



# Dredging in North Carolina

Joint Transportation Appropriations Committee

March 18, 2015

# Overview

- Type of Inlets in North Carolina
- State & Federal Funding for Dredging Operations
  - Shallow Draft Navigation Channel & Lake Dredging Fund
- Memorandums of Agreement with Army Corps
- Other Dredging Issues/Alternatives

# Why Do We Need Dredging?

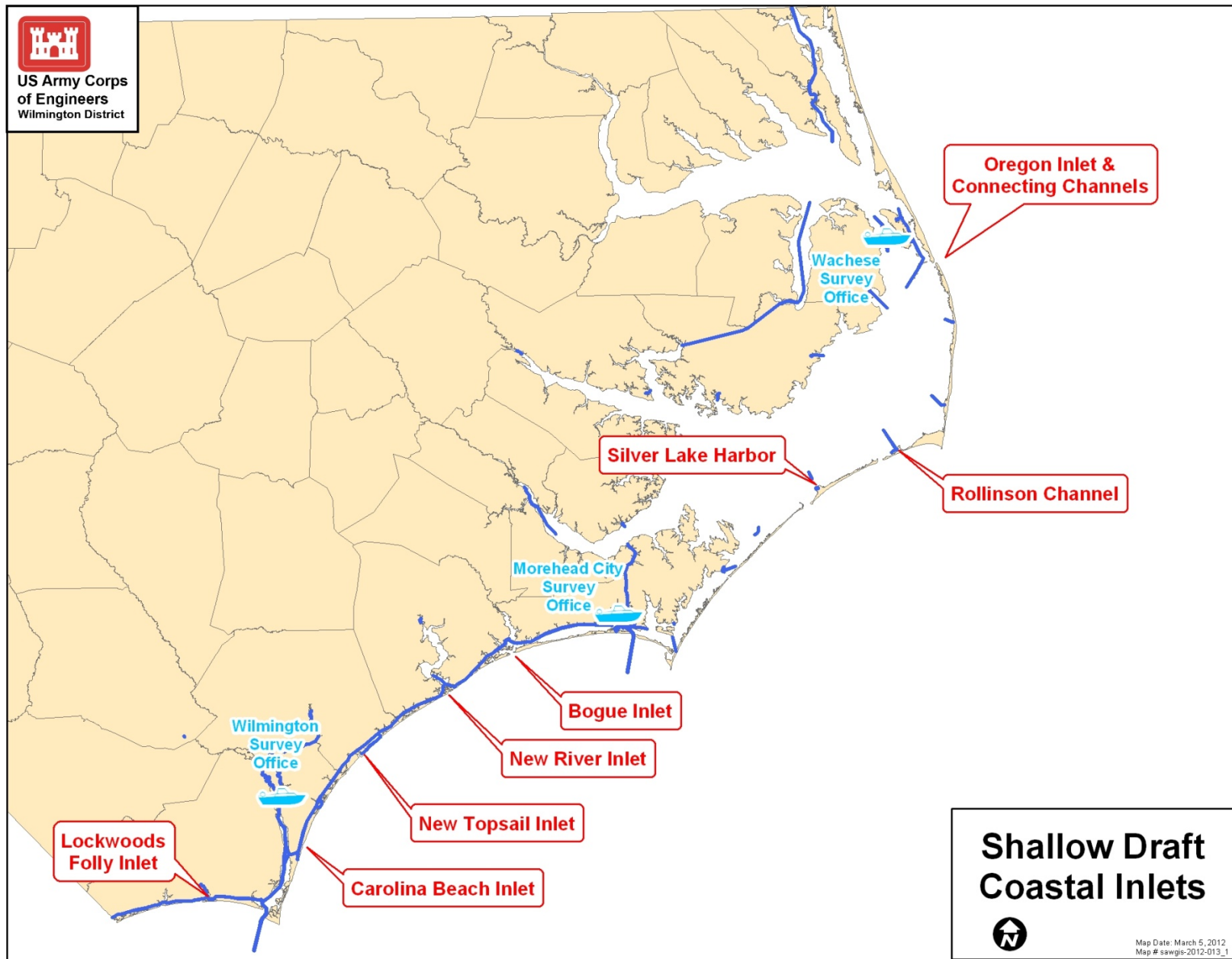
- NC Coastline has a wide variety of inlets that are critical to coastal commerce – coastal highways
  - Commercial traffic at NC Ports / Commercial fishermen/ Charter fisherman / Recreation & tourism
- These inlets constantly shoal & fill in with sand
- Only through routine dredging and maintenance can these inlets remain open to support NC's economy

# Two Types of Federally Authorized Inlets in NC

- **Federally-Authorized** Channels/Inlets:
- Shallow Draft Inlets:
  - Authorized depths of 15 feet or less
  - Many shallow draft inlets in NC
  - Historically have been the biggest problem due to their tendency to shoal rapidly
- Deep Draft Inlets:
  - Authorized depths greater than 15 feet
  - Two in NC: Wilmington Harbor & Morehead City
  - Historically have not been as big a problem in NC



US Army Corps  
of Engineers  
Wilmington District



## Shallow Draft Coastal Inlets



Map Date: March 5, 2012  
Map # sawgis-2012-013\_1



# US Army Corps of Engineers



## Morehead City Harbor



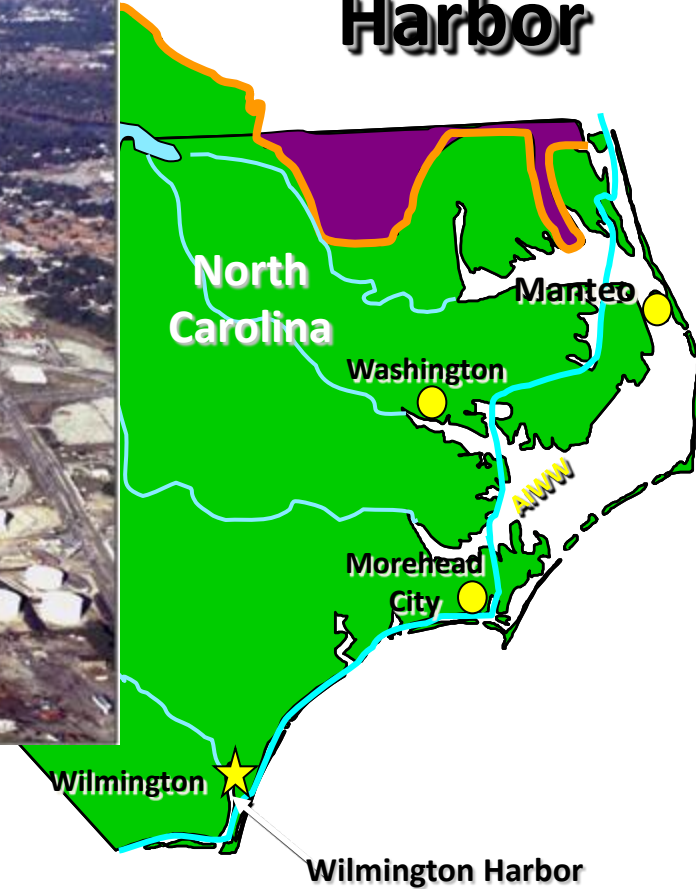




# US Army Corps of Engineers



## Wilmington Harbor



# Other Dredging Requirements in NC

- Not “Federally Authorized:”
- Ferry Channels
  - Maintained by NC DOT
  - DENR has “passed through” money from DOT to Corps
  - Connecting channels from federal inlets to ferry channels covered under Shallow Draft MOA
- Berthing Areas at State Ports
  - Entirely maintained by State Ports & NC DOT
  - No DENR involvement



# Funding for Dredging Operations

# Background

- If inlets are “federally authorized” – feds maintain if funding is available.
- NC used to receive substantial federal funding to maintain shallow draft and deep draft inlets
- Federal funding supplemented occasionally for both Deep Draft & Shallow Draft Channels w/State funds
- Federal funding has declined in recent years

# Federal Dredge Funding FY 2011 - 2015

Project	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Wilmington Harbor	\$11.9M	\$20.4M	\$16.5M	\$18.0M	\$14.0M
Morehead City	\$4.0M	\$8.7M	\$10.1M	\$6.3M	\$8.9M
Shallow Draft Inlets	\$12.7M	\$22.3M	\$19.8M	\$8.8M	\$6.4M

# Alternatives to Federal Funding

- Develop Memorandum of Agreement (MOA) with Army Corps
- Provide State funding to Corps to conduct dredging
  - Corps already has permits for dredging & experience and trained staff for project management
  - State needs funding source

# Memorandum of Agreement (MOA)

- Corps can not accept non-federal funding without a MOA
- MOAs are usually drafted for a specific project, i.e, dredging project, beach nourishment project, study...
- MOAs can cover a one-time activity (short term MOA) or may cover a number of activities over several years (long term MOA)
- MOAs must go through Washington DC for approval and normally take 6 months or longer to be finalized

# Shallow Draft Inlet Dredging (Non-Oregon Inlet)

- NC realized it could no longer depend upon federal govt for routine dredging of shallow draft inlets
- Two actions were taken
  - Long-term MOA developed
  - Shallow Draft Navigation Channel & Lake Dredging Fund

# Shallow Draft MOA

- Covers 5 years
- Allows NC to contribute up to \$4M per year to Corps for dredging of all shallow draft channels
- Contributed money is made up of State & local funds
- MOA does not have enough capacity to keep Oregon Inlet open year round (OI needs \$7M - \$10M/yr)
- Dredging is performed (usually) by Corps dredges
- MOA allows for Corps to contract w/private dredges
- Dredging done at request/discretion of NC



# Shallow Draft Navigation Channel & Lake Dredging Fund

- Established by G.S.143-215.73F
- Provides State share for Shallow Draft MOA
- Also provides State share for Non-Corps & interior lake dredging projects
- State funds must be matched 50-50 with local funds
- Funds provided by small percentage of gas tax & percentage of boater registration fees
- Provides approximately \$6M per year
  - About \$1.5M per quarter

## Shallow Draft Navigation Channel & Lake Dredging Fund

- \$8,717,521 received in fund since its establishment
- \$6,766,946 encumbered in 7 grant contracts
- One additional grant for \$517,250 pending for N. Topsail
- \$300,000 pending for Oregon Inlet dredging
- One grant request only partially filled
  - Requested \$4.25M
  - \$1.25M provided to date (remainder will follow this year)
- No request denied to date

# Outstanding Issues

- Dredging of Morehead City / Wilmington Channels
  - One time MOA in development (Morehead City)
  - Long Term MOA may be necessary
  - Source for State funding
  - Other potential sources for funding
- Dredging of Oregon Inlet
  - Potential MOA in development
  - 340 days of dredging @ OI per year for \$7.2M
  - \$3.6M local funds / \$3.6M State match
  - State funding source

# Other Issues of Interest

- Future Funding Gaps
  - Very difficult to predict
  - Storms / Federal funding / Rates of shoaling
- Bundling of Dredging-Beach Nourishment Projects
  - Accomplished where practical
  - Dredged sand must be beach compatible
  - Done in the past at request of local govt
  - Funding supplemented by State/local sources

# Other Alternatives

- State obtains federal dredge authorizations
  - This process underway for some shallow draft inlets
- Allows State to contract with private dredges independent of Corps
- State procures its own dredges
  - Studied in 2005
  - Not the most cost effective alternative in 2005
  - O& M costs/Crewing costs/Overhead & management

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