

# SHIFTING SANDS

HOW NAGS HEAD, NC ADAPTED  
TO A NEW FUNDING REALITY



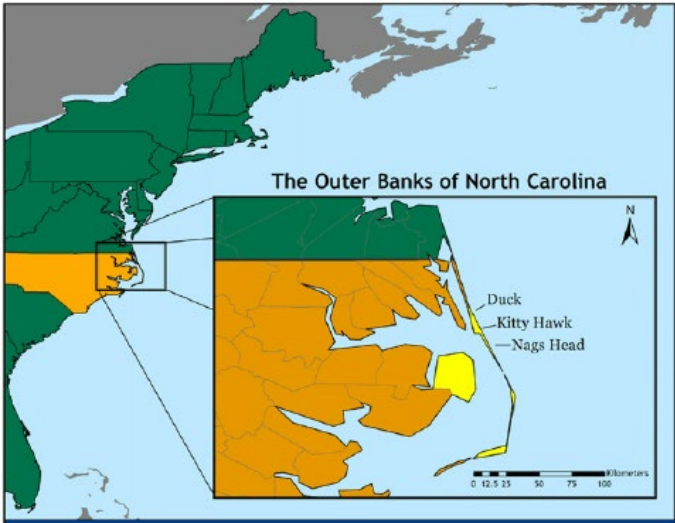
# MEET THE TEAM



SHIFTING SANDS – TOWN OF NAGS HEAD  
SESWA APRIL 2024



# NAGS HEAD, NORTH CAROLINA



# A TOWN AT RISK

## Nags Head Commits to Attacking Flooding

08/01/2018 by [Rob Morris](#)

*Reprinted from The Outer Banks Voice*

NAGS HEAD — After 5 inches of rain over the weekend on top of the previous week's deluge, Nags Head officials sought to assure visitors and property owners Wednesday morning that the town is moving as quickly as possible to attack flooding of streets and private property.



Sunday's rain was on top of a deluge the previous week in Nags Head. (Rob Morris)

## Commission approves septic rule changes, flood disclosure

05/02/2023 by [Catherine Kozak](#)



An exposed septic tank on the Cape Hatteras National Seashore in Rodanthe. Photo: National Park Service

## Dorian leaves North Carolina behind, aims wrath at Canada

by BEN FINLEY Associated Press | Sat, September 7th 2019 at 1:08 PM

Updated Sat, September 7th 2019 at 3:22 PM



8

[VIEW ALL PHOTOS](#)



# STORMWATER FUNDING HISTORY

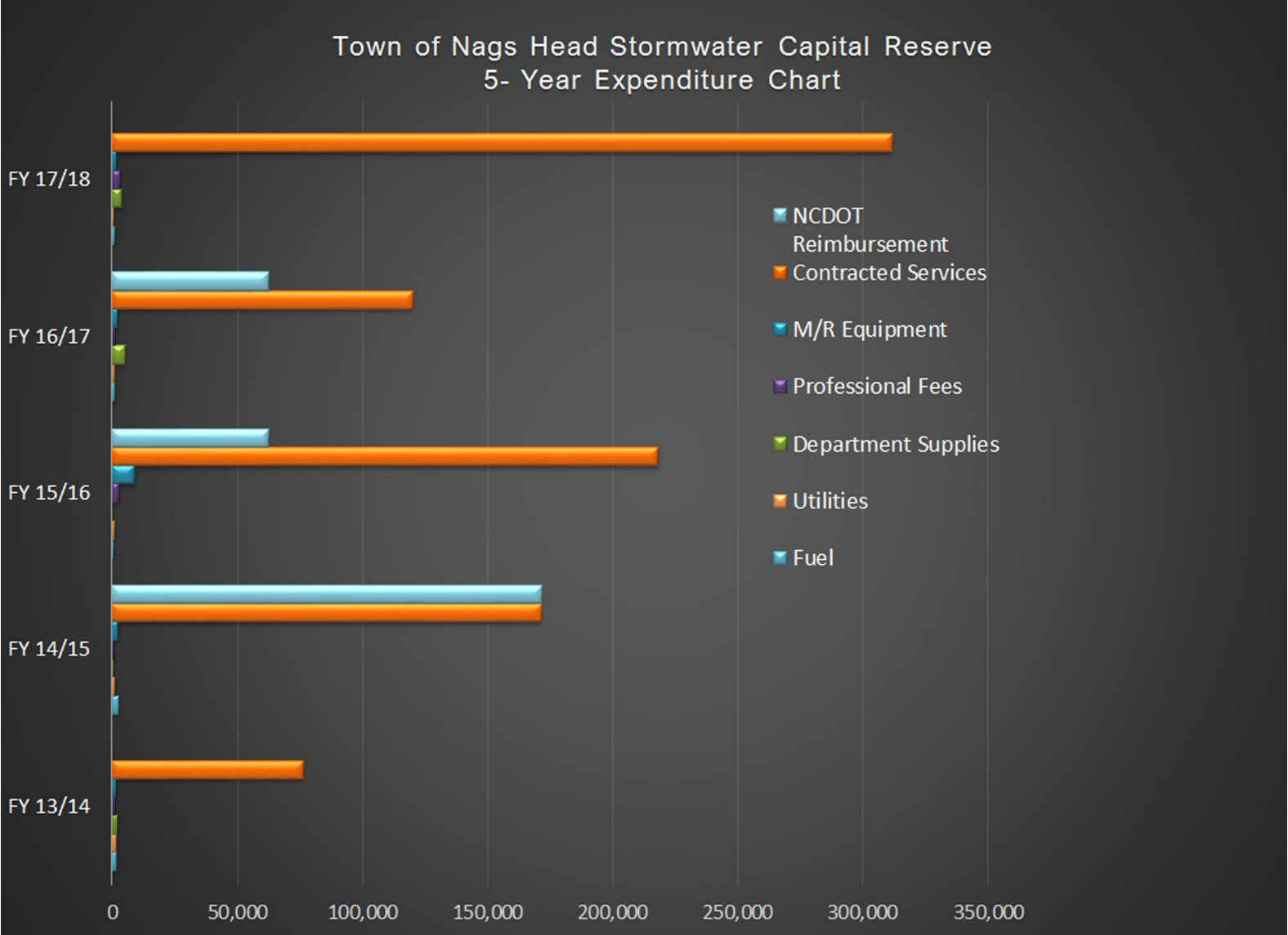
# STORMWATER FUNDING HISTORY

- › General Fund
- › Stormwater Utility (replaced)
- › Ad Valorem Tax for SW Capital Reserve:
  - 2016 – 1 cent
  - 2018 – 2 cents
    - (~\$500k annually)
- › Limited Grant Funding
  - Beach Nourishment
  - Parks



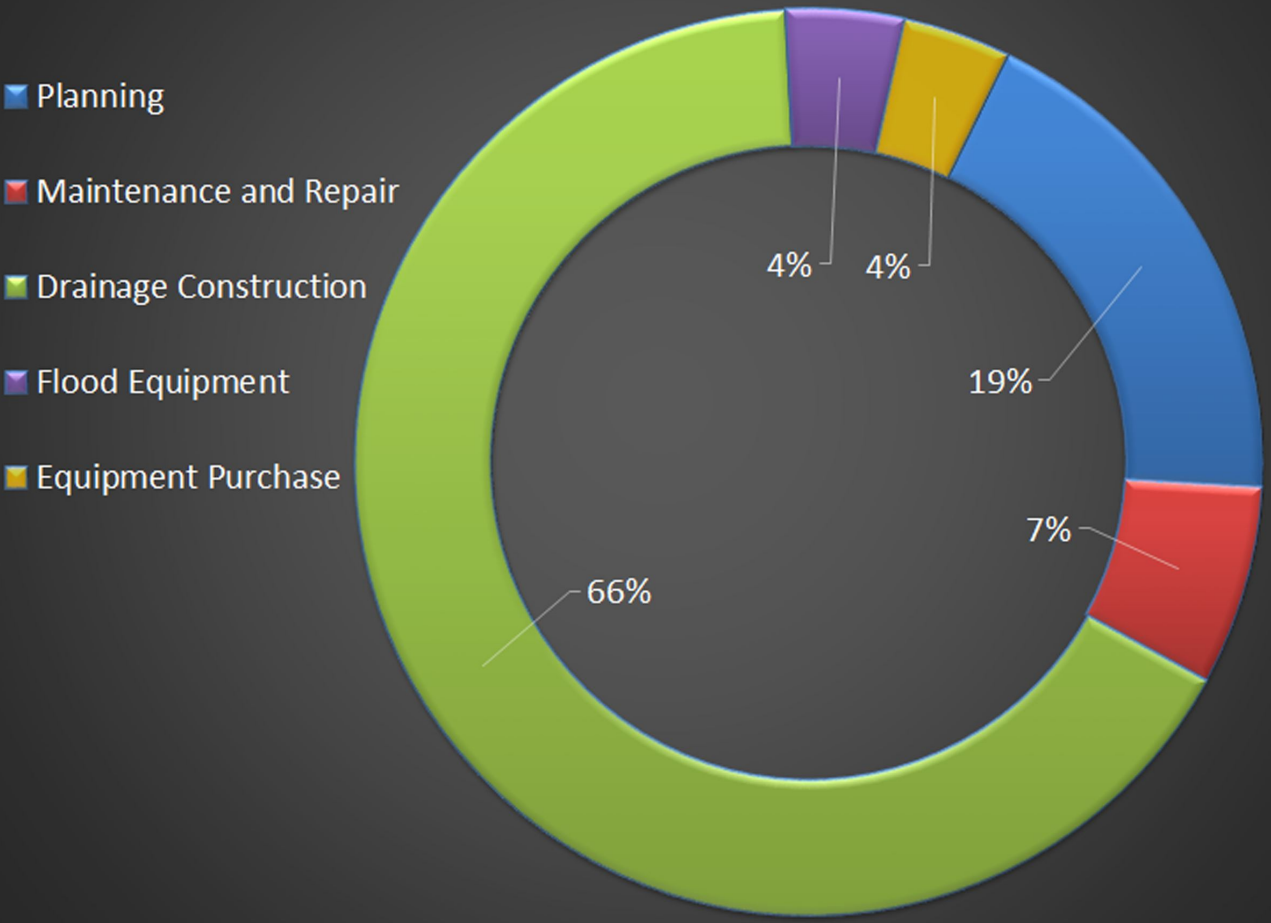


# STORMWATER EXPENDITURES



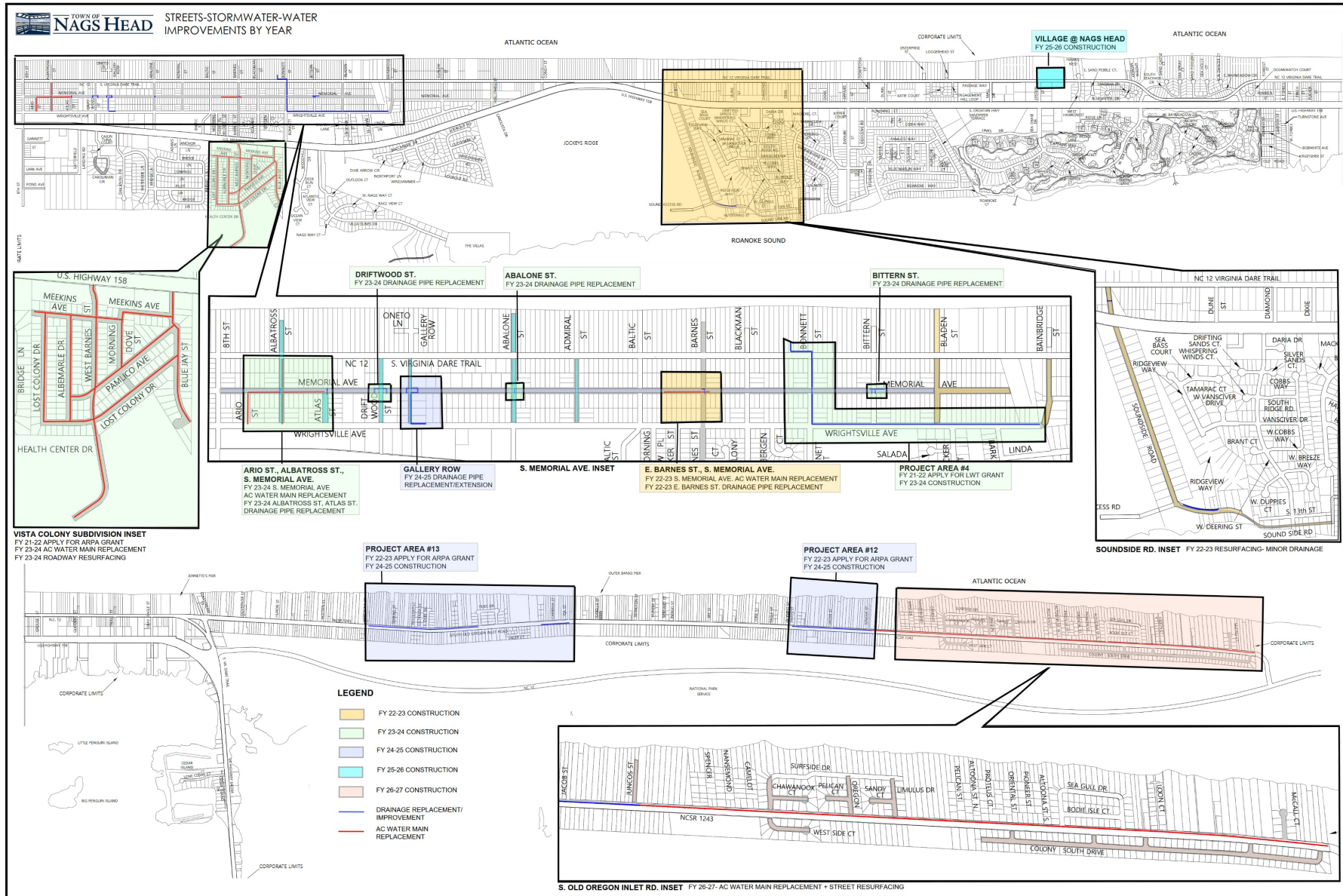
# STORMWATER EXPENDITURES

Town of Nags Head Stormwater Capital Reserve  
FY 2017-18 Contracted Services Expenditures





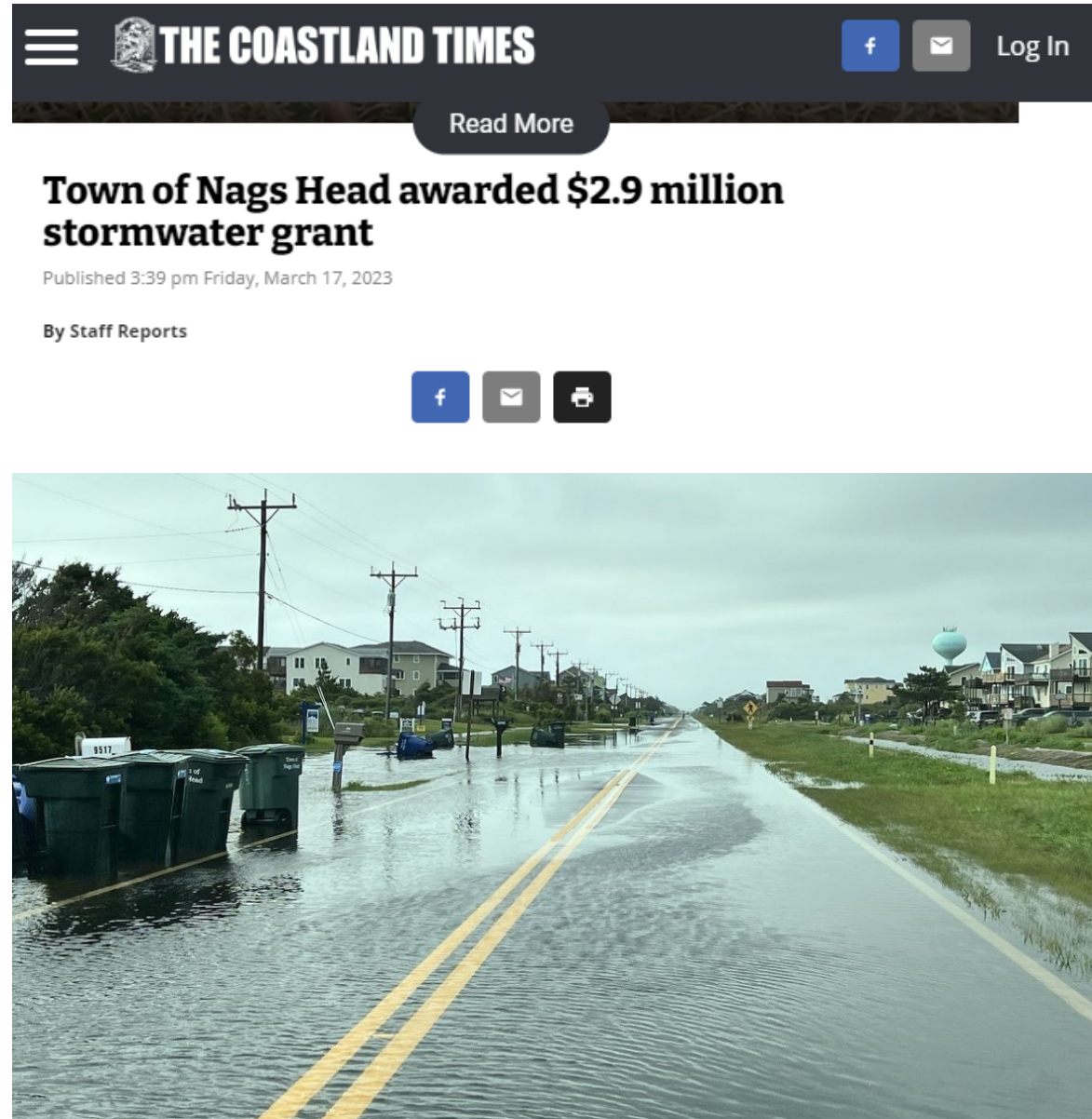
## PLANNED STORMWATER COSTS



- › 2021  
\$800K
- › 2022  
\$600K
- › 2023  
\$2.7MM
- › 2024  
\$1.0MM
- › 2025  
\$1.6MM
- › 2027  
\$2.4MM

## 2023 FINANCIAL PICTURE

- › Capital Investment Fund
  - ~\$4MM Annually from the General Fund
  - Additional \$1.4MM added in 2023
- › Capital Improvement Projects
  - General Fund
  - Supplementary Grant Funding





# RESILIENCY PROJECTS



GALLERY ROW CULVERT REPLACEMENT



ESTUARINE PIER REPLACEMENT



WATER LEVEL DATA LOGGERS



JUNCOS STREET DUNE INFILTRATION (PRELIM)



STORM DAMAGE MITIGATION



SOUTH OLD OREGON INLET ROAD

# RESILIENCY PLANNING



# PLANNING EFFORTS

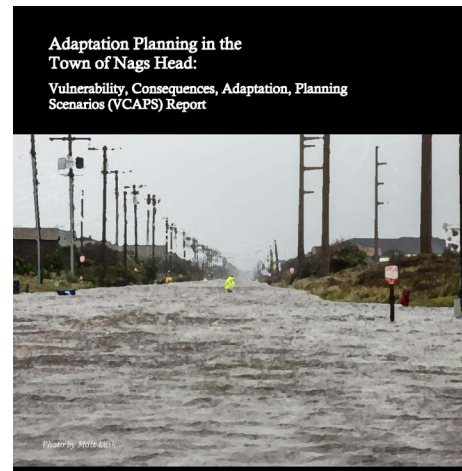
- › 2024 Strategic Plan
- › Comprehensive Plan / CAMA Land Use Plan
- › Stormwater Master Plan
- › Estuarine Shoreline Management Plan
- › Decentralized Wastewater Treatment Plan
- › Resilient Coastal Communities Program
- › OBX Regional Hazard Mitigation Plan
- › Dare County Transportation Plan
- › VCAPS Report
- › Parks and Recreation Plan
- › Pedestrian Plan

## TOWN OF NAGS HEAD, NC

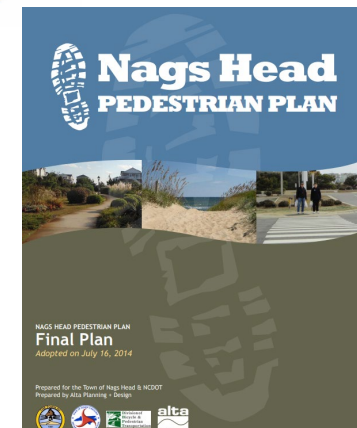
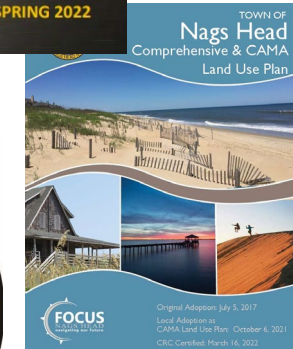
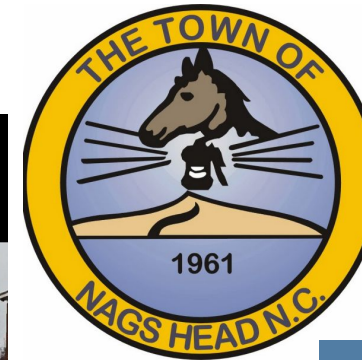
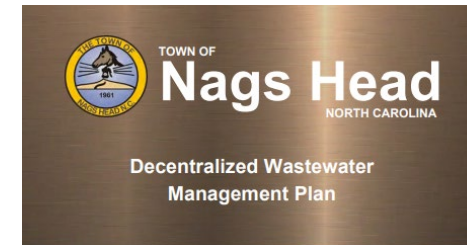


### Strategic Plan 2024

Adopted February 7, 2024

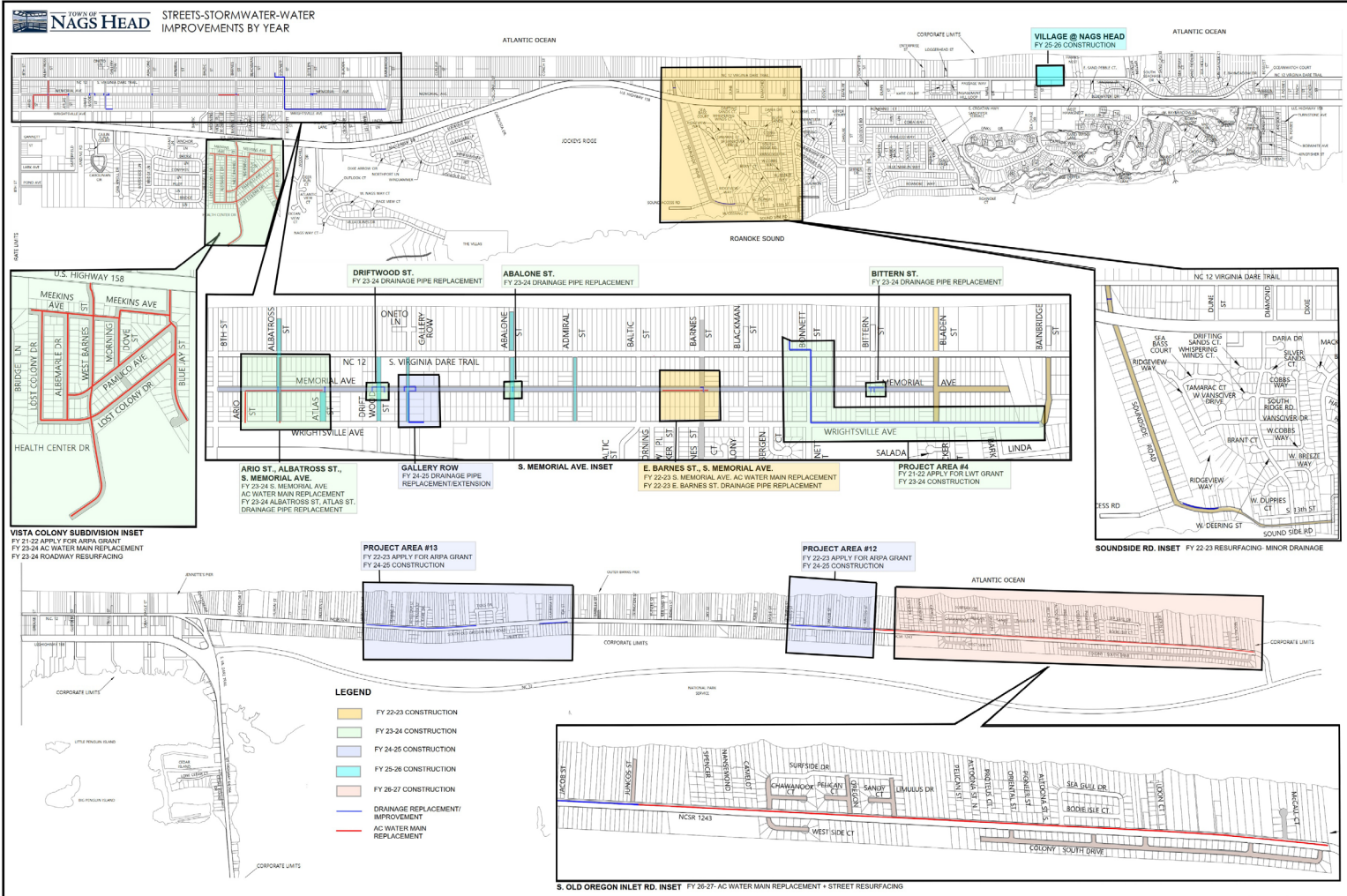


August 2017



SHIFTING SANDS – TOWN OF NAGS HEAD  
SESWA APRIL 2024

## PLANNED STORMWATER PROJECTS

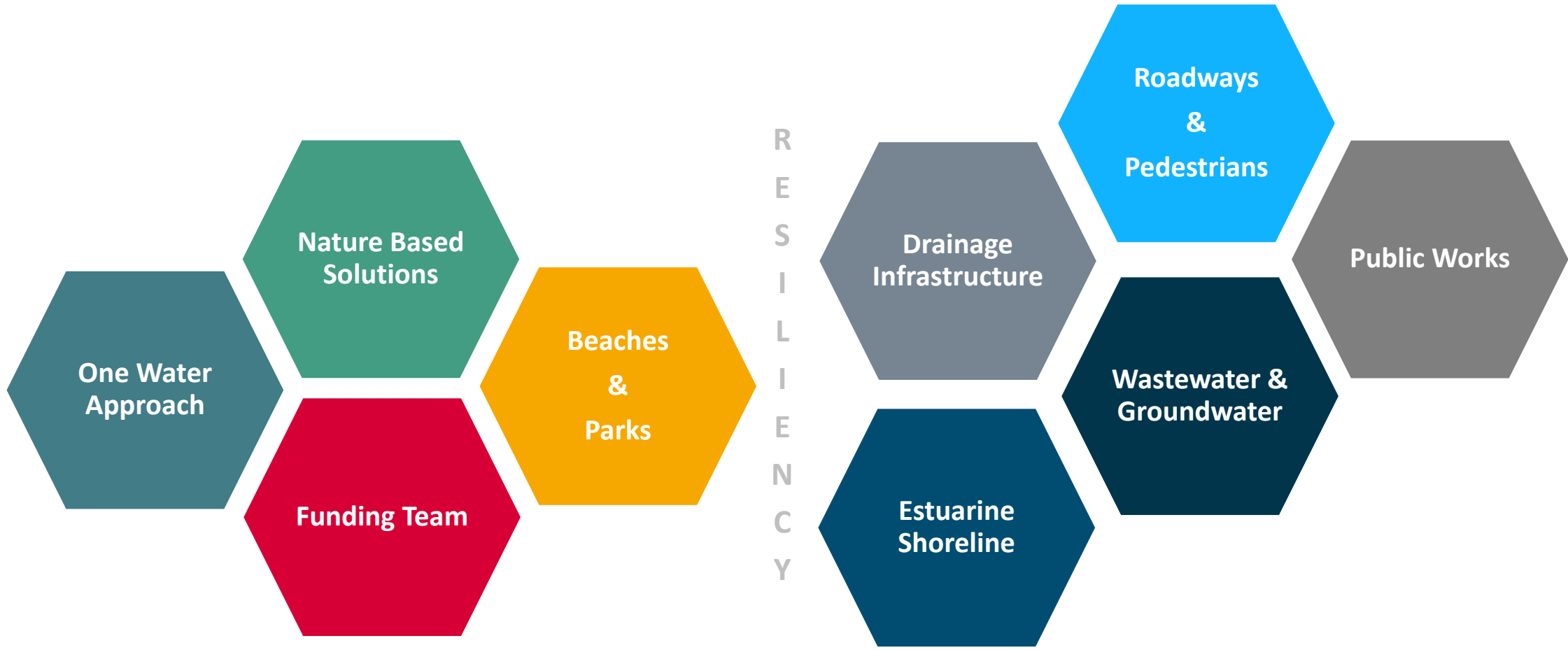


- › 2024-25 SW Master Plan Update
- › 2024-25 Asset Inventory & Assessment



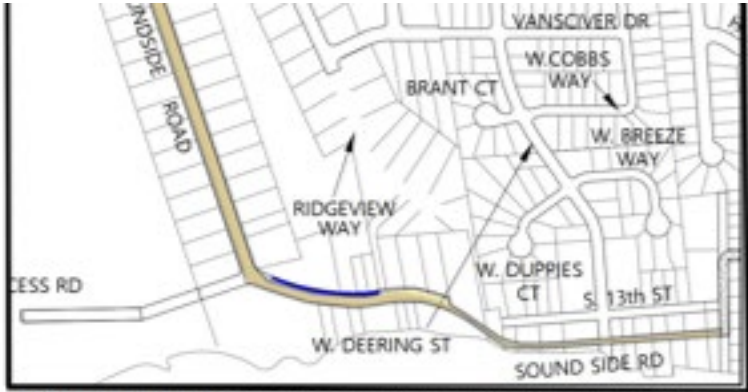
**BRINGING IT TOGETHER**

# COMPREHENSIVE APPROACH





# ALIGNED BENEFITS



SOUNDSIDE RD. INSET FY 22-23 RESURFACING- MINOR DRAINAGE



# PROJECT PRIORITIZATION & OPPORTUNISTIC PROCUREMENT

- › Catalog all projects identified in Master Plans
- › Prioritize list and create matrix of shared values
- › Match projects to potential grants
- › Match grants to identified projects





# PAST GRANTS AND ONGOING PROJECTS

- › NC Parks and Recreation Trust Fund
- › Water Resource Development Grant (NCDEQ)
- › Coastal Storm Damage Mitigation
- › American Rescue Plan (ARPA)
- › Local Assistance for Stormwater Infrastructure Investments Program (LASII)
- › Asset Inventory & Assessment (AIA)
- › Resilient Coastal Communities Program (RCCP)
- › Division of Coastal Management
- › Golden Leaf Flood Mitigation
- › National Fish & Wildlife Foundation
- › NOAA Grant
- › APNEP



Total Awarded  
\$4.4 MM

\$1 in grant writing = ~\$60 in funding



# 2024 GRANT OPPORTUNITIES

- › NC Land & Water Fund
- › Coastal Storm Damage Mitigation
- › Public Beach Access
- › Resilient Coastal Communities Program
- › PARTF
- › Golden Leaf Flood Mitigation
- › WRDG
- › FEMA STORM Low Interest Loans
- › NOAA Transformational Habitat Restoration and Coastal Resilience

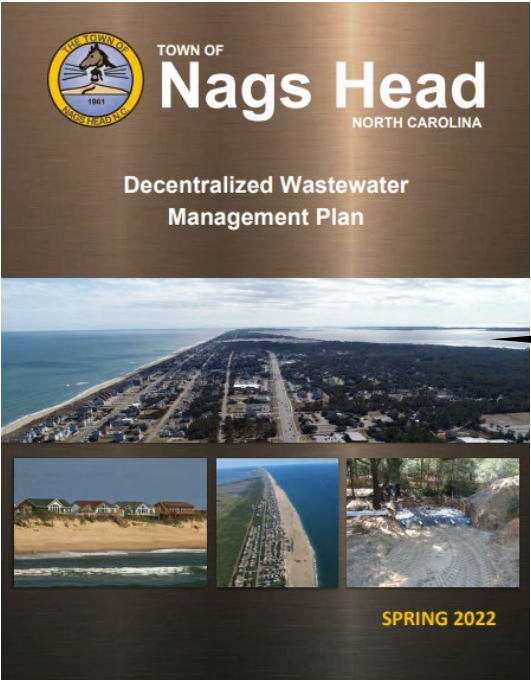


Total Pending  
\$2.5 MM





# FOUND MONEY?



Town of Nags Head Decentralized Wastewater Management Plan

Table 7-2. DWMP and Todd D. Krafft Septic Health Initiative Programmatic Actions

Item	Action Item	Goal
Septic System Inspection	Increase septic system inspections	Increase septic systems inspections from 150 to 500 incrementally over a 5-year period
Septic Tank Pump Out Rebate	Increase pump out rebate/water bill credit amount from \$45 to \$150 (approx. 1/2 cost of pump out)	Increase rebate credits from 30 to 250 incrementally over a 5-year period
Septic Loan	Increase max. loan amount from \$7,500 to \$12,000	Provide 5 septic system repair/replacement loans annually
Water Quality and Bacteria Testing	1. Increase frequency for both water quality and bacteria sampling 2. Sample only for NO <sub>3</sub> and Enterococci. No longer sample for phosphorus and other bacteria 3. Add six (6) water quality sampling locations 4. Purchase six (6) remote water quality loggers	Conduct Nitrate Nitrogen (NO <sub>3</sub> ) and Enterococci samples weekly
Groundwater Remote Data Loggers	1. Continuously log groundwater levels at key locations 2. Add ten (10) groundwater wells 3. Purchase ten (10) remote groundwater data loggers	Install 10 new wells with remote groundwater monitoring stations

## Water Resources Development Grant Program

### Sea Level Rise

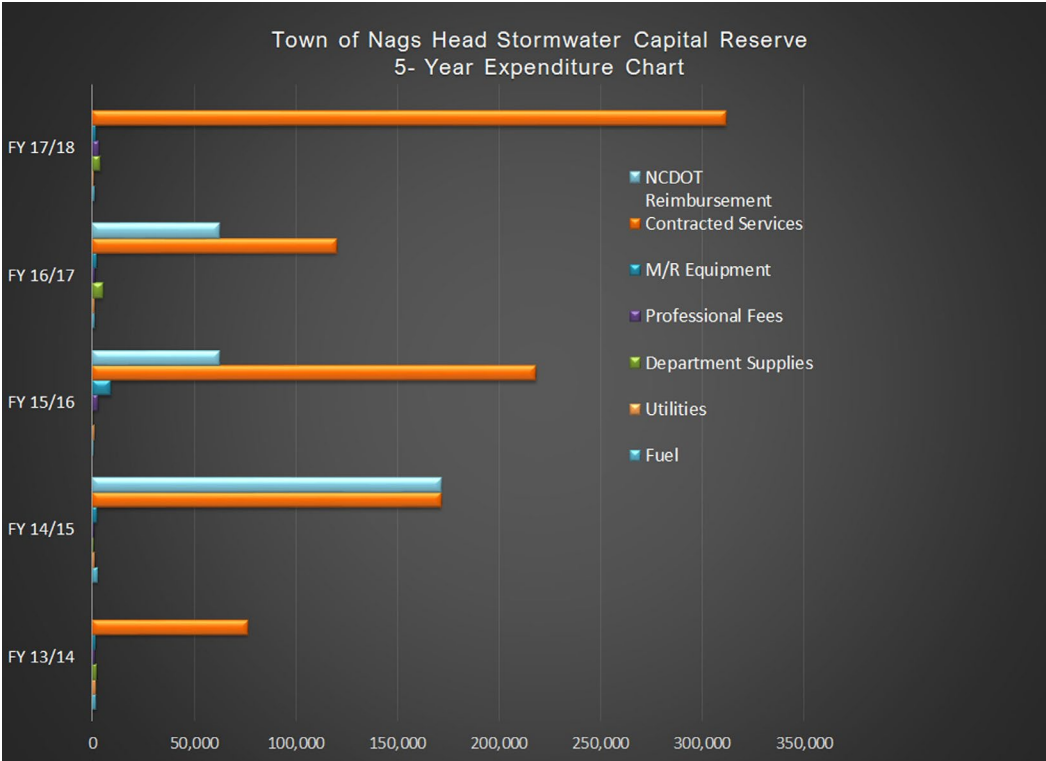
- DWMP
- SW Master Plan
- ESMP
- Beach Management
- Strategic Plan

### Town of Nags Head Recommended Budget Capital Improvement Program (CIP) Schedule with Projected Paymen For the Fiscal Year 2024-2025

Yellow highlights indicate items on the Adopted Fiscal Year 2023-2024 CIP Sched

Rank	Page	Description Water Fund	Fiscal Year
		<b>Septic Health:</b>	
	64	Water quality data loggers	2026
		<b>Water Operations:</b>	
2	65	Liquid chlorine conversion at Gull Street	2025
	66	Liquid chlorine conversion at Eighth Street	2026
	67	One million gallon treatment train^	2029
		<b>Water Distribution:</b>	
1	53	Streets-Stormwater-Water (Water Portion)	2025
	68	Gull Street pump station improvements*	2026/2029
	69	Back hoe loader	2027

2018



Total Budget \$325,000

2024

Total Awarded

\$4.4 MM

Total Pending

\$2.5 MM



# THANK YOU!

