Stream Restoration

North County Regional Park Stream Restoration

KEY METRICS

2,560 LF
Stream and ditch restored

2.5 ac
Delmarva Bay wetlands created

~70%
Sediment and nutrient loss reduction

~103 tons
Sediment retained

PROJECT DETAILS

Client
Caroline County Recreation & Parks

Location
Greensboro, MD

Dates
Jan 2020 – Mar 2025

Construction status
Construction complete

Construction value
$1M

SERVICES

Design, Permitting, H&H modeling, Stream monitoring, Bid evaluation, Construction oversight

STAKEHOLDERS

MDE, DNR, USACE, EPA, Ecotone LLC, Ecological Restoration & Management

PROJECT DESCRIPTION

North County Regional Park is a 207-acre former farm parcel on the upper Choptank River near Greensboro, Maryland, where two incised tributaries and a failed agricultural ditch were delivering sediment to the river. Caroline County retained Sustainable Science for stream monitoring, design, permitting, and bid evaluation. The design restored about 2,560 linear feet of stream channel and agricultural ditch with log boulder steps, riffle grade controls, and regenerative stormwater conveyance step pools, and created 2.5 acres of Delmarva Bay wetlands with two retention basins. Ecotone LLC built the project; Ecological Restoration & Management installed the plantings. Pre- and post-construction transect monitoring indicated about a 70 percent reduction in sediment and associated nutrient loss, and EPA featured the project as a Section 319 success story in 2025.

HIGHLIGHTS

- Restored 2,560 LF of stream channel and agricultural ditch
- Created 2.5 ac of Delmarva Bay wetlands plus two retention basins
- Monitoring showed about 70% cut in sediment and nutrient loss
- Featured as an EPA Section 319 success story in 2025
- Secured MDE nontidal wetland authorization and USACE NWP 27


Aerial view of project extents


Agricultural ditch restoration


Stormwater detention


Diverse RSC pool vegetation