

NEWS



Mayflower II

SALLY RIGIONE/USACE

Historic Harbor

Corps oversaw dredging in advance of Plymouth's 400th anniversary

By Robin Roenker

LAST SEPTEMBER, PLYMOUTH, MASS., belatedly celebrated the 400th anniversary of the landing of the Mayflower. While COVID-19 restrictions delayed recognition of the true quatercentenary of the ship's 1620 arrival, the festive event included the return of the Mayflower II, a full-scale reproduction of the original vessel, plus visits from dignitaries, including the British Ambassador to the U.S., Karen Pierce, and U.S. Army Corps of Engineers New England District Commander Col. John Atilano II.

All the fanfare and fun couldn't have happened without years of dedicated work by Corps scientists, project managers and engineers — as well as their partner agencies and contractors — who helped plan and facilitate the dredging of Plymouth Harbor in preparation for the marquee event.

LASTING IMPACT

Plymouth Harbor is one of the more than 170 navigation projects that the Corps' New England District has completed. "We are a big district with a lot of harbors and channels as well as structures like breakwaters and jetties that we manage," says Wendy Gendron, the district's chief of civil works for the Interagency & International Services Branch.

While the Corps oversaw a partial dredging of Plymouth Harbor's 18-foot main channel in 1988, the

last full dredge occurred in 1967. As a result, natural settling of sand and silt had diminished depth in some portions of the harbor to as little as 4 to 7 feet, making navigation potentially hazardous for larger vessels, particularly at low tide.

From November 2018 to February 2020 — working in the fall and early winter months deemed least disruptive to the aquatic and plant life in the harbor — Corps-supported dredging teams removed excess sand and silt to restore the harbor to its authorized depth of 15 feet. The dredging was completed in time for the Mayflower II's return to its dock in August 2020, following a three-year restoration in Mystic, Conn.

The \$12.2-million project involved an expedited timeline to accommodate the original Plymouth landing anniversary celebration, and its completion will positively affect the region far beyond the commemoration festivities. In addition to recreational boating, Plymouth Harbor supports commercial fishing and lobster boats, a ferry and whale-watching tours, Gendron says.

"Along with the rich maritime industry there, Plymouth Harbor is also such a culturally significant area," adds Grace Moses, a biologist with the New England District who helped lead the environmental resources team that worked on the dredging project. "There's so much inland infrastructure of note near the harbor, from the Plimoth (Patuxet Museums) and Plymouth Rock to Long Beach, which is a

beautiful beach area that attracts a lot of tourism and recreation."

PROTECTING NATIVE SPECIES

The Corps worked with Burnham Associates of Salem, Mass., and two additional subcontracting firms to dig out and remove approximately 272,350 cubic yards of sand and silt from Plymouth Harbor. Of that total, approximately 31,408 cubic yards of fine sand was deposited at nearby Green Harbor Beach for habitat improvement. The remainder was disposed in Cape Cod Bay and Massachusetts Bay.

Before dredging began, Moses and her team worked to identify a time frame that would cause the least possible harm to native wildlife and plant life in the area. Specifically, the Oct. 1 through Jan. 31 dredging schedule each year allowed teams to avoid negatively affecting the growing seasons of aquatic vegetation and the spawning seasons for native flounder and horseshoe crabs. The Corps also prohibited disposal of silt at Cape Cod Bay between Jan. 1 and May 15 to avoid disrupting the feeding and migration patterns of the North Atlantic right whales that visit the region annually.

"Plymouth Harbor was a dream to work on as a biologist because the harbor and the estuary itself are just chock-full of wonderful environmental resources — everything from eelgrass to shellfish to horseshoe crabs and lobsters — all sorts of great things that you want to work with as a biologist and also keep protected," says Moses.



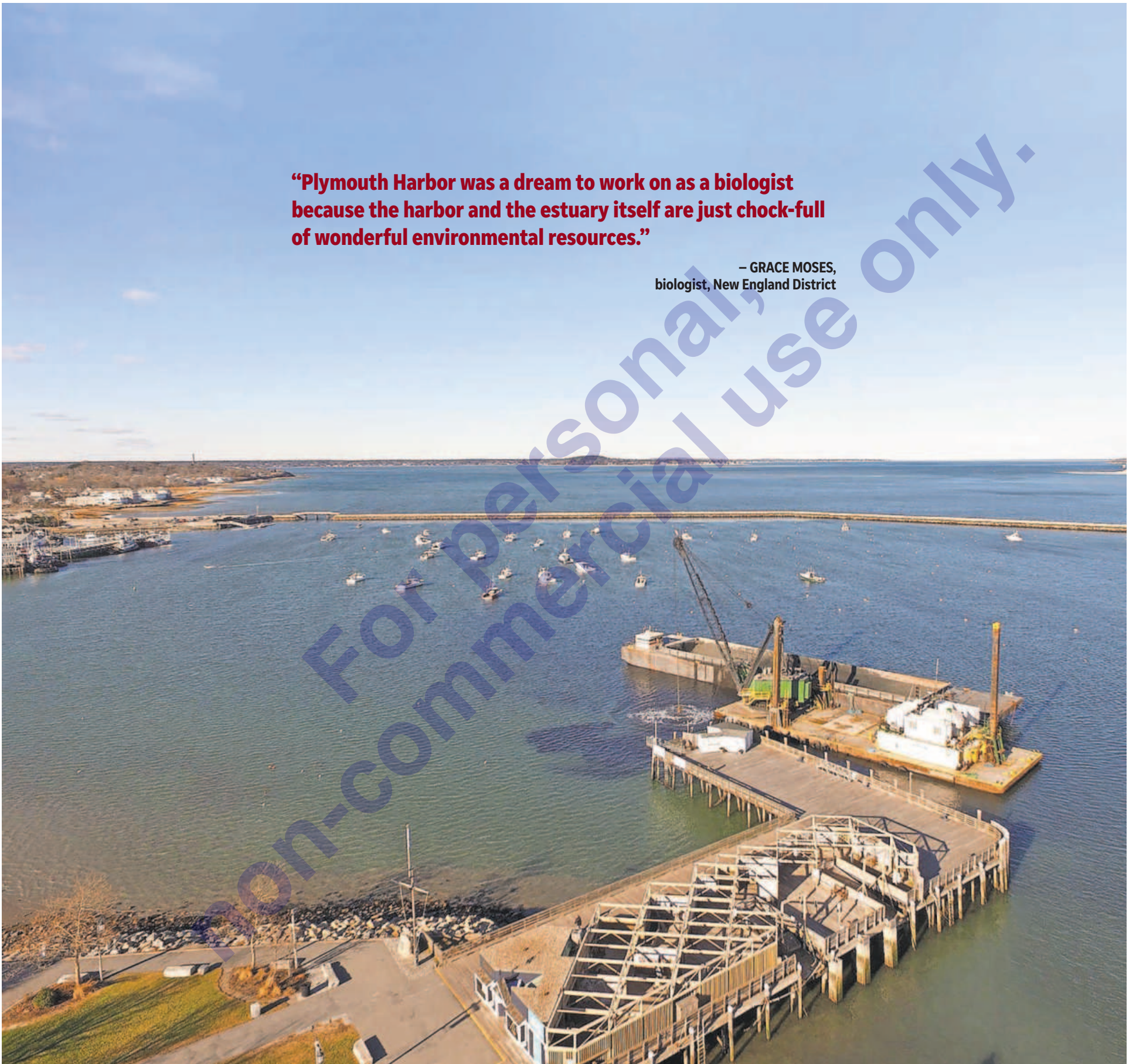
Prior to this project, the last full dredge of Plymouth Harbor was completed in 1967.

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Plymouth Harbor supports a rich maritime economy, including recreational boating, commercial fishing and whale-watching tours.

CASHMAN DREDGING