

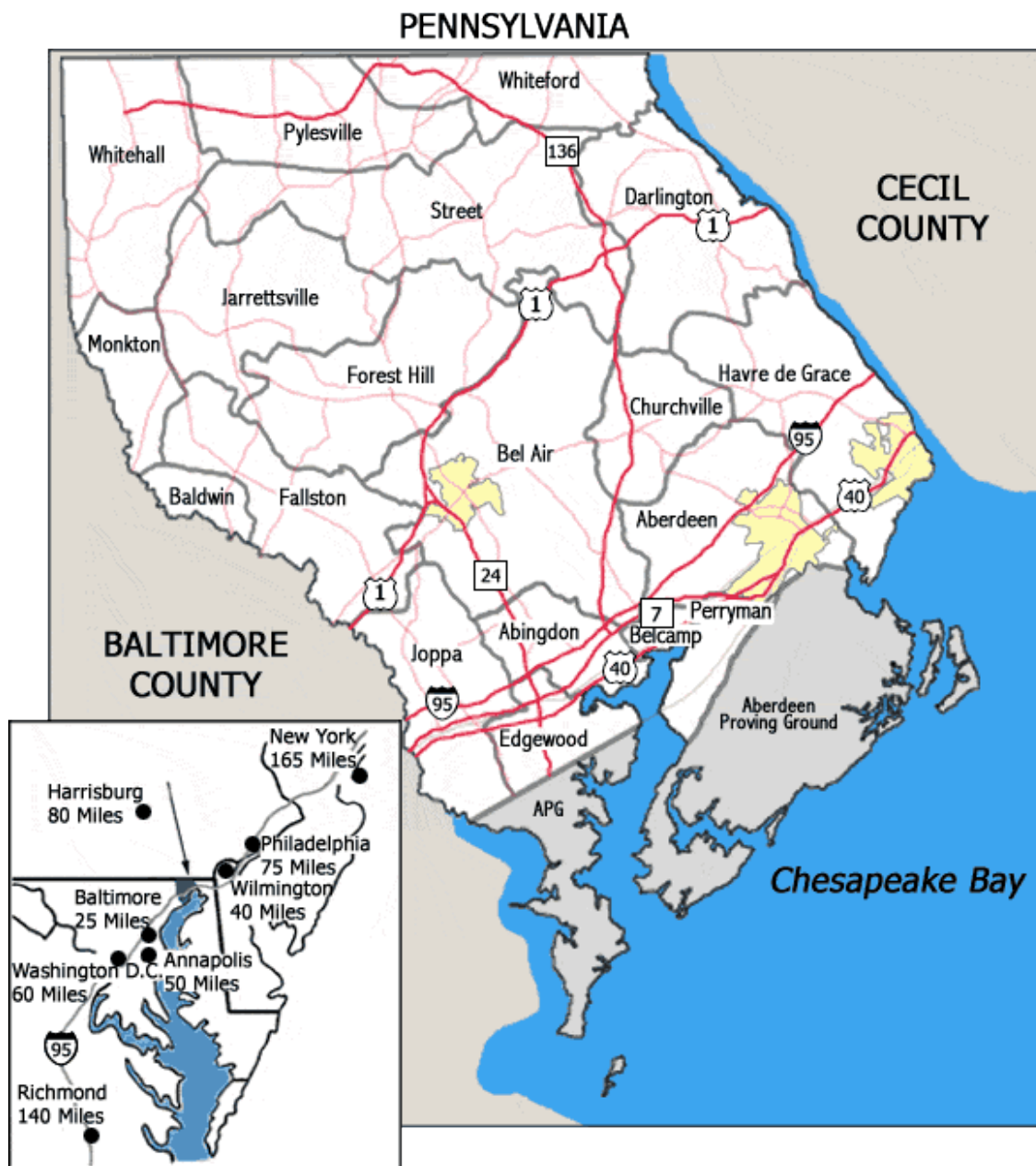
Partnerships in Conservation

Harford Soil Conservation District
approach with the Chesapeake Bay Initiative



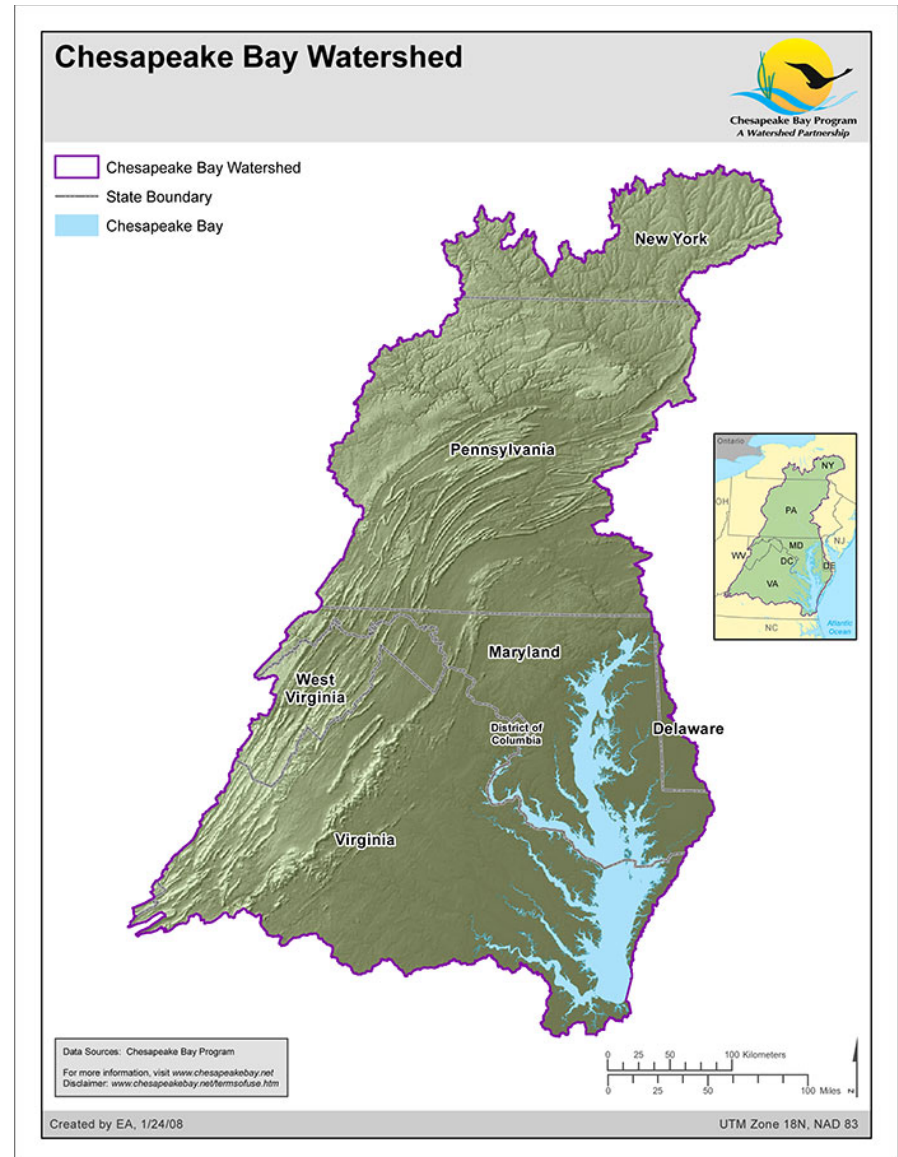
Bill Tharpe, District Manager
Forest Hill, Maryland

Harford County is located along Interstate 95 between Baltimore, MD and Philadelphia, PA. The Susquehanna River runs along the Eastern boundary of the County and empties into the mouth of the Chesapeake Bay.



Chesapeake Bay Watershed

Chesapeake Bay Watershed is 640 square miles and consists of 6 different states and the District of Columbia.

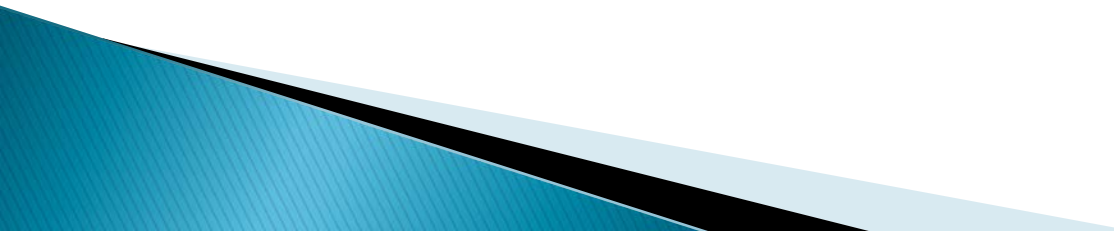


Chesapeake Bay Protection & Restoration Executive Order

On May 12, 2009, an Executive Order was signed that recognized a renewed effort to restore and protect the nation's largest estuary and its watershed, the Chesapeake Bay.

Lead by the EPA, 5 federal agencies and the seven Bay Area jurisdictions prepared the strategy for the restoration plan. Each state created a Watershed Implementation Plan (WIP) that provided methodology for reduction of nutrient and suspended solids based on 5 sectors –

- Agriculture
- Urban Storm Water
- Wastewater Treatment
- Septic Systems
- Natural Areas.



Agricultural Partners



Natural Resources Conservation Service and Farm Service Agency assists with Farm Bill Programs

Maryland Department of Agriculture administers State Cost-Share Assistance and Nutrient Management Programs



Harford Soil Conservation District provide local services to the agricultural community



Maryland Association of Soil Conservation Districts serves as the voice for Maryland's 24 soil conservation districts on state legislative issues.





Foundation of the agricultural partnerships is to implement Best Management Practices to reduce erosion and improve water quality



Urban Development Partners



Maryland Department of the Environment issues the regulations and guidance for storm water management and erosion & sediment control for development sites

Harford Soil Conservation District approves the erosion & sediment control plans and coordinates the review process of storm water management with the local jurisdiction



The four local jurisdiction create the ordinances that are subject to the local code enforcement





Sediment & erosion control BMPs are installed by the developer's contractor, inspected by the municipality and the local program review is conducted every three years by MDE & Harford SCD



Non Traditional Partners



Whether for design/build consulting or grant funding opportunities, all types of entities and agencies need to be explored by conservation districts



Plumtree Run Restoration

750 feet of stream was piped through Plumtree Park within the Town of Bel Air in the 1960's.



Over time, the pipe has become exposed and creating sinkholes in the park

Plumtree Run Restoration

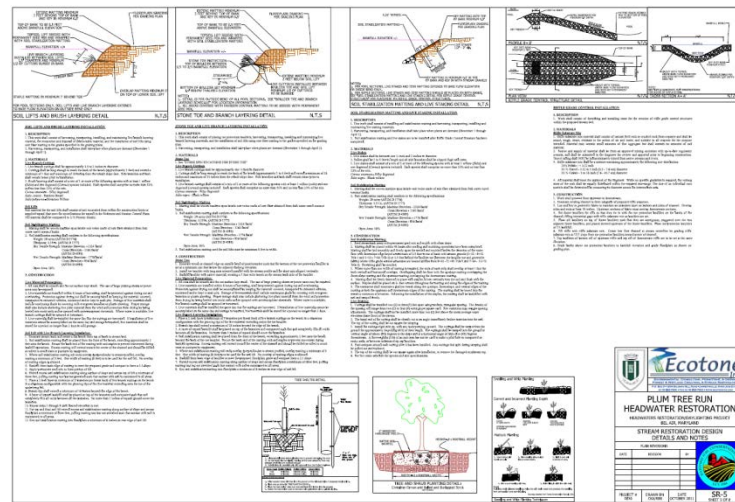
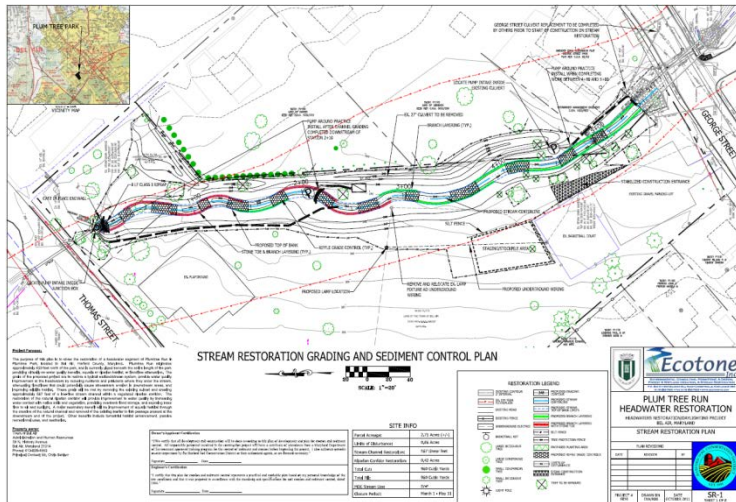


Grant funding for the Plumtree Run Restoration was accomplished through a four entity partnership

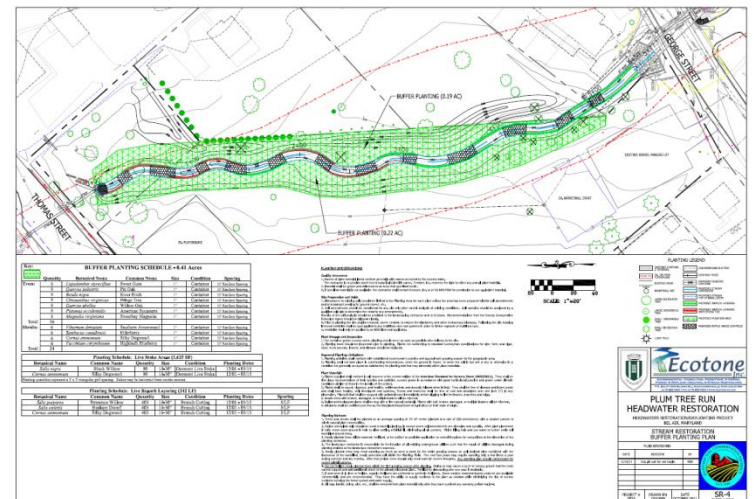
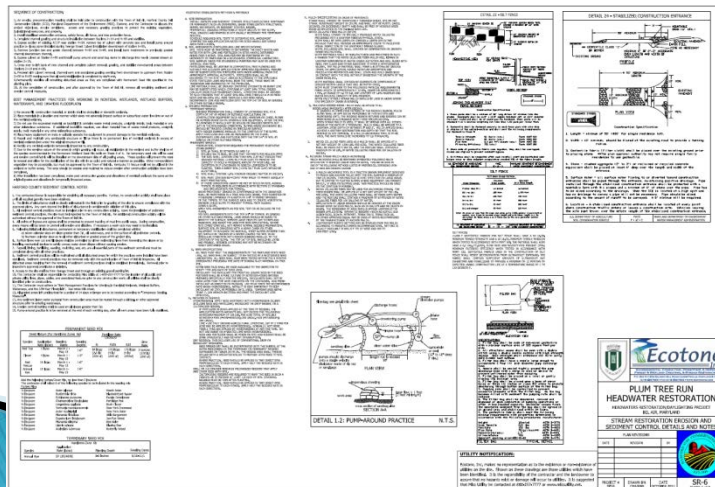


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Plumtree Run Restoration



Restoration design was prepared along with the erosion and sediment control plan. The Town of Bel Air issued the grading permit and performed the inspections.

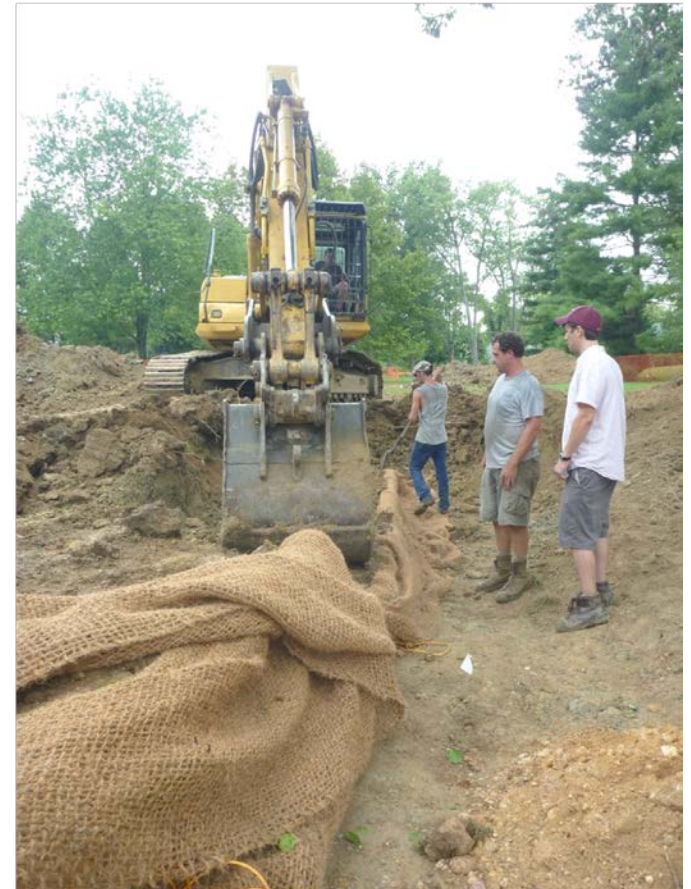


Plumtree Run Restoration

Removal of existing storm drain pipe and rough grading site to begin the restoration project



Grading of new channel and installation of soil lift to create a stable stream bank



Plumtree Run Restoration



Outfall of existing storm drain system at the beginning of the restoration project

Newly graded channel with soil lifts and live stakes embedded in between



Plumtree Run Restoration

Stone toe protection with soil lift installation



Rich Berkey, Director of Construction for Ecotone Inc, describes the protection of the meanders within the new stream segment



Plumtree Run Restoration

Shortly after construction, the channel received first storm event



Initial stabilization of stream banks



Plumtree Run Restoration



Before

Plumtree Run Restoration



After

Plumtree Run Restoration

Outreach

PLUMTREE RUN DAYLIGHTING AND HEADWATERS RESTORATION

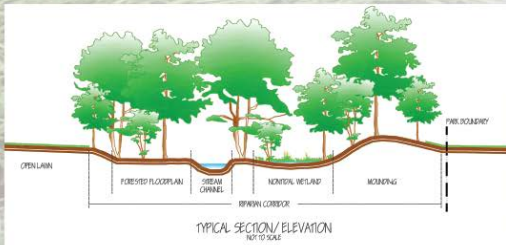
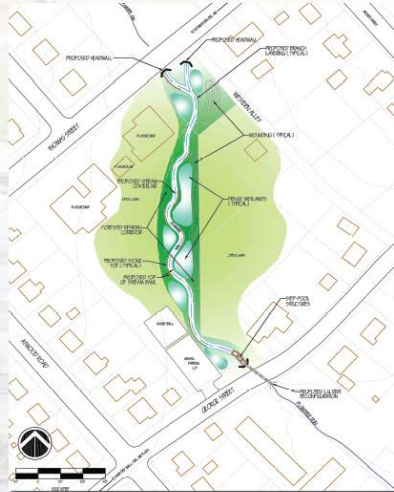
The purpose of the Plumtree Run Headwaters Daylighting Project is to restore the headwaters of Plumtree Run in Plumtree Park. Plumtree Run originates approximately 400 feet north of Thomas Street, and in the early 1950's, the stream was piped beneath the entire length of the park, where it provided virtually no water quality benefits, fish or wildlife habitat, or floodwater storage. The project includes removing the existing concrete culvert and creating approximately 670 feet of natural stream channel within a forested buffer. Approximately 7,000 square feet of fringe wetland will be restored within the 25 to 60 foot wide buffer corridor. The headwaters restoration will create aquatic habitat, improve water quality by allowing water contact with native soils and vegetation, provide overbank flood storage, and expose base flow to fresh air and sunlight. Other benefits include streamside wildlife habitat enhancement, passive recreational uses and beautification of Plumtree Park.

Plumtree Run Daylighting Project Goals:

- Restore a typical headwater wetland/stream system
- Provide water quality improvement by reducing nutrients and pollutants where they enter the stream
- Slow stormwater runoff that could cause downstream bank erosion
- Improve fish and wildlife habitat

What is Daylighting?

Before the 1980's, the value of streams and wetlands was rarely considered as towns and cities expanded, and many small streams were buried beneath the ground in culvert pipes to make "usable ground". Daylighting is the process of digging up these buried streams and restoring them so that they can function as natural ecological systems.



PROJECT SPONSORED BY:



PROJECT PARTNERS:



Plumtree Run Restoration

Along with the stream restoration, the Town of Bel Air utilized this opportunity to upgrade other amenities at the park



Other Grant Funded Projects



Design funded by Harford County Government through NRCS Headquarters (non-Farm Bill Program). Construction Funded through Maryland Department of Natural Resources.

A fallow meadow was transformed into a shallow water development. Design funded by Harford County Government through NRCS Headquarters (non-Farm Bill Program). Construction was funded by Trout Unlimited through National Fish & Wildlife Foundation.





Partnerships in Conservation



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Everyone plays a role in conservation!



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