



Shore and Harbor Planning Grants

Town of Stockton Springs

Stockton Springs Pier and Docks Preservation (Fiscal Year 2024, project awarded 2023)

“We certainly appreciate the Department of Marine Resources Maine Coastal Program for providing this funding opportunity. Without the funding provided, Stockton Springs, as well as other small coastal communities, would not have the funds necessary to address the increase in severe coastal storms and rising sea levels. The resulting positive impact on harbor infrastructure and maintenance of coastal fisheries cannot be understated.”— Michael Donahue, Harbor Committee Chair



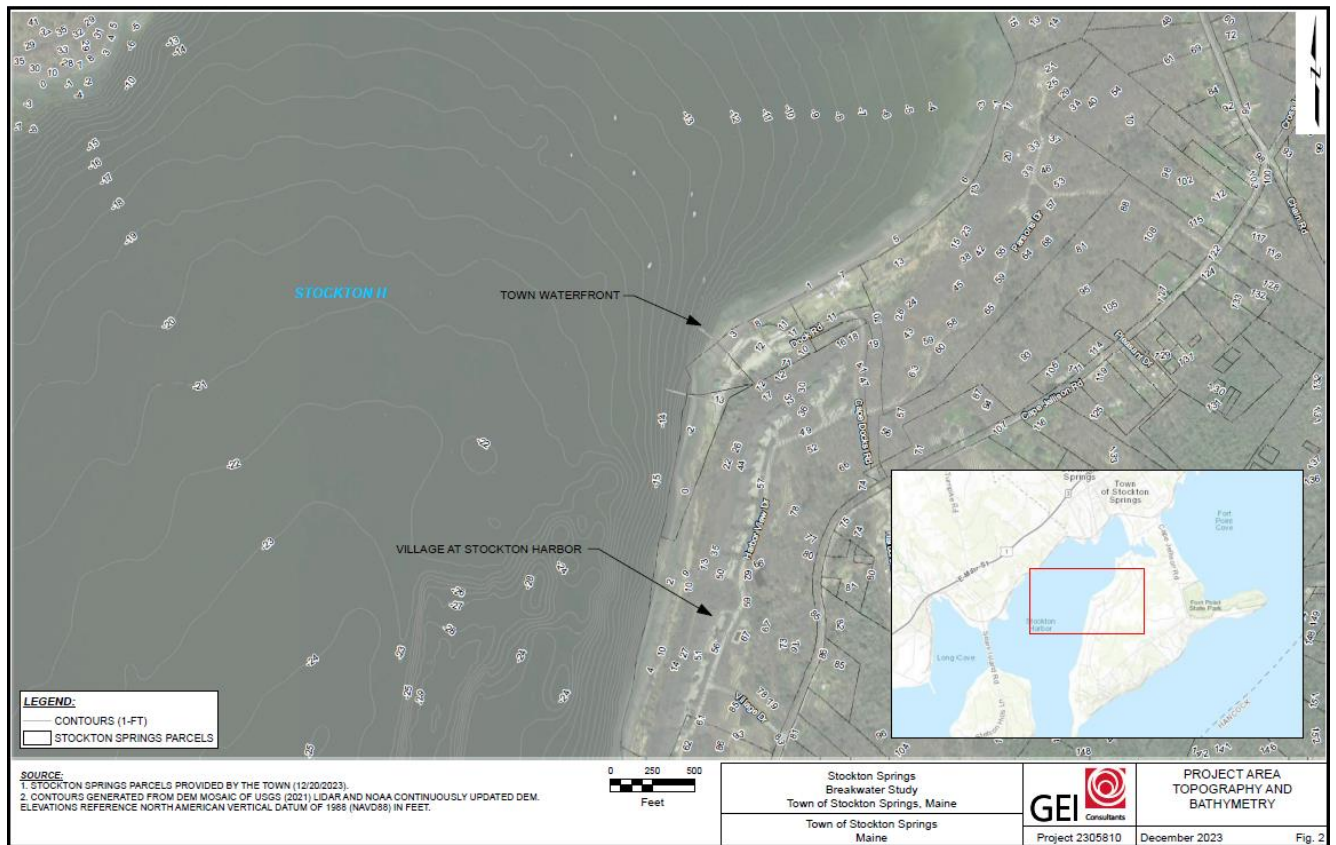
Photo of Stockton Springs Harbor, taken on September 16, 2023. Credits: Michael Donahue

Project Description

The Town of Stockton Springs’ goal for this project was to receive conceptual engineering designs for potential breakwater or wave attenuation construction options to protect the town harbor from the increase in extreme storm events. The harbor is home to 40 floating docks, over 120 moorings, and an all-tide accessible public boat ramp used by recreational boaters, commercial fishers, and emergency responders. The harbor has full Southwest exposure and is situated between the mouth of the Penobscot River and Penobscot Bay. Infrastructure in Stockton Springs’ harbor has been feeling the impacts of climate change, rising sea levels, and

increasingly frequent storm events that cause storm surge and flooding damage. The Town has also received advice from the Maine Department of Transportation regarding their options for reducing damage to infrastructure in the harbor.

Stockton Springs put out a competitive bid for engineering firms to produce three design options for a breakwater structure, an environmental assessment of these options that included climate projections from *Maine Won't Wait* (Maine's state climate action plan), lead multiple stakeholder engagement meetings, and draft a final report that included cost estimates and permit needs for the designs. The town contracted GEI Consultants, Inc. to conduct the breakwater assessment study. Project partners include Stockton Springs' Harbormaster, the Harbor Committee, the Board of Selectmen, Eastern Maine Development Corporation, and local fishermen and businesses.

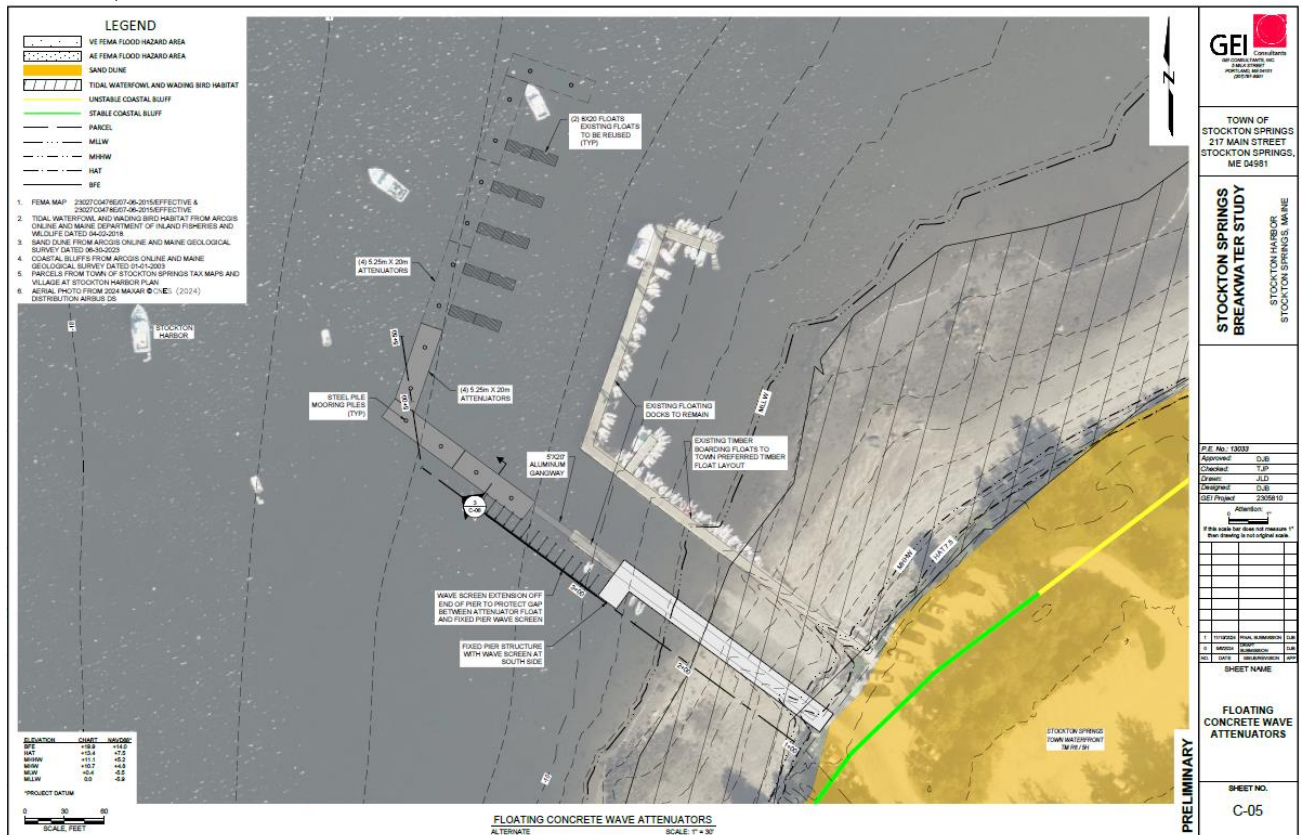
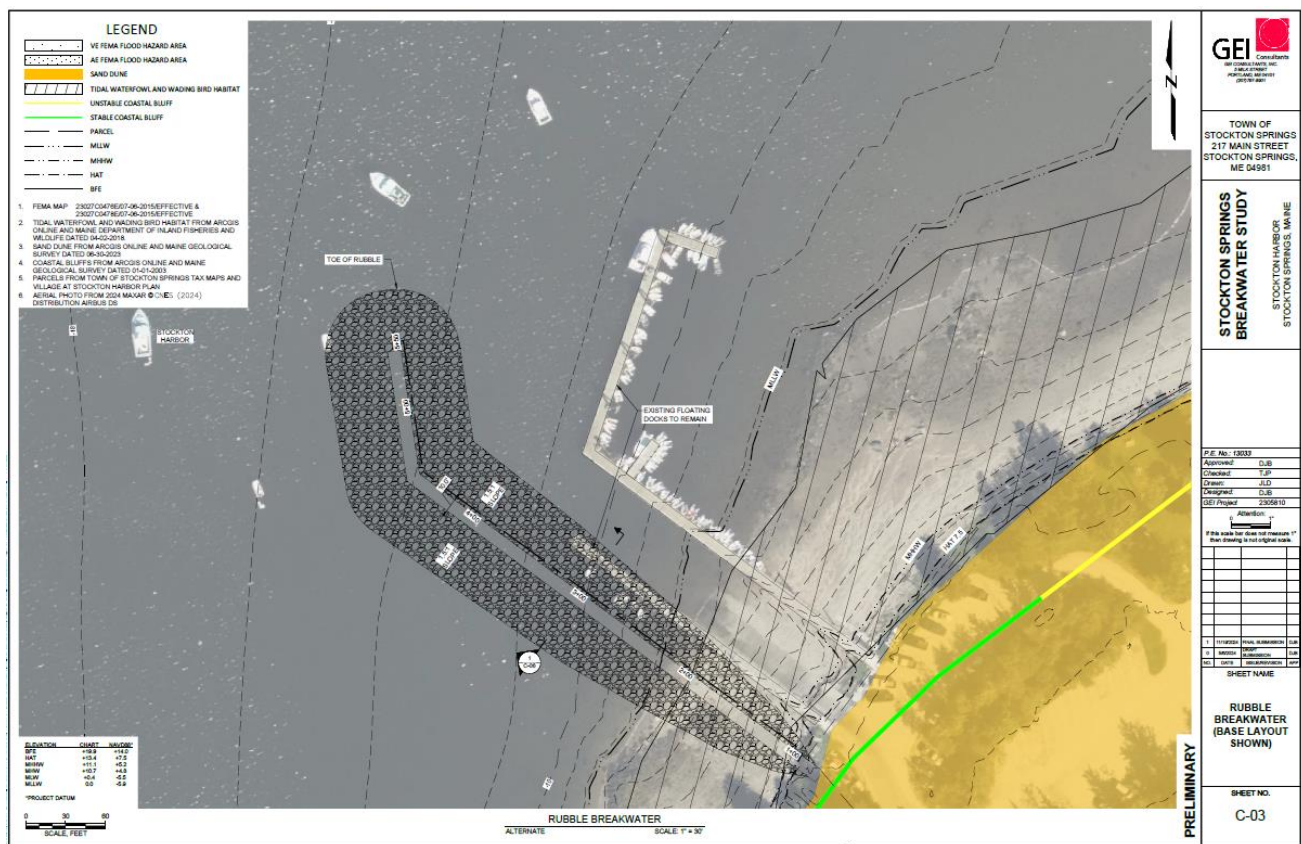


Project Area Topography and Bathymetry, from Stockton Springs Breakwater Study, GEI Consultants, Inc. (p. 50, 2023)

Project Results

The breakwater study resulted in three design options to protect the current harbor infrastructure. Due to the cost of these options, the town ultimately decided not to move forward but will invest in maintaining the float system and other harbor infrastructure.

The three alternative breakwater concepts included a rubble mound breakwater, a steel sheet pile-supported wave screen, a timber wave screen, and floating concrete wave attenuators. The engineers assessed the advantages and disadvantages of each concept at one or two potential locations in Stockton Springs' harbor. Estimated costs for full design, permitting, and construction of these seven different options ranged from \$8.5 million to \$37 million.



Future Plans

The Town of Stockton Springs applied for and received a grant from the Small Harbor Improvement Program run by the Maine Department of Transportation. They will use this grant to replace seven dilapidated dock segments. If further grant opportunities become available for construction, and do not require a substantial match, the Town will likely pursue them.

Lessons Learned

Improving and preserving harbor infrastructure is complex, multifaceted, and expensive.

Thanks to Mike Donahue for helping to prepare this summary.



Stockton Springs Harbor, September 2023. Credit: Melissa Britsch

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