

Anatomy of a Harbor

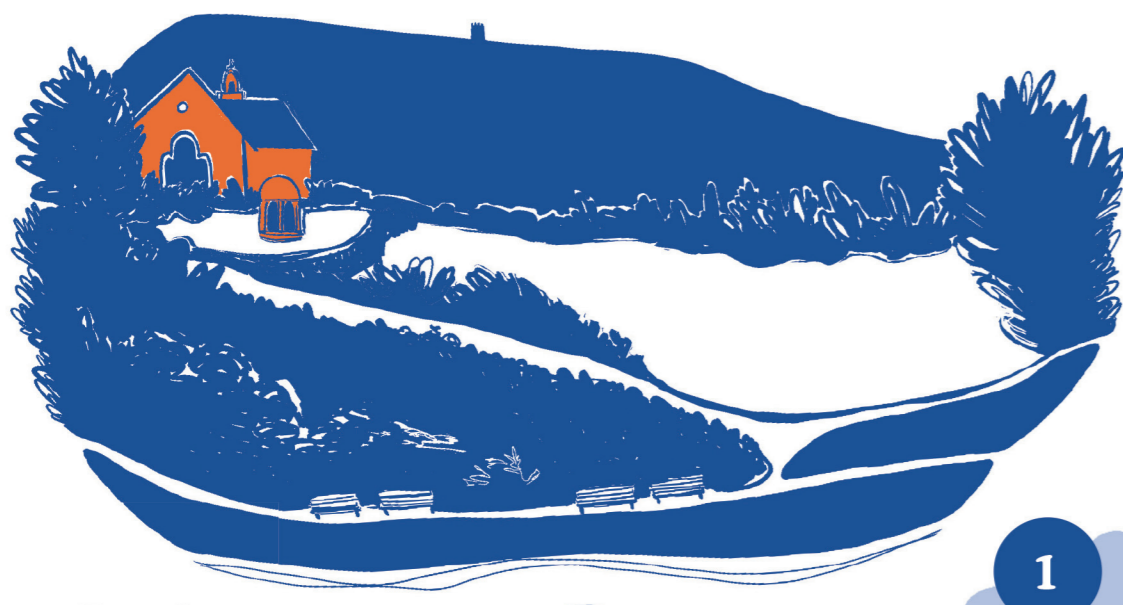
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ILLUSTRATIONS BY AVERY REED

Maine harbors flooded to historic levels during last winter's storms, causing millions of dollars in damage to public property, private businesses and waterfront infrastructure. With sea level rise projected to grow by an order of feet over the coming century, many coastal towns are thinking now about how to redesign their harbors so that they can better withstand future storms.

Like many Maine communities, Camden is finding both challenges and opportunities as it assesses its harbor. Properties on Bay View Street have already incurred expensive damage due to flooding that will likely grow worse in coming years. But an ambitious local investment in climate preparedness could include creating new public recreation zones around the harbor that would work with the changing environment.

While every harbor is different, and will thereby be affected by climate change in locally specific ways, Camden Harbor has an interesting mix of public and private ownership, natural features and both existing and proposed infrastructure that make it a particularly interesting waterfront to consider. Here, we show some of the ways that Camden Harbor has been changing, some of the adaptations that have already been made and some of the possible modifications for the future.

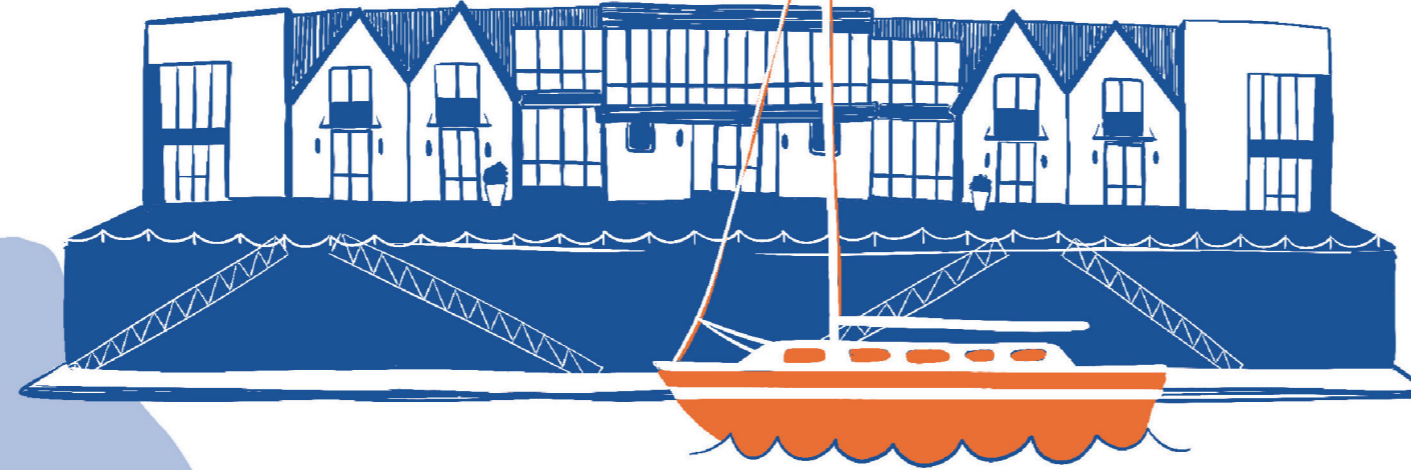


1 Harbor Park

The Olmsted Brothers, sons of the famed architect of New York's Central Park, designed Camden's signature downtown Harbor Park, a green space that gracefully unites the harbor, amphitheater and library with meandering paths and benches.

A 7-foot-high seawall protects the lower part of the park, but even now, the water level just barely overtakes the wall during the highest astronomical tide. By 2050, the water level will exceed the wall by a foot at the highest tide, and by 2100, it will do so by nearly 2 feet at the average high tide.

Raising the grade of the lower pathway and creating floodable terraces in the park are among some of the ideas that have been raised by the Camden Harbor Resiliency planning project.



7 Lyman-Morse

When a fire damaged buildings on the wharf owned by boatbuilder Lyman-Morse in 2020, it was an opportunity to think forward.

In the renovation that followed, Lyman Morse's 35,000-square-foot marina and boatyard were raised 2 feet to accommodate predicted sea level rise.

"We recognized climate change happening around us and wanted to address that as much as we could," said Joshua Moore, Lyman-Morse's director of planning and development.

The wharf now sits several feet above the water at high tide. During last January's storms, part of the parking lot that had not been elevated did flood, but the water did not crest the new wharf or flood any of the buildings.



3 Public Landing

A wind and rainstorm of the kind all too common in recent years destroyed several private piers in January 2024. However, there was good news from the town. The newly built wharf along the public landing—raised above the old one—did not suffer major damage even as seawater covered it and rose all the way up to the former Chamber of Commerce Building area and past the public restrooms.

Public Works Director David St. Laurent credited the stronger, more resilient construction of the new wharf. He said there is a foot of concrete under the wharf, giving it a sturdier construction.



4 The Waterfront Restaurant

The 47-year-old Waterfront Restaurant has built its name and reputation on its harborside location and deck overlooking the water. During last winter's storms, it flooded under 18 inches of water. The Waterfront cleaned up and reopened, but the restaurant and other businesses on low-lying Bay View Street will be at risk during future storms.

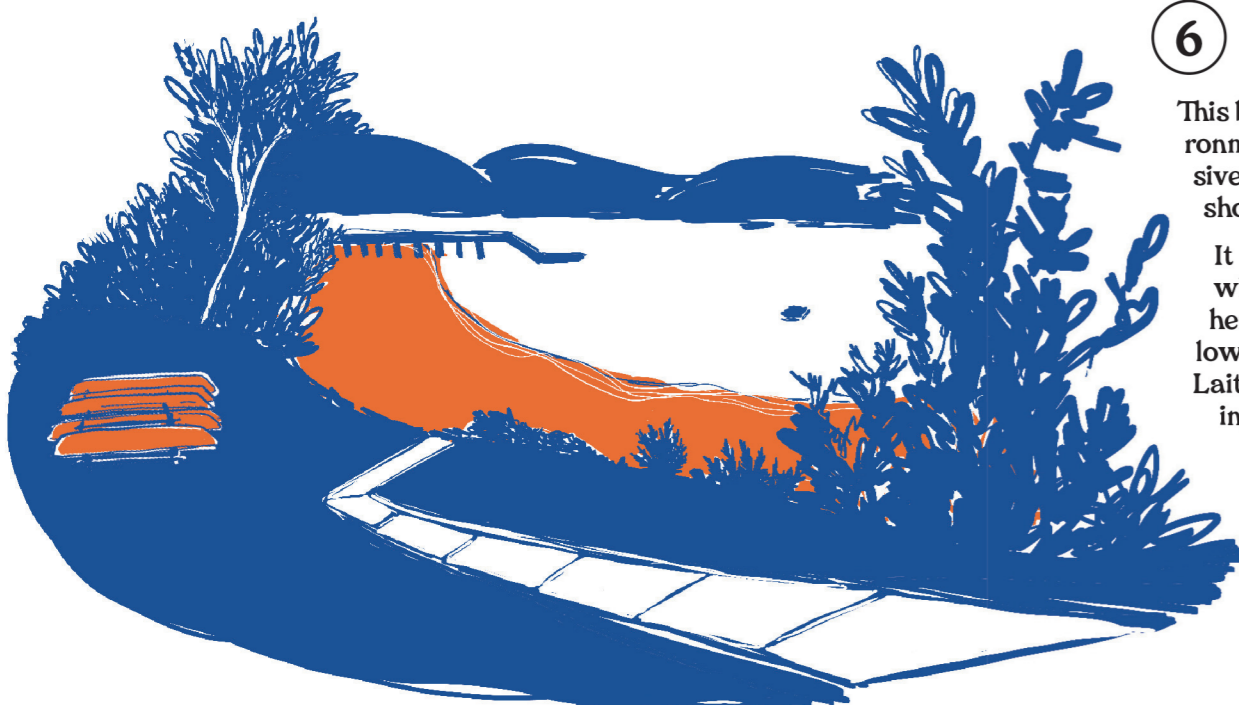
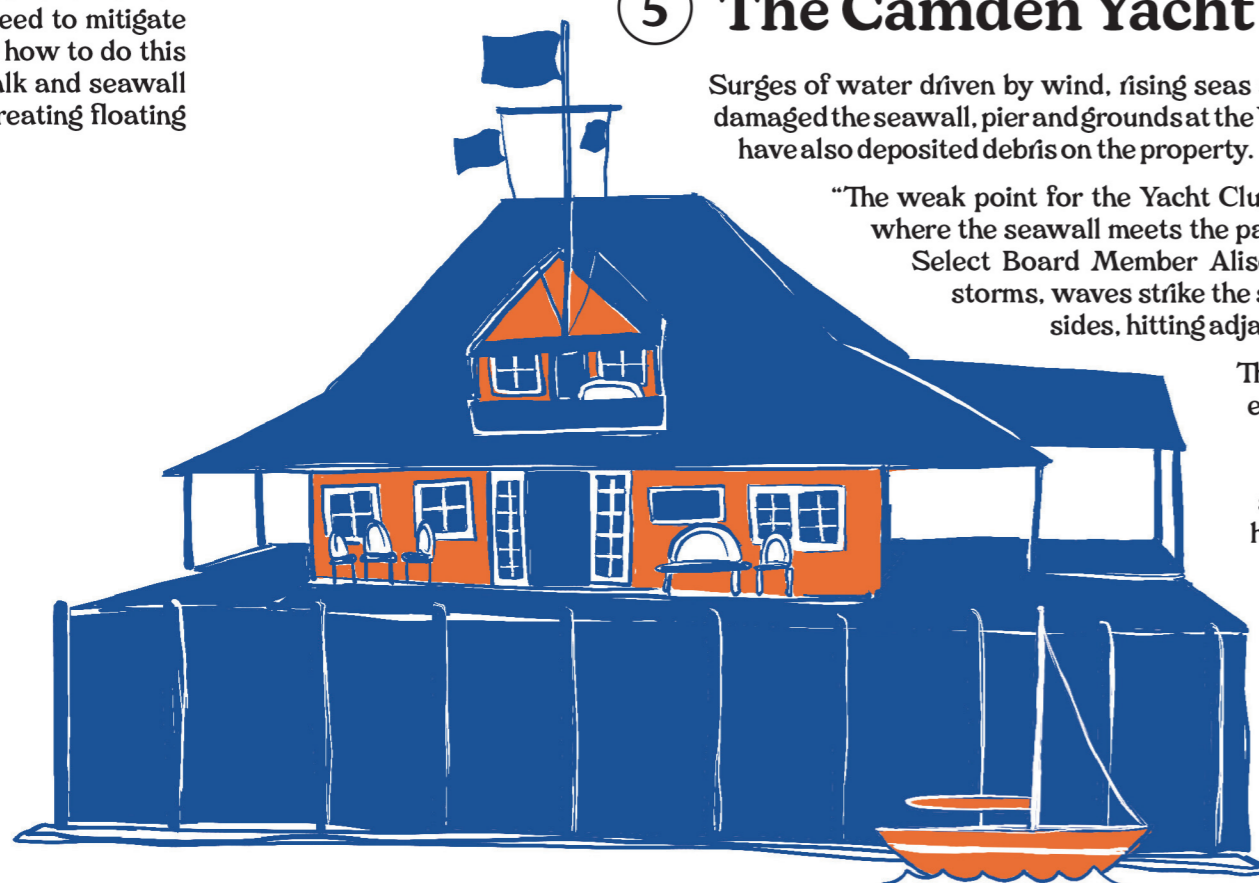
At a February meeting for the Camden Harbor Resiliency planning process, the firm Richardson & Associates showed mockups for potential solutions. Structures between Bay View Street and the harbor that intend to stay there will need to mitigate flood risks. An ambitious option for how to do this included building a higher boardwalk and seawall along that side of the harbor and creating floating wetlands rafts to increase habitat.

5 The Camden Yacht Club

Surges of water driven by wind, rising seas and storms have damaged the seawall, pier and grounds at the Yacht Club. Storms have also deposited debris on the property.

"The weak point for the Yacht Club is this eastern corner where the seawall meets the parking lot," wrote Camden Select Board Member Alison McKellar. During heavy storms, waves strike the seawall and are diverted to its sides, hitting adjacent areas with greater force.

The seawall represents an earlier era's approach to storm management that is now discouraged by state regulators. Today's newest solutions encourage building on higher ground and using natural materials like stone for stabilization or creating floodable zones that can tolerate being inundated.



6 Laite Beach

This beach has weathered storms and other environmental setbacks. In January 2024, the massive granite stairs were displaced as a result of shoreline erosion.

It was not climate change but human action when one neighbor on Metcalf Road used an herbicide to kill trees to improve their view, allowing the chemicals that spread to neighboring Laite Beach. While an extreme example, removing vegetation to improve views makes shorelines more vulnerable to erosion.

On the upside, in a recent column Molly Mulhearn noted: "At Laite Beach Park, rowboats and kayaks are available, too, while newly planted trees provide ample shade (and carbon sequestration) on the drought-resistant groundcover that also entices bees and other pollinators."



2 Waterfall

Residents of Camden will have an opportunity to vote in June on the hotly debated plan to remove the Montgomery Dam, which would restore the river to a more natural state and return the lower part of Harbor Park to an intertidal beach.

A town committee has voted to recommend this path to the Select Board after studying the issue since 2022.

This would change the river to a free-flowing waterway with a larger island near the harbor that could be used like a park.

Opponents believe removing the dam could make flooding worse and spoil the aesthetics of the waterfall. But the committee that studied the issue found that removing the dam "will not change the total volume of water flowing" over the falls, while allowing the flow rate to "become more natural and variable, following seasonal and weather-related patterns." Floods will cause less damage with the dam removed because water will flow into the restored intertidal area, said Camden Select Board Member Alison McKellar.

"Flooding is a natural process that we can embrace if we design more in accordance with nature's principles," McKellar said.