

Supporting the Chesapeake Bay Goals

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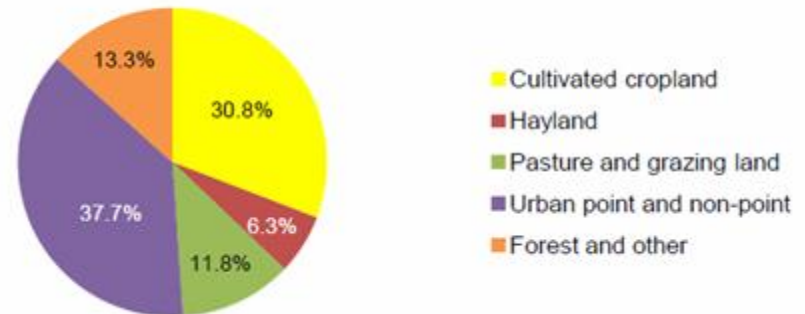
Bay Goals and Forestry Programs

- **Forest Goals**
 - **Forest Buffers**
 - **Urban Tree Canopy**
 - **Forest Conservation**
- **Draft Bay goals**
 - **Vital Habitats**
 - **Healthy Watersheds**
 - **Land Conservation**
 - **Water Quality**
- **Forest Stewardship for private lands**
- **Urban Forestry**
- **Fire**
- ***Watershed Forestry***
- **State Forest Management**
- **Other DNR programs**

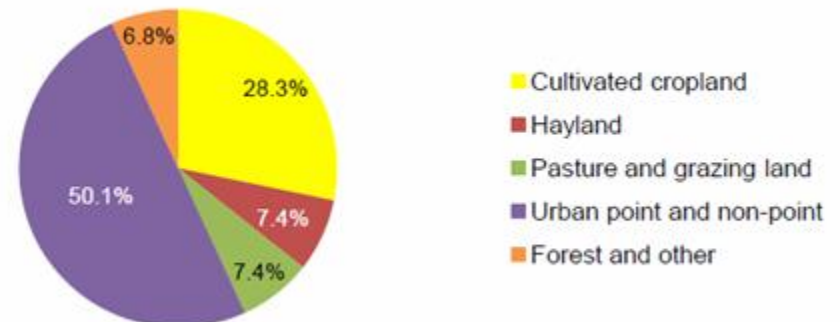
Forests set the backstop for the TMDL

- Forest Conservation
 - Keeping the low forest loading is easier than restoring
- Forest Management
 - Modeled forest loading assumes a healthy, regenerating forest

Total nitrogen delivered to rivers and streams



Total phosphorus delivered to rivers and streams



Maryland Phase II WIP

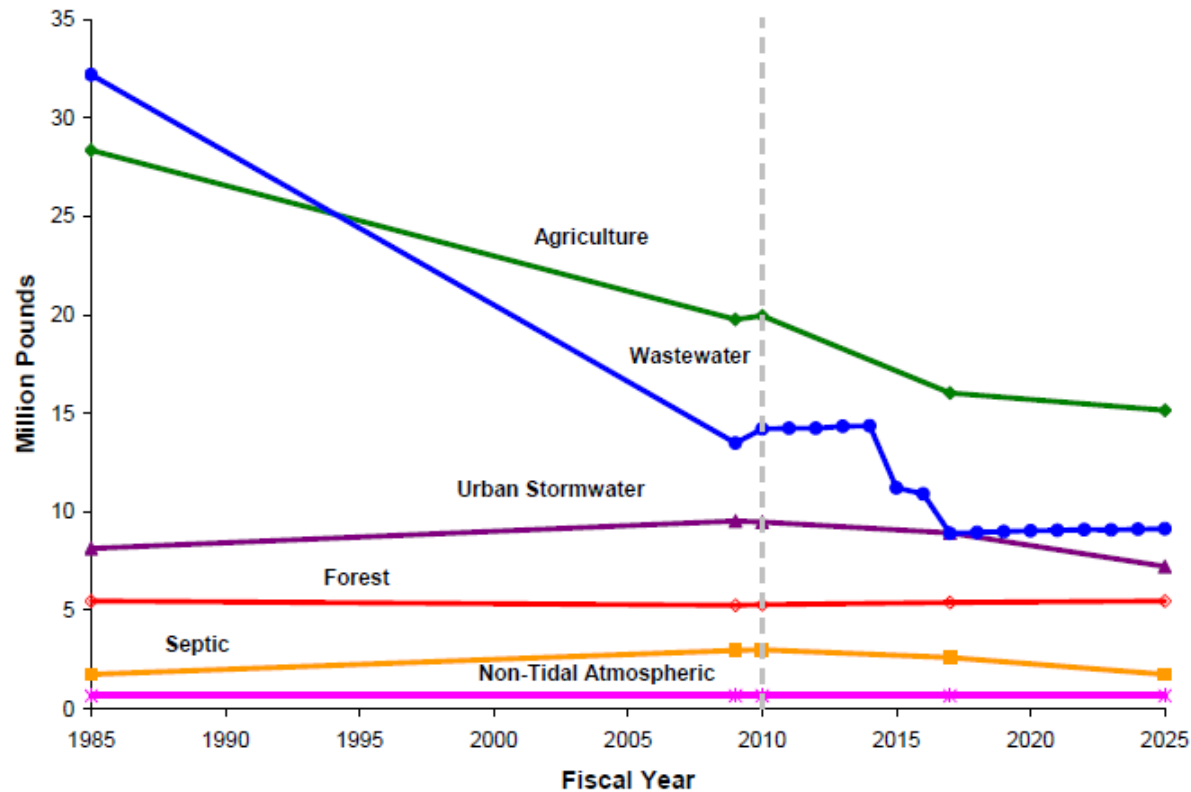


Figure 2: Past Trend in Nitrogen Compared to Future Final Target Strategy Trend

Forest Buffers and Tree Planting

- Private Lands

- CREP
 - FSA, NRCS, SCD
- Special Rivers Project
 - EPA CBIG funding
 - Incl. tree planting trials
- Backyard Buffers
 - USFS and EPA funds
- Other grants/partners
 - USFS, NFWF, UMD Agroecology, counties
 - Planting, Monitoring, Tracking, Targeting
 - Growing Native



- Nursery

- seedlings

- Public Lands- State funding

- Forest Brigade
- Natural Filters
- Governor's Stream Restoration Challenge

- **Chesapeake Bay Trust Fund**

Photo: Don Outen

Forest Conservation

- Permanent Conservation
 - Program Open Space- land transfer tax
 - Fee simple or easement, often added to DNR lands
 - Rural Legacy (subset of POS)
 - Usually easement
 - MD Ag. Land Preservation Foundation
 - Easements- farm and woodland, productive soils
 - Forest Legacy
 - Usually easement, national competition
 - MD Environmental Trust
 - Donated easements
- Forest Conservation
 - Forest Stewardship Plans
 - Forest Conservation Management Agreements-15 yr
 - Woodland Assessment Program- 3 yr

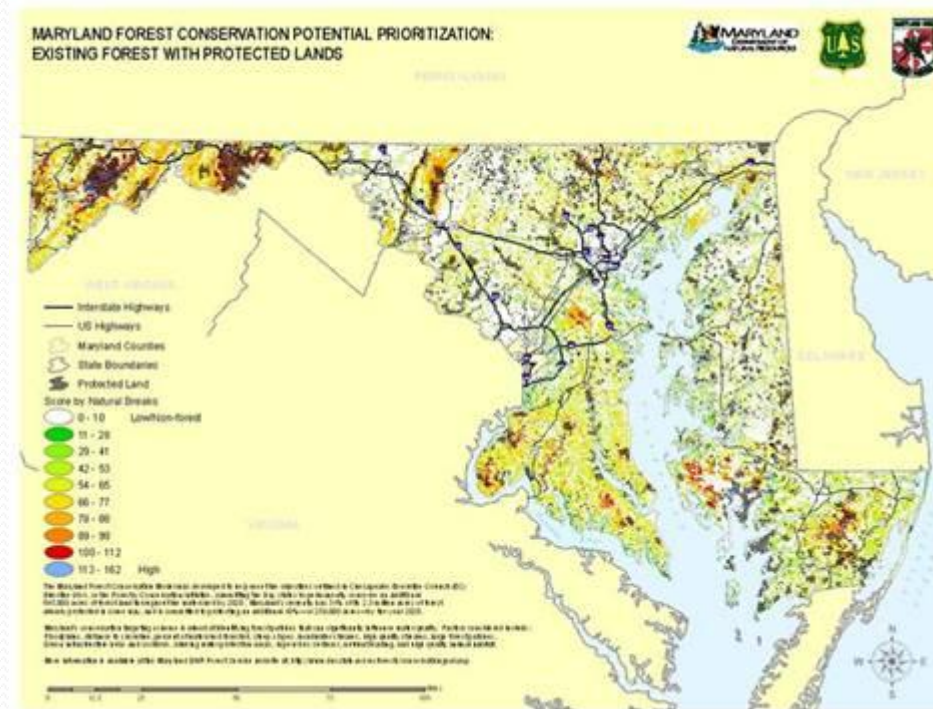


Urban Forestry

- Forest Conservation Act
 - Outside Critical Area
- Roadside Tree Law
- MD Tree Expert Law
- Reforestation Law
- PLANT and TreeCity USA
- **Lawn to Woodland with Natl. Arbor Day Foundation**
- Limits forest clearing, requires mitigation
- Limits utility trimming
- Licenses tree care
- Requires highway planting
- Encourages trees in communities
- **Pays for tree planting in selected pilot counties**

Focusing Forests in the Potomac

- Hemlock Restoration Trials
 - Tablets 2+ yrs protection
- Forest Conservation and Planning
 - Frederick Co. Green Infrastructure Plan
- Buffers
 - Incl. Backyard Buffers
- Invasive plant control
 - Fact sheets



Trees for the Chesapeake TMDL

- Buffers and tree planting, including urban trees
- Backyard Buffers
 - All BYB 2013- 1000+ people, 24K seedlings, ~10 miles
- Buffer Monitoring
 - Valuable long-term monitoring, interest from Baltimore Ecosystem Study
- Dirt/Gravel Road Training/Rainmaker Assessment
 - Address ford at DeLauteur Rd., Frederick Watershed
- Native seed collection, continued hemlock restoration trials



Harvesting BMP Assessment

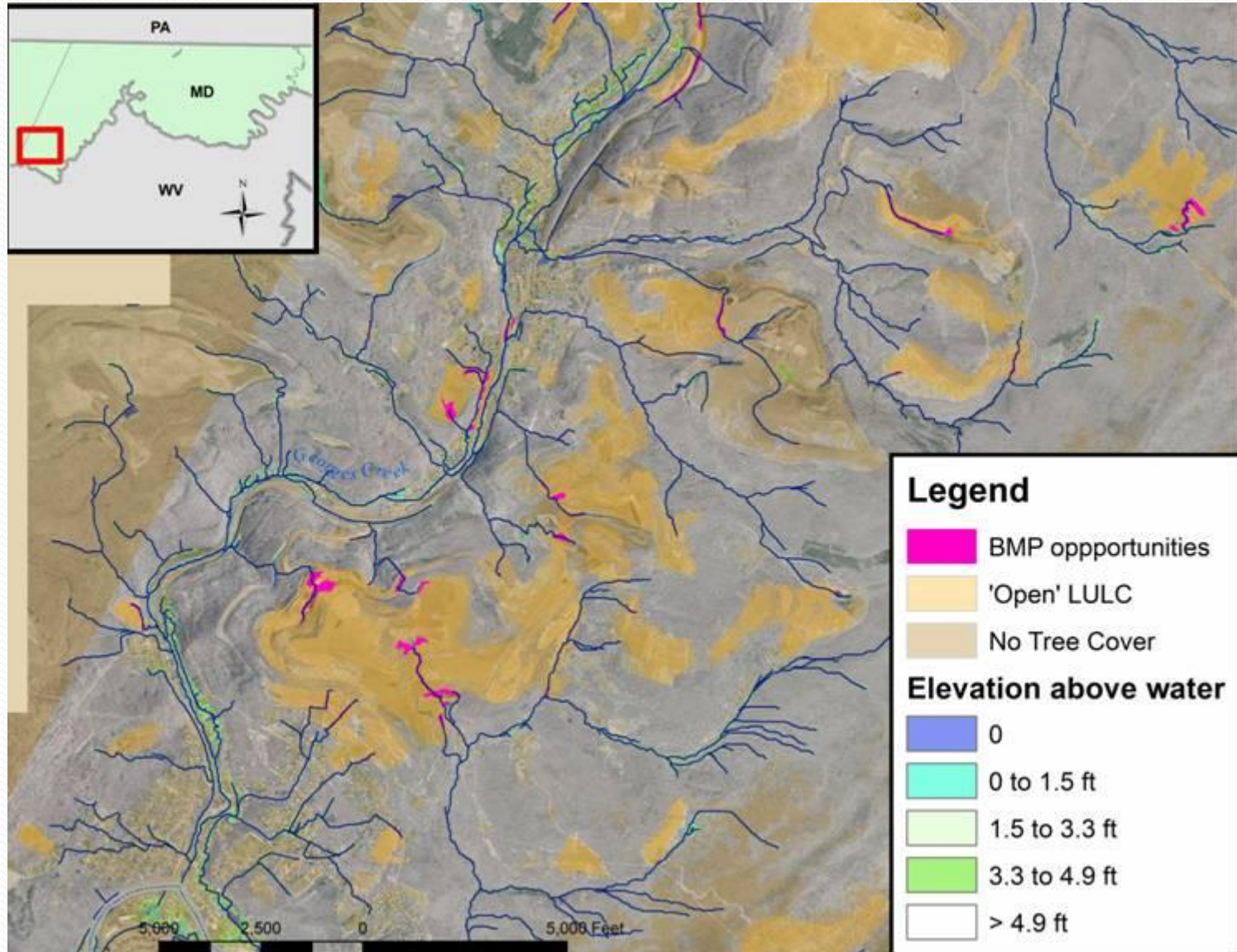
- Statewide Assessment with DE
- Try to dovetail with Southern Group of State Foresters framework
- Work in 2014 and 2015
- Contracting assessment
- State staff provide QA/QC
- Used in Bay tracking for BMP implementation rate, and for Sustainable Forest Certification



Targeting Effective Forest BMPS in Potomac

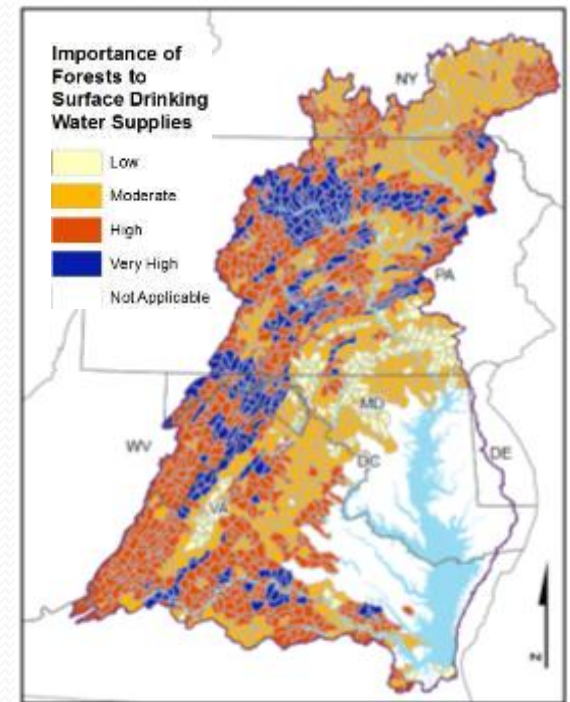
- Partnership with The Nature Conservancy and UMCES Appalachian Lab
- High Resolution Targeting- Lidar, stream mapping, and Brook trout analysis
- Work with Counties to help implement TMDL
- **Implementation** \$- buffers, tree planting, floodplain planting
- Monitoring to check modeled streams and priority areas

Identification of Potential BMP Sites



Proposed: Sustainable Water and Wood

- Competitive grant submitted
 - Funding not known
- Forest and landscape management for protecting drink water supply watersheds
- Plans for Reservoir Forests
 - Cumberland, Hagerstown, others
 - Working in MD and PA
- Watershed-based Landscape-scale plans
 - Working with adjacent state lands
- Sustainable Forest Certification pathways



Appalachian Forest Renewal Initiative

- Forest Stewardship Plans on Wildlife Management Areas
- Early Successional Habitat Plan (golden-winged and cerulean warbler, others)
- Mineland planting of trees and shrubs
- Invasive Species Control

