



House Select Committee on Strategic Transportation Planning and Long Term Funding Solutions

January 25, 2016

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Key Items

- Ferry System Overview
 - System wide Summary
 - Individual Route Synopsis
 - Vessel Overview
- Overview of the Ferry Div. 20 year Asset Management Plan
- Passenger Ferry Study Update
- Recap of 2014 Ferry Tolling Methodology



System wide Summary



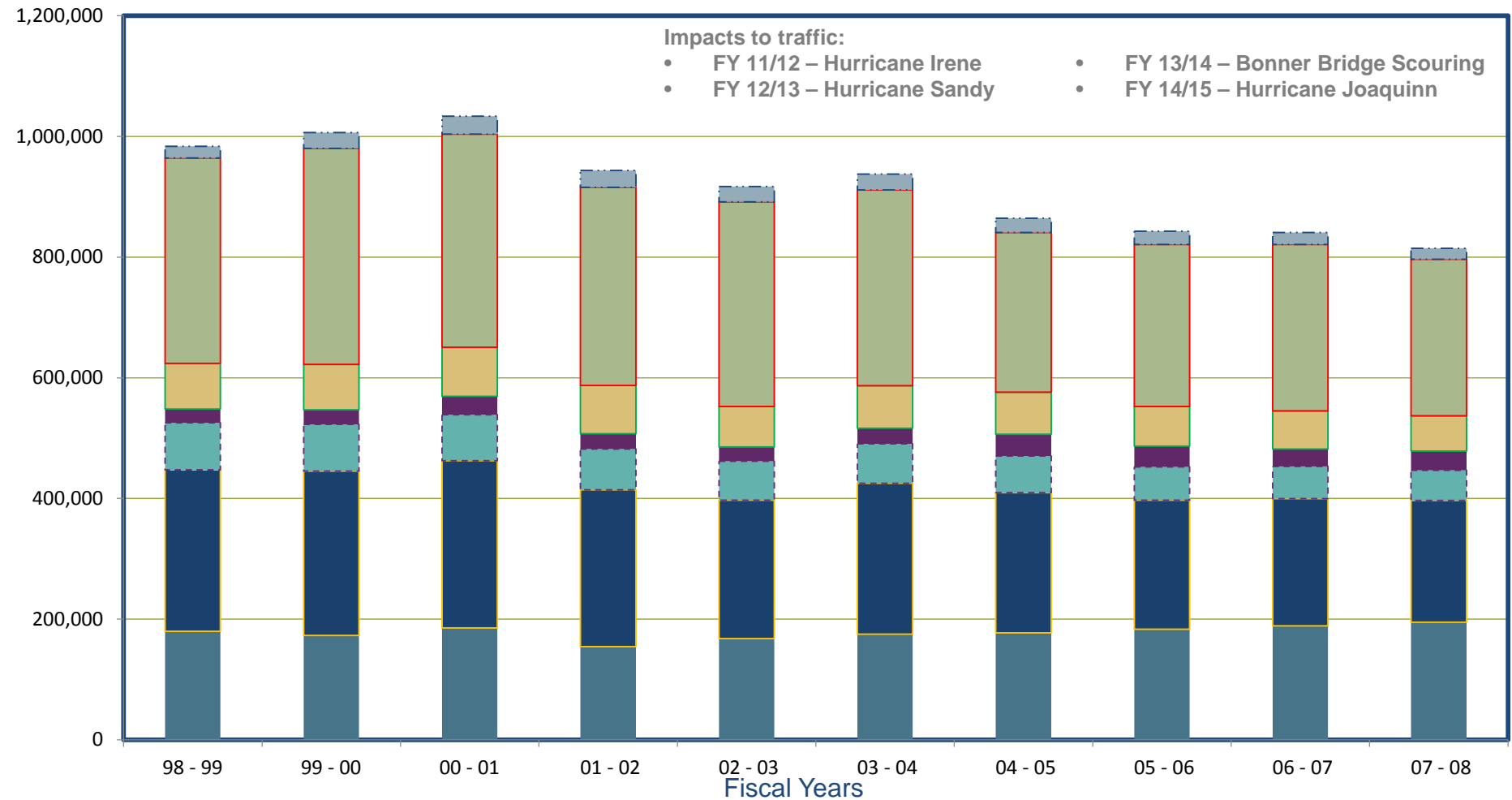
System wide Summary



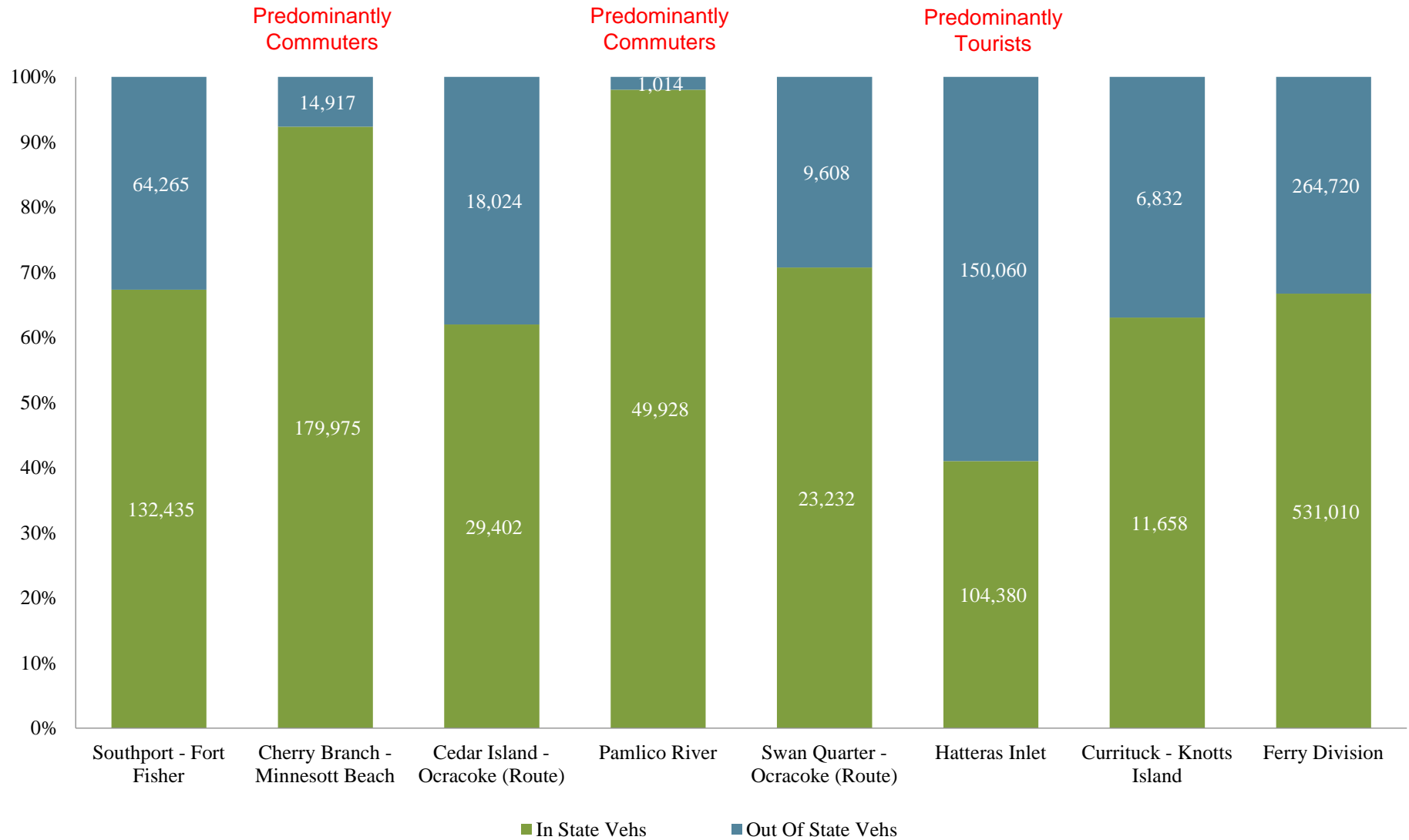
- 2nd largest state operated ferry system in the US
- 7 scheduled routes
- 1 emergency route
- 12 terminals
- State owned shipyard
- 4 field maintenance shops
- 21 ferries (5 sound class, 9 river class, & 7 hatteras class)
- Support Fleet (4 tugs, 3 barges, 1 crane barge, & 1 dredge)



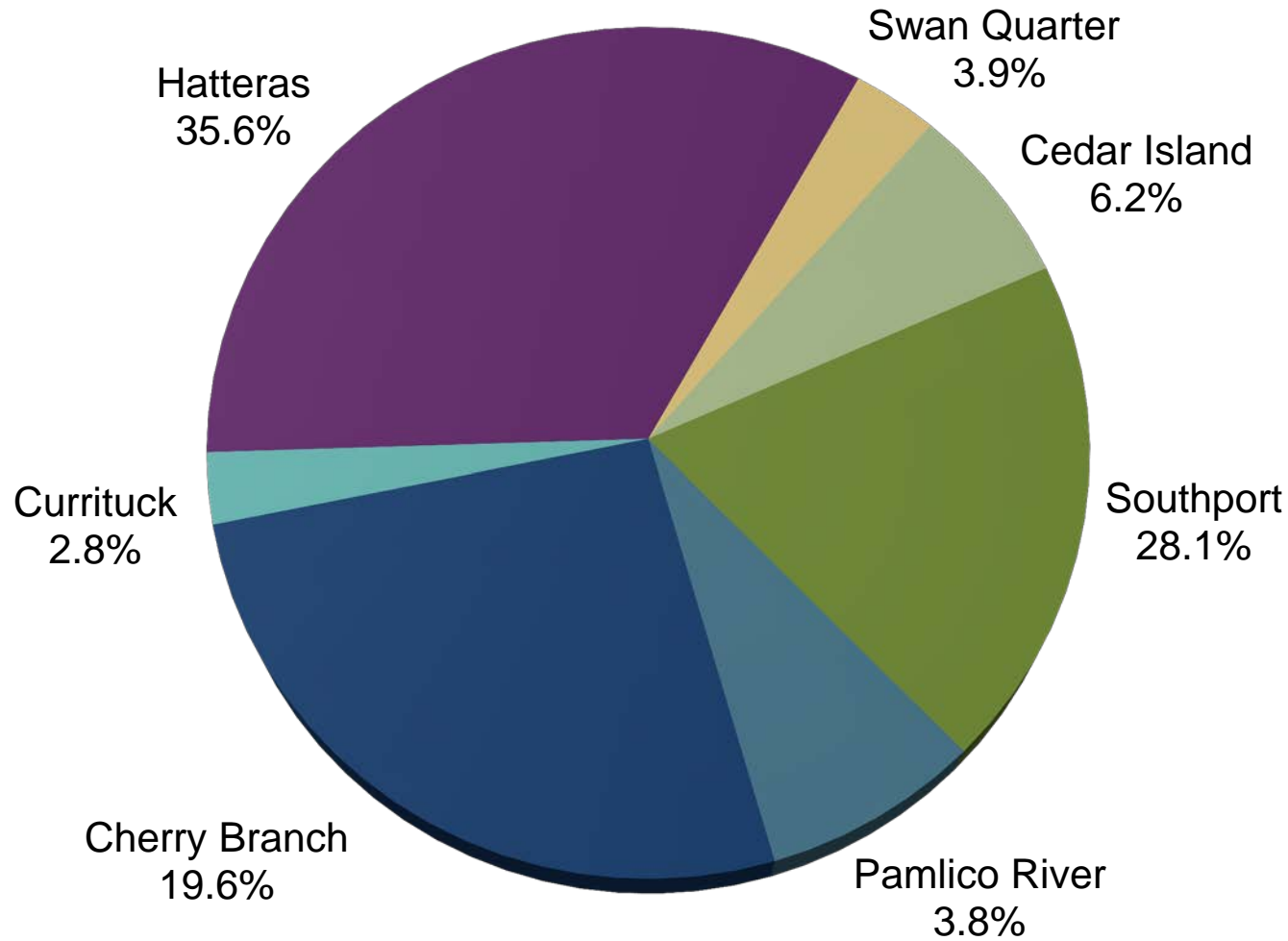
Vehicles Carried: Route Comparisons per FY



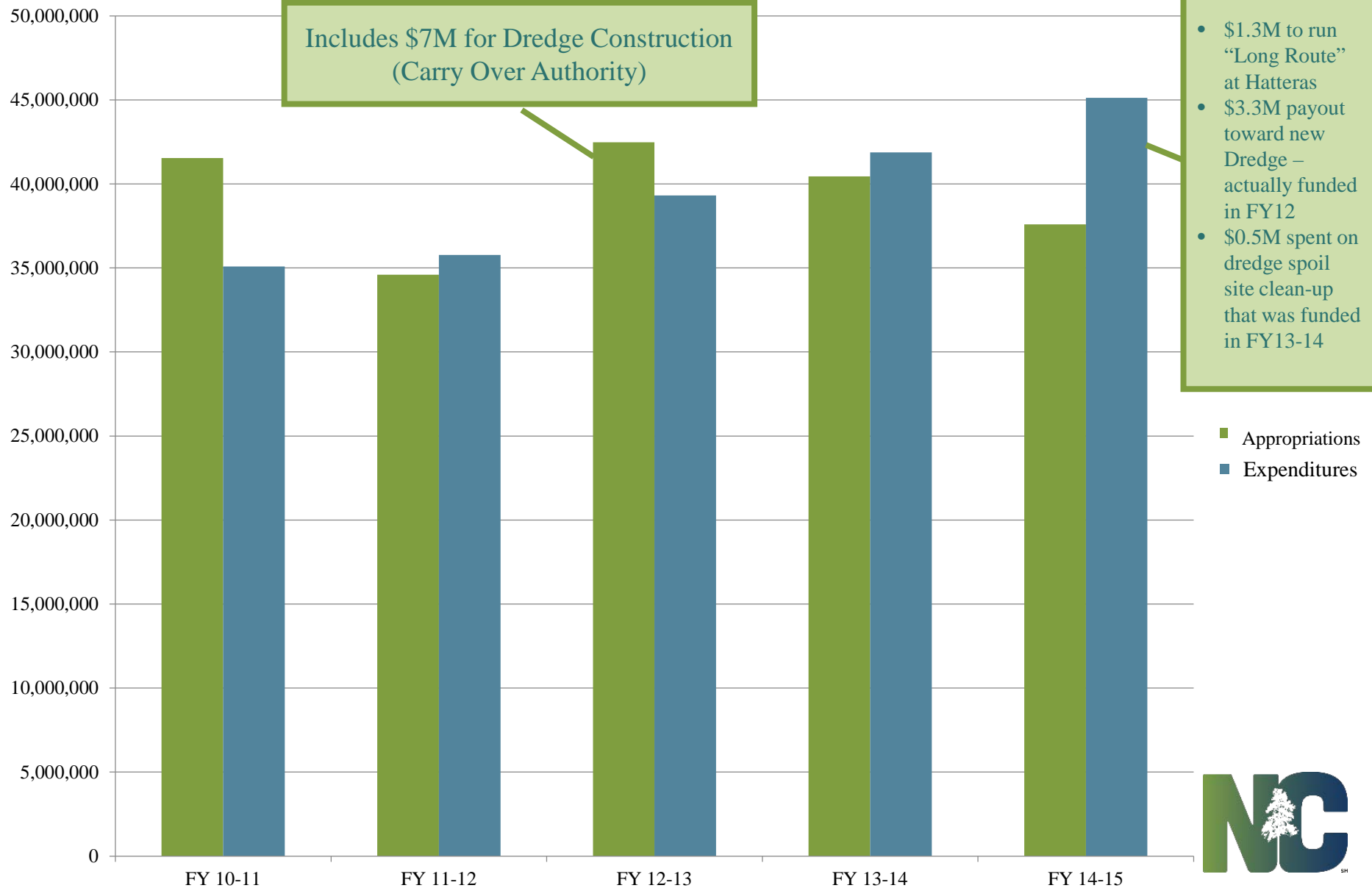
Vehicles Carried: In State Comparison to Out of State



Percent of Vehicles Carried per Route Comparison for CY15



Appropriations vs Actual Expenditures

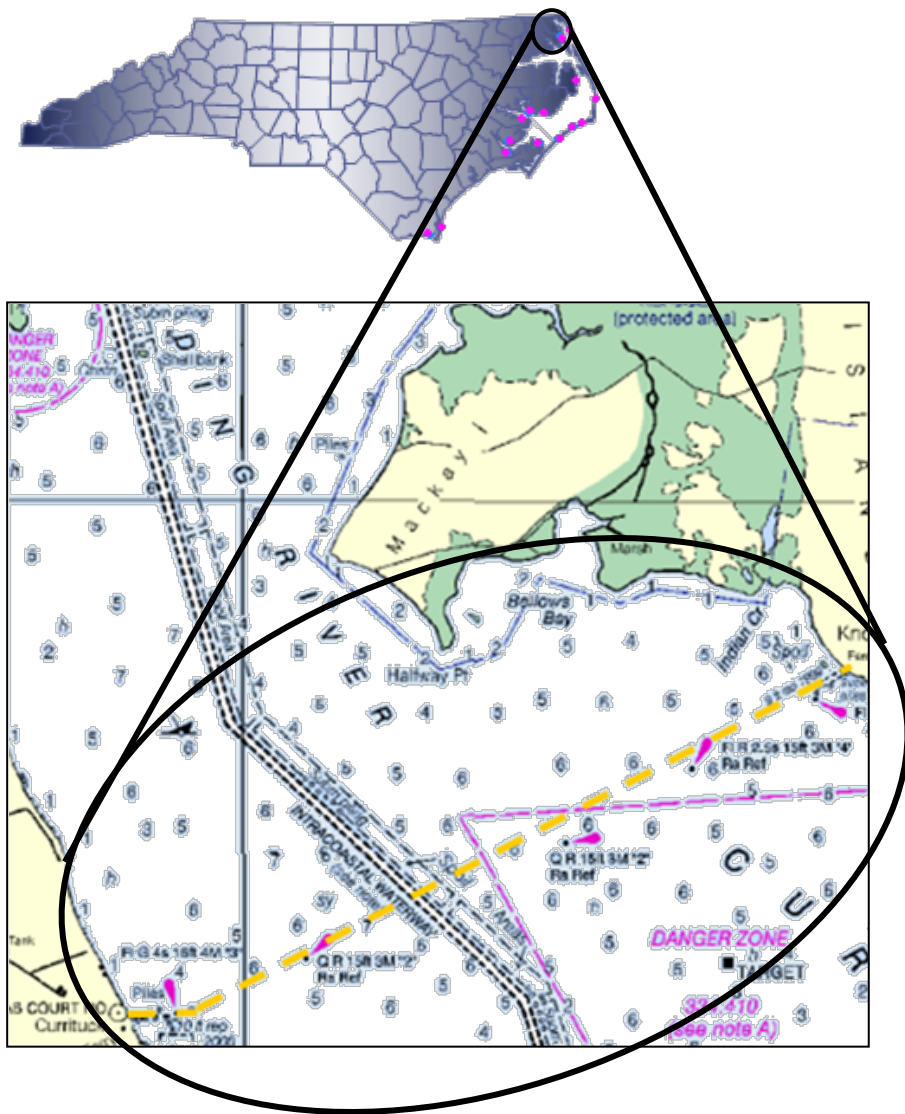


Ferry Division Individual Route Synopsis



Currituck – Knotts Island

(located in Division 1)

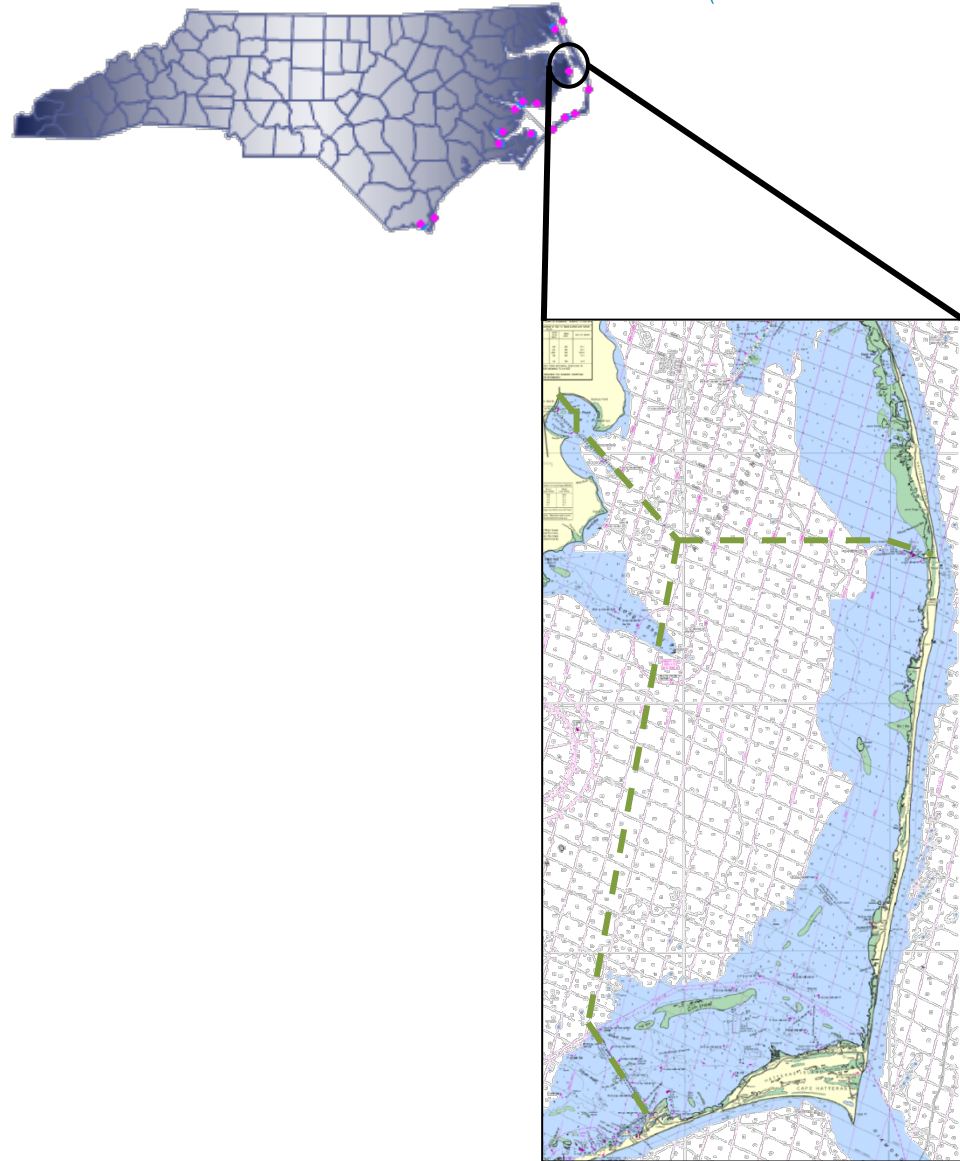


- Route Carried: NC 615
- Crossing Time: 45 min
- CY15 Traffic Stats: In State 11,658 cars (63%) / Out of State 6,832 (37%)
- Dredging Cycle: 5 year cycle* (State)
- Type of Vessels Used: River Class
- Customized design to serve school-related traffic. Exclusively operated on this route.
- Facilities:
 - Currituck:
 - 1984 operations building (627 SF) - pending replacement
 - new Welcome Center to be completed CY2016 (\$2.49M) (3,406 SF)
 - Knotts Island:
 - Shelter: built in 1986

*As needed for emergency conditions



Emergency Route (located in Division 1)

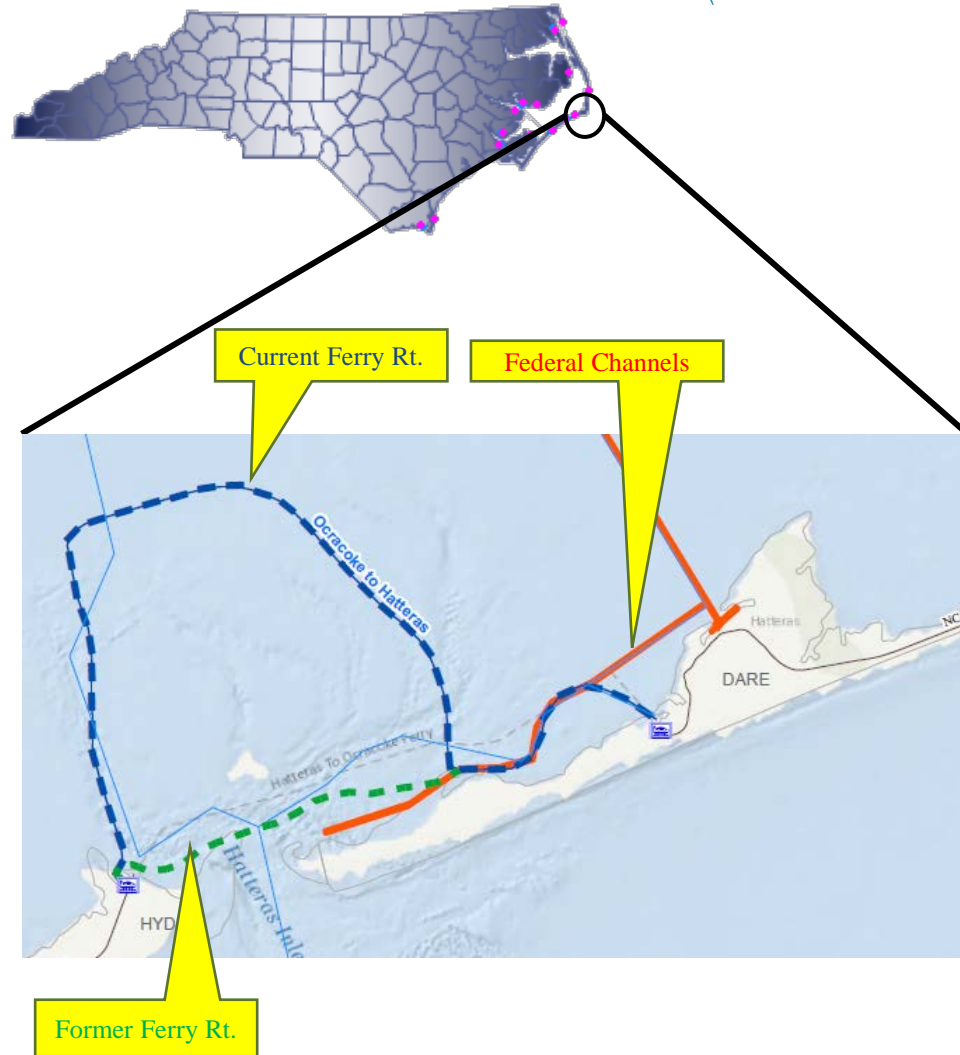


- Route Carried: Detour for NC 12
- Stumpy Point to Rodanthe Crossing: 2.5 hrs
- Stumpy Point to Hatteras Crossing: 3.5 hrs
- Dredging Cycle:
 - 2-3 years (State);
 - portions of this route are Federal Channels and therefore the responsibility of the Corps of Engineer. The Corps dredges based upon the availability of funds.
- Type of Vessel Used: River Class
(Note: When this route is activated the vessels that run here are redeployed to this route from other locations)
- Facilities:
 - None as this is an emergency route

*As needed for emergency conditions

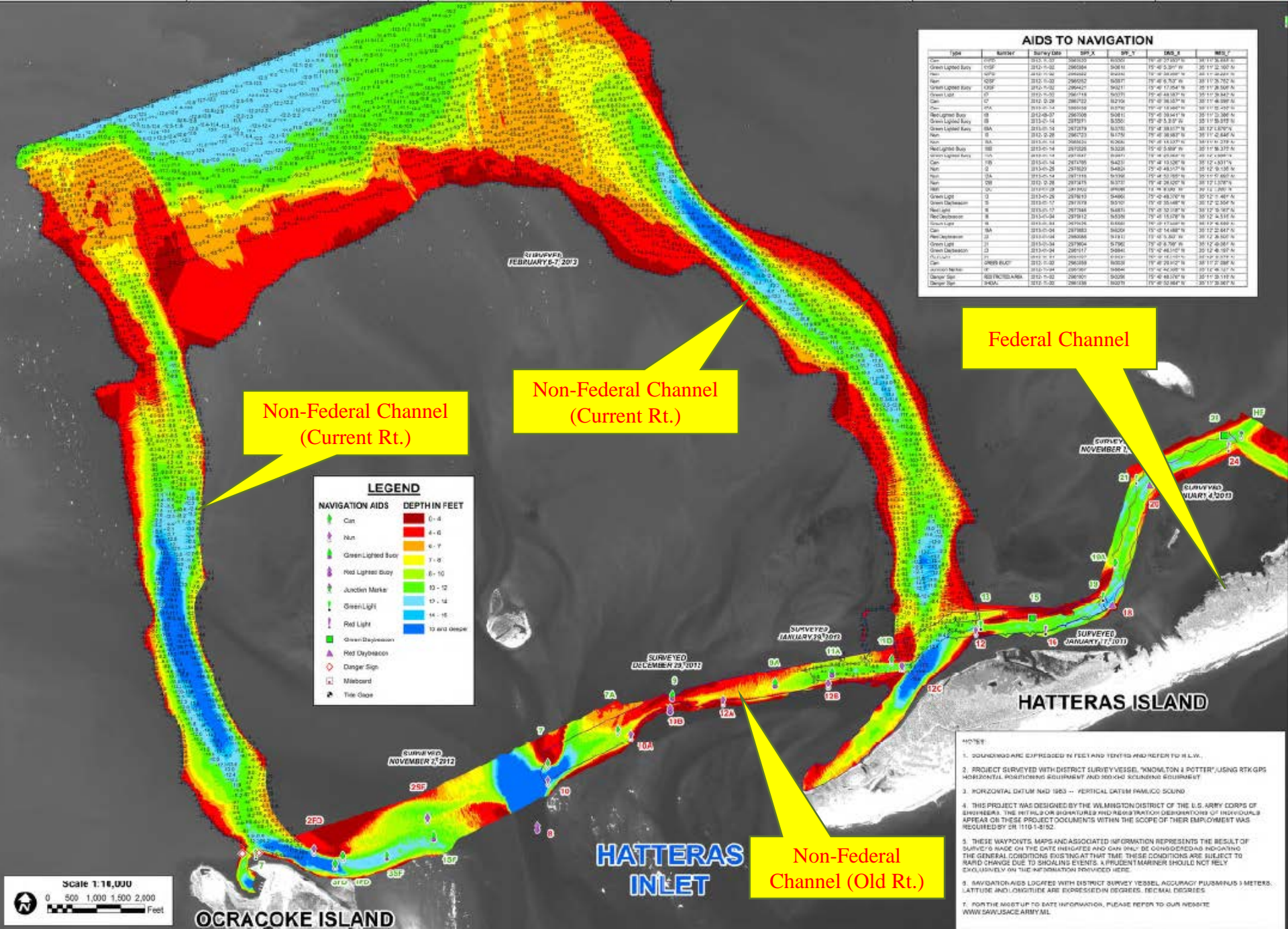
Hatteras Inlet

(located in Division 1)



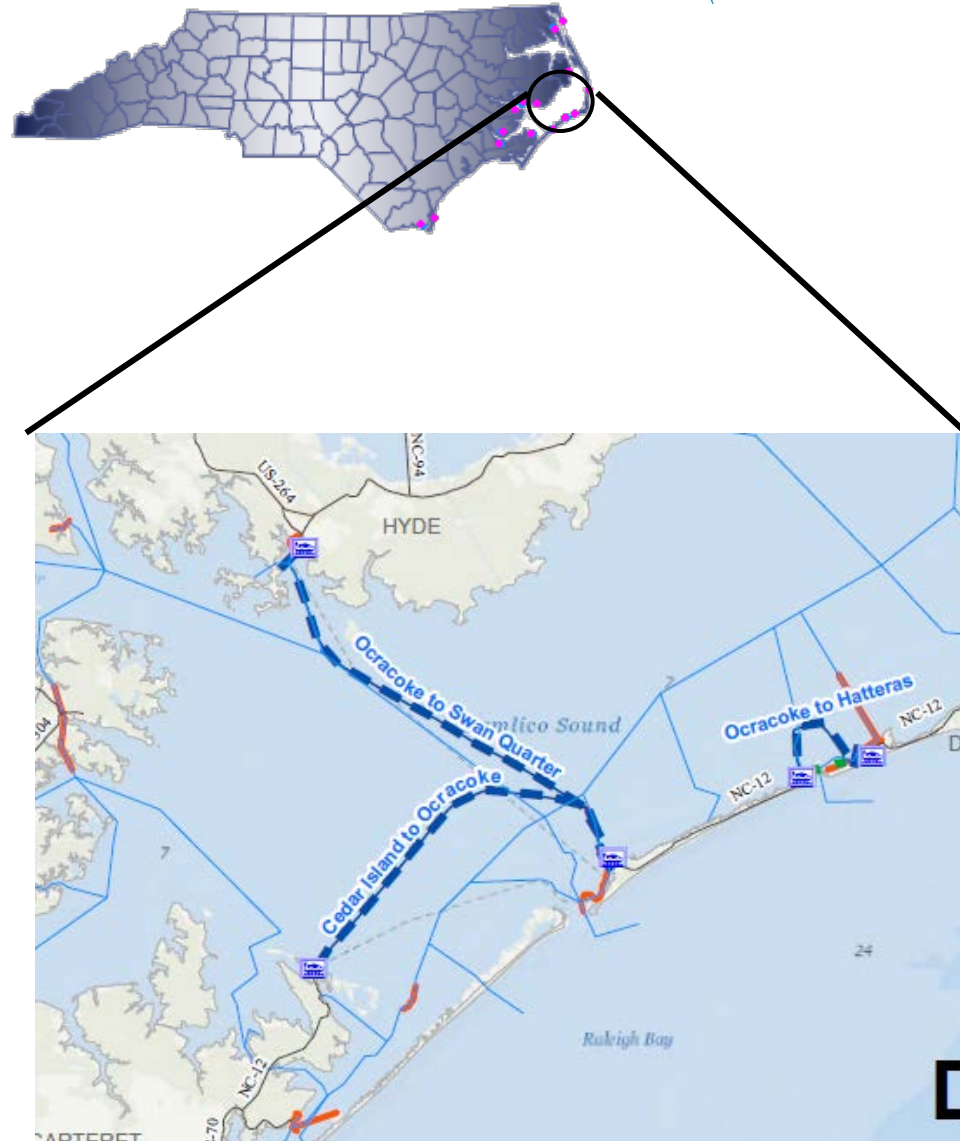
- Route Carried: NC 12
- Current Crossing Time: 1 hour
- Previous Crossing Time: 40 mins
- CY15 Traffic Stats: In State 104,380 cars (41%) / Out of State 150,060 (59%)
- Dredging Cycle:
 - Annually (State)*
 - Extensive portions of this route are Federal Channels and therefore the responsibility of the Corps of Engineer. The Corps dredges based upon the availability of funds.
- Type of Vessels Used: Hatteras or River Class
- Facilities:
 - Hatteras (North Dock):
 - Maintenance Building: built 1999 (8,770 SF)
 - Operations Building: built 2003 (6,403 SF)
 - Dorms 1/2: built 2005/2010 (7,182 SF EA)
 - Ocracoke Island (South Dock):
 - Operations Building: built 1989 (448 SF)
 - Welcome Center: built 1995 (322 SF)

*As needed for emergency conditions



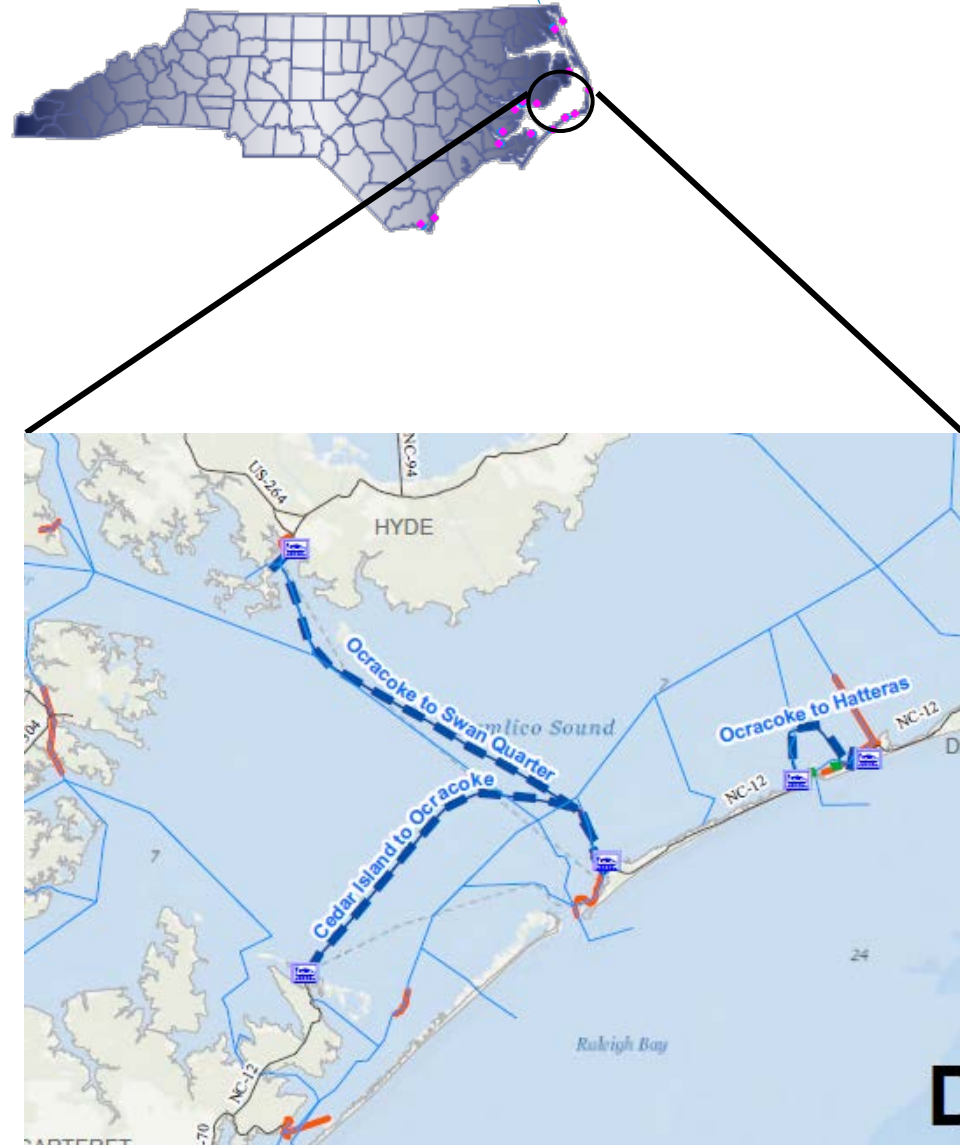
Swan Quarter to Ocracoke

(located in Division 1)



- Route Carried: NC 45
- Crossing Time: 2.75 hours
- CY15 Traffic Stats: In State 23,232 cars (70.7%) / Out of State 9,608 (29.3%)
- Dredging Cycle:
 - 15 years (State)*
 - Portions of this route are Federal Channels and therefore the responsibility of the Corps of Engineer. The Corps dredges based upon the availability of funds.
- Type of Vessel Used: Sound Class
- Facilities:
 - Swan Quarter:
 - Operations Building: built 1974 (2,032 SF) - pending replacement—
 - new Operations Building to be completed CY2016 (\$2.77M) (8,582 SF)
 - Ocracoke Island (Ocracoke Village):
 - Operations Building: built 2008 (3,380 SF)

Cedar Island to Ocracoke Village (located in Division 1 & Division 2)

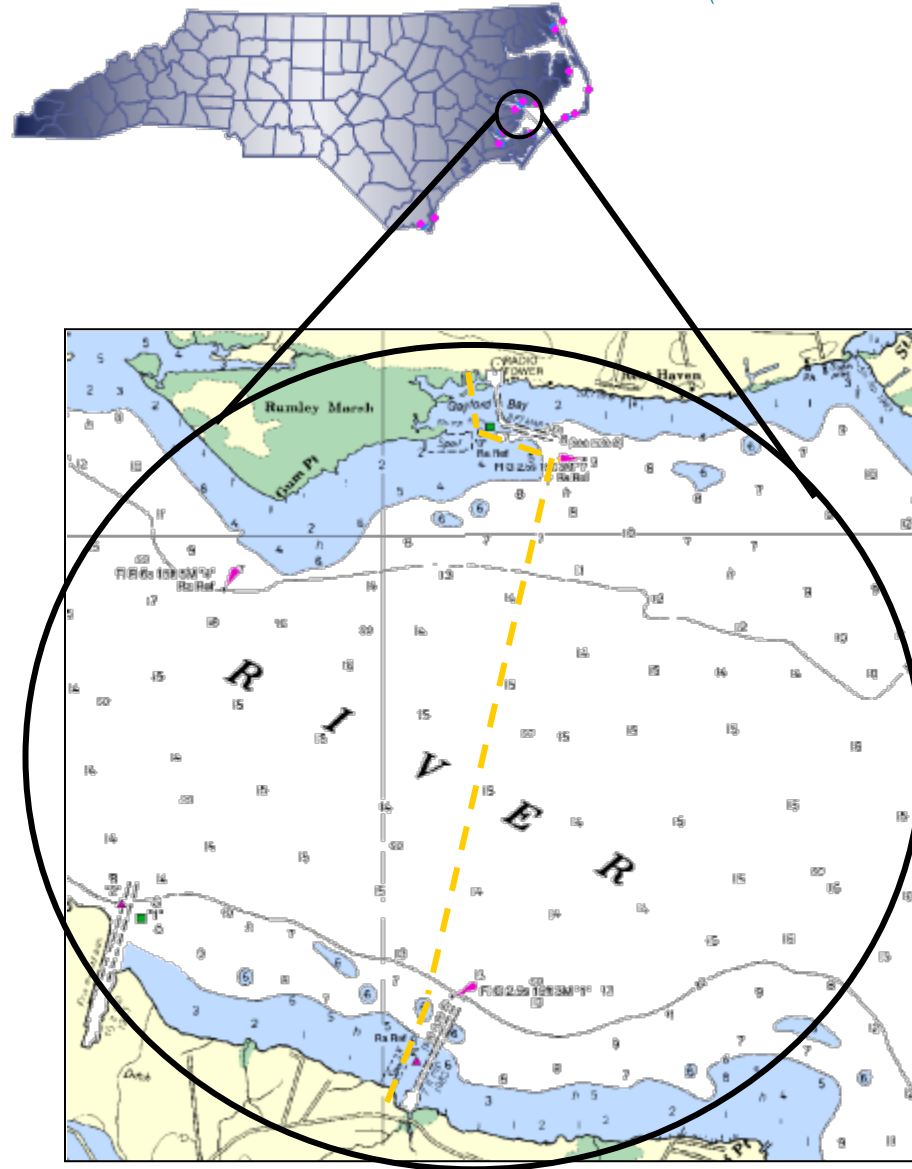


- Route Carried: NC 12
- Crossing Time: 2.25 hours
- CY15 Traffic Stats: In State 29,402 cars (68.6%) / Out of State 18,024 (31.4%)
- Dredging Cycle:
 - 10-12 years (State)*
 - Portions of this route are Federal Channels and therefore the responsibility of the Corps of Engineer. The Corps dredges based upon the availability of funds.
- Type of Vessel Used: Sound Class
- Facilities:
 - Cedar Island:
 - Operations Building: built 1990 (4,167 SF)
 - Maintenance Building: built 1987 (2,938 SF)
 - Ocracoke Island (Ocracoke Village):
 - Operations Building: built 2008 (3,380 SF)
 - Dorm: built 1988 (4,452 SF)

*As needed for emergency conditions

Pamlico River (Bayview to Aurora)

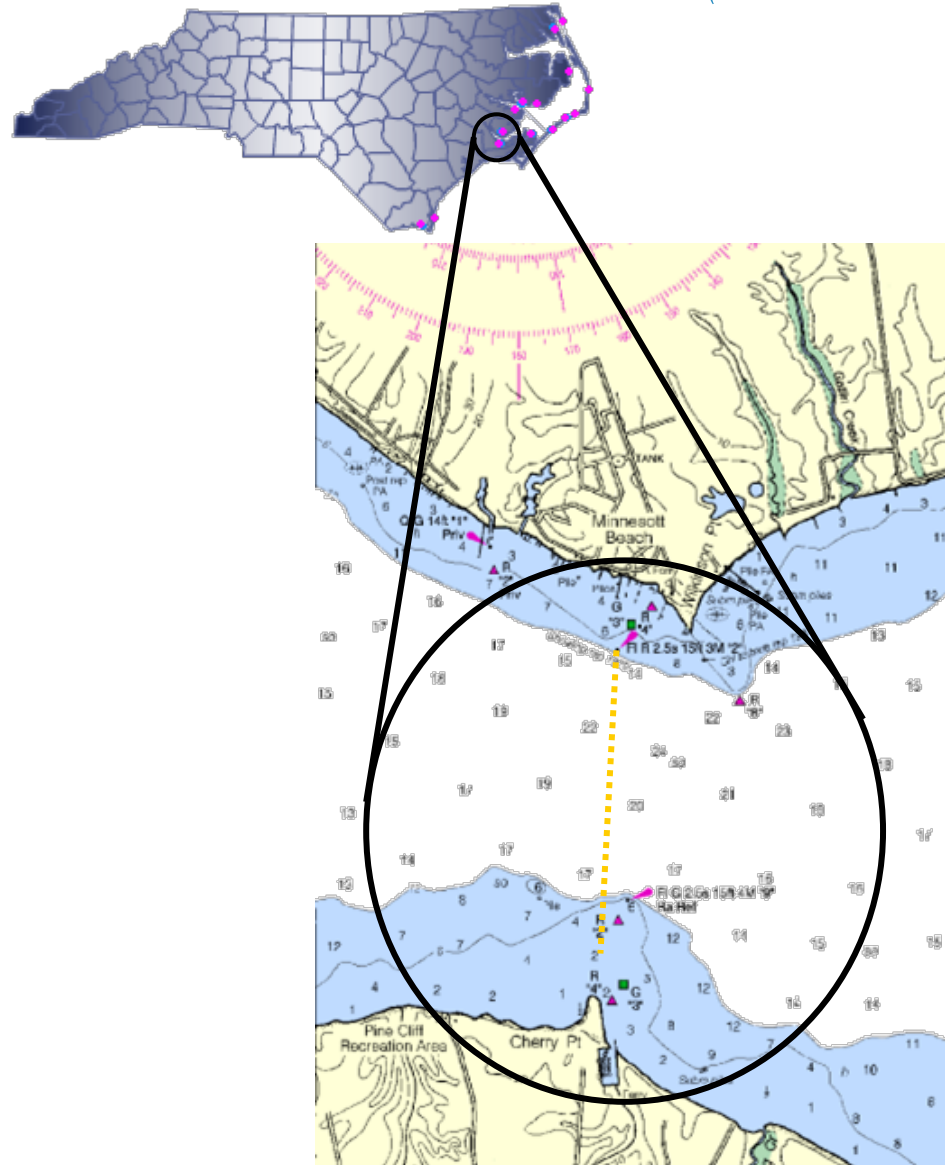
(located in Division 2)



- Route Carried: NC 306
- Crossing Time: 30 min
- CY15 Traffic Stats: In State 49,928 cars (98%) / Out of State 1,014 (2%)
- Dredging Cycle:
 - 8-10 years (State)*
- Type of Vessel Used: Hatteras or River Class
- Facilities:
 - Bayview:
 - Operations Building: built 2001 (2,581 SF)
 - Aurora:
 - Comfort Station: built 2002 (560 SF)

*As needed for emergency conditions

Neuse River (Minnesott Beach to Cherry Branch) (located in Division 2)

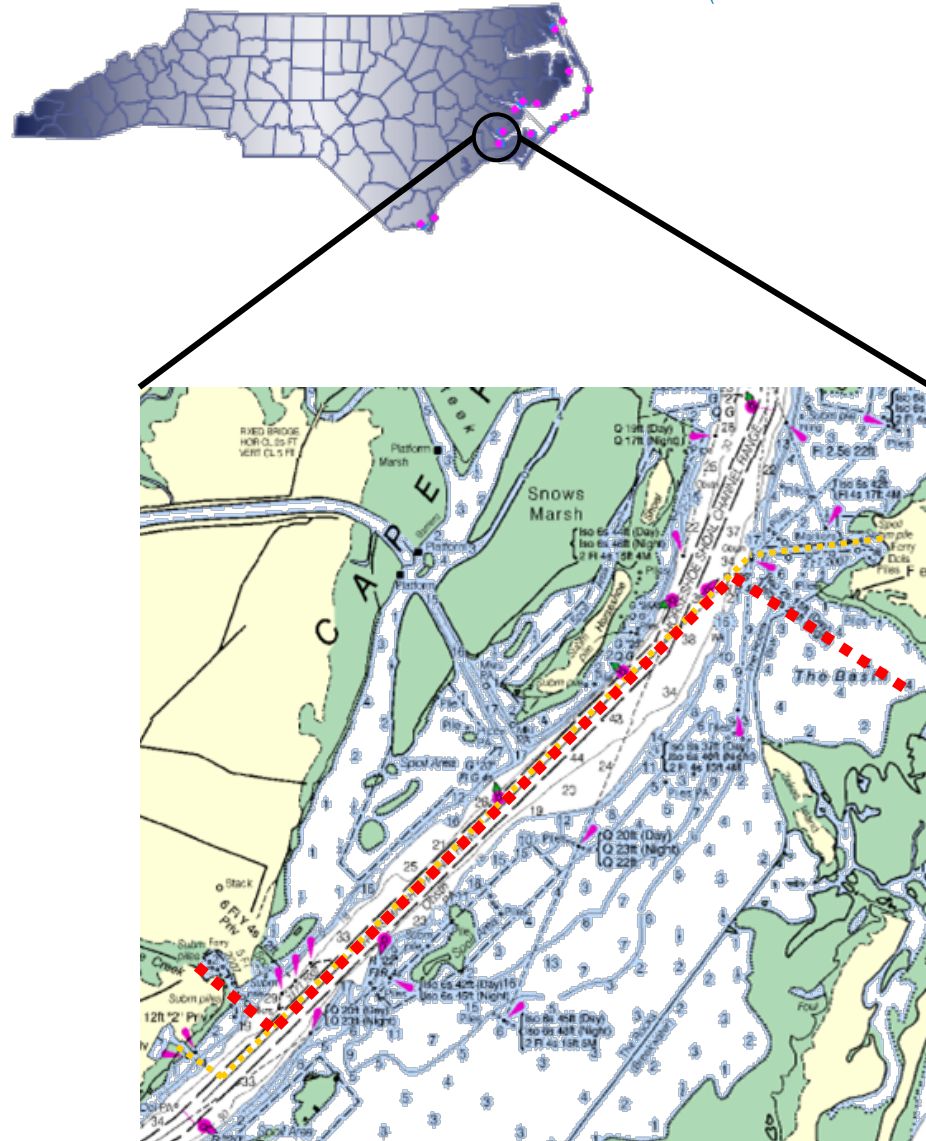


- Route Carried: NC 306
- Crossing Time: 20 min
- CY15 Traffic Stats: In State 179,975 cars (92.3%) / Out of State 14,917 (7.7%)
- Dredging Cycle:
 - 5-6 years (State)*
- Type of Vessel Used: Hatteras or River Class
- Facilities:
 - Minnesott Beach:
 - Comfort Station (1,220 SF)
 - Cherry Branch:
 - Operations: built 1971 (646 SF) – pending replacement
 - New Operations Building to be completed CY2016 (\$1.91M) (8,906SF)
 - Maintenance Building: Built 1990 (2,882 SF)

*As needed for emergency conditions

Cape Fear River (Fort Fisher to Southport)

(located in Division 3)



- Route Carried: NC 211
- Crossing Time: 35 min
- CY15 Traffic Stats: In State 132,435 cars (67.3%) / Out of State 64,265 (32.7%)
- Dredging Cycle:
 - 4-5 years (State)*
- Type of Vessel Used: Hatteras or River Class
- Facilities:
 - Fort Fisher
 - Comfort Station: built 1987 (975 SF)
 - Southport:
 - Operations: built 2005 (3,380 SF)

*As needed for emergency conditions

NCDOT Ferry Division Shipyard



Manns Harbor, NC

Vessel Overview



Vessel Overview

<u>Vessel Class</u>	<u>No. in Class</u>	<u>LOA</u>	<u>Breath</u>	<u>Depth</u>	<u>Draft</u>	<u>Carrying Capacity (Vehicles)</u>	<u>Carry Capacity (Passengers)</u>	<u>US Coast Guard Min. Crew Size Requirement</u>
Hatteras	7	149' – 9"	42' – 0"	8' – 6"	4' – 6"	26	149	6
River	9	159' – 3"	40	8' – 6"	4' – 3"	38	300	7
Sound	5	220' -6"	50' – 0"	12' – 6"	5' – 6"	50	300	7
Dredge	1	80' – 0"	30' – 0"	8' – 6"	4' – 0"	N/A	N/A	N/A
Barges	3	39' – 0"	18' – 0"	4' – 0"	2' – 0"	N/A	N/A	N/A
Crane Barge	1	136' – 0"	40' – 0"	9' – 0"	4' – 0"	N/A	N/A	N/A
Tug (Small)	1	34' – 0"	12' – 0"	4' – 6"	4' – 0"	N/A	N/A	N/A
Tug (Medium)	2	40' – 0"	14' – 0"	6' - 0"	4' – 0"	N/A	N/A	N/A
Tug (Large)	1	56' – 0"	22' – 0"	9' – 6"	6' – 6"	N/A	N/A	N/A

General Dimensions as each vessel varies slightly



Hatteras Class Vessel



River Class Vessel



Sound Class Vessel



Support Fleet Vessels



Overview of the Ferry Division 20 Year Asset Management Plan





20 Year Boat Replacement Plan

Vessel	New Boat Replacement
Tugs	3
Barges	3
Dredge	0
Syncro-Lift	0
Class Ferry	9
Number of Vessels	15
Estimated Total 20-year Cost	Approximately \$120M
Average Cost Per Year	Approximately \$6M per year





20 Year Operations & Maintenance Project Plan

Project Type	Number of Projects
Rehabilitation – Hatteras/ River Class Vessel	10
Rehabilitation – Sound Class Vessel	4
Ramp & Gantry Rehab	22
Synchro-Lift Rehab	1
Other Various Projects	5
Number of Projects	42
Estimated Total 20-year Cost	Approximately \$75.1M
Average Cost Per Year	Approximately \$3.8M per year



Passenger Ferry Study Update



Passenger Ferry Study Update

- Commissioned Spring 2015 (Volkert Engineering)
- Assessing viability of passenger-only service between Hatteras terminal and Silver Lake Harbor (Ocracoke)
- A Steering Committee was put together to guide this study. The Steering Committee consisted of representatives from the following groups:

NCDOT Ferry Division

NCDOT Division One (DOH)

NCDOT Transit Branch

NCDOT Bicycle & Pedestrian Division

NCDOT Transportation Planning Branch

Hyde County Manager

- 95% Complete
- Internal Review complete mid-February
- Board review and approval anticipated April/May 2016



Recap of 2014 Ferry Tolling Methodology





State Legislative Changes

Receipt Generating Authority:

- Tolls
- Advertising
- Naming Rights
- Concessions



Receipts must be:

- Used for new ferry boat, dredge and tug boat replacement
- Deposited into dedicated accounts by route

Tolling Revenue can supplement Division Funds to replace ferry boats

- Funds deposited into dedicated DOT account by ferry route





State Legislative Changes

Roles and Responsibilities

UNTOLLED Routes

DOT must:

- Define tolling methodology
- Determine impact of tolling on other local transportation projects
- Define high and low tolling thresholds for BOT
- Conduct Public Hearings by March 1, 2014
- Implement any approved tolling within 180 days of BOT approval

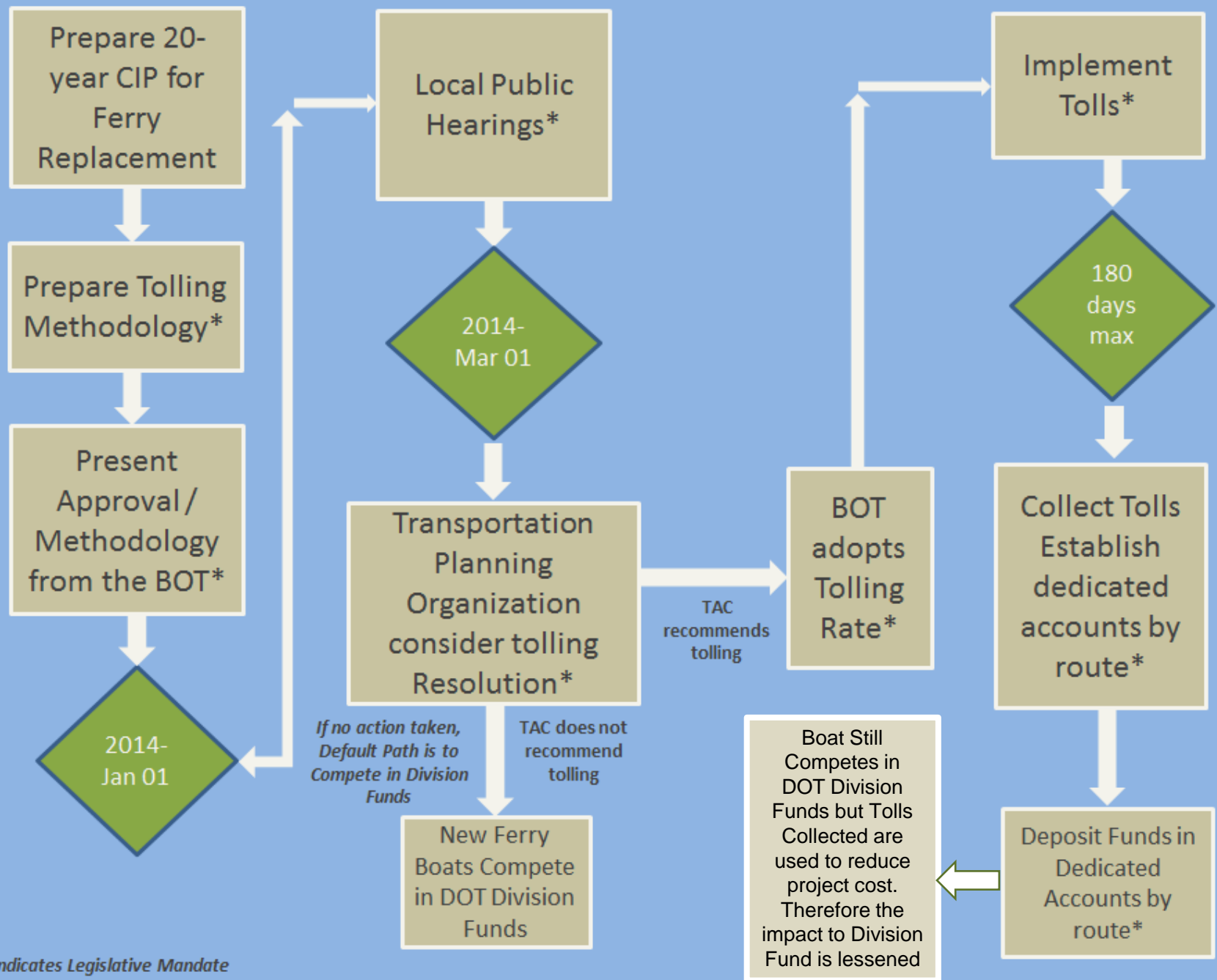
Board of Transportation (BOT) must:

- Approve DOT Tolling Methodology
- Approve tolling rate after Tolling Resolution from TPO

Transportation Planning Organization (TPO) must:

- Consider tolling
- Choose funding source – tolling or compete in Division Funds





* Indicates Legislative Mandate



Tolling Model - Individual

	Cherry Branch - Minnescott		Bayview - Aurora Currituck - Knots Island Ocracoke – Hatteras		Southport - Fort Fisher		Ocracoke - Swan Quarter Ocracoke - Cedar Island	
Class Fare	Proposed	Current	Proposed	Current	Proposed	Current	Proposed	Current
Pedestrian	\$0.50	\$0	\$1	\$0	\$1	\$1	\$5	\$1
Bicycle	\$1	\$0	\$2	\$0	\$2	\$2	\$10	\$3
Motorcycle	\$1.50	\$0	\$3	\$0	\$3	\$3	\$15	\$10
Under 20 ft.	\$3	\$0	\$7	\$0	\$7	\$5	\$25	\$15
20 ft. - 40 ft.	\$6	\$0	\$14	\$0	\$14	\$10	\$50	\$30
Over 40 ft.	\$12	\$0	\$28	\$0	\$28	\$15	\$65	\$45





Tolling Model – Annual Pass by Route

	Cherry Branch - Minesott Beach	Bayview - Aurora	Currituck - Knots Island	Southport - Fort Fisher	Hatteras - Ocracoke	Ocracoke - Swan Quarter Ocracoke - Cedar Island Ocracoke South Dock - Hatteras 3-in-1 Go PASS
Class Fare	Proposed	Proposed	Proposed	Proposed	Proposed	Proposed
Pedestrian	\$20	\$40	\$40	\$40	\$40	\$75
Bicycle	\$40	\$75	\$75	\$75	\$75	\$100
Motorcycle	\$40	\$75	\$75	\$75	\$75	\$100
Under 20 ft.	\$75	\$150	\$150	\$150	\$150	\$200
20 ft. - 40 ft.	\$100	\$175	\$175	\$175	\$175	\$225
Over 40 ft.	\$125	\$225	\$225	\$225	\$225	\$300





Tolling Model – System Wide Annual Pass

System Wide	
Class Fare	Proposed
Pedestrian	\$75
Bicycle	\$150
Motorcycle	\$150
Under 20 feet	\$300
20 feet - 40 feet	\$350
Over 40 feet	\$400



Estimated Revenue by Route and Division

Route	Total Revenue	Transportation Planning Organization	Division
Currituck	\$85,000	Albemarle RPO	1
Hatteras	\$1,700,000	Albemarle RPO	1
Swan Quarter	\$600,000	Albemarle RPO	1
Cedar Island @28%	\$425,000	Albemarle RPO	1
Cedar Island @72%	\$1,000,000	Down East RPO	2
Cherry Branch	\$300,000	Down East RPO	2
Bayview	\$160,000	Mid-East RPO	2
Southport	\$870,000	Wilmington MPO/Cape Fear RPO	3

Division	Total Revenue
1	\$2.8M
2	\$1.46M
3	\$870K
Total	\$5.1M





Summary of MPO/RPO Actions to Date:

- Albemarle RPO:
 - 2014: RPO decided to take no action
 - 2015: RPO has discussed in detail but to date no official action has been taken
- Down East RPO
 - 2014: RPO decided to take no action
- Mid-East RPO
 - 2014: RPO decided to vote against tolling any routes
- Cape Fear RPO
 - 2014: RPO voted to raise the existing tolls for the South Port – Fort Fisher Route
- Wilmington MPO
 - 2014: RPO voted to raise the existing tolls for the South Port – Fort Fisher Route



Questions?

