



# City of Virginia Beach

OFFICE OF THE CITY MANAGER  
(757) 385-4242  
(757) 427-5626 FAX

**VBgov.com**  
MUNICIPAL CENTER  
BUILDING 1, ROOM 234  
2401 COURTHOUSE DRIVE  
VIRGINIA BEACH, VA 23456-9001

September 18, 2020

The Honorable Robert M. Dyer, Mayor  
Members of City Council

**SUBJECT: Norfolk Harbor & Channels Deepening – Bay Beaches Replenishment**

Dear Mayor and Council Members:

Enclosed for your review is a copy of the presentation that will be given at the September 22, 2020 City Council meeting. I have been made aware that this topic had been presented to City Council in 2018 and 2019. The briefing next Tuesday, will be an update seeking informal Council concurrence to proceed with negotiations on a Memorandum of Agreement with the Virginia Port Authority.

This is a great opportunity for the City to potentially obtain beach replenishment for our bay beaches at a significant discount, as compared to traditional methods. While we are seeking informal concurrence to proceed with negotiations, City Council will be presented with a draft Memorandum of Agreement for consideration and formal approval.

If you have any questions or need additional information, please contact me or Deputy City Manager David Bradley.

Sincerely,

Patrick A. Duhaney  
City Manager

Attachment (1)

c: David A. Bradley, Deputy City Manager  
Mark A. Johnson, P.E., Director of Public Works  
Phillip D. Pullen, P.E., Public Works City Engineer  
Phillip J. Roehrs, P.E., Public Works Engineering  
Daniel F. Adams, P.E., Public Works Engineering

# **Beach Replenishment With The Norfolk Harbor & Channels Deepening Project**

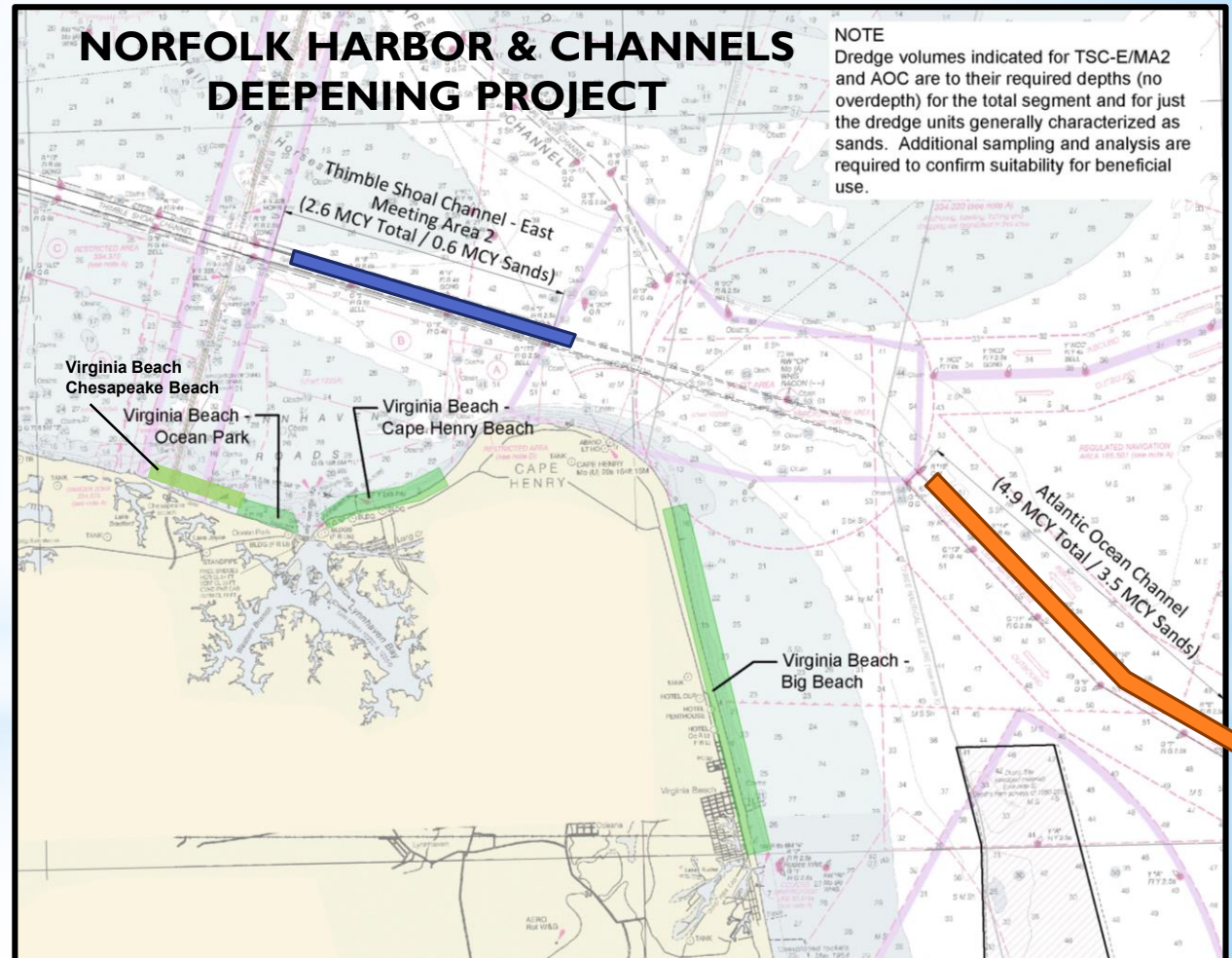


**City Council Briefing - September 22, 2020**  
**Phill Roehrs, Public Works**

# Estimated Volumes Of Available Sand

- Thimble Shoals Channel  
(VPA Contract)
  - 600k CY of sand
  - Potential for up to 1.6M CY of sand
  - Start in Late 2021
- Atlantic Ocean Channel  
(USACE Contract)
  - 3.5M CY of sand
  - Nov 2022\*

*\*not yet appropriated*



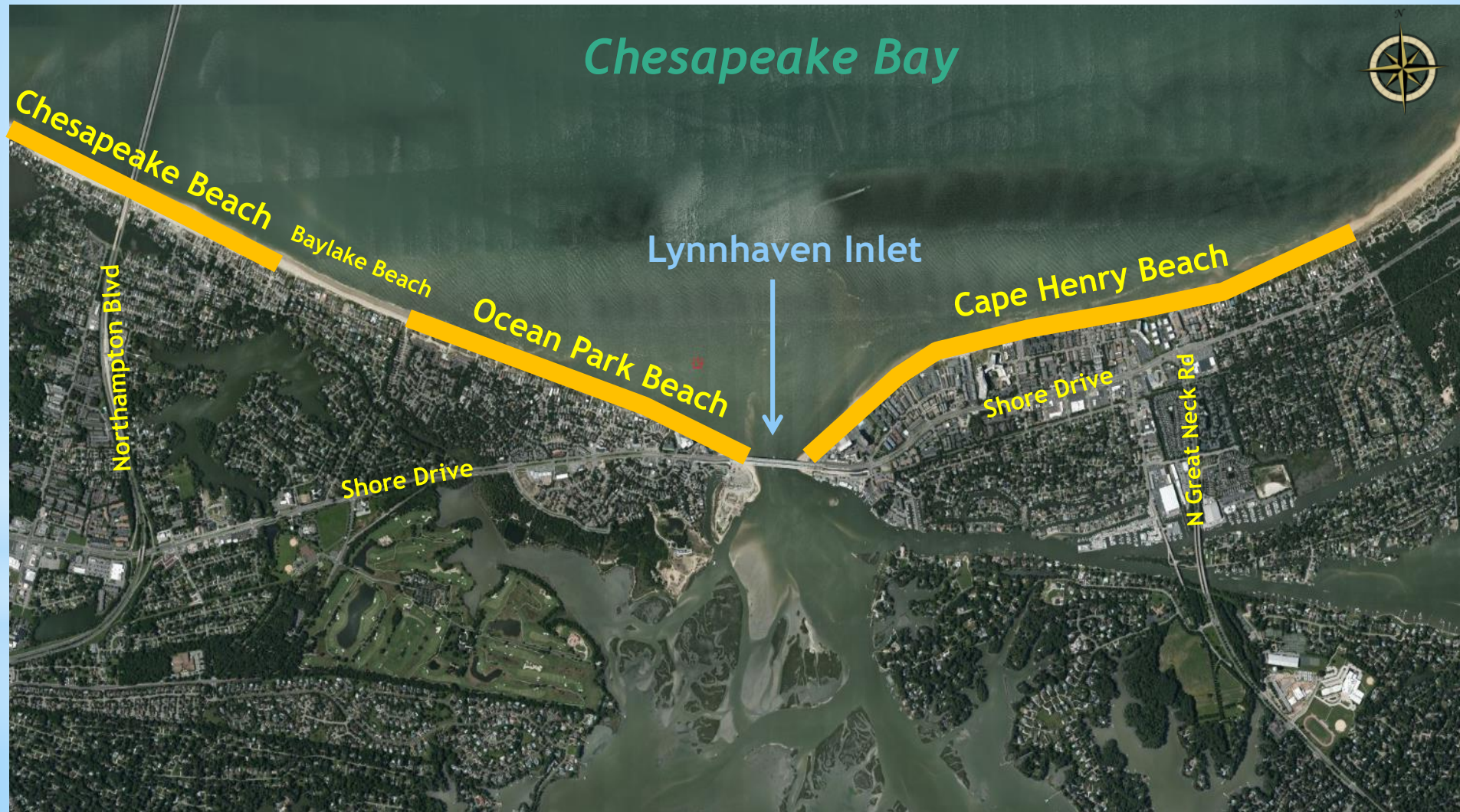


# Thimble Shoal Channel Deepening Project Milestones

---

- Sediment Sampling: August – Sept 2020
- USACE Design Reviews March 2021
- Section 103 Concurrence: March 2021
- Contract Advertisement: July 2021
- Dredge Start: November 2021

# The Bay Beaches





# Cape Henry Beach

- 2 Mile shoreline
- Last nourished in Summer 2019 with the Lynnhaven Inlet Federal Dredging Project
- 245,000 CY of sand needed to enhance bayfront shoreline protection (March 2019 Study)





# Ocean Park Beach

- 1 Mile shoreline
- Last nourished in Winter 2013 with the Lynnhaven Inlet Federal Dredging Project
- 310,000 CY of sand needed to enhance bayfront shoreline protection





# Chesapeake Beach

- 1 Mile shoreline
- First replenishment/restoration in Spring 2018 (City contract)
- Initial project reversed decades of erosion and reestablished shoreline protection
- Up to 200,000 CY of sand needed to maintain the beach and restore the dune system



Lauderdale Ave

Pleasure House Rd  
Northampton Blvd

Lookout Rd

Fentress Ave

Ocean View Ave

Lee Ave



# Advantages

---

- City would only pay the difference between the cost of ocean disposal of the dredged sand and the cost to place the sand on the beach.
- Cost difference should be a fraction of the cost of traditional beach replenishment – less than \$10 per cubic yard vs. as much as \$20 per cubic yard.
- Preliminary sand source investigation identifies at least 600,000 cubic yards of beach quality sand available in Thimble Shoals Channel.
- Economically replaces the plan for stand-alone contracts.
- Needed City funding is available within Coastal CIP appropriations.

# Disadvantages

---

- Material quality and quantity not yet confirmed. Desire uniform grain size without pockets of undesirable material. Norfolk also has plans to use sand from the project; final available volume for Virginia Beach may not achieve all goals.
- City will not be contracting agency. Beach placement schedule and methods will be minor parts of a much larger project.



# Next Steps

---

- November 1, 2020 – Virginia Beach updates permits to allow for beach placement of channel dredging sand.
- December 1, 2020 – Memorandum of Agreement executed between City and the Virginia Port Authority.
- Defer re-advertisement of stand-alone Ocean Park Beach replenishment.
- July 2021 – contract advertised.
- November 2021 – work begins.
- 2022 – initiate agreement with Corps of Engineers for the placement of Atlantic Ocean Channel sand on the Resort Beach

# Recommendations

---

- Informal City Council authorization to develop draft Memorandum of Agreement with the Virginia Port Authority to place acceptable sand on our Bay beaches as part of the Norfolk Harbor & Channel Deepening Project.
- Informal City Council concurrence to defer the re-advertisement of Ocean Park Beach Restoration, seeking instead to accomplish that work with the Norfolk Harbor & Channels Deepening Project.





# QUESTIONS