



# Briefing on the Chesapeake Bay Total Maximum Daily Load (TMDL)

Local Government Advisory Committee

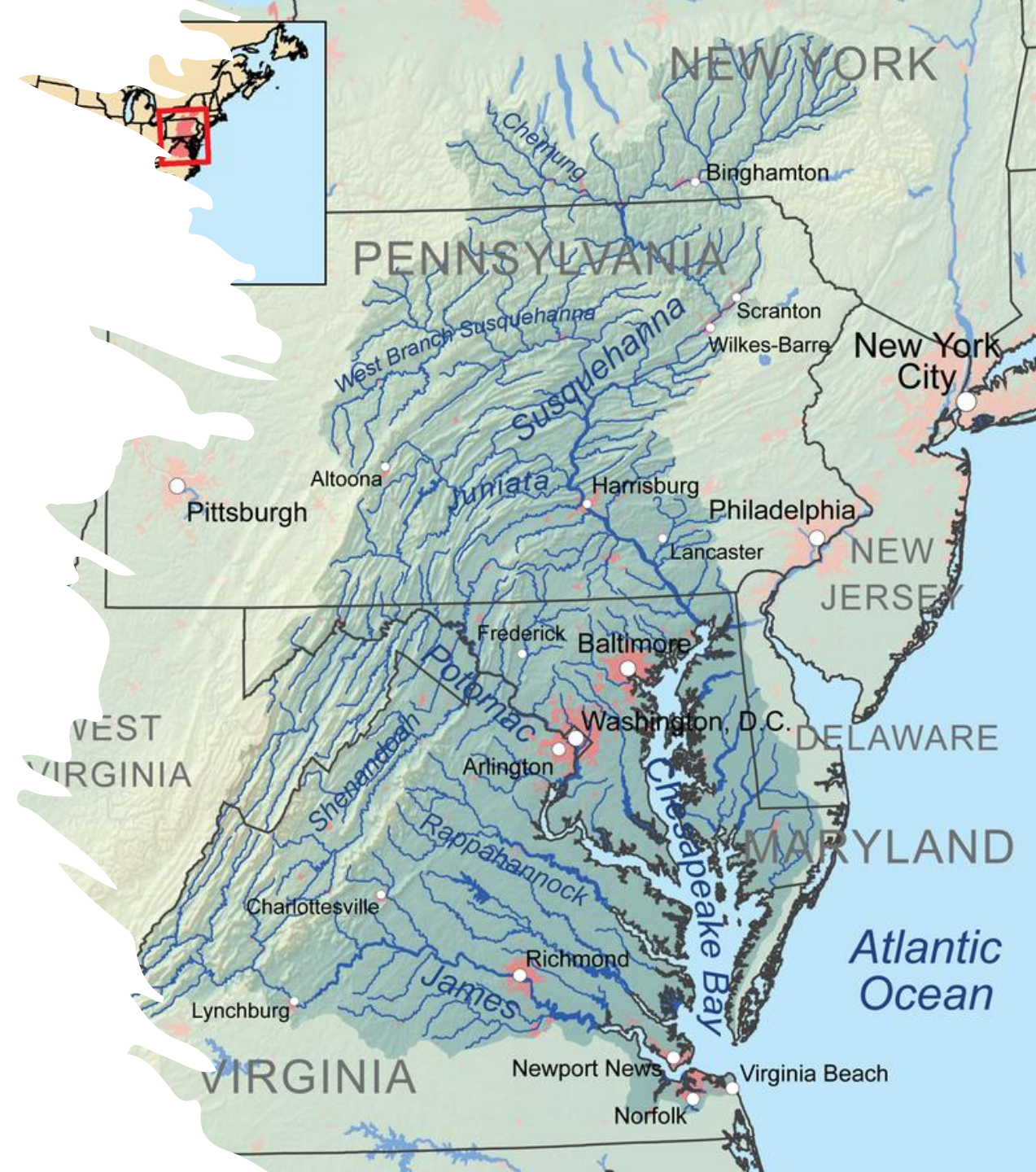
June 4, 2026

**Lara Fowler ([lbf10@psu.edu](mailto:lbf10@psu.edu))**

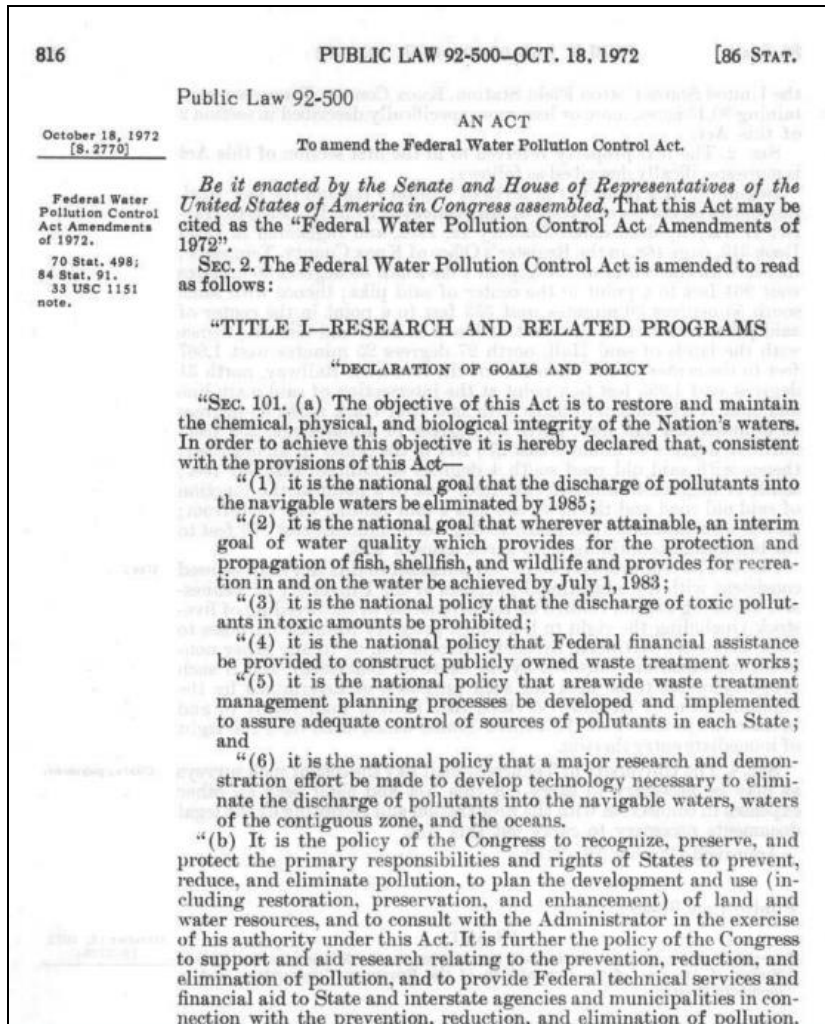
- Professor of Teaching, Penn State Dickinson Law
- Affiliate Faculty, School of International Affairs

# Overview

- A very quick sketch of the Clean Water Act
- The Chesapeake Bay TMDL and the Chesapeake Bay Watershed Agreement
- Examples of “multi-solving”



# Critical to the Chesapeake Bay: the Federal Water Pollution Control Act Amendments of 1972 (aka the Clean Water Act)



Presumption under the common law:  
activities that might cause water pollution are  
presumptively lawful unless a plaintiff sues and proves  
harm to protected legal interest

The Clean Water Act flipped this presumption

President Nixon is given credit for the Clean Water Act.

However, he vetoed it.

Congress passed it over his veto

- 247 to 23 in the House
- 52 to 12 in the Senate



# Clean Water Act: Objective & Goals

## Objective:

- “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”
- Applies to the “waters of the United States”

## Goals:

- Eliminate pollution into navigable waters by 1985
- Wherever attainable, interim goal of water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water be achieved by July 1, 1983 (fishable & swimmable goal)
- National policy that discharge of toxic pollutants in toxic amounts be prohibited

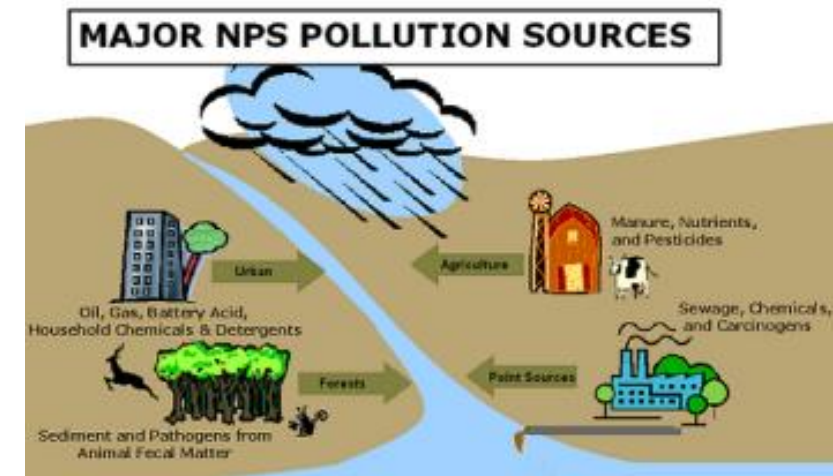


# Definitions

- Pollutants, § 502(6), 33 U.S.C. § 1362(6):
  - wide range of substances that might be discharged into water, including “dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste.”
- Pollution, § 502(19), 33 U.S.C. § 1362(19).
  - “man made or man-induced alternation of the chemical, physical, biological and radiological integrity of water.”
- Discharge of pollutant, § 502(16), 33 U.S.C. § 1362(16).
  - Any addition of any pollutant to navigable waters from any point source.
- Point source, § 502(14), 33 U.S.C. § 1362(14).
  - “Any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which pollutants are or may be discharged.”
  - Excludes “ag stormwater discharges and return flows from irrigated agriculture”

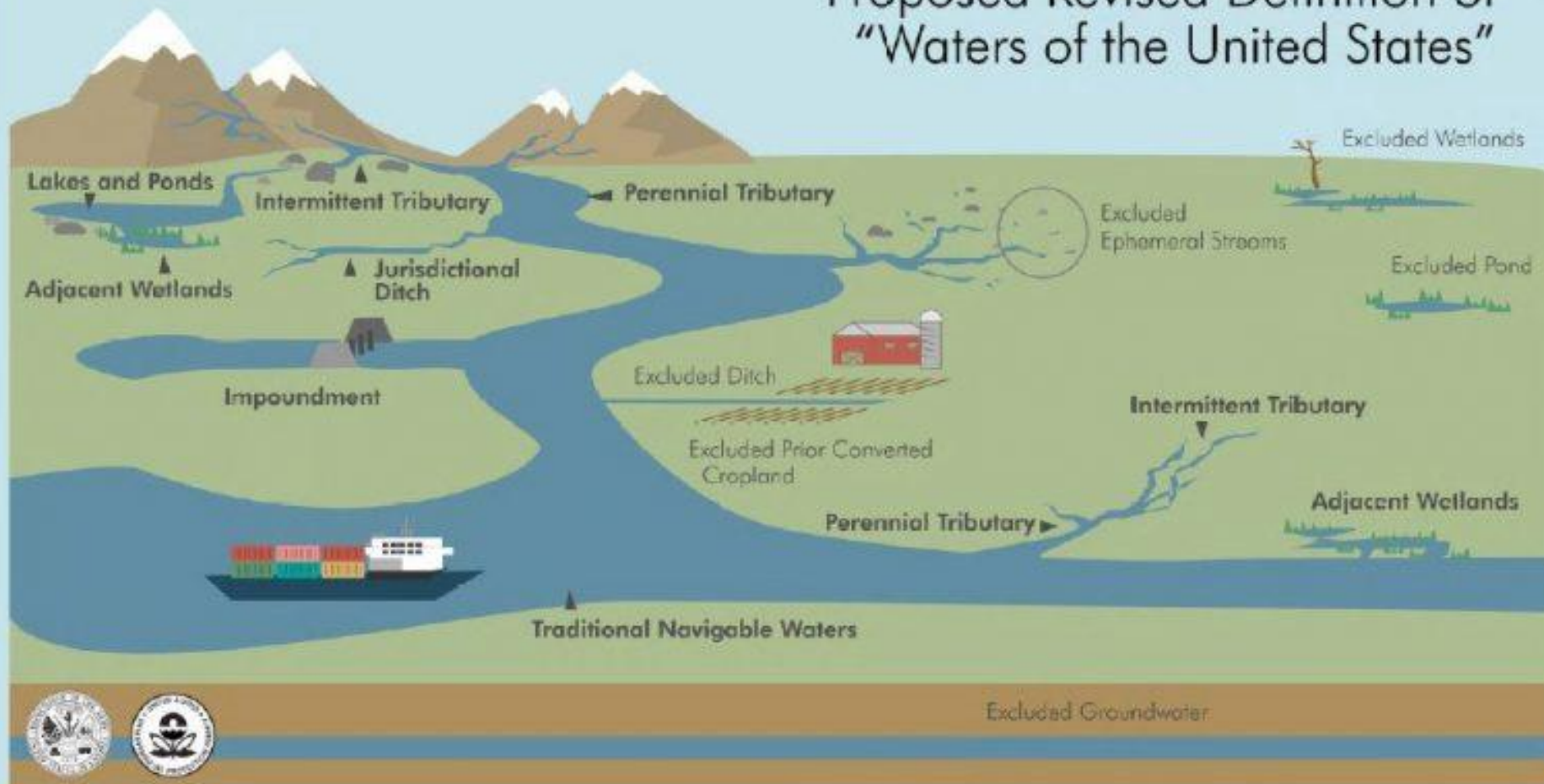
# Definitions

- Point source, § 502(14), 33 U.S.C. § 1362(14).
  - May be allowed upon issuance of
    - National Pollutant Discharge Elimination System (NPDES) permits
      - Issued by US Environmental Protection Agency, state (if allowed), or tribes as state
      - Must meet technology-based requirements (301(b)), or
      - Must meet water quality-based standards (303)
    - Dredge & fill material permit
      - US Army Corps or state (if allowed)
  - MS4s are a subset of NPDES permits
    - Municipal separate storm sewer systems for municipalities above a certain population
- Exceptions:
  - Dispersed runoff of pollutants (stormwater/agricultural)
  - Airborne pollutants



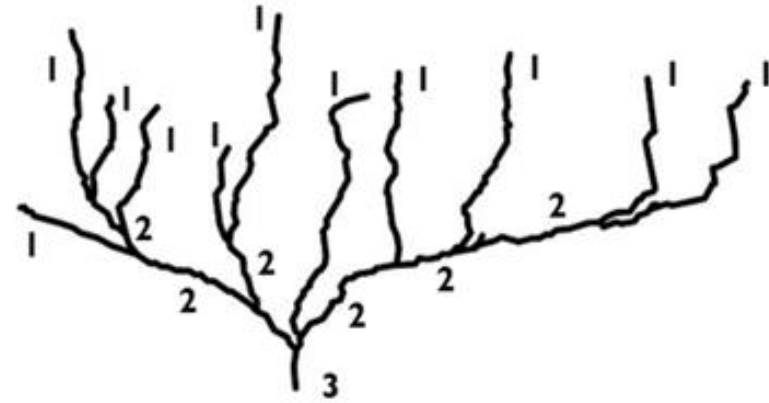
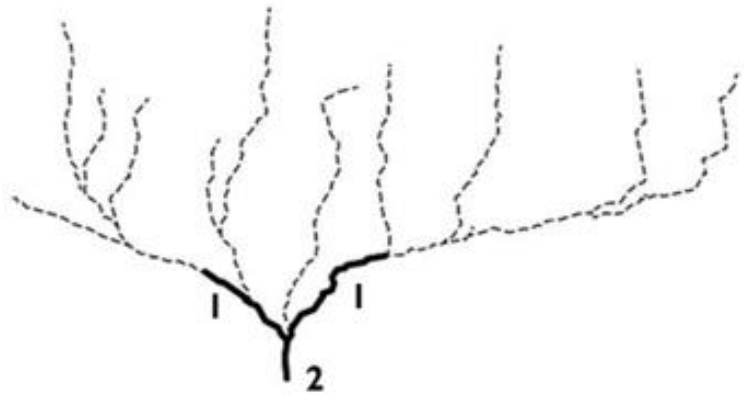
# A lot of litigation on definition of “Waters of the United States”

## Proposed Revised Definition of “Waters of the United States”



\* For illustrative purposes only. Proposed jurisdictional waters in **bold**.

<https://publiccommentproject.org/aq-conservsummaries/wotus-repeal-step2>



Difference  
between a dry  
and wet year?

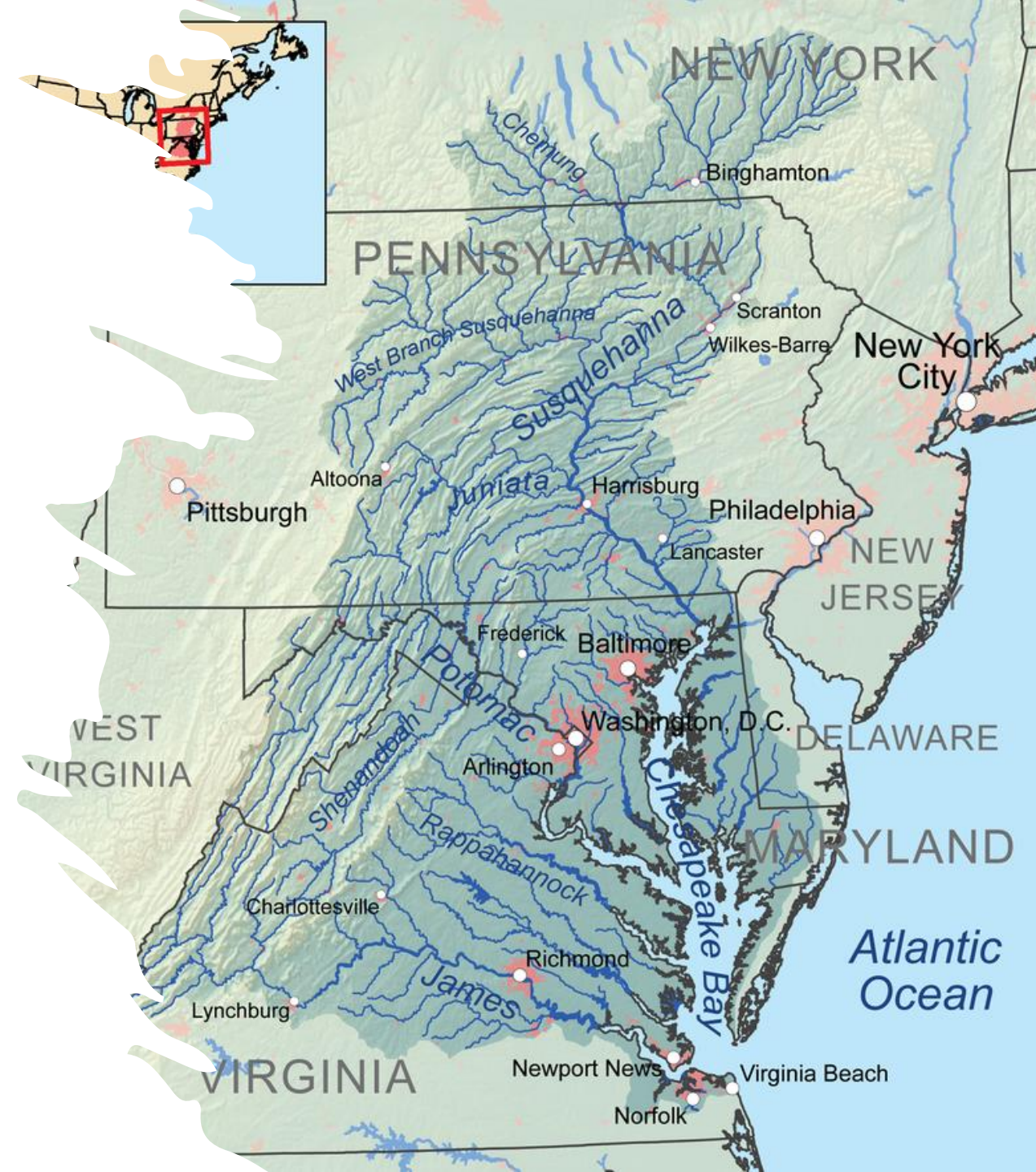
The above figure shows the expansion and contraction of streamflow in the Leading Ridge watershed in Huntingdon County, Pennsylvania.

Research by Jon Duncan, Penn State

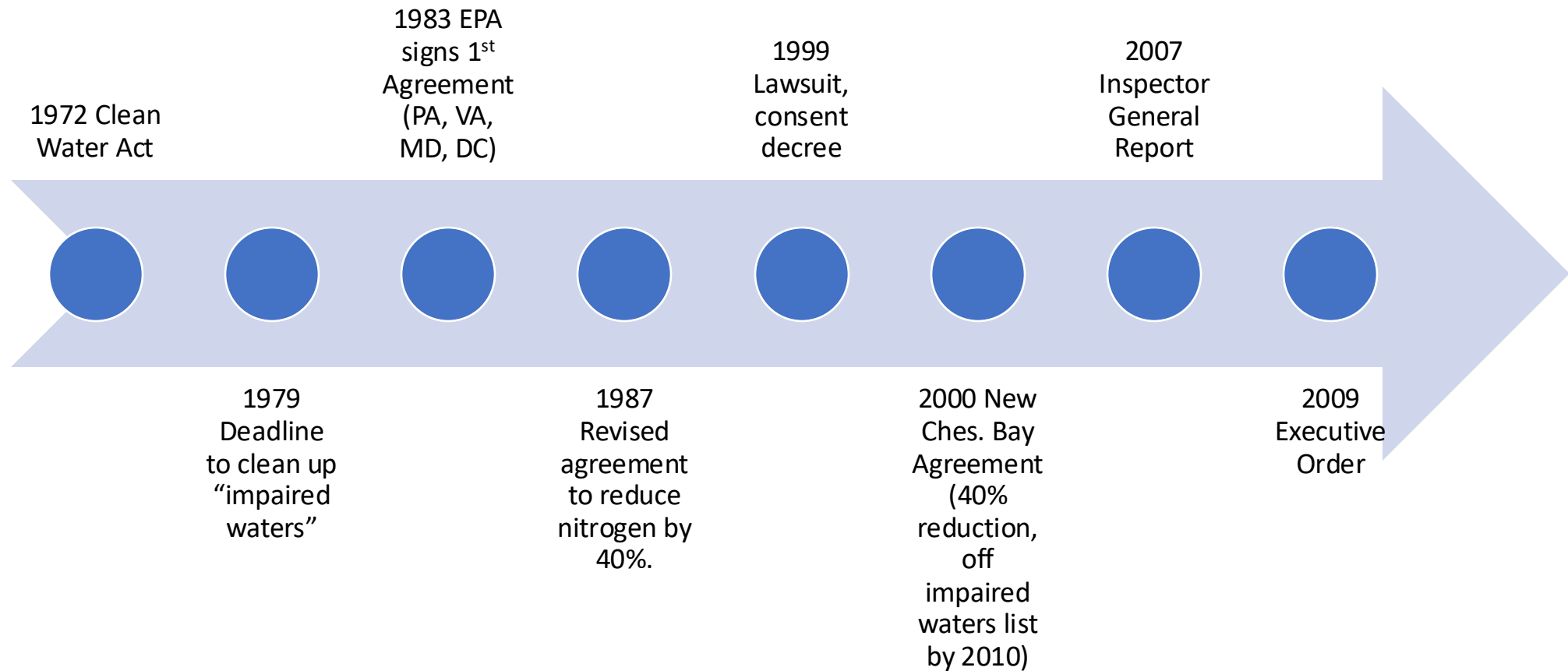


# Overview

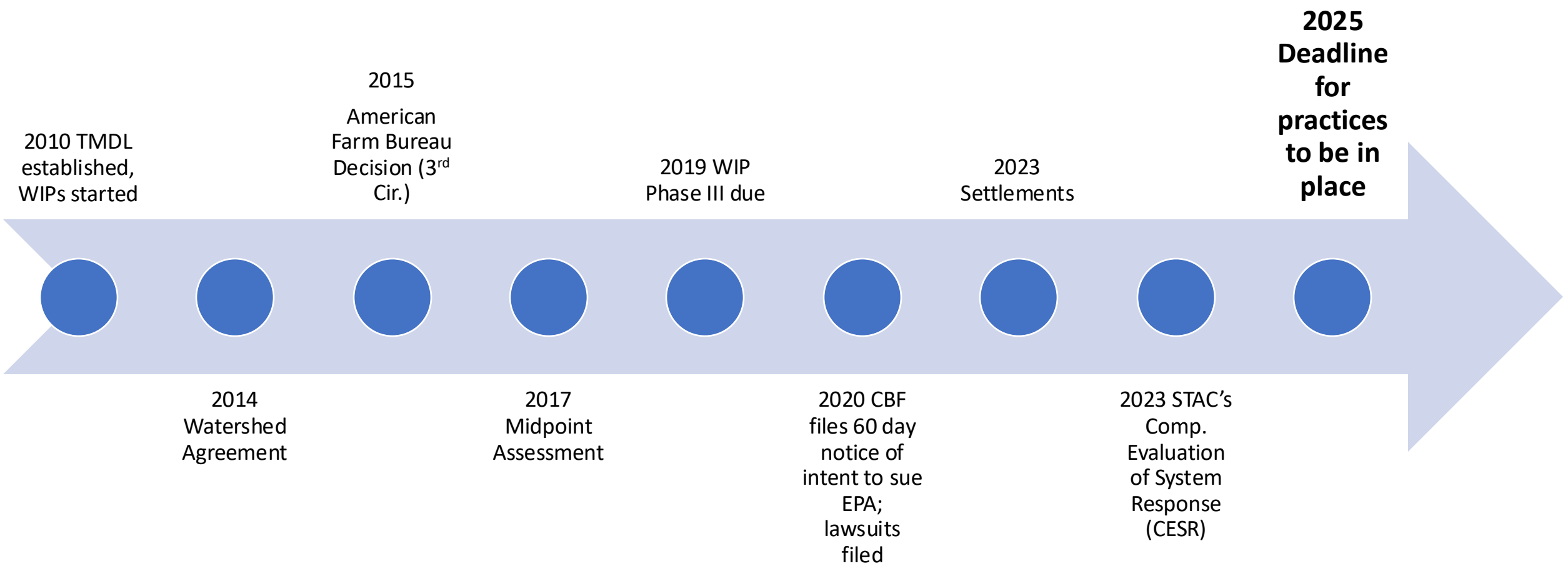
- A very quick sketch of the Clean Water Act
- **The Chesapeake Bay TMDL and the Chesapeake Bay Watershed Agreement**
- Examples of “multi-solving”



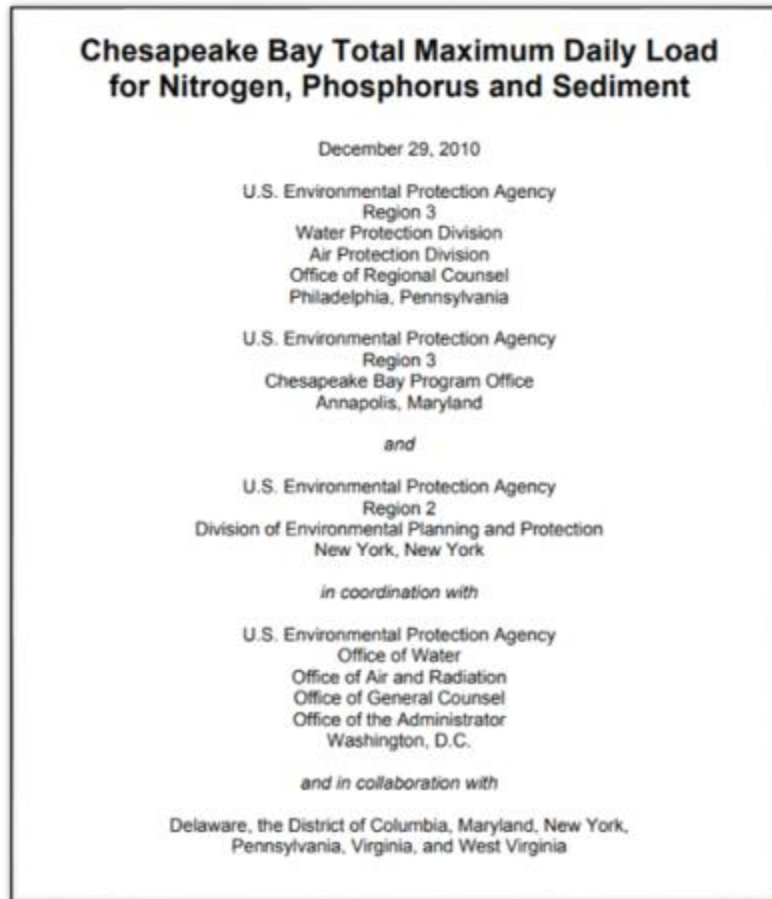
# The law & policy on how to address the Chesapeake Bay has evolved over 50+ years



# The legal framework has tightened over time; timeline to 2025.



# In 2010, the Chesapeake Bay “Total Maximum Daily Load” created the first-in-the-nation regulatory requirements for an entire watershed



- Legal requirement to reduce nutrients, achieve standards for dissolved oxygen, water clarity, and Chlorophyll A, and meet living resources goals
- The 2010 TMDL set Bay watershed limits of 185.9 million pounds of nitrogen, 12.5 million pounds of phosphorus and 6.45 billion pounds of sediment per year.
  - 25% reduction in nitrogen
  - 24% reduction in phosphorus
  - 20% reduction in sediment
- “The TMDL is designed to ensure that all pollution control measures needed to fully restore the Bay and its tidal rivers are in place by 2025, with at least 60 percent of the actions completed by 2017”



# The 2010 TMDL also created frameworks for monitoring and modeling

Chesapeake Bay TMDL

## SECTION 5. CHESAPEAKE BAY MONITORING AND MODELING FRAMEWORKS

For purposes of developing the Chesapeake Bay TMDL, data and scenario results from extensive monitoring networks and a series of linked environmental models simulating the nitrogen, phosphorus, and sediment pollutant load sources and the associated water quality and biological responses have been applied to support decision making by EPA and its partner Bay watershed jurisdictions. The suite of models were developed, calibrated, and verified using long-term Bay, watershed, airshed, and land-cover monitoring network observations and published technical and scientific findings.

The suite of Bay and watershed monitoring networks and the Bay modeling framework provide the most accurate and reliable representations of the complex Bay water quality processes currently available. Quality assured monitoring data collected over multiple decades from hundreds of stations provides the most direct measures of Bay and watershed water quality conditions and biological responses. The linked Bay models are valuable tools in synthesizing an enormous amount of data and scientific findings, projecting possible outcomes to a range of management actions, and assessing pollutant load reductions needed to restore Bay water quality. Although models have some inherent uncertainty, the amount of data and resources taken to develop, calibrate, and verify the accuracy of each of the Bay models, minimized the uncertainty of the suite of Bay models.

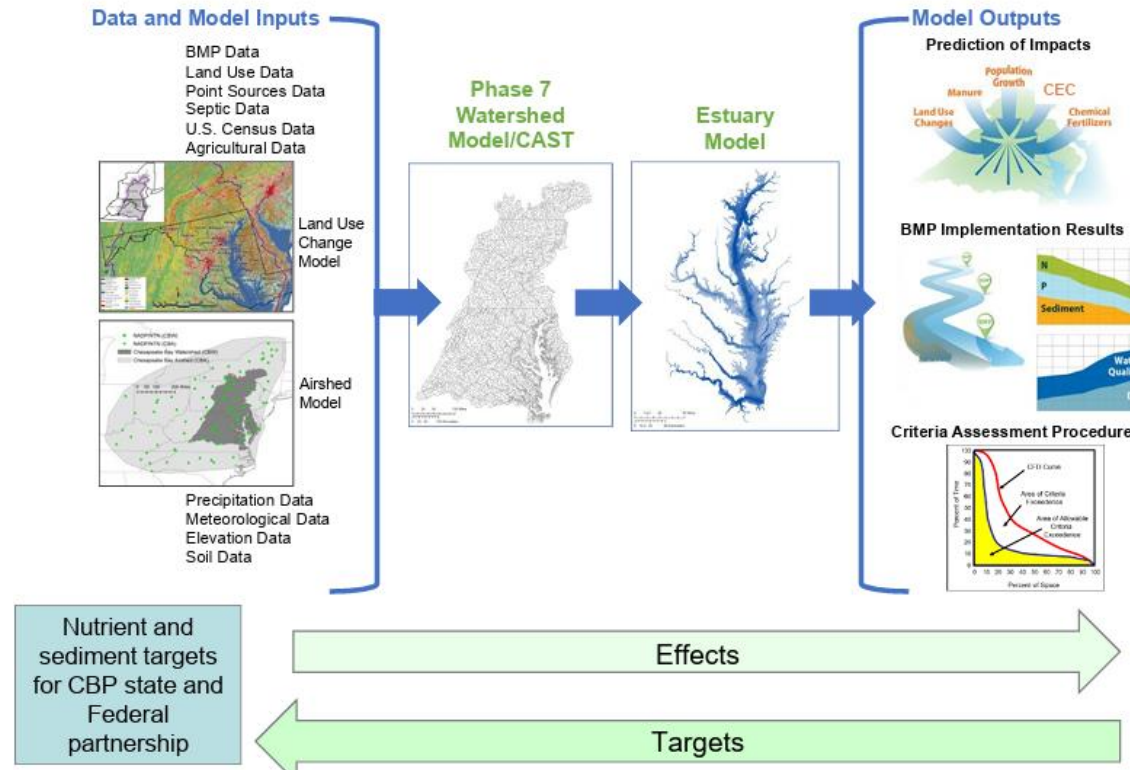
### 5.1 TECHNICAL MONITORING AND MODELING REQUIREMENTS

The combined Chesapeake Bay monitoring networks and modeling frameworks effectively address all the factors necessary for developing a scientifically sound and reliable TMDL that meets the TMDL regulatory requirements. The factors addressed in and through the various monitoring networks and linked models include the following:

- Regulated point sources and non-regulated nonpoint sources of nitrogen, phosphorus, and sediment are fully considered and evaluated separately in terms of their relative contributions to water quality impairment of the Chesapeake Bay's tidal waters.
- Water quality impairments in the Chesapeake Bay and its tidal tributaries and embayments are temporally and spatially variable and are directly linked to nitrogen, phosphorus, and sediment pollutant loadings.
- Time-variable aspects of land-based best management practices that have a large effect on nitrogen, phosphorus, and sediment loadings and resulting water quality in the Bay are fully simulated.
- All sources of data are gathered using documented methodologies fully consistent across the Bay watershed and the Bay's tidal shorelines and waters helping to ensure equitable allocation of the resultant load reduction responsibility across the seven watershed jurisdictions and multiple pollutant source sectors.
- The Bay modeling framework takes advantage of decades of atmospheric deposition, streamflow, precipitation, water quality, biological resource, and land cover monitoring

5-1 December 29, 2010

<https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document>  
 Visual from presentation by Bo Williams,  
[https://www.chesbay.us/library/public/documents/Meetings/May-2026/Bo-Williams\\_P7Model.pdf](https://www.chesbay.us/library/public/documents/Meetings/May-2026/Bo-Williams_P7Model.pdf)



- Data & scenario results from monitoring networks and “series of linked environmental models” used to develop TMDL
- Suite of models included long-term Bay, watershed, airshed, and land-cover monitoring network observations
- Linked Bay models: tools to synthesize data and scientific findings, project possible outcomes, and assess pollution load reductions need to restore Bay water quality

# Implementation responsibility: 6 states + Washington DC through “Watershed Implementation Plans” (WIPs)



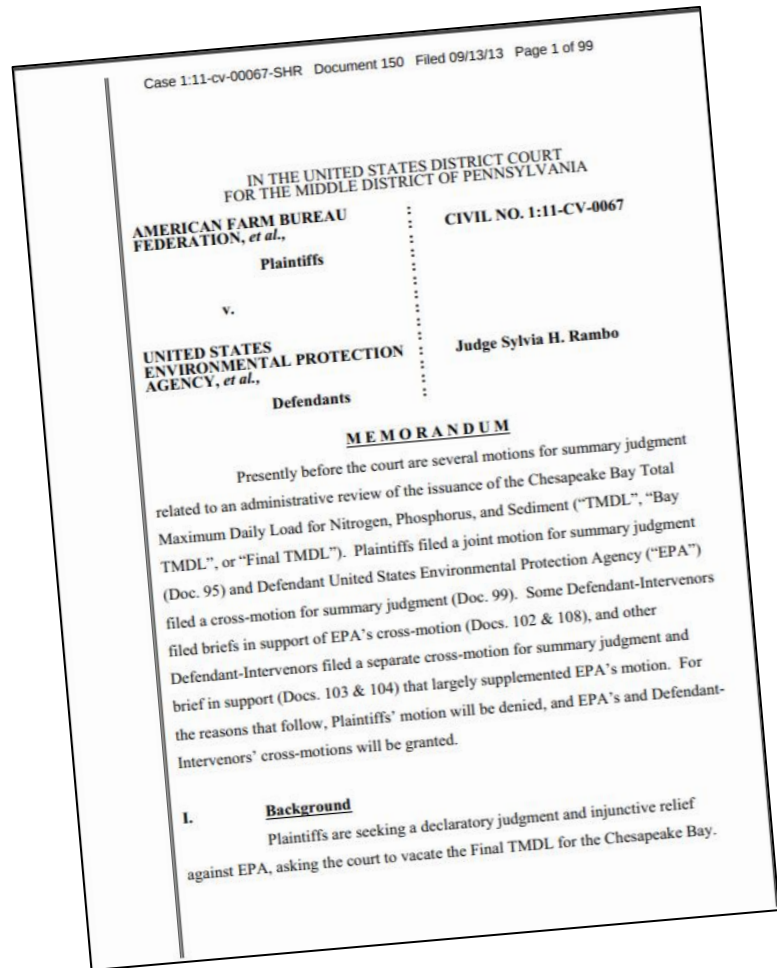
	Expectation letter	Submission
Phase I	2009	2010
Phase II	2011	2012
Phase III	2018	2019

## Key Phase III requirement:

“Specify the programmatic and numeric commitments in order to have all practices and controls in place by 2025 to achieve the final Phase III WIP nutrient and sediment planning targets”

[Phase III Expectation Fact Sheet](#)

# In late 2010, the American Farm Bureau et al filed a lawsuit in federal court; however, courts upheld the TMDL after 5+ years of litigation



## Procedural history:

- 2013: 99 page decision by Judge Rambo in U.S District Court for Central Pennsylvania upholding EPA's decision
- Appealed to 3<sup>rd</sup> Circuit Court of Appeals
- 2015: 3<sup>rd</sup> Circuit upheld case
- 2016: US Supreme Court denied certiorari

## Key findings:

- 2010 TMDL represented lawful federalism under the Clean Water Act, particularly given consultation/engagement
- Public comment period was sufficient
- EPA's modeling & use of data was appropriate

# In 2014, the Chesapeake Watershed Agreement provided principles, goals & outcomes to accomplish the TMDL and more



2 0 1 4

## WATER QUALITY

Restoring the Bay's waters is critical to overall watershed restoration because clean water is the foundation for healthy fisheries, habitats and communities across the region. However excess amounts of nitrogen, phosphorus and sediment in the Bay and its tributaries have caused many sections of the Bay to be listed as "impaired" under the Clean Water Act. The Chesapeake Bay Total Maximum Daily Load (TMDL) is driving nutrient and sediment reductions as described in the Watershed Implementation Plans (WIPs), adopted by the states and the District of Columbia, and establishes the foundation for water quality improvements embodied in this Agreement. These plans set nutrient and sediment reduction targets for various sources—stormwater, agriculture, air deposition, wastewater and septic systems.



**GOAL:** Reduce pollutants to achieve the water quality necessary to support the aquatic living resources of the Bay and its tributaries and protect human health.

7

2017 Watershed Implementation Plans (WIP) Outcome



By 2017, have practices and controls in place that are expected to achieve 60 percent of the nutrient and sediment pollution load reductions necessary to achieve applicable water quality standards compared to 2009 levels.

2025 WIP Outcome



By 2025, have all practices and controls installed to achieve the Bay's dissolved oxygen, water clarity/submerged aquatic vegetation and chlorophyll *a* standards as articulated in the Chesapeake Bay TMDL document.

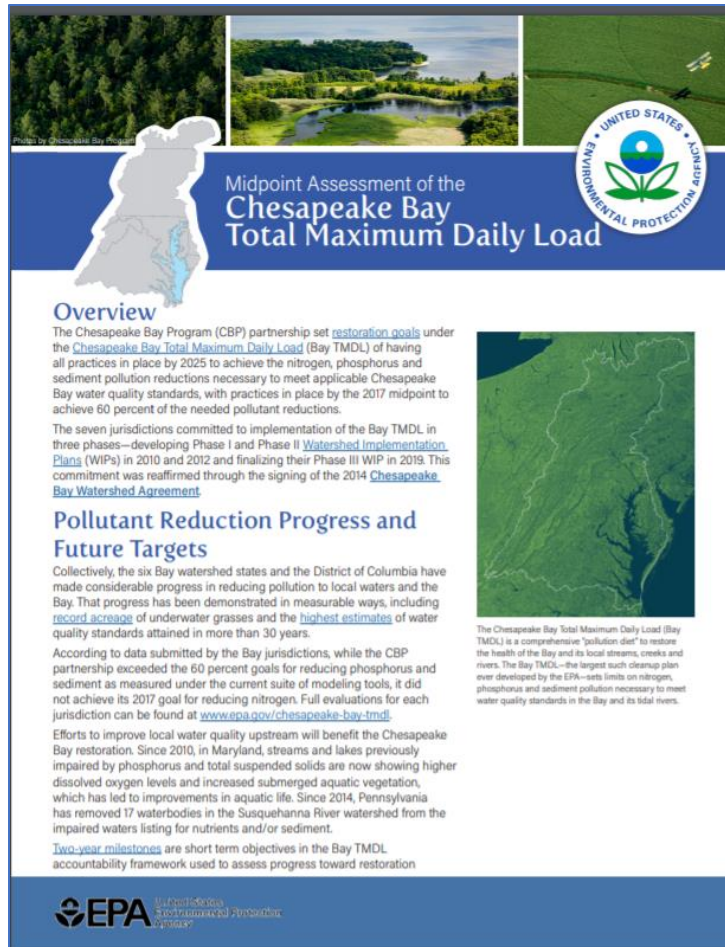
Water Quality Standards Attainment and Monitoring Outcome



Continually improve the capacity to monitor and assess the effects of management actions being undertaken to implement the Bay TMDL and improve water quality. Use the monitoring results to report annually to the public on progress made in attaining established Bay water quality standards and trends in reducing nutrients and sediment in the watershed.



# In 2017, the Mid-Point Assessment found progress and yet the need for more action



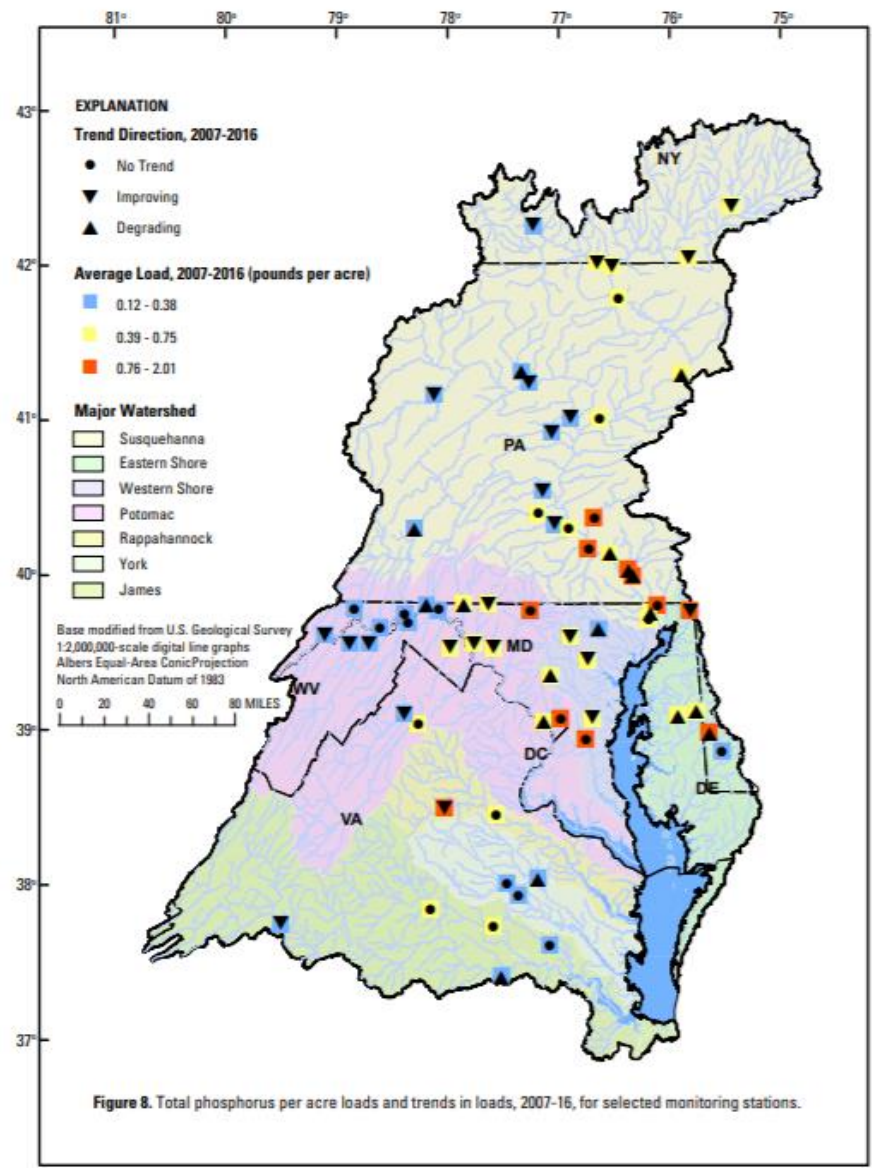
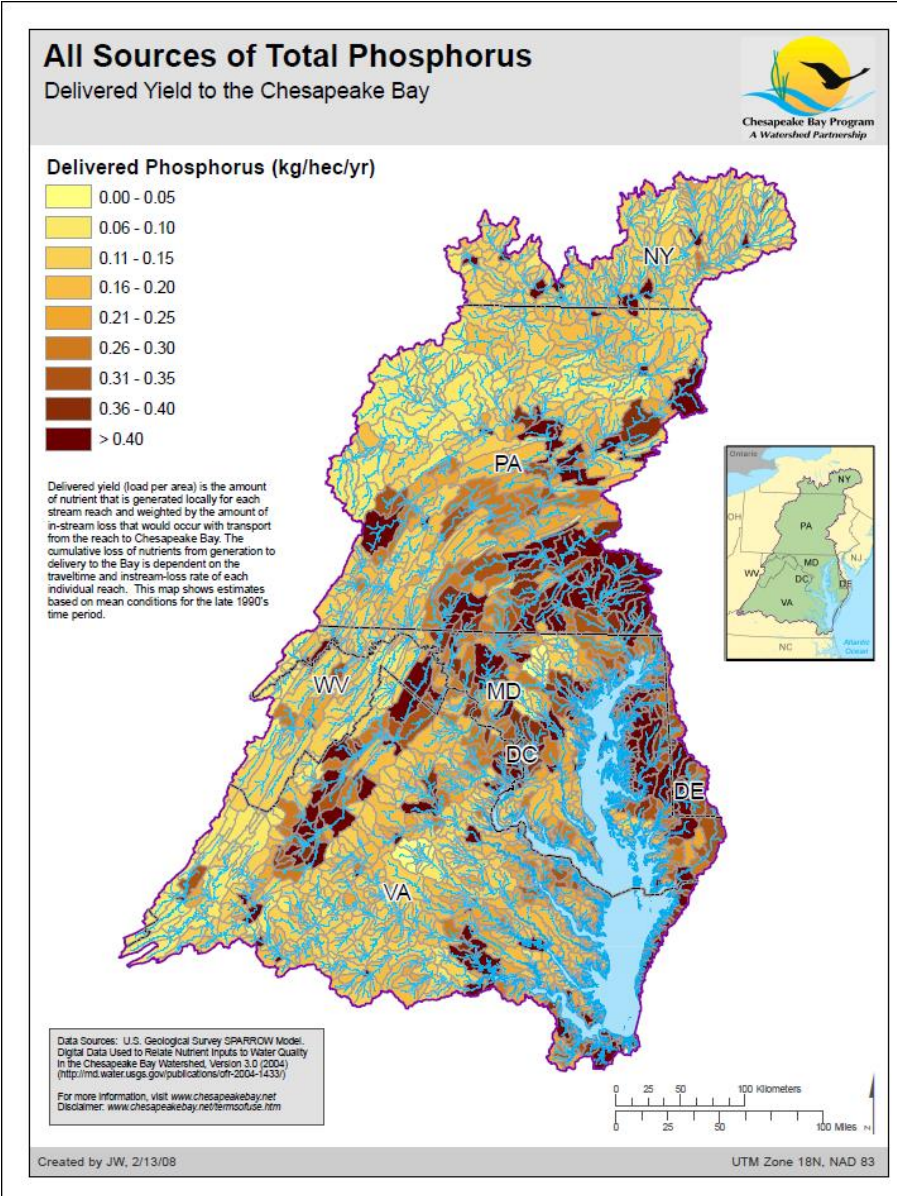
Considerable measurable progress:

- record acreage of underwater grasses
- highest estimates of water quality standards attained in 30 years+

**While the 60 percent goals for reducing phosphorus and sediment as measured under the current suite of modeling tools were exceeded, the goal for reducing nitrogen was not met.**

-EPA 2017 Mid Point Assessment

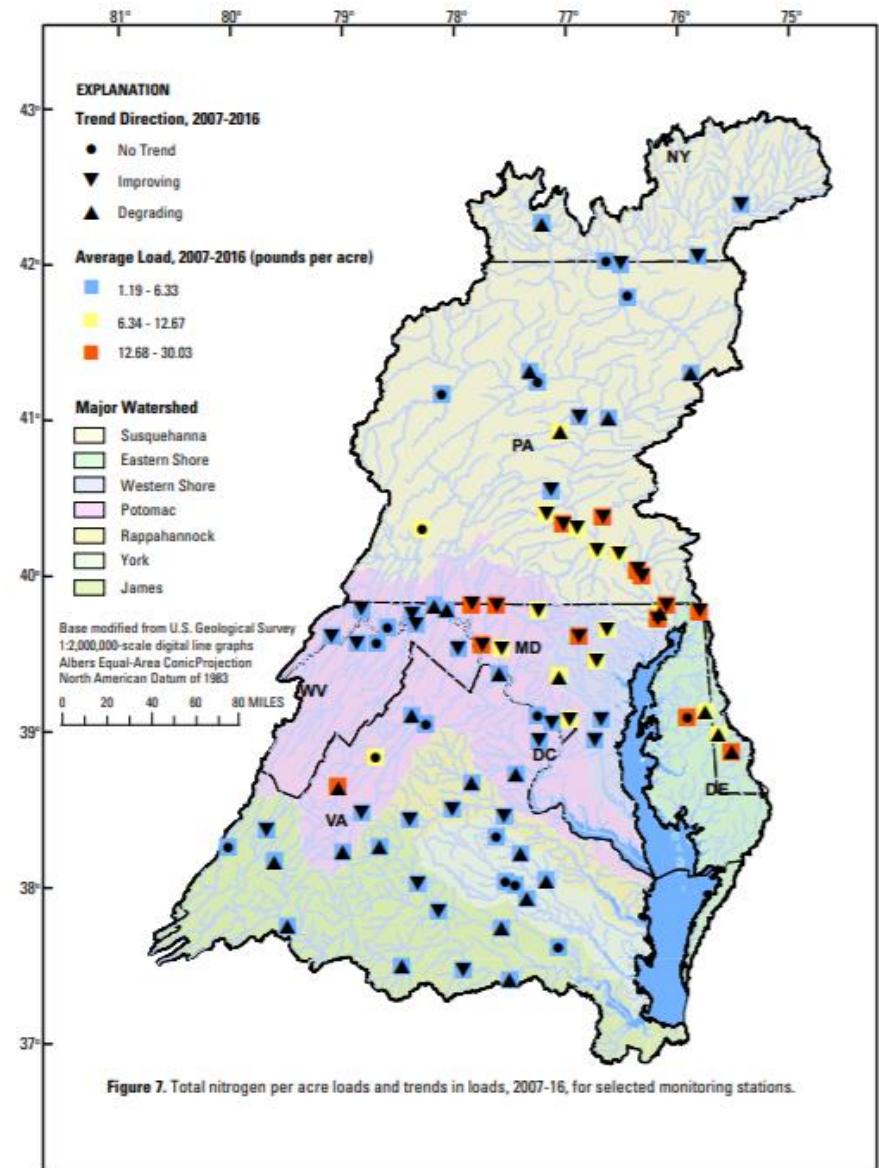
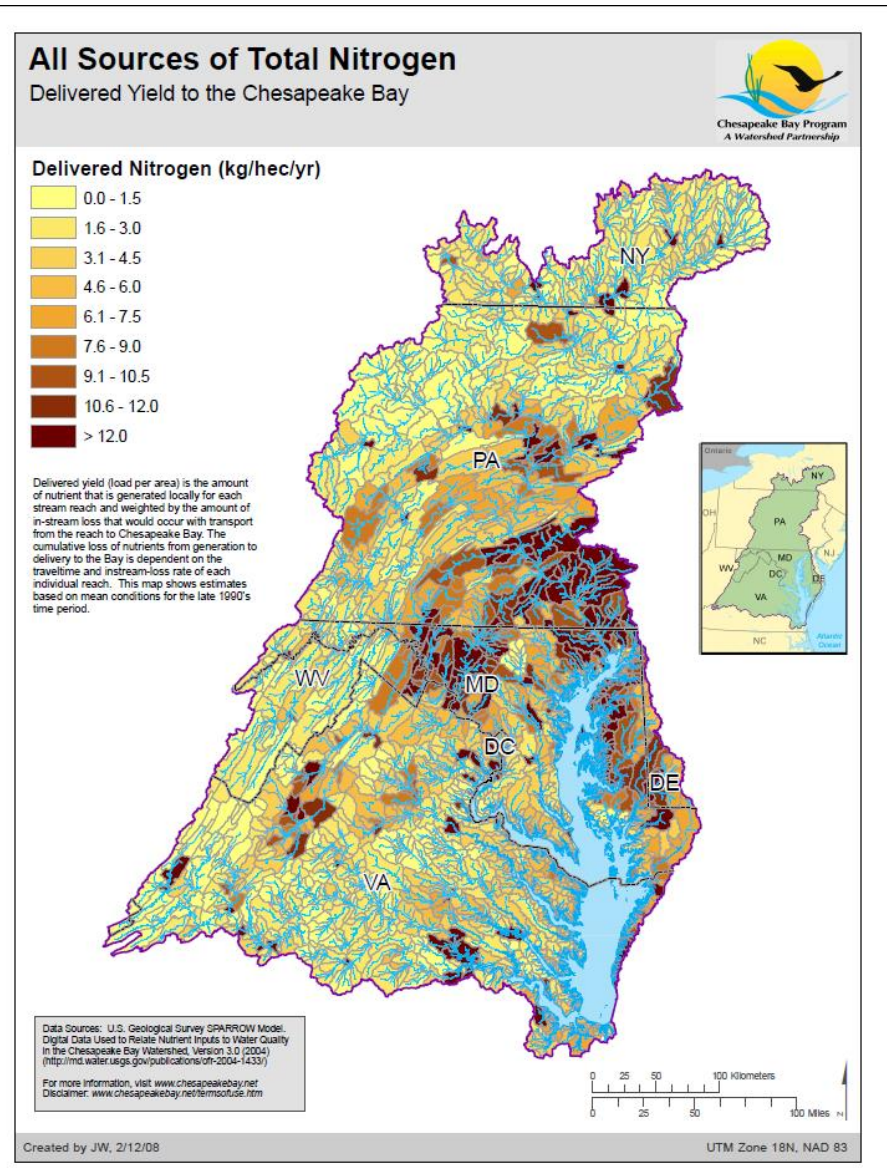
# Monitoring showed phosphorous runoff decreasing in many areas



Moyer & Blomquist (2017)



# However, monitoring also showed that nitrogen runoff goals not yet met



Moyer & Blomquist (2017)

# Mid Point Assessment highlighted concerns with particular states, issues (land use, stormwater, agricultural non-point source, Conowingo)

## 2018 Oversight Status

	<div> <div>Ongoing</div> <div>Enhanced</div> <div>Backstop</div> </div>			
	Agriculture	Urban/Suburban	Wastewater	Trading/Offsets
Delaware	Enhanced Oversight	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight
District of Columbia	Not Applicable	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight
Maryland	Ongoing Oversight	Enhanced Oversight	Ongoing Oversight	Ongoing Oversight
New York	Ongoing Oversight	Ongoing Oversight	Enhanced Oversight	Ongoing Oversight
Pennsylvania	Backstop Action Levels	Backstop Action Levels	Ongoing Oversight	Enhanced Oversight
Virginia	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight
West Virginia	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight	Ongoing Oversight





A lot of questions remain re: sediment impacts, particularly related to the Susquehanna River & the Conowingo Dam



To the left: [https://prd-wret.s3.us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/styles/side\\_image/public/thumbnails/image/MODIS%20image%20of%20Chesapeake%20Bay%20area%20after%20Tropical%20Storm%20Lee\\_2011\\_09.PNG](https://prd-wret.s3.us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/styles/side_image/public/thumbnails/image/MODIS%20image%20of%20Chesapeake%20Bay%20area%20after%20Tropical%20Storm%20Lee_2011_09.PNG)

Above: <https://www.usgs.gov/news/conowingo-dam-above-90-percent-capacity-sediment-storage>

# Potential mechanisms for enforcement?

- (1) Targeting federal enforcement and compliance assurance in the watershed;
- (2) Directing Chesapeake Bay funding to identified priorities;
- (3) Establishing finer scale waste load and load allocations through a Pennsylvania state-specific proposed amendment to the Chesapeake Bay TMDL;
- (4) Requiring additional reductions of loading from point sources through a Pennsylvania state-specific proposed amendment to the Chesapeake Bay TMDL; and
- (5) Initiating a process to propose promulgating nitrogen and phosphorous numeric water quality standards for Pennsylvania applicable to streams and rivers in the Chesapeake Bay Watershed.

April 2017 Phase III WIP Expectations for PA: [https://www.epa.gov/sites/production/files/2017-05/documents/final\\_pennsylvania\\_phase\\_iii\\_wip\\_expectations\\_4\\_27\\_17\\_508.pdf](https://www.epa.gov/sites/production/files/2017-05/documents/final_pennsylvania_phase_iii_wip_expectations_4_27_17_508.pdf)

## Some of which have been tried previously...

U.S. ENVIRONMENTAL PROTECTION AGENCY

### EPA leans on Amish farmers in Pennsylvania

By TIM WHEELER  
JUN 09, 2010 AT 11:28 AM

MONDAY, AUGUST 8, 2016

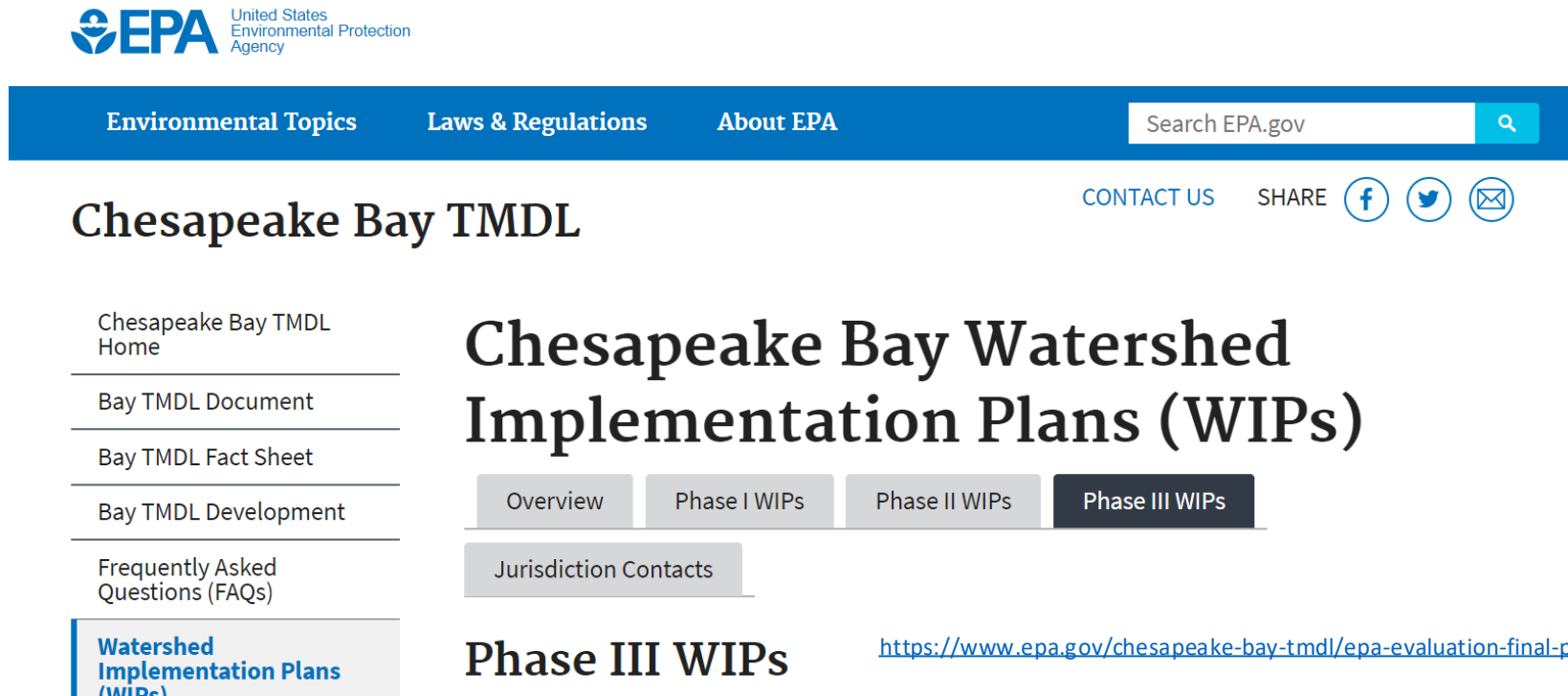
#### ➔ PA's Chesapeake Bay Reboot Strategy To Improve Water Quality May Need Kick-Start

By Timothy B. Wheeler,  
[Chesapeake Bay Journal](#)

The Wolf administration's [plan to "reboot" Pennsylvania's](#) badly lagging Chesapeake Bay cleanup efforts could be in need of its own






# In August 2019, jurisdictions submitted Phase III Watershed Implementation Plans for EPA review; feedback in Dec. 2019



The screenshot shows the EPA website's navigation bar with links for Environmental Topics, Laws & Regulations, and About EPA. A search bar is also present. The main heading is "Chesapeake Bay TMDL". Below this, a sidebar lists links: Chesapeake Bay TMDL Home, Bay TMDL Document, Bay TMDL Fact Sheet, Bay TMDL Development, and Frequently Asked Questions (FAQs). The main content area features the title "Chesapeake Bay Watershed Implementation Plans (WIPs)" and a set of tabs for Overview, Phase I WIPs, Phase II WIPs, and Phase III WIPs. The Phase III WIPs tab is selected. Below the tabs is a link for "Jurisdiction Contacts". At the bottom, the text "Phase III WIPs" is displayed next to a URL: <https://www.epa.gov/chesapeake-bay-tmdl/epa-evaluation-final-phase-iii-wips>. A blue box in the sidebar highlights "Watershed Implementation Plans (WIPs)".

Environmental Topics   Laws & Regulations   About EPA   Search EPA.gov

## Chesapeake Bay TMDL

CONTACT US   SHARE     

Chesapeake Bay TMDL Home

Bay TMDL Document

Bay TMDL Fact Sheet

Bay TMDL Development

Frequently Asked Questions (FAQs)

**Watershed Implementation Plans (WIPs)**

### Chesapeake Bay Watershed Implementation Plans (WIPs)

Overview   Phase I WIPs   Phase II WIPs   **Phase III WIPs**

Jurisdiction Contacts

### Phase III WIPs

<https://www.epa.gov/chesapeake-bay-tmdl/epa-evaluation-final-phase-iii-wips>

- Virginia and Maryland plans, if fully funded and implemented, can meet their targets.
- Pennsylvania's plan underfunded by \$250-300 million and falls 25% short of meeting its nitrogen-reduction goal.
- New York's plan did not meet nitrogen reduction goals at that time

# Pennsylvania changed its approach between the Phase II and Phase III Watershed Implementation Plans (WIPs)

## Pennsylvania Chesapeake Watershed Implementation Plan Phase 2

Prepared by the  
Pennsylvania Department of Environmental Protection  
March 30, 2012



Tom Corbett  
Governor  
Commonwealth of Pennsylvania

Michael Krancer  
Secretary  
Department of Environmental Protection

### Phase II:

- Top down
- Created by the Commonwealth (counties, then regions)

## Pennsylvania Phase 3 Chesapeake Bay Watershed Implementation Plan

Prepared by the  
Pennsylvania Department of Environmental Protection

### Phase III:

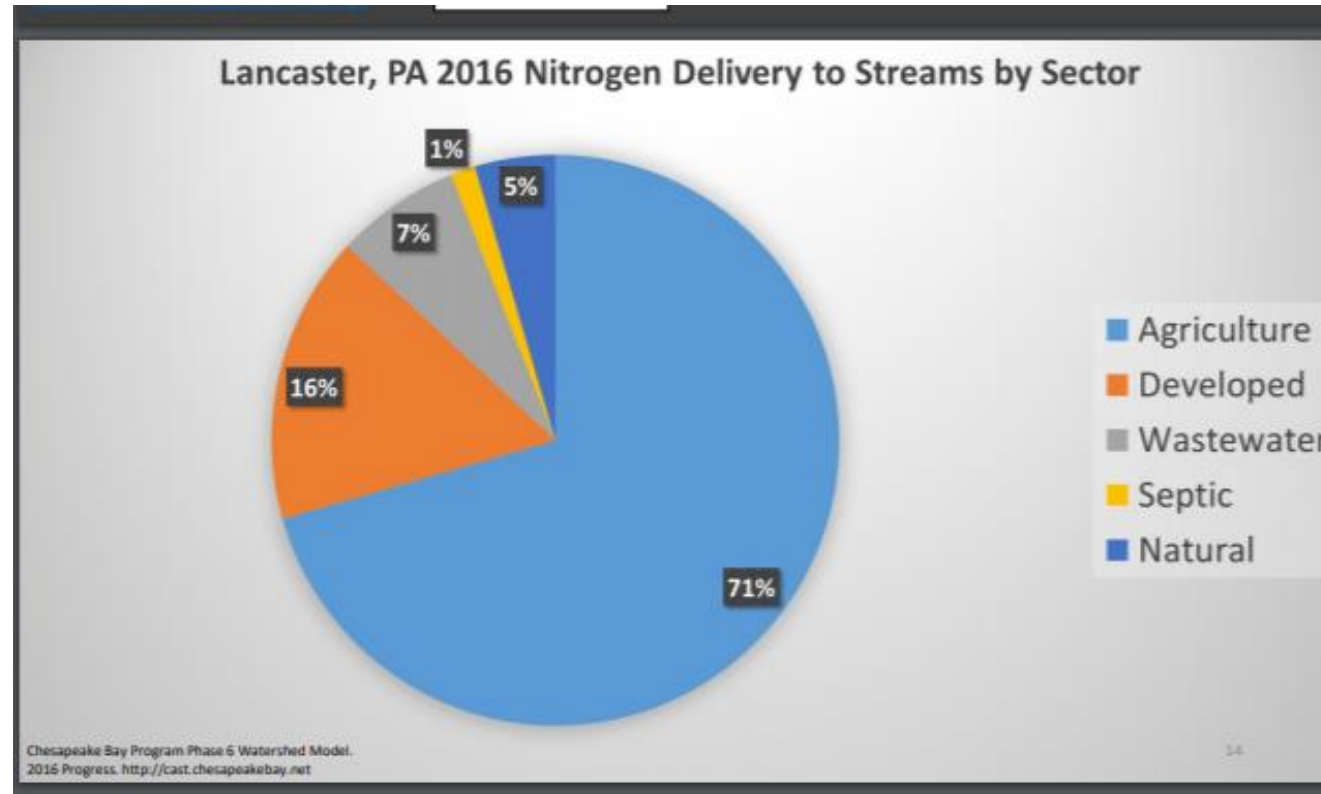
- Bottom up stakeholder engagement,
- Work groups
- Pilot counties
- county by county implementation

Patrick McDonnell, Secretary  
Department of Environmental Protection



# EPA's Review of Pennsylvania:

## Phase III WIP meets numeric targets for P; only 75% for N



[https://www.chesapeakebay.net/channel\\_files/25878/ag\\_wg\\_trentacoste\\_6\\_19\\_18.pdf](https://www.chesapeakebay.net/channel_files/25878/ag_wg_trentacoste_6_19_18.pdf)

“Pennsylvania’s current planned efforts do not achieve the nitrogen Phase III WIP planning target, nor does the plan explain how or when additional reductions from the remaining County Action Plans will be incorporated into the broader plan to achieve the nitrogen planning target.”

<https://www.epa.gov/sites/production/files/2019-12/documents/pa.pdf>

# In January 2020, former Chesapeake Bay Program Director said the “TMDL is not enforceable”; huge backlash & questions

## EPA Chesapeake Bay Program director says 2025 pollution targets are not ‘enforceable’



By RACHAEL PACELLA  
CAPITAL GAZETTE | JAN 03, 2020 | 6:23 PM



“The head of the EPA’s Chesapeake Bay Program stepped back from strict enforcement of 2025 pollution goals for the Chesapeake Bay Friday, calling the technical targets “an aspiration” and not an enforceable deadline.

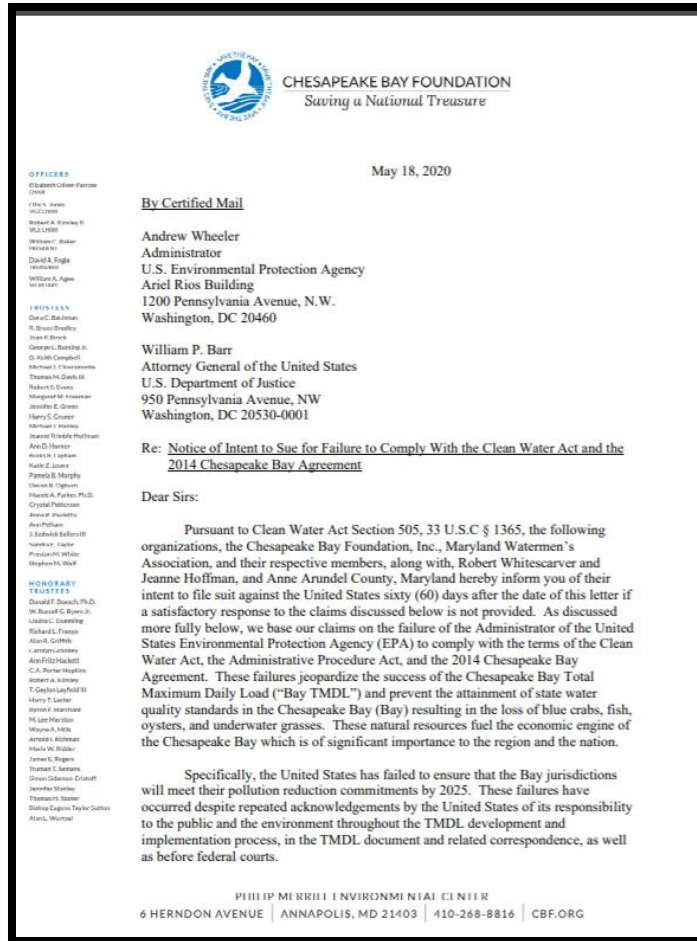
The comments by program Director Dana Aunkst near the end of a two-day conference in Annapolis sparked criticism from state officials and outrage from several environmental groups who said the comments represent the Trump administration’s retreat from the Chesapeake Bay cleanup effort.”

<https://www.capitalgazette.com/environment/ac-cn-bay-comission-0104-20200103-o5nun6uojbapjecl5dak7p62wa-story.html>



**Dana Aunkst**  
Former Director, Chesapeake Bay Program  
U.S. Environmental Protection Agency

# In early 2020, other states, NGOs sent 60-day notices of intent to sue EPA for failure to meet requirements



## Two sets of notices:

- Chesapeake Bay Foundation, together with the MD Watermen's Association, Anne Arundel County, and Virginia cattle farmers
- Attorneys General of Maryland, Virginia, Delaware, and the District of Columbia

## Issues:

- EPA has failed to ensure the Bay jurisdictions will meet their pollution reduction commitments by the 2025 deadline.
- The agency's failure is a violation of the federal Clean Water Act, the Administrative Procedure Act, and the 2014 Chesapeake Bay Agreement.

# Two sets of lawsuits filed in DC District Court, Sept. 2020. Settled in 2023 with a focus on ag & stormwater in PA.

## EPA hit with lawsuits over Chesapeake Bay cleanup

Timothy B. Wheeler

Sep 11, 2020 Updated

Sep 11, 2020



0

Making good on threats issued months ago, three Chesapeake Bay watershed states, the District of Columbia and the Chesapeake Bay Foundation took the U.S. Environmental Protection Agency to court Thursday for its failure to push **Pennsylvania** and **New York** to do more to help clean up the Bay.

In their lawsuit, the attorneys general of Maryland, Virginia, Delaware and the District of Columbia accused the EPA of shirking its responsibility under the Clean Water Act by letting Pennsylvania and New York fall short in reducing their nutrient and sediment pollution fouling the Bay.

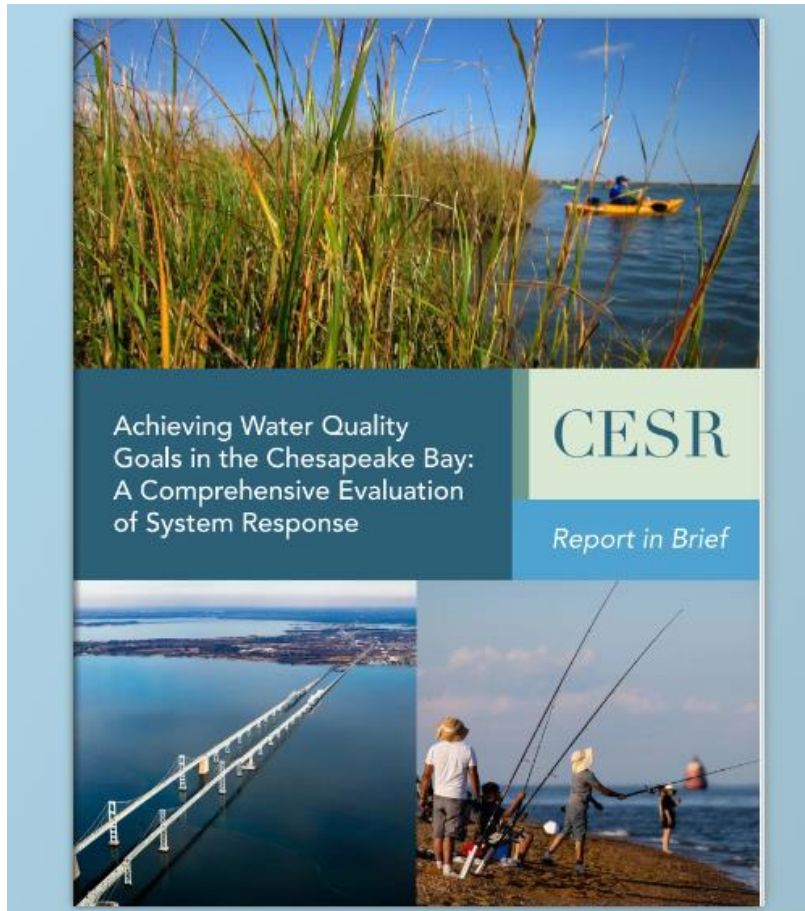
[https://www.bayjournal.com/news/policy/epa-hit-with-lawsuits-over-chesapeake-bay-cleanup/article\\_db7ad7e0-f429-11ea-833a-87109c15a521.html](https://www.bayjournal.com/news/policy/epa-hit-with-lawsuits-over-chesapeake-bay-cleanup/article_db7ad7e0-f429-11ea-833a-87109c15a521.html)

More on settlement: <https://marylandmatters.org/2023/07/12/settlement-finalized-in-lawsuit-that-challenged-enforcement-of-limits-to-chesapeake-bay-pollution-from-pennsylvania/>



# 2023 Comprehensive Evaluation of System Response:

We're headed in the right direction, but not fast enough. Challenges from non-point source pollution, opportunity for near shore.



<https://www.chesapeake.org/stac/cesr/>



<https://www.chesapeakebay.net/what/what-guides-us/planning-for-2025-and-beyond>

# Beyond 2025 Steering Committee Recommendations

## *A CRITICAL PATH FORWARD FOR THE CHESAPEAKE BAY PROGRAM BEYOND 2025*



*[Photo by WSV Person/Chesapeake Bay Program]*

**Chesapeake Bay Program**

*Beyond 2025 Steering Committee*

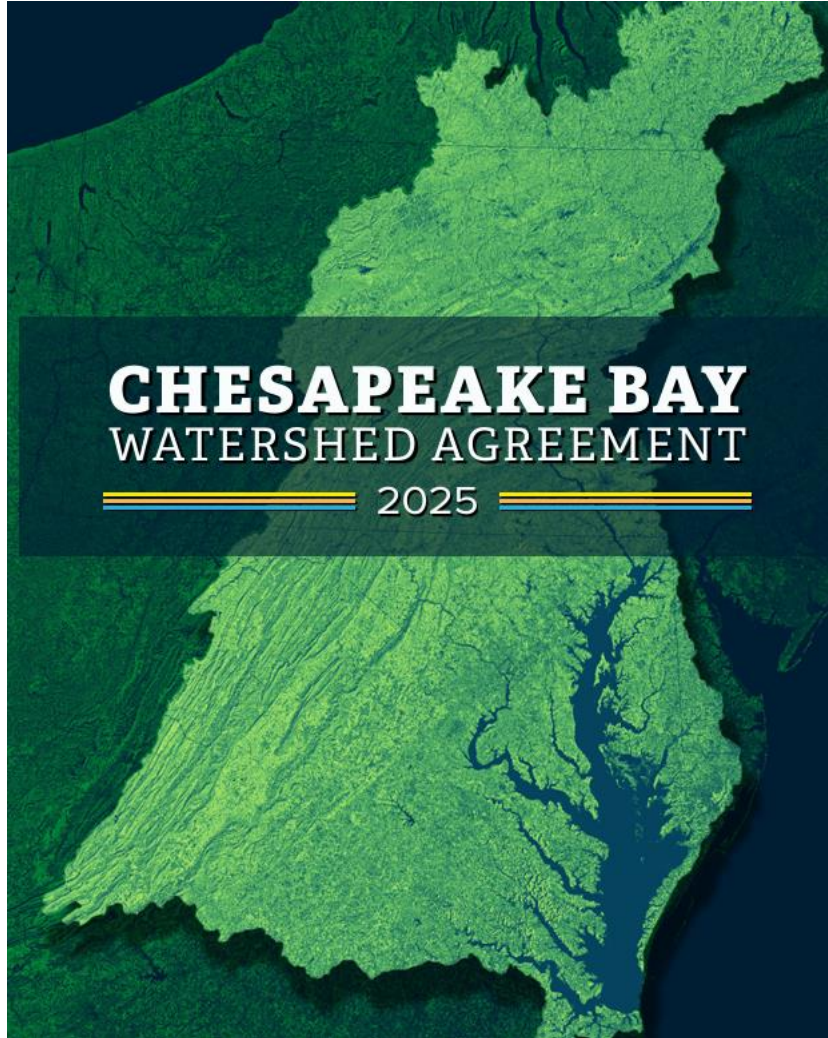
The Executive Committee should

- Affirm continued commitment to meet the goals of the Chesapeake Bay Watershed Agreement while proposing necessary amendments
- Simplify and streamline the partnership's structure and processes

<https://www.chesapeakebay.net/what/publications/a-critical-path-forward-for-the-chesapeake-bay-program-beyond-2025>



# Updated 2025 Chesapeake Bay Watershed Agreement



<https://www.chesapeakebay.net/files/documents/CBWA-2025-IV-Final-Facing.pdf>



<https://www.chesapeakebaymagazine.com/bay-states-approve-new-watershed-agreement-with-2040-deadline/>

Streamlined 2014 Agreement's 10 goals, 31 outcomes

4 priorities, 21 outcomes

- Thriving habitat, fisheries & wildlife
- Clean water
- Healthy landscapes
- Engaged communities

Addresses “changing environmental conditions”

Sets new timeframes

- 18 months to update/develop strategies for goals
- Midpoint check-in and adaptation phase in 2033
- 2040 deadline for new goals





# CHESAPEAKE BAY WATERSHED AGREEMENT

2025

“This Chesapeake Bay Watershed Agreement acknowledges that the partnership cannot address every issue at once and that progress must be made in a strategic manner, focusing on efforts that will achieve the most meaningful and cost-effective results.

**Watershed restoration, conservation and protection are integral drivers of the region’s economy, health and culture. To that end, the partnership is committed to achieving success while maximizing the community and economic benefits across the watershed.**

The signatories to this voluntary agreement commit to achieving the restoration, conservation and protection of the Chesapeake Bay watershed, its water, habitats, fisheries and wildlife for the benefit of all people living in and visiting this nationally treasured watershed.”



# So where are we?



<https://www.facebook.com/photo/?fbid=1419824960186929&set=pcb.1419825093520249>

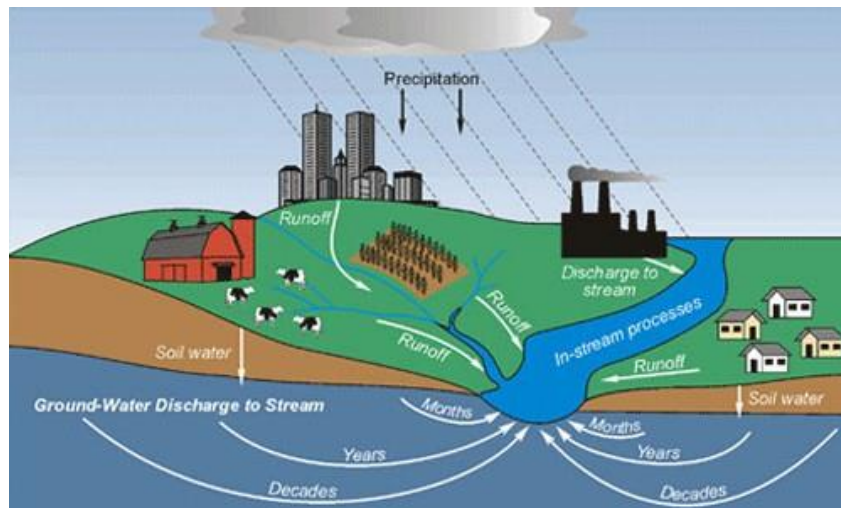
March 2026 Bay in the Balance conference in Gettysburg: 240 people, good momentum

➤ Can we have productive ag and clean water?

Re-examination of 2025 Watershed Agreement goals, outcomes expected later this year

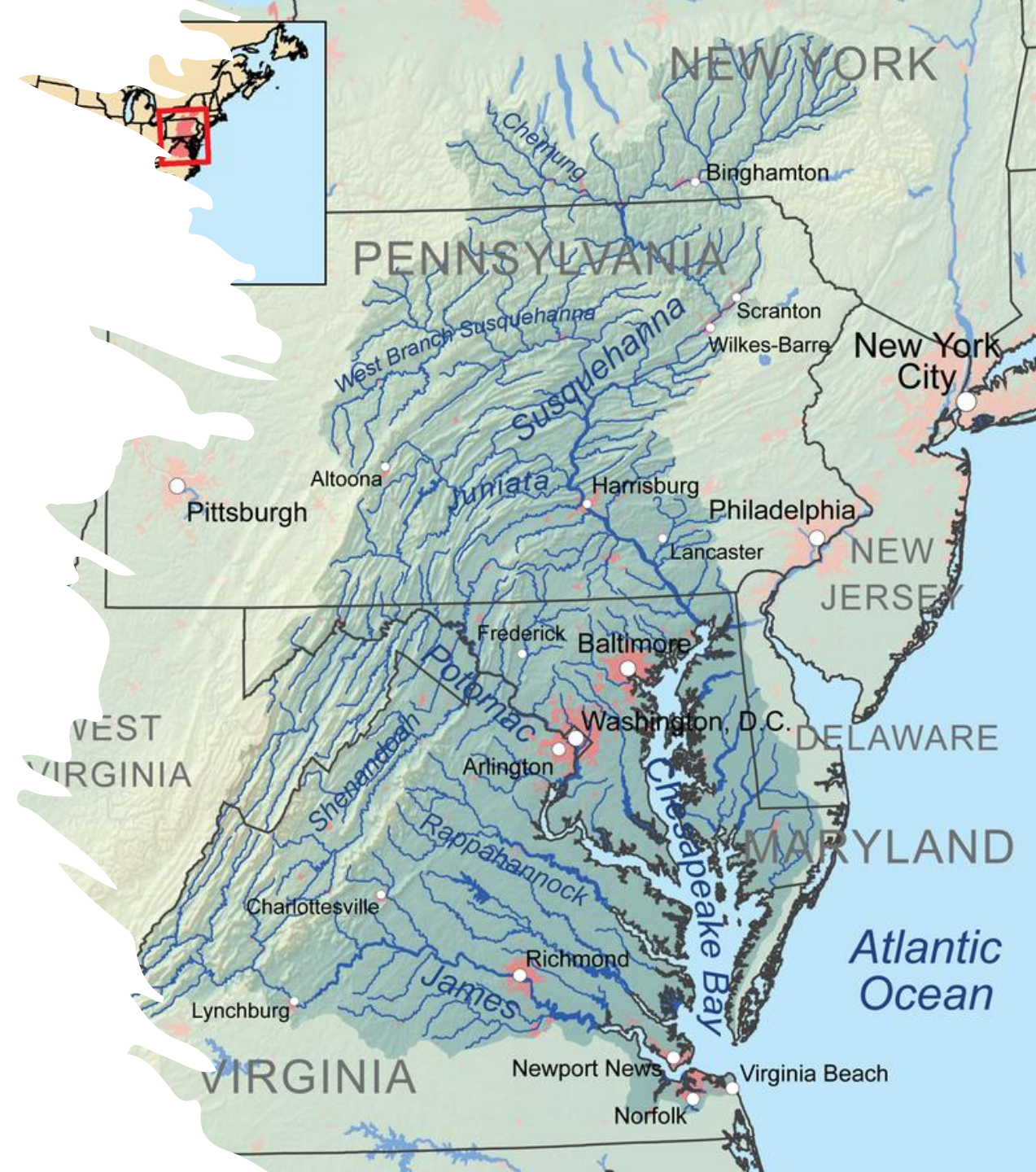
Updated WIPs for states?

While challenges facing the Chesapeake Bay and its watersheds are significant, there are opportunities



# Overview

- A very quick sketch of the Clean Water Act
- The Chesapeake Bay TMDL and the Chesapeake Bay Watershed Agreement
- **Examples of “multi-solving”**



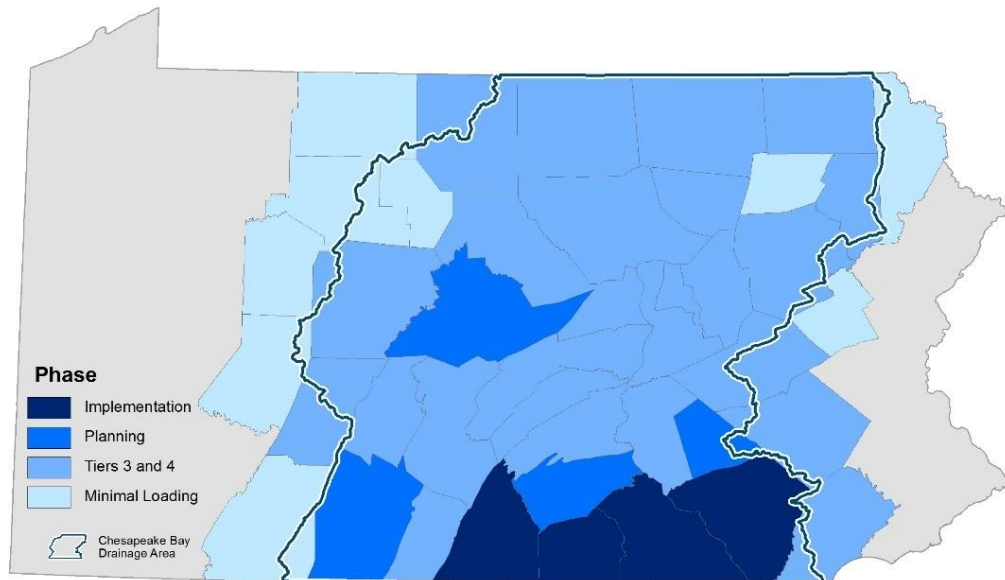


# Pennsylvania as one example: focus on multiple “co-benefits”



## Potential local priorities + co-benefits:

- Clean drinking water
- Food and beverage production by farmers
- Public health
- Less erosion and flooding, reducing the expense of related repairs, protects property values
- Outdoor experiences such as fishing, boating, and swimming
- Income from recreation and tourism businesses
- Habitat for fish, insects, birds, animals



# Increased focus on training & scaling up

## Federal, State Officials Launch New Training Center for Ag Professionals in Pennsylvania

TOPICS: [PENNSYLVANIA](#)

PUBLISH DATE: October 19, 2023



<https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/pennsylvania/news/federal-state-officials-launch-new>

## Pa. Launches \$10 Million Agricultural Innovation Grant Program

Grant applications open September 30, run through November 26

PUBLISHED ON **SEPTEMBER 16, 2024**



<https://www.morningagclips.com/pa-launches-10-million-agricultural-innovation-grant-program/>



# Continued focus on local implementation– what’s possible HERE?

Draft Development

## Countywide Action Plan Overview Centre County

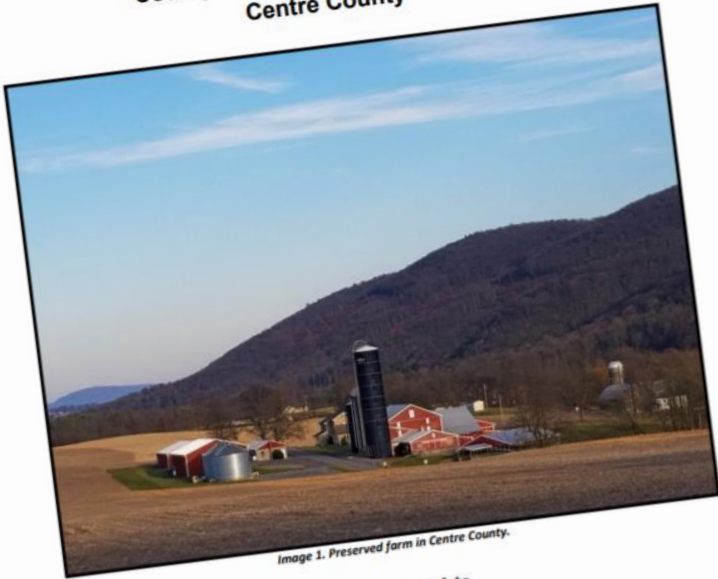


Image 1. Preserved farm in Centre County.

### Plan Highlights

The Centre County Countywide Action Plan (CAP) provides a roadmap for the County and its partners to follow to reach the County's clean water goals. The initiatives outlined in the plan are intended to protect the future of Centre County's natural resources while reaching other community goals. Local improvements will benefit the community while also assisting Pennsylvania with meeting its Chesapeake Bay obligations.

The Centre County CAP identifies priority initiatives and actions that support the County's goal of meaningful local water quality improvements. The CAP includes four priority initiatives and several dozen goals. Each Priority Initiative is broken down into manageable and measurable goals. These goals may evolve over time based upon the early successes of plan implementation and changes in local priorities.





# Continued focus on local implementation– what’s possible HERE?



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## GATHER & GROW

### Street Tree Grant Program

Nature-based solutions for clean water

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## Connecting You to Nature, Trails, and Outdoor Learning!

The Blue Green Connector will transform the Little Conestoga Creek into a vibrant greenway for all. The project is designed to benefit both people and the planet—for generations to come.

Learn About The Project



## Clean and clear local water by 2040

The majority of Lancaster County’s 1,400 miles of streams are not **healthy**. Lancaster Clean Water Partners is bringing partner organizations together with a shared vision to ensure clean and clear local water by 2040.

The demand for clean water brings many different people to the table. We facilitate this collaborative effort with experts and community



# Continued focus on local implementation– what’s possible HERE?

LANCASTER  
CONSERVANCY

EXPLORE OUTDOORSWHAT WE DOGET INVOLVEDDONATE

Q

JUNE 5-13, 2026

LANCASTER WATER WEEK

EXPLORE LANCASTER WATER WEEK

ACTION STEPS

CLEAN WATER FUND

WATCH VIDEOS

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WHAT IS WATER WEEK?

Heading into its 10th year, Lancaster Water Week celebrates the 1,400 miles of streams and rivers in Lancaster County, Pennsylvania. These waterways are the source of our drinking water, drive economic and agricultural growth, and allow us to escape into nature to fish, paddle, and swim. Many of these beautiful streams are polluted, but there is an incredible effort underway to bring them back to health in our lifetime.

LANCASTER  
CONSERVANCY  
2026

10  
YEARS

WATER WEEK

JUNE 5-13

PRESENTING SPONSOR

ENGLISH ESPAÑOL



# New Wetland Park in Delaware Solves Decades of Flooding Issues

***The Takeaway:** A formerly contaminated area in Delaware has been turned into a park that restores and enhances existing wetlands, provides a recreation area for the community, and hosts a stormwater management facility that reduces flooding.*



<https://coast.noaa.gov/states/stories/southbridge-wetlands.html>

There are constant conversations on how global warming is affecting the country as a whole, but focusing on its local impact is just as important.



Everett Mitchell, a veteran arborist and community tree planter, has been working with trees since the early 1990s. His efforts focus on replanting and reconnecting Baltimore neighborhoods with nature. Credit: Photo courtesy Everett Mitchell

<https://afro.com/baltimore-urban-tree-planting-climate-change/>





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# Delmarva Land and Litter Collaborative

A forum that brings diverse interests together for dialogue and action in support of healthy and productive ecosystems, farming and poultry.

OUR WORK

*Mountaire Farms in Queen Anne's County, MD photo courtesy of Edwin Remsberg*

<https://delmarvalandandlitter.net/>



# Examples from elsewhere

## Oregon: Watershed Focus

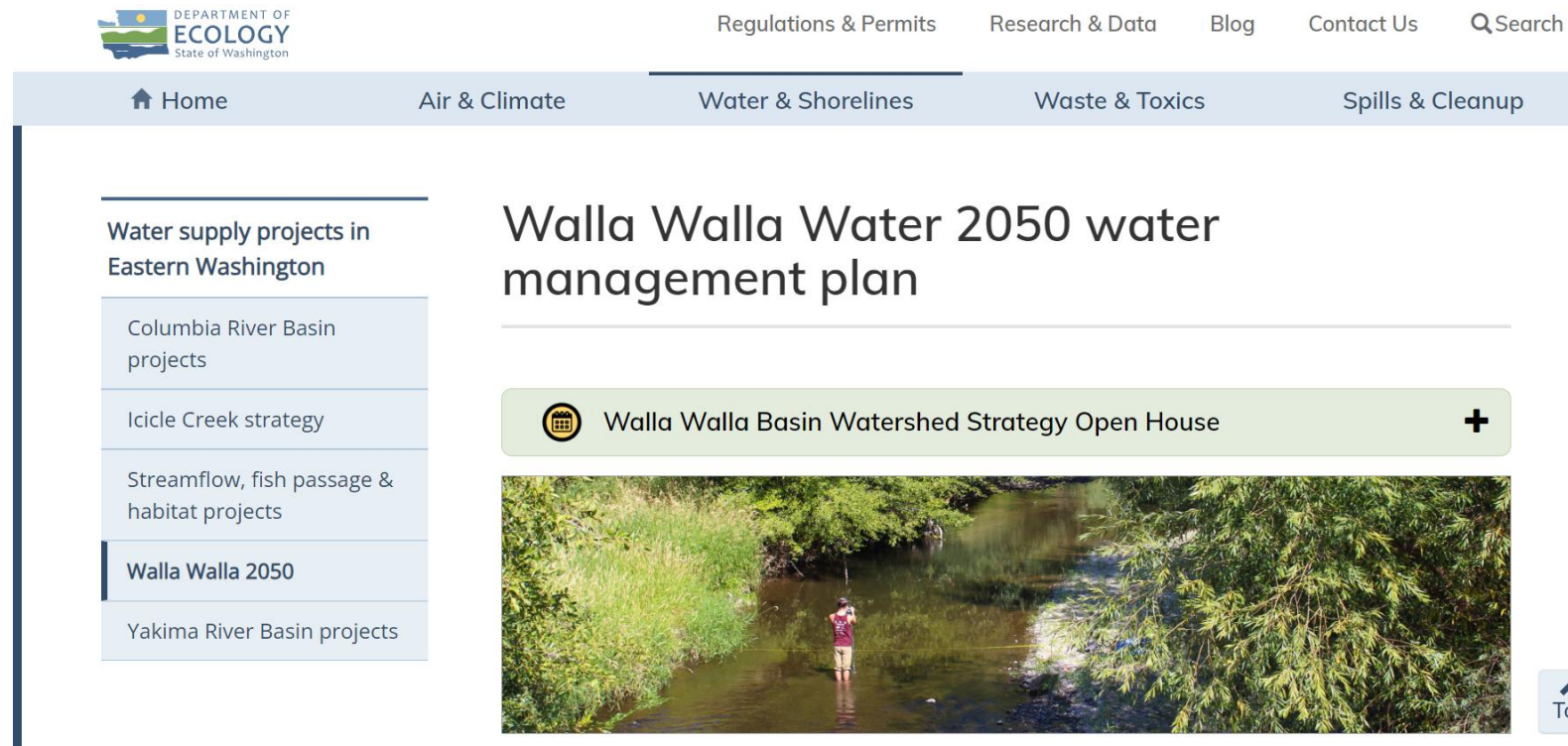
- Originated with Oregon Plan for Salmon and Watersheds
- Dedicated funding from the state lottery
- Decades of local watershed councils to help build coalitions
- Tremendous local success
- Not always easy, but great progress being made



# Examples from elsewhere

## Walla Walla River Basin (Washington side)

- Original pilot program to provide “flow from flexibility” in managing water allocation under prior appropriation
- Pilot extended through legislative means to water management plan
- Additional work across state lines to address instream flows and tribal rights



The screenshot shows the Washington Department of Ecology website. The header includes the department logo and navigation links: Regulations & Permits, Research & Data, Blog, Contact Us, and Search. A secondary navigation bar lists: Home, Air & Climate, Water & Shorelines (selected), Waste & Toxics, and Spills & Cleanup. The main content area is titled "Walla Walla Water 2050 water management plan". On the left, a sidebar lists "Water supply projects in Eastern Washington" with links to Columbia River Basin projects, Icicle Creek strategy, Streamflow, fish passage & habitat projects, Walla Walla 2050 (highlighted), and Yakima River Basin projects. The main content features a green banner for "Walla Walla Basin Watershed Strategy Open House" with a calendar icon and a plus sign. Below the banner is a photograph of a person standing in a river, surrounded by lush green trees and vegetation.



# Questions/discussion?

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