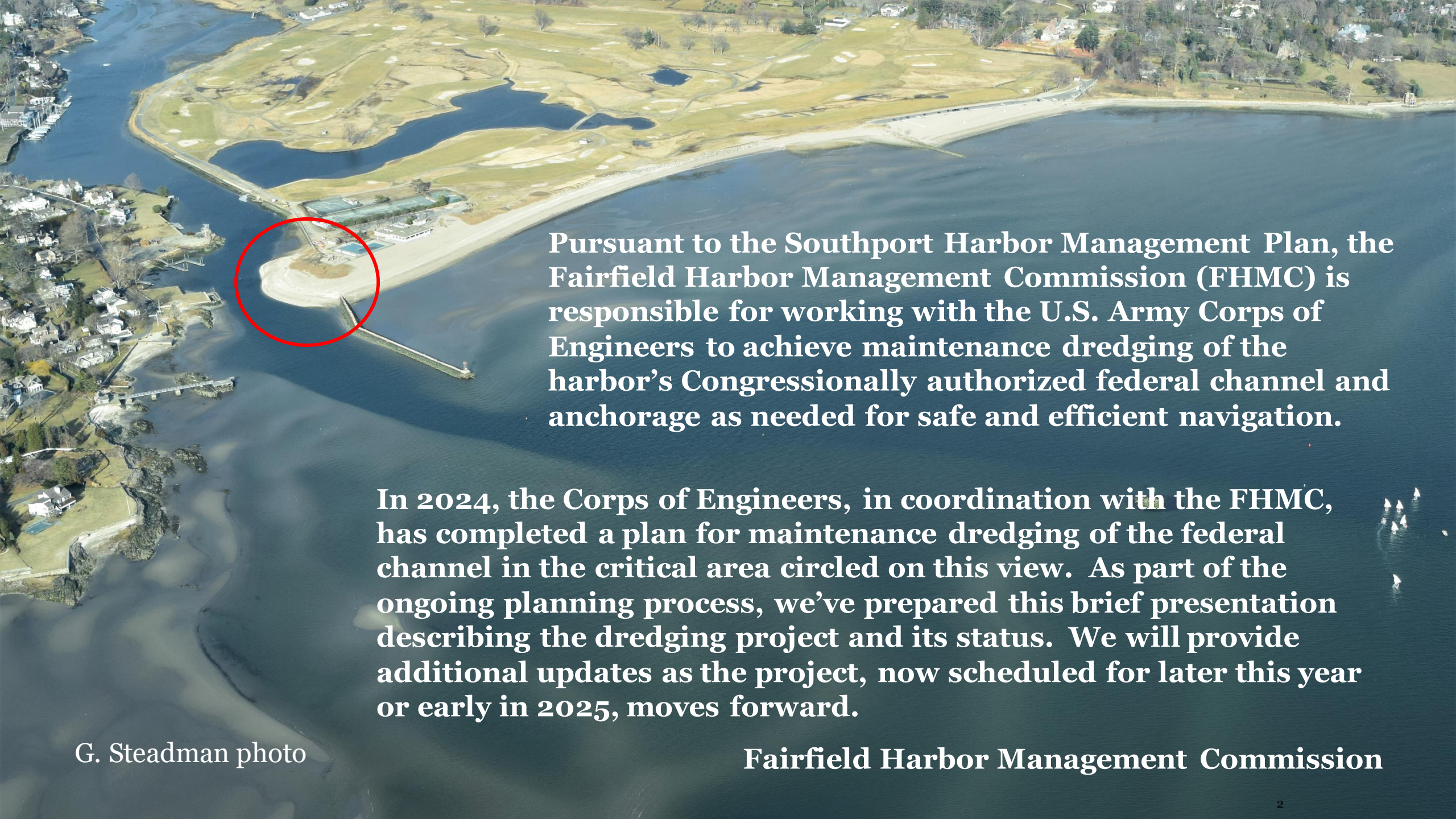


# Southport Harbor Federal Maintenance Dredging Project March 2024 Update



A Presentation by the  
Fairfield Harbor Management Commission  
Fairfield, CT





**Pursuant to the Southport Harbor Management Plan, the Fairfield Harbor Management Commission (FHMC) is responsible for working with the U.S. Army Corps of Engineers to achieve maintenance dredging of the harbor's Congressionally authorized federal channel and anchorage as needed for safe and efficient navigation.**

**In 2024, the Corps of Engineers, in coordination with the FHMC, has completed a plan for maintenance dredging of the federal channel in the critical area circled on this view. As part of the ongoing planning process, we've prepared this brief presentation describing the dredging project and its status. We will provide additional updates as the project, now scheduled for later this year or early in 2025, moves forward.**



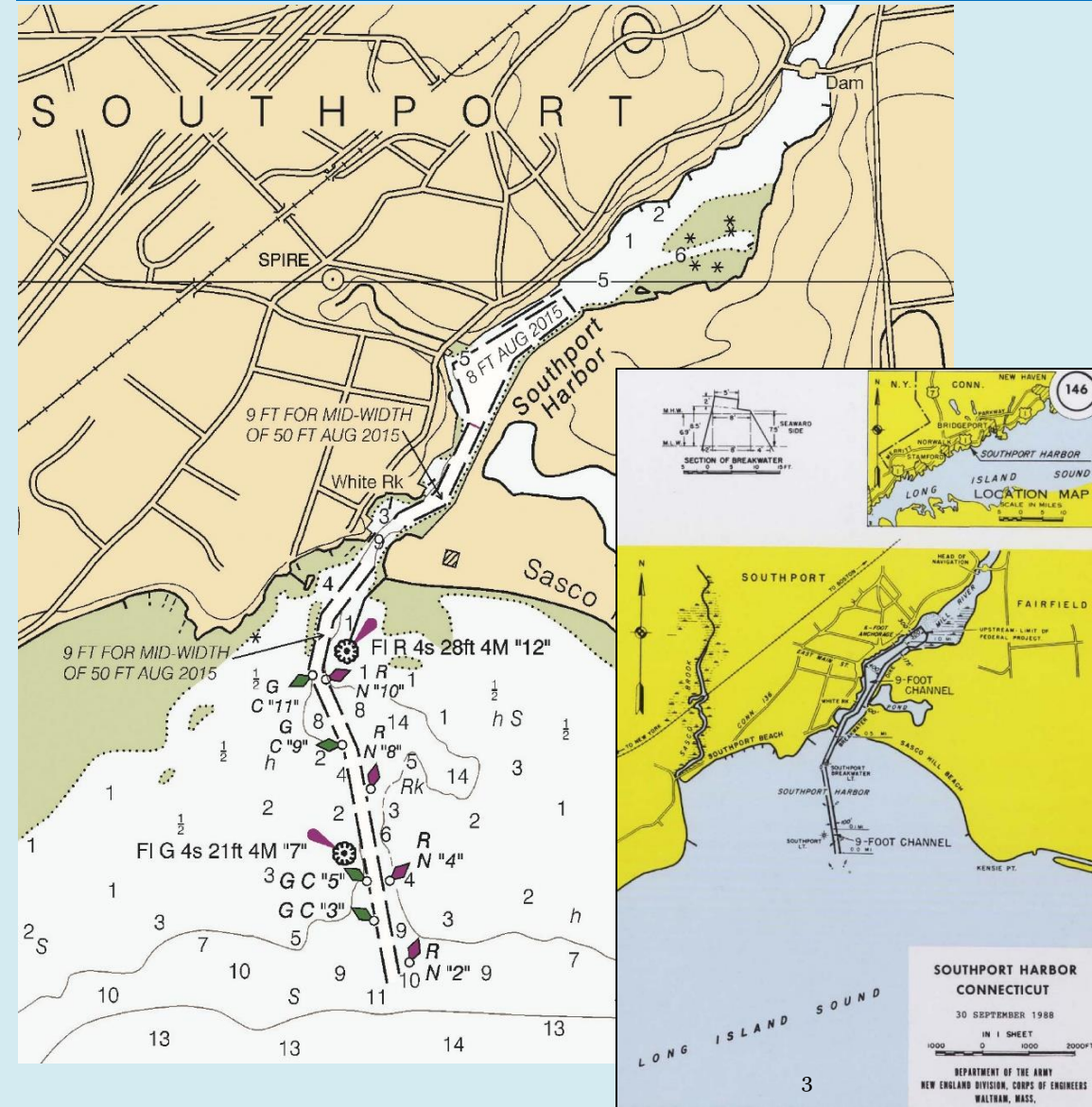
# Federal Navigation Project\*

The Southport Harbor Federal Navigation Project (FNP), first authorized by the U.S. Congress in 1829 and consisting of a designated navigation channel, anchorage area, “breakwater” (jetty), and “dyke” (seawall), has served this historic harbor in western Long Island Sound since the early 1800s. This is one of the oldest Federal Navigation Projects in the United States.\*

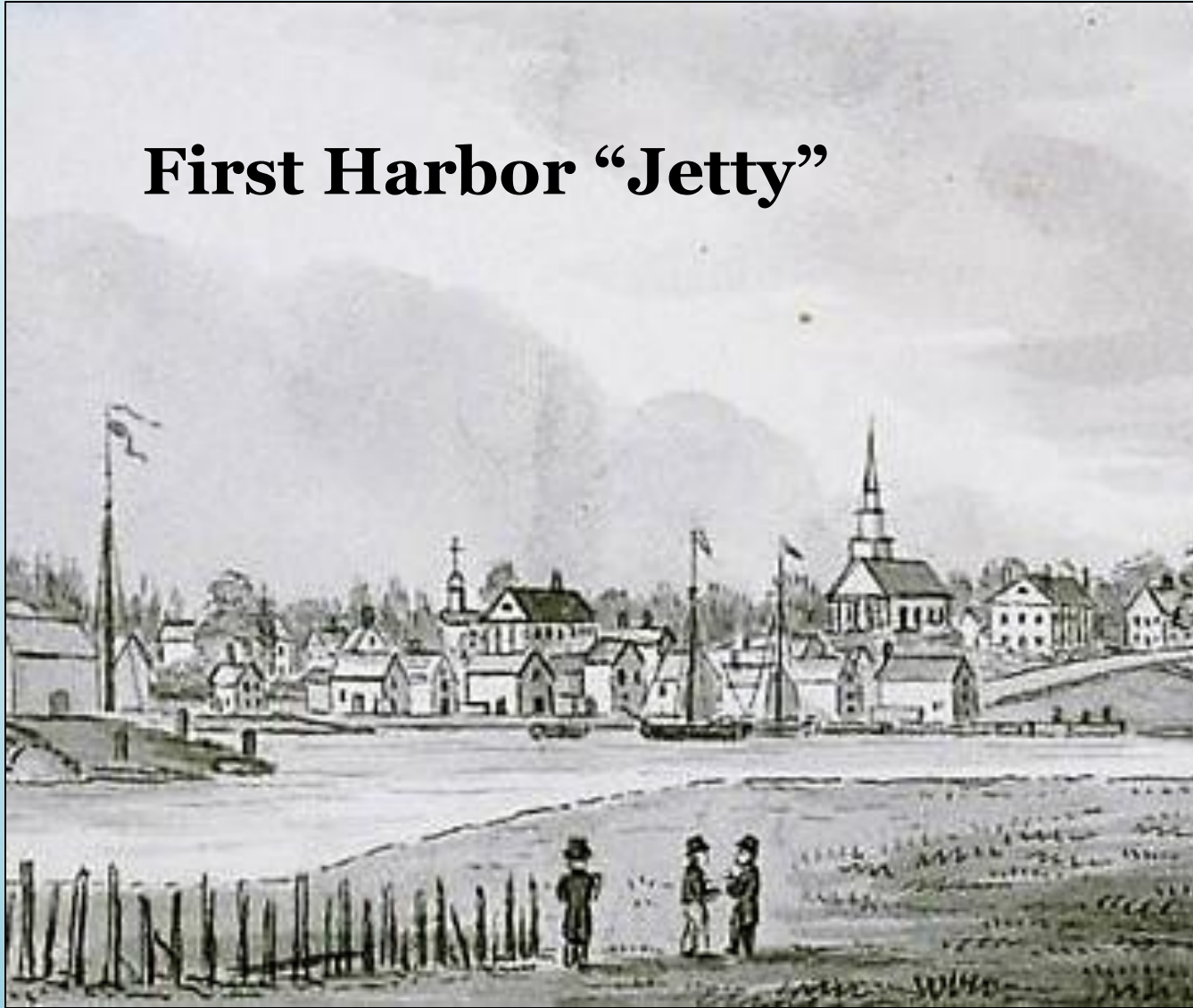
Responsibility for maintaining the FNP, including dredging of accumulated sediment from the channel and anchorage when needed and funds are available, rests with the Corps of Engineers.

Day to day management of the FNP for the public’s use and enjoyment – “open to all on equal terms” - is the responsibility of the FHMC.

\* Please see the FHMC’s July 2023 presentation “Southport Harbor: Historic Navigation Project on the Connecticut Coast.”



## First Harbor “Jetty”



Drawn by J.W. Barber; Engraved by A. Willard

Maintaining a navigation channel in Southport Harbor has been a matter of community interest since the 1700s.

This early 1800s scene by John Warner Barber is from his 1836 book *History and Antiquities of Every Town in Connecticut with Geographical Descriptions*. The engraving depicts the first harbor “jetty.” This involved vertical placement of logs (“pickets”) by townspeople at the mouth of the harbor in an effort to block wind-blown and wave-washed sand from drifting into the harbor. That sand was naturally moving from east to west along the shore, just as it does now.



## Recent Dredging History

Southport Harbor's federal channel and anchorage are subject to natural, ongoing shoaling. As a result, maintenance dredging is needed from time to time to maintain safe and efficient navigation. While today's dredging equipment is a bit different than it was in the early 1800s (when oxen pulled road scrapers in the harbor at low tide), the basic shoaling issues remain the same.

At the request of the FHMC, maintenance dredging was last accomplished by the Corps of Engineers in 2004-05 with federal funds. However, the Corps was not permitted by the State of CT to restore the full channel width of 100 feet near the jetty due to the nearby presence of a protected plant species.

In 2004 and 2014-15 the Fairfield DPW excavated sand from the sand shoal and channel near the jetty and used that sand to nourish Town beaches.



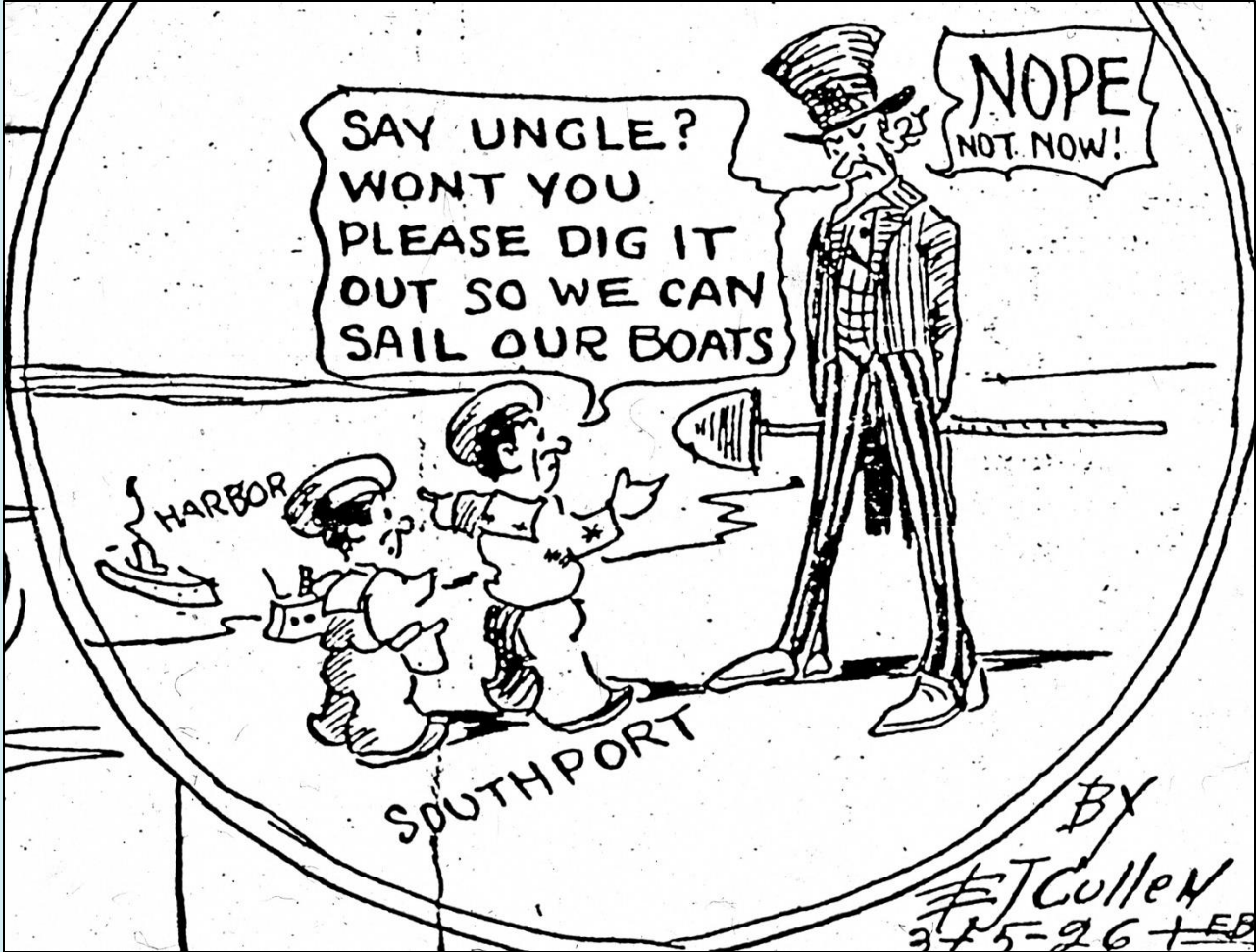
G. Steadman photo



Corps of Engineers Project 2004-05

Hugh Smith photo

# Dredging: A Complex Process



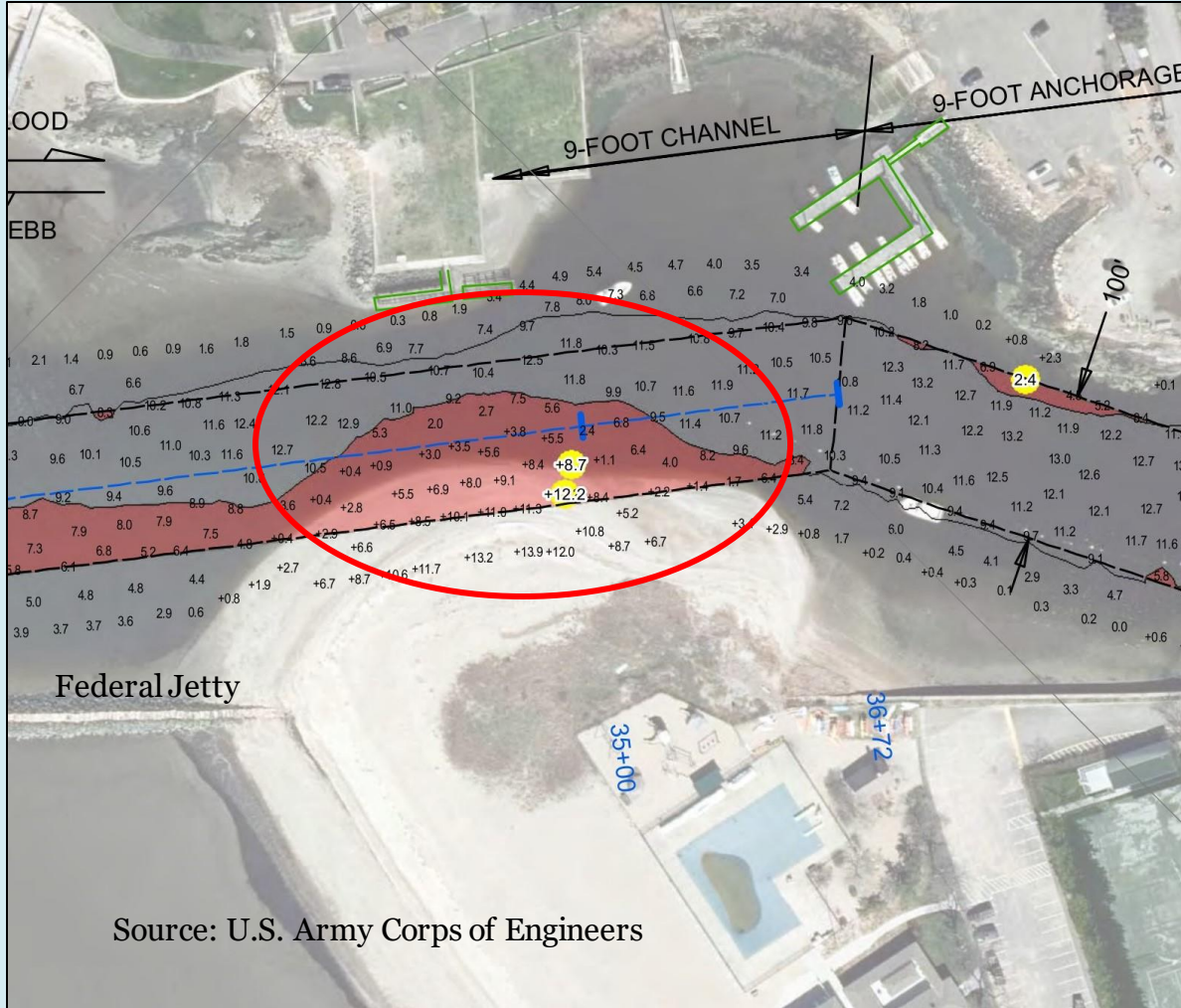
Fairfield News 1926

The dredging process in all Connecticut harbors is inherently complex and lengthy, including many regulatory and funding hurdles, and has been that way for many years (at least 98 judging by the date of this cartoon).

In 1925, the federal government considered eliminating the Federal Navigation Project in Southport due to the decline of waterborne commerce. (Southport Harbor had been a major commercial port on the Connecticut coast.) That idea was reconsidered, however, and Congress reauthorized the FNP specifically to serve recreational boating.



# 2022 Condition Survey



From time to time, the Corps of Engineers conducts condition surveys of the many Federal Navigation Projects it's responsible for maintaining. The latest survey of the Southport Harbor FNP, conducted in 2022, shows that portions of the federal channel have shoaled significantly above the Congressionally authorized depth of 9 ft. at Mean Lower Low Water (MLLW).

Portions of the channel have shoaled so severely that the channel can't support two-way boat traffic during periods of low tide in the critical area circled on this survey drawing near the federal jetty.

## Critical Area of Concern in 2024



G. Steadman photos

*Direction of  
Alongshore Drift*

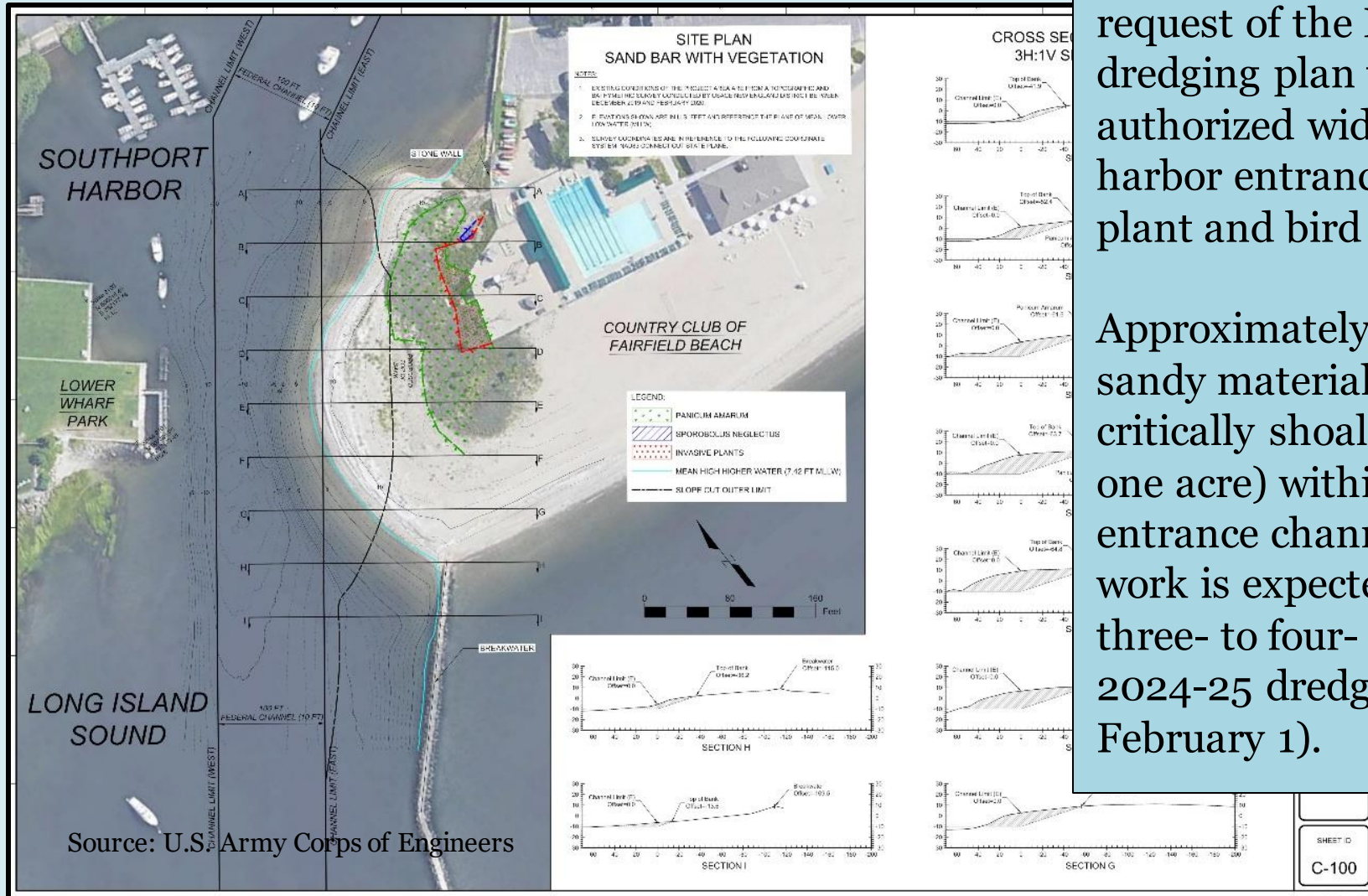
Over many years, wind-blown and wave-washed sand has built up against the east side of the federal jetty, overtopped the jetty, and accumulated in and near the federal channel, thereby creating the ever-expanding “sand shoal” on the west side of the jetty. Efforts to achieve a long-term solution to this problem have been unsuccessful in past years due to the presence of a protected plant species that grows on the shoal and by nesting of an endangered bird species—the piping plover. CT Audubon has monitored the site for the FHMC since 2014 and no endangered birds have been observed nesting over the past ten nesting seasons.



# 2024 Dredging Plan

In 2024, the Corps of Engineers, at the request of the FHMC, has completed a dredging plan to restore the full 100-ft. authorized width and 9-ft. depth of the harbor entrance channel while protecting plant and bird habitat.

Approximately 20,000 cubic yards of sandy material will be dredged from the critically shoaled area (an area of about one acre) within and adjoining the entrance channel. If all goes well, the work is expected to be conducted over a three- to four- week period during the 2024-25 dredging season (October 1 to February 1).



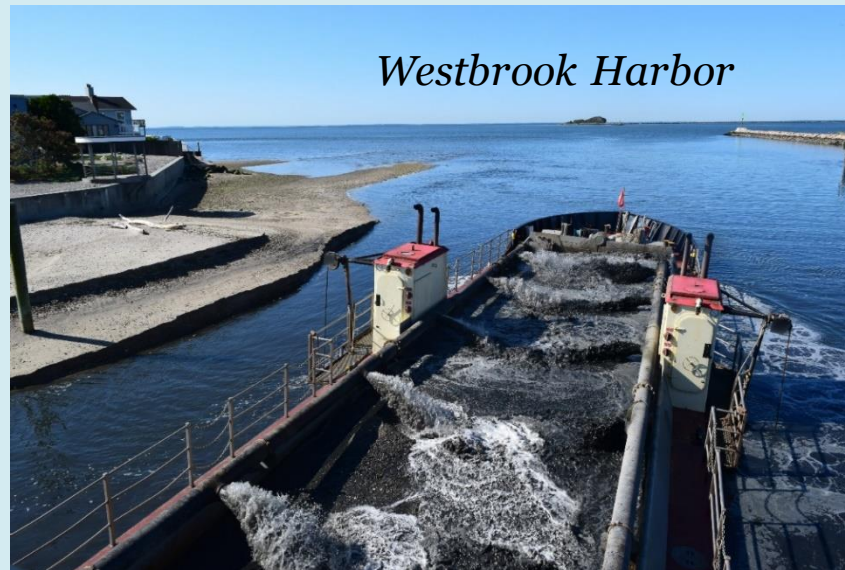


# Hydraulic Hopper Dredge

Since the material to be dredged from the Southport entrance channel is sandy (not fine-grained), use of a Corps of Engineers' hopper dredge –referred to as a “USACE Special Purpose Dredge”— is the preferred method for maintaining the channel. A hopper dredge operates by hydraulically pumping a slurry of bottom sediments into a chamber (hopper) within the vessel. When the hopper is full, the vessel travels to an open water placement site and releases the dredged material from the hopper.



These photos show the Corps' hopper dredge *Currituck* in operation in other CT harbors.





# On-Land Excavating Equipment

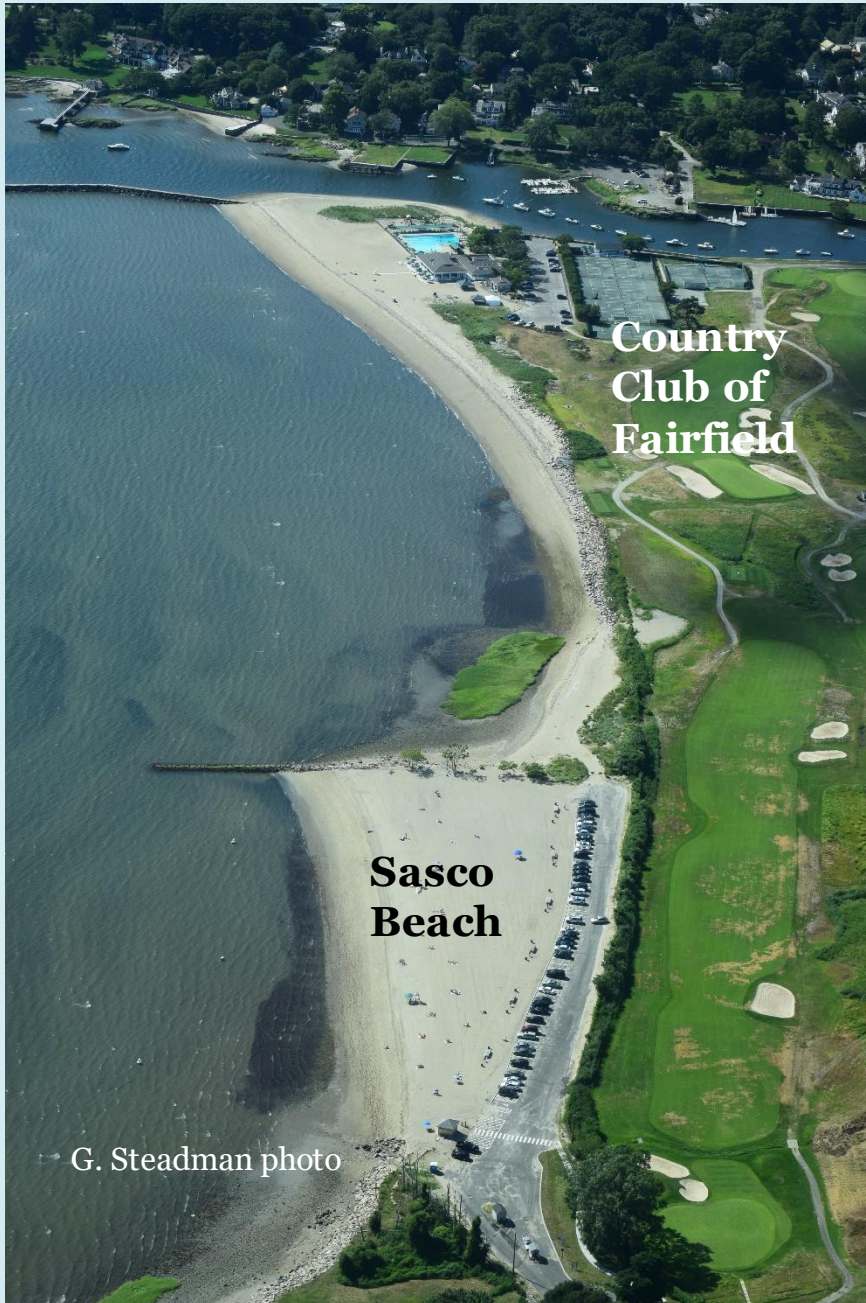


As planned, the government-owned hopper dredge will work in tandem with a long-reach excavator operated by a Corps of Engineers' crew. Sand from the shoal and channel side-slope will be carefully removed and placed in the hopper dredge.

Any vegetation impacted by temporary paths and working areas for the excavator and other on-land equipment will be restored following completion of the dredging project.

This photo shows a long-reach excavator operated by the Town's DPW to remove sand from part of the channel nearest to shore in 2014.



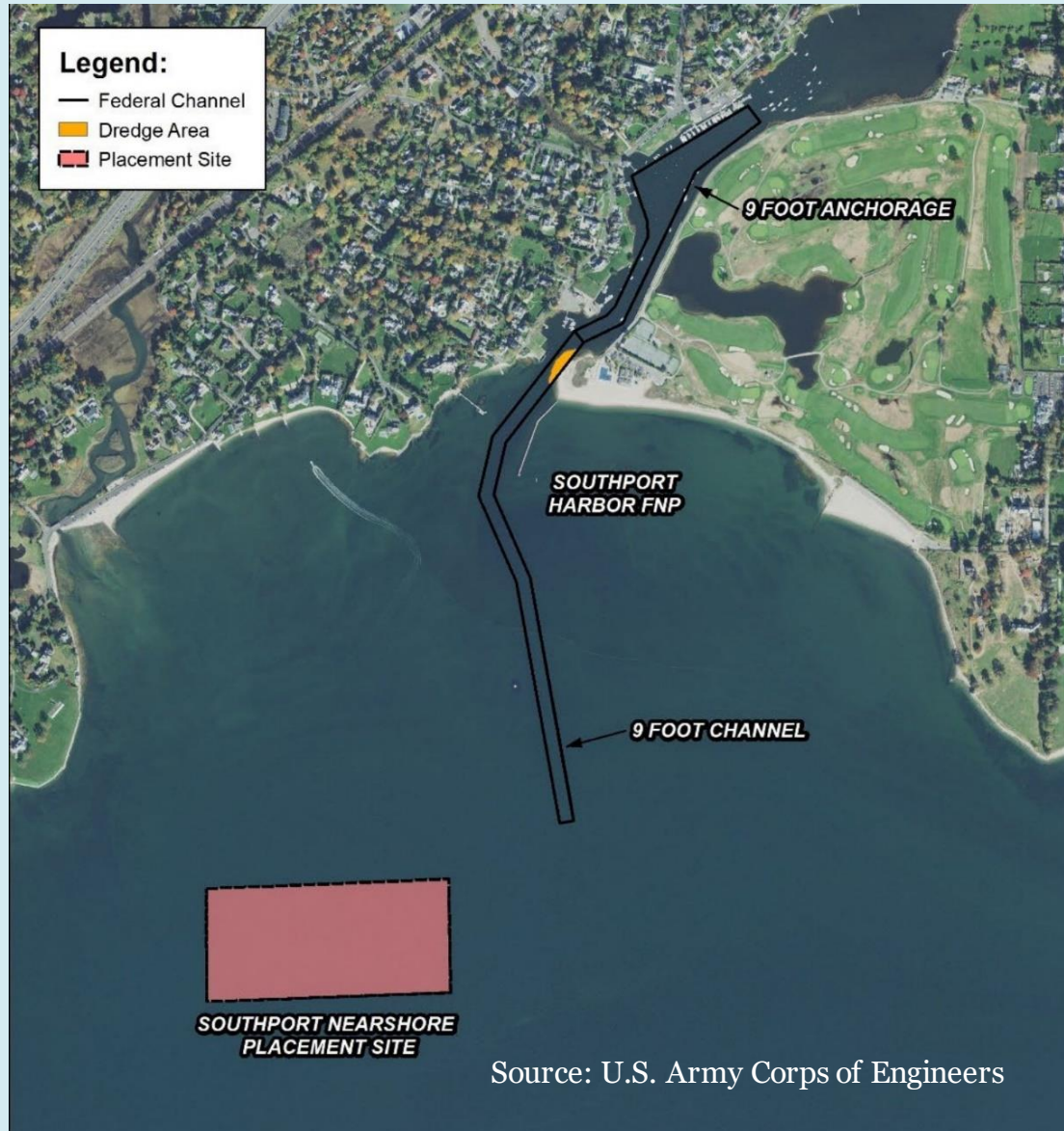


## **Temporary Access through Town Property for Construction Equipment**

To reach the dredging project site at the federal jetty, nearby the Country Club of Fairfield's beach facilities, the Corps of Engineers will need to "walk" the long-reach excavator and any other needed equipment from Sasco Beach along the shoreline shown in this photo, just as the Town DPW did in 2004 and 2014-15.

The Corps of Engineers has requested permission and an easement from the Town for temporary construction access through and over Town property for this purpose.





## Southport Harbor Nearshore Placement Site (SHNPS)

Placement of the dredged material from the hopper dredged is to occur in the nearshore location identified in coordination with the CT Bureau of Aquaculture and shown on this slide. This will create a slight rise in bottom elevation supporting the placement of oyster shell (cultch) and thereby may serve as a pilot project area for shellfish habitat enhancement. Should cultch not be placed on the site, the sandy material will nevertheless remain in the nearshore littoral system where it will circulate naturally.



Final Environmental Assessment  
Finding of No Significant Impact  
and Section 404(b)(1) Evaluation  
for Maintenance Dredging

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## Southport Harbor Fairfield, Connecticut



US ARMY CORPS  
OF ENGINEERS  
New England District

**December 2023**

# Environmental Assessment and Finding of No Significant Impact

In December 2023, the Corps of Engineers published a draft Final Environmental Assessment (EA) to describe the proposed dredging project and evaluate its potential impacts. The EA describes project compliance with the National Environmental Policy Act (NEPA) and concludes with a Finding of No Significant Impact (FONSI).

Following review of public comments and issuance of the final EA, the Corps of Engineers, with support from the FHMC and State of CT Harbor Master for Southport, will submit an application to the CT Department of Energy and Environmental Protection (DEEP) for the state approvals needed to conduct the work.



# State of Connecticut Review and Approval

Pursuant to the “Federal Navigational Servitude” rooted in the U.S. Constitution, the federal government has authority over all activities related to maintaining and improving navigation, including maintenance of Congressionally authorized Federal Navigation Projects. However, certain state approvals also are needed to conduct such work in the coastal area.

State of Connecticut approvals needed to conduct the Southport Harbor dredging project include a “water quality certificate” from DEEP as well as a Coastal Zone Management (CZM) Federal Consistency Determination. All federal actions in the CT coastal zone must be reviewed for consistency with the CT Coastal Management Act (CCMA) that establishes policies for beneficial use and conservation of coastal resources. Among the relevant CCMA dredging policies are the policies *“to encourage, through the state permitting program for dredging activities, the maintenance and enhancement of existing federally maintained navigation channels, basins and anchorages.”*

It is anticipated the Corps of Engineers will apply for these state approvals in April of this year.

# The Southport Harbor Management Plan

The planned maintenance dredging project is consistent with and supported by the Harbor Management Plan which contains a number of dredging-related provisions, including:

- *Periodic maintenance dredging is necessary to maintain existing navigation requirements and boating uses in the Federal Navigation Project...*
- **The most critical area for dredging in the harbor, and therefore the area of highest priority, is at the mouth of the Inner Harbor near the breakwater, where windblown sand covers the breakwater and is deposited in and adjacent to the channel.** [Emphasis added.]
- *As part of its responsibility for actively managing the harbor, the Harbor Management Commission should act at the earliest possible opportunity to obtain needed dredging of the Federal Navigation Project by the Corps of Engineers.*
- *The Harbor Management Commission recognizes that dredging may have adverse impacts on sensitive coastal resources such as intertidal flats and shellfish beds and may also affect water quality. As a result, all dredging in the harbor should be carefully planned and controlled, and prior to any future dredging, an assessment of the potential environmental impacts of dredging and the disposal of dredged material must be conducted...*



# **Allocation of Project Funds**

**ARMY CIVIL WORKS PROGRAM  
INFRASTRUCTURE INVESTMENT AND JOBS ACT  
FY 2022**

**OPERATION AND MAINTENANCE SPEND PLANS**

**SOUTHPORT HARBOR, CT -  
\$1,280,000.00**

# Sand Management

In addition to the planned dredging project to restore the channel's 100-foot width and 9-foot depth, longer-term measures to reduce the natural movement of sand over the harbor jetty also are needed. This may require work to expose the jetty by moving sand away from the updrift (east) side of the jetty and require coordination with the adjoining Country Club of Fairfield.





## **To Be Continued...**

**The Harbor Management Commission appreciates everyone's interest and support for our continued efforts to manage safe and beneficial use of Southport Harbor and protect the harbor's exceptional natural and cultural resources for the benefit of future generations.**

**For more information about our work, including presentations concerning the Harbor Management Plan and the most interesting history of the Federal Navigation Project, please visit our website at:**

**[www.fairfieldct.org/hmc](http://www.fairfieldct.org/hmc)**

**Email any questions to us at:**

**[HMC@fairfieldct.org](mailto:HMC@fairfieldct.org)**

# Acknowledgments

## Fairfield Harbor Management Commission

Don Hyman (Chair)

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G. Steadman photo

Power Point presentation by G. Steadman for the FHMC.

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