Ferry Division Mission

Connecting people, products and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina.
Ferry System is an Economic Engine

Annually North Carolina’s Ferry System supports:

- **$32.5 million** in Local & State Tax Dollars
- **$217.3 million** in N.C. Employee Earnings
- **$735.2 million** in Statewide Economic Output
- **$40.3 million** in Ferry Passenger Benefits:
  - $18.1 million in vehicle cost savings
  - $13.9 million in travel time savings
  - $8.3 million in safety benefits
- **5,860 Jobs** (Direct, indirect, and induced)
• 2nd Largest State-Operated Ferry System in the U.S.
• FY20 Ridership
  • Passengers 1,065,136
  • Vehicles 507,071
• 7 Scheduled Routes
• 1 Emergency Route
• 21 Ferries
• Support Fleet (4 tugs, 3 barges, 1 crane barge, 1 dredge)
• 13 terminals
• State-owned Shipyard
• 3 Field Maintenance Shops
Annual Appropriations vs. Actual Expenses

Each overdraft must be addressed with the following year’s appropriation.
Federal vs. State Channel Designation

- Dredging waterways and channels used by the NC Ferry System is necessary to ensure safe passage of the vessels, reduce the risk of damage from vessels running aground, provide emergency services to locations such as Ocracoke Island.

- State Designated Channels
  - 13 state designated ferry channels and basins maintained by the Ferry Division’s Dredge Manteo
  - Dredge season is 4.5 – 5 months long

- Federally Designated Channels
  - Responsible for shallow draft projects
  - Depths of less than 20’
  - Includes 10 inlets and 14 inland waterways.
  - Ferry routes that are federally designated:
    - Hatteras Inlet/Rollinson Channel
    - Silver Lake/ Big Foot Slough
    - Stumpy Point Bay
State Dredging Project Planning & Tracking

- Regular bathymetric surveys are performed in both state and federal channels to monitor channel conditions.

- Ferry Division plans dredge activities based on need, budget allocated each year, and use the newly updated 20-year dredge plan.

- Dredge Plan tracks completed projects and projects future costs for channel maintenance and storm related dredging activities.
Dredge Plan
5, 10, and 15 Year Estimated Costs by Location

Cedar Island
Cherry Branch
Fort Fisher
Knotts Island / Currituck
Manns Harbor
Pamlico River
South Dock
Southport
Stumpy Point
Swan Quarter

Sum of 5 Year Plan
Sum of 10 Year Plan
Sum of 15 Year Plan
The Ideal Channel
12’ deep x 100’ wide

Sectional view of clear channel

Passage hindered by shoaling sands when channel depth reduced:

- 6’ or less - Severe threat for all vessels and major travel disruptions
- 7’- 8’ - Moderate to severe threat for Hatteras and Sound Class vessels
- 9’-12’ - Minimum shoaling threat
Big Foot Slough is a Federal Channel

- Dredging responsibility of USACE
- March 2020 USACE dredging was a “band aid”
- USACE now out of funds until new FFY
- Cost estimates for 2 options provided by USACE
  - $535,332 for 12’ depth project (ideal)
  - $251,666 for 10’ depth project
- Hyde Co and Carteret County partnership to apply for NCDEQ Shallow Draft Fund Grant
Federal Channel Maintenance & Funding

- In addition to North Carolina’s federal channels the USACE Wilmington District dredge vessels are a national asset deployed from Maine to Texas
- **Funding** for Big Foot Slough has decreased and is inconsistent year to year
Big Foot Slough Historical Project Cost & Cu. Yrds Removed

- Total Project Cost
- Cubic Yards
- Sum of Cubic Yards Dredged
- Sum of Cost
Big Foot Slough Dangerous Shoaling Impacts

– Vessels hitting bottom

– Damage requiring emergency repairs

– Departure cancellations

– Schedule modified to use only certain smaller vessels
Sound Route Departures

4 Boat Schedule
- Historical summer schedule
- Cedar Island to Ocracoke
  - 5 departures from each side for 10 total
- Swan Quarter to Ocracoke
  - 4 departures from each side for 8 total

3 Boat Schedule
- Off season – Spring/Fall/Winter schedule
- Cedar Island to Ocracoke
  - 3 departures from each side for 6 total
- Swan Quarter to Ocracoke
  - 3 departures from each side for 6 total
- Utilized in June after some local COVID19 restrictions lifted

2 Boat Schedule
- Utilized during height of COVID19 restrictions
- Most currently used due to shoaling issues
- Cedar Island to Ocracoke
  - 2 departures from each side for 4 total
- Swan Quarter to Ocracoke
  - 2 departures from each side for 4 total

1 Boat Schedule
- Current schedule due to extreme shoaling conditions
- Cedar Island to Ocracoke
  - 1 departure from each side for 2 total
- Swan Quarter to Ocracoke
  - 1 departure from each side for 2 total
Departure Schedule Change Due to Shoaling

• Daily ferry schedule on Pamlico Sound was reduced by one trip each way between Ocracoke and both Cedar Island and Swan Quarter

• **Effective Thursday, July 23:** (Two Boat Schedule)
  – Cedar Island to Ocracoke: 10:30 a.m. and 4:30 p.m.
  – Ocracoke to Cedar Island: 7:30 a.m. and 1:00 p.m.
  – Swan Quarter to Ocracoke: 10:00 a.m. and 4:30 p.m.
  – Ocracoke to Swan Quarter: 7:00 a.m. and 1:30 p.m.

• **Effective Wednesday, Aug. 5:** (One boat schedule)
  – Ocracoke to Cedar Island: 7:30 a.m.
  – Cedar Island to Ocracoke: 10:30 a.m.
  – Ocracoke to Swan Quarter: 1:30 p.m.
  – Swan Quarter to Ocracoke: 4:30 p.m.

• Effective Sunday, Aug 16: Returned to two boat schedule

---

**Ridership in FY20**

<table>
<thead>
<tr>
<th>Route</th>
<th>Passengers</th>
<th>Vehicles</th>
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<tbody>
<tr>
<td>Ocracoke to Cedar Island</td>
<td>62,379</td>
<td>27,764</td>
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<tr>
<td>Ocracoke to Swan Quarter</td>
<td>62,631</td>
<td>31,440</td>
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</table>
Sustainability of Hatteras Inlet South Terminal

• Engineering firm study has developed recommendations to slow erosion rate but project has been put on hold indefinitely due to potential of IHA being removed and funding concerns
• Inlet Hazard Area (IHA) “line” may be removed in the future allowing for further sheet pile installation instead of installing groins
• Growing concerns from environmental agencies and NPS
Sustainability of Hatteras Inlet South Terminal

Short term, the Ferry Division is installing sheet piling to stabilize the point. Work is 40% complete and should be finished end of Jan. 2020.
Operational Challenges - Shipyard Staffing

*Workforce of qualified marine trade personnel progressively shrinking*

- **Workforce**
  - Current: 61
  - Prior to 1998: 100

- **Large Number of Vacancies**
  - 7 positions currently open
    - 2 Marine Mechanics
    - 3 Marine Welders
    - 1 Marine Painter
    - 1 Marine Sandblaster

- **Hard to Find Qualified Applicants**
  - Engineer II & III
  - Both have been posted several times
Operational Challenges - Shipyard Schedule

US Coast Guard requires ferries to be dry-docked twice every 5 years

• Limited space and workforce result in delayed preventive maintenance and refurbishment project delivery
• Unplanned emergency haul outs reduce available space for planned work and takes away needed personnel for planned projects

• Dry-dock Requirements
  – Prior to 1998: 11 of 22 ferries
  – Current: 21 of 21 ferries

• Increase in Man-hours per Dry-dock
  – Approximately 8.5K to 12.5K
## Shipyard Schedule

<table>
<thead>
<tr>
<th>Location</th>
<th>Vessel Name</th>
<th>Age</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
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<td>Swan Quarter</td>
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</table>

- **X**: Scheduled Dry Dock
- **E**: Completed CDD period
- **R**: Current CDD period
- **Shipyard outside of CDD period**
- **Upcoming Dry Dock period**
- **Emergency Haul Out**
- **Vessel Retirement**
- **Outside contract work**
### New Vessel Construction

<table>
<thead>
<tr>
<th>Vessel Official Number</th>
<th>Builder Location</th>
<th>Contract Start/End</th>
<th>Cost Contract No.</th>
<th>Funding Source WBS No. / TIP No.</th>
<th>2019</th>
<th>2020</th>
<th>Target % Complete</th>
<th>Actual % Complete</th>
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<td>WANCHENSE</td>
<td>Metal Shark Boats</td>
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<td>$5,217,228.00 C204260</td>
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<td>MOREHEAD CITY</td>
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<td>$2,370,787.76 C204310</td>
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<td>CAPE FEAR</td>
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<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>
Ferry Vessel Replacement Fund

- Established 2016 for construction of new ferries
- Appropriated YTD: $16M
  - Construction underway on Avon and Salvo

Avon (River-class Ferry)
Cost: $11.833M
Under construction
Completion Date: Spring 2021

Salvo (River-class Ferry)
Cost: $10.968M
Under construction
Completion Date: Winter 2020
STI-funded Vessels under Construction

70’ Support Tug
Cost: $5.217M
Under construction
Completion Date: 10/20

Additional Support Vessels (Tugs and Barges)
Cost: $8.209M
Under construction
Completion Date: 9/20
Passenger Ferry Season
July 3 – September 10

- COVID19 Impacts:
  - Reduced capacity from 149 to 96 to encourage social distancing
  - Thorough cleanings after each completed trip

- Same departure schedule as last year

- Ticket Prices
  - Passengers: $5 one way / $10 round trip
  - Free for 3 and under
  - Bicycles: $1 one way / $2 round trip

- Ridership 07/3 – 08/29
  - 6,293 Passengers
    - When purchasing a round trip ticket you are counted twice, once for going over and once for returning.
  - 480 Bicycles

- Suspended operation 07/31 – 08/05 due to Hurricane Isaias
Ocracoke Dorm Update

• Damage from Hurricane Dorian
  – Building destroyed and uninhabitable due to flooding and wind-driven rain
  – Employees currently utilizing travel trailers for housing
  – Anticipate project to go out to bid by first of the year, contactor would have 6 months to complete
Ferry Division Overview

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