

Voluntary Wetland Restoration and Enhancement at the Virginia Department of Wildlife Resources

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The Department of Wildlife Resources' mission is to:



Conserve

Conserve and manage wildlife populations and habitat for the benefit of present and future generations.



Connect

Connect people to Virginia's outdoors through boating, education, fishing, hunting, trapping, wildlife viewing, and other wildlife-related activities.



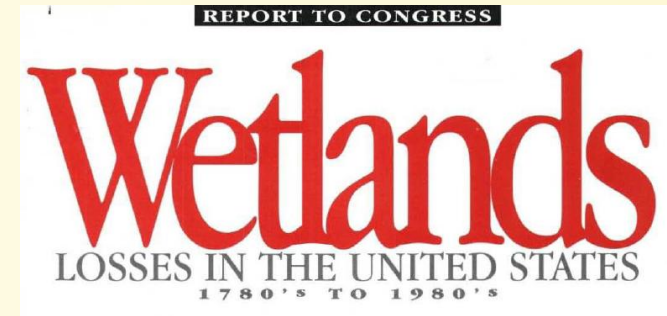
Protect

Protect people and property by promoting safe outdoor experiences and managing human-wildlife conflicts.



Long History of Wetland Loss

- Virginia is estimated to have lost over 40% of its wetland habitats
- The mid-Atlantic and Chesapeake Bay are areas of special concern having lost over 50% of their coastal wetland habitats
- Natural Resources Conservation Services (NRCS) supported wetland drainage until 1980s
- Led to poor water quality, species loss, and wildlife population declines
- Clean Water Act, Swamp Busters, Endangered Species Act have helped
- But the 2009-2019 status and trends report shows the U.S. is still losing wetlands



MID-ATLANTIC WETLANDS *A Disappearing Natural Treasure*



Farming in Lands

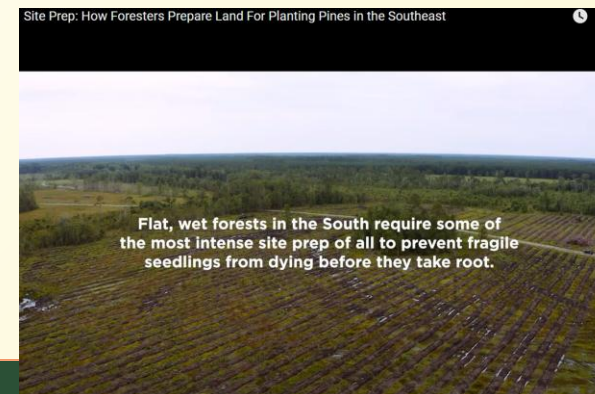
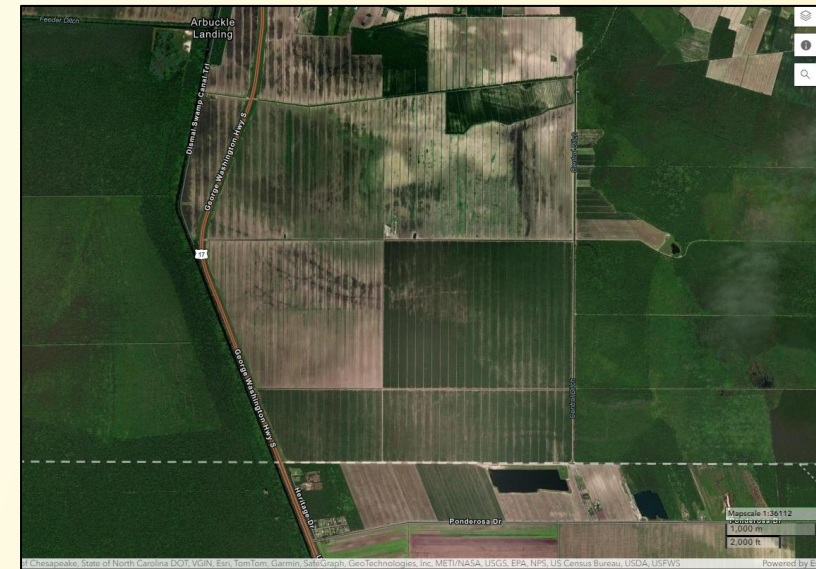


dead furrow land dead furrow



Wetland Impacts

- Ditching / Drain Tiles
- Fill for Development
- Sea Level Rise, Subsidence, and Coastal Erosion
- Stream Channelization and Dams
- Intensive Silviculture
- Intensive Cattle Disturbance

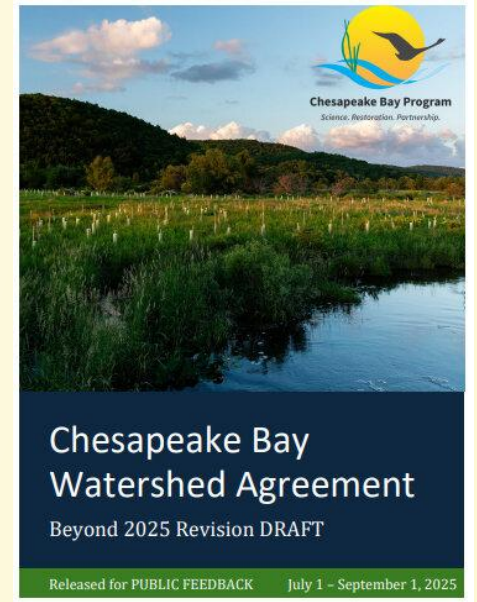


Voluntary Wetland Restoration and Enhancement

Regaining lost wetland acreage and function

Not mitigation

Beyond 2025 Chesapeake Bay Watershed Agreement Wetlands Outcome



Bay-wide 2040 Tidal Wetland Goal:

Restore/create 3,000+ acres

Enhance 15,000+ acres

Bay-wide 2040 Non-tidal Wetland Goal:

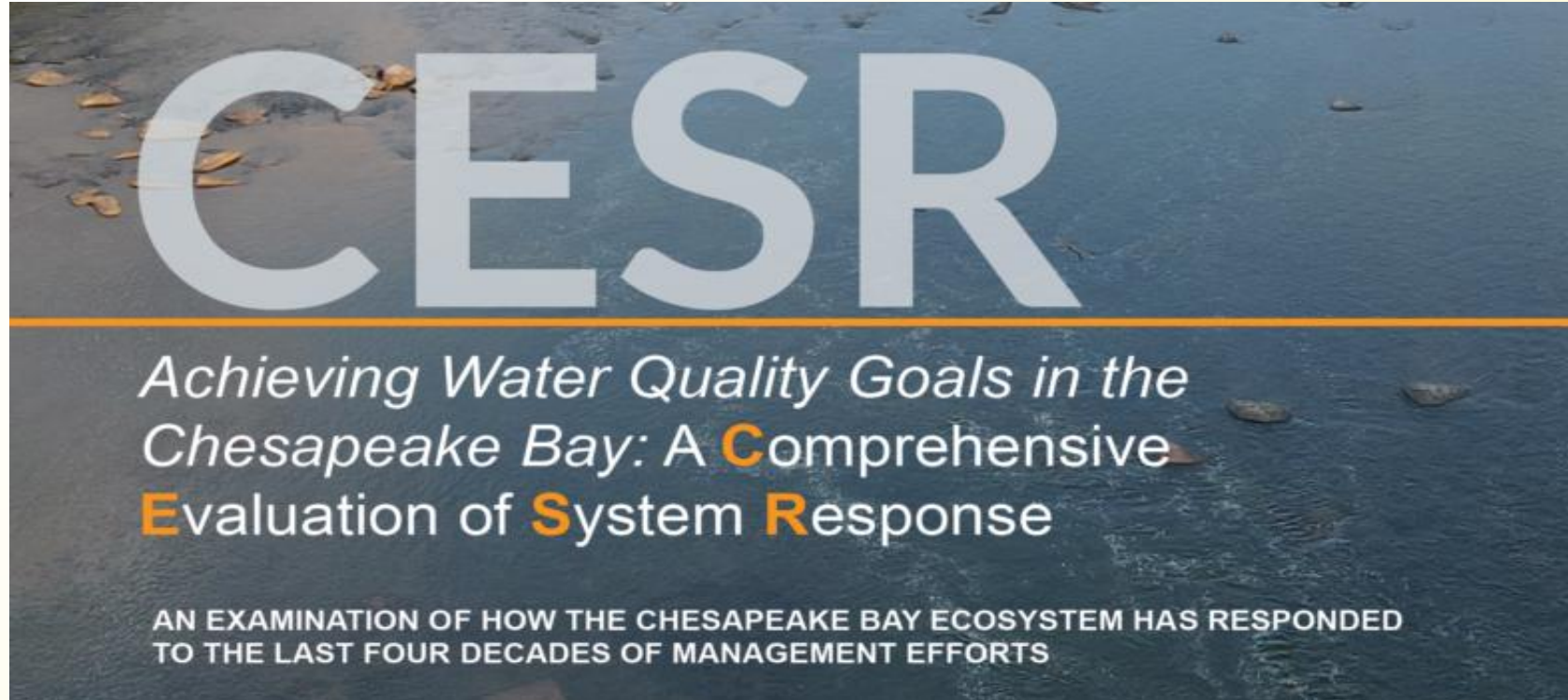
Restore/create 3,000+ acres

Enhance 15,000+ acres



Voluntary Wetland Restoration and Enhancement

- 2023 CESR Report

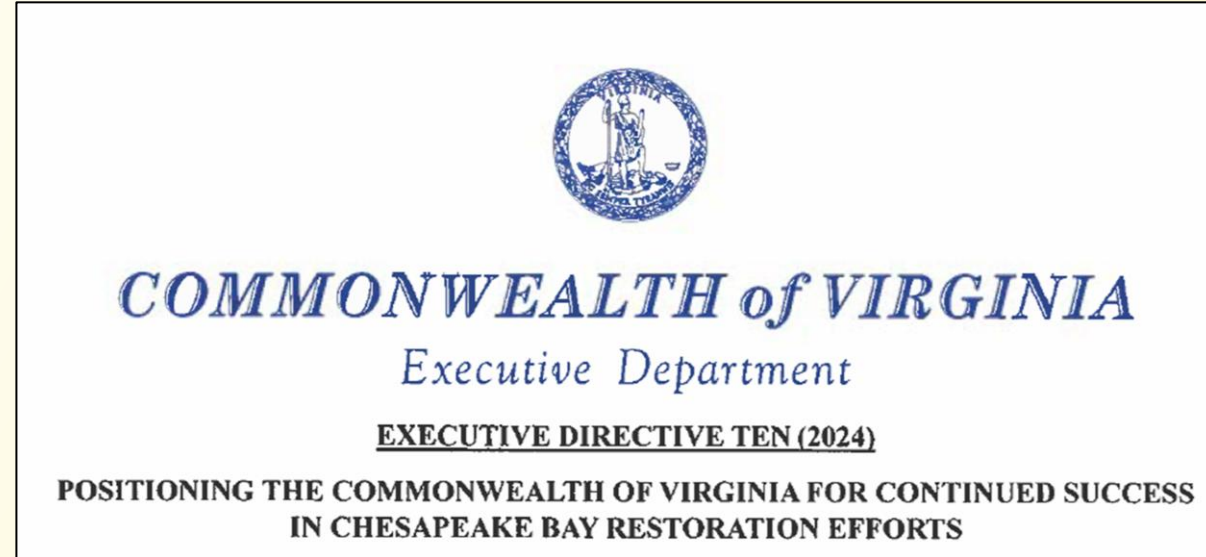


- We need to ↑ Shallow Water Habitat Restoration



Virginia Wetlands Technical Team and HB 2034

- Executive Directive 10
(Positioning the Commonwealth for Continued Success in Chesapeake Bay Restoration)
- Goals:
 - Wetland tracking
 - Strategic planning
 - Capacity building
 - Outreach (to landowners and cooperators)
 - Sustainable funding
- Practitioners from 13 agencies and organizations
- HB 2034 - Tidal and nontidal wetlands; policy task force to evaluate policies regarding protection, etc. – Adopted in 2025



2-day Wetland Restoration and Construction Courses

March 10-14, 2025

- Funded by an Innovative Nutrient and Sediment Reduction grant awarded to The Nature Conservancy
- Led by renowned wetland restoration expert Tom Biebighauser
- Two course offered - Central VA and Eastern Shore
- Day 1 - History of wetland loss
- Day 2 - Constructed a wetland
- Will serve as demonstration sites
- Over 70 participants trained



2-day Wetland Restoration and Construction Course

March 11, 2025 – Chickahominy WMA, Central VA



2-day Wetland Restoration and Construction Course

March 17, 2025 – Chickahominy WMA, Central VA



2-day Wetland Restoration and Construction Course

January, 2026 – Chickahominy WMA, Central VA



2-day Wetland Restoration and Construction Course

March 14, 2025 – Brownsville Preserve, Eastern Shore



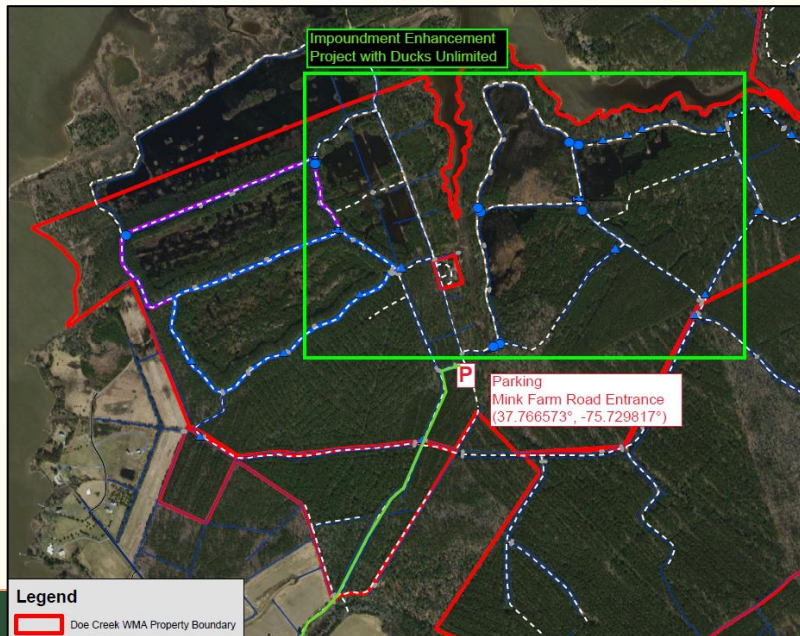
2-day Wetland Restoration and Construction Course

March 17, 2025 – Brownsville Preserve, Eastern Shore



Doe Creek WMA Wetland Enhancement with DU

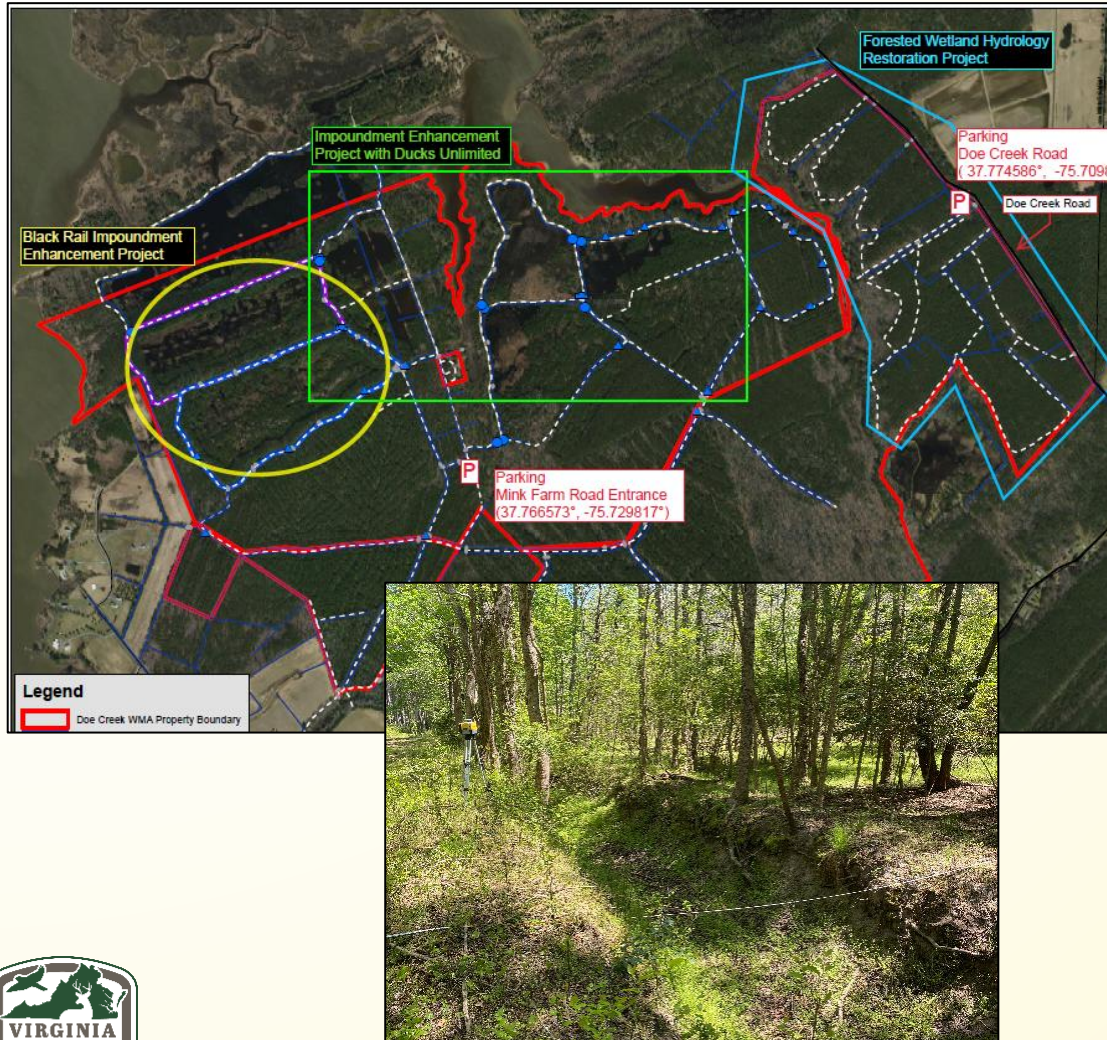
- Enhance 4 existing impoundments (147 acres) (WCS, dikes, lower impoundment, fill ditches)
- Funded by Chesapeake WILD and Virginia Migratory Waterfowl Stamp Grant
- Completed in July 2024



Doe Creek WMA Wetland Enhancement with DU



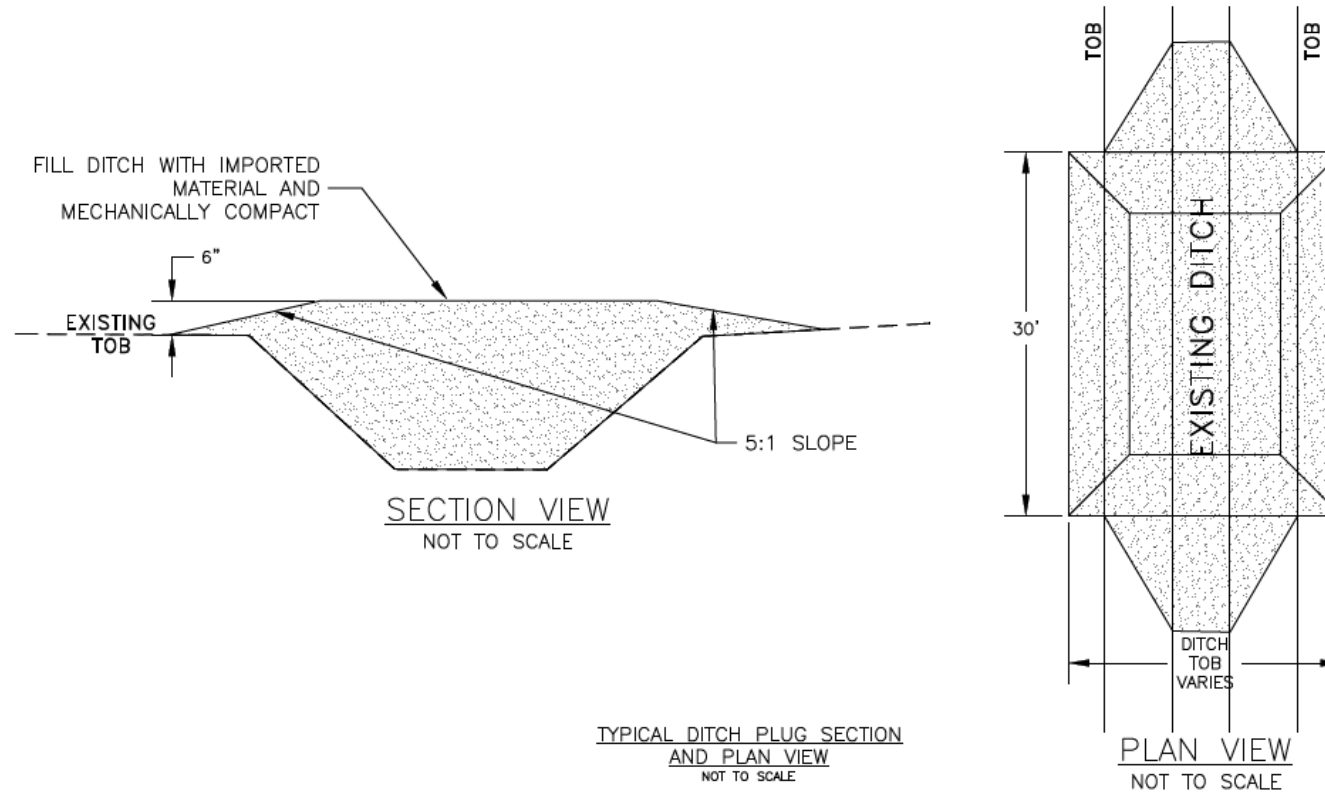
Doe Creek Road Wetland Enhancement Project



- Restore / enhance ~100 acres of historically ditched forested wetlands through strategic plugging
- Funded through Virginia CZM Section 306A
- Completed in August 2024



Doe Creek Road Wetland Enhancement Project



Doe Creek Road Wetland Enhancement Project



Doe Creek Road Wetland Enhancement Project

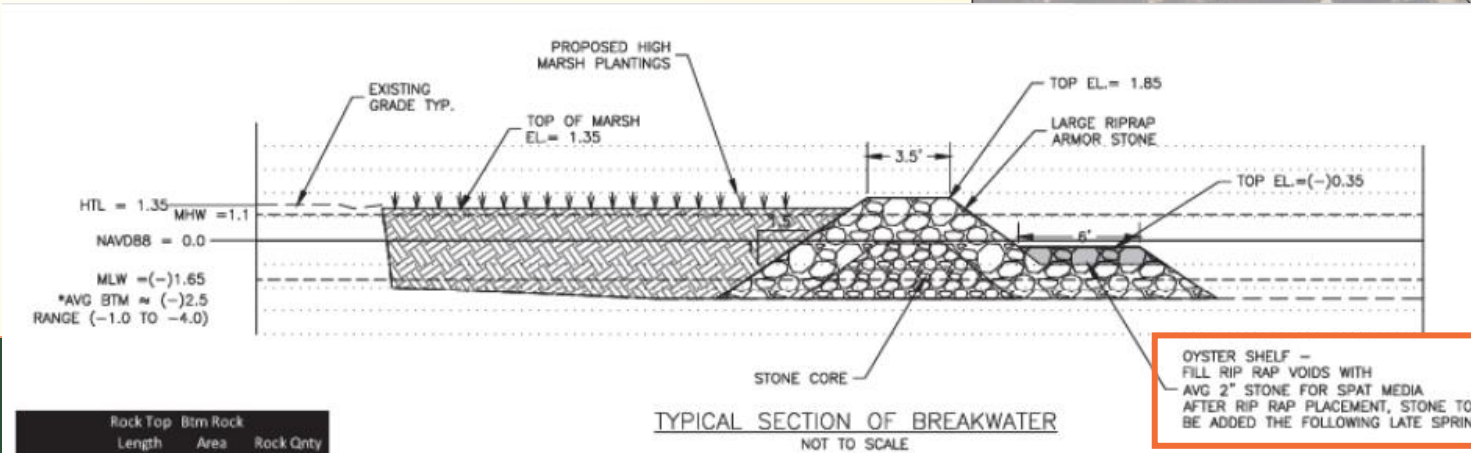
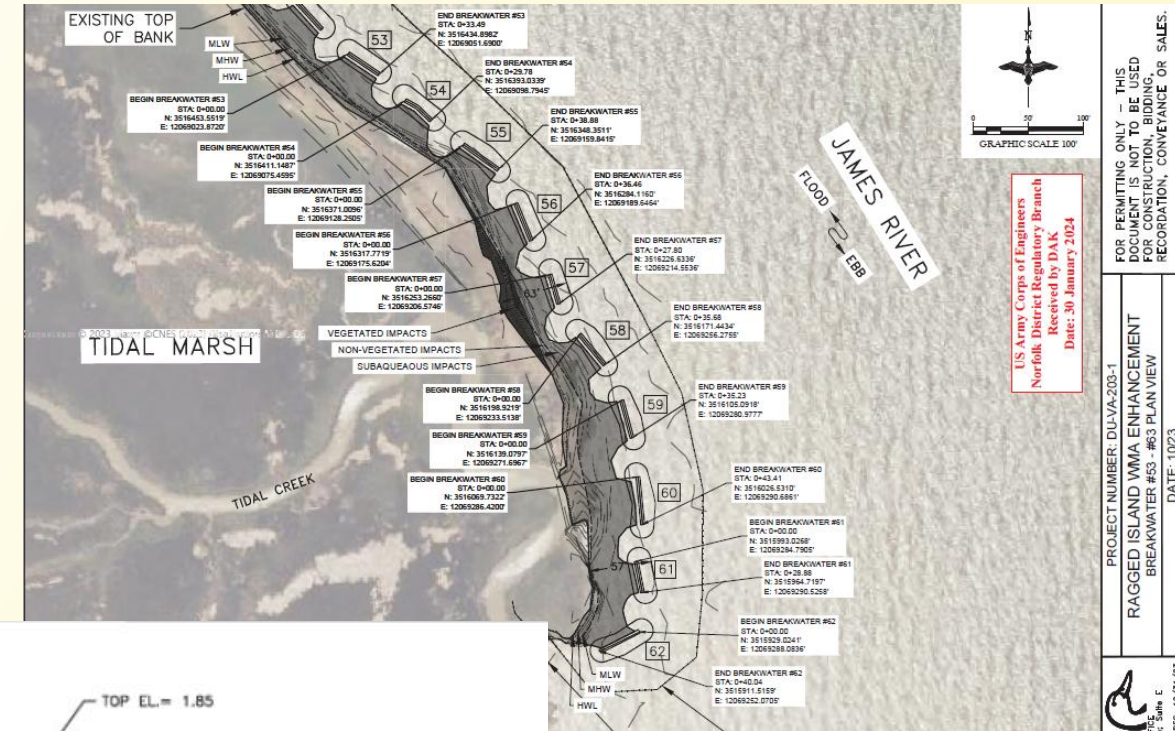


Doe Creek Road Wetland Enhancement Project



Ragged Island WMA Shoreline Project

- \$8 million NOAA Transformational Habitat Grant award in July 2024
- Partnering with Ducks Unlimited and Christopher Newport University
- 1.2 miles of living shoreline
- Protect ~1,000 acres of marsh
- 63 near-shore granite breakwaters
- ~3 acres of marsh creation
- Breakwaters to create ~2.5 acres of oyster habitat
- Additional \$1.5 million from EPA grant



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PROJECT NUMBER DU-VA-203-1
RAGGED ISLAND WMA ENHANCEMENT
BREAKWATER #63 - #63 PLAN VIEW
DATE: 10/23

US Army Corps of Engineers
Norfolk District Regulatory Branch
Received by DAK
Date: 30 January 2024

DATE: 12/23/24

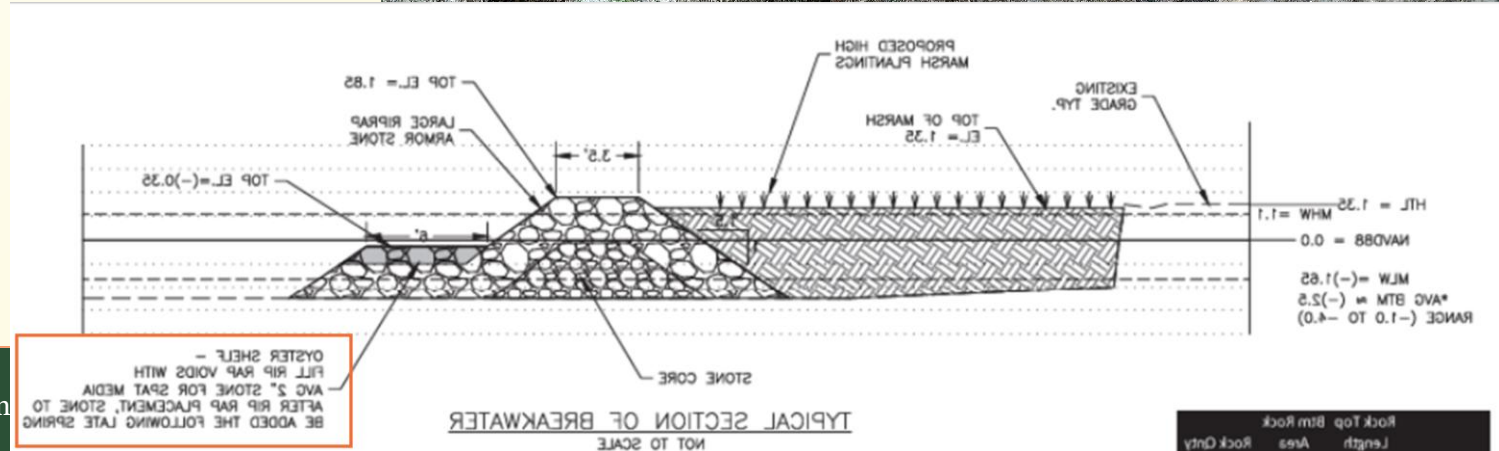
Ragged Island WMA Shoreline Project - Before



Ragged Island WMA Shoreline Project - After

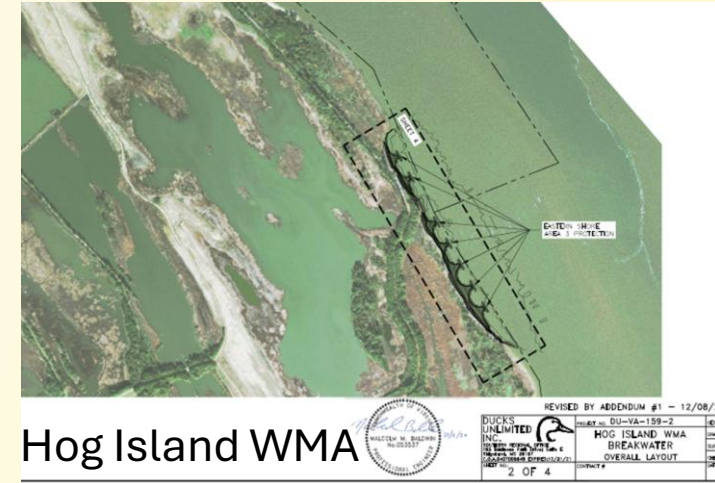


Ragged Island WMA Shoreline Project - After



EPA Climate Pollution Reduction Grant

- Atlantic Conservation Coalition – NC (lead), SC, VA, and MD
 - \$421 million awarded in late July 2024
 - 5-year grant period
- \$44.5 million allocated to DWR
 - Many partners including DEQ, DU, and MPPDC
 - 3 large-scale tidal wetland shoreline protection projects
 - 2 wetland property acquisitions (1,934 acres)
 - 1,500-acre Eastern Shore Forest Enhancement Initiative
 - 3,000-acres of voluntary wetland restoration and enhancement
 - Funding for project design and implementation
 - AND 3 new Wetland Restoration Specialists



Guinea Resilience & Innovation for Tidal Wetlands



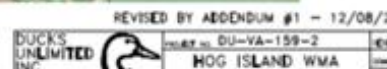
- Guinea Marsh WMA and other publicly owned Mobjack Bay Marsh Islands in Gloucester, VA
- Middle Peninsula Planning District Commission is leading project management
- Extensive community engagement lead by UVA and Consociate Media
- Funding for design & implementation of shoreline protection to safeguard 400 acres of tidal wetlands



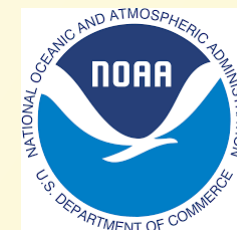
— 1937 Shoreline

Hog Island WMA Living Shoreline Restoration

- Reduce extensive shoreline erosion and protect over 400 acres of existing wetland habitats in Surry, VA
- install 11 breakwaters along 3,425 feet of shoreline
- *Status:* Permitting and design complete;
Construction summer/fall 2026



Partners and Funders of Voluntary Wetland Restoration and Enhancement in Virginia



Questions?

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