



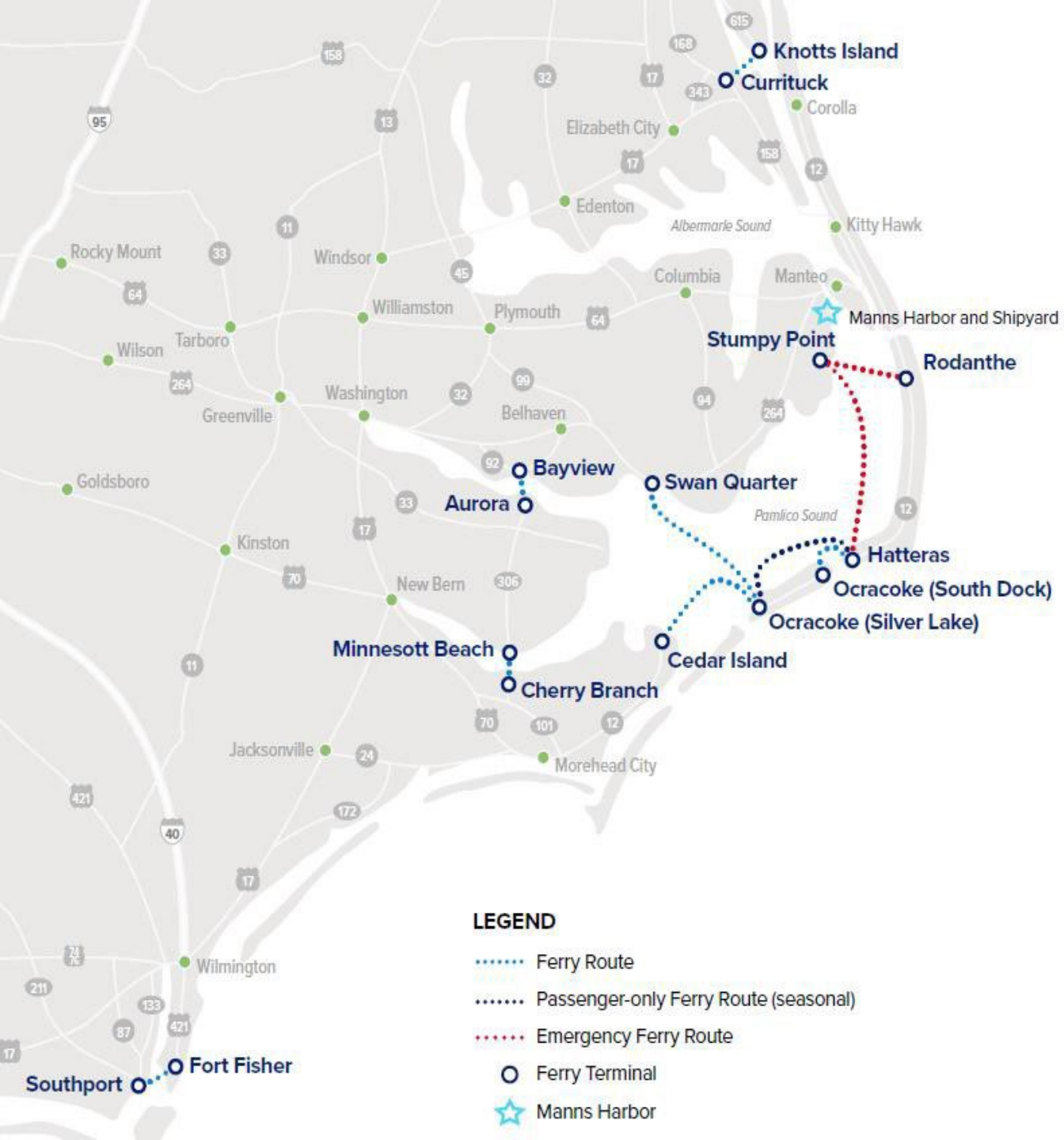
**NORTH CAROLINA**  
Department of Transportation

# Ferry Division Update – Cape Fear RPO

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Planning & Development Manager /  
Interim AD Marine Asset Management

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Connecting people, products and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina



## North Carolina Ferry System

- The **2<sup>nd</sup> largest** state-operated Ferry system in the country
- Has served the State for **over 75 years**
- Transported **1.57 million passengers** in FY 2022-23
- Generates **\$735 million** in economic output for North Carolina annually
- Provides **\$40 million** in net travel benefits for ferry passengers annually
- 22 ferry vessels
- 11 in support fleet (tugs, dredge, etc.)
- 7 year-round vehicle ferry routes
- 1 seasonal passenger ferry route
- Operates across 3 highway divisions

# Ferry Division Core Functions



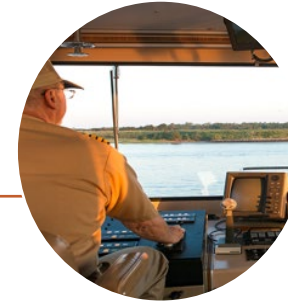
## Operations

- Connects NC Coastal Highways & Communities
- 493 Full Time Employees
- 100+ Temps In Summer
- Seven Year-Round Routes
- 15 Terminals
- 1 Seasonal Route
- Emergency/Disaster Response/Preparedness
- US Coast Guard Compliance



## Asset Management

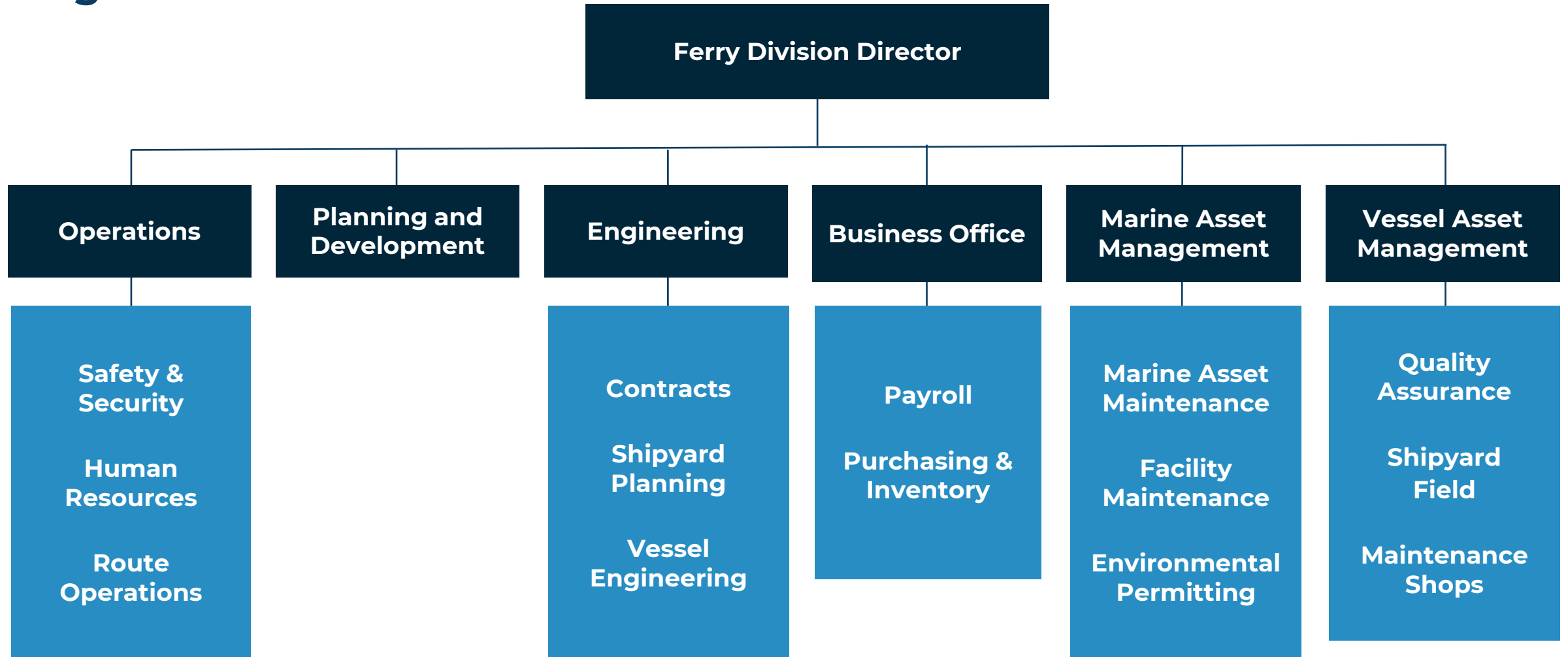
- 22-Vessel Fleet
- Support Fleet
- Marine Maintenance and Facilities
- Vessel Engineering and Contracts
- Field Maintenance: 3 Field Shops
- Shipyard



## Planning & Programming

- Business Office
- Long Range Asset Planning
- Service Expansion
- Fleet Lifecycles
- Technology Integration

# Org Chart



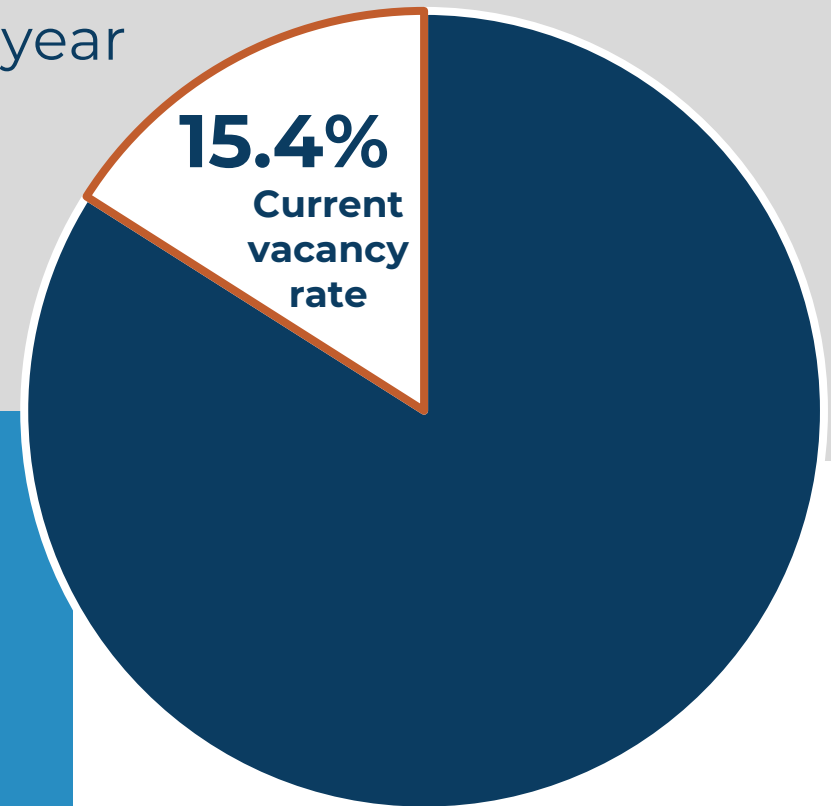
## Human Resources

### Upcoming retirements are a concern

- 62 (12.7%) permanent employees can retire in one year
- 99 (20%) in three years
- 137 (27.7%) in five years

*NOTE: The three and five year amounts are cumulative.*

Hiring new employees in rural areas and specialty backgrounds in marine operations is challenging.



\*Retirement and vacancy rate data are current as of 09/22/2023.

# Shipyard Modernization

## The Manns Harbor Shipyard is critical to Ferry System operation

Shipyard houses working and administrative units, provides on-site planned and emergency maintenance and repair for all 22 ferry vessels and marine maintenance vessels

Current Shipyard Initiative:

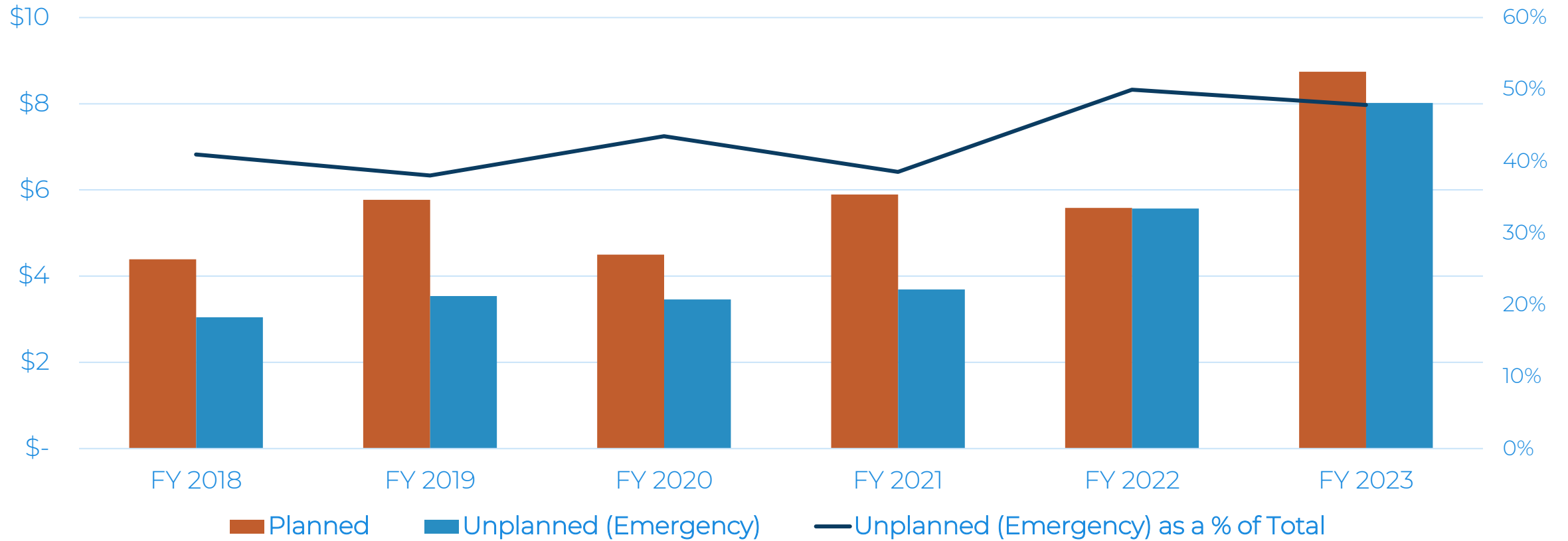
- Funds have been awarded to investigate modernization ideas that could improve the efficiency and productivity of the Shipyard
- Deliverables will include a sectioned report that outlines processes, findings, recommendations, cost estimates, and potential funding opportunities
- Currently anticipated to be completed in summer 2024

**The challenge of workforce shortages:** Several factors including the lack of affordable housing in the area make it difficult to hire employees to complete the needed work.

In 1998, the shipyard had ~100 production employees, but now only 60, and maintenance needs have only increased with an aging fleet.

# Historical Vessel & Marine Equipment Maintenance Costs FY 2018-23

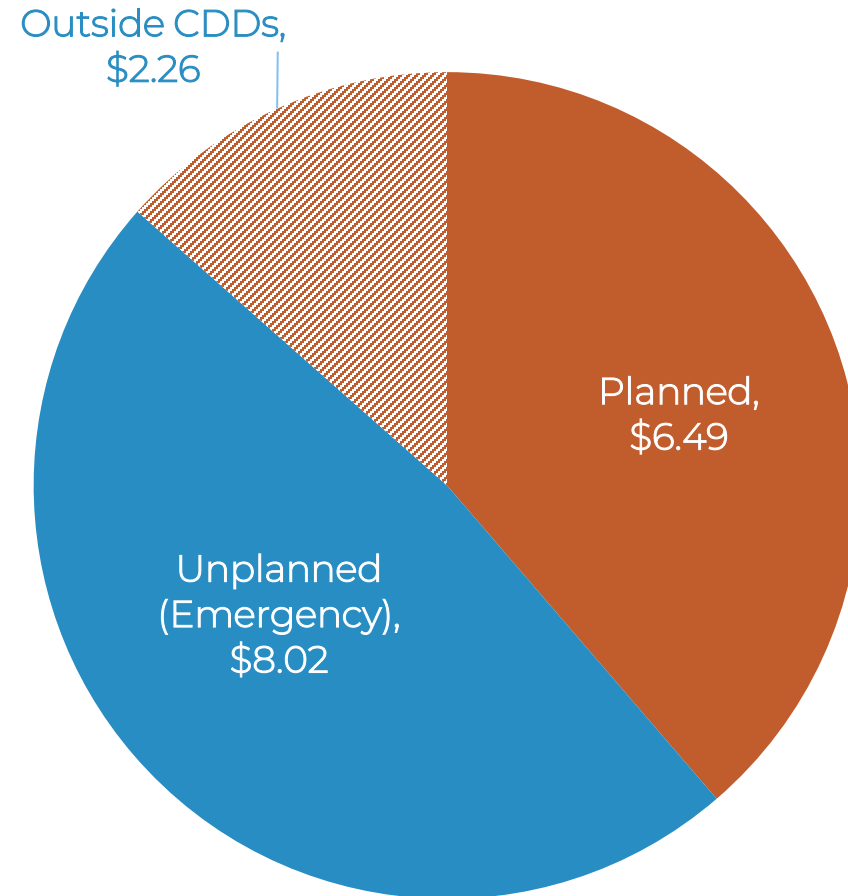
(\$ millions)



## FY 2022-23 Vessel & Marine Equipment Maintenance Costs

(\$ millions)

- Increasing Unplanned (Emergency) Maintenance costs
  - 16 ferry vessels (73%) are 20+ years old
- CDDs at outside shipyards critical to meet USCG requirements
  - Manns Harbor shipyard only has 4 berths
  - Local labor force cannot support hiring needs
- In 2008, the USCG expanded inspection requirements
  - Required inspections and CDDs for 9 additional vessels





## Engineering Unit

**Fleet vessels are aging which leads to increased maintenance costs and the need to proactively identify funding to replace assets on a timely basis**

- Engineering Unit was created to improve the Division’s construction and contracting methods
- New Engineering Manager established workgroup to learn more and gain recommendations from subject matter experts to better our processes
- This unit will be focusing on the following:
  - Proactively planning the design, rehabilitation and replacement of our aging vessels and other assets
  - Conducting a basic level of engineering activities in-house instead of contracting out
  - The Vessel Architect position remains unfilled.

Current & Upcoming Vessel Construction	Vessel Class	Status
M/V Avon	River	~95% Complete
M/V Silver Lake Replacement (F-5704)	Sound	Design Phase

## FY 2022-23 Budget Analysis

- Historically high diesel fuel prices
  - November peak price of \$5.28 per gallon
  - By mid-March, the O&M fuel budget for Ferry was exhausted
- In March, various O&M activities were suspended to reduce spending
- FY23 Actual Spend:

Funding Source	Amount (\$ millions)
Authorized Budget	\$58.19
FY 2021-22 Carryforward	2.18
Passenger Ferry Contingency	0.16
Highway Fund Loan*	1.75
<b>Total</b>	<b>\$62.28</b>

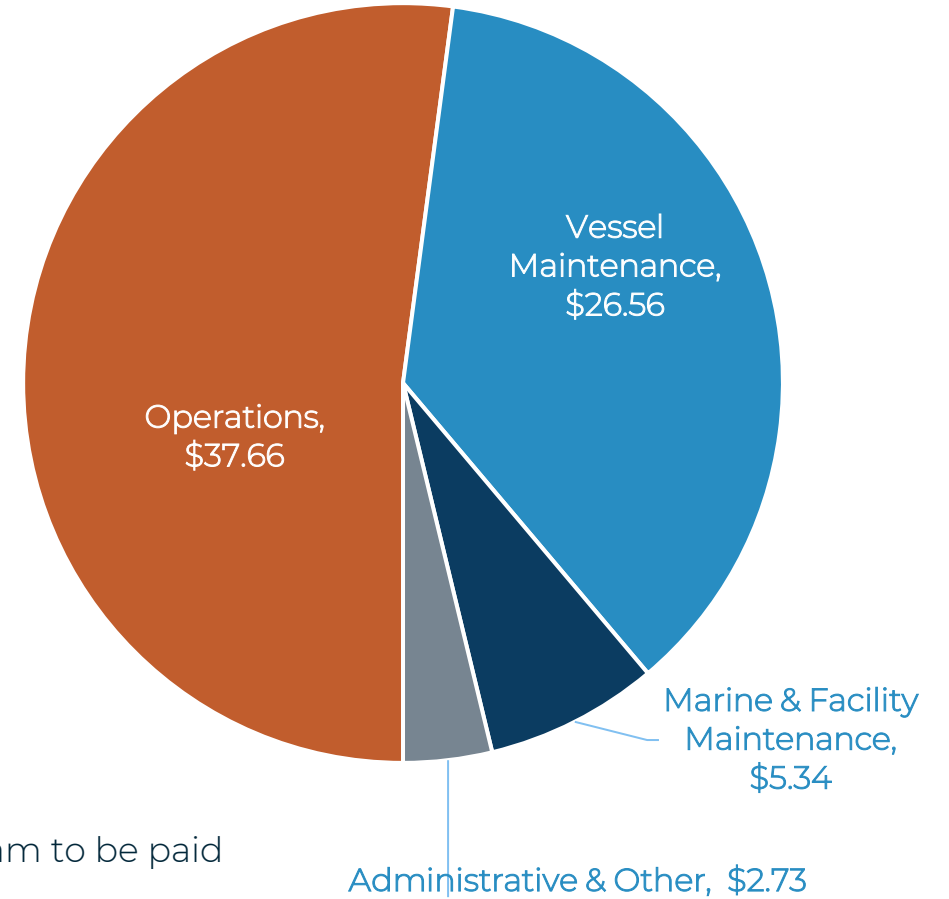
\*Ferry received a loan for up to \$2 million from the highway maintenance program to be paid back SFY 2024. Ferry expended approximately \$1.75 million of the loan.

Totals may not add due to rounding

# FY 2023-24 Ferry O&M Budget

(\$ millions)

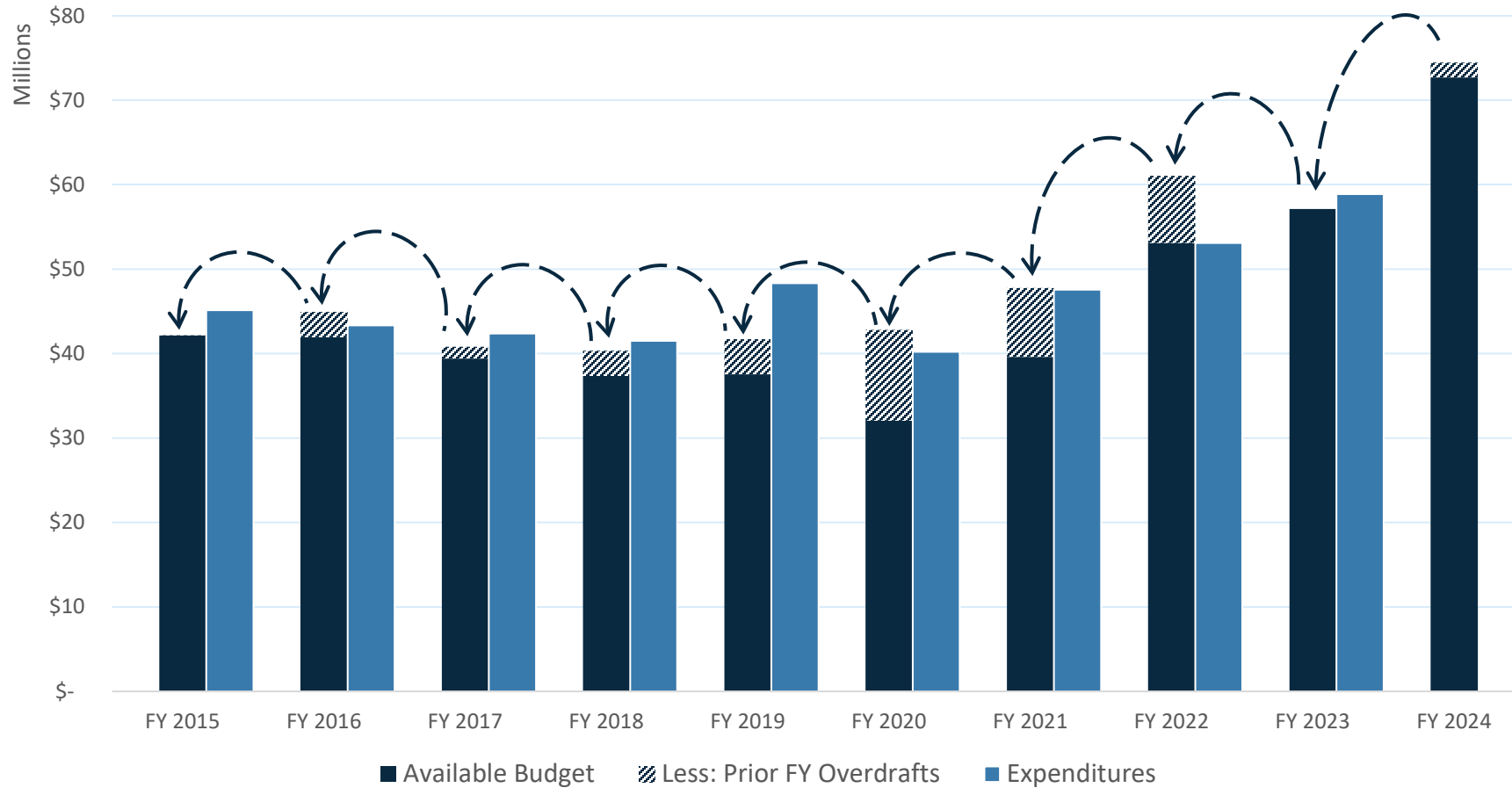
Budget Item	Amount
FY 2022-23 Base Budget	\$ 58.61
Estimated Loan Payback*	(1.75)
2023 Appropriations Act (SL2023-134)	\$ 15.42
<b>Total</b>	<b>\$ 72.28</b>



\*Ferry received a loan for up to \$2 million from the highway maintenance program to be paid back FY 2024. Ferry expended approximately \$1.75 million of the loan.

Totals may not add due to rounding.

# Historic Overdraft & Payback

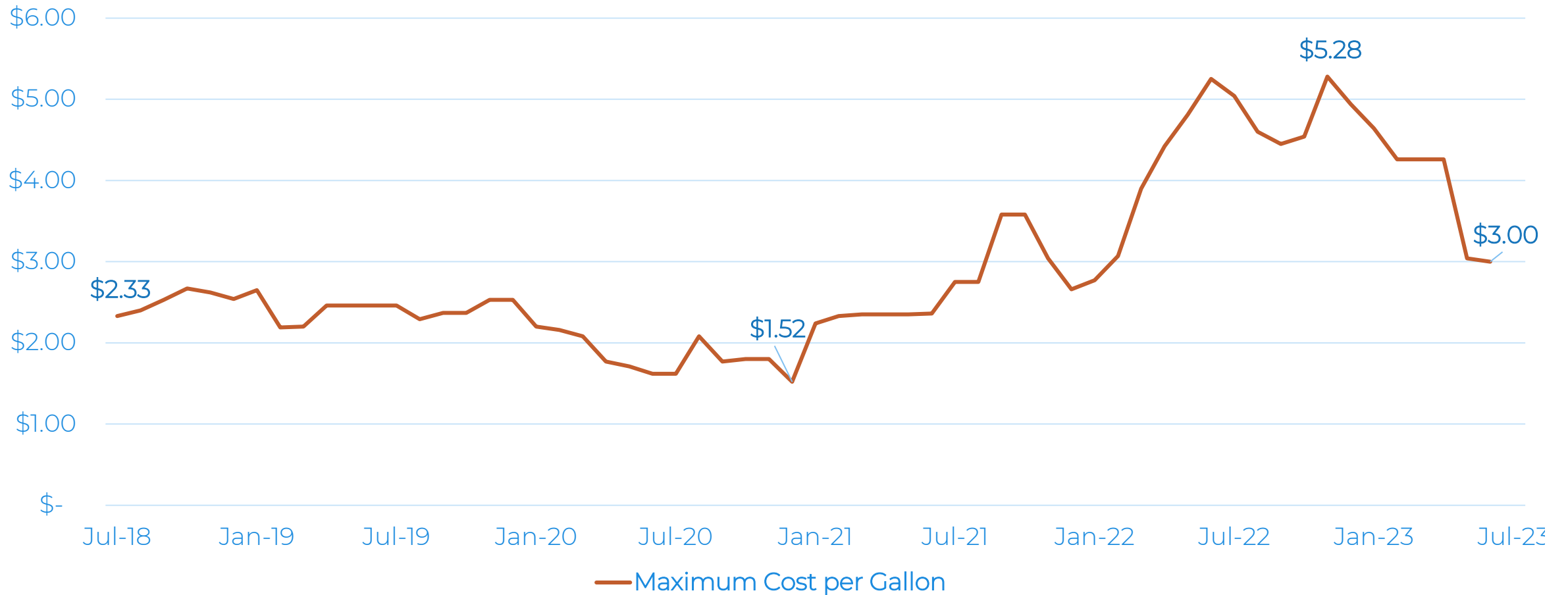


Prior to SL2021-180, the Ferry Division was permitted to overdraft the appropriation and pay it back from the following FY appropriation. The appropriations and expenditures in the chart combine operations and capital.

## Budget Forecasting Challenges

- Variable costs/factors
  - Diesel Fuel Prices
  - Unplanned (Emergency) Vessel Maintenance
  - Credit Dry Docks
  - Weather-Related Costs
  - Unfunded U.S. Coast Guard Mandates
  - Inflation, long lead times for parts, supply chain (supplies, parts, materials, etc.)

# Historical Diesel Fuel Prices FY 2018-23



# STI



## Eligible Project Types

Statewide	Regional	Division
Not Eligible	<ul style="list-style-type: none"> <li>New Installation of Ramp &amp; Gantry (Capacity Expansion)</li> <li>Bulkhead Expansion (associated with Capacity Expansion)</li> <li>Additional Mooring Slips (to accommodate capacity expansion)</li> <li>New (Capacity Expansion) Ferry (River or Sound Class)</li> </ul>	<ul style="list-style-type: none"> <li>Replacement of Ferry (River, Hatteras, or Sound Class)</li> <li>Replacement of Support Vessels (Barges, Tugs, etc.)</li> </ul>

Regional Impact	Division Needs
<ul style="list-style-type: none"> <li>Statewide</li> <li>Regional</li> </ul>	<ul style="list-style-type: none"> <li>Statewide</li> <li>Regional</li> <li>Division</li> </ul>
70% Quantitative Data / 30% Local Input	50% Quantitative Data / 50% Local Input
<ul style="list-style-type: none"> <li>Benefit-cost</li> <li>Congestion</li> <li>Safety</li> <li>Freight</li> <li>Multimodal</li> <li>Pavement Condition</li> <li>Lane Width</li> <li>Shoulder Width</li> <li>Accessibility and connectivity to employment centers, tourist destinations, or military installations</li> </ul>	<ul style="list-style-type: none"> <li>Benefit-cost</li> <li>Congestion.</li> <li>Safety</li> <li>Freight</li> <li>Multimodal</li> <li>Pavement Condition</li> <li>Lane Width</li> <li>Shoulder Width</li> <li>Accessibility and connectivity to employment centers, tourist destinations, or military installations</li> </ul>
Quant. Criteria can be different for each Region	Quant. Criteria can be different for each Division



## Ferry Scoring

Criteria	Measure	Regional Impact (70%)	Division Needs (50%)
Asset Condition	100 - Asset Condition Rating	15%	15%
Benefits	Number of hours (in \$) saved compared to driving	10%	10%
Accessibility/ Connectivity	# of nearby Points of Interest	10%	10%
Asset Efficiency	3-year maintenance cost / 3-year replacement cost	15%	15%
Capacity/ Congestion	% of vehicles left behind at each departure compared to total carried by the route	20%	-

## P7 - Southport – Fort Fisher Projects

Project Description	Specific Improvement Type	Notes	Cost
New Ramp & Gantry – Southport	Regional	2 <sup>nd</sup> ramp at Southport	\$25,900,875
New Ramp & Gantry – Fort Fisher	Regional	2 <sup>nd</sup> ramp at Fort Fisher	\$25,900,875
New River Class vessel	Regional	Additional vessel	\$25,768,160
Visitor Center Reconstruction	Regional	Replace existing visitor center	\$25,900,875
Replace M/V Fort Fisher	Regional	Replace aging Fort Fisher	\$25,768,160
Replace M/V Southport	Regional	Replace aging Southport	\$25,768,160
Total Estimated Cost			\$155,007,104

## P7 - System Wide Projects - Shipyard

Shipyard projects are split between MPO's and RPO's

Project Description	Specific Improvement Type	Notes	Cost
Shipyard Dorm Construction	Regional	Construction of shipyard dorm to house employees in work mode and to assist with recruiting and retention in the rural area	\$3,000,000
Water System Improvement Project	Regional	Project would replace the deteriorated current water tower with new a new tank storage system and an entirely improved water system	\$10,000,000
Refurbishment of synchro – lift	Regional	Replacement/refurbishment of aging lift system to ensure reliability and capability to haul out all vessels	\$3,000,000
		<b>Total Estimated Cost</b>	<b>\$16,000,000</b>

# Tolling Information & Balance

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# Ferry Capital Fund Balances

Period Ending October 31, 2023

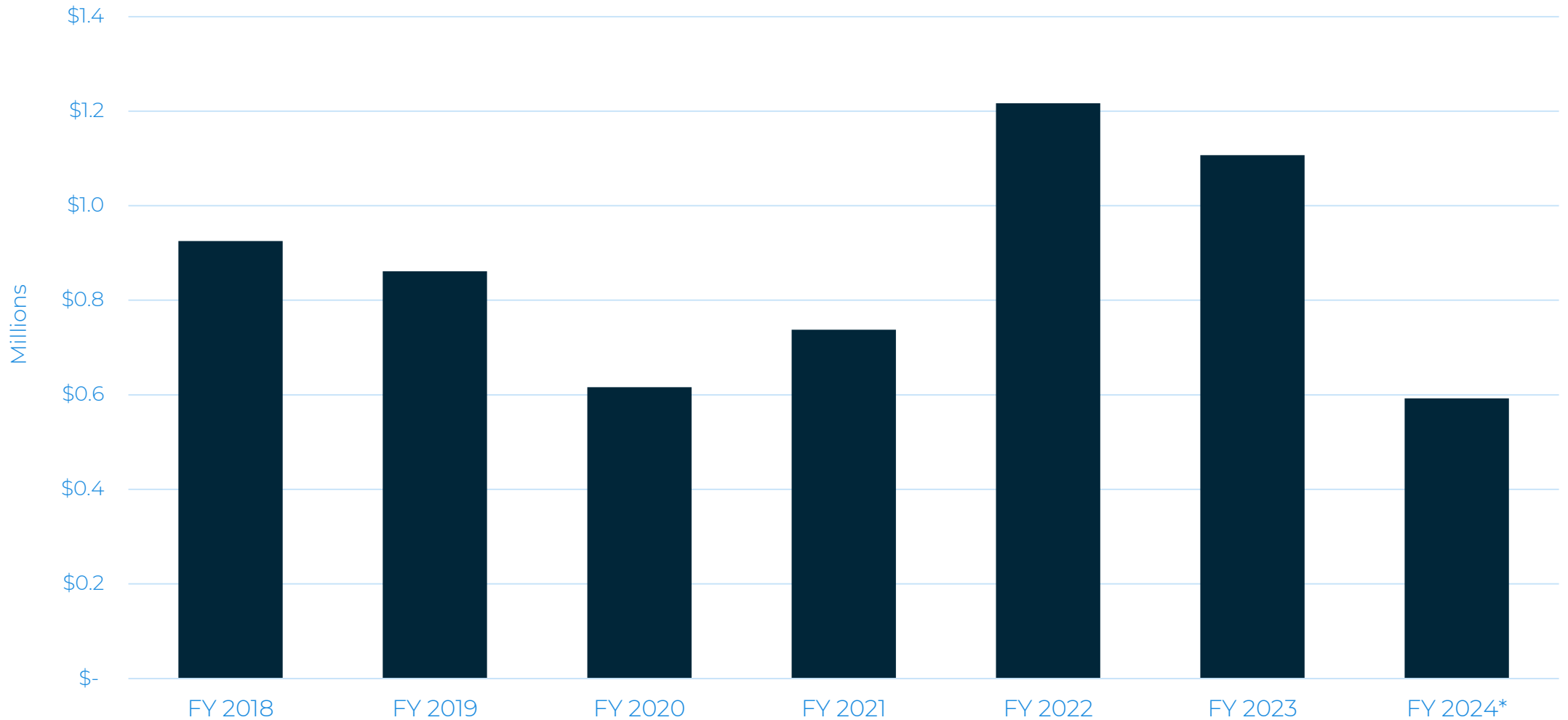
Tolls increased in 2018 from \$5 to \$7 per vehicle.

Southport – Fort Fisher collects an average of approximately \$900k per year

Route	Current Fund Balance
Currituck – Knotts Island	\$ 11,106.15
Hatteras Vehicle Terminal	134,125.57
Hatteras Passenger Ferry	245,929.54
Pamlico River	53,474.87
Swan Quarter – Ocracoke	2,462,987.78
Ocracoke – Cedar Island	2,815,450.35
Cedar Island – Ocracoke*	\$314,776.07
Cherry Branch – Minnesott Beach	313,723.62
Southport – Fort Fisher	7,782,922.04

\*\$2.5M has been allotted to the MV Avon & MV Salvo construction, any unspent dollars will be transferred back to this fund center.

# Southport Historical Revenue



\*FY 2024 includes data through October 31.

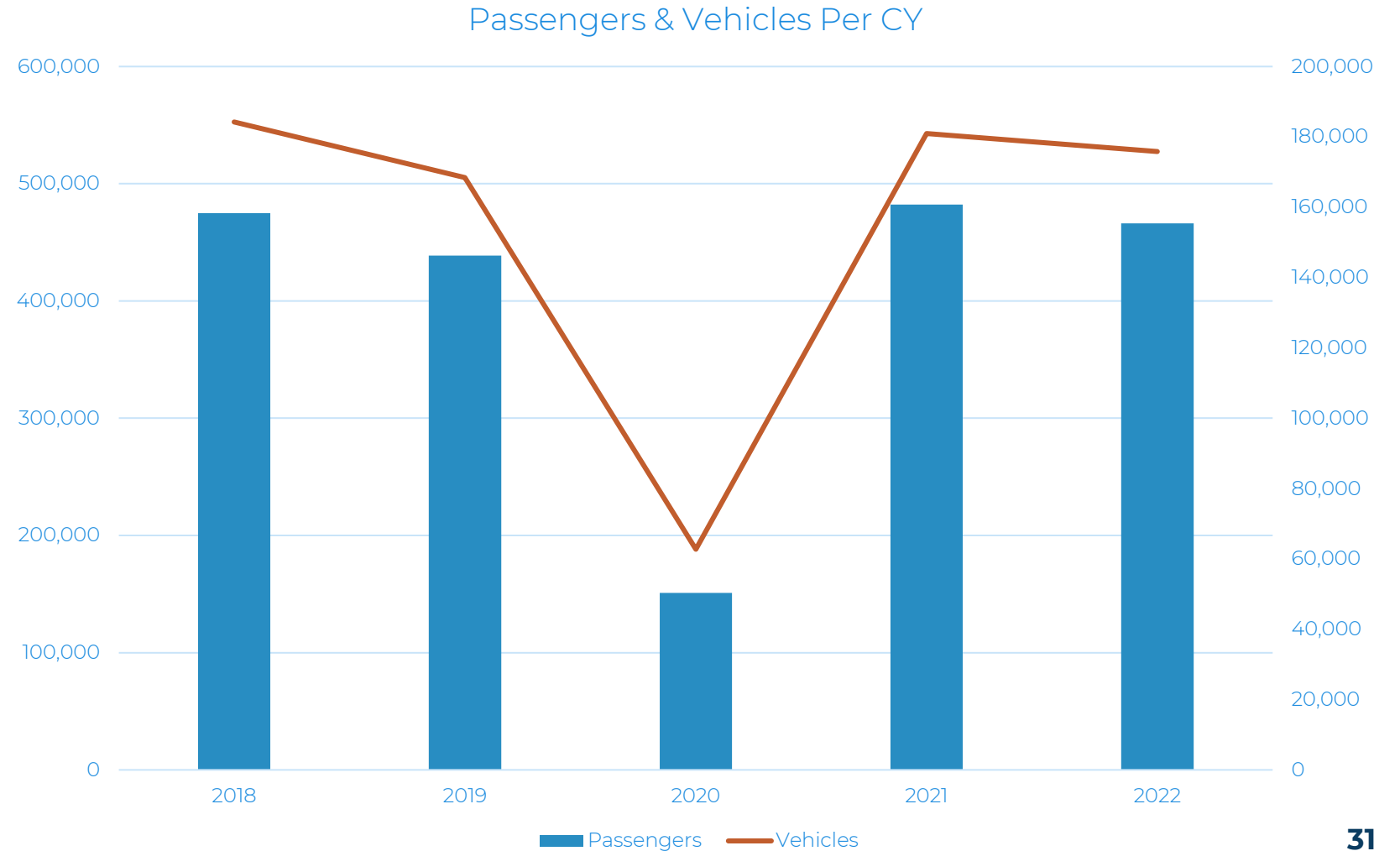
# Tolling Legislation

## Article 6 Chapter 136 – 82 – Department of Transportation to establish and maintain ferries

- (b) Tolling of Certain Ferry Routes – The Board of Transportation shall establish tolls on the passenger-only Hatteras – Ocracoke ferry route. The BOT shall continue tolling the following routes:
  - Southport – Fort Fisher
  - Cedar Island – Ocracoke
  - Swan Quarter – Ocracoke
- (c) Revision of Tolls – The BOT may change tolls rates or toll-setting methodology. The DOT shall report to the Fiscal Research Division, the Joint Legislative Transportation Oversight Committee, and all affected local transportation planning organizations 30 days prior to any change in toll rates or change in toll setting methodologies
- (d) Use of Toll Proceeds – The DOT shall deposit proceeds from the tolls collected on the NC Ferry system routes and route generated receipts....Fares are earned based on the terminals from which a passenger trip originates and terminates. The proceeds shall be used exclusively for prioritized North Carolina Ferry system ferry passenger vessel replacement projects in the Division in which the proceeds are earned. Proceeds may be used to fund ferry passenger vessel replacement projects or supplement funds allocated for ferry passenger vessel replacement projects approved in the TIP.

# Ridership 2018 - 2023

- Ridership has returned since COVID19
- CY23 Ridership Data to Date:
  - 389,012 Passengers
  - 144,011 Vehicles
  - Trends similar to 2022





**Thank you!**

