



## MESSAGE FROM JOHN

Hello members, friends and supporters of the Quissett Harbor Preservation Trust.

I hope that you have had a wonderful summer. Although it has been a very dry summer (enough to trigger water restrictions in Falmouth), as I write this message in mid-fall the Harbor vegetation still looks quite verdant. In particular, the paths on and about the Knob, including the path to the Knob platform, are lush with the growth of native plants including beach grass. One would hardly know that, within the last four years, there had been huge construction vehicles bringing massive stones to replace the old rock armor on the Buzzards Bay side of the Knob causeway. Similarly, the stabilization area on the outer harbor bank is settling in well and resuming a natural (but wave-resistant) contour, with a healthy growth of beach grass covering the cable-and-anchor reinforced coir log structure.

Let us all hope we have bought many years of resilience on those fronts, and that QHPT can turn its focus to a broader range of issues around the Harbor. We report on page 1 about the ongoing maintenance issues to which we have devoted our time, and our plans for the next year. We will continue to work with our partners, including the **Salt Pond Areas Bird Sanctuaries**, on those projects.

But as I noted in our last newsletter, every step that QHPT takes around the Harbor must recognize the increasing effect of wind, waves, sea level rise and other climate events. Our board member, **Laura Morse**, who has headed our Wheeler Lecture program for years, brought us a great lecture this year from **Tod Hynes** on AI and climate change (see page 2). We intend to more clearly direct our efforts to addressing the likely effects of climate change around our beautiful harbor, including how it may limit or change public use and access.

Finally, three of our board members—**Marcy DeWolfe**, **Andy Zimmerman** and **Martha Bennett**—have retired from the QHPT board this year. We thank them for their years of service, particularly the major fund-raising effort for the recent rock armor restoration, and wish them well!

We thank **Putney Cloos** who has agreed to serve as our new treasurer.

Have a happy and safe fall and winter and best wishes for the new year.

John Sigel, President

## UPDATE ON HABITAT CONSERVATION AND MANAGEMENT

We had some excellent weather this spring and summer and the Harbor and Knob were filled with visitors—not a good time to undertake any major work. But we did some upkeep and maintenance and we plan some more major efforts for the fall and winter.

This summer, our contractor Bill Armstrong, with the help of Fritz Kaufmann, repaired some of the wooden tie stairs on the paths leading from the kiosk to the Knob paths. Bill and Fritz also reinforced the top edge of the outer harbor bank by installing a row of coir logs to prevent the erosion damage that resulted from rain runoff this spring. They also put gravel blend patches on some of the pathways to reduce pooling of water and level out the paths for safer walking. Finally, we put in some new signage, trimmed back some of the overgrowth of vegetation on the paths and did some routine fence repair.

This fall and winter, we plan the following projects:

- A major repair of the fencing on Crescent Beach
- A minor repair of bank erosion at the northern end of Crescent Beach
- A supplementation of the cobble berm on the outer harbor bank, from materials already on hand

We will also be monitoring the performance of the stabilized areas on the outer harbor as they are tested by the winter winds and waves.



Native vegetation has regrown along the causeway.



New coir log reinforcement at the outer harbor bank will limit erosion from rain runoff.

## WHEELER LECTURE

This summer's Wheeler Lecture on July 13 at the Church of the Messiah Parish and Community Center attracted a capacity crowd to hear Tod Hynes, chair of the board of directors of the Woodwell Climate Research Center and senior lecturer at the Massachusetts Institute of Technology, present "AI and Climate: A Perspective on the Future."

Hynes, who is also cofounder of and advisor to the MIT Climate & Energy Prize, has spent summers in Woods Hole for many years.

In his presentation, he noted the dramatic changes in the climate and explained the basics of AI (Artificial Intelligence). "We are going to have to rebuild our global economy for a changing climate. I think AI can help us move fast enough and go in the right direction," he said.

Hynes explained that AI is a broad term, and "what people mean now when they use this term is Generative AI/LLMs (Large Language Models), where you can just talk to the computer, no coding needed, which makes it much more accessible because only 0.5 percent of the world knows how to code. It can also create new content at a level that is useful and impressive."

But, he cautioned, LLMs confidently make things up, often get things wrong and don't actually "understand" things. Accordingly, having a human in the loop is crucial for proper use.

Some highlights from his talk:

- We are highly likely to exceed a 3-degree Celsius increase in global temperatures from pre-industrial levels during this century; a 1.2-degree Celsius increase was the safe level we should have stayed under. The global economy and all our infrastructure was built for a climate that no longer exists, and many lives are at stake.
- Almost all communities need to upgrade infrastructure, protect vulnerable populations, update zoning and building codes, and engage stakeholders. There is neither enough funding nor enough time to do this the old-fashioned way.
- How AI can help: "Woodwell has done about 50 climate risk assessments, but the world needs four million. There are not enough climate scientists and experts to do this work – AI can help existing experts do more and train and enable more experts."
- Hynes advised that AI can also help communities move faster and in the right direction with the same resources. AI can make customized recommendations for individual communities based on the scientist-produced climate risk assessments. These individualized recommendations would reflect local conditions, including drought and water scarcity, street-level flood mapping and stormwater surge, wildfires, sea level rise and storm surge, precipitation extremes and annual temperature and precipitation variability.

Hynes educated, entertained and mystified the crowd by engaging in a real-time conversation with his own AI avatar about AI problem-solving.

Hynes has a new book coming out later this fall, "Disciplined Entrepreneurship for Climate and Energy Ventures: 24 Steps to Build an Energy Solution for People and the Planet," which he co-authored with Ben Soltoff, Bill Aulet, Francis O'Sullivan and Libby Wayman.

His presentation is online at the QHPT website under Past Wheeler Lectures.



Tod Hynes, 2025 Wheeler lecturer



View of the Quissett Harbor House from the unpaved road, 1912.

*Photo by Charles Henry Sawyer (Courtesy Woods Hole Historical Museum)*

## 2025 ANNUAL MEETING

The 2025 annual meeting of Quissett Harbor Preservation Trust was called to order by chairman Randy Evans on June 28 in Willett Hall at the Harbor House. John Sigel reported that he and Randy Evans were each elected to three-year terms as president and chair, respectively, and that Hilary Davis was elected to a four-year term as director. John also reported that Putney Cloos and Sarah Burleigh were added to the Governance and Nominating Committee.

Andy Zimmerman presented the treasurer's report and noted that QHPT is in very strong financial condition with total assets of \$730,000. He reported that the Trust collected \$60,000 in dues and general contributions and an additional \$97,000 in capital contributions (reflecting the completion of the most recent capital campaign) in 2024. Capital expenditures and annual expenses in 2024 totaled approximately \$90,000.

Dana Rodin reported on the various preservation projects of the Trust. He described the supplemental cobblestone mix strategy for protecting the coir log array on the outer bank stabilization project. He also noted that the trail from the middle harbor beach to the causeway has been cleared and improved. The beach grass plantings on the causeway and new fencing on Crescent Beach will be completed this fall/winter. The erosion that is occurring to the north end of Crescent Beach has been discussed with the Trust's consultant Trey Ruthven, of Sustainable Coastal Solutions, who will advise the Trust on whether there are any appropriate strategies. Dana also described the work done by the Salt Pond Areas Bird Sanctuaries to relocate a path adjacent to the middle harbor beach, where significant erosion had undercut the existing path.

Sarah Burleigh reported on this year's beach cleanup. There were 27 volunteers who collected a total of 20 pounds of solid material.

John reported that the Trust had engaged Sustainable Coastal Solutions to measure the contour of the outer harbor bank to document the changes resulting from the recent stabilization project, and obtain data to assess any future changes in the shoreline. John thanked Dana Rodin for all of his work on behalf of the Trust, as well as the Trust's directors, officers and administrative staff.

A reception on the Harbor House lawn followed the adjournment of the meeting.

### QHPT HARBOR CLEANUP

Twenty-seven people, ranging in age from 15 months to 85-plus years old, gathered on June 21 for the annual harbor cleanup. Twenty pounds of trash were collected as participants covered the area from the beach club along the road of the inner harbor.

The most interesting piece was a gold fishing lure, according to Sarah Burleigh, who organized the cleanup. Heaviest was a piece of an old tire and the largest was a rusty piece of wire fencing. Sarah said they again submitted their clean-up data to the Ocean Conservancy's Clean Swell app (oceancconservancy.org) so the QHPT clean-up can be part of its data tracking.



Sarah Burleigh with some of the treasures and trash.



Many hands make quick work of the clean-up project.

### 2025-2026 QHPT OFFICERS AND DIRECTORS

#### Officers

Chair, Randy Evans  
President, John Sigel  
Treasurer, Putney Cloos  
Clerk & Secretary,  
Mark Polebaum  
Chair Emeritus,  
Dick DeWolfe

#### Directors

Sarah Burleigh  
Putney Cloos  
Hilary Davis  
Joan Driscoll  
Randy Evans  
John Kenney  
Laura Morse  
Mark Polebaum  
Dana Rodin  
John Sigel



## EVALUATING COBBLE BERM PERFORMANCE IN THE OUTER HARBOR

Previous newsletters have reported on our work to protect the outer harbor bank adjacent to the wooden stairs near the narrow Knob causeway entry. This summer we asked our consultant Trey Ruthven of Sustainable Coastal Solutions to evaluate the performance of the “dynamic” cobble berm protecting the coir log reinforcement and sand and grass cover in that location. We also sought advice concerning the approach and frequency of future cobble supplementation.

Our consultant took measurements of the berm and beach contours to compare with previous studies by using sophisticated RTK GPS technology. He presented his data and illustration graphics at the September 6, 2025 QHPT board meeting, focusing on cross sections or transects at either end of the 95-foot berm. Previous data collections permit comparisons going back to a 2018 survey of conditions before and after repairs on the eroding bank, as well as between cobble supplementations.

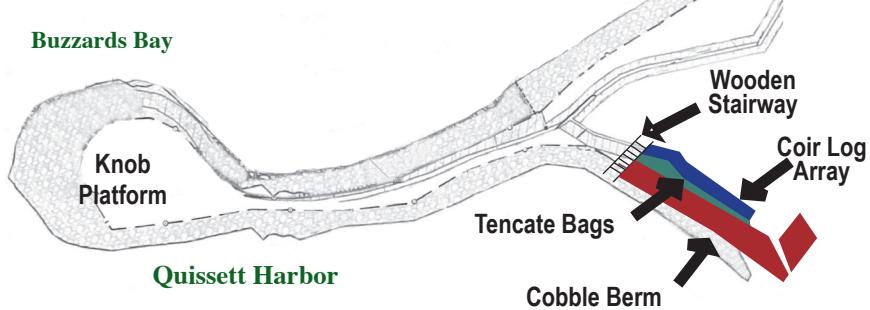
The results of the data collection and graphing of growth of the cobble berm across the bank show substantial growth in the critical elevation band height where the coastal bank is continually impacted by waves and tides on a daily basis. Sorting of the cobble mix indicates it is responding as hoped to incoming wave energy and changes in water level. Grass revegetation in the sand above the coir fabric logs is increasing with the help of periodic addition of sand and grass cover.

Trey's overall recommendation is to consider a further supplement of cobble mix in the winter of 2025-2026. The increased volume will allow the berm to respond both to regular wave action and storm events and assist in the protection of the bank achieved to date. Future periodic supplements will be evaluated from time to time.



Trey Ruthven of Sustainable Coastal Solutions measuring the contour of the harbor bank.

### Outer Harbor Bank Stabilization 2023-25



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