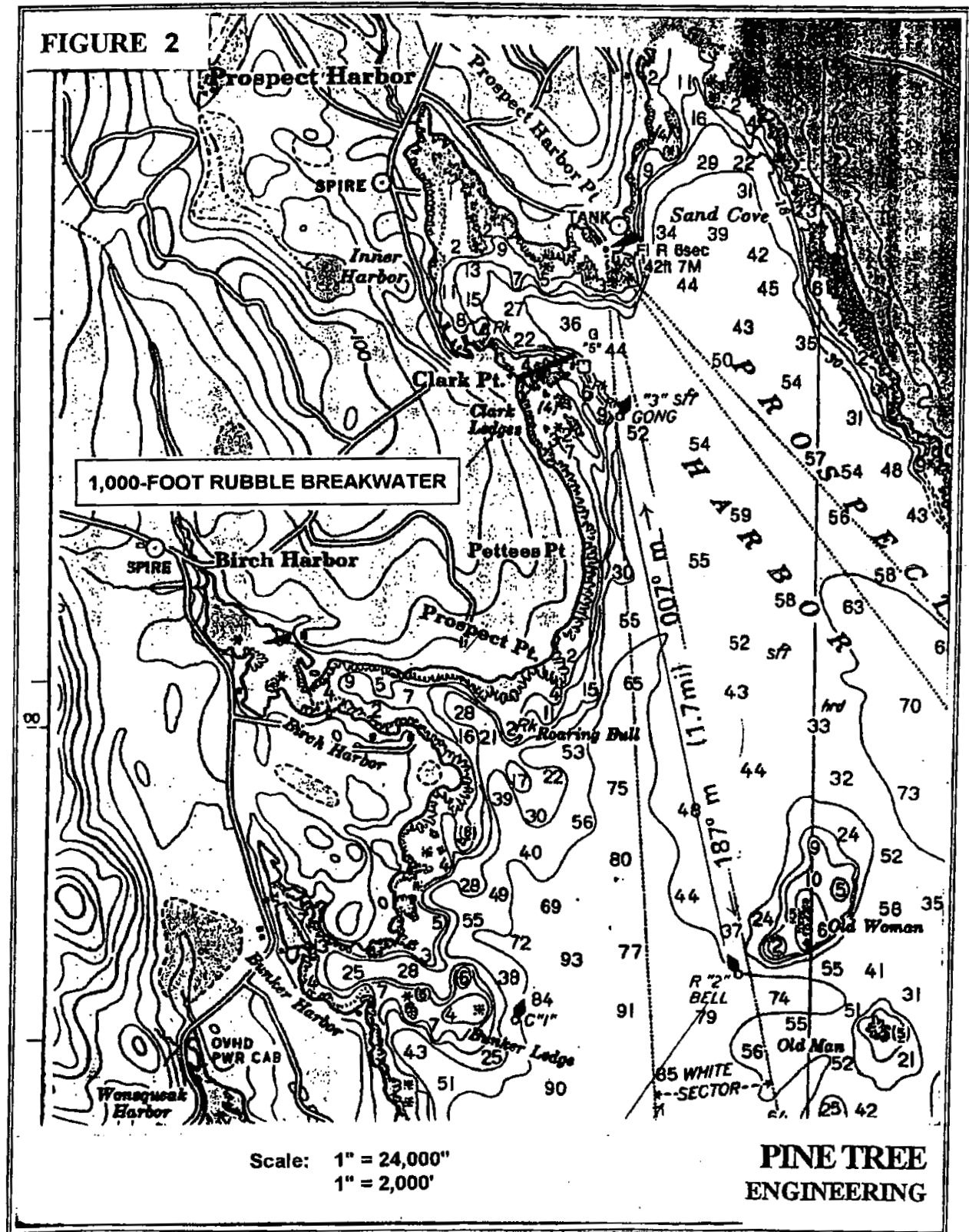
PHASE III

This final phase will involve construction of a 1,000-foot fixed breakwater. It would be constructed on top of the ledges at Clark Point. The breakwater will expand the mooring capability of the inner harbor. The top of the breakwater will be elevation 20, which is 5 feet above the 100-year storm surge of 15 feet above mean sea level.

**PINE TREE
ENGINEERING**

D:\Corres\02058\Phase Descriptions





APPENDIX G: PINE TREE ENGINEERING DESIGN – COST

PROJECT COSTS PHASE II

<u>Item</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Cost</u>
Erosion Control	Lump sum	Lump sum	\$ 2,000
Site Preparation	Lump sum	Lump sum	5,000
Concrete Launch Planks	50	200 /ea.	10,000
Concrete "T" Wall	300 l.f.	240 /l.f.	72,000
Riprap	300 c.y.	150 /c.y.	45,000
Granular Fill	470 c.y.	30 /c.y.	14,100
Concrete Float Abutment	Lump sum	Lump sum	10,000
Groundout Floats	14	3,500 /ea.	49,000
Gangway	45 l.f.	200 /l.f.	9,000
Working Floats	3	6,000 /ea.	18,000
Pavement	50 tons	100 /ton	5,000
Electrical Service (3ø, 200A)	Lump sum	Lump sum	10,000
Lighting	3	4,000 /ea.	12,000
2-Ton Hoist	Lump sum	Lump sum	21,000
Satellite Parking Lot	2,500 s.f.	10 /s.f.	<u>25,000</u>

Subtotal: \$307,100
Contingency 10%: 30,700
\$337,800

Other Project Costs

Topographic Survey	1,500
Design	38,000
Bidding	1,100
Construction Admin./Insp.	10,000
Permit Preparation	1,300
Permit Fees	<u>300</u>

Other Project Costs: \$ 52,200

Project Costs - Phase II: \$390,000

SUMMARY

The development of the Prospect Harbor project has been proposed in three phases. They are:

PHASE I

Phase I of the project will include a 12' wide x 120' long concrete pier, with a 30' x 12' "L" at the outer end. Approximately 10 vehicle parking spaces will be created. There will be some granular fill and paving in this phase. Demolition of the Red Building will take place prior to starting this phase of the project, under a separate contract.

PHASE II

This phase will include a 20' wide x 200' long launch ramp next to the new pier. Extension of the "T" wall will be part of Phase II. Riprap will be installed along the sides of the ramp. A 6' wide x 20' long concrete abutment will be constructed at the launch ramp in order to secure fourteen 6' x 16' ground-out floats. The wooden cribwork will be replaced with a 300' section of concrete "T" wall. Granular fill, paving, an electrical service, and lighting will be part of this phase. A satellite parking area will be created on the other side of Route 186. Phase II will also expand the pier with an electric 2-ton hoist, a 4' x 45' aluminum gangway, and three 10' x 20' working floats.

PHASE III

This final phase will involve construction of a 1,000-foot fixed breakwater. It would be constructed on top of the ledges at Clark Point. The breakwater will expand the mooring capability of the inner harbor. The top of the breakwater will be elevation 20, which is 5 feet above the 100-year storm surge of 15 feet above mean sea level.

PROJECT COSTS PHASE I

<u>Item</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Cost</u>
Erosion Control	Lump sum	Lump sum	\$ 2,000
Site Preparation	Lump sum	Lump sum	5,000
Steel Piles, 12" diameter	12	5,500 /ea.	66,000
Concrete Pile Caps	6	3,500 /ea.	21,000
Concrete Deck Planks*	1,800 s.f.	60 /s.f.	108,000
Concrete Pier Abutment	Lump sum	Lump sum	5,000
Fender Piles	10	1,500 /ea.	15,000
Wooden Curb	300 l.f.	50 /l.f.	15,000
Pavement	30 tons	80 /ton	<u>2,400</u>
Subtotal:			\$239,400
Contingency 10%:			<u>23,900</u>
			\$263,300

* 6' x 30' each

Other Project Costs

Topographic Survey	\$2,500
Soundings	2,000
Design	19,000
Probings	3,500
Bidding	1,500
Construction Admin./Insp.	8,000
Permit Preparation	1,600
Permit Fees	1,300
Flood Hazard Certification	<u>1,000</u>

Other Project Costs: \$ 40,400

Project Costs - Phase I: \$303,700

APPENDIX H: INDIVIDUAL NRPA PERMIT REQUIREMENTS AND PREPARATION

Preparing an Individual Permit through the Natural Resource Protection Act is an extensive process that requires multi-agency coordination with federal and state departments including the Maine Department of Environmental Protection (MDEP), Maine Department of Inland Fisheries and Wildlife (MDIFW), Maine Department of Marine Resources (DMR), Maine Natural Areas Program (MNAP), Maine Historic Preservation Commission (MHPC), Maine Tribes, Maine DACF Submerged Lands Program, the USACE, and the US Fish and Wildlife Service (USFWS).

Coordination will involve using online tools such as the USFWS' Information for Planning and Consultation (IPaC) tool and submitting project review requests to agencies if necessary. It also includes application specific meetings with regulatory agencies to discuss resource impacts, application components, mitigation strategies, and other required consultations. Agency coordination will be conducted via phone, virtual meetings, and email.

This process includes preparing a draft and final Maine DEP NRPA permit application, adhering to the State's natural resources protection rules (38 M.R.S 480-A to 480-BB and Chapter 310). It is likely that a separate permit application will need to be prepared for submission to the U.S. Army Corps of Engineers (USACE). Throughout the process regulatory feedback will be reviewed and may be incorporated into the designs.

Key permitting components for an Individual NRPA permit include the following:

- NRPA permit application form
- NRPA permit application attachments 1-12. A contracted environmental consultant and/or engineer could provide assistance with attachments 2 and 5 through 9 relating to plan work, design, construction, erosion control, and site conditions
 - Attachment 1 – activity description
 - Attachment 2 – Develop an alternatives assessment that describes how wetland impacts were avoided or minimized, considerations of indirect upstream impacts associated with changes in water levels and includes alternative selection support from DMR and DIFW.
 - Attachment 3 – USGS topo or Site Map
 - Attachment 4 – color photographs
 - Attachment 5 – plans to scale
 - Attachment 6 – additional plan sheets (cross sections, profiles, etc.)
 - Attachment 7 – construction plan and sequencing
 - Attachment 8 – erosion control plan
 - Attachment 9 – site condition report
 - Attachment 10 – Notice of Intent to File
 - Attachment 11 – Maine Historic Preservation Commission (MHPC) coordination and consultation
- Wetland functions and values assessments
- Coastal wetland characterization checklist
- A wetland mitigation compensation plan (if applicable)
- Appendix C – Supplemental Information For Dredging Activities (if deemed necessary)
- Agency consultation and coordination documentation

APPENDIX I: MAINE DEP SOUTH GOULDSBORO HARBOR NRPA VIOLATION MEMORANDUM



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

BETH A. NAGUSKY
ACTING COMMISSIONER

December 9, 2010

Town of Gouldsboro
ATTN: Eve Wilkinson
P.O. Box 68
Prospect Harbor, ME 04669-0068

RE: South Gouldsboro Site Visit -- December 12, 2010

Dear Ms. Wilkinson:

This letter is a follow-up to our visit to a wharf owned by John Archer in South Gouldsboro. In addition to you, I and Mr. Archer, the meeting was attended by John Fuhrman, Gouldsboro's Code Enforcement Officer and James Watson, Gouldsboro Selectman. The purpose for the meeting was to discuss the work that had been done to date on the structure. We also talked about some very tentative plans for the future of the wharf.

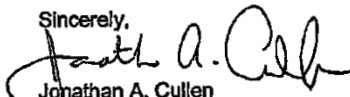
Let me say at the outset, that the placement of the granite on the north side of the wharf constituted a violation of the Natural Resources Protection Act, 38 M.R.S.A. Section 480-C. The violation arises because fill was placed in a protected natural resource, namely a coastal wetland, without a Natural Resources Protection Act permit. I understand that removing the fill at this point would likely result in the collapse of the structure altogether. I also understand that it may not be actually safe to undertake this work. However, in the long run, whatever the outcome, the fill must be permitted after-the-fact or removed. There is no permit-by-rule or reduced procedure permit for this type of work. Placing fill in a coastal wetland requires an individual Natural Resources Protection Act permit.

As to the future of the structure, if the structure is removed, then again a Natural Resources Protection Act permit would be required. The difference is that this type of project could be licensed with DEP's permit-by-rule process. The same would hold true if the structure were removed and replaced in the same or smaller footprint. There are a couple of considerations. If a new wharf were constructed, it seems likely that a ramp and float would be required in order to access the water. As long as the ramp and float are not in, on or over the water for more than 7 months, then the ramp and float would not require a Natural Resources Protection Act permit. Second, as the wharf becomes more and more dilapidated, it will reach a point where for all practical purposes, it no longer exists. At that point, re-building the wharf will become more than a permit-by-rule project. I know it takes a while to start up the process of applying for the necessary grants. My point is that you should not wait too long.

In summary, the work undertaken by Mr. Archer in an attempt to stabilize the north wall of the wharf was a violation of the Natural Resources Protection Act. The fill will, ultimately be removed or permitted, but in the meantime I am willing to let the process of changing ownership and applying for grants work itself out. I would like to be kept apprised of the progress. If it is determined that the parties cannot come to an agreement, then that is something I need to know as well.

I hope that I have answered your questions. Please contact me if you have any additional concerns or questions.

Sincerely,


Jonathan A. Cullen
Dir. of Land Resource Regulation

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep



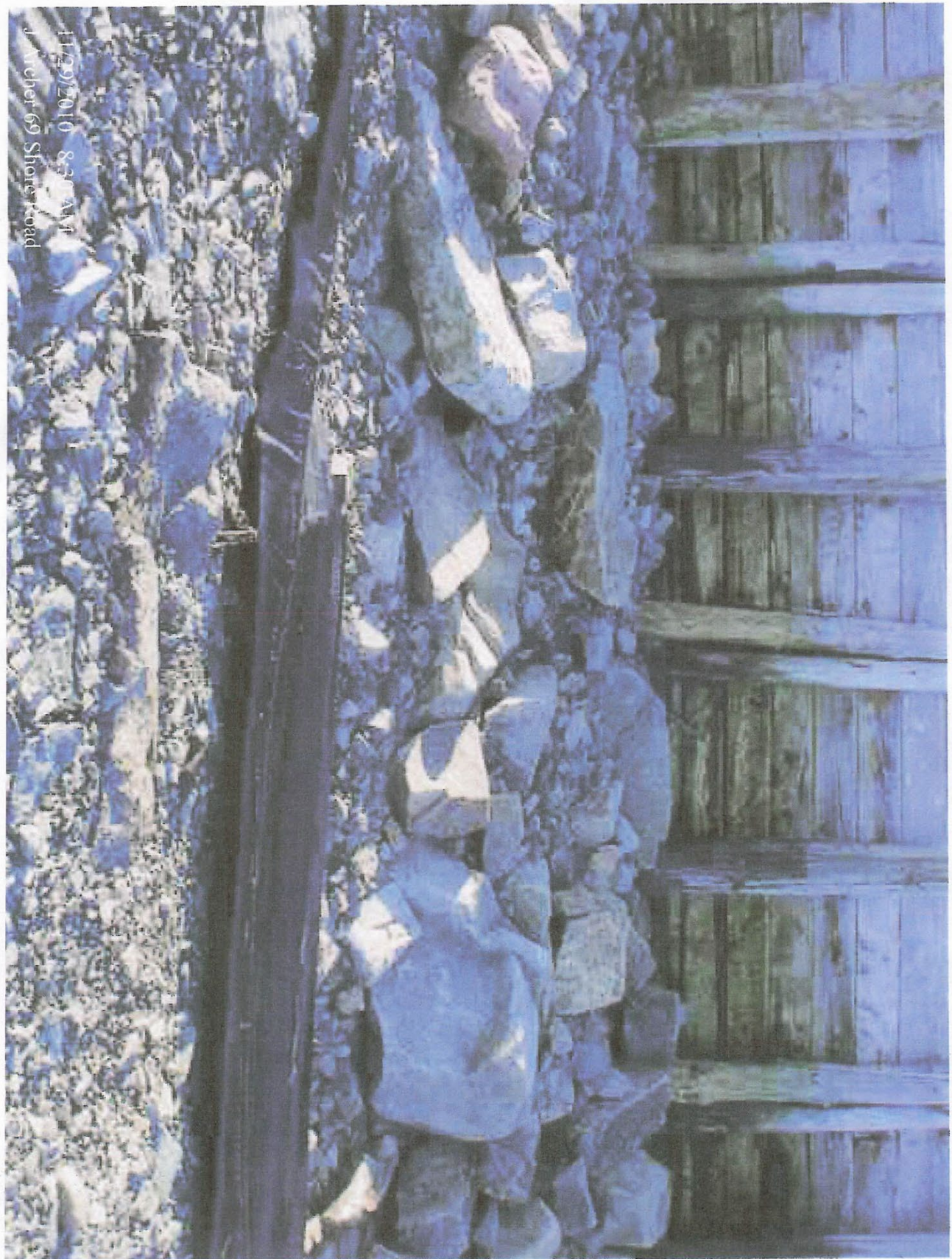


11/29/2010 8:30 AM
J. Archer 69 Shore Road





11/29/2010 8:30 AM
J. Archer 69 Shore Road







1/12/2010 8:30 AM
J. Archer 69 Shore Road

APPENDIX J: BUNKERS HARBOR 1965 PROPERTY SURVEY

APPENDIX K: USACE BUNKERS HARBOR SURVEY REPORTS

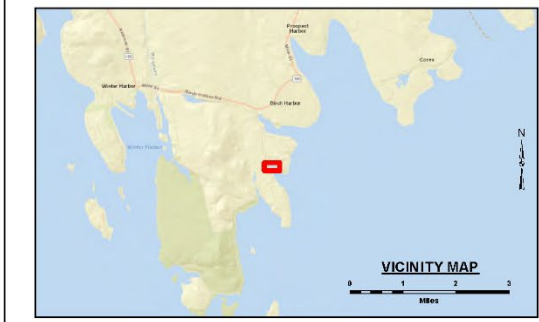
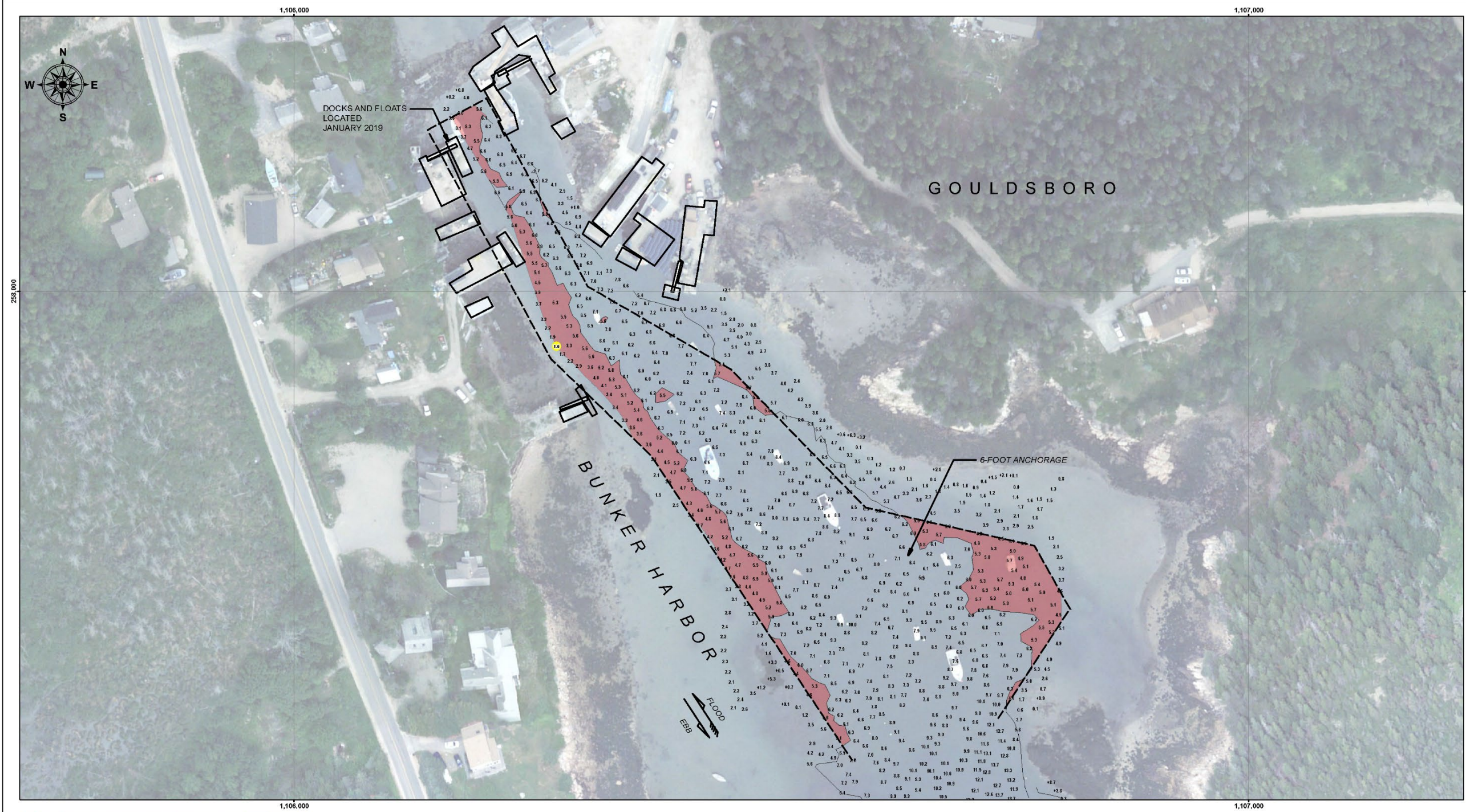
LOCAL CCI\Shoaling Report

Page 1 of 1

Bunker Harbor Maine					Date 01/31/2019
Sheet Name	Depth	Left Outside Quarter	Middle Half	Right Outside Quarter	Survey Name
Bunker Harbor 6-Foot Anchorage	6	1.6			ME_12_BUN_20190123_CS_2019_002

7 or more feet above project depth
5 or 6 feet above project depth
3 or 4 feet above project depth
1 or 2 feet above project depth
At or 1 foot below project depth
2 or 3 feet below project depth
4 feet or more below project depth

BUN_CS_2019_002_CCI_Report.XLSX



LEGEND

--- Federal Navigation Channel	✕ Fixed Navigation Aids
--- Channel Center Line	🚩 Red Navigation Buoy
--- Cable Submarine	🚩 Green Navigation Buoy
--- Contour Line	🔴 Shoaling Area
✕ Obstruction Point	🟡 Shoalest Sounding**

GRAPHIC SCALE

1" = 50'

50 0 50 100 Feet

** Shoalest Sounding per Quarter per Reach

Notes:

Horizontal Datum: Maine East, ME-1801 NAD 83
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: POPHAM BEACH
Sonar System: Odom MK3 (Singlebeam Sonar)
Sounding Frequency: 200 kHz
Survey Method: RTK GPS Tides
GPS System: Trimble SP5 855 (RTK)
RTK Base Station: Station Lobster (2018)
Software Used: Hypack
Sounding Sort Distance: 10'
Field Books: R&H 2688
Survey No.: BUN_CS_2019_002
Reference NOAA Chart No.: 13324

General Notes

The sounding information shown on the map represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during January 2019. The sounding information depicted on this map represents the results of surveys made on the dates indicated, and can only be considered as indicating the conditions existing at that time. The positions of aids to navigation were located during survey operations, are provided for information only and should not be used for navigation. Orthorectification is from a variety of sources and dates and is intended to portray general characteristics of the shoreline and other features. Temporal changes may have occurred since this dataset was collected and some parts may no longer be an accurate representation of the conditions. The information depicted on this map should NOT be used to determine volumes as volumes are determined from more sounding information than shown.

Project Remarks

Docks and floats in anchorage were located by survey crew in January 2019.



DISCLAIMER

Access: Comments: The United States Government furnishes this information as a service to the public and does not warrant, represent, or guarantee the accuracy, reliability, or completeness of the information. The user is responsible for the results of any use of the information. The user is responsible for the results of any use of the information. The user is responsible for the results of any use of the information.

U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT	SURVEYED BY: PMP	CHECKED BY: VHW	DATE: 2/26/2019
	SUBMITTED BY: William Walker	APPROVED BY: NAE Survey	MAP DOCUMENT: ME_12_BUN_20190223_CS_2019_002

**BUNKER HARBOR
GOULDSBORO, MAINE
CONDITION SURVEY
6 FOOT ANCHORAGES**

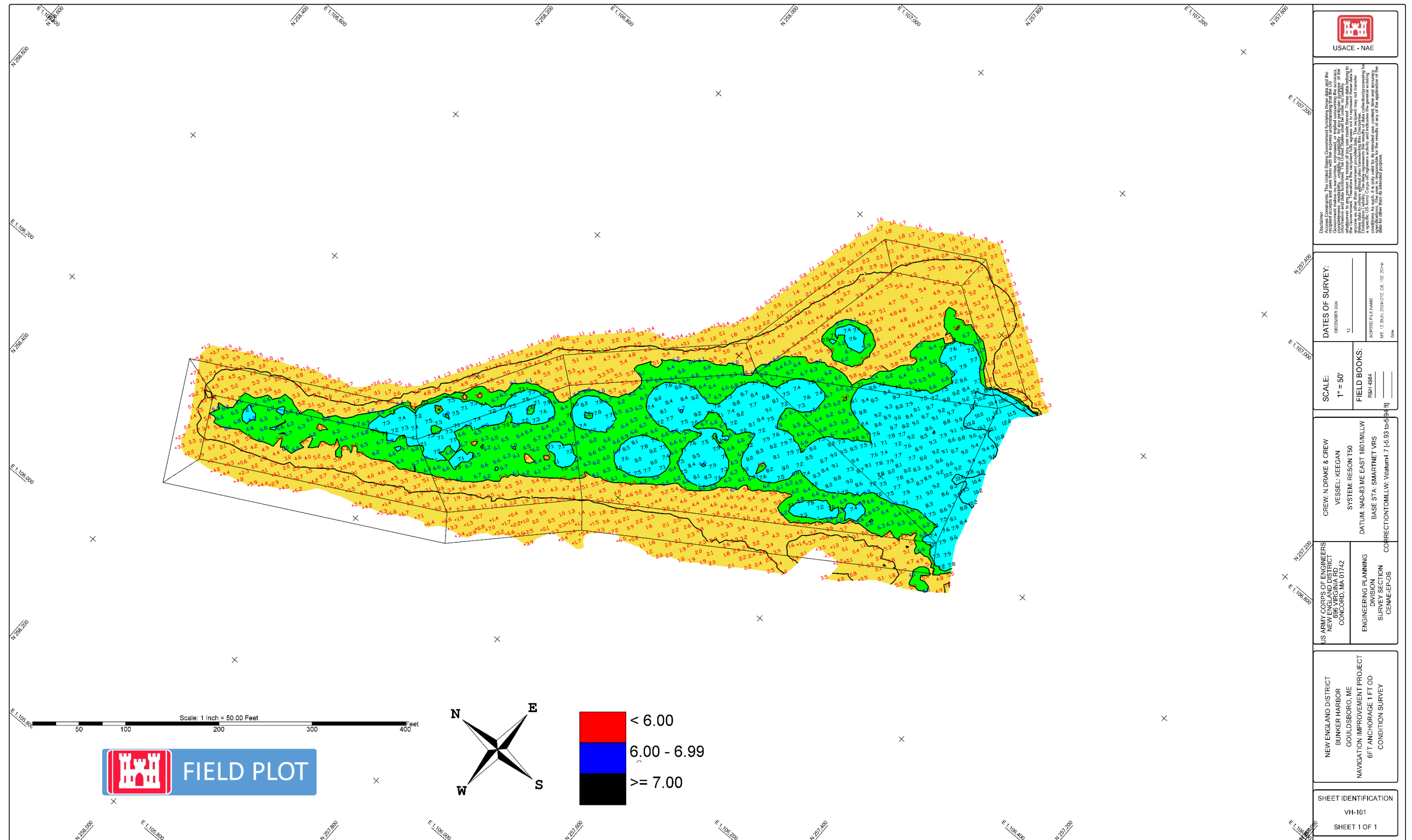
FILE NAME: ME_12_BUN_20190223_CS_2019_002

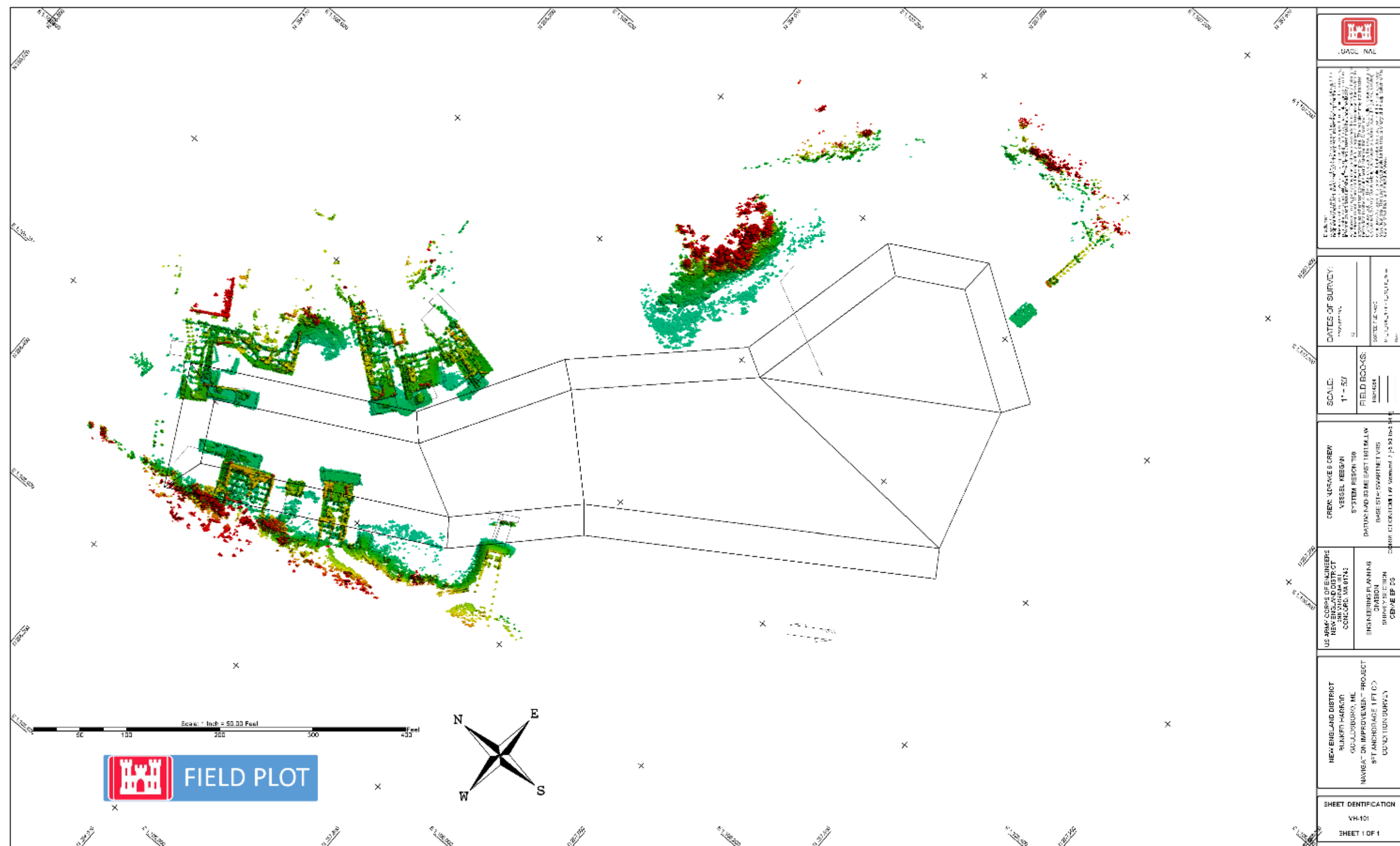
**SHEET
IDENTIFICATION
Bunker Harbor**

Sheet of

Revision Number: 3.162-20180601

USACE VOLUME REPORT									
PROJECT: Bunker Harbor, Gouldsboro, ME					SURVEY: Condition			DATE: 12-DEC-2024	
REACH NAME	REQUIRED DREDGE DEPTH (FT)	OPTIONAL OVER DEPTH (FT)		REQUIRED MATERIAL AVAILABLE (CU YDS)	OPTIONAL MATERIAL AVAILABLE (CU YDS)		TOTAL MATERIAL AVAILABLE (CU YDS)		
6-ft Anchorage	6	1		3089	2159		5248		
PROJECT TOTALS				3089	2159		5248		
NOTES: Vertical Datum is MLLW. Grid: State Plane NAD-83. Zone: ME-1801 Maine East. XYZ: ME_12_BUN_20241212_CS_102_03avg.xyz, CHN: ME_12_BUN_2022_Z5MLLW.chn. Max leg: 30'.									





APPENDIX L: USACE HARBOR INFORMATION FORM



**US Army Corps
of Engineers**
New England District

Harbor Information and Navigation Metrics Form

Date: _____

Name of Harbor / Waterway: _____

LOCAL OFFICIALS

Harbormaster: _____ Phone: _____

Email: _____

Assistant Harbormaster: _____ Phone: _____

Email: _____

+ Other Officials to contact: _____

Name: _____ Phone: _____

- Position: _____

PUBLIC ACCESS FACILITIES

Describe the Location, Nature(Type), Capacity and Services for the Following:

Town Dock, Wharf, or Pier: _____

Launching Ramps: _____

Town Marina: _____

Other: _____

Please describe in general the importance of the Harbor¹ to the community/State, and provide negative impacts that would develop should the proposed dredging work not be performed:

Have there been any petroleum/oil/chemical spills in the harbor since the last dredging event? If so, please explain.

Please provide a complete list and location of pipelines, cables, sewer lines, storm drains, outfalls or utilities in the harbor. Include such items as; intakes for seafood plants; gas, water, fuel and sewer lines; supply and control lines for bridges, floating structures and powered navigation aids; electric, telephone and other cables. Provide points of contact from utility companies or businesses in the area that have (or may have) such infrastructure in the harbor so an exact location and elevation of structures may be determined. Note the general location of these items on a map or Corps survey plans.

+	<u>Utility</u>	<u>Type</u>	<u>Owner Contact</u>	<u>Phone / Email</u>
-	_____	_____	_____	_____

Navigation Metrics

Please report on the following metrics: (refer to footnotes for explanation on each metric)

Total Tons of Cargo ⁱⁱ	
Dollar Value of Commerce ⁱⁱⁱ	
Safety Concerns ^{iv}	
Subsistence Harbor ^v	
Sole Transportation Option ^{vi}	
Sole Regional/National Port ^{vii}	
Critical Government Users ^{viii}	

** If answer to any of above is "Yes", please explain in Remarks and provide additional supporting documentation / information and its source.

Remarks

PRIVATE FACILITIES

Please provide the following information for each private waterfront facility with vessel access, including Marinas, Boat Yards, Yacht Clubs, Vessel Repair Facilities, etc:

Add Private Facility

COMMERCIAL FLEET STATISTICS & OPERATIONS

Please provide the following information for the various types of commercial operations, vessels, and fleets using the harbor / waterway.

Charter Boat Operations (including charter fishing boats, charter sail, harbor cruise / tour boats, windjammers, and the like):

Add Charter Operation

Ferry Vessels (State or privately operated, passenger or cargo, providing regular service or service on demand):

Add Ferry Vessel Business

Commercial Fish / Shellfish Buyers / Processors / Etc:

Add Commercial Processor

Commercial Fishing Fleet

	Number of Vessels by Loaded Vessel Draft							
Type of Vessel	<4 Feet	4-5 FT	5-6 FT	6-7 FT	7-8 FT	8-9 FT	9-10 FT	>10 Feet
Lobster Boats								
Finfish								
Aquaculture								
Head Boats								
Charter Fishing								
Sport Fishing								
Other / Dragger								

Number of Vessels by Loaded Vessel Draft

Total ----->

--	--	--	--	--	--	--	--

Municipal Vessels: Does the Community (or State) Maintain a Craft at this Harbor for Patrol and Enforcement, Shellfish Monitoring, or Other Uses?

☐ Yes

☐ No

If so, Please Provide the Type of Craft, Length-Draft-Beam, Number of Transits per Year.

+	Type	Length (ft)	Draft (ft)	Beam (ft)	# of Transits Per Year
-					

Recreational Boating Fleet

	Number of Vessels - by Loaded Vessel Draft							
Type of Vessel	< 4 Ft	4 - 5 Ft	5 - 6 Ft	6 - 7 Ft	7 - 8 Ft	8 - 9 Ft	9 - 10 Ft	> 10 Ft
Sailing Craft								
Power Craft								

U.S. COAST GUARD ACTIVITIES

Does the Harbor Current Support a U.S. Coast Guard Group or Station? _____

If so, Please Provide the Following Information:

Type of Facility: _____

Name of Local Contact: _____ Phone: _____

Address of Facility _____ City: _____ State: _____ Zip Code: _____

Is the Harbor proved with U.S. Coast Guard Maintained Aids to Navigation such as Buoys, Daymarkers, or Lighted Towers? ☐ Yes ☐ No

If so, Please Describe: _____

REMARKS: Please include any other comments that may help justify the need of the proposed work.

ATTACHMENTS / ADDITIONAL INFORMATION

Please use the Attach button to add any supporting documentation (PDF, Word / Excel Files) to this form which would not fit in the available fields above.

Attach Information

Once Completed, this Form can be Printed and Mailed to the Address Listed Below, or Submitted Electronically by Email directly to the New England District Corps of Engineers.

Submit by Email

Print Form

and Mail to:

Navigation Section
Programs and Project Management Division
696 Virginia Rd.
Concord, MA 01742 - 2751

Definition/Explanation of Terms Used in the Harbor Information Form

- ⁱ Importance of the Harbor: For example, how many vessels will not be able to use the navigation project; specific businesses that would be impacted/go out of business; national security/military implications; light loading; debris in the harbor; vegetation overtaking the harbor; specialty manufacturing company that could go out of business because it's the only one in the country; special movements such as rockets moved by barge; only type of special Coast Guard station; etc.
- ⁱⁱ Total Tons of Cargo: Report tonnage in thousands (five year average). This information is available through the Waterborne Commerce Statistics Center (for deep draft harbors). For small harbors use best estimate available (tons of cargo or pounds of finfish/shellfish, etc.) if applicable.
- ⁱⁱⁱ Dollar Value of Commerce: Dollar value associated with commerce in and out of the harbor / project.
- ^{iv} Safety Concerns: Are there eminent threats to life, where safety requirements must be met and lack of maintenance would result directly in an unreasonable risk to public safety? Describe how increased shoaling has / will impact safety concerns in the project related to vessel movement in general or during impaired sea conditions, etc. Explain in remarks.
- ^v Subsistence Harbor: Does the harbor provide the principal means of receiving essential goods and services to the community? (i.e. alternatives means of delivery are not practical.) If yes, explain in remarks.
- ^{vi} Sole Transportation Option: Is the navigation project the only practicable means of transport (product or people)? If yes, explain in remarks.
- ^{vii} Sole Regional / National Port: Does the harbor serve an essential facility / function required to serve a critical region or national need (such as refinery facilities or fuel tank farm, etc.) where use of an alternate site is not practicable? If yes, explain in remarks.
- ^{viii} Critical Government Users: Does the navigation project serve essential needs of Government agency(ies), such as USCG, NOAA, USN, DOE, NASA, DHS, etc. If yes, explain in remarks.

APPENDIX M: USACE EXAMPLE LETTER OF INTENT

[LETTERHEAD OF LOCAL SPONSOR]

Ms. Wendy C. Gendron
Chief, Planning Division
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, Massachusetts 01742-2751

Ms. Gendron:

We have identified a commercial navigation problem at [LOCATION]. [BRIEF DESCRIPTION OF PROBLEM]. We request that the Corps of Engineers investigate the problem under its Small Navigation Program (Section 107 of the 1960 River and Harbor Act).

We understand that the Corps of Engineers will initially investigate the problem to determine whether it meets the requirements for federal participation. We understand that feasibility study costs in excess of the first \$100,000 are cost shared at 50 percent federal and 50 percent non-federal. We also understand that project implementation costs are cost shared at a percentage depending on the depth of any recommended project.

The [NAME OF AGENCY OR COMMUNITY] has designated [NAME OF LOCAL CONTACT AT AGENCY AND PHONE NUMBER] as the point of contact for this project.

.

Sincerely,

[AGENCY OFFICIAL]