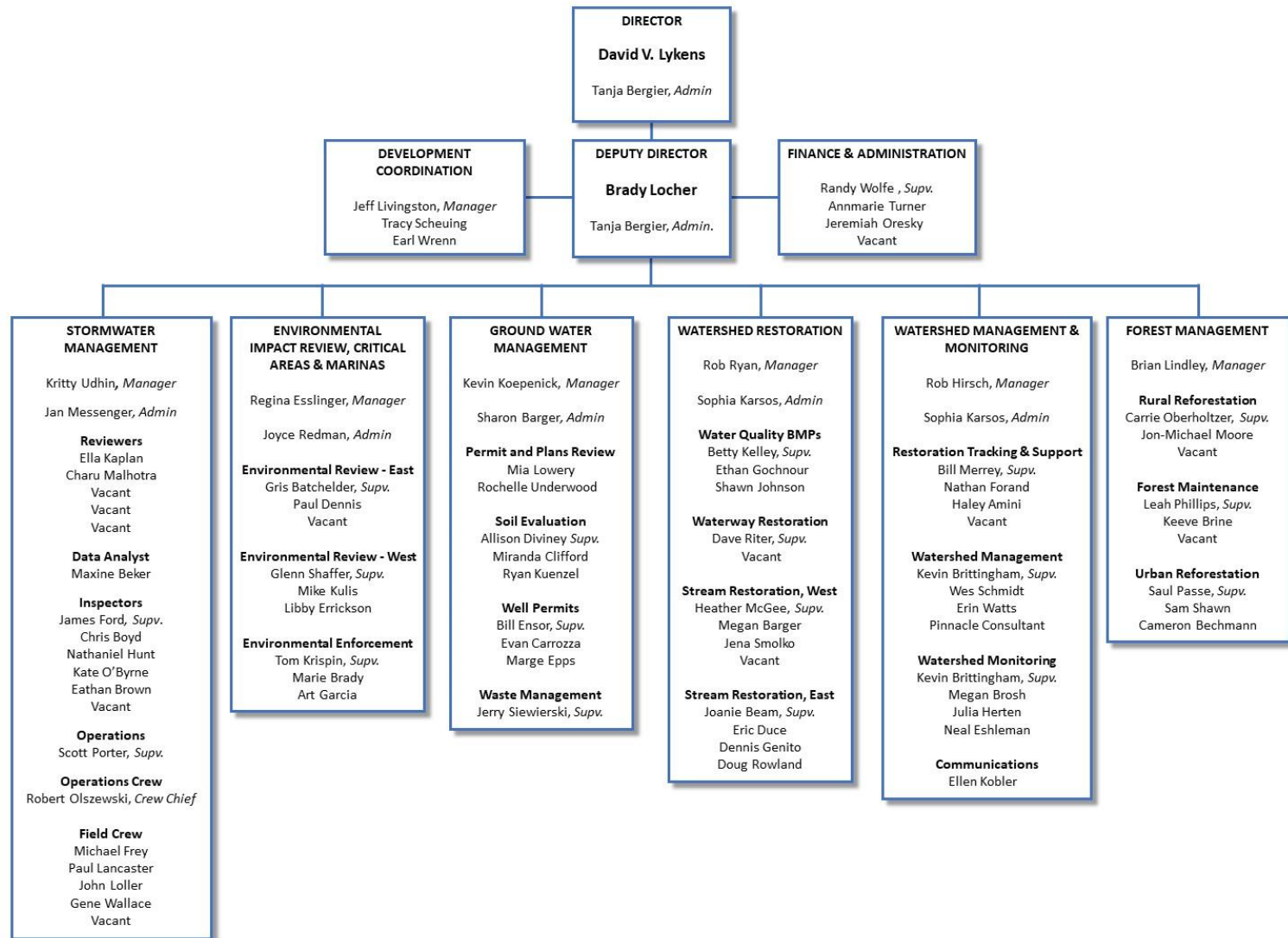


Department of Environmental Protection & Sustainability



Director: David V. Lykens

Environmental Protection & Sustainability Organization



Capital Program Drivers

- MS4/NPDES Permits
 - New MS4 Permit issued November 2021, 2026 expiration
- Impervious Surface Restoration – 3,167 acres
- Chesapeake Bay TMDL
- Local TMDL

MS4 Permit: New and Revised BMPs

New

- Floating Treatment Wetlands
- Conservation Landscaping
- Forest Conservation
- Urban Soil Decompaction

Expanded

- Outfall Stabilization
- Overachieving SWM facilities:
 - Green Stormwater Infrastructure bonus
 - “Watershed Management” bonus

Revised

- Storm Drain Cleaning: separate credit for organic and inorganic debris
- IDDE: limiting cap placed on credit from IDDE
- Street Sweeping: must document higher sweeping frequency with upgraded equipment



MS4 Permit: New Salt Management Plan

“The County shall reduce the use of winter weather deicing and anti-icing materials, without compromising public safety, by developing a County Salt Management Plan (SMP)”

Ahead of the curve:

- New DPW Highways equipment
- DPW tracking and reporting deicing usage for each winter storm

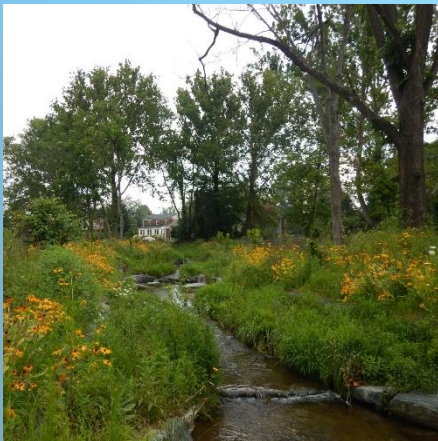
Down the road:

- “Salt Academy” to train County staff and contractors
- Salt management outreach to residents



EPS Capital Improvement Projects

- Stream Restoration
- Shoreline Stabilization & Enhancement
- Stormwater Facility Maintenance & BMP Improvements
- Reforestation



EPS – Capital Improvement Project

Stream Restoration



BEFORE

UPTON TRIBUTARY TO
WHITE MARSH RUN

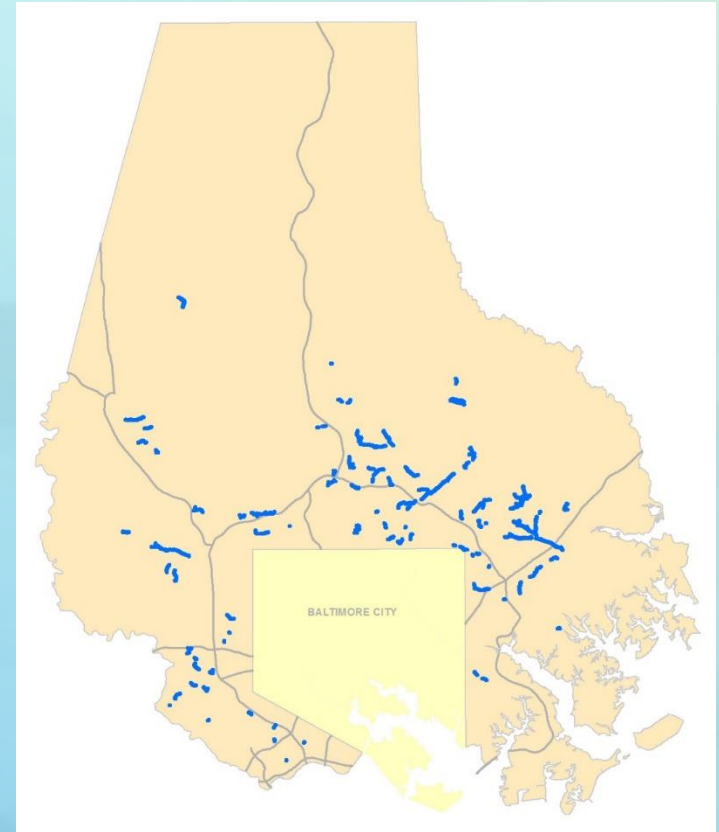


AFTER

Current & Future Capital Waterway Improvement Projects

Stream Restoration

- Request \$13.5M in FY24 for nine projects, including funding for the design of six new and construction of three current projects



EPS – Capital Improvement Project



BEFORE

Shoreline Stabilization & Enhancement

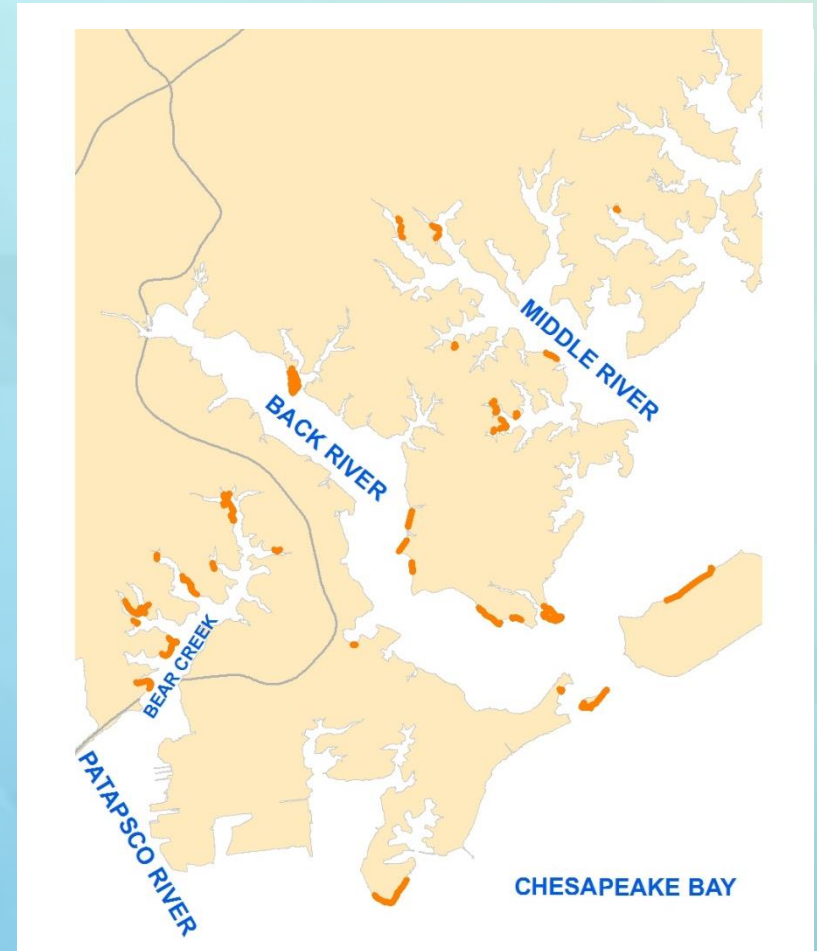


CHESTERWOOD PARK
SHORELINE
ENHANCEMENT

AFTER

Current & Future Capital Waterway Improvement Projects Shoreline Stabilization & Enhancement

- The FY24 budget request is \$1.2M for design of two projects



EPS – Capital Improvement Project

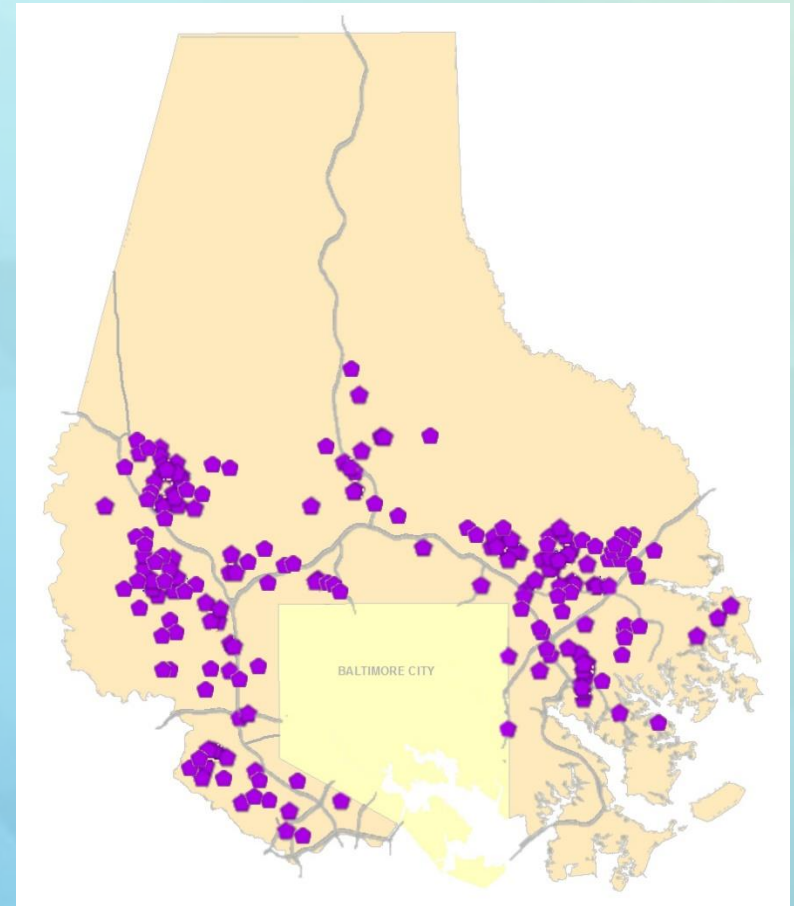


FAC. #190 AT HEWITT FARMS
IN GWYNNNS FALLS WATERSHED
1-YR POST CONVERSION

Stormwater Facility Maintenance
& BMP Improvements

Current & Future Capital Waterway Improvement Projects Stormwater Facility Maintenance & BMPs

- FY24 request of \$4.6M includes funding for 18± water quality projects, 10± BMP repairs, and triennial maintenance of 400± facilities



EPS – Capital Improvement Project

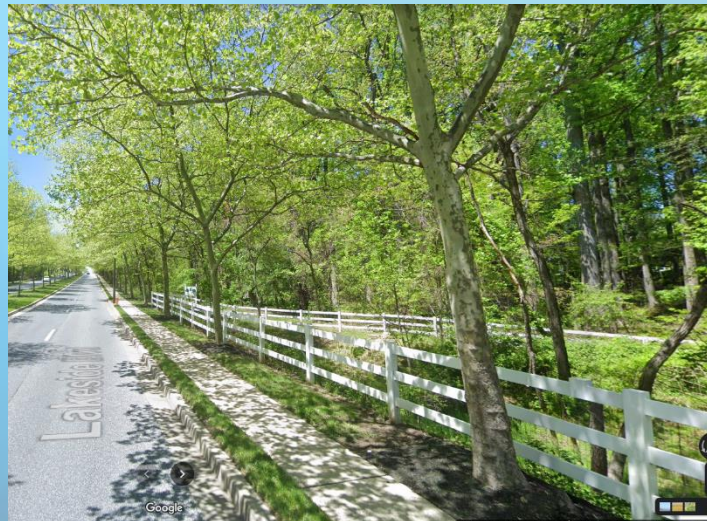
Rural Reforestation



Urban Reforestation

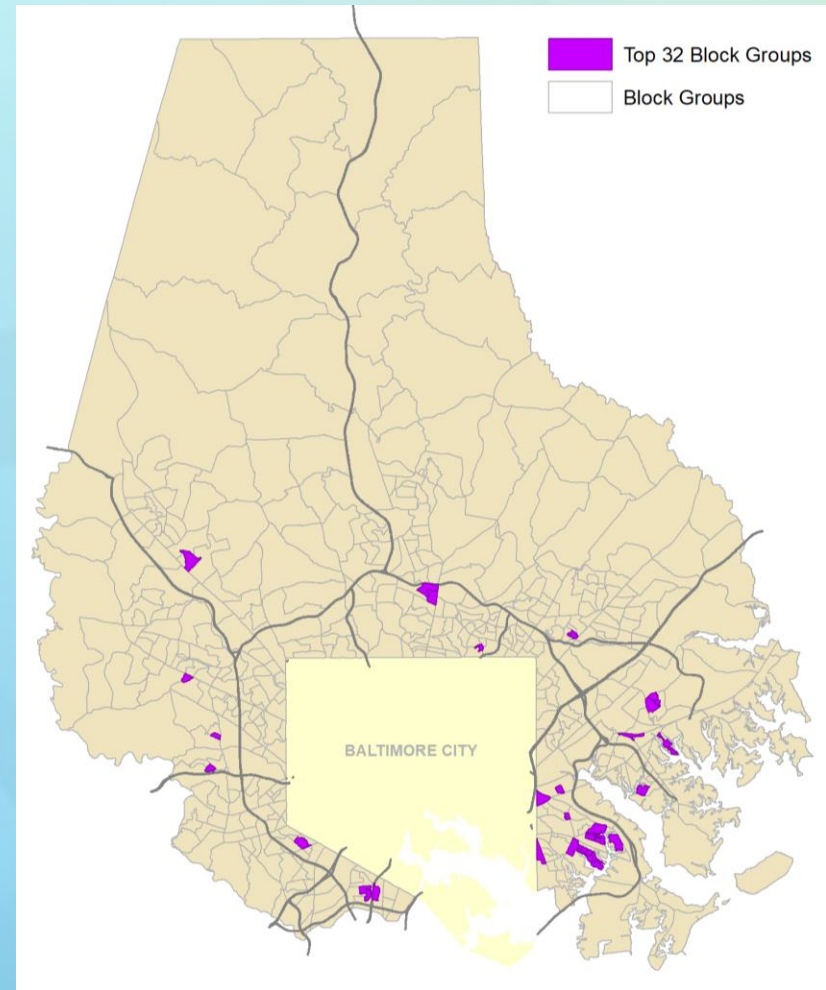


1,000 Street Trees



Operation ReTree: Location Selection Results

- Higher incomes correlate with greater tree canopy
- Lower income households tend to live in areas with less tree canopy
- Higher population density correlates with lower tree canopy



Operation ReTree

- Tree Canopy versus Income-Environmental Justice and Equity in Baltimore County



Operation ReTree
BALTIMORE COUNTY

Help bring back the beautiful tree-lined streets and shady yards to the communities of Baltimore County!

Sign up today for your **free** "family tree" to be planted in front of your house or in a side yard.

Reforestation Effort Update

- Over 4,343 urban trees have been removed since 2014
- Starting in FY20, the County has granted Blue Water Baltimore nonprofit \$30,000 to plant 200 trees within the URDL to replace removed street trees
- County Executive John Olszewski Jr. set aside \$625,000 for 1,000 street trees in FY23

The 1,000 Street Trees initiative currently targets 5 communities:

- Towson
- Owings Mills
- Dundalk
- Woodlawn
- Parkville



Guiding Documents

- MS4/NPDES Permit (EPA/MDE)
- Phase III WIP (Chesapeake Bay TMDLs)
- TMDL Implementation Plans (Local TMDLs)
- SWAPS

Baltimore County Waterway Improvement Spending Plan FY 24 – Draft

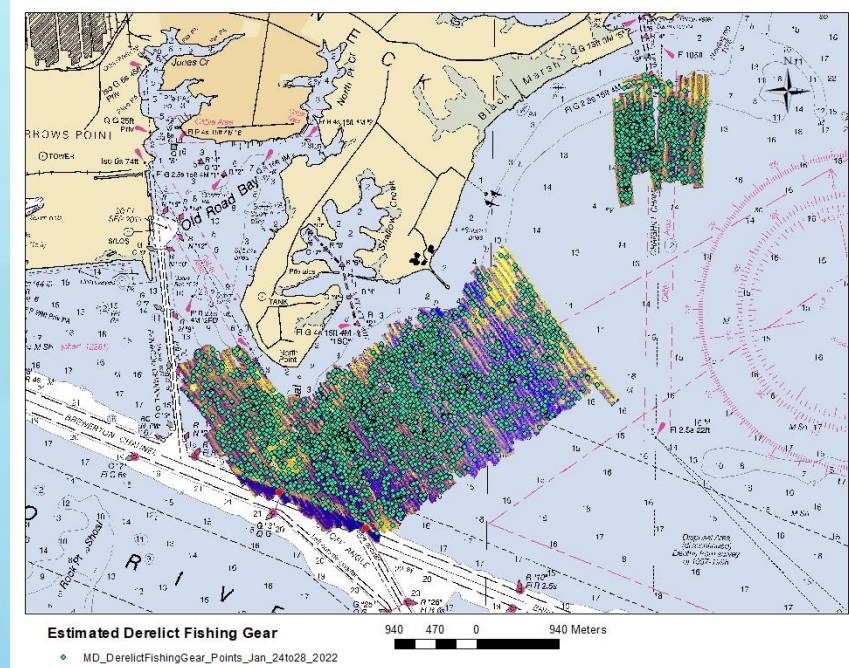
Project Name	FY 2023 Needs	Funding Needs FY 2024	Funding Needs FY 2025	Funding Needs FY 2026	Funding Needs FY 2027
Stream Restoration and Supporting Projects	\$ 15,770,000	\$ 15,511,000	\$ 15,050,000	\$ 14,328,980	\$ 13,442,000
Shoreline Stabilization and Supporting Projects	\$ 780,000	\$ 1,200,000	\$ 3,218,500	\$ 3,375,500	\$ 8,478,000
Reforestation Planned Projects	\$ 1,025,000	\$ 1,775,000	\$ 1,675,000	\$ 2,525,000	\$ 2,175,000
Stormwater Facility Maintenance and BMPs	\$ 3,620,000	\$ 4,630,000	\$ 4,630,000	\$ 4,130,000	\$ 4,130,000
Watershed management and Monitoring Initiatives	\$ 2,268,000	\$ 2,432,504	\$ 2,433,987	\$ 2,852,566	\$ 3,053,375
Other	\$ 1,215,000	\$ 914,000	\$ 725,000	\$ 828,217	\$ 360,000
TOTAL	\$ 24,678,000	\$ 26,462,504	\$ 27,732,487	\$ 28,040,263	\$ 31,638,375

EPS Capital Project Efforts for Resiliency/Sustainability

	Stream Restoration	Shoreline Stabilization & Protection	Reforestation	Stormwater Maintenance & BMP Improvements
Nuisance Flooding	Designed to not impact private/public assets	May attenuate frequent events	Attenuates through canopy interception & vegetative uptake	Mitigates runoff from development; reduces peak flows
Riverine Flooding	May be intentionally increased to reduce flow velocities & erosion (approach/outcome dependent)		Attenuates through canopy interception & vegetative uptake	Mitigates runoff from development; reduces peak flows
Sea Level Rise		May become ineffectual, but must be designed for current condition to be functional		
Severe Weather	Reduces erosion for a range of storm events	Attenuates erosion by interrupting wave action; revegetation facilitates soil cohesion	Attenuates runoff through vegetative uptake and erosion by improving soil cohesion	Mitigates runoff from development; reduces peak flows
Protective Measures	Attenuates erosion and protects public/private properties & infrastructure such as sanitary sewer, bridges & culverts	Protects public and private properties from erosion		Mitigates runoff from development; reduces peak flows
Atmospheric Temperature Increase	Riparian corridor revegetation attenuates by blocking solar radiation		Facilitates biosequestration of atmospheric carbon dioxide; attenuates by blocking solar radiation	

Derelict Fishing Gear Removal & Disposal Project

- Winter 2022 – Baltimore County gave a \$125,000 grant to the Oyster Recovery Partnership
- Sonar technology was used to identify debris in an approximately 2,000 acre area off of the County's shoreline
- Off-season, local crews provided the labor and equipment to recover approximately 87% of identified debris
- Derelict fishing gear, particularly commercially-sized crab traps, accumulate in substantial densities



Derelict Fishing Gear Removal & Disposal Project

- Baltimore County and ORP coordinated with 13 crews of local watermen over an eight-day period to remove 2,261 pieces of commercial fishing gear of which 2,051 were crab traps or components of crab traps
- A similar effort will be conducted adjacent to Hart-Miller Island in Winter 2023 using \$150,000 of Capital Funds

