BARBARA MELVIN, COO SOUTH CAROLINA PORTS AUTHORITY UPDATE











MISSION OF THE PORT

South Carolina Ports Authority (SCPA) promotes, develops and facilitates waterborne commerce to meet the current and future needs of its customers, and for the economic benefit of the citizens and businesses of South Carolina. SCPA fulfills this mission by delivering cost competitive facilities and services, collaborating with customers and stakeholders, and sustaining its financial self-sufficiency.

SOUTH CAROLINA PORTS







TO BE THE PREFERRED PORT OF THE TOP 10U.S. CONTAINER PORTS

SOUTH CAROLINA PORTS VISION & VALUES





SOUTH CAROLINA PORTS AUTHORITY OVERVIEW



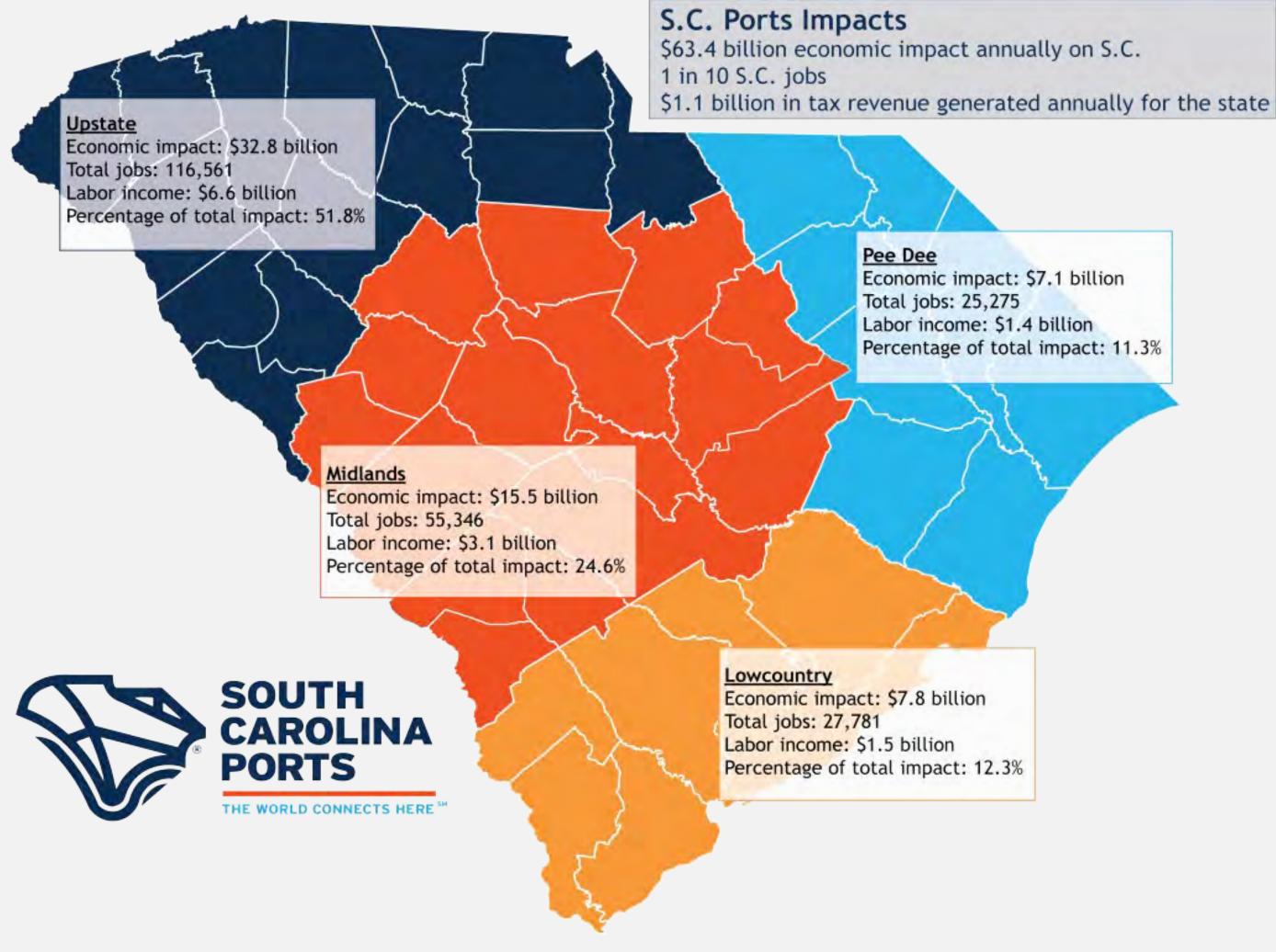


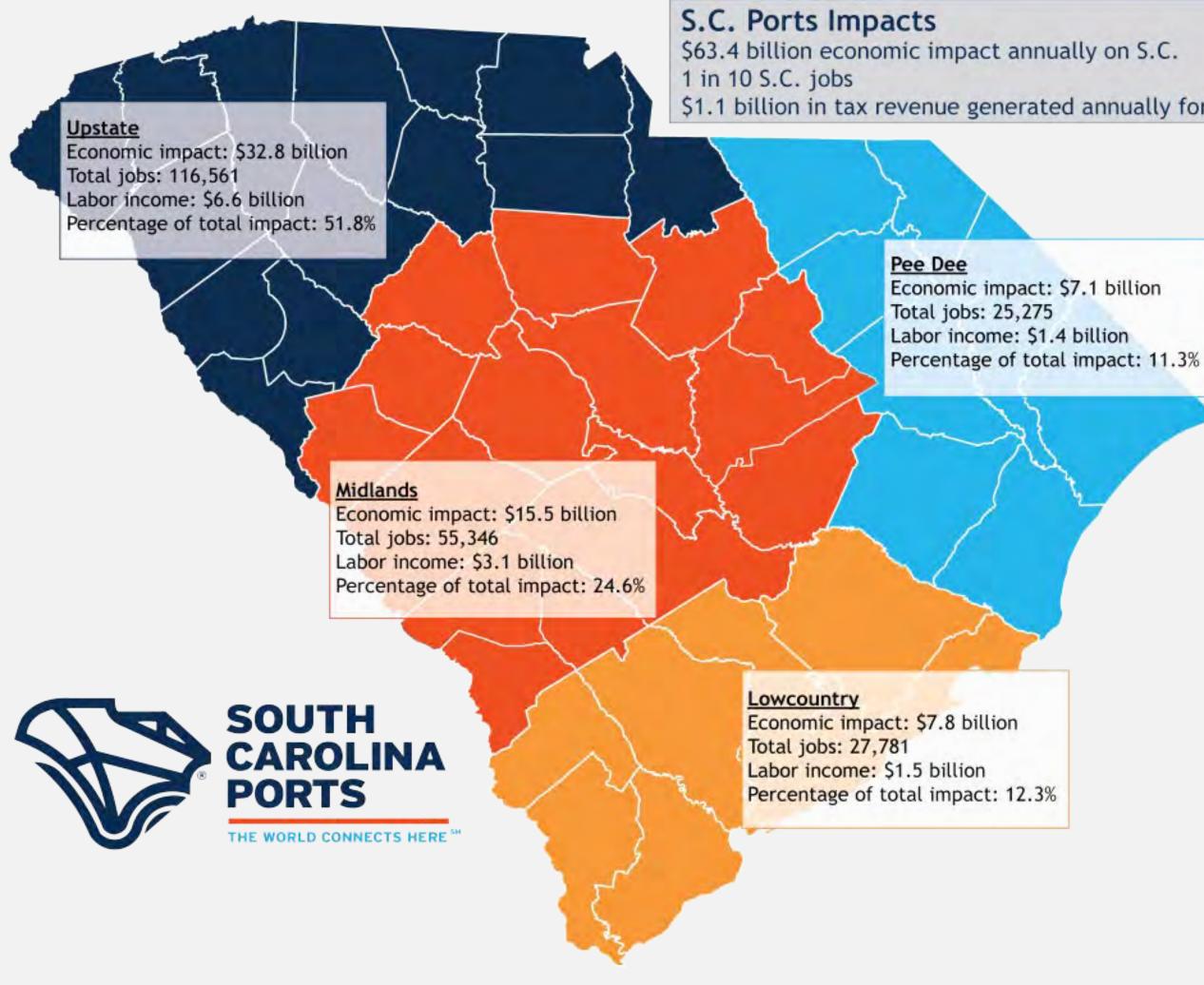
- State owned and operated port
- Citizens of South Carolina are its shareholders
- Strong governance model:
 - 11-person board, 9 appointed by governor, 2 ex-officio by Cabinet Office
 - Review and Oversight Commission of the SC Legislature = 5 Senate/5 House
- Major economic driver for state of SC and Southeast Region
- A long cycle business requiring timely and costly infrastructure
- A competitive global business which is SC's face to the world
- Organized and managed based on sound business principles

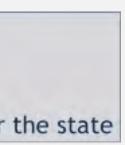


SC PORTS HAS SIGNIFICANT IMPACT **IN SOUTH CAROLINA**

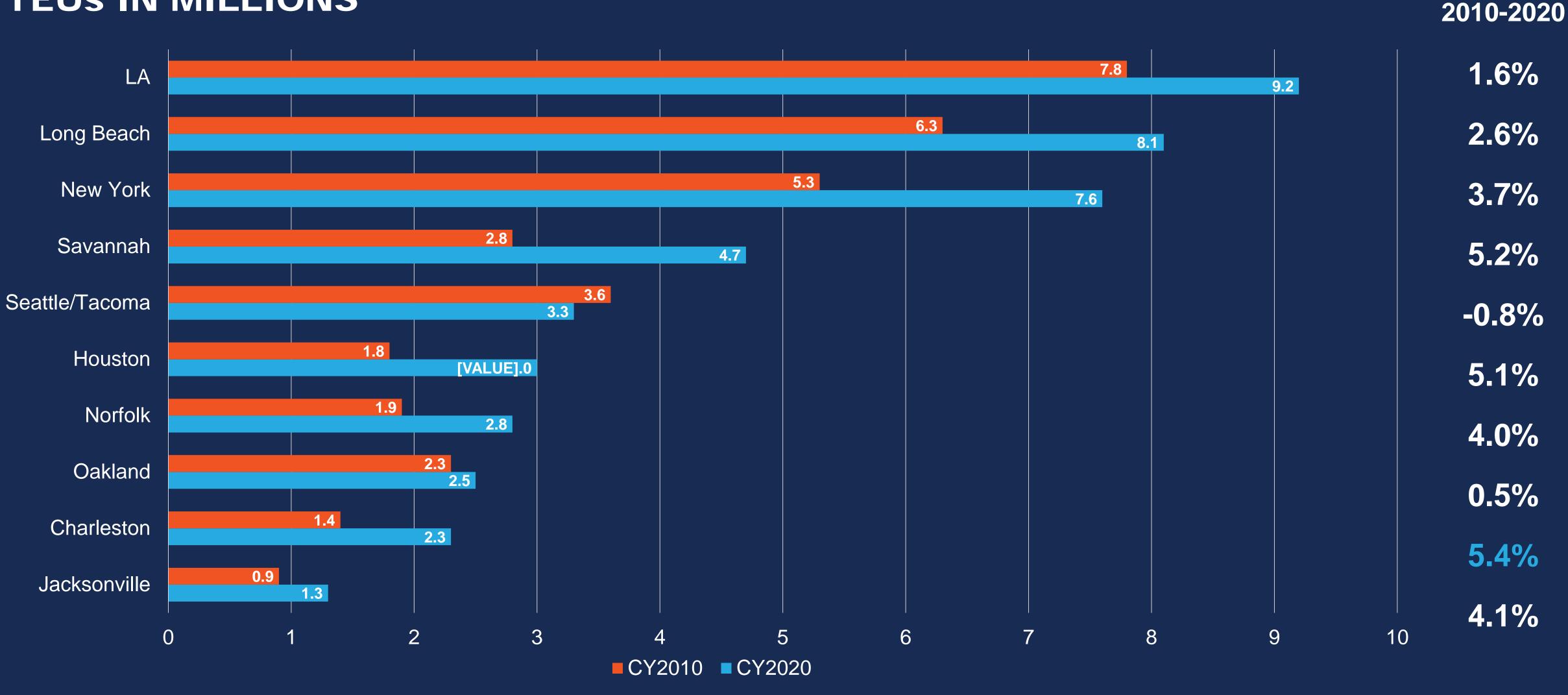
- Responsible for 1 in 10 direct and indirect jobs
- Accounts for \$63 billion in economic output
- Most global trade dependent state in the U.S.
- Port volume doubled through doubling of advanced manufacturing
- Ideally suited to play a larger role in retail and e-commerce distribution
- Average port-related wage 35% higher than state per capita income
- SC Ports strategic focus on increasing discretionary rail volumes contributes an additional \$12 billion in economic impact annually for the Southeast Region outside of SC — this increases SCPA's overall economic impact by 19%







2020 TOP 10 US PORTS **TEUS IN MILLIONS**



TOP 10 US PORTS HANDLE 80% OF US PORT VOLUME.

Source: AAPA & individual port websites 2020 Jacksonville reflections FY Oct-Sept





































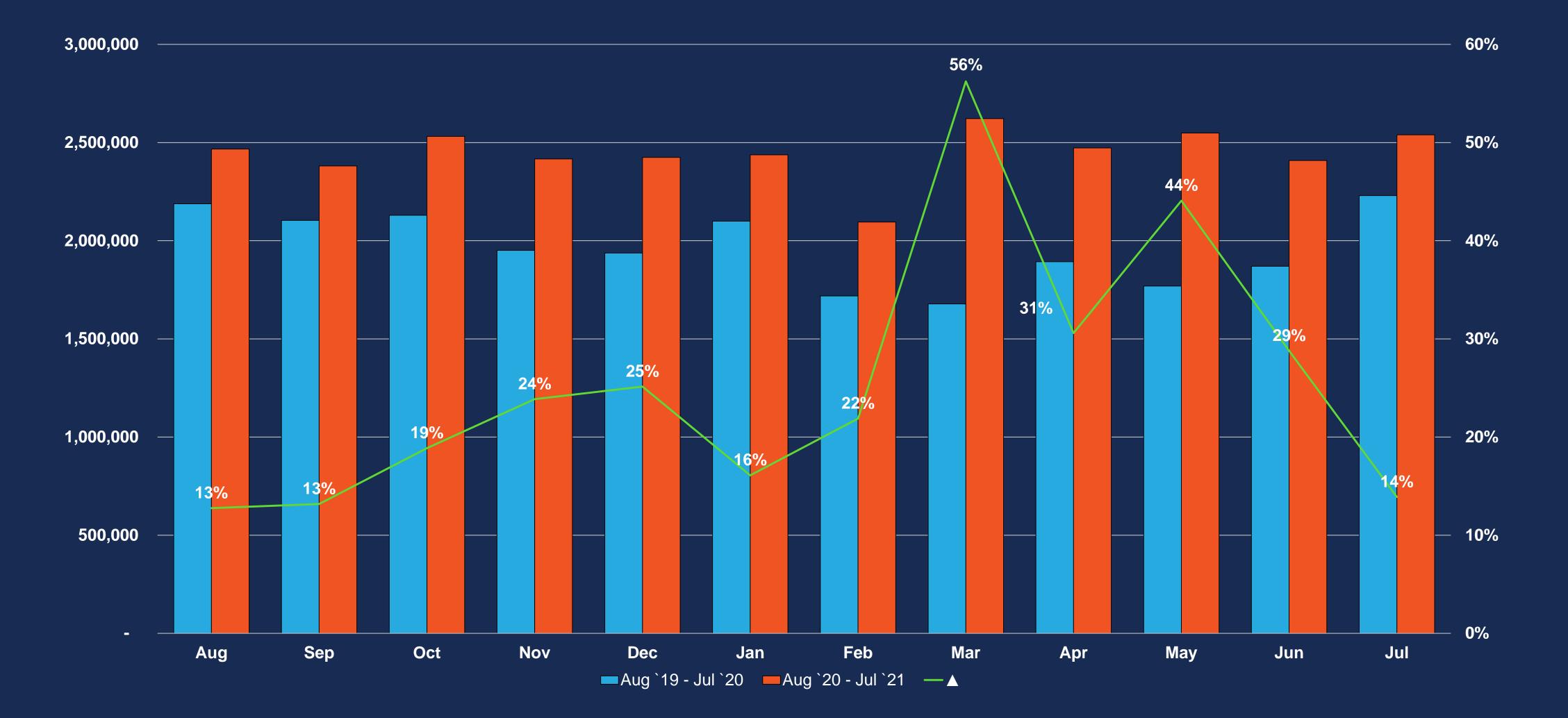












Source: JOC PIERS / IHS MARKIT

INNUMERABLE CHALLENGES IN THE U.S. GLOBAL SUPPLY CHAIN









"JUST IN TIME" INFRASTRUCTURE

WANDO TERMINAL

LEATHERMAN TERMINAL

HARBOR DEEPENING

INLAND PORTS

NBIF / WANDO BARGE



WANDO TERMINAL INFRASTRUCTURE IMPROVEMENTS



- Revitalized wharf, toe wall, and buildings
- 15 cranes at 155 feet / 47.2 meters of lift height
- Able to reach a 10th tier working over 9 high stacks on the CMA CGM Brazil
- 65 RTGs and 28 empty container handlers = reducing toplifters
- 40 truck gates
- Densifying stacks to reach 2.4 million TEU capacity
- Able to handle 3 x 14,000 TEU simultaneously



HUGH K. LEATHERMAN TERMINAL

- First greenfield terminal in US since 2009
- Total investment in three phases of \$2 billion
- 5 cranes at 169 feet / 51.5 meters of lift height
- 25 hybrid RTGs from ZPMC
- Dedicated access road to / from I-26
- The gateway to a near dock Navy Base Intermodal Facility (NBIF)
- 2.4 million TEU of capacity at full build out

OOCL BRUSSELS May 2021





NEW BIG SHIP ORDERS



NEW BIG SHIP ORDERS ARE PLENTIFUL FOR DELIVERY BY 2023

18,000 - 24,000 53 SHIPS

10,000 - 18,000 120 SHIPS

Most of the 10,000 - 18,000 are 15,000 and above – validates our big ship investment thesis –



7,500 - 10,0003,000 or less0 SHIPS184 SHIPS



CHARLESTON HARBOR OVERVIEW

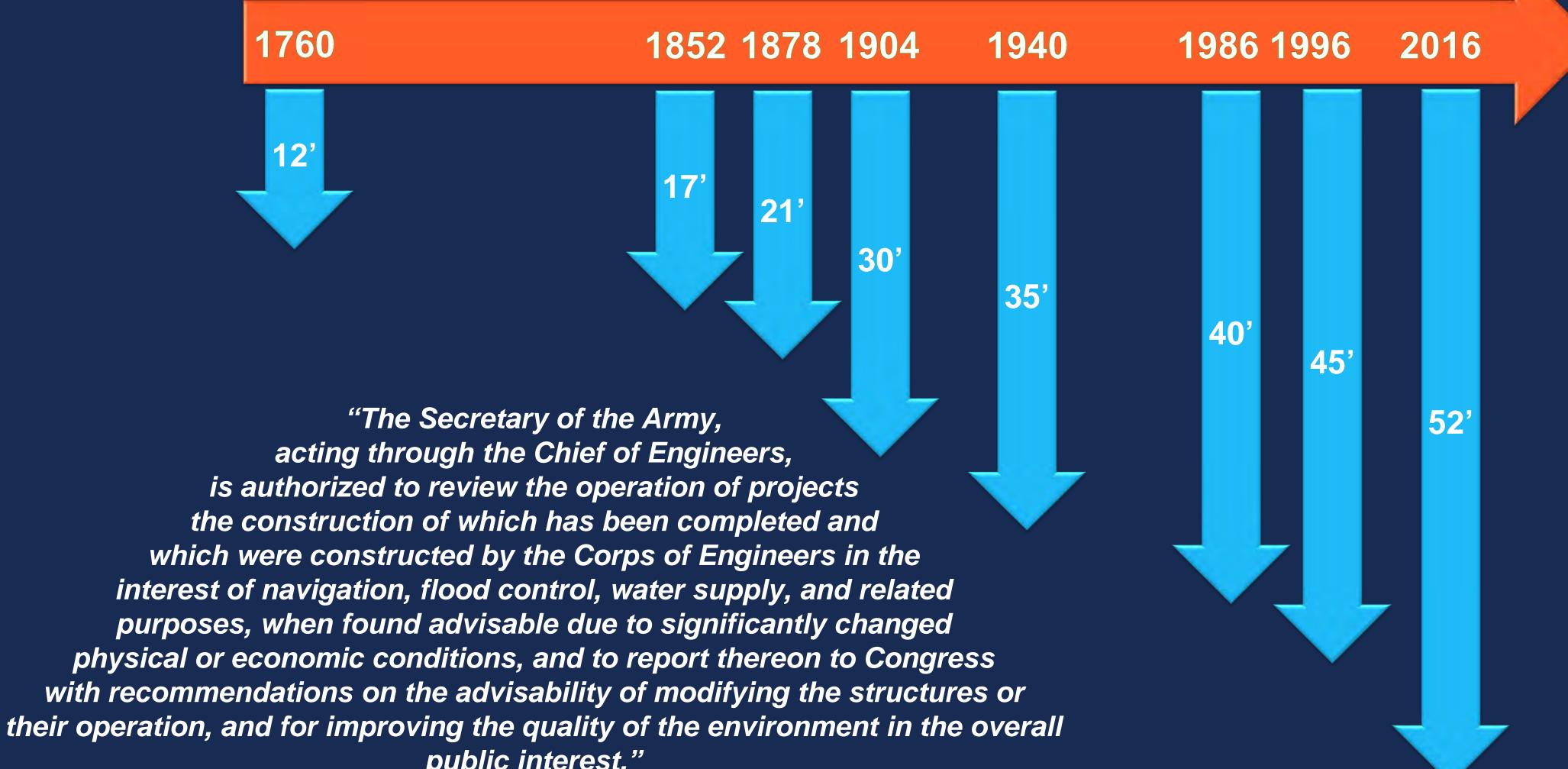


Charleston Harbor Terminal	Container	Roll On Roll Off	Break Bulk
North Charleston	Х	Х	Х
Veterans		Х	Х
Hugh Leatherman, Sr.	Х		
Columbus Street		Х	Х
Union Pier		Х	Х
Wando Welch	Х		





CHARLESTON HARBOR DEEPENING LEGISLATIVE AUTHORITY & TIMELINE



is authorized to review the operation of projects the construction of which has been completed and which were constructed by the Corps of Engineers in the interest of navigation, flood control, water supply, and related purposes, when found advisable due to significantly changed physical or economic conditions, and to report thereon to Congress with recommendations on the advisability of modifying the structures or public interest."

- Section 216, Flood Control Act of 1970



USACE CIVIL WORKS - SMART PLANNING

"It is absolutely essential that the U.S. Army Corps of Engineers transform its study processes if it is to remain at the forefront of federal agencies the Nation turns to when seeking answers for water resources challenges. The current study processes too often leave our stakeholders and the Nation waiting for critical answers."

– Jo-Ellen Darcy, Assistant Secretary of the Army for Civil Works

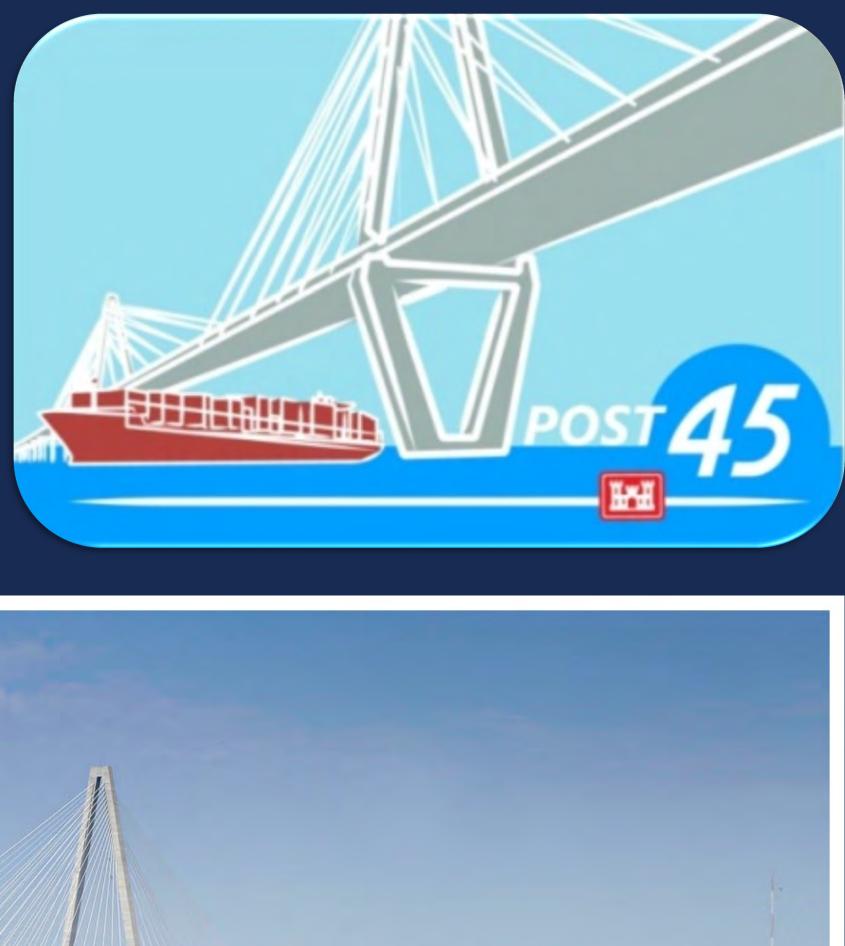
- Started in **2012**
- *Modernize* and *streamline* the project planning process to produce Chief's Reports faster and at lower cost
- Enhance the **budget development process** through a systems-oriented watershed approach and innovative financing
- Improve *methods of delivery* to produce and deliver critical products and services
- Evaluate the current and required portfolio of water resources projects through a smart *infrastructure strategy*



CHARLESTON HARBOR "POST 45" DEEPENING PROJECT

First USACE project to execute the streamlined Civil Works process

- Study Cost: Reduced from an estimate of \$19M to \$11.75M
- Study Schedule: Reduced from 8 to 3 yrs
 - 2012 Presidential "We Can't Wait" Project
- **Project Team Integration/Collaboration:**
 - **USACE** Charleston District
 - **USACE** South Atlantic Division,
 - HQ USACE
 - South Carolina Ports Authority
 - State support Legislative and Agencies







CHIEF'S REPORT SIGNED SEPTEMBER 2015



DEPARTMENT OF THE ARMY CHIEF OF ENGINEERS 2600 ARMY PENTAGON WASHINGTON, DC 20310-2600

DAEN

SEP 8 2015.

SUBJECT: Charleston Harbor Post 45 Navigation Study, Charleston, South Carolina

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress the final integrated feasibility report and environmental impact statement on navigation improvements for Charleston Harbor, Charleston, South Carolina. It is accompanied by the report of the district and division engineers. This report was prepared under the authority of Section 216 of the Flood Control Act of 1970, Public Law 91-611, 91st Congress, H.R. 19877, December 31, 1970, which authorizes the review of completed projects to recommend modifications to their structures or operation, and for improving the quality of the environment in the overall public interest. Planning, engineering, and design activities for the Charleston Harbor Post 45 Navigation Project will continue under this same authority. Charleston Harbor has strategic national importance for military readiness. It supports Joint Base Charleston, which includes the U.S. Air Force 628th Air Base Wing, Air Mobility Command at Charleston Air Force Base and the U.S. Navy Naval Support Activity, Charleston containing the Naval Weapons Station Charleston and host to over 60 Department of Defense and federal agencies. Joint Base Charleston maintains base property and capital assets spanning three seaports, two civilian-military airfields, 38 miles of rail, and 22 miles of coastline; facilitates movement of critical munitions and military vehicles; and participates in the Global Threat Reduction Initiative. Charleston Harbor is also identified as a critical infrastructure project in the President's "We Can't Wait" Press Release, under Executive Order 13604, March 22, 2012.

2. The reporting officers recommend a project that will contribute to the economic efficiency of commercial navigation. The national economic development (NED) Plan includes a channel project depth of -50 feet Mean Lower Low Water (MLLW) with associated channel widening and turning basins. Based on Fiscal Year (FY) 2015 price levels, a 3.375-percent discount rate, and a 50-year period of analysis, the project first cost of the NED Plan is \$448,700,000, with average annual benefits of \$103,100,000; average annual costs of \$25,700,000; and a benefit-to-cost ratio of 4.0. The non-federal sponsor, the South Carolina Ports Authority (SCPA), subsequently requested a locally preferred plan (LPP) with a project depth of -52 feet MLLW containing associated channel widening and turning basins. The LPP has positive net benefits and is economically justified. In accordance with U.S. Army Corps of Engineers (Corps) policy, the LPP was submitted for consideration to the Assistant Secretary of the Army for Civil Works (ASA(CW)) and approved for consideration as the recommended plan on October 1, 2014. The recommended plan is the LPP and consists of the following navigation improvements (depths do not include overdepth or advance maintenance depths):

sponsor), interested federal agencies, and other parties will be advised of any significant modifications and will be afforded an opportunity to comment further.

Lieutenant General, USA Chief of Engineers











CHARLESTON HARBOR POST 45 EXECUTIVE SUMMARY: REFERENCE AID

CHARLESTON HARBOR DEEPENING

- Miles of Channel Dredged: Approx. 28 miles
- Dredged Material Removed: Approx. 41 Million Cubic Yards
- Benefit to Cost Ratio: 4.6
- Non-Fed SCPA / State of S.C. Funding: \$333.7 MM
- Federal Funding Appropriated: \$245.9 MM
- Total Funding Available: \$ 579.7 MM
- Awarded Contract Costs to Date: \$ 542.2 MM
- Contingency: \$28.2 MM
- Funding Over Projected Cost + Contingency: \$8.9 MM





CHARLESTON HARBOR DEEPENING POST 45 TIMELINE

MOVING AHEAD!

We Are Here

Engineering, & Design Ship simulation **Design Agreement**

> Chief's Report (Sept 2015)

Final Report (Spring 2015)

Draft Report (Summer 2014)

Feasibility Cost Sharing Agreement (2011)

Feasibility 31 monthsl

- **Relocate aids to navigation**
- **Environmental Mitigation & Monitoring**
- Disposal facility dike raising
- AD-16 months) Artificial reef and berm construction
 - Dredging Commencement

Operations .

Maintenance

- Project Partnership Agreement
- Authorization & Appropriation
- Early engagement with dredging industry
- Plans and specifications

construction

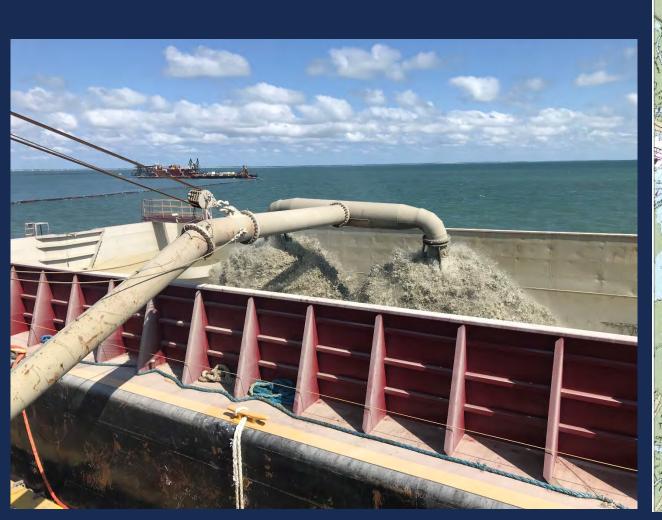
- Further investigation of beneficial use of dredged material

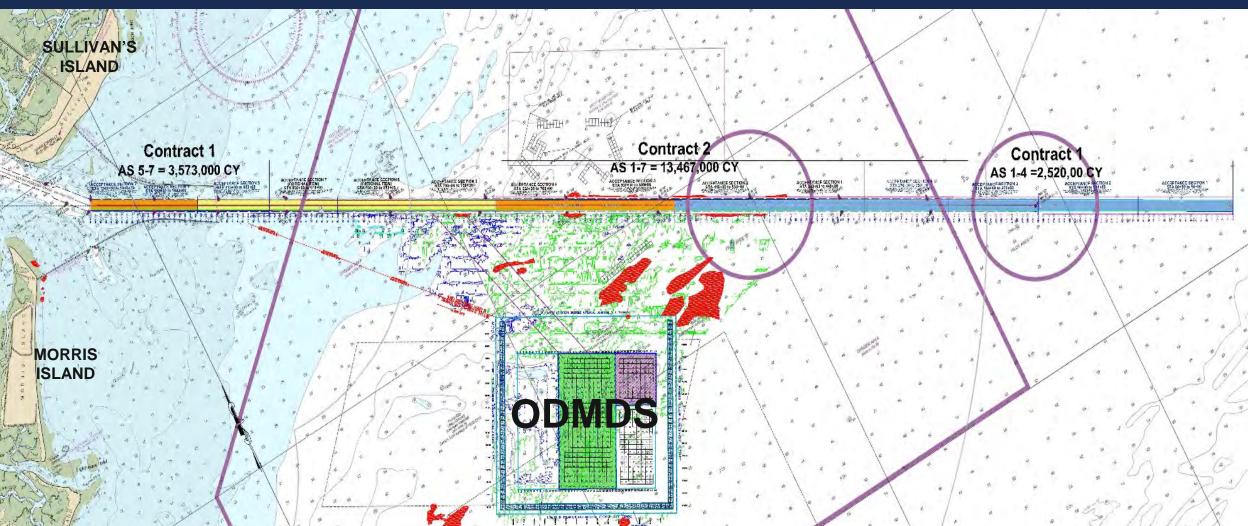


ENTRANCE CHANNEL CONSTRUCTION

CONTRACT 1

DREDGE TYPE: Hopper PLACEMENT: ODMDS TOTAL LENGTH: 9.84 Miles QUANTITY: > 6,000,000 cy DEPTH: authorized 54 feet CONTRACT VALUE: \$47.2 Million AWARD: September 2017 (GLD&D) AWARD AMOUNT: \$47 M DREDGE COMPLETE: March 2022



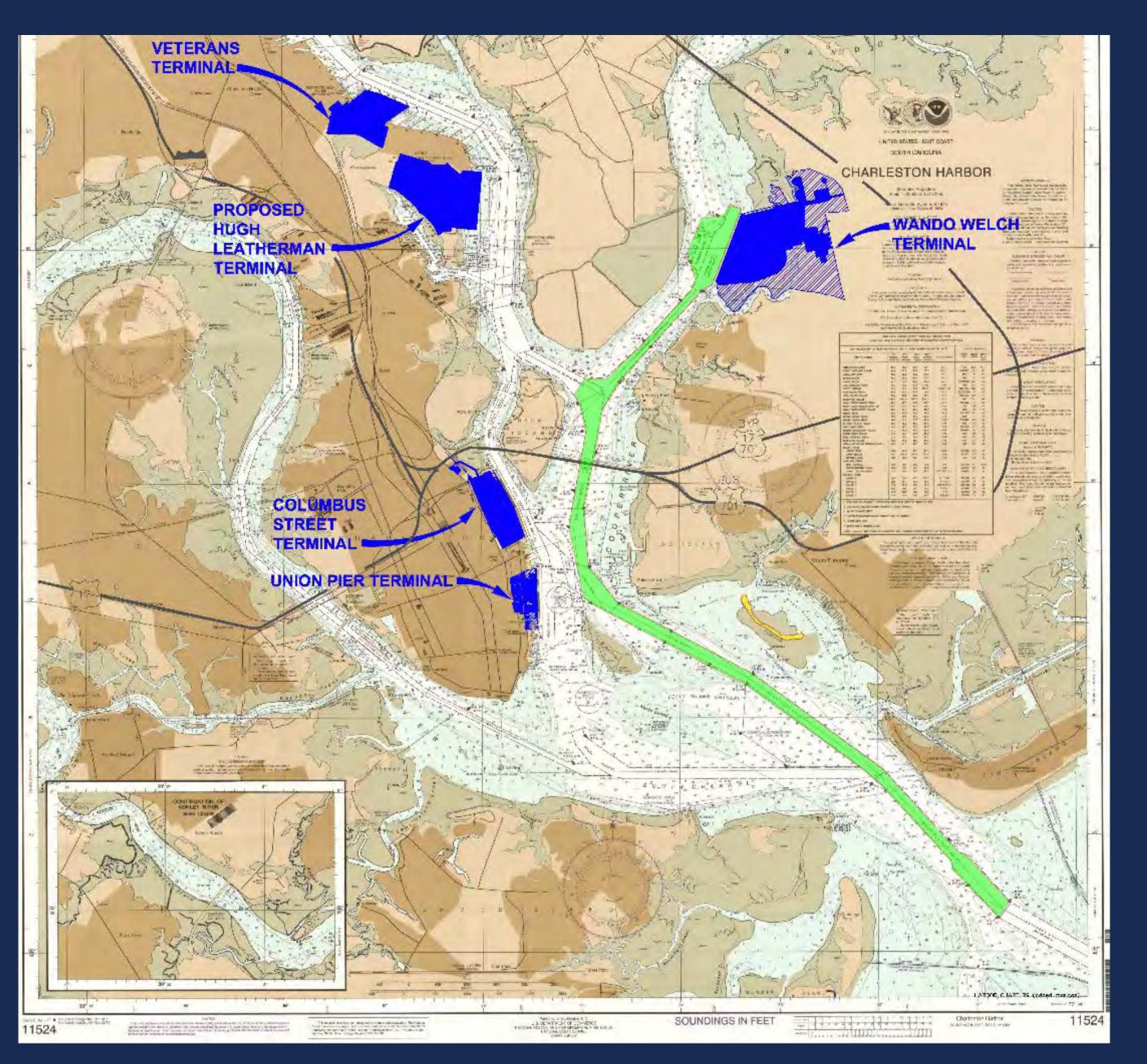


CONTRACT 2

DREDGE TYPE: Various PLACEMENT: ODMDS TOTAL LENGTH: 9.84 Miles QUANTITY: > 13,400,000 cy DEPTH: authorized 54 feet CONTRACT VALUE: \$213.3 Million AWARD: October 2017 (GLD&D) AWARD AMOUNT: \$278 M DREDGE COMPLETE: December 2021



LOWER HARBOR CONSTRUCTION



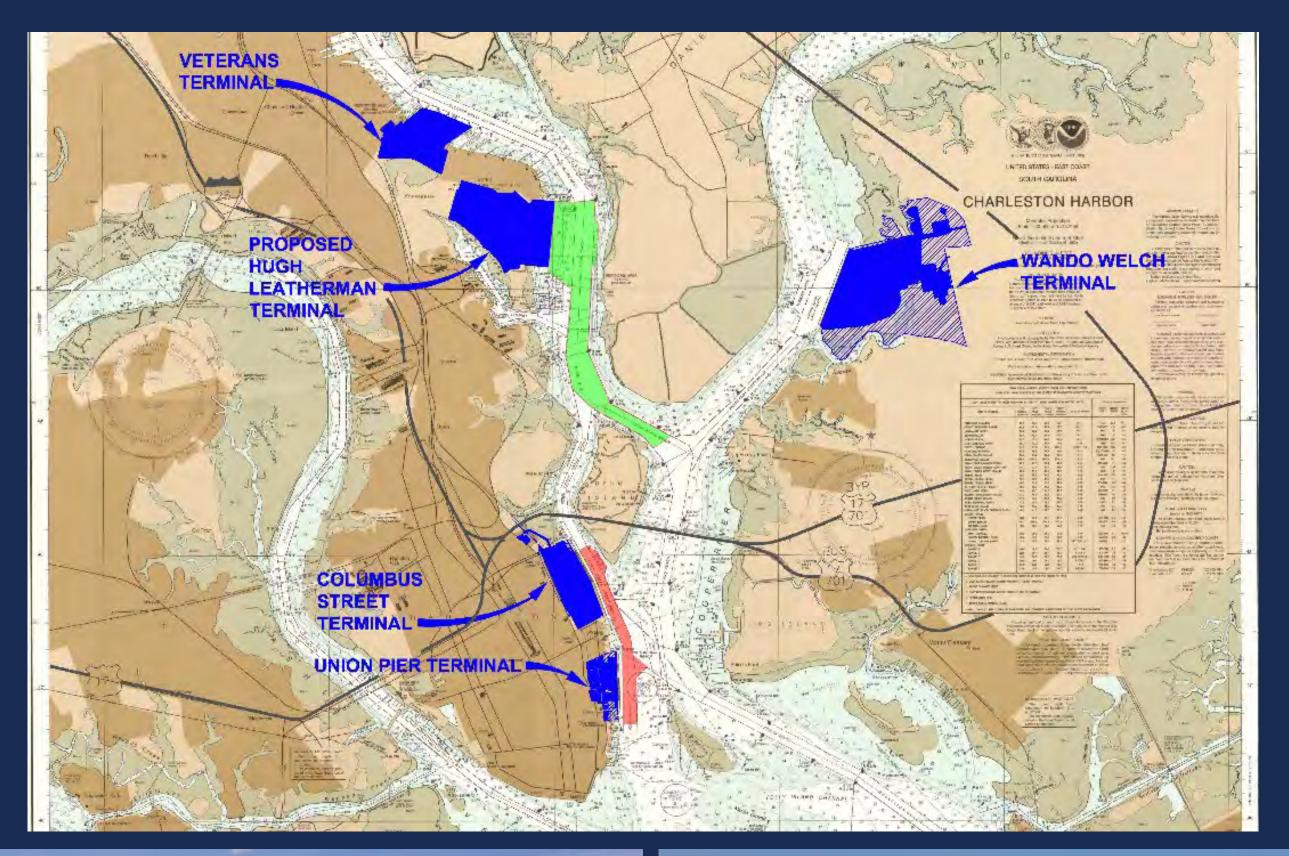
CONTRACT 3 DREDGE TYPE: Clamshell PLACEMENT: ODMDS TOTAL LENGTH: 9.57 Miles QUANTITY: 11,200,000 cy DEPTH: authorized 52 feet CONTRAT VALUE: \$124.5 Million AWARD: August 2019 DREDGE COMPLETE: July 2022







DANIEL ISLAND REACH CONSTRUCTION









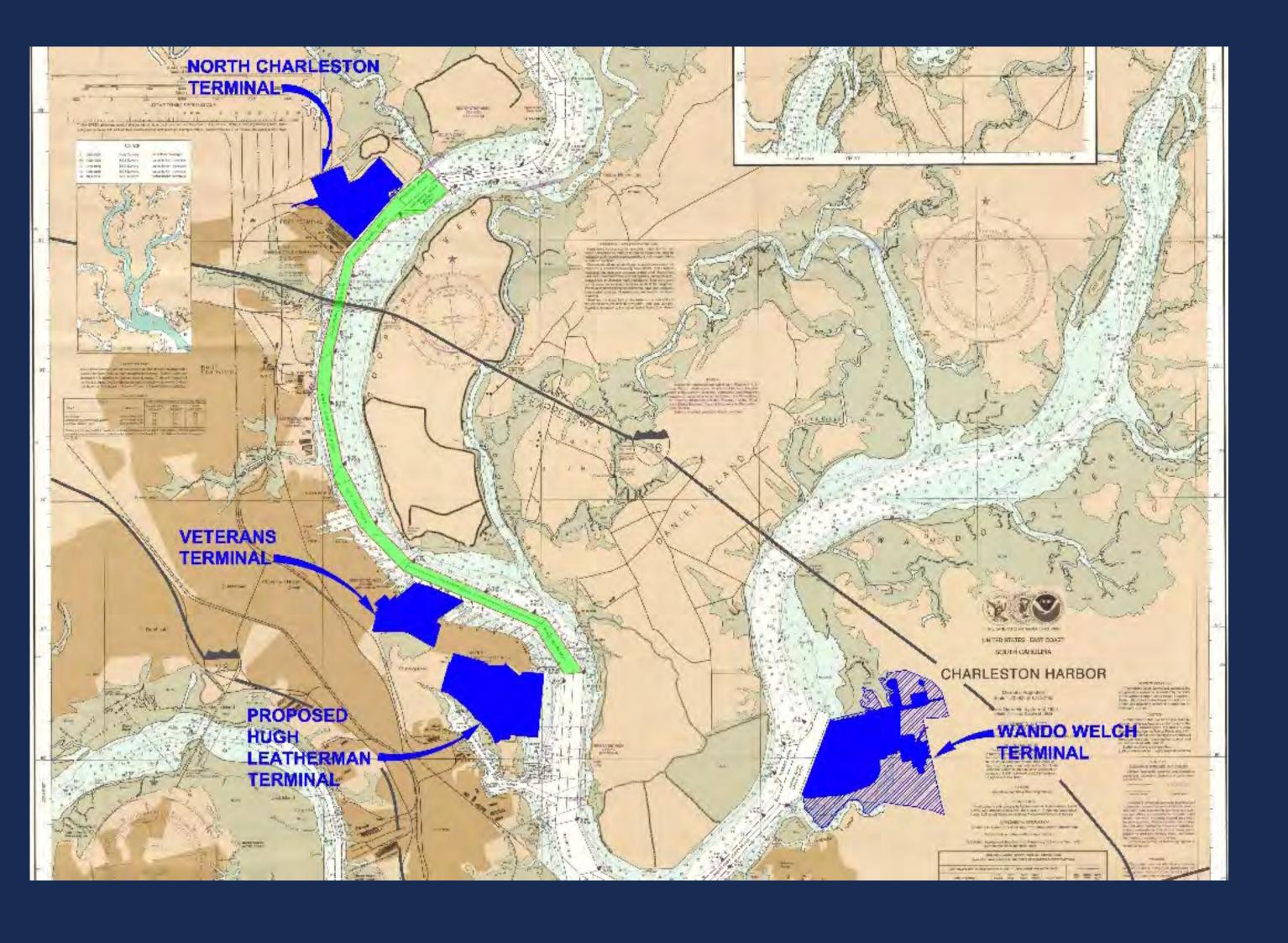
DREDGE TYPE: Pipeline **PLACEMENT:** Upland **TOTAL LENGTH:** 2.5 Miles QUANTITY: > 6,500,000 cy **DEPTH:** authorized 52 feet **CONTRACT VALUE:** \$52.9 Million **AWARD:** September 2020 **DREDGE COMPLETE:** December 2021

UNIQUE CHALLENGES

- Interim Milestone: Complete Access Channel to Fed Channel Depth and Berth by March 31, 2020
- Coordination with multiple crane deliveries during this timeframe.
- Area of Concern UXO



UPPER HARBOR CONSTRUCTION



CONTRACT 5

DREDGE TYPE: Pipeline **PLACEMENT:** Upland **TOTAL LENGTH:** 5.84 Miles **QUANTITY:** > 4,200,000 cy **DEPTH:** authorized 48 feet AWARD: December 2019 **COMMENCE DREDGING:** February 2020 **DREDGE COMPLETE:** September/October 2022



2°54'25" N 79°57'11" W West Southwest

North Charleston Terminal



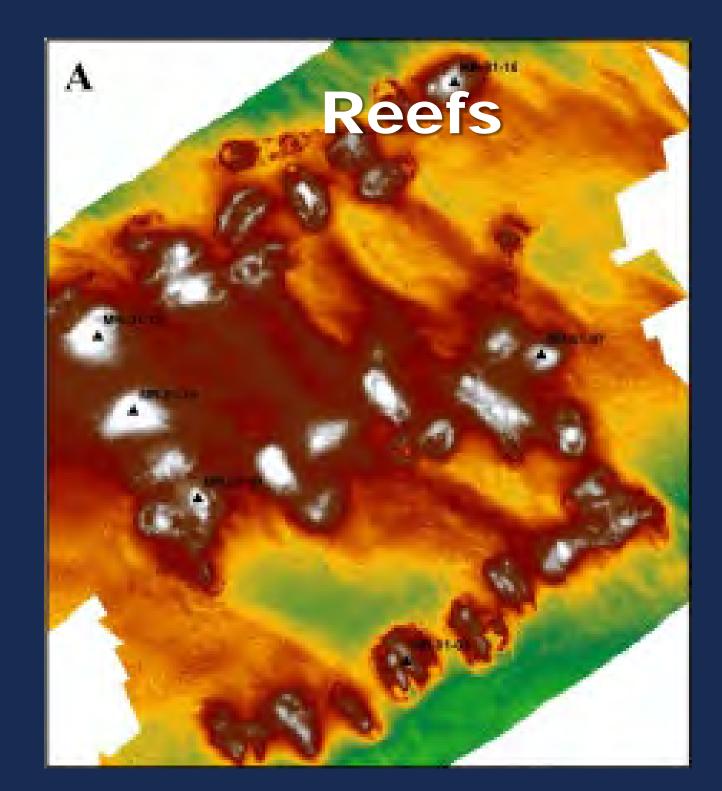


SMART MITIGATION & MONITORING





- Wetland preservation / restoration
- Landscape scale conservation
- Hardbottom habitat creation using limestone rock from Entrance Channel
- Monitoring
- Beneficial use of dredged material Restoration of Crab Bank Seabird Sanctuary using sand from nearby channel



Type of Monitoring	Timefram
Water quality (DO and salinity)	9yrs
Wetland vegetation	9yrs
Hardbottom habitat recovery	5yrs
Shoreline impact assessment validation	5yrs



ne









VIEWANIA NO. 1









PARTNERS / STAKEHOLDERS





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1. 18 B



...and many others!



WHAT DID WE DO DIFFERENTLY IN HARBOR DEEPENING?

- Design vessels
- Did not design a Cadillac
- First 3x3x3 for deep draft navigation
- Challenged status quo
- Had all of our local share in the bank before approval
- Mitigated litigation risks by coordinating with environmentalists
- Engaged Congressional Delegation first US Senator to attend a Chief's Report
- Petitioned the Obama Administration 'We Can't Wait Initiative'
- We engaged Administration to begin talking about ports and tied one of his priorities, growing exports, to the importance of deeper water, 100 loaded containers for every additional foot of depth
- Had a willing Corps district to push the envelope and think outside of the box

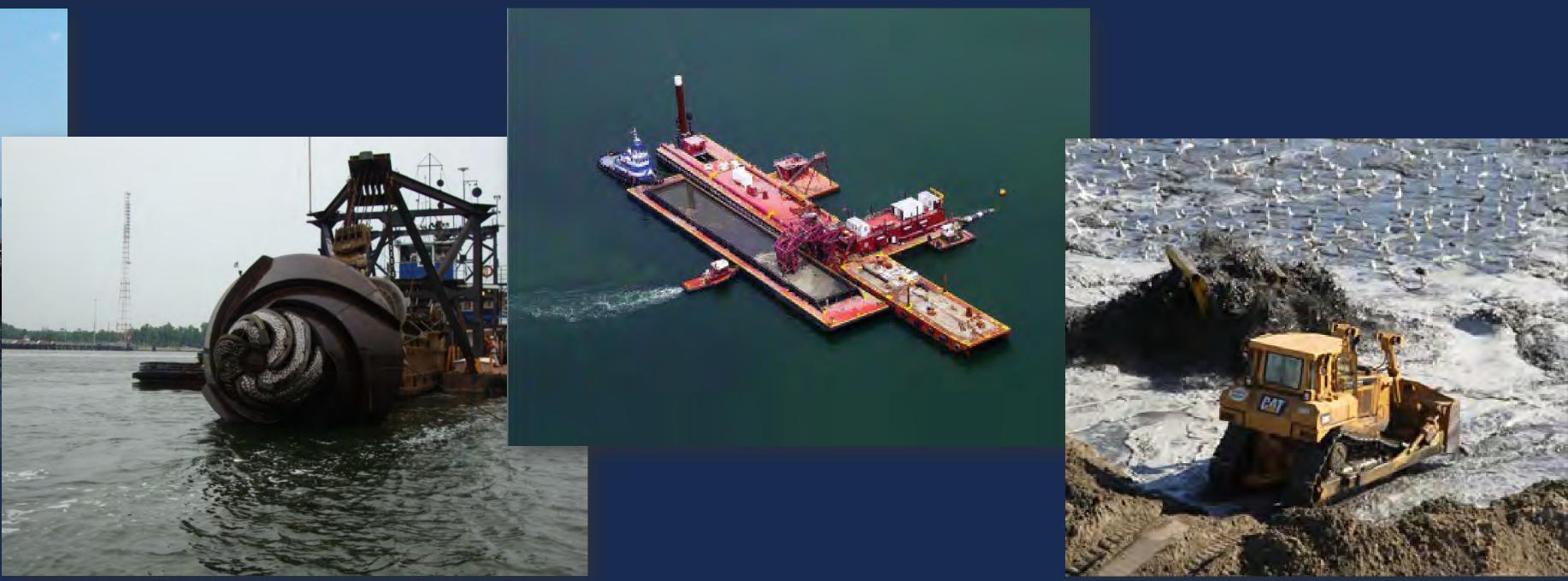




CHALLENGE TO INDUSTRY







- Great responsibility delivering large scale navigation improvement projects
- Projects often funded with Federal/State public money
- Ensuring equipment fleet is modernized and sufficient to meet nationwide demands
- Sparing use of protests







SOUTH CAROLINA PORTS

THE WORLD CONNECTS HERE



THANK YOU



