

BMP Implementation: Engaging Opportunities



Emily Trentacoste, STAR Co-Coordinator

**Ag WG Meeting
2/20/2020**

Many challenges to implementation

- Identifying implementation opportunities on the landscape
- Identifying and engaging willing landowners
- Funding for technical assistance and landowner outreach
- Funding for actual implementation
- Funding and technical assistance for maintenance

Many challenges to implementation

- Identifying implementation opportunities on the landscape – project in development
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Many challenges to implementation

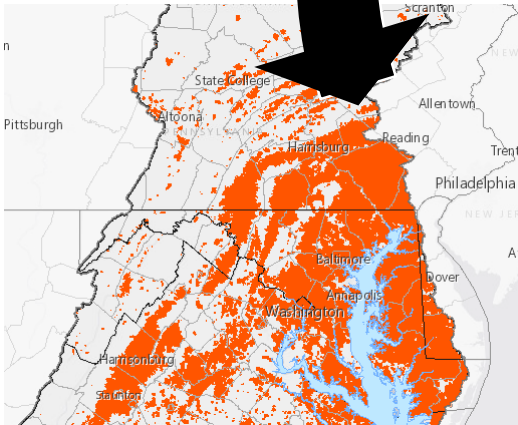
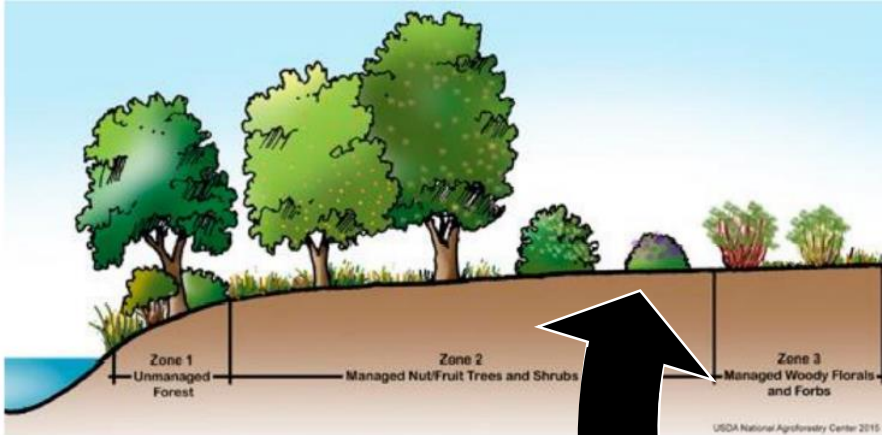
- Identifying implementation opportunities on the landscape
 - Identifying and engaging willing landowners
- Funding for technical assistance and landowner outreach
 - Funding for actual implementation
 - Funding and technical assistance for maintenance
- project for discussion today

Identifying support for implementation

- Have a good handle on traditional partners for implementing water quality or agricultural conservation practices
- What about partners interested in and supportive of co-benefits?
- Goal: Using co-benefits of water quality and agricultural conservation practices, work with CBP GITs to identify interested partners and map opportunities

Identifying support for implementation

BMPs



Geographic locations

Co-benefits



Supporting partners

What's being done already...

Water Quality BMP Impact Scoring: what other priorities do BMPs address

Chesapeake Bay Watershed Data Dashboard (Beta)

Start Here! Rivers & Streams Tidal Waters Targeting Restoration Management Practices Planning for Change

Need Help?

Geographic Targeting

Explore by Practice Explore by Priority

Prioritizing Other Benefits

[Click here to open tool separately in its own window.](#)

This section provides information on co-benefits associated with water quality best management practices.

DID YOU KNOW? Water quality is just one of many other priorities, or "Outcomes", identified by the Chesapeake Bay Program in the [2014 Watershed Agreement](#).

DID YOU KNOW? Water quality is intricately connected with living resources and habitats throughout the

Benefits to Other Priorities from Practices

Priority: 1 - Fish Habitat

Priority	Sector	Practice	Score
1 - Fish Habitat	Agriculture	Ag Forest Buffer	4.5
		Streamside Forest Buffers	4.5
		Narrow Forest Buffer	3.5
		Wetland Restoration and Streamside Wetland Restoration	3.5
		Ag Stream Restoration	3.0
		Alternative Water System (Off Stream Watering Without Fencing)	3.0
		Grass Buffer on Watercourse (RI)	3.0
		Grass Buffers	3.0
		Grass Nutrient Exclusion Area on Watercourse (RI)	3.0
		Narrow Grass Buffer	3.0
		Streamside Grass Buffers	3.0
		Ag Shoreline Management (incl. Non-Vegetated and Vegetated)	2.5
		Ag Tree Planting	2.0
		Manure Transport (ALL Animal Types and all manure forms)	2.0
		Animal Waste Management Systems (All Types-not including lagoon covers or end use)	1.5
		Annual Legume, Annual Legume and Grass, Annual Ryegrass, Cover Crop Barley, Cover Crop For..	1.5
		Barnyard Clean Water Diversion (RI [Resource Improvement])	1.5
		Barnyard Runoff Controls	1.5
		Commodity Cover Crop Barley, Rye, Wheat (ALL); No additions for Phase 6	1.5
		Conservation Tillage (incl. from MAST: conservation till without nutrients, additional acres, and..	1.5
Continuous High Residue Till	1.5		
Conversion to Hayland (RI)	1.5		
Conversion to Pasture (RI)	1.5		

Sector: (All) Agriculture Forestry Septics Urban Sector

Avg. Final Score: 0.0 4.5

What's being done already...

Water Quality BMP Impact Scoring: what other priorities do BMPs address

Chesapeake Bay Watershed Data Dashboard (Beta)

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Benefits to Other Priorities from Practices

Priority: 3 - Toxic Contaminants Policy and Prevention

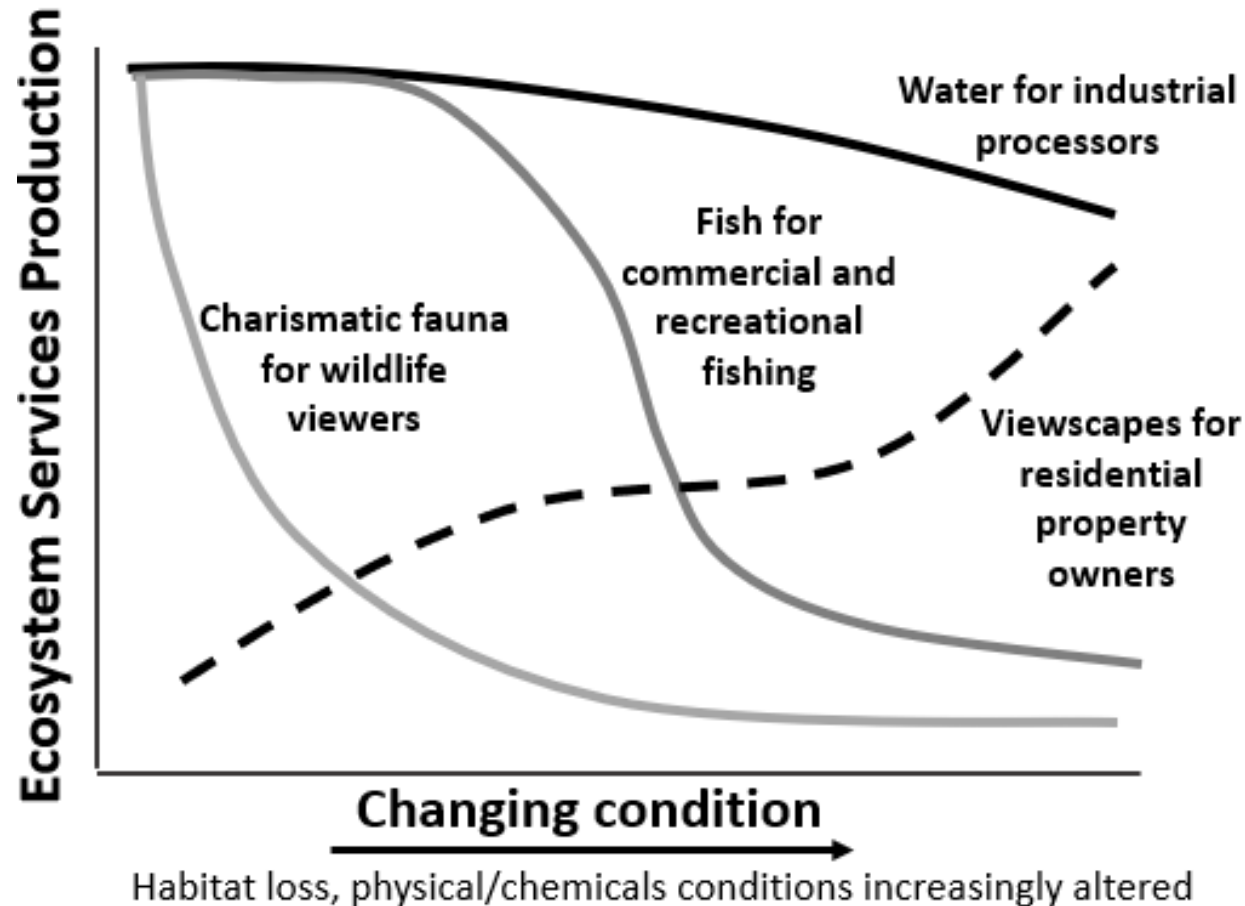
Priority	Sector	Practice	Score
3 - Toxic Contaminants Policy and Prevention	Agriculture	Ag Forest Buffer	3.5
		Ag Shoreline Management (incl. Non-Vegetated and Vegetated)	3.0
		Amendments for the Treatment of Agricultural Waste	3.0
		Animal Waste Management Systems (All Types-not including lagoon covers or end use)	3.0
		Barneyard Clean Water Diversion (RI [Resource Improvement])	3.0
		Barneyard Runoff Controls	3.0
		Dry Waste Storage Structure (RI)	3.0
		Grass Buffer on Watercourse (RI)	3.0
		Grass Buffers	3.0
		Grass Nutrient Exclusion Area on Watercourse (RI)	3.0
		Manure Technology: Chemical Treatments (Dry and Wet Manure)	3.0
		Manure Technology: Composting	3.0
		Manure Technology: Microbial Digestion (anaerobic digester)	3.0
		Manure Technology: Solid-Liquid Separation	3.0
		Manure Technology: Thermal (or Thermochemical) Treatment	3.0
		Narrow Forest Buffer	3.0
		Narrow Grass Buffer	3.0
		Streamside Forest Buffers	3.0
		Streamside Grass Buffers	3.0
		Alternative Water System (Off Stream Watering Without Fencing)	2.0
		Stream Access Control with Fencing	2.0
		Watercourse Access Control - Narrow Grass and Grass (RI)	2.0
		Watercourse Access Control - Narrow Trees and Trees (RI)	2.0

Sector: (All) Agriculture Forestry Septics Urban Sector

Avg. Final Score: -1.0 4.0

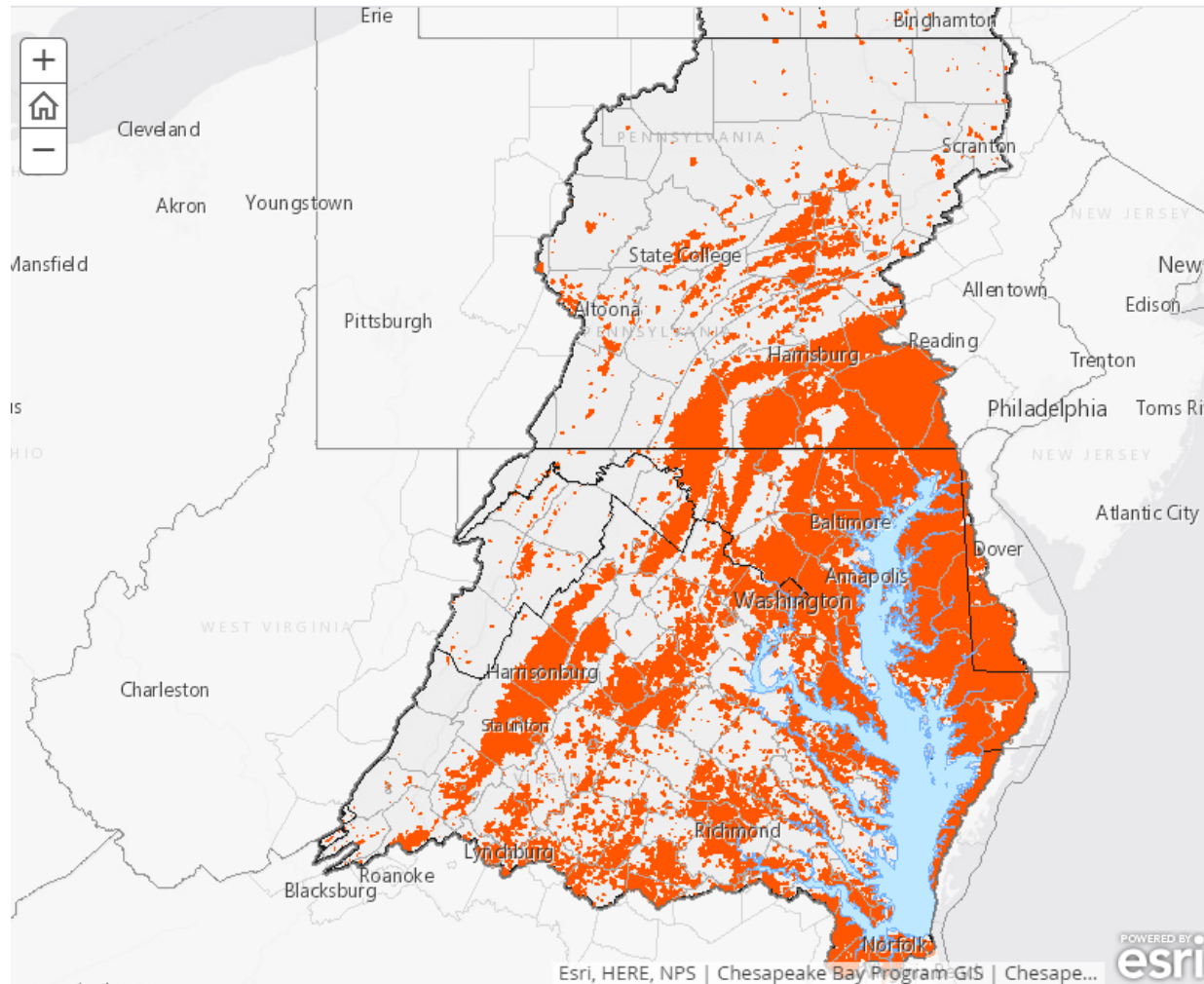
What's being done already...

Project with EPA ORD on Ecosystem Services: what ecosystem services are improved or increased by certain BMPs



What's being done already...

Mapping of Cross-GIT Co-Benefits: where CBP priorities overlap



Chesapeake Bay Program



Cross-GIT Mapping Project

Restoration/Water Quality - SPARROW Delivered Nitrogen Yields (GIT 3)

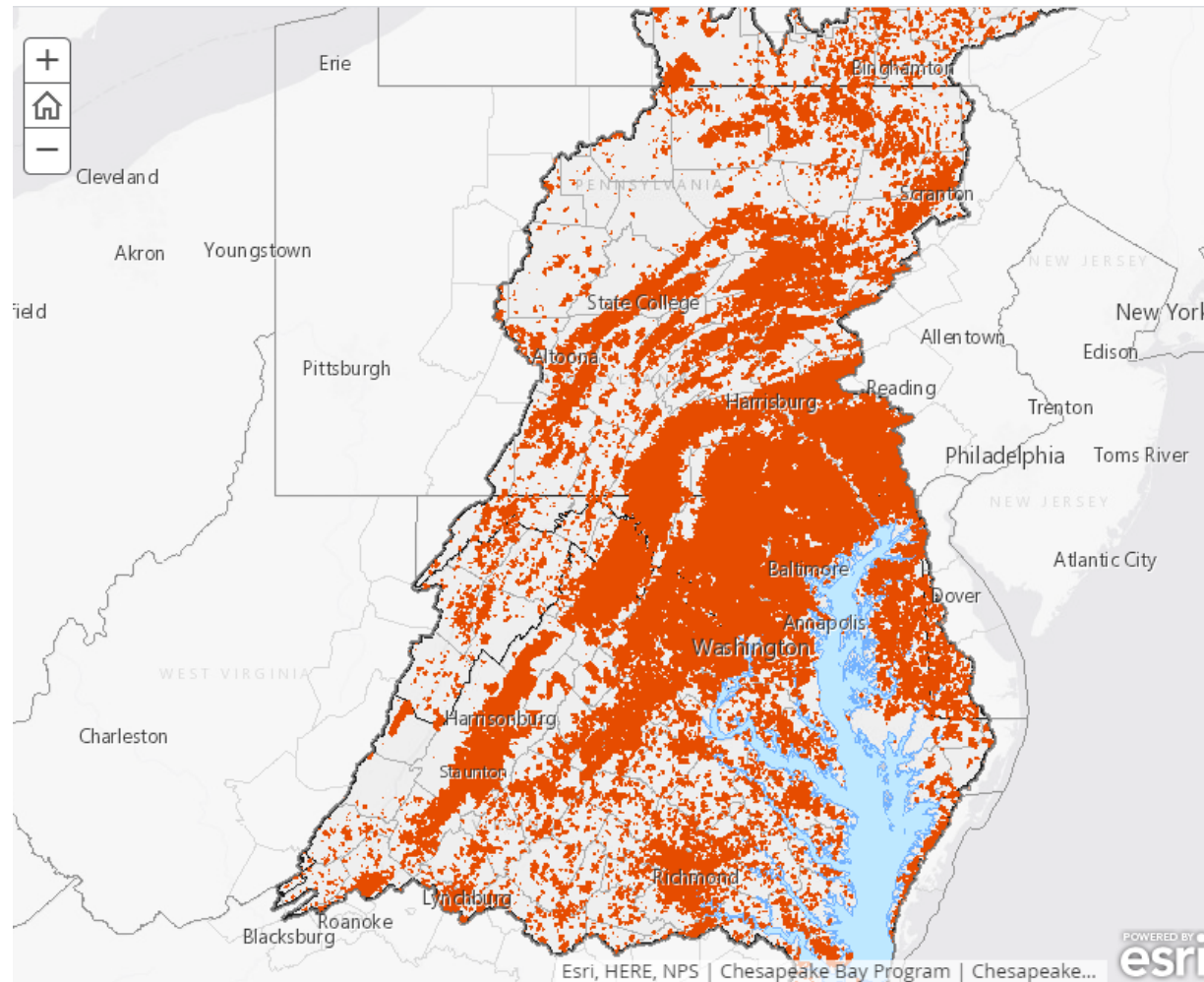
This dataset contains mean-annual delivered nitrogen (TP) fluxes predicted by the SPARROW models, CBTN_v4 and CBTP_v4, for individual stream and shoreline reaches in the Chesapeake watershed as defined by NHDPlus, a 1:100,000 scale representation of stream hydrography built upon the National Hydrography Dataset (NHD) (Horizon Systems, 2010; Simley and Carswell, 2010).

Areas shown represent the top 25% of all Chesapeake Bay NHD catchments for Nitrogen yields.

Restoration/Water Quality - SPARROW Delivered Phosphorus Yields (GIT 3)

What's being done already...

Mapping of Cross-GIT Co-Benefits: where CBP priorities overlap



Chesapeake Bay Program



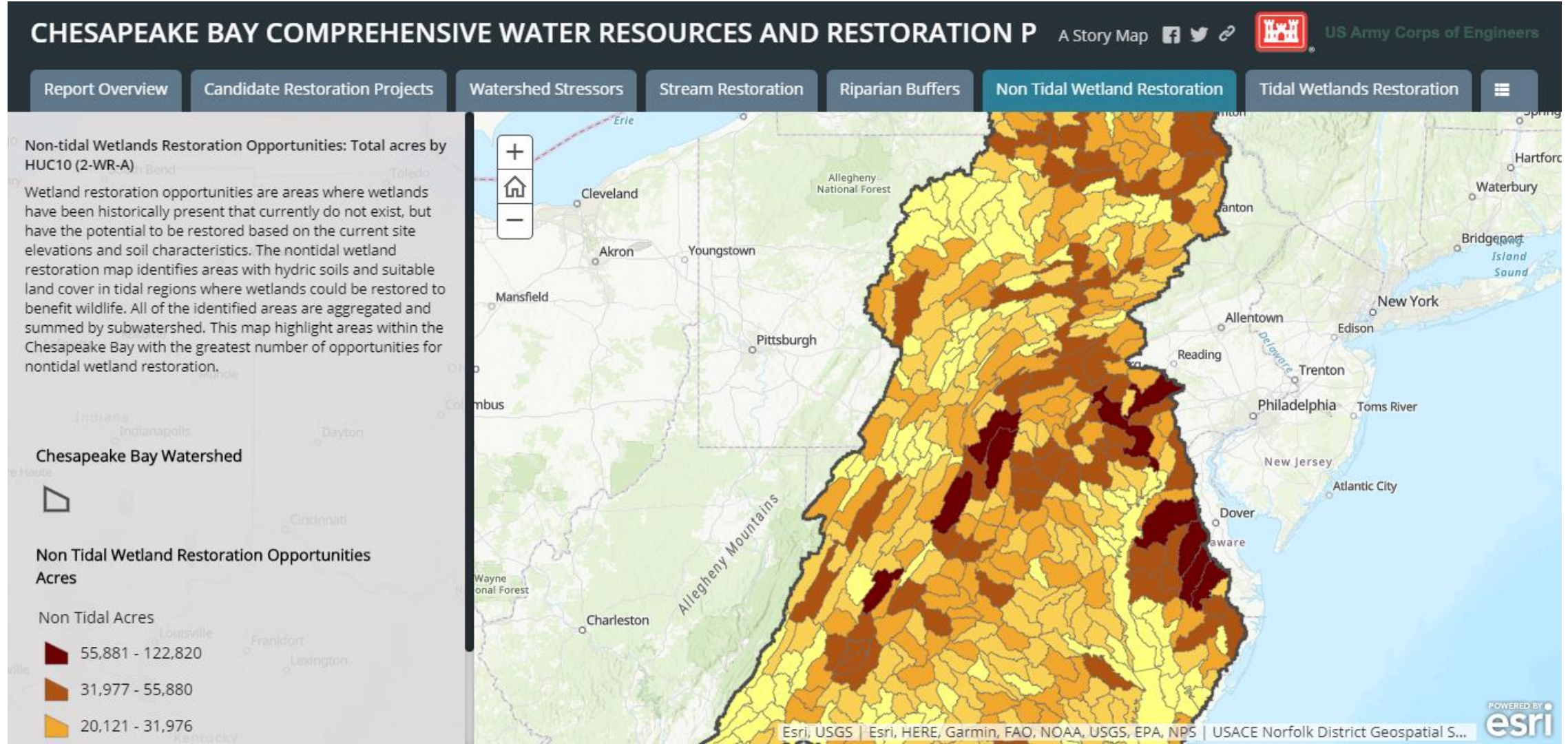
Cross-GIT Mapping Project

Restoration/Sustainable Fisheries - National Fish Habitat Assessment - High Risk of Habitat Degradation (GIT 1)

The National Fish Habitat Partnership compiled freshwater datasets available at the national scale to develop habitat vulnerability scores across the United States. Datasets included anthropogenic disturbances and accounted for natural variation at different spatial scales. Chesapeake Bay watershed scores depict the current risk of habitat degradation and do not represent regional or local data sets for specific watersheds or geographies. The most limiting disturbances for Chesapeake Bay habitats were found to be agriculture, urbanization, mining and nutrients. The areas shown on this map indicate a high risk of habitat degradation within the watershed.

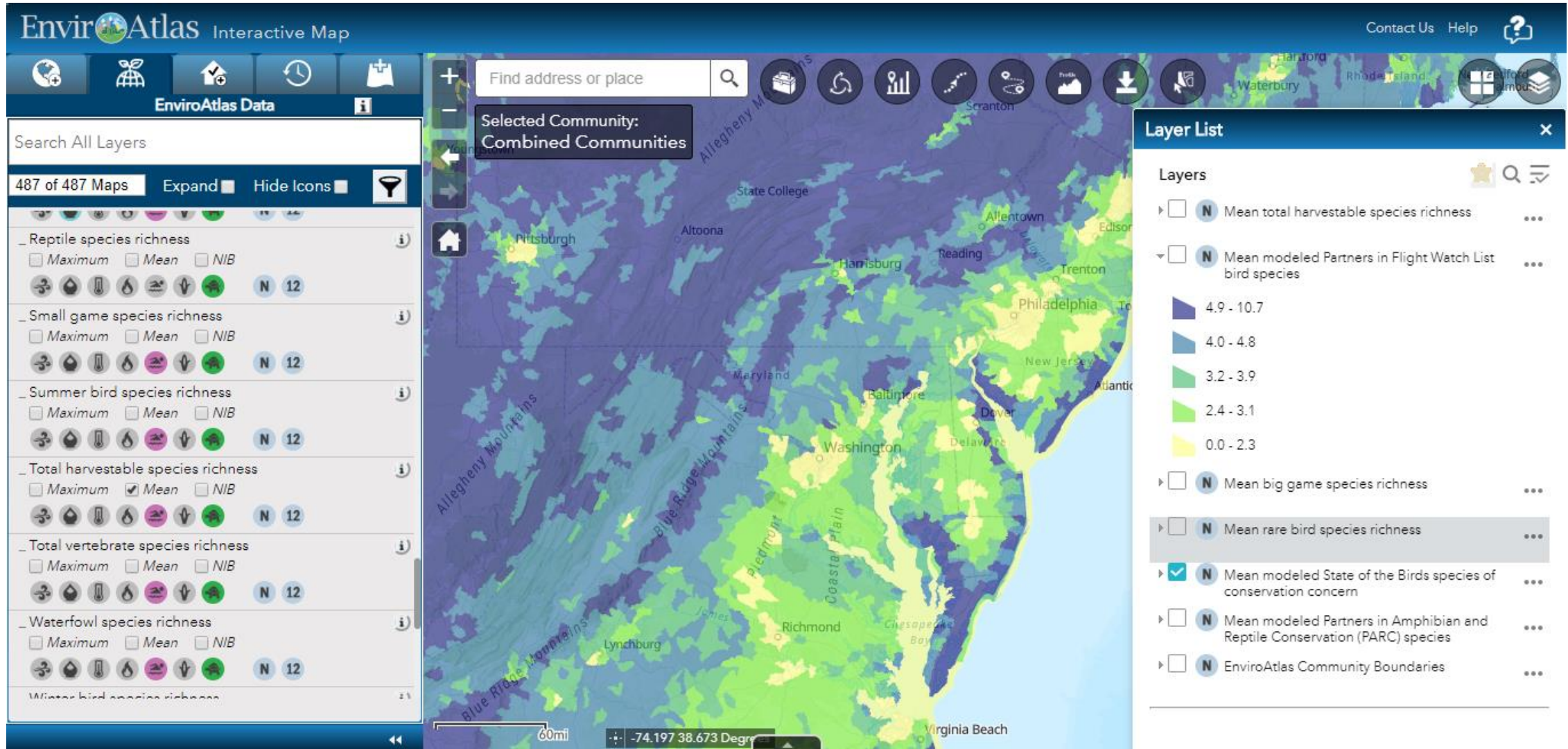
What's being done already...

US Army Corps of Engineers CB Comp Plan: where USACE projects can take place



What's being done already...

EPA EnviroAtlas: where are co-benefit opportunities



Your input requested!

- Would a project like this be useful?
- Are there certain pieces of feedback you have that would make it most useful?
- What co-benefits do you already know about that should be incorporated?
- Do you already know partners that would be good to include?

Thank you!



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